



# SNMP MIB Reference, StarOS™ Release 21.12

First Published: February 14, 2019

**NOTE:** The ASR 5000 hardware platform has reached end of life and is not supported in this release. Any references to the ASR 5000 (specific or implied) or its components in this document are coincidental. Full details on the ASR 5000 hardware platform end of life are available at: <https://www.cisco.com/c/en/us/products/collateral/wireless/asr-5000-series/eos-eol-notice-c51-735573.html>.

**Americas Headquarters**  
Cisco Systems, Inc.  
170 West Tasman Drive  
San Jose, CA 95134-1706  
USA  
<http://www.cisco.com>  
Tel: 408 526-4000  
800 553-NETS (6387)  
Fax: 408 527-0883



## STARENT-MIB DEFINITIONS ::= BEGIN

THE SPECIFICATIONS AND INFORMATION REGARDING THE PRODUCTS IN THIS MANUAL ARE SUBJECT TO CHANGE WITHOUT NOTICE. ALL STATEMENTS, INFORMATION, AND RECOMMENDATIONS IN THIS MANUAL ARE BELIEVED TO BE ACCURATE BUT ARE PRESENTED WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED. USERS MUST TAKE FULL RESPONSIBILITY FOR THEIR APPLICATION OF ANY PRODUCTS.

THE SOFTWARE LICENSE AND LIMITED WARRANTY FOR THE ACCOMPANYING PRODUCT ARE SET FORTH IN THE INFORMATION PACKET THAT SHIPPED WITH THE PRODUCT AND ARE INCORPORATED HEREIN BY THIS REFERENCE. IF YOU ARE UNABLE TO LOCATE THE SOFTWARE LICENSE OR LIMITED WARRANTY, CONTACT YOUR CISCO REPRESENTATIVE FOR A COPY.

The Cisco implementation of TCP header compression is an adaptation of a program developed by the University of California, Berkeley (UCB) as part of UCB's public domain version of the UNIX operating system. All rights reserved. Copyright © 1981, Regents of the University of California.

NOTWITHSTANDING ANY OTHER WARRANTY HEREIN, ALL DOCUMENT FILES AND SOFTWARE OF THESE SUPPLIERS ARE PROVIDED "AS IS" WITH ALL FAULTS. CISCO AND THE ABOVE-NAMED SUPPLIERS DISCLAIM ALL WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, WITHOUT LIMITATION, THOSE OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NON-INFRINGEMENT OR ARISING FROM A COURSE OF DEALING, USAGE, OR TRADE PRACTICE.

IN NO EVENT SHALL CISCO OR ITS SUPPLIERS BE LIABLE FOR ANY INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES, INCLUDING, WITHOUT LIMITATION, LOST PROFITS OR LOSS OR DAMAGE TO DATA ARISING OUT OF THE USE OR INABILITY TO USE THIS MANUAL, EVEN IF CISCO OR ITS SUPPLIERS HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

Cisco and the Cisco Logo are trademarks of Cisco Systems, Inc. and/or its affiliates in the U.S. and other countries. A listing of Cisco's trademarks can be found at [www.cisco.com/go/trademarks](http://www.cisco.com/go/trademarks). Third party trademarks mentioned are the property of their respective owners. The use of the word partner does not imply a partnership relationship between Cisco and any other company.

Any Internet Protocol (IP) addresses and phone numbers used in this document are not intended to be actual addresses and phone numbers. Any examples, command display output, network topology diagrams, and other figures included in the document are shown for illustrative purposes only. Any use of actual IP addresses or phone numbers in illustrative content is unintentional and coincidental.

SNMP MIB Reference, StarOS Release 21.12

© 2019 Cisco Systems, Inc. All rights reserved.

**STARENT-MIB DEFINITIONS ::= BEGIN**

```
STARENT-MIB DEFINITIONS ::= BEGIN
```

```
IMPORTS
```

```

MODULE-IDENTITY,
OBJECT-TYPE,
enterprises,
Integer32,
Gauge32,
Counter32,
Counter64,
Unsigned32,
NOTIFICATION-TYPE,
IpAddress
    FROM SNMPv2-SMI
TEXTUAL-CONVENTION,
DisplayString,
DateAndTime,
TruthValue
    FROM SNMPv2-TC
Ipv6Address
FROM IPV6-TC
MODULE-COMPLIANCE,
OBJECT-GROUP,
NOTIFICATION-GROUP
    FROM SNMPv2-CONF
InetAddressType,
InetAddress
    FROM INET-ADDRESS-MIB
radiusAuthServerIndex,
radiusAuthServerAddress
    FROM RADIUS-AUTH-CLIENT-MIB
radiusAccServerIndex,
radiusAccServerAddress
    FROM RADIUS-ACC-CLIENT-MIB;
```

```
starentMIB MODULE-IDENTITY
```

```

LAST-UPDATED "201806270000Z" --Jun 27, 2018
ORGANIZATION "Cisco Systems, Inc."
CONTACT-INFO
"    Email:      support@starentnetworks.com
    Web:         www.cisco.com
```

```

        Cisco Systems, Inc.
        30 International Place
        Tewksbury, MA 01876
```

```
        (978) 851-1100"
```

```
DESCRIPTION
```

```
"Cisco Systems ASR 5xxx series of multimedia core platforms (ASR 5000,
ASR 5500)
```

```

Designed exclusively for mobile and fixed mobile converged applications,
Cisco's ASR 5xxx series products provide a high-performance, highly intelligent
platform ideally suited for development in mobile operator networks
to fulfill key multimedia core networking functions. The platform features 2G/3G/4G
and WiFi multi-service access independent capabilities coupled with a carrier class
high-availability design. Harnessing subscriber awareness with an abundant supply
of distributed processing resources, the ASR 5xxx series offers a variety of high touch
Inline Services to enable service providers to monetize the value of the network
while enriching the overall subscriber experience."
```

```
REVISION "201809020000Z"
```

```
DESCRIPTION
```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

    " Added Traps 1399 to 1400 for UIDH URL Host Database
      starUidhURLHostDatabaseUpgradeFailureStatus,
      starUidhURLHostDatabaseUpgradeSuccessStatus,
    "
REVISION      "201809010000Z"
DESCRIPTION
    " Added Traps 1401 to 1402 for critical events for Smart Licensing
      starSmartLicenseFeatureOOC,
      starSmartLicenseFeatureOOCclear,
    "
REVISION      "201806270000Z"
DESCRIPTION
    "Added trap no 1398 for IFTask Boot Config Application on card<card-num>-cpu<cpu-num>."

REVISION      "201805290000Z"
DESCRIPTION
    "Added trap no 1394,1395,1396,1397 for Chassis Throughput."

REVISION      "201804190000Z"
DESCRIPTION
    "Added trap no 1392 for Sx Peer Node Associated."

REVISION      "201804160000Z"
DESCRIPTION
    "Added trap no 1388, 1389, 1390, 1391 for Control plane monitor packet loss on DI platform
      starThreshControlPlaneMonitor5MinsLoss,
      starThreshClearControlPlaneMonitor5MinsLoss,
      starThreshControlPlaneMonitor60MinsLoss,
      starThreshClearControlPlaneMonitor60MinsLoss
    "

REVISION      "201804040000Z"
DESCRIPTION
    "Added trap no 1384, 1385, 1386, 1387 for Data plane monitor packet loss on DI platform
      starThreshDataPlaneMonitor5MinsLoss,
      starThreshClearDataPlaneMonitor5MinsLoss,
      starThreshDataPlaneMonitor60MinsLoss,
      starThreshClearDataPlaneMonitor60MinsLoss
    "

REVISION      "201803260000Z"
DESCRIPTION
    "Added Trap datatype starSxFailureCause 192"

REVISION      "201803250000Z"
DESCRIPTION
    "Added trap no 1382, 1383 for Sx Path failure.
      Added Trap datatype starSxInterfaceType 187
      Added Trap datatype starSxSelfAddr 188
      Added Trap datatype starSxPeerAddr 189
      Added Trap datatype starSxPeerNewRecTimeStamp 190
      Added Trap datatype starSxPeerOldRecTimeStamp 191"

REVISION      "201712120000Z"
DESCRIPTION
    "Added trap no 1378 ,1379, 1380.1381 for ADC license ,
      Added Trap datatype starP2PPluginVersion 185
      Added Trap datatype starADCLicenseExpiryDate 186"

REVISION      "201709200000Z"
DESCRIPTION
    "Added trap no 1376, which informs about change in nic bonding of a port
      It is informational trap
      Added Trap datatype starMacaddress 184"

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

REVISION      "201709130000Z"
DESCRIPTION
  "Added IKEv2 error traps for Control packet flooding.
  "

REVISION      "201709120000Z"
DESCRIPTION
  "Added IFTask Health Failure traps.
    starIFTaskHealthFailure
  "

REVISION      "201708160000Z"
DESCRIPTION
  "Added IPSEC UDP error traps for Peer based Source-IP.
  "

REVISION      "201706220000Z"
DESCRIPTION
  "Added IPSEC UDP error traps for System level.
  "

REVISION      "201707210000Z"
DESCRIPTION
  "Added trap 1363 and 1364 for total-volume and total-volume clear
    Added objects starRuleBaseName, starRuleDefName starGroupOfRuleDef
  "

REVISION      "201705110000Z"
DESCRIPTION
  "Added trap no 1362, which informs about change in Logging Level of a facility
    (which is inferior to default Logging Level i.e., error) by an user
    LogLevelChanged
  "

REVISION      "201704260000Z"
DESCRIPTION
  "Added trap no 1361, which informs about Logging Event IDs been disabled by an user
    DisabledEventIDs
  "

REVISION      "201704150000Z"
DESCRIPTION
  " Added Traps 1349 to 1356 for critical events for Smart Licensing
    starSmartLicenseServiceOOC,
    starSmartLicenseServiceOOClear,
    starSmartLicenseEvalMode,
    starSmartLicenseEvalModeClear,
    starSmartLicenseEvalModeExpire,
    starSmartLicenseEvalModeExpireClear,
    starSmartLicenseCSSMConnectionFail,
    starSmartLicenseCSSMConnectionFailClear
  "

REVISION      "201702150000Z"
DESCRIPTION
  "Hat heartbeat loss on the card w.r.t peer cards for DI platform
    starThreshHatHb5MinsLoss,
    starThreshClearHatHb5MinsLoss,
    starThreshHatHb60MinsLoss,
    starThreshClearHatHb60MinsLoss
  "

REVISION      "201601150000Z"
DESCRIPTION
  " Added additional argument starSlotSerialNumber to applicable threshold port traps"

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

REVISION      "201702270000Z"
DESCRIPTION
  "Maximum Concurrent CLI Sessions enforcement on StarOS
   starGlobalCLISessionsLimit,
   starUserCLISessionsLimit
  "

REVISION      "201702150000Z"
DESCRIPTION
  "Hat heartbeat loss on the card w.r.t peer cards for DI platform
   starThreshHatHb5MinsLoss,
   starThreshClearHatHb5MinsLoss,
   starThreshHatHb60MinsLoss,
   starThreshClearHatHb60MinsLoss
  "

REVISION      "201612220000Z"
DESCRIPTION
  "Added trap nos. 1534, 1535 and 1536 with the following variables
   starDiameterVpnName,
   starDiameterRlfContext,
   starDiameterPeerName,
   starDiameterEndpointName,
   starDiameterRlfECode
   starDiameterRlfTps,
   starDiameterRlfDelayTolerance,
   starDiameterRlfQueuePercent,
   starDiameterDiamproxyInstance
  "

REVISION      "201612200000Z"
DESCRIPTION
  " DOS Attack & Decryption Fail Traps added."
REVISION      "201609160000Z"
DESCRIPTION
  "Log Source (LS) log volume threshold is added."
REVISION      "201608230000Z"
DESCRIPTION
  "Added Management Card switchover due to HD Raid unrecoverable failure trap"
REVISION      "201607270000Z"
DESCRIPTION
  " Added additional argument starSlotSerialNumber to all related traps"
REVISION      "201607040000Z"
DESCRIPTION
  "Mark the unsupported traps to obsolete"
REVISION      "201606230000Z"
DESCRIPTION
  "Corrected the names of the traps in StarOS and Starent.my file"
REVISION      "201606220000Z"
DESCRIPTION
  "Added SI and DI keywords in Traps"
REVISION      "201605120000Z"
DESCRIPTION
  "Added DDF Reload Trap"

REVISION      "201604180000Z"
DESCRIPTION
  " Removed starThreshDiscRsn, and added correct object to starThreshSNXDisconnectReason and
   starThreshClearSNXDisconnectReason"

REVISION      "201604120000Z"
DESCRIPTION
  " Streamlined all the numbers from 21.x to 17.x"

REVISION      "201604120000Z"
DESCRIPTION
  " Corrected Traps and MIB oid numbers "

```

```

REVISION      "201604110000Z"
DESCRIPTION
  " Corrected few trap numbers and  errors in mib file"

REVISION      "201509140000Z"
DESCRIPTION
  " Added trap no. 1312  with the following variables
    starStatFileSizeLimit,
    starStatFileSizeMeasured

    Added trap no. 1313  with the following variables
    starStatFileSizeLimit,
    starStatFileSizeMeasured
  "
REVISION      "201509110000Z"
DESCRIPTION
  " Removed  trap number 1191(starSEAGWServiceStart) and 1192(starSEAGWServiceStop) definition added"

REVISION      "201411040000Z"
DESCRIPTION
  " Removed  trap number 1533 and 1534 and replaced with 1290 and 1291 supporting code"
REVISION      "201410300000Z"
DESCRIPTION
  " Added  trap number 1288 and 1289 supporting code"

REVISION      "201410080000Z"
DESCRIPTION
  " Added trap no. 1282 with the following variables
    starGTPCRLFSessMgrInst,
    starGTPCRLFVPNName,
    starGTPCRLFVPNId,
    starGTPCRLFContextName,
    starGTPCRLFCurrAppTPS

    Added trap no. 1283 with the following variables
    starGTPCRLFSessMgrInst,
    starGTPCRLFVPNName,
    starGTPCRLFVPNId,
    starGTPCRLFContextName,
    starGTPCRLFCurrAppDelayTol

    Added trap no. 1284 with the following variables
    starGTPCRLFSessMgrInst,
    starGTPCRLFVPNName,
    starGTPCRLFVPNId,
    starGTPCRLFContextName,

    Added trap no. 1285 with the following variables
    starGTPCRLFSessMgrInst,
    starGTPCRLFVPNName,
    starGTPCRLFVPNId,
    starGTPCRLFContextName,
  "
REVISION      "201408040000Z"
DESCRIPTION
  " Added starNpudriverECCError trap supporting code"
REVISION      "201407230000Z"
DESCRIPTION
  " removing the extra 1533 and 1534 traps"
REVISION      "201407160000Z"
DESCRIPTION
  " Added starNpudriverECCError trap(reserving the trap id) at 1281"
REVISION      "201406110000Z"
DESCRIPTION
  " Added Severity in starChassisCrashListFull Traps"

```



## STARENT-MIB DEFINITIONS ::= BEGIN

```

REVISION      "201405080000Z"
DESCRIPTION
" Added starBFDSessUp, starBFDSessDown and starSRPSwitchoverOccured Traps"
REVISION      "201404250000Z"
DESCRIPTION
" Added MME Related threshold traps from 440 to 445"
REVISION      "201302200000Z"
DESCRIPTION
" Removing SGSN substring from trap number 1219 and 1220"
REVISION      "201302200000Z"
DESCRIPTION
" Extended starChassisType to support KVM QvPC-SI chassis"
REVISION      "201312060000Z"
DESCRIPTION
" Corrected IPv6 from IPv4 to trap number 1200"
REVISION      "201312050000Z"
DESCRIPTION
"Fixed following issues
  1. Revision not in reverse chronological order
  2. not-accessible starent Index objects are modified to
     MAX-ACCESS accessible-for-notify for those sent in trap"
REVISION      "201311220000Z"
DESCRIPTION
"Added two MIBs (starMRMIServiceStart, starMRMIServiceStop) for MRME service
 starMRMIServiceStart- starentTraps 1264
 starMRMIServiceStop- starentTraps 1265
Added two MIBs (starThreshPerServiceSAMOGSessions,
 starThreshClearPerServiceSAMOGSessions) for per service samog-service
 starThreshPerServiceSAMOGSessions- starentTraps 519
 starThreshClearPerServiceSAMOGSessions - starentTraps 520"
REVISION      "201310040000Z"
DESCRIPTION
"Changed following notification names
  starThreshAAAACctArchiveQueue-1,
  starThreshClearAAAACctArchiveQueue-1,
  starThreshAAAACctArchiveQueue-2,
  starThreshClearAAAACctArchiveQueue-2,
  starThreshAAAACctArchiveQueue-3,
  starThreshClearAAAACctArchiveQueue-3
to
  starThreshAAAACctArchiveQueue1,
  starThreshClearAAAACctArchiveQueue1,
  starThreshAAAACctArchiveQueue2,
  starThreshClearAAAACctArchiveQueue2,
  starThreshAAAACctArchiveQueue3,
  starThreshClearAAAACctArchiveQueue3.

Added , in starLIRcvryErrType object.

Changed StarUDPPortNum object to starUDPPortNum object in
following notifications:
  starECSreaddressServerDown,
  starECSreaddressServerUp.

Added definition for starMMEInitialDisallowReason object.

Added new number for QvPC-SI platform in starChassisType object."
REVISION      "201309270000Z"
DESCRIPTION
" Added missing object starFractE1TribTimeslots to starSDHFractE1LMIUp
notification , changed MAX-ACCESS to accessible-for-notify from
not-accessible for the following objects
  starFractE1TribSlot,
  starFractE1TribPort,
  starFractE1TribPath,
  starFractE1TribTug2,
  starFractE1TribTul2

```

```

    and moved starFractElTribBundNum object to obsolete state."

REVISION      "201309250000Z"
DESCRIPTION
    "Change starSlotPort to storSlotNum in ApsChannelMismatch trap 1150"
REVISION      "201307230000Z"
DESCRIPTION
    "Replaced underscore sign with hyphen from starServiceType enum "
REVISION      "201307150000Z"
DESCRIPTION
    "Modified SEVERITY from ERROR to MAJOR for following traps:
    starPortDown,
    starSRPConnDown,
    starLAGGGroupDown.

    Changed starPortSlot, starPortNum, starContextName and starSRPIpAddress
    objects access to accessible-for-notify."
REVISION      "201307100000Z"
DESCRIPTION
    "Changed the name of trap starThreshNAPTPortChunks to starThreshNATPortChunks and
    starThreshClearNAPTPortChunks to starThreshClearNATPortChunks"
REVISION      "201306260000Z"
DESCRIPTION
    "Changed the APS related traps according to the implementation present in trap_api.c
    following traps are modified:
    starApsCommandSuccess,
    starApsCommandFailure,
    starApsSwitchSuccess,
    starApsSwitchFailure,
    starApsModeMismatch,
    starApsChannelMismatch,
    starApsByteMismatch,
    starApsFeProtLineFailure,
    starApsLossOfRedundancy,
    starApsLossOfRedundancyClear."
REVISION      "201306110000Z"
DESCRIPTION
    "Changed object type from starContextName to starCLIContext for the
    following traps:

    starLocalUserAdded,
    starLocalUserRemoved,
    starOsShellAccessed,
    starTestModeEntered,
    starLicenseFeaturesModified,
    starHiddenAccessEnabled,
    starHiddenAccessDisabled."
REVISION      "201306040000Z"
DESCRIPTION
    " Added the missing objects and modified the summary field for
    starTechSuppPasswdChanged trap"
REVISION      "201305240000Z"
DESCRIPTION
    "Corrected starChassisCrashListFull description section"

REVISION      "201305220000Z"
DESCRIPTION    "changed starEGTPInterfaceType Enum in trap number 1112"
REVISION      "201305070000Z"
DESCRIPTION
    "changed starEGTPInterfaceType Enum
    changed STATE and SEVERITY fields for All APS,
    related notifications."

REVISION      "201304250001Z"
DESCRIPTION

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

"Deprecated following traps
starCardSPCSwitchoverStart,
starCardSPCSwitchoverComplete,
starCardSPCSwitchoverFailed
starCardPACMigrateStart,
starCardPACMigrateComplete,
starCardPACMigrateFailed,

Added following traps for above trap as respective replacement
starCardSwitchoverStart,
starCardSwitchoverComplete,
starCardSwitchoverFailed,
starCardMigrateStart,
starCardMigrateComplete,
starCardMigrateFailed"
REVISION      "201304250000Z"
DESCRIPTION
"Added two MIBs (starSAMOGServiceStart, starSAMOGServiceStop) for SAMOG service.
starSAMOGServiceStart- starentTraps 1251
starSAMOGServiceStop- starentTraps 1252"
REVISION      "201304180000Z"
DESCRIPTION
"Changed SUMMARY clause for starLongDurTimerExpiry notification.

Changed MAX-ACCESS to accessible-for-notify for following objects:
starSubMSID,
starSubName,
starSubTimerDuration,
starSubLongDurTimeoutAction,
starSubSetupTime,
starSubHomeAddr,
starSubHomeAddrv6."
REVISION      "201304160000Z"
DESCRIPTION
"changed STATE and SEVERITY fields for starSDHPathHopUp,
starSDHE1TribUp and starSDHFractE1LMIDown notifications."
REVISION      "201304090000Z"
DESCRIPTION
"Added trap no. 1251 with the following variables
starPMIPVpnName,
starPMIPServName,
starPMIPSelfAddrType,
starPMIPSelfAddr,
starPMIPPeerAddrType,
starPMIPPeerAddr,
starPMIPPeerOldRstCnt,
starPMIPPeerNewRstCnt,
starPMIPPeerSessCnt,
starPMIPFailureReason

Added trap no. 1252 with the following variables
starPMIPVpnName,
starPMIPServName,
starPMIPSelfAddrType,
starPMIPSelfAddr,
starPMIPPeerAddrType,
starPMIPPeerAddr"
REVISION      "201304050000Z"
DESCRIPTION
" Added the following flags in APS related traps"

REVISION      "201304040000Z"
DESCRIPTION
"changed SEVERITY level from INFORMATIONAL to WARNING for
starSGSNRMMemWarn notification."

REVISION      "201303260000Z"

```

## DESCRIPTION

"Added trap no. 1177, with the following variables

starSlotNum,  
starCardType,  
starPortSlot"

REVISION "201303180000Z"

## DESCRIPTION

"Modified starPCFUnreachable description section  
Updated correct object name starEISServerVPNName in  
starEISServerAlive  
starEISServerDead traps.  
Added starPCFReachable trap support"

REVISION "201303110000Z"

## DESCRIPTION

"Changed starFanNum range in SYNTAX and MAX-ACCESS.  
Added starFanLocation ASR5500 fan location details.  
Changed SUMMARY clause for following traps  
starFanFailed,  
starFanRemoved,  
starFanInserted,"

REVISION "201303060000Z"

## DESCRIPTION

"Changed SYNTAX clause from Integer32 to Gauge32 for  
following objects:  
starCPUUser,  
starCPUSystem,  
starCPUIidle,  
starCPUIO,  
starCPUIRQ,  
starCPUMemUsed,  
starCPUMemCached

Changed SYNTAX clause from Integer32 to Gauge32 and also  
changed range for following objects:  
starCPULoad1Min,  
starCPULoad5Min,  
starCPULoad15Min,  
starCPUNumProcesses."

REVISION "201302280000Z"

## DESCRIPTION

"Added context name to the OBJECTS and updated ARGUMENTS field for the following traps:

starLocalUserAdded,  
starLocalUserRemoved,  
starOsShellAccessed,  
starTestModeEntered,  
starLicenseFeaturesModified,  
starHiddenAccessEnabled,  
starHiddenAccessDisabled"

REVISION "201302260000Z"

## DESCRIPTION

"Changed starThreshMeasuredPct SYNTAX from Integer32 to Gauge32.

Changed starPortNum object range.

Changed SUMMARY clause in starM3UAPCUnavailable and  
starM3UAPCAvailable traps.

Changed objects from starThreshInt and starThreshMeasuredInt to  
starThreshPct and starThreshMeasuredPct and also changed SUMMARY  
and ARGUMENTS clauses in following traps:

starThreshIPPoolAvail,

```
starThreshClearIPPoolAvail,  
starThreshIPPoolHold,  
starThreshClearIPPoolHold,  
starThreshIPPoolUsed,  
starThreshClearIPPoolUsed,  
starThreshIPPoolRelease,  
starThreshClearIPPoolRelease,  
starThreshIPPoolFree,  
starThreshClearIPPoolFree,  
starThreshNATPortChunks,  
starThreshClearNATPortChunks,  
starThreshPortHighActivity,  
starThreshClearPortHighActivity,  
starThreshTpoDnsFailure,  
starThreshClearTpoDnsFailure,  
starThreshDnsLookupFailure,  
starThreshClearDnsLookupFailure,  
starThreshBGPRoutes,  
starThreshClearBGPRoutes.
```

Changed SUMMARY and ARGUMENTS clauses in following traps:

```
starThreshCPUUtilization,  
starThreshClearCPUUtilization,  
starThreshCPUUtilization10Sec,  
starThreshClearCPUUtilization10Sec,  
starThreshCPUMemUsage,  
starThreshClearCPUMemUsage,  
starThreshCPUOrbsWarn,  
starThreshClearCPUOrbsWarn,  
starThreshCPUOrbsCritical,  
starThreshClearCPUOrbsCritical,  
starThreshCPUCryptoCoresUtilization,  
starThreshClearCPUCryptoCoresUtilization,  
starThreshLicense,  
starThreshClearLicense,  
starThreshPortRxUtil,  
starThreshClearPortRxUtil,  
starThreshPortTxUtil,  
starThreshClearPortTxUtil,  
starThreshAAAAAuthFailRate,  
starThreshClearAAAAAuthFailRate,  
starThreshAAAAacctFailRate,  
starThreshClearAAAAacctFailRate,  
starThreshAAARetryRate,  
starThreshClearAAARetryRate,  
starThreshAAAMgrQueue,  
starThreshClearAAAMgrQueue,  
starThreshAAAAacctArchiveQueue-1,  
starThreshClearAAAAacctArchiveQueue-1,  
starThreshAAAAacctArchiveQueue-2,  
starThreshClearAAAAacctArchiveQueue-2,  
starThreshAAAAacctArchiveQueue-3,  
starThreshClearAAAAacctArchiveQueue-3,  
starThreshRPSetupFailRate,  
starThreshClearRPSetupFailRate,  
starThreshPPPSetupFailRate,  
starThreshClearPPPSetupFailRate,  
starThreshStorageUtilization,  
starThreshClearStorageUtilization,  
starThreshIPSECIKEFailRate,  
starThreshClearIPSECIKEFailRate,  
starThreshEPDGIKEV2SetupFailureRate,  
starThreshClearEPDGIKEV2SetupFailureRate,  
starThreshNPUUtilization,  
starThreshClearNPUUtilization,  
starThreshDiameterRetryRate,  
starThreshClearDiameterRetryRate,
```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

    starThreshSystemCapacity,
    starThreshClearSystemCapacity,
    starThreshEDRFileSpace,
    starThreshClearEDRFileSpace,
    starThreshCDRFileSpace,
    starThreshClearCDRFileSpace,
    starThreshCardTemperatureNearPowerOffLimit,
    starThreshClearCardTemperaturePowerOffLimit."
REVISION      "201212040000Z"
DESCRIPTION
    "Changed SYNTAX clause for starPortNum and starRedundantPortNum objects"
REVISION      "201209250000Z"
DESCRIPTION
    "Changed starSlotMappingTable table DESCRIPTION."
REVISION      "201207230000Z"
DESCRIPTION
    "Removed starSGSNAllocated and starSGSNUsed objects and added
    starThreshInt and starThreshMeasuredInt objects for starSGSNRMCPUWarn,
    starSGSNRMCPUClear, starSGSNRMMemWarn, starSGSNRMMemWarnClear,
    starRMCPUOver, starRMCPUOverClear, starSGSNRMMemOver and
    starSGSNRMMemOverClear."
REVISION      "201207130000Z"
DESCRIPTION
    "Changed object from starServiceVpnID to starServiceVpnName and
    arguments macro in starSessionRejectNoResource Notification.

    Added commas(,) in ARGUMENTS field of starServiceLossLCClear
    Trap definition.

    Added additional object starCPUSlot and starCPUNumber in
    starThreshCPUOrbsWarn, starThreshClearCPUOrbsWarn,
    starThreshCPUOrbsCritical and starThreshClearCPUOrbsCritical traps."
REVISION      "201207090000Z"
DESCRIPTION
    "starSAEGWSessThreshold and starSAEGWSessThresholdClear Notification
    objects have been added.
    Fixed starServiceLossLCClear ARGUMENTS field information."
REVISION      "201205150000Z"
DESCRIPTION
    "ASR5500 slot types are added in StarentSlotType"
REVISION      "201204130000Z"
DESCRIPTION
    "The Notifications starThreshPortSpecRxUtil,starThreshClearPortSpecRxUtil,
    starThreshPortSpecTxUtil,starThreshClearPortSpecTxUtil has been moved to
    deprecated state."
REVISION      "201204050000Z"
DESCRIPTION
    "The object starPowerFilterUnitFailed has been moved to deprecated state"
REVISION      "201110140000Z"
DESCRIPTION
    "The latest version of this MIB module"
 ::= { enterprises 8164 }

```

-- Textual Conventions

StarentSlotType ::= TEXTUAL-CONVENTION

STATUS current

DESCRIPTION

"Describes the type of a slot. Each slot in the chassis is build to contain specific type(s) of cards. Only a card of one of the appropriate types can be put into a specific slot."

SYNTAX INTEGER {

unknown(1),

pactac(2),

spc(3),

lc(4),

## STARENT-MIB DEFINITIONS ::= BEGIN

```

        rcc(5),
        spio(6)
    }

```

StarentCardType ::= TEXTUAL-CONVENTION

STATUS current

DESCRIPTION

"Describes the type of a card. Each type represents a physically different card which would have a unique part number."

```

SYNTAX INTEGER {
    none(1),
    unknown(2),
    spc(3),
    pac(4),
    spio(5),
    rcc(6),
    lceth(7),
    lcgeth(8),
    lcds3(9),
    tac(10),
    lcoc3(11),
    lcoc12(12),
    smc(13),
    psc(14),
    lcqgeth(15),
    lctgeth(16),
    vmc(17),
    vpc(18),
    vlceth1p(19),
    lcgeth2(20),
    lceth2(21),
    psc2(22),
    psc3(23),
    pscA(24),      -- Packet Services Card A
    ppc(25),      -- Packet Processing Card
    lcchan3p2(26), -- Channelized Line card 2 Port
    lcchan3p4(27), -- Channelized Line card 4 Port
    fanctrl16(28), -- Fan control revision 6
    vioc(29),     -- Virtual I/O Card
    gpdsp(30),    -- GP-DSP Daughter Card
    xme(31),      -- XME Daughter Card
    vop(32),     -- VOP Daughter Card
    edc(33),     -- EDC card
    mio(34),     -- Management & I/O Card
    mio10g10p(35), -- Management & 10x10Gb I/O Card
    mio10g20p(36), -- Management & 20x10Gb I/O Card
    mio40g2p(37), -- Management & 2x40Gb I/O Card
    mio40g4p(38), -- Management & 4x40Gb I/O Card
    mio40g12p(39), -- Management & 12x40Gb I/O Card
    miodc(40),   -- MIO Daughter Card
    fsc(41),    -- Fabric Card
    dpc(42),    -- Data Processing Card
    mdpc(43),   -- M Data Processing Card
    dpcdc(44),  -- DPC Daughter Card
    ssc(45),   -- System Status Card
    voc(46),   -- Virtual Card
    cfc(47),   -- Control Function Virtual Card
    sfc1p(48), -- 1-Port Service Function Virtual Card
    sfc2p(49), -- 2-Port Service Function Virtual Card
    sfc3p(50), -- 3-Port Service Function Virtual Card
    sfc4p(51), -- 4-Port Service Function Virtual Card
    dpc2(52),  -- Data Processing Card 2
    mio2(53),  -- Management & I/O Card 2
}

```

StarentVersionNum ::= TEXTUAL-CONVENTION

DISPLAY-HINT "256a"

## STARENT-MIB DEFINITIONS ::= BEGIN

```

STATUS current
DESCRIPTION
    " "
SYNTAX OCTET STRING (SIZE (0..256))

StarRelayState ::= TEXTUAL-CONVENTION
STATUS current
DESCRIPTION
    "The state of a Central Office (CO) relay."
SYNTAX INTEGER {
    off(1),
    on(2),
    unknown(3)
}

StarLongDurTimeoutAction ::= TEXTUAL-CONVENTION
STATUS current
DESCRIPTION
    "The action taken by the system upon detection of a long-duration session"
SYNTAX INTEGER {
    unknown(0),
    detection(1),
    disconnection(2),
    notapplicable(3),
    dormantdisconnection(4),
    dormantdetection(5)
}

StarShortName ::= TEXTUAL-CONVENTION
DISPLAY-HINT "32a"
STATUS current
DESCRIPTION
    "A short identification string. Follows the same conventions
    as the DisplayString TEXTUAL-CONVENTION."
SYNTAX OCTET STRING (SIZE (1..32))

StarShortID ::= TEXTUAL-CONVENTION
DISPLAY-HINT "17a"
STATUS current
DESCRIPTION
    "An abbreviated form for identifying a service, composed of the first 8 characters
    of the context name, and the first 8 characters of a service name, seperated by (:)"
SYNTAX OCTET STRING (SIZE (1..17))

StarMediumID ::= TEXTUAL-CONVENTION
DISPLAY-HINT "25a"
STATUS current
DESCRIPTION
    "An abbreviated form for identifying a context-specific object, composed of the first 8
    characters
    of the context name, and the first 16 characters of the object name, seperated by (:)"
SYNTAX OCTET STRING (SIZE (1..25))

StarENBID ::= TEXTUAL-CONVENTION
DISPLAY-HINT "16a"
STATUS current
DESCRIPTION
    "An eNodeB identifier in the form aaa:bbb:cccccccc"
SYNTAX OCTET STRING (SIZE (1..16))

StarQOSTPAction ::= TEXTUAL-CONVENTION
STATUS current
DESCRIPTION
    "Traffic Policing Action"
SYNTAX INTEGER {
    unknown(0),

```



## STARENT-MIB DEFINITIONS ::= BEGIN

```

        notapplicable(1),
        transmit(2),
        drop(3),
        loweripprecedence(4)
    }

StarOSPFNeighborState ::= TEXTUAL-CONVENTION
    STATUS current
    DESCRIPTION
    "OSPF Neighbore State"
    SYNTAX INTEGER {
        unknown(0),
        down(1),
        attempt(2),
        init(3),
        twoway(4),
        exstart(5),
        exchange(6),
        loading(7),
        full(8)
    }

starentMIBObjects OBJECT IDENTIFIER ::= { starentMIB 1 }

-- Chassis table

starentChassis OBJECT IDENTIFIER ::= { starentMIBObjects 1 }

starChassisCriticalCO OBJECT-TYPE
    SYNTAX      StarRelayState
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The current state of the Critical Central Office (CO) relay"
    ::= { starentChassis 1 }

starChassisMajorCO OBJECT-TYPE
    SYNTAX      StarRelayState
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The current state of the Major Central Office (CO) relay"
    ::= { starentChassis 2 }

starChassisMinorCO OBJECT-TYPE
    SYNTAX      StarRelayState
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The current state of the Minor Central Office (CO) relay"
    ::= { starentChassis 3 }

starChassisAction OBJECT-TYPE
    SYNTAX      INTEGER {
        noaction(1),
        aco(2),
        reset(3)
    }
    MAX-ACCESS  read-write
    STATUS      current
    DESCRIPTION
        "Trigger to perform certain system-wide operations.

        noaction(1) performs no operation. It is the normal value received
        when this attribute is read.

        aco(2) triggers the Alarm Cut-Off, which shuts off all of the

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

        Central Office (CO) audible/visual relays.

        reset(3) triggers a system-wide restart.  It will completely
        disrupt service on the device."
 ::= { starentChassis 5 }

starTimeTicks OBJECT-TYPE
    SYNTAX      Unsigned32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Time ticks since the Epoch"
 ::= { starentChassis 6 }

starChassisAudibleAlarm OBJECT-TYPE
    SYNTAX      StarRelayState
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The current state of the chassis Audible Alarm"
 ::= { starentChassis 7 }

starChassisUTCTime OBJECT-TYPE
    SYNTAX      DateAndTime
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The current time on the chassis, in UTC format"
 ::= { starentChassis 8 }

starChassisLocalTime OBJECT-TYPE
    SYNTAX      DateAndTime
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The current time on the chassis, converted to the local timezone"
 ::= { starentChassis 9 }

starChassisType OBJECT-TYPE
    SYNTAX      INTEGER {
        unknown(0),
        st16(1),
        st40(2),
        xt2(3),
        st20(4),
        asr5000(5),
        asr5500(6),
        ssi(7),
        ssi-kvm-guest(8),
        ssi-kvm-vsm-guest(9),
        qvpc-di(10)
        }
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The type of physical chassis"
 ::= { starentChassis 10 }

starChassisDescription OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "A brief description of the chassis"
 ::= { starentChassis 11 }

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

starChassisSWRevision OBJECT-TYPE
    SYNTAX DisplayString
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The software revision running on the chassis"
    ::= { starentChassis 12 }

starChassisPeakCpuUsage OBJECT-TYPE
    SYNTAX      Integer32(1..10000)
    UNITS       "percentage times 100"
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Percentage of the system level peak cpu usage.starChassisPeakCpuUsage
        is the percentage value times 100; for example,2.3% would be represented as 230"
    ::= { starentChassis 13 }

starChassisPeakMemoryUsage OBJECT-TYPE
    SYNTAX      Integer32(1..2097152)
    UNITS       "KB"
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The system level peak memory usage, in kilobytes,
        rounded down (i.e. 1023 bytes = 0 kilobytes)"
    ::= { starentChassis 14}

-- Slot table

starentSlots OBJECT IDENTIFIER ::= { starentMIBObjects 2 }

starSlotTable OBJECT-TYPE
    SYNTAX SEQUENCE OF StarSlotEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "A table containing information on all of the slots"
    ::= { starentSlots 1 }

starSlotEntry OBJECT-TYPE
    SYNTAX StarSlotEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "Information about a particular slot"
    INDEX { starSlotNum }
    ::= { starSlotTable 1 }

StarSlotEntry ::=
    SEQUENCE {
        starSlotNum          Integer32,
        starSlotType         StarentSlotType,
        starCardType         StarentCardType,
        starCardOperState    INTEGER,
        starCardAdminState   INTEGER,
        starCardRevision     StarentVersionNum,
        starCardLastStateChange DateAndTime,
        starCardMode         INTEGER,
        starCardPacStandbyPriority Gauge32,
        starCardHaltIssued   INTEGER,
        starCardLock         INTEGER,
        starCardRebootPending INTEGER,
        starCardUsable       INTEGER,
        starCardSinglePOF    INTEGER,
        starCardAttachment   INTEGER,

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

starCardTemperature      Gauge32,
starSlotVoltage1dot5     Gauge32,
starSlotVoltage1dot5LowThresh Gauge32,
starSlotVoltage1dot5HighThresh Gauge32,
starSlotVoltage1dot8     Gauge32,
starSlotVoltage1dot8LowThresh Gauge32,
starSlotVoltage1dot8HighThresh Gauge32,
starSlotVoltage2dot5     Gauge32,
starSlotVoltage2dot5LowThresh Gauge32,
starSlotVoltage2dot5HighThresh Gauge32,
starSlotVoltage3dot3     Gauge32,
starSlotVoltage3dot3LowThresh Gauge32,
starSlotVoltage3dot3HighThresh Gauge32,
starSlotVoltage5dot0     Gauge32,
starSlotVoltage5dot0LowThresh Gauge32,
starSlotVoltage5dot0HighThresh Gauge32,
starSlotNumPorts        Gauge32,
starSlotAction           INTEGER,
starSlotVoltageState     INTEGER,
starSlotNumCPU           Integer32,
starSlotPartNumber       DisplayString,
starSlotPartRevision     DisplayString,
starSlotSerialNumber     DisplayString,
starSlotCLEICode         DisplayString,
starSlotCiscoModelName   DisplayString,
starSlotCiscoHardwareRev DisplayString,
starSlotCiscoSerialNumber DisplayString,
starDeviceNum            Integer32,
starSerdesNum            Integer32,
    starDdfDev            INTEGER
}

```

starSlotNum OBJECT-TYPE

```

SYNTAX Integer32(1..48)
MAX-ACCESS accessible-for-notify
STATUS current
DESCRIPTION
"The slot number"
::= { starSlotEntry 1 }

```

starSlotType OBJECT-TYPE

```

SYNTAX StarentSlotType
MAX-ACCESS read-only
STATUS current
DESCRIPTION
"The type of the slot."
::= { starSlotEntry 2 }

```

starCardType OBJECT-TYPE

```

SYNTAX StarentCardType
MAX-ACCESS read-only
STATUS current
DESCRIPTION
"The type of the card which is plugged into a slot"
::= { starSlotEntry 3 }

```

starCardOperState OBJECT-TYPE

```

SYNTAX INTEGER {
    unknown(1),
        empty(2),
    offline(3),
        booting(4),
    ready(5),
        standby(6),
    active(7),
    migratefrom(8),
}

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

        migrateto(9),
            starting(10),
            initializing(11),
            secondary(12)
        }
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The current operational state of the card"
 ::= { starSlotEntry 4 }

starCardAdminState OBJECT-TYPE
    SYNTAX INTEGER {
        unknown(1),
        enabled(2),
        disabled(3)
    }
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The administrative state of the card"
 ::= { starSlotEntry 5 }

starCardRevision OBJECT-TYPE
    SYNTAX StarentVersionNum
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The revision number of the card that is physically present in this slot"
 ::= { starSlotEntry 6 }

starCardLastStateChange OBJECT-TYPE
    SYNTAX DateAndTime
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The time when the last state change occurred for this row. A manager
    could poll this variable to determine if information has changed."
 ::= { starSlotEntry 7 }

starCardMode OBJECT-TYPE
    SYNTAX INTEGER {
        unknown(1),
        notapplicable(2),
        standby(3),
        active(4),
        activepac(5),
        activetac(6),
        activepsc(7),
        activevpc(8),
        activedpc(9)
    }
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The desired mode of the card. This field is applicable only to slots which can contain
    PAC/PSC and TAC cards. The active(4) value is obsolete and has been replaced with
    activepac(5) and activetac(6)"
 ::= { starSlotEntry 8 }

starCardPacStandbyPriority OBJECT-TYPE
    SYNTAX Gauge32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    " "
 ::= { starSlotEntry 9 }

```

```

starCardHaltIssued OBJECT-TYPE
    SYNTAX  INTEGER {
        notapplicable(1),
        yes(2),
        no(3)
    }
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Only applicable to SPC cards"
    ::= { starSlotEntry 10 }

starCardLock OBJECT-TYPE
    SYNTAX  INTEGER {
        unknown(1),
        locked(2),
        unlocked(3)
    }
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Identifies if the card lock is currently engaged.  A value of locked(2)
        means that the lock is engaged, and thus the card could not be removed
        from the chassis.  A value of unlocked(3) means that the lock is not
        engaged, and an operator could remove the card from the chassis.  A value
        of unknown(1) should represent that there is no card physically in
        the slot."
    ::= { starSlotEntry 11 }

starCardRebootPending OBJECT-TYPE
    SYNTAX  INTEGER {
        no(1),
        yes(2)
    }
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Identifies if a reboot operation is currently pending for this card."
    ::= { starSlotEntry 12 }

starCardUsable OBJECT-TYPE
    SYNTAX  INTEGER {
        no(1),
        yes(2)
    }
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Identifies if the card is currently usable."
    ::= { starSlotEntry 13 }

starCardSinglePOF OBJECT-TYPE
    SYNTAX  INTEGER {
        notapplicable(1),
        no(2),
        yes(3)
    }
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Identifies if this card represents a single point of failure (POF).  A value
        of no(1) indicates that this card is supported by a redundant card which can
        take over in the event of a failure.  A value of yes(2) indicates that this
        card does not have a redundant partner, and that a failure of this card
        could result in service interruption."

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

 ::= { starSlotEntry 14 }

starCardAttachment OBJECT-TYPE
    SYNTAX      INTEGER {
        connected(1),
        unconnected(2)
    }
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Identifies if the card is currently attached to another card (a PAC/PSC attached
         to a line card, or visa versa, for example)"
 ::= { starSlotEntry 15 }

starCardTemperature OBJECT-TYPE
    SYNTAX      Gauge32
    UNITS       "degrees Celcius"
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The temperature, in degrees Celcius, as measured on the card.  A value of 0
         indicates that the temperature cannot be read, or that the card is not
         present.  The maximum measurable temperature is 70 C"
 ::= { starSlotEntry 16 }

--
-- All of the "voltage"-related starSlot items are obsolete.  As systems evolved and different cards
-- have different internal voltages these values had less meaning.  The starSlotVoltageState
-- provides an overall state for the card.
--

starSlotVoltage1dot5 OBJECT-TYPE
    SYNTAX      Gauge32
    UNITS       "millivolts"
    MAX-ACCESS  read-only
    STATUS      obsolete
    DESCRIPTION
        "The current voltage, in millivolts, of the nominal 1.5V power supply.
         The working range for this card is the range defined by variables
         starSlotVoltage1dot5LowThresh and starSlotVoltage1dot5HighThresh.
         A value of 0 indicates that this voltage level is not present on this
         card, or that the card is not present.

         This attribute is obsolete."
 ::= { starSlotEntry 20 }

starSlotVoltage1dot5LowThresh OBJECT-TYPE
    SYNTAX      Gauge32
    UNITS       "millivolts"
    MAX-ACCESS  read-only
    STATUS      obsolete
    DESCRIPTION
        "The voltage level, in millivolts, which is the lowest allowable value
         for the nominal 1.5V power supply.  A value of 0 indicates that there
         is no card present.

         This attribute is obsolete."
 ::= { starSlotEntry 21 }

starSlotVoltage1dot5HighThresh OBJECT-TYPE
    SYNTAX      Gauge32
    UNITS       "millivolts"
    MAX-ACCESS  read-only
    STATUS      obsolete
    DESCRIPTION
        "The voltage level, in millivolts, which is the highest allowable value
         for the nominal 1.5V power supply.  A value of 0 indicates that there

```

## STARENT-MIB DEFINITIONS ::= BEGIN

is no card present.

This attribute is obsolete."  
 ::= { starSlotEntry 22 }

starSlotVoltage1dot8 OBJECT-TYPE

SYNTAX Gauge32  
 UNITS "millivolts"  
 MAX-ACCESS read-only  
 STATUS obsolete

DESCRIPTION

"The current voltage, in millivolts, of the nominal 1.8V power supply.  
 The working range for this card is the range defined by variables  
 starSlotVoltage1dot8LowThresh and starSlotVoltage1dot8HighThresh.  
 A value of 0 indicates that this voltage level is not present on this  
 card, or that the card is not present.

This attribute is obsolete."  
 ::= { starSlotEntry 23 }

starSlotVoltage1dot8LowThresh OBJECT-TYPE

SYNTAX Gauge32  
 UNITS "millivolts"  
 MAX-ACCESS read-only  
 STATUS obsolete

DESCRIPTION

"The voltage level, in millivolts, which is the lowest allowable value  
 for the nominal 1.8V power supply. A value of 0 indicates that there  
 is no card present.

This attribute is obsolete."  
 ::= { starSlotEntry 24 }

starSlotVoltage1dot8HighThresh OBJECT-TYPE

SYNTAX Gauge32  
 UNITS "millivolts"  
 MAX-ACCESS read-only  
 STATUS obsolete

DESCRIPTION

"The voltage level, in millivolts, which is the highest allowable value  
 for the nominal 1.8V power supply. A value of 0 indicates that there  
 is no card present.

This attribute is obsolete."  
 ::= { starSlotEntry 25 }

starSlotVoltage2dot5 OBJECT-TYPE

SYNTAX Gauge32  
 UNITS "millivolts"  
 MAX-ACCESS read-only  
 STATUS obsolete

DESCRIPTION

"The current voltage, in millivolts, of the nominal 2.5V power supply.  
 The working range for this card is the range defined by variables  
 starSlotVoltage2dot5LowThresh and starSlotVoltage2dot5HighThresh.  
 A value of 0 indicates that the voltage cannot be read, or that the  
 card is not present.

This attribute is obsolete."  
 ::= { starSlotEntry 26 }

starSlotVoltage2dot5LowThresh OBJECT-TYPE

SYNTAX Gauge32  
 UNITS "millivolts"  
 MAX-ACCESS read-only  
 STATUS obsolete



## STARENT-MIB DEFINITIONS ::= BEGIN

## DESCRIPTION

"The voltage level, in millivolts, which is the lowest allowable value for the nominal 2.5V power supply. A value of 0 indicates that there is no card present.

This attribute is obsolete."

::= { starSlotEntry 27 }

## starSlotVoltage2dot5HighThresh OBJECT-TYPE

SYNTAX Gauge32

UNITS "millivolts"

MAX-ACCESS read-only

STATUS obsolete

## DESCRIPTION

"The voltage level, in millivolts, which is the highest allowable value for the nominal 2.5V power supply. A value of 0 indicates that there is no card present.

This attribute is obsolete."

::= { starSlotEntry 28 }

## starSlotVoltage3dot3 OBJECT-TYPE

SYNTAX Gauge32

UNITS "millivolts"

MAX-ACCESS read-only

STATUS obsolete

## DESCRIPTION

"The current voltage, in millivolts, of the nominal 3.3V power supply. The working range for this card is the range defined by variables starSlotVoltage3dot3LowThresh and starSlotVoltage3dot3HighThresh. A value of 0 indicates that the voltage cannot be read, or that the card is not present.

This attribute is obsolete."

::= { starSlotEntry 29 }

## starSlotVoltage3dot3LowThresh OBJECT-TYPE

SYNTAX Gauge32

UNITS "millivolts"

MAX-ACCESS read-only

STATUS obsolete

## DESCRIPTION

"The voltage level, in millivolts, which is the lowest allowable value for the nominal 3.3V power supply. A value of 0 indicates that there is no card present.

This attribute is obsolete."

::= { starSlotEntry 30 }

## starSlotVoltage3dot3HighThresh OBJECT-TYPE

SYNTAX Gauge32

UNITS "millivolts"

MAX-ACCESS read-only

STATUS obsolete

## DESCRIPTION

"The voltage level, in millivolts, which is the highest allowable value for the nominal 3.3V power supply. A value of 0 indicates that there is no card present.

This attribute is obsolete."

::= { starSlotEntry 31 }

## starSlotVoltage5dot0 OBJECT-TYPE

SYNTAX Gauge32

UNITS "millivolts"

MAX-ACCESS read-only

STATUS obsolete

## STARENT-MIB DEFINITIONS ::= BEGIN

## DESCRIPTION

"The current voltage, in millivolts, of the nominal 5.0V power supply.  
The working range for this card is the range defined by variables  
starSlotVoltage5dot0LowThresh and starSlotVoltage5dot0HighThresh.  
A value of 0 indicates that the voltage cannot be read, or that the  
card is not present.

This attribute is obsolete."

```
::= { starSlotEntry 32 }
```

## starSlotVoltage5dot0LowThresh OBJECT-TYPE

```
SYNTAX      Gauge32
UNITS       "millivolts"
MAX-ACCESS  read-only
STATUS      obsolete
```

## DESCRIPTION

"The voltage level, in millivolts, which is the lowest allowable value  
for the nominal 5.0V power supply. A value of 0 indicates that there  
is no card present.

This attribute is obsolete."

```
::= { starSlotEntry 33 }
```

## starSlotVoltage5dot0HighThresh OBJECT-TYPE

```
SYNTAX      Gauge32
UNITS       "millivolts"
MAX-ACCESS  read-only
STATUS      obsolete
```

## DESCRIPTION

"The voltage level, in millivolts, which is the highest allowable value  
for the nominal 5.0V power supply. A value of 0 indicates that there  
is no card present.

This attribute is obsolete."

```
::= { starSlotEntry 34 }
```

## starSlotNumPorts OBJECT-TYPE

```
SYNTAX      Gauge32
MAX-ACCESS  read-only
STATUS      current
```

## DESCRIPTION

"Number of data ports on this card. This value will be 0 for cards that  
do not contain ports, such as SPC/SMC/PAC/PSC/TAC cards, or for slots which do  
not contain a card.

This attribute is obsolete."

```
::= { starSlotEntry 35 }
```

## starSlotAction OBJECT-TYPE

```
SYNTAX      INTEGER {
                noaction(1),
                reset(2)
            }
```

```
MAX-ACCESS  read-write
```

```
STATUS      current
```

## DESCRIPTION

"Trigger to perform certain slot operations.

noaction(1) performs no operation. It is the normal value received  
when this attribute is read.

reset(2) causes the slot to be reset"

```
::= { starSlotEntry 36 }
```

## starSlotVoltageState OBJECT-TYPE

```
SYNTAX      INTEGER {
```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

        unknown(0),
        normal(1),
        outofrange(2)
    }
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The state of the voltage supplies on the card. A value of unknown(0)
    means that the state cannot be identified; normal(1) represents a properly
    functioning card; outofrange(2) indicates that one or more voltage sources
    are not within their specified operating range."
 ::= { starSlotEntry 37 }

starSlotNumCPU OBJECT-TYPE
SYNTAX Integer32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The number of general-purpose CPUs on this card"
 ::= { starSlotEntry 38 }

starSlotPartNumber OBJECT-TYPE
SYNTAX DisplayString
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The part number of this card"
 ::= { starSlotEntry 39 }

starSlotPartRevision OBJECT-TYPE
SYNTAX DisplayString
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The revision number of this card"
 ::= { starSlotEntry 40 }

starSlotSerialNumber OBJECT-TYPE
SYNTAX DisplayString
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The serial number of this card"
 ::= { starSlotEntry 41 }

starSlotCLEICode OBJECT-TYPE
SYNTAX DisplayString
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The CLEI code of this card"
 ::= { starSlotEntry 42 }

starSlotCiscoModelName OBJECT-TYPE
SYNTAX DisplayString
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "Cisco-defined Product Identifier (PID). The PID is an alphanumeric identifier used to
    identify specific Cisco product hardware, and may be up to 18 characters in length.

    starSlotCiscoModelName will be blank (zero characters) if no PID is available."
 ::= { starSlotEntry 43 }

starSlotCiscoHardwareRev OBJECT-TYPE
SYNTAX DisplayString
MAX-ACCESS read-only

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

STATUS      current
DESCRIPTION
    "Cisco-defined Version Identifier (VID).  The VID is used to track the version of the
    Customer-Orderable Cisco Product Identifier (PID) [starSlotCiscoModelName].  The
    data convention for VID is 'V' followed by a two digit number.  VID numbering typically
    begins at 'V01' but can be initiated at a higher value.

    starSlotCiscoHardwareRev will be blank (zero characters) if no VID is available."
 ::= { starSlotEntry 44 }

starSlotCiscoSerialNumber OBJECT-TYPE
SYNTAX      DisplayString
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "Cisco-defined Serial Number (SN).  The SN is an 11 character identifier used in conjunction
    with the Cisco Product Identifier (PID) [starSlotCiscoModelName] to identify a unique
    product or Field Replaceable Unit (FRU) of a product.

    starSlotCiscoSerialNumber will be blank (zero characters) if no VID is available."
 ::= { starSlotEntry 45 }

starDeviceNum OBJECT-TYPE
SYNTAX      Integer32(1..4)
MAX-ACCESS  accessible-for-notify
STATUS      current
DESCRIPTION
    "The device number"
 ::= { starSlotEntry 46 }

starSerdesNum OBJECT-TYPE
SYNTAX      Integer32(0..127)
MAX-ACCESS  accessible-for-notify
STATUS      current
DESCRIPTION
    "The serdes lane index number"
 ::= { starSlotEntry 47 }

-- Card Mapping Table

starentSlotMapping OBJECT IDENTIFIER ::= { starentMIBObjects 3 }

starSlotMappingTable OBJECT-TYPE
SYNTAX      SEQUENCE OF StarSlotMappingEntry
MAX-ACCESS  not-accessible
STATUS      current
DESCRIPTION
    "A table identifying all of the slot mappings.  This table
    is applicable only to starChassisType ASR5000 platform."
 ::= { starentSlotMapping 1 }

starSlotMappingEntry OBJECT-TYPE
SYNTAX      StarSlotMappingEntry
MAX-ACCESS  not-accessible
STATUS      current
DESCRIPTION
    "Information about a particular slot mapping"
INDEX       { starSlotMappingNum }
 ::= { starSlotMappingTable 1 }

StarSlotMappingEntry ::=
    SEQUENCE {
        starSlotMappingNum Integer32,
        starSlotMappingType INTEGER,

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

    starSlotMappingRCCNum Integer32,
    starSlotMappingToSlot Integer32
}

starSlotMappingNum OBJECT-TYPE
    SYNTAX      Integer32 (17..48)
    MAX-ACCESS not-accessible
    STATUS      current
    DESCRIPTION
        "The slot number. This always represents a slot in the back of the chassis."
    ::= { starSlotMappingEntry 1 }

starSlotMappingType OBJECT-TYPE
    SYNTAX      INTEGER {
        unknown(1),
            none(2),
            direct(3),
            rcc(4),
            cross(5)
        }
    MAX-ACCESS read-only
    STATUS      current
    DESCRIPTION
        "The type of the slot mapping. The value none(1) represents that there is no mapping,
        which typically represents that there is no card present in this slot."
    ::= { starSlotMappingEntry 2 }

starSlotMappingRCCNum OBJECT-TYPE
    SYNTAX      Integer32 (0..2)
    MAX-ACCESS read-only
    STATUS      current
    DESCRIPTION
        "Identifies which RCC card is responsible for this mapping. This value is only
        valid if the value of starSlotMappingType is rcc(3)."
    ::= { starSlotMappingEntry 3 }

starSlotMappingToSlot OBJECT-TYPE
    SYNTAX      Integer32 (1..16)
    MAX-ACCESS read-only
    STATUS      current
    DESCRIPTION
        "The slot number this slot is mapped to. This always represents a slot in the
        front of the chassis"
    ::= { starSlotMappingEntry 4 }

-- Fan Table

starentFans OBJECT IDENTIFIER ::= { starentMIBObjects 4 }

starFanTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF StarFanEntry
    MAX-ACCESS not-accessible
    STATUS      current
    DESCRIPTION
        "A table containing information on all of the fan controllers"
    ::= { starentFans 1 }

starFanEntry OBJECT-TYPE
    SYNTAX      StarFanEntry
    MAX-ACCESS not-accessible
    STATUS      current
    DESCRIPTION
        "Information about a particular fan controller"
    INDEX { starFanNum }
    ::= { starFanTable 1 }

StarFanEntry ::=

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

SEQUENCE {
    starFanNum      Integer32,
    starFanLocation INTEGER,
    starFanStatus   Integer32,
    starFanSpeed    INTEGER
}

starFanNum OBJECT-TYPE
    SYNTAX      Integer32(1..4)
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "The fan controller number"
    ::= { starFanEntry 1 }

starFanLocation OBJECT-TYPE
    SYNTAX      INTEGER {
        upper(1),
        lower(2),
        lowerFront(3),
        lowerRear(4),
        upperFront(5),
        upperRear(6)
    }
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The physical location of the fan controller"
    ::= { starFanEntry 2 }

starFanStatus OBJECT-TYPE
    SYNTAX      Integer32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "A bitmask representing the status of the fan tray.
        0x01    All Fans Good
        0x02    Multiple Fans Bad
        0x04    Single Fan Bad
        0x08    HB Error
        0x10    COM A Error
        0x20    COM B Error
        0x40    COMM Error
        0x80    Not Present
        0x100   Present
        0x200   Filter Clogged
        0x400   Unknown

        A normal, properly functioning fan tray would show 0x101 (257 decimal), meaning
        it is present (0x100) and all fans are working (0x1)"
    ::= { starFanEntry 3 }

starFanSpeed OBJECT-TYPE
    SYNTAX      INTEGER {
        unknown(1),
        speed50(2),
        speed55(3),
        speed60(4),
        speed65(5),
        speed70(6),
        speed75(7),
        speed80(8),
        speed85(9),
        speed90(10),
        speed95(11),
        speed100(12)
    }

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

    }
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The speed of the fans controlled by this fan controller.
        The values represent the percentage that the speed is running relative
        to the maximum possible speed, speed100(12)"
    ::= { starFanEntry 4 }

-- log Table
-- Note that this table isn't expected to have an SNMP implementation; it is provided
-- to define Object Identifiers for use in log-related traps, which are implemented
-- This table may be useless, as we're not keeping on-disk logs except through syslogd
starentLogs OBJECT IDENTIFIER ::= { starentMIBObjects 5 }

starLogTable OBJECT-TYPE
    SYNTAX SEQUENCE OF StarLogEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "A table containing information about all of the system logs"
    ::= { starentLogs 1 }

starLogEntry OBJECT-TYPE
    SYNTAX StarLogEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "Information about a particular system log"
    INDEX { starLogName }
    ::= { starLogTable 1 }

StarLogEntry ::=
    SEQUENCE {
        starLogName StarShortName,
        starLogCurSize Gauge32,
        starLogMaxSize Gauge32,
        starLogText OCTET STRING
    }

starLogName OBJECT-TYPE
    SYNTAX StarShortName
    MAX-ACCESS accessible-for-notify
    STATUS current
    DESCRIPTION
        "The name of the system log"
    ::= { starLogEntry 1 }

starLogCurSize OBJECT-TYPE
    SYNTAX Gauge32
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The size, in bytes, of this log"
    ::= { starLogEntry 2 }

starLogMaxSize OBJECT-TYPE
    SYNTAX Gauge32
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The maximum size, in bytes, of this log"
    ::= { starLogEntry 3 }

starLogText OBJECT-TYPE
    SYNTAX OCTET STRING (SIZE (1..512))
    MAX-ACCESS read-only

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

    STATUS      current
    DESCRIPTION
    "For use in LogMsg trap"
    ::= { starLogEntry 4 }

-- trap management, ala RFC-1224

starentAlertMan OBJECT IDENTIFIER ::= { starentMIBObjects 8 }
starentFeedback OBJECT IDENTIFIER ::= { starentAlertMan 1 }

starMaxAlertsPerTime OBJECT-TYPE
    SYNTAX      Unsigned32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The maximum number of SNMP Traps which will be sent within
        the time period specified by starWindowTime"
    ::= { starentFeedback 1 }

starWindowTime OBJECT-TYPE
    SYNTAX      Unsigned32
    UNITS       "seconds"
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The amount of time within which no more than starMaxAlertsPerTime
        SNMP Traps will be sent."
    ::= { starentFeedback 2 }

starAlertSendingEnabled OBJECT-TYPE
    SYNTAX      TruthValue
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Shows if SNMP traps are currently enabled or disabled. Traps are disabled
        when more than starMaxAlertsPerTime traps are sent within the
        starWindowTime time period. A value of true(1) indicates that traps
        will still be sent. A value of false(2) indicates that traps are no
        longer being generated"
    ::= { starentFeedback 3 }

starentPolledLog OBJECT IDENTIFIER ::= { starentAlertMan 2 }

-- power table, provided for use in traps only

starentPower OBJECT IDENTIFIER ::= { starentMIBObjects 9 }

starPowerTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF StarPowerEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "A table containing information about all power filters"
    ::= { starentPower 1 }

starPowerEntry OBJECT-TYPE
    SYNTAX      StarPowerEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "Information about a particular power filter"
    INDEX { starPowerNumber }
    ::= { starPowerTable 1 }

StarPowerEntry ::=
    SEQUENCE {

```



## STARENT-MIB DEFINITIONS ::= BEGIN

```

    starPowerNumber          INTEGER,
        starPowerState      INTEGER
    }

starPowerNumber OBJECT-TYPE
    SYNTAX      INTEGER {
        powerA(1),
        powerB(2)
    }
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "The identifying number for this power filter."
    ::= { starPowerEntry 1 }

starPowerState OBJECT-TYPE
    SYNTAX      INTEGER {
        active(1),
        failed(2),
        notpresent(3)
    }
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The state of the power filter. The value active(1) means that the
        power filter is present and operational. The value failed(2) means
        that the power filter is present, but not operational. The value
        not-present(3) means that the power filter is not physically present
        in the system."
    ::= { starPowerEntry 2 }

-- CPU table

starentCPU OBJECT IDENTIFIER ::= { starentMIBObjects 10 }

starCPUtable OBJECT-TYPE
    SYNTAX      SEQUENCE OF StarCPUEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "A table containing information about all CPUs"
    ::= { starentCPU 1 }

starCPUEntry OBJECT-TYPE
    SYNTAX      StarCPUEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "Information about a particular CPU"
    INDEX { starCPUSlot, starCPUNumber }
    ::= { starCPUtable 1 }

StarCPUEntry ::=
    SEQUENCE {
        starCPUSlot          Integer32,
        starCPUNumber       Integer32,
        starCPUUser         Gauge32,
        starCPUSystem       Gauge32,
        starCPUIdle         Gauge32,
        starCPUIO           Gauge32,
        starCPUIRQ          Gauge32,
        starCPULoad1Min     Gauge32,
        starCPULoad5Min     Gauge32,
        starCPULoad15Min    Gauge32,
        starCPUMemTotal     Integer32,
        starCPUMemUsed      Gauge32,
        starCPUNumProcesses Gauge32,
    }

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

    starCPUMemCached      Gauge32,
    starCPUCoreNumber     Integer32
}

starCPUSlot OBJECT-TYPE
    SYNTAX      Integer32(1..48)
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "The slot number of the card holding this CPU"
    ::= { starCPUEntry 1 }

starCPUNumber OBJECT-TYPE
    SYNTAX      Integer32(0..3)
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "The CPU number within this card.  Numbers begin at 0."
    ::= { starCPUEntry 2 }

starCPUIUser OBJECT-TYPE
    SYNTAX      Gauge32(1..10000)
    UNITS       "percentage times 100"
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Percentage of the CPU spent running user processes.
         starCPUUser is the percentage value times 100; for example,
         2.3% would be represented as 230."
    ::= { starCPUEntry 3 }

starCPUSystem OBJECT-TYPE
    SYNTAX      Gauge32(1..10000)
    UNITS       "percentage times 100"
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Percentage of the CPU spent running system processes.
         starCPUSystem is the percentage value times 100; for example,
         2.3% would be represented as 230."
    ::= { starCPUEntry 4 }

starCPUIIdle OBJECT-TYPE
    SYNTAX      Gauge32(1..10000)
    UNITS       "percentage times 100"
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Percentage of the CPU spent idle.
         starCPUIIdle is the percentage value times 100; for example,
         2.3% would be represented as 230."
    ::= { starCPUEntry 6 }

starCPUIO OBJECT-TYPE
    SYNTAX      Gauge32(1..10000)
    UNITS       "percentage times 100"
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Percentage of the CPU spent running io processes.
         starCPUIo is the percentage value times 100; for example,
         2.3% would be represented as 230."
    ::= { starCPUEntry 7 }

starCPUIRQ OBJECT-TYPE
    SYNTAX      Gauge32(1..10000)

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

UNITS          "percentage times 100"
MAX-ACCESS    read-only
STATUS        current
DESCRIPTION
    "Percentage of the CPU spent running irq processes.
    starCPUirq is the percentage value times 100; for example,
    2.3% would be represented as 230."
 ::= { starCPUEEntry 8 }

starCPULoad1Min OBJECT-TYPE
SYNTAX        Gauge32(1..10000)
UNITS         "processes times 100"
MAX-ACCESS    read-only
STATUS        current
DESCRIPTION
    "The average CPU load over the last minute. The CPU load is defined
    to be the number of processes who are ready to run.
    starCPULoad1Min is the average number of processes times 100; for
    example, 2.45 would be represented as 245."
 ::= { starCPUEEntry 11 }

starCPULoad5Min OBJECT-TYPE
SYNTAX        Gauge32(1..10000)
UNITS         "processes times 100"
MAX-ACCESS    read-only
STATUS        current
DESCRIPTION
    "The average CPU load over the last 5 minutes. The CPU load is defined
    to be the number of processes who are ready to run.
    starCPULoad5Min is the average number of processes times 100; for
    example, 2.45 would be represented as 245."
 ::= { starCPUEEntry 12 }

starCPULoad15Min OBJECT-TYPE
SYNTAX        Gauge32(1..10000)
UNITS         "processes times 100"
MAX-ACCESS    read-only
STATUS        current
DESCRIPTION
    "The average CPU load over the last 15 minutes. The CPU load is defined
    to be the number of processes who are ready to run.
    starCPULoad15Min is the average number of processes times 100; for
    example, 2.45 would be represented as 245."
 ::= { starCPUEEntry 13 }

starCPUMemTotal OBJECT-TYPE
SYNTAX        Integer32(1..2147483647)
UNITS         "KB"
MAX-ACCESS    read-only
STATUS        current
DESCRIPTION
    "The total amount of memory dedicated to this CPU, in kilobytes"
 ::= { starCPUEEntry 14 }

starCPUMemUsed OBJECT-TYPE
SYNTAX        Gauge32(1..2147483647)
UNITS         "KB"
MAX-ACCESS    read-only
STATUS        current
DESCRIPTION
    "The total amount of memory consumed by this CPU, in kilobytes"
 ::= { starCPUEEntry 15 }

starCPUNumProcesses OBJECT-TYPE
SYNTAX        Gauge32(1..32768)
UNITS         "processes"
MAX-ACCESS    read-only

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

STATUS      current
DESCRIPTION
"The total number of processes which exist on this CPU"
::= { starCPUEntry 16 }

starCPUMemCached OBJECT-TYPE
SYNTAX      Gauge32(1..2147483647)
UNITS       "KB"
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
"The total amount of memory consumed by the (reusable) memory cache on this CPU, in kilobytes"
::= { starCPUEntry 17 }

starCPUCoreNumber OBJECT-TYPE
SYNTAX      Integer32(0..48)
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
"The CPU core number within this card."
::= { starCPUEntry 18 }

-- Session In Progress

starentSessInP OBJECT IDENTIFIER ::= { starentMIBObjects 12 }

starSessInProgCalls OBJECT-TYPE
SYNTAX      Gauge32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
"The number of sessions current in progress"
::= { starentSessInP 1 }

starSessInProgActiveCalls OBJECT-TYPE
SYNTAX      Gauge32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
"The number of sessions with active calls"
::= { starentSessInP 2 }

starSessInProgDormantCalls OBJECT-TYPE
SYNTAX      Gauge32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
"The number of sessions associated with dormant calls"
::= { starentSessInP 3 }

starSessInProgArrived OBJECT-TYPE
SYNTAX      Gauge32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
"The number of sessions in the arrived state"
::= { starentSessInP 4 }

starSessInProgLCPNeg OBJECT-TYPE
SYNTAX      Gauge32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
"The number of sessions in the link control protocol negotiation state"
::= { starentSessInP 5 }

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

starSessInProgLCPUp OBJECT-TYPE
    SYNTAX      Gauge32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of sessions in the link control protocol up state"
    ::= { starentSessInP 6 }

starSessInProgAuthenticating OBJECT-TYPE
    SYNTAX      Gauge32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of sessions in the authenticating state"
    ::= { starentSessInP 7 }

starSessInProgAuthenticated OBJECT-TYPE
    SYNTAX      Gauge32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of sessions in the authenticated state"
    ::= { starentSessInP 8 }

starSessInProgIPCPUp OBJECT-TYPE
    SYNTAX      Gauge32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of sessions in the IP control protocol up state"
    ::= { starentSessInP 9 }

starSessInProgSIPConn OBJECT-TYPE
    SYNTAX      Gauge32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of sessions in the Simple IP connected state"
    ::= { starentSessInP 10 }

starSessInProgMIPConn OBJECT-TYPE
    SYNTAX      Gauge32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of sessions in the Mobile IP connected state"
    ::= { starentSessInP 11 }

starSessInProgDisc OBJECT-TYPE
    SYNTAX      Gauge32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of sessions in the disconnecting state"
    ::= { starentSessInP 12 }

-- NPU table
-- These objects are defined only for use in traps

starentNPUMgr OBJECT IDENTIFIER ::= { starentMIBObjects 11 }

starNPUMgrTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF StarNPUMgrEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "A table containing information about all NPU Managers"

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

 ::= { starentNPUMgr 1 }

starNPUMgrEntry OBJECT-TYPE
    SYNTAX      StarNPUMgrEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "Information about a particular NPU Manager"
    INDEX { starNPUMgrNumber }
    ::= { starNPUMgrTable 1 }

StarNPUMgrEntry ::=
    SEQUENCE {
        starNPUMgrNumber      Integer32
    }

starNPUMgrNumber OBJECT-TYPE
    SYNTAX      Integer32(1..65535)
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "The identity of this NPU"
    ::= { starNPUMgrEntry 1 }

--

starentSessMgr OBJECT IDENTIFIER ::= { starentMIBObjects 13 }

starSessMgrCount OBJECT-TYPE
    SYNTAX      Gauge32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The total number of session manager instances"
    ::= { starentSessMgr 1 }

starSessTtlArrived OBJECT-TYPE
    SYNTAX      Gauge32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The total number of requested sessions"
    ::= { starentSessMgr 2 }

starSessTtlRejected OBJECT-TYPE
    SYNTAX      Gauge32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The total number of rejected sessions"
    ::= { starentSessMgr 3 }

starSessTtlConnected OBJECT-TYPE
    SYNTAX      Gauge32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The total number of sessions which were connected"
    ::= { starentSessMgr 4 }

starSessTtlAuthSucc OBJECT-TYPE
    SYNTAX      Gauge32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The total number of sessions where authentication was successful"

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

 ::= { starentSessMgr 5 }

starSessTtlAuthFail OBJECT-TYPE
    SYNTAX      Gauge32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The total number of sessions which failed authentication"
 ::= { starentSessMgr 6 }

starSessTtlLCPUp OBJECT-TYPE
    SYNTAX      Gauge32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The total number of sessions in the link control protocol up state"
 ::= { starentSessMgr 7 }

starSessTtlIPCPUp OBJECT-TYPE
    SYNTAX      Gauge32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The total number of IP control protocol up state"
 ::= { starentSessMgr 8 }

starSessTtlSrcViol OBJECT-TYPE
    SYNTAX      Gauge32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The total number of sessions which had an invalid source"
 ::= { starentSessMgr 9 }

starSessTtlKeepFail OBJECT-TYPE
    SYNTAX      Gauge32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The total number of sessions which had a keep alive failure"
 ::= { starentSessMgr 10 }

starSessTtlOctForwarded OBJECT-TYPE
    SYNTAX      Counter32
    UNITS       "Megabytes"
    MAX-ACCESS  read-only
    STATUS      deprecated
    DESCRIPTION
        "The total number of octets forwarded (data + control)"
 ::= { starentSessMgr 11 }

starSessTtlRRegAccept OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The total number of Initial RRQ Accepted"
 ::= { starentSessMgr 12 }

starSessTtlRRegAcceptInterPDSN OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The total number of Inter PDSN Handoff RRQ Accepted"
 ::= { starentSessMgr 13 }

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```
starSessCurrPPPSessions OBJECT-TYPE
    SYNTAX      Gauge32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The current number of PPP sessions"
    ::= { starentSessMgr 14 }

starSessTtlTxBytes OBJECT-TYPE
    SYNTAX      Counter32
    UNITS       "Megabytes"
    MAX-ACCESS  read-only
    STATUS      deprecated
    DESCRIPTION
        "The total number of bytes transmitted from mobiles"
    ::= { starentSessMgr 15 }

starSessTtlRxBytes OBJECT-TYPE
    SYNTAX      Counter32
    UNITS       "Megabytes"
    MAX-ACCESS  read-only
    STATUS      deprecated
    DESCRIPTION
        "The total number of bytes received by mobiles"
    ::= { starentSessMgr 16 }

starSessTtlSIPTxBytes OBJECT-TYPE
    SYNTAX      Counter32
    UNITS       "Megabytes"
    MAX-ACCESS  read-only
    STATUS      deprecated
    DESCRIPTION
        "The total number of bytes transmitted from mobiles using SIP"
    ::= { starentSessMgr 17 }

starSessTtlSIPRxBytes OBJECT-TYPE
    SYNTAX      Counter32
    UNITS       "Megabytes"
    MAX-ACCESS  read-only
    STATUS      deprecated
    DESCRIPTION
        "The total number of bytes received by mobiles using SIP"
    ::= { starentSessMgr 18 }

starSessTtlMIPTxBytes OBJECT-TYPE
    SYNTAX      Counter32
    UNITS       "Megabytes"
    MAX-ACCESS  read-only
    STATUS      deprecated
    DESCRIPTION
        "The total number of bytes transmitted from mobiles using MIP"
    ::= { starentSessMgr 19 }

starSessTtlMIPRxBytes OBJECT-TYPE
    SYNTAX      Counter32
    UNITS       "Megabytes"
    MAX-ACCESS  read-only
    STATUS      deprecated
    DESCRIPTION
        "The total number of bytes received by mobiles using MIP"
    ::= { starentSessMgr 20 }

starSessTtlOctForwardedGB OBJECT-TYPE
    SYNTAX      Counter32
    UNITS       "Gigabytes"
    MAX-ACCESS  read-only
```



## STARENT-MIB DEFINITIONS ::= BEGIN

```

STATUS      deprecated
DESCRIPTION
    "The total number of octets forwarded (data + control)"
 ::= { starentSessMgr 21 }

starSessTtlOctForwardedRev1 OBJECT-TYPE
SYNTAX      Counter64
UNITS       "Megabytes"
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The total number of octets forwarded (data + control).
    This object deprecates the old starSessTtlOctForwarded object."
 ::= { starentSessMgr 22 }

starSessTtlTxBytesRev1 OBJECT-TYPE
SYNTAX      Counter64
UNITS       "Megabytes"
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The total number of bytes transmitted from mobiles.
    This object deprecates the old starSessTtlTxBytes object."
 ::= { starentSessMgr 23 }

starSessTtlRxBytesRev1 OBJECT-TYPE
SYNTAX      Counter64
UNITS       "Megabytes"
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The total number of bytes received by mobiles.
    This object deprecates the old starSessTtlRxBytes object."
 ::= { starentSessMgr 24 }

starSessTtlSIPTxBytesRev1 OBJECT-TYPE
SYNTAX      Counter64
UNITS       "Megabytes"
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The total number of bytes transmitted from mobiles using SIP.
    This object deprecates the old starSessTtlSIPTxBytes object."
 ::= { starentSessMgr 25 }

starSessTtlSIPRxBytesRev1 OBJECT-TYPE
SYNTAX      Counter64
UNITS       "Megabytes"
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The total number of bytes received by mobiles using SIP.
    This object deprecates the old starSessTtlSIPRxBytes object."
 ::= { starentSessMgr 26 }

starSessTtlMIPTxBytesRev1 OBJECT-TYPE
SYNTAX      Counter64
UNITS       "Megabytes"
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The total number of bytes transmitted from mobiles using MIP.
    This object deprecates the old starSessTtlMIPTxBytes object."
 ::= { starentSessMgr 27 }

starSessTtlMIPRxBytesRev1 OBJECT-TYPE
SYNTAX      Counter64

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

UNITS          "Megabytes"
MAX-ACCESS    read-only
STATUS        current
DESCRIPTION
    "The total number of bytes received by mobiles using MIP.
    This object deprecates the old starSessTtlMIPRxBytes object."
 ::= { starentSessMgr 28 }

starSessTtlOctForwardedGBRev1 OBJECT-TYPE
SYNTAX        Counter64
UNITS          "Gigabytes"
MAX-ACCESS    read-only
STATUS        current
DESCRIPTION
    "The total number of octets forwarded (data + control).
    This object deprecates the old starSessTtlOctForwardedGB object."
 ::= { starentSessMgr 29 }

-- AAA

starentAAAMgr OBJECT IDENTIFIER ::= { starentMIBObjects 14 }

starAAAMgrCount OBJECT-TYPE
SYNTAX        Gauge32
MAX-ACCESS    read-only
STATUS        current
DESCRIPTION
    "The total number of AAA manager instances"
 ::= { starentAAAMgr 1 }

starAAATtlRequests OBJECT-TYPE
SYNTAX        Counter32
MAX-ACCESS    read-only
STATUS        current
DESCRIPTION
    "The total number of AAA requests"
 ::= { starentAAAMgr 2 }

starAAATtlAuthRequests OBJECT-TYPE
SYNTAX        Counter32
MAX-ACCESS    read-only
STATUS        current
DESCRIPTION
    "The total number of AAA authentication requests"
 ::= { starentAAAMgr 3 }

starAAATtlAcctRequests OBJECT-TYPE
SYNTAX        Counter32
MAX-ACCESS    read-only
STATUS        current
DESCRIPTION
    "The total number of AAA accounting requests"
 ::= { starentAAAMgr 4 }

starAAACurRequests OBJECT-TYPE
SYNTAX        Gauge32
MAX-ACCESS    read-only
STATUS        current
DESCRIPTION
    "The current number of AAA requests"
 ::= { starentAAAMgr 5 }

starAAACurAuthRequests OBJECT-TYPE
SYNTAX        Gauge32
MAX-ACCESS    read-only
STATUS        current

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

DESCRIPTION
    "The current number of AAA authentication requests"
 ::= { starentAAAMgr 6 }

starAAACurAcctRequests OBJECT-TYPE
SYNTAX      Gauge32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The current number of AAA accounting requests"
 ::= { starentAAAMgr 7 }

starAAATtlAcctSess OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The total number of AAA accounting sessions"
 ::= { starentAAAMgr 8 }

starAAACurAcctSess OBJECT-TYPE
SYNTAX      Gauge32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The current number of AAA accounting sessions"
 ::= { starentAAAMgr 9 }

starAAATtlAuthSuccess OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The total number of AAA authentication successes"
 ::= { starentAAAMgr 10 }

starAAATtlAuthFailure OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The total number of AAA authentication failures"
 ::= { starentAAAMgr 11 }

-- All

starentAllMgr OBJECT IDENTIFIER ::= { starentMIBObjects 15 }

starAllMgrCount OBJECT-TYPE
SYNTAX      Gauge32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The total number of All manager instances"
 ::= { starentAllMgr 1 }

starAllTtlArrived OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The total number of All session requests"
 ::= { starentAllMgr 2 }

starAllTtlRejected OBJECT-TYPE
SYNTAX      Counter32

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The total number of rejected All sessions"
 ::= { starentAllMgr 3 }

starAllTtlDemultiplexed OBJECT-TYPE
SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The total number of demultiplexed All sessions"
 ::= { starentAllMgr 4 }

starAllTtlDereg OBJECT-TYPE
SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The total number of All deregistrations"
 ::= { starentAllMgr 5 }

starAllCurActive OBJECT-TYPE
SYNTAX Gauge32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The current number of active All sessions"
 ::= { starentAllMgr 6 }

-- HA

starentHAMgr OBJECT IDENTIFIER ::= { starentMIBObjects 16 }

starHAMgrCount OBJECT-TYPE
SYNTAX Gauge32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The total number of home agent manager instances"
 ::= { starentHAMgr 1 }

starHATtlArrived OBJECT-TYPE
SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The total number of home agent session requests"
 ::= { starentHAMgr 2 }

starHATtlRejected OBJECT-TYPE
SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The total number of rejected home agent sessions"
 ::= { starentHAMgr 3 }

starHATtlDemultiplexed OBJECT-TYPE
SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The total number of demultiplexed home agent sessions"
 ::= { starentHAMgr 4 }

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

starHATtlDereg OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The total number of home agent deregistrations"
    ::= { starentHAMgr 5 }

starHACurActive OBJECT-TYPE
    SYNTAX      Gauge32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The total number of active home agent sessions"
    ::= { starentHAMgr 6 }

-- FA

starentFAMgr OBJECT IDENTIFIER ::= { starentMIBObjects 17 }

starFAMgrCount OBJECT-TYPE
    SYNTAX      Gauge32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The total number of foreign agent manager instances"
    ::= { starentFAMgr 1 }

starFATtlArrived OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The total number of foreign agent session requests"
    ::= { starentFAMgr 2 }

starFATtlRejected OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The total number of rejected foreign agent sessions"
    ::= { starentFAMgr 3 }

starFATtlDemultiplexed OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The total number of demultiplexed foreign agent sessions"
    ::= { starentFAMgr 4 }

starFATtlDereg OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The total number of foreign agent deregistrations"
    ::= { starentFAMgr 5 }

starFACurActive OBJECT-TYPE
    SYNTAX      Gauge32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

        "The current number of active foreign agent sessions"
 ::= { starentFAMgr 6 }

-- Service Manager
-- Note that this table isn't expected to have an SNMP implementation; these objects are defined
-- for use within traps

starentService OBJECT IDENTIFIER ::= { starentMIBObjects 18 }

starServiceTable OBJECT-TYPE
    SYNTAX SEQUENCE OF StarServiceEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        " "
    ::= { starentService 1 }

starServiceEntry OBJECT-TYPE
    SYNTAX StarServiceEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "Information on a particular Service Manager"
    INDEX { starServiceVpnID, starServiceSvcID }
    ::= { starServiceTable 1 }

StarServiceEntry ::=
    SEQUENCE {
        starServiceVpnID Gauge32,
        starServiceSvcID Gauge32,
        starServiceVpnName DisplayString,
        starServiceServName DisplayString,
        starServiceSubLimit Unsigned32,
        starServiceSubCurrent Gauge32,
        starServiceType INTEGER,
        starServiceFAIpAddr IpAddress,
        starServiceHAIpAddr IpAddress
    }

starServiceVpnID OBJECT-TYPE
    SYNTAX Gauge32
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "The internal identification of the VPN (context)"
    ::= { starServiceEntry 1 }

starServiceSvcID OBJECT-TYPE
    SYNTAX Gauge32
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "The internal identification of this service; unique within a specific context"
    ::= { starServiceEntry 2 }

starServiceVpnName OBJECT-TYPE
    SYNTAX DisplayString
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The name of this VPN (context)"
    ::= { starServiceEntry 3 }

starServiceServName OBJECT-TYPE
    SYNTAX DisplayString

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The name of this service"
 ::= { starServiceEntry 4 }

```

```

starServiceSubLimit OBJECT-TYPE
SYNTAX Unsigned32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The configured subscriber limit"
 ::= { starServiceEntry 5 }

```

```

starServiceSubCurrent OBJECT-TYPE
SYNTAX Gauge32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The current number of subscribers limit"
 ::= { starServiceEntry 6 }

```

```

starServiceType OBJECT-TYPE
SYNTAX INTEGER {
    unknown(1),
    pdsn(2),
    ggsn(3),
    ha(4),
    fa(5),
    l2tpserver(6),
    lac(7),
    lns(8),
    closedrp(9),
    ecs(10),
    cscf(11),
    ipsg(12),
    evdoreva(13),
    asngw(14),
    pdif(15),
    asnpc(16),
    mipv6ha(17),
    phsgw(18),
    phspc(19),
    sgw(20),
    pgw(21),
    mag(22),
    gprs(23),
    hsgw(24),
    sgsn(25),
    mme(26),
    pdg(27),
    standalonefa(28),
    imsue(29),
    fng(30),
    pccpolicy(31),
    pccquota(32),
    pccaf(33),
    hnbgw(34),
    non-anchor-phs-gateway(35),
    combination-3g-4g-gateway(36),
    epdg(37),
    pcp(38),
    hnbgw-access(39),
    hnbgw-network(40),
    wsg(41),
    samog(42),
    saegw(43),

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

    ppp-lback(44),
    dhcp(45),
    imsa(46),
    diameter(47),
    dhcpv6(48),
    lma(49),
    crdt-ctl(50),
    mme-hss(51),
    sgs(52),
    cbs(53),
    egtp-ingress(54),
    egtp-egress(55),
    egtp(56),
    gtpu(57),
    sgtpc(58),
    egtp-sv(59),
    megad(60),
    pcc(61),
    ipne(62),
    mseg(63),
    bng(64),
    gs(65),
    map(66),
    iups(67),
    sgtp(68),
    lcs(69),
    mme-embms(70)
}
MAX-ACCESS read-only
STATUS current
DESCRIPTION
"The type of service"
 ::= { starServiceEntry 7 }

starServiceFAIpAddr OBJECT-TYPE
    SYNTAX IpAddress
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
    "The IP address for an FA service. Where unknown or not applicable
    this will contain all zeroes."
    ::= { starServiceEntry 8 }

starServiceHAIpAddr OBJECT-TYPE
    SYNTAX IpAddress
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
    "The IP address for an HA service. Where unknown or not applicable
    this will contain all zeroes."
    ::= { starServiceEntry 9 }

-- CLI
-- Note that this table isn't expected to have an SNMP implementation; these objects are defined
-- for use within traps

starentCLIMgr OBJECT IDENTIFIER ::= { starentMIBObjects 19 }

starCLITable OBJECT-TYPE
    SYNTAX SEQUENCE OF StarCLIEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
    "A table containing information on all interactive CLI sessions"
    ::= { starentCLIMgr 1 }

```



## STARENT-MIB DEFINITIONS ::= BEGIN

```

starCLIEEntry OBJECT-TYPE
    SYNTAX      StarCLIEEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "Information on a particular CLI Session"
    INDEX { starCLIID }
    ::= { starCLITable 1 }

StarCLIEEntry ::=
    SEQUENCE {
        starCLIID                Gauge32,
        starCLIUsername           DisplayString,
        starCLITtyname            DisplayString,
        starCLIPrivs              DisplayString,
        starCLIType               INTEGER,
        starCLIRemoteIpAddrType   InetAddressType,
        starCLIRemoteIpAddr       InetAddress,
        starCLIContext             DisplayString,
        starCLIDatabaseUsername   DisplayString,
        starCLIActiveCount        Counter32,
        starCLIMaxCount           Counter32,
        starCLIEventIDStart       Counter32,
        starCLIEventIDEnd         Counter32,
        starCLILogLevelChanged    DisplayString
    }

starCLIID OBJECT-TYPE
    SYNTAX      Gauge32
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "The internal identifier of this CLI session."
    ::= { starCLIEEntry 1 }

starCLIUsername OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The name of the user logged into this CLI session, or 'unknown' if not none"
    ::= { starCLIEEntry 2 }

starCLITtyname OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The name of the TTY device for this CLI session"
    ::= { starCLIEEntry 3 }

starCLIPrivs OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The user presentable form of the privilege level of this CLI session"
    ::= { starCLIEEntry 4 }

starCLIType OBJECT-TYPE
    SYNTAX      INTEGER {
        unknown(0),
        commandline(1),
        ftp(2)
    }
    MAX-ACCESS  read-only
    STATUS      current

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

DESCRIPTION
"The type of CLI; commandline(1) represents the normal interactive command line;
ftp(2) represents an incoming FTP session"
 ::= { starCLIEntry 5 }

starCLIRemoteIpAddrType OBJECT-TYPE
SYNTAX      InetAddressType
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
"The type of remote IP address used to access this CLI session."
 ::= { starCLIEntry 6 }

starCLIRemoteIpAddr OBJECT-TYPE
SYNTAX      InetAddress
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
"The remote IP address used to access this CLI session.  Where unknown or
not applicable (such as access through a serial port) this will be 0"
 ::= { starCLIEntry 7 }

starCLIContext OBJECT-TYPE
SYNTAX      DisplayString
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
"The context (VPN) currently being managed/viewed by the CLI session."
 ::= { starCLIEntry 8 }

starCLIDatabaseUsername OBJECT-TYPE
SYNTAX      DisplayString
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
"The username of the user record in the database which was acted upon by the CLI session"
 ::= { starCLIEntry 9 }

starCLIActiveCount OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
"Active CLI Sessions Value"
 ::= { starCLIEntry 10 }

starCLIMaxCount OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
"Maximum CLI Sessions Limit"
 ::= { starCLIEntry 11 }

starCLIEventIDStart OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
"EventID Range From Value"
 ::= { starCLIEntry 12 }

starCLIEventIDEnd OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

DESCRIPTION
"EventID Range To Value"
 ::= { starCLIEntry 13 }

starCLIILogLevelChanged OBJECT-TYPE
SYNTAX      DisplayString
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
"Description about change in logging level of a facility by an user"
 ::= { starCLIEntry 14 }

-- Task Manager
-- Note that this table isn't expected to have an SNMP implementation; these objects are defined
-- for use within traps

starentTaskMgr OBJECT IDENTIFIER ::= { starentMIBObjects 20 }

starTaskTable OBJECT-TYPE
SYNTAX SEQUENCE OF StarTaskEntry
MAX-ACCESS not-accessible
STATUS      current
DESCRIPTION
    "A table containing information about all active tasks"
 ::= { starentTaskMgr 1 }

starTaskEntry OBJECT-TYPE
SYNTAX      StarTaskEntry
MAX-ACCESS  not-accessible
STATUS      current
DESCRIPTION
    "Information on a particular Task"
INDEX { starTaskFacility, starTaskInstance }
 ::= { starTaskTable 1 }

StarTaskEntry ::=
SEQUENCE {
    starTaskFacility          Unsigned32,
    starTaskInstance         Unsigned32,
    starTaskFacilityName     DisplayString,
    starTaskCard              Unsigned32,
    starTaskCPU               Unsigned32
}

starTaskFacility OBJECT-TYPE
SYNTAX      Unsigned32
MAX-ACCESS not-accessible
STATUS      current
DESCRIPTION
    "The internal facility identifier"
 ::= { starTaskEntry 1 }

starTaskInstance OBJECT-TYPE
SYNTAX      Unsigned32
MAX-ACCESS accessible-for-notify
STATUS      current
DESCRIPTION
    "The internal instance identifier which uniquely identifies this task
    without a given facility"
 ::= { starTaskEntry 2 }

starTaskFacilityName OBJECT-TYPE
SYNTAX      DisplayString
MAX-ACCESS read-only
STATUS      current
DESCRIPTION
    "The name of the facility for this task"

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

 ::= { starTaskEntry 3 }

starTaskCard OBJECT-TYPE
    SYNTAX      Unsigned32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The slot number of the card where this task is running"
 ::= { starTaskEntry 4 }

starTaskCPU OBJECT-TYPE
    SYNTAX      Unsigned32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The CPU number where this task is running"
 ::= { starTaskEntry 5 }

-- PPP Stats

starentPPP OBJECT IDENTIFIER ::= { starentMIBObjects 21 }

starPPPStatTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF StarPPPStatEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "A table containing PPP Stats"
 ::= { starentPPP 1 }

starPPPStatEntry OBJECT-TYPE
    SYNTAX      StarPPPStatEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "The statistics for an individual entry for a PPP context and service"
    INDEX { IMPLIED starPPPStatSvcID }
 ::= { starPPPStatTable 1 }

StarPPPStatEntry ::=
    SEQUENCE {
        starPPPStatVpnID          Gauge32,
        starPPPStatSvcID          StarShortID,
        starPPPStatVpnName        DisplayString,
        starPPPStatServName       DisplayString,
        starPPPStatInit           Counter32,
        starPPPStatReneg          Counter32,
        starPPPStatSuccess        Counter32,
        starPPPStatFailed         Counter32,
        starPPPStatReleased       Counter32,
        starPPPStatReleasedLocal  Counter32,
        starPPPStatReleasedRemote Counter32,
        starPPPStatLcpFailMaxRetry Counter32,
        starPPPStatLcpFailOption  Counter32,
        starPPPStatIpcpFailMaxRetry Counter32,
        starPPPStatIpcpFailOption Counter32,
        starPPPStatCcpFail        Counter32,
        starPPPStatAuthFail       Counter32,
        starPPPStatLcpEntered     Counter32,
        starPPPStatAuthEntered    Counter32,
        starPPPStatIpcpEntered    Counter32,
        starPPPStatRenegPdsn      Counter32,
        starPPPStatRenegMobil     Counter32,
        starPPPStatRenegAddrMismatch Counter32,
        starPPPStatRenegOther     Counter32,
        starPPPStatChapAuthAttempt Counter32,

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

        starPPPStatPapAuthAttempt      Counter32,
        starPPPStatMSChapAuthAttempt  Counter32,
        starPPPStatChapAuthFail       Counter32,
        starPPPStatPapAuthFail         Counter32,
        starPPPStatMSChapAuthFail     Counter32,
        starPPPStatStacComp            Counter32,
        starPPPStatMppcComp            Counter32,
        starPPPStatDeflComp            Counter32,
        starPPPStatFscErrs             Counter32,
        starPPPStatUnknProto           Counter32,
        starPPPStatBadAddr             Counter32,
        starPPPStatBadCtrl             Counter32,
        starPPPStatVjComp              Counter32,
        starPPPStatDiscLcpRemote       Counter32,
        starPPPStatDiscRpRemote        Counter32,
        starPPPStatDiscAdmin           Counter32,
        starPPPStatDiscIdleTimeout     Counter32,
        starPPPStatDiscAbsTimeout      Counter32,
        starPPPStatDiscPPPKeepalive    Counter32,
        starPPPStatDiscNoResource      Counter32,
        starPPPStatDiscMisc            Counter32,
    starPPPStatFailedReneg             Counter32,
    starPPPStatLcpFailUnknown          Counter32,
        starPPPStatIpcpFailUnknown      Counter32,
    starPPPStatAuthAbort               Counter32,
    starPPPStatLowerLayerDisc          Counter32,
    starPPPStatLcpSuccess              Counter32,
    starPPPStatAuthSuccess              Counter32,
    starPPPStatRenegLowerLayerHandoff  Counter32,
    starPPPStatRenegParamUpdate        Counter32,
        starPPPStatChapAuthSuccess      Counter32,
        starPPPStatPapAuthSuccess      Counter32,
        starPPPStatMSChapAuthSuccess   Counter32,
        starPPPStatChapAuthAbort       Counter32,
        starPPPStatPapAuthAbort        Counter32,
        starPPPStatMSChapAuthAbort     Counter32,
    starPPPStatSessSkipAuth            Counter32,
    starPPPStatNegComp                 Counter32,
    starPPPStatCCPNegFailComp          Counter32,
    starPPPStatDiscLocalLowerLayer     Counter32,
    starPPPStatDiscAddFlowFail         Counter32,
    starPPPStatDiscMaxRetriesLCP       Counter32,
    starPPPStatDiscMaxRetriesIPCP      Counter32,
    starPPPStatDiscMaxSetupTimer       Counter32,
    starPPPStatDiscInvalidDestVpn      Counter32,
    starPPPStatDiscOptNegFailLCP       Counter32,
    starPPPStatDiscOptNegFailIPCP      Counter32,
    starPPPStatDiscNoRemoteIpAddr      Counter32,
    starPPPStatDiscCallTypeDetectFail  Counter32,
    starPPPStatDiscRemoteDiscUpLayer   Counter32,
    starPPPStatDiscLongDuraTimeout     Counter32,
    starPPPStatDiscAuthFail            Counter32,
    starPPPStatLCPEchoTotalReq         Counter32,
    starPPPStatLCPEchoReqResent        Counter32,
    starPPPStatLCPEchoRepRecved        Counter32,
    starPPPStatLCPEchoReqTimeout       Counter32,
    starPPPStatRecvErrBadCtrlField     Counter32,
    starPPPStatRecvErrBadPacketLen     Counter32,
    starPPPStatRemoteTerm              Counter32,
    starPPPStatMiscFail                Counter32
    }

starPPPStatVpnID OBJECT-TYPE
    SYNTAX      Gauge32
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

        "The internal identification of the PPP VPN (context)"
 ::= { starPPPStatEntry 1 }

starPPPStatSvcID OBJECT-TYPE
    SYNTAX      StarShortID
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "The service identification is made up from first 8 chars of context name
         and first 8 chars of service name separated by (:)"
 ::= { starPPPStatEntry 2 }

starPPPStatVpnName OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The name of the PPP VPN (context)"
 ::= { starPPPStatEntry 3 }

starPPPStatServName OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The name of the PPP service"
 ::= { starPPPStatEntry 4 }

starPPPStatInit OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of initialized PPP sessions for the associated VPN service"
 ::= { starPPPStatEntry 5 }

starPPPStatReneg OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of PPP session renegotiations for the associated VPN service"
 ::= { starPPPStatEntry 6 }

starPPPStatSuccess OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of PPP session negotiation successes for the associated VPN service "
 ::= { starPPPStatEntry 7 }

starPPPStatFailed OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of PPP session negotiation failures for the associated VPN service"
 ::= { starPPPStatEntry 8 }

starPPPStatReleased OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of PPP sessions released for the associated VPN service"

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

 ::= { starPPPStatEntry 9 }

starPPPStatReleasedLocal OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of PPP sessions where the release was initiated locally for the associated VPN
service"
    ::= { starPPPStatEntry 10 }

starPPPStatReleasedRemote OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of PPP sessions where the release was initiated remotely for the associated VPN
service"
    ::= { starPPPStatEntry 11 }

starPPPStatLcpFailMaxRetry OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of PPP sessions which failed to bring up the link control protocol
due to excessive retries for the associated VPN service"
    ::= { starPPPStatEntry 12 }

starPPPStatLcpFailOption OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of PPP sessions which failed to bring up the link control protocol
due to an invalid option being received for the associated VPN service"
    ::= { starPPPStatEntry 13 }

starPPPStatIpcpFailMaxRetry OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of PPP sessions which failed to start the IP control protocol
due to excessive retries for the associated VPN service"
    ::= { starPPPStatEntry 14 }

starPPPStatIpcpFailOption OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of PPP sessions which failed to start the IP control protocol due to
an invalid option being received for the associated VPN service"
    ::= { starPPPStatEntry 15 }

starPPPStatCcpFail OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of PPP sessions which failed to initialize the CCP"
    ::= { starPPPStatEntry 16 }

starPPPStatAuthFail OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

STATUS      current
DESCRIPTION
    "The number of PPP sessions which failed authentication for the associated VPN"
 ::= { starPPPStatEntry 17 }

starPPPStatLcpEntered OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The number of PPP sessions which successfully initialized the link control protocol"
 ::= { starPPPStatEntry 18 }

starPPPStatAuthEntered OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The number of PPP sessions which were successfully authenticated"
 ::= { starPPPStatEntry 19 }

starPPPStatIpcpEntered OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The number of PPP sessions which successfully initialized the IP control protocol"
 ::= { starPPPStatEntry 20 }

starPPPStatRenegPdsn OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The number of PPP sessions which renegotiated the PDSN service access"
 ::= { starPPPStatEntry 21 }

starPPPStatRenegMobil OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The number of PPP sessions which renegotiated the Mobile IP service access"
 ::= { starPPPStatEntry 22 }

starPPPStatRenegAddrMismatch OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The number of PPP sessions which had an IP address mismatch during renegotiation"
 ::= { starPPPStatEntry 23 }

starPPPStatRenegOther OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The number of PPP sessions which failed renegotiation for reasons other than IP
    address mismatch"
 ::= { starPPPStatEntry 24 }

starPPPStatChapAuthAttempt OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current

```



## STARENT-MIB DEFINITIONS ::= BEGIN

```

DESCRIPTION
    "The number of PPP CHAP authentication attempts for the associated VPN service"
 ::= { starPPPStatEntry 25 }

starPPPStatPapAuthAttempt OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of PPP PAP authentication attempts for the associated VPN service"
    ::= { starPPPStatEntry 26 }

starPPPStatMSChapAuthAttempt OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of PPP MSCHAP authentication attempts for the associated VPN service"
    ::= { starPPPStatEntry 27 }

starPPPStatChapAuthFail OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of PPP CHAP authentication attempt failures for the associated VPN service"
    ::= { starPPPStatEntry 28 }

starPPPStatPapAuthFail OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of PPP PAP authentication failures for the associated VPN service"
    ::= { starPPPStatEntry 29 }

starPPPStatMSChapAuthFail OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of PPP MSCHAP authentication failures for the associated VPN service"
    ::= { starPPPStatEntry 30 }

starPPPStatStacComp OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of PPP sessions which had STAC compression enabled for the associated
        VPN service"
    ::= { starPPPStatEntry 31 }

starPPPStatMppcComp OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of PPP sessions which had MPPC compression enabled for the
        associated VPN service"
    ::= { starPPPStatEntry 32 }

starPPPStatDeflComp OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

        "The number of PPP sessions which had DEFLATE compression enabled for the
        associated VPN service"
 ::= { starPPPStatEntry 33 }

starPPPStatFscErrs OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of PPP forward sequence control errors in messaging"
 ::= { starPPPStatEntry 34 }

starPPPStatUnknProto OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of PPP sessions which failed due to an unknown protocol received
        for the associated VPN service"
 ::= { starPPPStatEntry 35 }

starPPPStatBadAddr OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of PPP sessions which failed due to a bad address being received
        for the associated VPN service"
 ::= { starPPPStatEntry 36 }

starPPPStatBadCtrl OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of PPP sessions in which a bad control sequence was received"
 ::= { starPPPStatEntry 37 }

starPPPStatVjComp OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of PPP sessions which had VJ header compression enabled for the
        associated VPN service"
 ::= { starPPPStatEntry 38 }

starPPPStatDiscLcpRemote OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of PPP sessions which were disconnected via the link control protocol
        from the remote end for the associated VPN service"
 ::= { starPPPStatEntry 39 }

starPPPStatDiscRpRemote OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of PPP sessions which were disconnected by the remote via the R-P
        interface for the associated VPN service"
 ::= { starPPPStatEntry 40 }

starPPPStatDiscAdmin OBJECT-TYPE

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The number of PPP sessions which were disconnected by a local administrator
    for the associated VPN service"
 ::= { starPPPStatEntry 41 }

starPPPStatDiscIdleTimeout OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The number of PPP sessions disconnected due to session idle timer expiration for
    the associated VPN service"
 ::= { starPPPStatEntry 42 }

starPPPStatDiscAbsTimeout OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The number of PPP sessions disconnected due to the session absolute timer expiration
    for the associated VPN service"
 ::= { starPPPStatEntry 43 }

starPPPStatDiscPPPKeepalive OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The number of PPP sessions disconnected due to PPP keep alive failure for the
    associated VPN service"
 ::= { starPPPStatEntry 44 }

starPPPStatDiscNoResource OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The number of PPP sessions disconnected due to local resource shortage for the
    associated VPN service"
 ::= { starPPPStatEntry 45 }

starPPPStatDiscMisc OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The number of PPP sessions disconnected due to any cause which does not match
    any other existing disconnect statistics for the associated VPN service"
 ::= { starPPPStatEntry 46 }

starPPPStatFailedReneg OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The number of failed PPP renegotiations the associated VPN service"
 ::= { starPPPStatEntry 47 }

starPPPStatLcpFailUnknown OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The number of failed PPP LCP that are due to unknown reasons

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

    for the associated VPN service"
 ::= { starPPPStatEntry 48 }

starPPPStatIpcpFailUnknown OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of failed PPP IPCP that are due to unknown reasons
        for the associated VPN service"
 ::= { starPPPStatEntry 49 }

starPPPStatAuthAbort OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of aborted PPP authentications
        for the associated VPN service"
 ::= { starPPPStatEntry 50 }

starPPPStatLowerLayerDisc OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of Failed PPP session due to RP disconnect
        for the associated VPN service"
 ::= { starPPPStatEntry 51 }

starPPPStatLcpSuccess OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of successful PPP LCPs
        for the associated VPN service"
 ::= { starPPPStatEntry 52 }

starPPPStatAuthSuccess OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of successful PPP authentications
        for the associated VPN service"
 ::= { starPPPStatEntry 53 }

starPPPStatRenegLowerLayerHandoff OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of PPP renegotiations for RP handoff
        for the associated VPN service"
 ::= { starPPPStatEntry 54 }

starPPPStatRenegParamUpdate OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of PPP renegotiations for parameter update
        for the associated VPN service"
 ::= { starPPPStatEntry 55 }

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```
starPPPStatChapAuthSuccess OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of successful PPP CHAP authentications
        for the associated VPN service"
    ::= { starPPPStatEntry 56 }

starPPPStatPapAuthSuccess OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of successful PPP PAP authentications
        for the associated VPN service"
    ::= { starPPPStatEntry 57 }

starPPPStatMSChapAuthSuccess OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of successful PPP MSCHAP authentications
        for the associated VPN service"
    ::= { starPPPStatEntry 58 }

starPPPStatChapAuthAbort OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of aboted PPP CHAP authentications
        for the associated VPN service"
    ::= { starPPPStatEntry 59 }

starPPPStatPapAuthAbort OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of aboted PPP PAP authentications
        for the associated VPN service"
    ::= { starPPPStatEntry 60 }

starPPPStatMSChapAuthAbort OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of aboted PPP MSCHAP authentications
        for the associated VPN service"
    ::= { starPPPStatEntry 61 }

starPPPStatSessSkipAuth OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of PPP sessions that skipped authentications
        for the associated VPN service"
    ::= { starPPPStatEntry 62 }

starPPPStatNegComp OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

DESCRIPTION
    "The number of PPP sessions that negotiated compressions
    for the associated VPN service"
 ::= { starPPPStatEntry 63 }

starPPPStatCCPNegFailComp OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of PPP sessions that failed compression negotiation
        for the associated VPN service"
    ::= { starPPPStatEntry 64 }

starPPPStatDiscLocalLowerLayer OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of disconnected PPP sessions due to local RP disconnect
        for the associated VPN service"
    ::= { starPPPStatEntry 65 }

starPPPStatDiscAddFlowFail OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of disconnected PPP sessions due to failure in adding new flow
        for the associated VPN service"
    ::= { starPPPStatEntry 66 }

starPPPStatDiscMaxRetriesLCP OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of disconnected PPP sessions due to max retries for LCP
        for the associated VPN service"
    ::= { starPPPStatEntry 67 }

starPPPStatDiscMaxRetriesIPCP OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of disconnected PPP sessions due to max retries for IPCP
        for the associated VPN service"
    ::= { starPPPStatEntry 68 }

starPPPStatDiscMaxSetupTimer OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of disconnected PPP sessions due to max setup time out
        for the associated VPN service"
    ::= { starPPPStatEntry 69 }

starPPPStatDiscInvalidDestVpn OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of disconnected PPP sessions due to invalid destination VPN
        for the associated VPN service"

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

 ::= { starPPPStatEntry 70 }

starPPPStatDiscOptNegFailLCP OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of disconnected PPP sessions due to invalid destination VPN
        for the associated VPN service"
 ::= { starPPPStatEntry 71 }

starPPPStatDiscOptNegFailIPCP OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of disconnected PPP sessions due to failed IPCP option negotiation
        for the associated VPN service"
 ::= { starPPPStatEntry 72 }

starPPPStatDiscNoRemoteIpAddr OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of disconnected PPP sessions due to no remote ip address
        for the associated VPN service"
 ::= { starPPPStatEntry 73 }

starPPPStatDiscCallTypeDetectFail OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of disconnected PPP sessions due to failure detecting call type
        for the associated VPN service"
 ::= { starPPPStatEntry 74 }

starPPPStatDiscRemoteDiscUpLayer OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of disconnected PPP sessions due to failure detecting call type
        for the associated VPN service"
 ::= { starPPPStatEntry 75 }

starPPPStatDiscLongDuraTimeout OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of disconnected PPP sessions due to long duration time out
        for the associated VPN service"
 ::= { starPPPStatEntry 76 }

starPPPStatDiscAuthFail OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of disconnected PPP sessions due to failed authentication
        for the associated VPN service"
 ::= { starPPPStatEntry 77 }

starPPPStatLCPEchoTotalReq OBJECT-TYPE
    SYNTAX      Counter32

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The total number of PPP LCP echo requests
    for the associated VPN service"
::= { starPPPStatEntry 78 }

starPPPStatLCPEchoReqResent OBJECT-TYPE
SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The total number of PPP LCP echo requests resent
    for the associated VPN service"
::= { starPPPStatEntry 79 }

starPPPStatLCPEchoRepRecvd OBJECT-TYPE
SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The total number of PPP LCP echo replys received
    for the associated VPN service"
::= { starPPPStatEntry 80 }

starPPPStatLCPEchoReqTimeout OBJECT-TYPE
SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The total number of PPP LCP echo requests time out
    for the associated VPN service"
::= { starPPPStatEntry 81 }

starPPPStatRecvErrBadCtrlField OBJECT-TYPE
SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The total number of received PPP error due to bad control fields
    for the associated VPN service"
::= { starPPPStatEntry 82 }

starPPPStatRecvErrBadPacketLen OBJECT-TYPE
SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The total number of received PPP error due to bad packet length
    for the associated VPN service"
::= { starPPPStatEntry 83 }

starPPPStatRemoteTerm OBJECT-TYPE
SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The total number of PPP remote terminations
    for the associated VPN service"
::= { starPPPStatEntry 84 }

starPPPStatMiscFail OBJECT-TYPE
SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION

```



## STARENT-MIB DEFINITIONS ::= BEGIN

```

        "The number of misc PPP failures
        for the associated VPN service"
 ::= { starPPPStatEntry 85 }

-- MIPHA Stats

starentMIPHA OBJECT IDENTIFIER ::= { starentMIBObjects 22 }

starMIPHAStatTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF StarMIPHAStatEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "A table containing MIP HA Stats"
    ::= { starentMIPHA 1 }

starMIPHAStatEntry OBJECT-TYPE
    SYNTAX      StarMIPHAStatEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "The Mobile IP home agent statistics for a specific VPN (context) and service"
    INDEX { IMPLIED starMIPHAStatSvcID }
    ::= { starMIPHAStatTable 1 }

StarMIPHAStatEntry ::=
    SEQUENCE {
        starMIPHAStatVpnID          Gauge32,
        starMIPHAStatSvcID          StarShortID,
        starMIPHAStatVpnName        DisplayString,
        starMIPHAStatServName       DisplayString,
        starMIPHAStatDisconnects    Counter32,
        starMIPHAStatExpiry         Counter32,
        starMIPHAStatDereg          Counter32,
        starMIPHAStatAdminDrop      Counter32,
        starMIPHAStatRegRecvTotal   Counter32,
        starMIPHAStatRegRecvInitial Counter32,
        starMIPHAStatRegRecvRenew   Counter32,
        starMIPHAStatRegRecvDereg   Counter32,
        starMIPHAStatRegAcceptTotal Counter32,
        starMIPHAStatRegAcceptReg   Counter32,
        starMIPHAStatRegAcceptRenew Counter32,
        starMIPHAStatRegAcceptDereg Counter32,
        starMIPHAStatRegDeniedTotal Counter32,
        starMIPHAStatRegDeniedInitial Counter32,
        starMIPHAStatRegDeniedRenew Counter32,
        starMIPHAStatRegDeniedDereg Counter32,
        starMIPHAStatRegReplyTotal  Counter32,
        starMIPHAStatRegReplyAcceptReg Counter32,
        starMIPHAStatRegReplyAcceptDereg Counter32,
        starMIPHAStatRegReplyDenied Counter32,
        starMIPHAStatRegReplyBadReq Counter32,
        starMIPHAStatRegReplyMismatchID Counter32,
        starMIPHAStatRegReplyAdminProhib Counter32,
        starMIPHAStatRegReplyUnspecErr Counter32,
        starMIPHAStatRegReplyNoResource Counter32,
        starMIPHAStatRegReplyMnAuthFail Counter32,
        starMIPHAStatRegReplyFAAuthFail Counter32,
        starMIPHAStatRegReplySimulBind Counter32,
        starMIPHAStatRegReplyUnknownHA Counter32,
        starMIPHAStatRegReplyRevTunUnav Counter32,
        starMIPHAStatRegReplyRevTunMand Counter32,
        starMIPHAStatRegReplyEncapUnav Counter32,
        starMIPHAStatRegReplySendError Counter32,
        starMIPHAStatFARevocations  Counter32,
        starMIPHAStatRegAcceptHO    Counter32,

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

    starMIPHASStatRegDeniedHO          Counter32,
    starMIPHASStatRegDiscardTotal     Counter32
  }

starMIPHASStatVpnID OBJECT-TYPE
    SYNTAX      Gauge32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The internal identification of the home agent Mobile IP VPN (context)"
    ::= { starMIPHASStatEntry 1 }

starMIPHASStatSvcID OBJECT-TYPE
    SYNTAX      StarShortID
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "The service identification is made up from first 8 chars of context name
        and first 8 chars of service name separated by (:)"
    ::= { starMIPHASStatEntry 2 }

starMIPHASStatVpnName OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The name of the VPN (context)"
    ::= { starMIPHASStatEntry 3 }

starMIPHASStatServName OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The Mobile IP home agent service name"
    ::= { starMIPHASStatEntry 4 }

starMIPHASStatDisconnects OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of session disconnects for the associated Mobile IP home agent VPN service"
    ::= { starMIPHASStatEntry 5 }

starMIPHASStatExpiry OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of session expirations for the associated Mobile IP home agent VPN service"
    ::= { starMIPHASStatEntry 6 }

starMIPHASStatDereg OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of session deregistrations for the associated Mobile IP home agent VPN service"
    ::= { starMIPHASStatEntry 7 }

starMIPHASStatAdminDrop OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

        "The number of session disconnects due to administrator actions
        for the associated Mobile IP home agent VPN"
 ::= { starMIPHASStatEntry 8 }

starMIPHASStatRegRecvTotal OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of session registrations received for the associated Mobile IP home agent VPN
        service"
 ::= { starMIPHASStatEntry 9 }

starMIPHASStatRegRecvInitial OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of initial session registrations received for the associated Mobile IP home agent VPN
        service"
 ::= { starMIPHASStatEntry 10 }

starMIPHASStatRegRecvRenew OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of session registration renewals received for the associated Mobile IP home agent VPN
        service"
 ::= { starMIPHASStatEntry 11 }

starMIPHASStatRegRecvDereg OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of session deregistrations received for the associated Mobile IP home agent VPN
        service"
 ::= { starMIPHASStatEntry 12 }

starMIPHASStatRegAcceptTotal OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of session registrations accepted for the associated Mobile IP home agent VPN
        service"
 ::= { starMIPHASStatEntry 13 }

starMIPHASStatRegAcceptReg OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of session registrations accepted for the associated Mobile IP home agent VPN
        service"
 ::= { starMIPHASStatEntry 14 }

starMIPHASStatRegAcceptRenew OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of session registration renewals accepted for the associated Mobile IP home agent VPN
        service"
 ::= { starMIPHASStatEntry 15 }

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

starMIPHASStatRegAcceptDereg OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of session deregistrations accepted for the associated Mobile IP home agent VPN
service"
    ::= { starMIPHASStatEntry 16 }

starMIPHASStatRegDeniedTotal OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of session registrations denied for the associated Mobile IP home agent VPN service"
    ::= { starMIPHASStatEntry 17 }

starMIPHASStatRegDeniedInitial OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of session initial registrations denied for the associated Mobile IP home agent VPN
service"
    ::= { starMIPHASStatEntry 18 }

starMIPHASStatRegDeniedRenew OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of session registration renewals denied for the associated Mobile IP home agent VPN
service"
    ::= { starMIPHASStatEntry 19 }

starMIPHASStatRegDeniedDereg OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of session deregistrations denied for the associated Mobile IP home agent VPN
service"
    ::= { starMIPHASStatEntry 20 }

starMIPHASStatRegReplyTotal OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The total number of session registration replies for the associated Mobile IP home agent VPN
service"
    ::= { starMIPHASStatEntry 21 }

starMIPHASStatRegReplyAcceptReg OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of session registration replies accepted indicating registration
for the associated Mobile IP home agent VPN service"
    ::= { starMIPHASStatEntry 22 }

starMIPHASStatRegReplyAcceptDereg OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

DESCRIPTION
    "The number of session registration replies accepted indicated deregistration
    for the associated Mobile IP home agent VPN service"
 ::= { starMIPHASStatEntry 23 }

starMIPHASStatRegReplyDenied OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of session registration replies which were denied
        for the associated Mobile IP home agent VPN service"
    ::= { starMIPHASStatEntry 24 }

starMIPHASStatRegReplyBadReq OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of session registration replies indicating a bad request
        for the associated Mobile IP home agent VPN service"
    ::= { starMIPHASStatEntry 25 }

starMIPHASStatRegReplyMismatchID OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of session registration replies indicating an ID mismatch
        for the associated Mobile IP home agent VPN service"
    ::= { starMIPHASStatEntry 26 }

starMIPHASStatRegReplyAdminProhib OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of session registration replies indicating administrator prohibition
        for the associated Mobile IP home agent VPN service"
    ::= { starMIPHASStatEntry 27 }

starMIPHASStatRegReplyUnspecErr OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of session registration replies with an unspecified error
        for the associated Mobile IP home agent VPN service"
    ::= { starMIPHASStatEntry 28 }

starMIPHASStatRegReplyNoResource OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of session registration replies indicating no resources
        for the associated Mobile IP home agent VPN service"
    ::= { starMIPHASStatEntry 29 }

starMIPHASStatRegReplyMnAuthFail OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of session registration replies indication mobile number authentication failure
        for the associated Mobile IP home agent VPN service"
    ::= { starMIPHASStatEntry 30 }

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

starMIPHASatRegReplyFAAuthFail OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of session registration replies indicating a foreign agent authentication
        failure for the associated Mobile IP home agent VPN service"
    ::= { starMIPHASatEntry 31 }

starMIPHASatRegReplySimulBind OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of session registration replies indicating a simultaneous bind condition
        for the associated Mobile IP home agent VPN service"
    ::= { starMIPHASatEntry 32 }

starMIPHASatRegReplyUnknownHA OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of session registration replies indicating unknown home agent
        for the associated Mobile IP home agent VPN service"
    ::= { starMIPHASatEntry 33 }

starMIPHASatRegReplyRevTunUnav OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of session registration replies indicating no reverse tunnel available
        for the associated Mobile IP home agent VPN service"
    ::= { starMIPHASatEntry 34 }

starMIPHASatRegReplyRevTunMand OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of session registration replies indicating reverse tunneling is
        mandatory for the associated Mobile IP home agent VPN service"
    ::= { starMIPHASatEntry 35 }

starMIPHASatRegReplyEncapUnav OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of session registration replies indicating IP encapsulation was not
        available for the associated Mobile IP home agent VPN service"
    ::= { starMIPHASatEntry 36 }

starMIPHASatRegReplySendError OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of session registration replies indicating a send error occurred
        for the associated Mobile IP home agent VPN service"
    ::= { starMIPHASatEntry 37 }

starMIPHASatFARevocations OBJECT-TYPE
    SYNTAX      Counter32

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The number of FA revocations
    for the associated Mobile IP home agent VPN service"
 ::= { starMIPHASTatEntry 38 }

starMIPHASTatRegAcceptHO OBJECT-TYPE
SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The number of hand over session registrations accepted
    for the associated Mobile IP home agent VPN service"
 ::= { starMIPHASTatEntry 39 }

starMIPHASTatRegDeniedHO OBJECT-TYPE
SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The number of hand over session registrations denied
    for the associated Mobile IP home agent VPN service"
 ::= { starMIPHASTatEntry 40 }

starMIPHASTatRegDiscardTotal OBJECT-TYPE
SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The number of session registrations discarded
    for the associated Mobile IP home agent VPN service"
 ::= { starMIPHASTatEntry 41 }

-- MIPFA Stats

starentMIPFA OBJECT IDENTIFIER ::= { starentMIBObjects 23 }

starMIPFAStatTable OBJECT-TYPE
SYNTAX SEQUENCE OF StarMIPFAStatEntry
MAX-ACCESS not-accessible
STATUS current
DESCRIPTION
    "A table containing MIP FA Stats"
 ::= { starentMIPFA 1 }

starMIPFAStatEntry OBJECT-TYPE
SYNTAX StarMIPFAStatEntry
MAX-ACCESS not-accessible
STATUS current
DESCRIPTION
    "The statistics for a specific foreign agent Mobile IP VPN (context) service"
INDEX { IMPLIED starMIPFAStatSvcID }
 ::= { starMIPFAStatTable 1 }

StarMIPFAStatEntry ::=
SEQUENCE {
    starMIPFAStatVpnID Gauge32,
    starMIPFAStatSvcID StarShortID,
    starMIPFAStatVpnName DisplayString,
    starMIPFAStatServName DisplayString,
    starMIPFAStatAdvertSend Counter32,
    starMIPFAStatDiscExpiry Counter32,
    starMIPFAStatDiscDereg Counter32,
    starMIPFAStatDiscAdmin Counter32,
    starMIPFAStatAuthAttempt Counter32,
    starMIPFAStatAuthSuccess Counter32,

```

```

starMIPFASStatAuthFailure           Counter32,
starMIPFASStatRegRecvTotal          Counter32,
starMIPFASStatRegRecvInitial        Counter32,
starMIPFASStatRegRecvRenewal        Counter32,
starMIPFASStatRegRecvDereg          Counter32,
starMIPFASStatRegAcceptTotal        Counter32,
starMIPFASStatRegAcceptInitial      Counter32,
starMIPFASStatRegAcceptRenewal      Counter32,
starMIPFASStatRegAcceptDereg        Counter32,
starMIPFASStatRegDenTotal            Counter32,
starMIPFASStatRegDenInitial          Counter32,
starMIPFASStatRegDenRenewal          Counter32,
starMIPFASStatRegDenDereg            Counter32,
starMIPFASStatRegDiscardTotal        Counter32,
starMIPFASStatRegDiscardInitial      Counter32,
starMIPFASStatRegDiscardRenewal      Counter32,
starMIPFASStatRegDiscardDereg        Counter32,
starMIPFASStatRegRelayedTotal        Counter32,
starMIPFASStatRegRelayedInitial      Counter32,
starMIPFASStatRegRelayedRenewal      Counter32,
starMIPFASStatRegRelayedDereg        Counter32,
starMIPFASStatRegAuthFailTotal       Counter32,
starMIPFASStatRegAuthFailInitial     Counter32,
starMIPFASStatRegAuthFailRenewal     Counter32,
starMIPFASStatRegAuthFailDereg       Counter32,
starMIPFASStatRegDenPDSNTotal        Counter32,
starMIPFASStatRegDenPDSNInitial      Counter32,
starMIPFASStatRegDenPDSNRenewal      Counter32,
starMIPFASStatRegDenPDSNDereg        Counter32,
starMIPFASStatRegDenHATotal          Counter32,
starMIPFASStatRegDenHAInitial        Counter32,
starMIPFASStatRegDenHARenewal        Counter32,
starMIPFASStatRegDenHADereg          Counter32,
starMIPFASStatRegDenPDSNUnspec       Counter32,
starMIPFASStatRegDenPDSNTimeout      Counter32,
starMIPFASStatRegDenPDSNAdmin         Counter32,
starMIPFASStatRegDenPDSNResources     Counter32,
starMIPFASStatRegDenPDSNMnAuth        Counter32,
starMIPFASStatRegDenPDSNHAAuth       Counter32,
starMIPFASStatRegDenPDSNTooLong       Counter32,
starMIPFASStatRegDenPDSNBadReq        Counter32,
starMIPFASStatRegDenPDSNEncapUnav     Counter32,
starMIPFASStatRegDenPDSNRevTunUnav    Counter32,
starMIPFASStatRegDenPDSNRevTunMand    Counter32,
starMIPFASStatRegDenHAFAAuth          Counter32,
starMIPFASStatRegDenHABadReq          Counter32,
starMIPFASStatRegDenHAMismatchID      Counter32,
starMIPFASStatRegDenHASimulBind       Counter32,
starMIPFASStatRegDenHAUnknownHA       Counter32,
starMIPFASStatRegDenHARevRunUnavail   Counter32,
starMIPFASStatRegRplRcvTotal          Counter32,
starMIPFASStatRegRplRcvTotalRly       Counter32,
starMIPFASStatRegRplRcvErrors         Counter32,
starMIPFASStatRegRplRcvInitial        Counter32,
starMIPFASStatRegRplRcvInitialRly     Counter32,
starMIPFASStatRegRplRcvRenewal        Counter32,
starMIPFASStatRegRplRcvRenewalRly     Counter32,
starMIPFASStatRegRplRcvDereg          Counter32,
starMIPFASStatRegRplRcvDeregRly       Counter32,
starMIPFASStatRegRplSentTotal         Counter32,
starMIPFASStatRegRplSentAcceptReg     Counter32,
starMIPFASStatRegRplSentAcceptDereg   Counter32,
starMIPFASStatRegRplSentBadReq        Counter32,
starMIPFASStatRegRplSentTooLong       Counter32,
starMIPFASStatRegRplSentMnAuthFail    Counter32,
starMIPFASStatRegRplSentHAAuthFail    Counter32,

```



## STARENT-MIB DEFINITIONS ::= BEGIN

```

        starMIPFASatRegRplSentAdminProhib      Counter32,
        starMIPFASatRegRplSentNoResources      Counter32,
        starMIPFASatRegRplSentRevTunUnav      Counter32,
        starMIPFASatRegRplSentRevTunMand      Counter32,
        starMIPFASatRegRplSentSendErrors      Counter32,
starMIPFASatRegDenPDSNBadReply                Counter32,
starMIPFASatRegDenPDSNMissNAI                Counter32,
starMIPFASatRegDenPDSNMissHomeAgent          Counter32,
starMIPFASatRegDenPDSNMissHomeAddr          Counter32,
starMIPFASatRegDenPDSNUnknChallenge          Counter32,
starMIPFASatRegDenPDSNMissChallenge          Counter32,
starMIPFASatRegDenPDSNStaleChallenge         Counter32,
starMIPFASatRegDenPDSNMNTooDistant          Counter32,
starMIPFASatRegDenPDSNStyleUnavail          Counter32,
starMIPFASatRegDenPDSNHANetUnreach          Counter32,
starMIPFASatRegDenPDSNHAAHostUnreach        Counter32,
starMIPFASatRegDenPDSNHAPortUnreach         Counter32,
starMIPFASatRegDenPDSNHAAUnreach            Counter32,
starMIPFASatRegDenPDSNInvCOA                 Counter32,
starMIPFASatRegReqSentInitTotal             Counter32,
starMIPFASatRegReqSentInitResend            Counter32,
starMIPFASatRegReqSentRenewTotal            Counter32,
starMIPFASatRegReqSentRenewResend           Counter32,
starMIPFASatRegReqSentDeregTotal            Counter32,
starMIPFASatRegReqSentDeregResend           Counter32,
starMIPFASatRegRplSentMNTooDistant          Counter32,
starMIPFASatRegRplSentInvCOA                Counter32,
starMIPFASatRegRplSentHANetUnreach          Counter32,
starMIPFASatRegRplSentHAAHostUnreach        Counter32,
starMIPFASatRegRplSentHAPortUnreach         Counter32,
starMIPFASatRegRplSentHAAUnreach            Counter32,
starMIPFASatRegRplSentRegTimeout            Counter32,
starMIPFASatRegRplSentMissNAI              Counter32,
starMIPFASatRegRplSentMissHomeAgent         Counter32,
starMIPFASatRegRplSentMissHomeAddr         Counter32,
starMIPFASatRegRplSentUnknChallenge          Counter32,
starMIPFASatRegRplSentMissChallenge         Counter32,
starMIPFASatRegRplSentStaleChallenge        Counter32,
starMIPFASatRegRplSentBadReply              Counter32
}

starMIPFASatVpnID OBJECT-TYPE
    SYNTAX      Gauge32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Internal identification of the foreign agent Mobile IP VPN (context)"
    ::= { starMIPFASatEntry 1 }

starMIPFASatSvcID OBJECT-TYPE
    SYNTAX      StarShortID
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "The service identification is made up from first 8 chars of context name
        and first 8 chars of service name separated by (:)"
    ::= { starMIPFASatEntry 2 }

starMIPFASatVpnName OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The foreign agent mobile IP VPN (context) name"
    ::= { starMIPFASatEntry 3 }

starMIPFASatServName OBJECT-TYPE

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

SYNTAX      DisplayString
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The Mobile IP foreign agent service name"
 ::= { starMIPFAStatEntry 4 }

starMIPFAStatAdvertSend OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The number of advertisements sent for the associated Mobile IP foreign agent VPN service"
 ::= { starMIPFAStatEntry 5 }

starMIPFAStatDiscExpiry OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The number of session disconnects due to expiration for the associated Mobile IP foreign agent
VPN service"
 ::= { starMIPFAStatEntry 6 }

starMIPFAStatDiscDereg OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The number of session disconnects due to deregistration for the associated Mobile IP foreign
agent VPN service"
 ::= { starMIPFAStatEntry 7 }

starMIPFAStatDiscAdmin OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The number of session disconnects due to administrator action for the associated Mobile IP
foreign agent VPN service"
 ::= { starMIPFAStatEntry 8 }

starMIPFAStatAuthAttempt OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The number of session authentication attempts for the associated Mobile IP foreign agent VPN
service"
 ::= { starMIPFAStatEntry 9 }

starMIPFAStatAuthSuccess OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The number of session authentication successes for the associated Mobile IP foreign agent VPN
service"
 ::= { starMIPFAStatEntry 10 }

starMIPFAStatAuthFailure OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

        "The number of session authentication failures for the associated Mobile IP foreign agent VPN
service"
        ::= { starMIPFASatEntry 11 }

starMIPFASatRegRecvTotal OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The total number of session registrations received for the associated Mobile IP foreign agent
VPN service"
        ::= { starMIPFASatEntry 12 }

starMIPFASatRegRecvInitial OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of initial session registrations received for the associated Mobile IP foreign agent
VPN service"
        ::= { starMIPFASatEntry 13 }

starMIPFASatRegRecvRenewal OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of session registration renewals for the associated Mobile IP foreign agent VPN
service"
        ::= { starMIPFASatEntry 14 }

starMIPFASatRegRecvDereg OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of session deregistrations for the associated Mobile IP foreign agent VPN service"
        ::= { starMIPFASatEntry 15 }

starMIPFASatRegAcceptTotal OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The total number of session registrations accepted for the associated Mobile IP foreign agent
VPN service"
        ::= { starMIPFASatEntry 16 }

starMIPFASatRegAcceptInitial OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of initial session registrations accepted for the associated Mobile IP foreign agent
VPN service"
        ::= { starMIPFASatEntry 17 }

starMIPFASatRegAcceptRenewal OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of session registration renewals accepted for the associated Mobile IP foreign agent
VPN service"
        ::= { starMIPFASatEntry 18 }

starMIPFASatRegAcceptDereg OBJECT-TYPE

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The number of session deregistrations accepted for the associated Mobile IP foreign agent VPN
service"
 ::= { starMIPFAStatEntry 19 }

starMIPFAStatRegDenTotal OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The total number of session registrations denied for the associated Mobile IP foreign agent VPN
service"
 ::= { starMIPFAStatEntry 20 }

starMIPFAStatRegDenInitial OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The number of initial session registrations denied for the associated Mobile IP foreign agent
VPN service"
 ::= { starMIPFAStatEntry 21 }

starMIPFAStatRegDenRenewal OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The number of session registration renewals denied for the associated Mobile IP foreign agent
VPN service"
 ::= { starMIPFAStatEntry 22 }

starMIPFAStatRegDenDereg OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The number of session deregistrations denied for the associated Mobile IP foreign agent VPN
service"
 ::= { starMIPFAStatEntry 23 }

starMIPFAStatRegDiscardTotal OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The total number of session registrations discarded for the associated Mobile IP foreign agent
VPN service"
 ::= { starMIPFAStatEntry 24 }

starMIPFAStatRegDiscardInitial OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The total number of session registrations discarded for the associated Mobile IP foreign agent
VPN service"
 ::= { starMIPFAStatEntry 25 }

starMIPFAStatRegDiscardRenewal OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

DESCRIPTION
    "The number of session registration renewals discarded for the associated Mobile IP foreign agent
VPN service"
    ::= { starMIPFASatEntry 26 }

starMIPFASatRegDiscardDereg OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of session reregistrations discarded for the associated Mobile IP foreign agent VPN
service"
    ::= { starMIPFASatEntry 27 }

starMIPFASatRegRelayedTotal OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The total number of session registrations relayed for the associated Mobile IP foreign agent VPN
service"
    ::= { starMIPFASatEntry 28 }

starMIPFASatRegRelayedInitial OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of initial session registrations relayed for the associated Mobile IP foreign agent
VPN service"
    ::= { starMIPFASatEntry 29 }

starMIPFASatRegRelayedRenewal OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of session registration renewals relayed for the associated Mobile IP foreign agent
VPN service"
    ::= { starMIPFASatEntry 30 }

starMIPFASatRegRelayedDereg OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of session deregistrations relayed for the associated Mobile IP foreign agent VPN
service"
    ::= { starMIPFASatEntry 31 }

starMIPFASatRegAuthFailTotal OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The total number of session registration authentication failures for the associated Mobile IP
foreign agent VPN service"
    ::= { starMIPFASatEntry 32 }

starMIPFASatRegAuthFailInitial OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of initial session registration failures for the associated Mobile IP foreign agent
VPN service"
    ::= { starMIPFASatEntry 33 }

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

starMIPFASatRegAuthFailRenewal OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of session registration renewal failures for the associated Mobile IP foreign agent
VPN service"
    ::= { starMIPFASatEntry 34 }

starMIPFASatRegAuthFailDereg OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of session deregistration authentication failures for the associated Mobile IP
foreign agent VPN service"
    ::= { starMIPFASatEntry 35 }

starMIPFASatRegDenPDSNTotal OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The total number of PDSN session registrations denied for the associated Mobile IP foreign agent
VPN service"
    ::= { starMIPFASatEntry 36 }

starMIPFASatRegDenPDSNInitial OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of initial PDSN session registrations denied for the associated Mobile IP foreign
agent VPN service"
    ::= { starMIPFASatEntry 37 }

starMIPFASatRegDenPDSNRenewal OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of PDSN session registration renewals denied for the associated Mobile IP foreign
agent VPN service"
    ::= { starMIPFASatEntry 38 }

starMIPFASatRegDenPDSNDereg OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of PDSN session deregistrations denied for the associated Mobile IP foreign agent VPN
service"
    ::= { starMIPFASatEntry 39 }

starMIPFASatRegDenHATotal OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The total number of session deregistrations denied by the home agent
for the associated Mobile IP foreign agent VPN service"
    ::= { starMIPFASatEntry 40 }

starMIPFASatRegDenHAInitial OBJECT-TYPE
    SYNTAX      Counter32

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The number of initial session registrations denied by the home agent
    for the associated Mobile IP foreign agent VPN service"
 ::= { starMIPFASatEntry 41 }

starMIPFASatRegDenHARenewal OBJECT-TYPE
SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The number of session registration renewals denied by the home agent
    for the associated Mobile IP foreign agent VPN service"
 ::= { starMIPFASatEntry 42 }

starMIPFASatRegDenHADereg OBJECT-TYPE
SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The number of session deregistrations denied by the home agent
    for the associated Mobile IP foreign agent VPN service"
 ::= { starMIPFASatEntry 43 }

starMIPFASatRegDenPDSNUnspec OBJECT-TYPE
SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The number of PDSN session registrations denied for an unspecified reason
    for the associated Mobile IP foreign agent VPN service"
 ::= { starMIPFASatEntry 44 }

starMIPFASatRegDenPDSNTimeout OBJECT-TYPE
SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The number of PDSN session registrations denied due to timer expiration
    for the associated Mobile IP foreign agent VPN service"
 ::= { starMIPFASatEntry 45 }

starMIPFASatRegDenPDSNAdmin OBJECT-TYPE
SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The number of PDSN session registrations denied due to administrator prohibition
    for the associated Mobile IP foreign agent VPN service"
 ::= { starMIPFASatEntry 46 }

starMIPFASatRegDenPDSNResources OBJECT-TYPE
SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The number of PDSN session registrations denied due to no resources
    for the associated Mobile IP foreign agent VPN service"
 ::= { starMIPFASatEntry 47 }

starMIPFASatRegDenPDSNMnAuth OBJECT-TYPE
SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The number of PDSN session registrations denied due to mobile number authentication

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

    for the associated Mobile IP foreign agent VPN service"
 ::= { starMIPFAStatEntry 48 }

starMIPFAStatRegDenPDSNHAAuth OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of PDSN session registrations denied by the home agent
        for the associated Mobile IP foreign agent VPN service"
 ::= { starMIPFAStatEntry 49 }

starMIPFAStatRegDenPDSNTooLong OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of PDSN session registrations denied due to a life too long indication
        for the associated Mobile IP foreign agent VPN service"
 ::= { starMIPFAStatEntry 50 }

starMIPFAStatRegDenPDSNBadReq OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of PDSN session registrations denied due to a bad request indication
        for the associated Mobile IP foreign agent VPN service"
 ::= { starMIPFAStatEntry 51 }

starMIPFAStatRegDenPDSNEncapUnav OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of PDSN session registrations denied due to no IP encapsulation available
        for the associated Mobile IP foreign agent VPN service"
 ::= { starMIPFAStatEntry 52 }

starMIPFAStatRegDenPDSNRevTunUnav OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of PDSN session registrations denied due to no reverse tunnel available
        for the associated Mobile IP foreign agent VPN service"
 ::= { starMIPFAStatEntry 53 }

starMIPFAStatRegDenPDSNRevTunMand OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of PDSN session registration denied due to reverse tunneling being
        mandatory for the associated Mobile IP foreign agent VPN service"
 ::= { starMIPFAStatEntry 54 }

starMIPFAStatRegDenHAFAuth OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of PDSN registrations denied by the home agent due to authentication
        failure for the associated Mobile IP foreign agent VPN service"
 ::= { starMIPFAStatEntry 55 }

```



## STARENT-MIB DEFINITIONS ::= BEGIN

```

starMIPFASatRegDenHABadReq OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of session registration denied by the home agent due to the request
        being invalid for the associated Mobile IP foreign agent VPN service"
    ::= { starMIPFASatEntry 56 }

starMIPFASatRegDenHAMismatchID OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of session registrations denied by the home agent due to an ID
        mismatch for the associated Mobile IP foreign agent VPN service"
    ::= { starMIPFASatEntry 57 }

starMIPFASatRegDenHASimulBind OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of session registrations denied by the home agent due to a simultaneous
        bind attempt for the associated Mobile IP foreign agent VPN service"
    ::= { starMIPFASatEntry 58 }

starMIPFASatRegDenHAUnknownHA OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of session registrations denied by the home agent for an unknown reason
        for the associated Mobile IP foreign agent VPN service"
    ::= { starMIPFASatEntry 59 }

starMIPFASatRegDenHARevRunUnavail OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of session registrations denied by the home agent due to no reverse
        tunnel being available for the associated Mobile IP foreign agent VPN service"
    ::= { starMIPFASatEntry 60 }

starMIPFASatRegRplRcvTotal OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The total number of session registration replies received
        for the associated Mobile IP foreign agent VPN service"
    ::= { starMIPFASatEntry 61 }

starMIPFASatRegRplRcvTotalRly OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The total number of session registration replies relayed
        for the associated Mobile IP foreign agent VPN service"
    ::= { starMIPFASatEntry 62 }

starMIPFASatRegRplRcvErrors OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current

```

## STARENT-MIB DEFINITIONS ::= BEGIN

## DESCRIPTION

"The total number of session registration replies received indicating errors for the associated Mobile IP foreign agent VPN service"

::= { starMIPFASatEntry 63 }

## starMIPFASatRegRplRcvInitial OBJECT-TYPE

SYNTAX Counter32

MAX-ACCESS read-only

STATUS current

## DESCRIPTION

"The number of initial session registration replies received for the associated Mobile IP foreign agent VPN service"

::= { starMIPFASatEntry 64 }

## starMIPFASatRegRplRcvInitialRly OBJECT-TYPE

SYNTAX Counter32

MAX-ACCESS read-only

STATUS current

## DESCRIPTION

"The number of initial session registration replies relayed for the associated Mobile IP foreign agent VPN service"

::= { starMIPFASatEntry 65 }

## starMIPFASatRegRplRcvRenewal OBJECT-TYPE

SYNTAX Counter32

MAX-ACCESS read-only

STATUS current

## DESCRIPTION

"The number of session registration renewal replies received for the associated Mobile IP foreign agent VPN service"

::= { starMIPFASatEntry 66 }

## starMIPFASatRegRplRcvRenewalRly OBJECT-TYPE

SYNTAX Counter32

MAX-ACCESS read-only

STATUS current

## DESCRIPTION

"The number of session registration renewal replies received for the associated Mobile IP foreign agent VPN service"

::= { starMIPFASatEntry 67 }

## starMIPFASatRegRplRcvDereg OBJECT-TYPE

SYNTAX Counter32

MAX-ACCESS read-only

STATUS current

## DESCRIPTION

"The number of session registration replies received indicating deregistration for the associated Mobile IP foreign agent VPN service"

::= { starMIPFASatEntry 68 }

## starMIPFASatRegRplRcvDeregRly OBJECT-TYPE

SYNTAX Counter32

MAX-ACCESS read-only

STATUS current

## DESCRIPTION

"The number of session registration replies relayed indicating deregistration for the associated Mobile IP foreign agent VPN service"

::= { starMIPFASatEntry 69 }

## starMIPFASatRegRplSentTotal OBJECT-TYPE

SYNTAX Counter32

MAX-ACCESS read-only

STATUS current

## DESCRIPTION

"The total number of session registration replies sent for the associated Mobile IP foreign agent VPN service"

## STARENT-MIB DEFINITIONS ::= BEGIN

```

 ::= { starMIPFASStatEntry 70 }

starMIPFASStatRegRplSentAcceptReg OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of session registration replies which were sent and accepted
        for the associated Mobile IP foreign agent VPN service"
 ::= { starMIPFASStatEntry 71 }

starMIPFASStatRegRplSentAcceptDereg OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of session registration replies which were sent and accepted indication
        deregistration for the associated Mobile IP foreign agent VPN service"
 ::= { starMIPFASStatEntry 72 }

starMIPFASStatRegRplSentBadReq OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of session registration replies which were sent indicating the request
        was invalid for the associated Mobile IP foreign agent VPN service"
 ::= { starMIPFASStatEntry 73 }

starMIPFASStatRegRplSentTooLong OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of session registration replies which were sent indicating life too long
        for the associated Mobile IP foreign agent VPN service"
 ::= { starMIPFASStatEntry 74 }

starMIPFASStatRegRplSentMnAuthFail OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of session registration replies which were sent indicating mobile number
        authentication failure for the associated Mobile IP foreign agent VPN service"
 ::= { starMIPFASStatEntry 75 }

starMIPFASStatRegRplSentHAAuthFail OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of session registration replies which were sent indicating home agent
        authentication failure for the associated Mobile IP foreign agent VPN service"
 ::= { starMIPFASStatEntry 76 }

starMIPFASStatRegRplSentAdminProhib OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of session registration replies which were sent indicating prohibited
        by the administration for the associated Mobile IP foreign agent VPN service"
 ::= { starMIPFASStatEntry 77 }

starMIPFASStatRegRplSentNoResources OBJECT-TYPE
    SYNTAX      Counter32

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The number of session registration replies which were sent indicating no resources
    available for the associated Mobile IP foreign agent VPN service"
::= { starMIPFASStatEntry 78 }

starMIPFASStatRegRplSentRevTunUnav OBJECT-TYPE
SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The number of session registration replies which were sent indicating no reverse
    tunnel available for the associated Mobile IP foreign agent VPN service"
::= { starMIPFASStatEntry 79 }

starMIPFASStatRegRplSentRevTunMand OBJECT-TYPE
SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The number of session registration replies which were sent indicating reverse
    tunneling was mandatory for the associated Mobile IP foreign agent VPN service"
::= { starMIPFASStatEntry 80 }

starMIPFASStatRegRplSentSendErrors OBJECT-TYPE
SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The number of session registration replies which were sent indicating there were
    errors in transmission for the associated Mobile IP foreign agent VPN service"
::= { starMIPFASStatEntry 81 }

starMIPFASStatRegDenPDSNBadReply OBJECT-TYPE
SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The number of session registrations denied by PDSN due to bad relply from HA
    for the associated Mobile IP foreign agent VPN service"
::= { starMIPFASStatEntry 82 }

starMIPFASStatRegDenPDSNMissNAI OBJECT-TYPE
SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The number of session registrations denied by PDSN due to missing NAI
    for the associated Mobile IP foreign agent VPN service"
::= { starMIPFASStatEntry 83 }

starMIPFASStatRegDenPDSNMissHomeAgent OBJECT-TYPE
SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The number of session registrations denied by PDSN due to missing home agent
    for the associated Mobile IP foreign agent VPN service"
::= { starMIPFASStatEntry 84 }

starMIPFASStatRegDenPDSNMissHomeAddr OBJECT-TYPE
SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

        "The number of session registrations denied by PDSN due to missing home address
        for the associated Mobile IP foreign agent VPN service"
 ::= { starMIPFAStatEntry 85 }

starMIPFAStatRegDenPDSNUnknChallenge OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The number of session registrations denied by PDSN due to unknown challenge
    for the associated Mobile IP foreign agent VPN service"
 ::= { starMIPFAStatEntry 86 }

starMIPFAStatRegDenPDSNMissChallenge OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The number of session registrations denied by PDSN due to missing challenge
    for the associated Mobile IP foreign agent VPN service"
 ::= { starMIPFAStatEntry 87 }

starMIPFAStatRegDenPDSNStaleChallenge OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The number of session registrations denied by PDSN due to stale challenge
    for the associated Mobile IP foreign agent VPN service"
 ::= { starMIPFAStatEntry 88 }

starMIPFAStatRegDenPDSNMNTooDistant OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The number of session registrations denied by PDSN due to MN too distant
    for the associated Mobile IP foreign agent VPN service"
 ::= { starMIPFAStatEntry 89 }

starMIPFAStatRegDenPDSNStyleUnavail OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The number of session registration denied by PDSN due to style not available
    for the associated Mobile IP foreign agent VPN service"
 ::= { starMIPFAStatEntry 90 }

starMIPFAStatRegDenPDSNHANetUnreach OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The number of session registrations denied by PDSN due to HA network unreachable
    for the associated Mobile IP foreign agent VPN service"
 ::= { starMIPFAStatEntry 91 }

starMIPFAStatRegDenPDSNHAAHostUnreach OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The number of session registrations denied by PDSN due to HA host unreachable
    for the associated Mobile IP foreign agent VPN service"
 ::= { starMIPFAStatEntry 92 }

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

starMIPFASatRegDenPDSNHAUnreach OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of session registrations denied by PDSN due to HA port unreachable
        for the associated Mobile IP foreign agent VPN service"
    ::= { starMIPFASatEntry 93 }

starMIPFASatRegDenPDSNHAUnreach OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of session registrations denied by PDSN
        due to HA unreachable for misc reasons
        for the associated Mobile IP foreign agent VPN service"
    ::= { starMIPFASatEntry 94 }

starMIPFASatRegDenPDSNInvCOA OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of session registrations denied by PDSN due to invalid COA
        for the associated Mobile IP foreign agent VPN service"
    ::= { starMIPFASatEntry 95 }

starMIPFASatRegReqSentInitTotal OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of initial session registrations
        for the associated Mobile IP foreign agent VPN service"
    ::= { starMIPFASatEntry 96 }

starMIPFASatRegReqSentInitResend OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of initial session registrations retried
        for the associated Mobile IP foreign agent VPN service"
    ::= { starMIPFASatEntry 97 }

starMIPFASatRegReqSentRenewTotal OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of renewal session registrations
        for the associated Mobile IP foreign agent VPN service"
    ::= { starMIPFASatEntry 98 }

starMIPFASatRegReqSentRenewResend OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of renewal session registrations retried
        for the associated Mobile IP foreign agent VPN service"
    ::= { starMIPFASatEntry 99 }

starMIPFASatRegReqSentDeregTotal OBJECT-TYPE
    SYNTAX      Counter32

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The number of session deregistrations
    for the associated Mobile IP foreign agent VPN service"
 ::= { starMIPFAStatEntry 100 }

starMIPFAStatRegReqSentDeregResend OBJECT-TYPE
SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The number of session deregistrations retried
    for the associated Mobile IP foreign agent VPN service"
 ::= { starMIPFAStatEntry 101 }

starMIPFAStatRegRplSentMNTooDistant OBJECT-TYPE
SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The number of session registration reply that indicate MN too distant
    for the associated Mobile IP foreign agent VPN service"
 ::= { starMIPFAStatEntry 102 }

starMIPFAStatRegRplSentInvCOA OBJECT-TYPE
SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The number of session registration reply that indicate invalid COA
    for the associated Mobile IP foreign agent VPN service"
 ::= { starMIPFAStatEntry 103 }

starMIPFAStatRegRplSentHAnetUnreach OBJECT-TYPE
SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The number of session registration reply that indicate HA network unreachable
    for the associated Mobile IP foreign agent VPN service"
 ::= { starMIPFAStatEntry 104 }

starMIPFAStatRegRplSentHAHostUnreach OBJECT-TYPE
SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The number of session registration reply that indicate HA host unreachable
    for the associated Mobile IP foreign agent VPN service"
 ::= { starMIPFAStatEntry 105 }

starMIPFAStatRegRplSentHAPortUnreach OBJECT-TYPE
SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The number of session registration reply that indicate HA port unreachable
    for the associated Mobile IP foreign agent VPN service"
 ::= { starMIPFAStatEntry 106 }

starMIPFAStatRegRplSentHAUnreach OBJECT-TYPE
SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The number of session registration reply that indicate

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

    HA unreachable due to misc reasons
    for the associated Mobile IP foreign agent VPN service"
 ::= { starMIPFASStatEntry 107 }

```

```
starMIPFASStatRegRplSentRegTimeout OBJECT-TYPE
```

```

SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The number of session registration reply that indicate registration time out
    for the associated Mobile IP foreign agent VPN service"
 ::= { starMIPFASStatEntry 108 }

```

```
starMIPFASStatRegRplSentMissNAI OBJECT-TYPE
```

```

SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The number of session registration reply that indicate NAI missing
    for the associated Mobile IP foreign agent VPN service"
 ::= { starMIPFASStatEntry 109 }

```

```
starMIPFASStatRegRplSentMissHomeAgent OBJECT-TYPE
```

```

SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The number of session registration reply that indicate HA missing
    for the associated Mobile IP foreign agent VPN service"
 ::= { starMIPFASStatEntry 110 }

```

```
starMIPFASStatRegRplSentMissHomeAddr OBJECT-TYPE
```

```

SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The number of session registration reply that indicate home address missing
    for the associated Mobile IP foreign agent VPN service"
 ::= { starMIPFASStatEntry 111 }

```

```
starMIPFASStatRegRplSentUnknChallenge OBJECT-TYPE
```

```

SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The number of session registration reply that indicate unknown challenge
    for the associated Mobile IP foreign agent VPN service"
 ::= { starMIPFASStatEntry 112 }

```

```
starMIPFASStatRegRplSentMissChallenge OBJECT-TYPE
```

```

SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The number of session registration reply that indicate challenge missing
    for the associated Mobile IP foreign agent VPN service"
 ::= { starMIPFASStatEntry 113 }

```

```
starMIPFASStatRegRplSentStaleChallenge OBJECT-TYPE
```

```

SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The number of session registration reply that indicate stale challenge
    for the associated Mobile IP foreign agent VPN service"
 ::= { starMIPFASStatEntry 114 }

```



## STARENT-MIB DEFINITIONS ::= BEGIN

```

starMIPFASatRegRplSentBadReply OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of session registration reply that indicate bad reply
        for the associated Mobile IP foreign agent VPN service"
    ::= { starMIPFASatEntry 115 }

```

```
-- RP Stats
```

```
starentRP OBJECT IDENTIFIER ::= { starentMIBObjects 24 }
```

```

starRPStatTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF StarRPStatEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "A table containing MIP FA Stats"
    ::= { starentRP 1 }

```

```

starRPStatEntry OBJECT-TYPE
    SYNTAX      StarRPStatEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "The statistics for a specific R-P VPN (context) service"
    INDEX { IMPLIED starRPStatSvcID }
    ::= { starRPStatTable 1 }

```

```

StarRPStatEntry ::=
    SEQUENCE {
        starRPStatVpnID          Gauge32,
        starRPStatSvcID          StarShortID,
        starRPStatVpnName        DisplayString,
        starRPStatServName        DisplayString,
        starRPRegRecvTotal        Counter32,
        starRPRegAcceptTotal      Counter32,
        starRPRegDeniedTotal      Counter32,
        starRPRegDiscardTotal     Counter32,
        starRPRegAcceptInitial    Counter32,
        starRPRegAcceptIntraPDSN  Counter32,
        starRPRegAcceptInterPDSN Counter32,
        starRPRegDeniedInitial    Counter32,
        starRPRegAcceptRenew      Counter32,
        starRPRegDeniedRenew      Counter32,
        starRPRegAcceptDereg      Counter32,
        starRPRegDeniedDereg      Counter32,
        starRPRegSendError        Counter32,
        starRPRegHashError        Counter32,
        starRPRegDecodeError      Counter32,
        starRPRegUnhandled        Counter32,
        starRPRegAirlinkSeqError  Counter32,
        starRPRegDenyUnspec       Counter32,
        starRPRegDenyAdminProhib  Counter32,
        starRPRegDenyNoResource   Counter32,
        starRPRegDenyAuth         Counter32,
        starRPRegDenyMismatchID   Counter32,
        starRPRegDenyBadRequest   Counter32,
        starRPRegDenyUnknownPDSN Counter32,
        starRPRegDenyRevTunUnav   Counter32,
        starRPRegDenyRevTunReq    Counter32,
        starRPRegDenyUnrecogVend  Counter32,
        starRPRegUpdTotal         Counter32,
        starRPRegUpdAccept        Counter32,
        starRPRegUpdDenied        Counter32,

```



## STARENT-MIB DEFINITIONS ::= BEGIN

```

MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The R-P VPN (context) name"
::= { starRPStatEntry 3 }

starRPStatServName OBJECT-TYPE
SYNTAX DisplayString
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The R-P service name"
::= { starRPStatEntry 4 }

starRPRegRecvTotal OBJECT-TYPE
SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The total number of session registrations received for the associated R-P VPN service"
::= { starRPStatEntry 5 }

starRPRegAcceptTotal OBJECT-TYPE
SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The total number of session registrations accepted for the associated R-P VPN service"
::= { starRPStatEntry 6 }

starRPRegDeniedTotal OBJECT-TYPE
SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The total number of session registrations denied for the associated R-P VPN service"
::= { starRPStatEntry 7 }

starRPRegDiscardTotal OBJECT-TYPE
SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The total number of session registrations discarded for the associated R-P VPN service"
::= { starRPStatEntry 8 }

starRPRegAcceptInitial OBJECT-TYPE
SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The total number of initial session registrations accepted for the associated R-P VPN service"
::= { starRPStatEntry 9 }

starRPRegAcceptIntraPDSN OBJECT-TYPE
SYNTAX Counter32
MAX-ACCESS read-only
STATUS obsolete
DESCRIPTION
    "The number of Intra-PDSN session registrations accepted for the associated R-P VPN service"
::= { starRPStatEntry 10 }

starRPRegAcceptInterPDSN OBJECT-TYPE
SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

        "The number of Inter-PDSN session registrations accepted for the associated R-P VPN service"
 ::= { starRPStatEntry 11 }

starRPRegDeniedInitial OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of initial session registrations denied for the associated R-P VPN service"
 ::= { starRPStatEntry 12 }

starRPRegAcceptRenew OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of session registration renewals accepted for the associated R-P VPN service"
 ::= { starRPStatEntry 13 }

starRPRegDeniedRenew OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of session registration renewals denied for the associated R-P VPN service"
 ::= { starRPStatEntry 14 }

starRPRegAcceptDereg OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of session deregistrations accepted for the associated R-P VPN service"
 ::= { starRPStatEntry 15 }

starRPRegDeniedDereg OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of session deregistrations denied for the associated R-P VPN service"
 ::= { starRPStatEntry 16 }

starRPRegSendError OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of session registrations with errors in transmission
         for the associated R-P VPN service"
 ::= { starRPStatEntry 17 }

starRPRegHashError OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of session registrations with hash errors for the associated R-P VPN service"
 ::= { starRPStatEntry 18 }

starRPRegDecodeError OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of sessions registrations with decode errors for the associated R-P VPN service"

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

 ::= { starRPStatEntry 19 }

starRPRegUnhandled OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of session registrations unable to be proceeded for the associated R-P VPN service"
 ::= { starRPStatEntry 20 }

starRPRegAirlinkSeqError OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of session registrations with air link sequence errors for the associated R-P VPN
service"
 ::= { starRPStatEntry 21 }

starRPRegDenyUnspec OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of session registrations denied for an unspecified reason
for the associated R-P VPN service"
 ::= { starRPStatEntry 22 }

starRPRegDenyAdminProhib OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of session registrations denied due to administrator prohibition
for the associated R-P VPN service"
 ::= { starRPStatEntry 23 }

starRPRegDenyNoResource OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of session registrations denied due to no resources available
for the associated R-P VPN service"
 ::= { starRPStatEntry 24 }

starRPRegDenyAuth OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of session registrations denied due to authentication failure
for the associated R-P VPN service"
 ::= { starRPStatEntry 25 }

starRPRegDenyMismatchID OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of session registrations denied due to an ID mismatch
for the associated R-P VPN service"
 ::= { starRPStatEntry 26 }

starRPRegDenyBadRequest OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

STATUS      current
DESCRIPTION
    "The number of session registrations denied due to the request being invalid
    for the associated R-P VPN service"
 ::= { starRPStatEntry 27 }

starRPRegDenyUnknownPDSN OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The number of session registrations denied due to the packet data service not
    being recognized for the associated R-P VPN service"
 ::= { starRPStatEntry 28 }

starRPRegDenyRevTunUnav OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The number of session registrations denied due to no reverse tunnel being available
    for the associated R-P VPN service"
 ::= { starRPStatEntry 29 }

starRPRegDenyRevTunReq OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The number of session registrations denied due to reverse tunneling being
    mandatory for the associated R-P VPN service"
 ::= { starRPStatEntry 30 }

starRPRegDenyUnrecogVend OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The number of session registrations denied due to the vendor not being recognized
    for the associated R-P VPN service"
 ::= { starRPStatEntry 31 }

starRPRegUpdTotal OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The total number of session registration updates for the associated R-P VPN service"
 ::= { starRPStatEntry 32 }

starRPRegUpdAccept OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The number of session registration updates which were accepted for the associated R-P VPN
    service"
 ::= { starRPStatEntry 33 }

starRPRegUpdDenied OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The number of session registration updates which were denied for the associated R-P VPN service"
 ::= { starRPStatEntry 34 }

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```
starRPRegUpdUnack OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of session registration updates which were not acknowledged
        for the associated R-P VPN service"
    ::= { starRPStatEntry 35 }

starRPRegUpdTrans OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of session registration updates sent for the associated R-P VPN service"
    ::= { starRPStatEntry 36 }

starRPRegUpdRetrans OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of session registration updates resent for the associated R-P VPN service"
    ::= { starRPStatEntry 37 }

starRPRegUpdReceived OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of session registration updates received for the associated R-P VPN service"
    ::= { starRPStatEntry 38 }

starRPRegUpdDiscard OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of session registration updates discarded for the associated R-P VPN service"
    ::= { starRPStatEntry 39 }

starRPRegUpdSendError OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of session registration updates with errors in transmission
        for the associated R-P VPN service"
    ::= { starRPStatEntry 40 }

starRPRegUpdUplYrInit OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of session registration updates with up-link reinitializations"
    ::= { starRPStatEntry 41 }

starRPRegUpdOther OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of session registration updates with a reason of 'other'
        for the associated R-P VPN service"
    ::= { starRPStatEntry 42 }
```

## STARENT-MIB DEFINITIONS ::= BEGIN

```
starRPRegUpdHandoff OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of session registration updates due to a mobile hand-off
        for the associated R-P VPN service"
    ::= { starRPStatEntry 43 }

starRPRegUpdDenyUnspec OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of session registration updates denied for an unspecified
        reason for the associated R-P VPN service"
    ::= { starRPStatEntry 44 }

starRPRegUpdDenyAdminProhib OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of session registration updates denied due to administration
        prohibition for the associated R-P VPN service"
    ::= { starRPStatEntry 45 }

starRPRegUpdDenyAuth OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of session registration updates denied due to authentication
        failure for the associated R-P VPN service"
    ::= { starRPStatEntry 46 }

starRPRegUpdDenyMismatchID OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of session registration updates denied due to an ID mismatch
        for the associated R-P VPN service"
    ::= { starRPStatEntry 47 }

starRPRegUpdDenyBadRequest OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of session registration updates denied due to the request being
        invalid for the associated R-P VPN service"
    ::= { starRPStatEntry 48 }

starRPSecViolations OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The total number of session security violations for the associated R-P VPN service"
    ::= { starRPStatEntry 49 }

starRPSecBadAuth OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
```



## STARENT-MIB DEFINITIONS ::= BEGIN

```

    STATUS      current
    DESCRIPTION
        "The total number of session security authentication violations for the associated R-P VPN
service"
    ::= { starRPStatEntry 50 }

starRPSecBadID OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The total number of session security ID violations for the associated R-P VPN service"
    ::= { starRPStatEntry 51 }

starRPSecBadSpi OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The total number of session security SPI violations for the associated R-P VPN service"
    ::= { starRPStatEntry 52 }

starRPSecMissingMnHAAuth OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The total number of session security missing mobile number home agent
authentication violation for the associated R-P VPN service"
    ::= { starRPStatEntry 53 }

starRPSecMissingRegUpdate OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The total number of session missing registration update violations
for the associated R-P VPN service"
    ::= { starRPStatEntry 54 }

starRPRegRecvInitial OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The total number of initial session registration
for the associated R-P VPN service"
    ::= { starRPStatEntry 55 }

starRPRegAcceptActvStartIntraPDSN OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of accepted registration request during
intraPDSN handoff which contains active start
for the associated R-P VPN service"
    ::= { starRPStatEntry 56 }

starRPRegAcceptActvStopIntraPDSN OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of accepted registration request during
intraPDSN handoff which contains active stop
for the associated R-P VPN service"

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

 ::= { starRPStatEntry 57 }

starRPRegRecvRenew OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of received renew registration request
        for the associated R-P VPN service"
    ::= { starRPStatEntry 58 }

starRPRegActvStartRenew OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of received renew registration request that contains active start
        for the associated R-P VPN service"
    ::= { starRPStatEntry 59 }

starRPRegActvStopRenew OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of received renew registration request that contains active stop
        for the associated R-P VPN service"
    ::= { starRPStatEntry 60 }

starRPRegRecvDereg OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of received deregistration request
        for the associated R-P VPN service"
    ::= { starRPStatEntry 61 }

starRPRegAcceptActvStopDereg OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of accepted deregistration request that contains active stop
        for the associated R-P VPN service"
    ::= { starRPStatEntry 62 }

starRPDiscSessAbsent OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of registration request discarded due to no session
        for the associated R-P VPN service"
    ::= { starRPStatEntry 63 }

starRPDiscNoMemory OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of registration request discarded due to no memory
        for the associated R-P VPN service"
    ::= { starRPStatEntry 64 }

starRPDiscMalformed OBJECT-TYPE

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The number of registration request discarded because malformed
    for the associated R-P VPN service"
 ::= { starRPStatEntry 65 }

starRPDiscAuthFail OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The number of registration request discarded because authentication failed
    for the associated R-P VPN service"
 ::= { starRPStatEntry 66 }

starRPDiscInternalBounce OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The number of registration request discarded because internal bounce
    for the associated R-P VPN service"
 ::= { starRPStatEntry 67 }

starRPDiscInpuQueueExceeded OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The number of registration request discarded because internal queue exceeded
    for the associated R-P VPN service"
 ::= { starRPStatEntry 68 }

starRPDiscMismatchedId OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The number of registration request discarded because mismatched ID
    for the associated R-P VPN service"
 ::= { starRPStatEntry 69 }

starRPDiscInvPacketLen OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The number of registration request discarded because invalid packet length
    for the associated R-P VPN service"
 ::= { starRPStatEntry 70 }

starRPDiscMisc OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The number of registration request discarded due to misc reasons
    for the associated R-P VPN service"
 ::= { starRPStatEntry 71 }

starRP1xTxBytes OBJECT-TYPE
SYNTAX      Counter32
UNITS       "Megabytes"
MAX-ACCESS  read-only
STATUS      current

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```
DESCRIPTION
    "The number of 1x bytes transmitted, in megabytes"
 ::= { starRPStatEntry 72 }

starRP1xRxBytes OBJECT-TYPE
    SYNTAX      Counter32
    UNITS       "Megabytes"
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of 1x bytes received, in megabytes"
 ::= { starRPStatEntry 73 }

starRP1xTxPackets OBJECT-TYPE
    SYNTAX      Counter32
    UNITS       "Thousands"
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of 1x packets transmitted, in thousands"
 ::= { starRPStatEntry 74 }

starRP1xRxPackets OBJECT-TYPE
    SYNTAX      Counter32
    UNITS       "Thousands"
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of 1x packets received, in thousands"
 ::= { starRPStatEntry 75 }

starRPDoTxBytes OBJECT-TYPE
    SYNTAX      Counter32
    UNITS       "Megabytes"
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of Do bytes transmitted, in megabytes"
 ::= { starRPStatEntry 76 }

starRPDoRxBytes OBJECT-TYPE
    SYNTAX      Counter32
    UNITS       "Megabytes"
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of Do bytes received, in megabytes"
 ::= { starRPStatEntry 77 }

starRPDoTxPackets OBJECT-TYPE
    SYNTAX      Counter32
    UNITS       "Thousands"
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of Do packets transmitted, in thousands"
 ::= { starRPStatEntry 78 }

starRPDoRxPackets OBJECT-TYPE
    SYNTAX      Counter32
    UNITS       "Thousands"
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of Do packets received, in thousands"
 ::= { starRPStatEntry 79 }
```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

--Subscriber; these objects are provided for use in SNMP Traps only

starentSubscriber OBJECT IDENTIFIER ::= { starentMIBObjects 26 }

starSubTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF StarSubEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "A table containing subscriber information"
    ::= { starentSubscriber 1 }

starSubEntry OBJECT-TYPE
    SYNTAX      StarSubEntry

    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "Information for a specific Subscriber"
    INDEX { starSubMSID, starSubName }
    ::= { starSubTable 1 }

StarSubEntry ::=
    SEQUENCE {
        starSubContext          DisplayString,
        starSubMSID             OCTET STRING,
        starSubName             OCTET STRING,
        starSubTimerDuration    Unsigned32,
        starSubLongDurTimeoutAction INTEGER,
        starSubSetupTime        DateAndTime,
        starSubHomeAddr         IPAddress,
        starSubHomeAddrv6       Ipv6Address
    }

starSubContext OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "The context the subscriber is in"
    ::= { starSubEntry 1 }

starSubMSID OBJECT-TYPE
    SYNTAX      OCTET STRING (SIZE (1..16))
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "The MSID of the subscriber"
    ::= { starSubEntry 2 }

starSubName OBJECT-TYPE
    SYNTAX      OCTET STRING (SIZE (1..128))
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "The name of the subscriber"
    ::= { starSubEntry 3 }

starSubTimerDuration OBJECT-TYPE
    SYNTAX      Unsigned32
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "The length of the long-duration timer in seconds"
    ::= { starSubEntry 4 }

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

starSubLongDurTimeoutAction OBJECT-TYPE
    SYNTAX      StarLongDurTimeoutAction
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "The action taken by the system upon detection of a long-duration session"
    ::= { starSubEntry 5 }

```

```

starSubSetupTime OBJECT-TYPE
    SYNTAX      DateAndTime
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "The time when the call was setup"
    ::= { starSubEntry 6 }

```

```

starSubHomeAddr OBJECT-TYPE
    SYNTAX      IpAddress
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "The ipv4 home address."
    ::= { starSubEntry 7 }

```

```

starSubHomeAddrv6 OBJECT-TYPE
    SYNTAX      Ipv6Address
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "The ipv6 home address."
    ::= { starSubEntry 8 }

```

-- EIS; these objects are provided for use in SNMP Traps only

```

starentEISServer OBJECT IDENTIFIER ::= { starentMIBObjects 27 }

```

```

starEISServerTable OBJECT-TYPE
    SYNTAX SEQUENCE OF StarEISServerEntry
    MAX-ACCESS not-accessible
    STATUS      current
    DESCRIPTION
        "A table containing EIS Server information"
    ::= { starentEISServer 1 }

```

```

starEISServerEntry OBJECT-TYPE
    SYNTAX StarEISServerEntry
    MAX-ACCESS not-accessible
    STATUS      current
    DESCRIPTION
        "Information for a specific EIS Server"
    INDEX { starEISServerVPNID, starEISServerAddr }
    ::= { starEISServerTable 1 }

```

```

StarEISServerEntry ::=
    SEQUENCE {
        starEISServerVPNID Gauge32,
        starEISServerAddr IpAddress,
        starEISServerVPNName DisplayString
    }

```

```

starEISServerVPNID OBJECT-TYPE
    SYNTAX Gauge32
    MAX-ACCESS not-accessible
    STATUS      current
    DESCRIPTION
        "The VPN ID for the EIS Server"

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

 ::= { starEISServerEntry 1 }

starEISServerAddr OBJECT-TYPE
    SYNTAX      IPAddress
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "The IP Address for the EIS Server"
 ::= { starEISServerEntry 2 }

starEISServerVPNName OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "The VPN Name for this EIS Server"
 ::= { starEISServerEntry 3 }

-- Threshold; these objects are provided for use in SNMP Traps only

starentThresholds OBJECT IDENTIFIER ::= { starentMIBObjects 28 }

starThreshMeasuredPct OBJECT-TYPE
    SYNTAX      Gauge32(0..100)
    UNITS       "Percent"
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "The measured value of a thresholded parameter"
 ::= { starentThresholds 1 }

starThreshPct OBJECT-TYPE
    SYNTAX      Integer32(0..100)
    UNITS       "Percent"
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "The configured value of a thresholded parameter"
 ::= { starentThresholds 2 }

starThreshMeasuredInt OBJECT-TYPE
    SYNTAX      Gauge32
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "The measured value of a thresholded parameter"
 ::= { starentThresholds 3 }

starThreshInt OBJECT-TYPE
    SYNTAX      Unsigned32
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "The configured value of a thresholded parameter"
 ::= { starentThresholds 4 }

starThreshMeasuredMB OBJECT-TYPE
    SYNTAX      Gauge32
    UNITS       "Megabytes"
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "The measured value of a thresholded parameter"
 ::= { starentThresholds 5 }

starThreshMB OBJECT-TYPE
    SYNTAX      Unsigned32

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

UNITS          "Megabytes"
MAX-ACCESS    accessible-for-notify
STATUS        current
DESCRIPTION   "The configured value of a thresholded parameter"
 ::= { starentThresholds 6 }

starThreshMeasuredGB OBJECT-TYPE
SYNTAX        Gauge32
UNITS         "Gigabytes"
MAX-ACCESS    accessible-for-notify
STATUS        current
DESCRIPTION   "The measured value of a thresholded parameter"
 ::= { starentThresholds 7 }

starThreshGB OBJECT-TYPE
SYNTAX        Unsigned32
UNITS         "Gigabytes"
MAX-ACCESS    accessible-for-notify
STATUS        current
DESCRIPTION   "The configured value of a thresholded parameter"
 ::= { starentThresholds 8 }

starThreshPeriodInt OBJECT-TYPE
SYNTAX        Integer32(30..600)
UNITS         "Seconds"
MAX-ACCESS    accessible-for-notify
STATUS        current
DESCRIPTION   "The configured value of a thresholded parameter"
 ::= { starentThresholds 9 }

starThreshDeviceNum OBJECT-TYPE
SYNTAX        Integer32(1..4)
MAX-ACCESS    accessible-for-notify
STATUS        current
DESCRIPTION   "The configured value of a thresholded parameter"
 ::= { starentThresholds 10 }

starentPort OBJECT IDENTIFIER ::= { starentMIBObjects 29 }

starPortTable OBJECT-TYPE
SYNTAX        SEQUENCE OF StarPortEntry
MAX-ACCESS    not-accessible
STATUS        current
DESCRIPTION   "A table containing Port information"
 ::= { starentPort 1 }

starPortEntry OBJECT-TYPE
SYNTAX        StarPortEntry
MAX-ACCESS    not-accessible
STATUS        current
DESCRIPTION   "Information for a specific Port"
INDEX { starPortSlot, starPortNum }
 ::= { starPortTable 1 }

StarPortEntry ::=
SEQUENCE {
starPortSlot          Integer32,
starPortNum           Integer32,
starPortType          INTEGER,

```



## STARENT-MIB DEFINITIONS ::= BEGIN

```

    starPortTypeDescr DisplayString,
    starPortAdminState INTEGER,
    starPortOperState INTEGER,
        starPortOperMode          INTEGER,
    starPortLinkState INTEGER,
    starRedundantPortSlot Integer32,
    starRedundantPortNum Integer32,
    starPortRxBytes Counter32,
    starPortTxBytes Counter32,
    starPortRxFrames Counter32,
    starPortTxFrames Counter32,
        starPortRxDiscards Counter32,
        starPortTxDiscards Counter32,
        starPortRxErrors Counter32,
        starPortTxErrors Counter32
    }

starPortSlot OBJECT-TYPE
    SYNTAX Integer32(1..48)
    MAX-ACCESS accessible-for-notify
    STATUS current
    DESCRIPTION
    "The Slot number for this port"
    ::= { starPortEntry 1 }

starPortNum OBJECT-TYPE
    SYNTAX Integer32(1..29)
    MAX-ACCESS accessible-for-notify
    STATUS current
    DESCRIPTION
    "The Port number within this slot"
    ::= { starPortEntry 2 }

starPortType OBJECT-TYPE
    SYNTAX INTEGER {
        none(0),
        ethernet10100(1),
        ethernet1000dualmedia(2),
        ethernet1000(3),
        ds3(4),
        oc3atm(5),
        oc12atm(6),
        ds3e(7),
        rs232(8),
        bitst1e1(9),
        virtualethernet(10),
        ether10g(11),
        ether100g(12)
    }
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
    " "
    ::= { starPortEntry 3 }

starPortTypeDescr OBJECT-TYPE
    SYNTAX DisplayString
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
    "A textual representing of the starPortType attribute"
    ::= { starPortEntry 4 }

starPortAdminState OBJECT-TYPE
    SYNTAX INTEGER {
        unknown(0),
        enabled(1),

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

        disabled(2)
    }
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
    "The administrative start of the port"
    ::= { starPortEntry 5 }

starPortOperState OBJECT-TYPE
    SYNTAX INTEGER {
        unknown(0),
        up(1),
        down(2),
        notapplicable(3)
    }
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
    " "
    ::= { starPortEntry 6 }

starPortOperMode OBJECT-TYPE
    SYNTAX INTEGER {
        unknown(0),
        active(1),
        standby(2)
    }
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
    " "
    ::= { starPortEntry 7 }

starPortLinkState OBJECT-TYPE
    SYNTAX INTEGER {
        unknown(0),
        up(1),
        down(2)
    }
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
    " "
    ::= { starPortEntry 8 }

starRedundantPortSlot OBJECT-TYPE
    SYNTAX Integer32(0..48)
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
    "The Slot number for the port the current port is redundant with, or 0 if unknown"
    ::= { starPortEntry 9 }

starRedundantPortNum OBJECT-TYPE
    SYNTAX Integer32(0..29)
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
    "The Port number for the port the current port is redundant with, or 0 if unknown"
    ::= { starPortEntry 10 }

starPortRxBytes OBJECT-TYPE
    SYNTAX Counter32
    UNITS "Megabytes"
    MAX-ACCESS read-only
    STATUS current

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

DESCRIPTION
"The number of bytes successfully received, in megabytes.
For ports of type rs232(8) or bitst1e1(9) this value will always be zero."
 ::= { starPortEntry 11 }

starPortTxBytes OBJECT-TYPE
SYNTAX Counter32
UNITS "Megabytes"
MAX-ACCESS read-only
STATUS current
DESCRIPTION
"The number of bytes successfully transmitted, in megabytes.
For ports of type rs232(8) or bitst1e1(9) this value will always be zero."
 ::= { starPortEntry 12 }

starPortRxFrames OBJECT-TYPE
SYNTAX Counter32
UNITS "Thousands"
MAX-ACCESS read-only
STATUS current
DESCRIPTION
"The number of frames successfully received, in thousands.
For ports of type rs232(8) or bitst1e1(9) this value will always be zero.
For ports of type oc3atm(5) and oc12atm(6) this is the count of cells received"
 ::= { starPortEntry 13 }

starPortTxFrames OBJECT-TYPE
SYNTAX Counter32
UNITS "Thousands"
MAX-ACCESS read-only
STATUS current
DESCRIPTION
"The number of frames successfully transmitted, in thousands.
For ports of type rs232(8) or bitst1e1(9) this value will always be zero.
For ports of type oc3atm(5) and oc12atm(6) this is the count of cells received"
 ::= { starPortEntry 14 }

starPortRxDiscards OBJECT-TYPE
SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
"The number of inbound packets which were chosen to be discarded even though no
errors had been detected to prevent their being deliverable to a higher-layer
protocol. One possible reason for discarding such a packet could be to free up
buffer space. "
 ::= { starPortEntry 15 }

starPortTxDiscards OBJECT-TYPE
SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
"The number of outbound packets which were chosen to be discarded even though
no errors had been detected to prevent their being transmitted. One possible reason
for discarding such a packet could be to free up buffer space."
 ::= { starPortEntry 16 }

starPortRxErrors OBJECT-TYPE
SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
"The number of inbound packets that contained errors preventing them from being
deliverable to a higher-layer protocol."
 ::= { starPortEntry 17 }

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

starPortTxErrors OBJECT-TYPE
    SYNTAX      Counter32
    UNITS       "Thousands"
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of outbound packets that could not be transmitted because of errors."
    ::= { starPortEntry 18 }

starentIPPool OBJECT IDENTIFIER ::= { starentMIBObjects 30 }

starIPPoolTable OBJECT-TYPE
    SYNTAX SEQUENCE OF StarIPPoolEntry
    MAX-ACCESS not-accessible
    STATUS      current
    DESCRIPTION
        "A table containing IP Pool information"
    ::= { starentIPPool 1 }

starIPPoolEntry OBJECT-TYPE
    SYNTAX StarIPPoolEntry
    MAX-ACCESS not-accessible
    STATUS      current
    DESCRIPTION
        "Information for a specific IP Pool"
    INDEX { IMPLIED starIPPoolID }
    ::= { starIPPoolTable 1 }

StarIPPoolEntry ::=
    SEQUENCE {
        starIPPoolVpnID      Gauge32,
        starIPPoolID         StarMediumID,
        starIPPoolContext   DisplayString,
        starIPPoolGroup      DisplayString,
        starIPPoolName       OCTET STRING,
        starIPPoolType       INTEGER,
        starIPPoolState       INTEGER,
        starIPPoolStartAddr  IpAddress,
        starIPPoolMaskorEndAddr IpAddress,
        starIPPoolPriority    Integer32,
        starIPPoolUsed        Gauge32,
        starIPPoolHold        Gauge32,
        starIPPoolRelease     Gauge32,
        starIPPoolFree        Gauge32
    }

starIPPoolVpnID OBJECT-TYPE
    SYNTAX Gauge32
    MAX-ACCESS read-only
    STATUS      current
    DESCRIPTION
        "The context ID for this pool"
    ::= { starIPPoolEntry 1 }

starIPPoolID OBJECT-TYPE
    SYNTAX StarMediumID
    MAX-ACCESS not-accessible
    STATUS      current
    DESCRIPTION
        "The service identification is made up from first 8 chars of context name
        and the pool name (max 32 chars ) separated by (:)"
    ::= { starIPPoolEntry 2 }

starIPPoolContext OBJECT-TYPE
    SYNTAX DisplayString
    MAX-ACCESS read-only

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

STATUS      current
DESCRIPTION
"The context name string for this pool"
 ::= { starIPPoolEntry 3 }

starIPPoolGroup OBJECT-TYPE
SYNTAX      DisplayString
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
"The name of the group to which the IP pool belongs"
 ::= { starIPPoolEntry 4 }

starIPPoolName OBJECT-TYPE
SYNTAX      OCTET STRING (SIZE (1..32))
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
"The name of the IP pool"
 ::= { starIPPoolEntry 5 }

starIPPoolType OBJECT-TYPE
SYNTAX      INTEGER {
        unknown(0),
        private(1),
        public(2),
        static(3),
        resource(4),
        nat(5)
      }
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
"The type of the pool"
 ::= { starIPPoolEntry 6 }

starIPPoolState OBJECT-TYPE
SYNTAX      INTEGER {
        unknown(0),
        good(1),
        pendingdelete(2),
        alarm(3),
        resize(4),
        inactive(5)
      }
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
"The state of the pool"
 ::= { starIPPoolEntry 7 }

starIPPoolStartAddr OBJECT-TYPE
SYNTAX      IPAddress
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
"The start IP address of the pool"
 ::= { starIPPoolEntry 8 }

starIPPoolMaskorEndAddr OBJECT-TYPE
SYNTAX      IPAddress
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
"The mask or end IP address of the pool"
 ::= { starIPPoolEntry 9 }

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

starIPPoolPriority OBJECT-TYPE
    SYNTAX      Integer32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The priority of the pool"
    ::= { starIPPoolEntry 10 }

starIPPoolUsed OBJECT-TYPE
    SYNTAX      Gauge32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of IP addresses in USED state in the pool"
    ::= { starIPPoolEntry 11 }

starIPPoolHold OBJECT-TYPE
    SYNTAX      Gauge32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of IP addresses in HOLD state in the pool"
    ::= { starIPPoolEntry 12 }

starIPPoolRelease OBJECT-TYPE
    SYNTAX      Gauge32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of IP addresses in RELEASE state in the pool"
    ::= { starIPPoolEntry 13 }

starIPPoolFree OBJECT-TYPE
    SYNTAX      Gauge32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of IP addresses in FREE state in the pool"
    ::= { starIPPoolEntry 14 }

starentIPPoolGroup OBJECT IDENTIFIER ::= { starentMIBObjects 64 }

starIPPoolGroupTable OBJECT-TYPE
    SYNTAX SEQUENCE OF StarIPPoolGroupEntry
    MAX-ACCESS not-accessible
    STATUS      current
    DESCRIPTION
        "A table containing IP Pool Group information"
    ::= { starentIPPoolGroup 1 }

starIPPoolGroupEntry OBJECT-TYPE
    SYNTAX StarIPPoolGroupEntry
    MAX-ACCESS not-accessible
    STATUS      current
    DESCRIPTION
        "Information for a specific IP Pool Group"
    INDEX { IMPLIED starIPPoolGroupID}
    ::= { starIPPoolGroupTable 1 }

StarIPPoolGroupEntry ::=
    SEQUENCE {
        starIPPoolGroupVpnID      Gauge32,
        starIPPoolGroupID         StarMediumID,
        starIPPoolGroupName       DisplayString,
        starIPPoolGroupVpnName    DisplayString,
        starIPPoolGroupUsed       Gauge32,

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

        starIPPoolGroupHold      Gauge32,
        starIPPoolGroupRelease  Gauge32,
        starIPPoolGroupFree     Gauge32,
        starIPPoolGroupPctUsed  Integer32,
        starIPPoolGroupAvail    Gauge32
    }

starIPPoolGroupVpnID OBJECT-TYPE
    SYNTAX      Gauge32
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "The context ID for this pool group"
    ::= { starIPPoolGroupEntry 1 }

starIPPoolGroupID OBJECT-TYPE
    SYNTAX      StarMediumID
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "The service identification is made up from first 8 chars of context name
         and first 16 chars of pool group name separated by (:)"
    ::= { starIPPoolGroupEntry 2 }

starIPPoolGroupName OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The name of the IP pool group"
    ::= { starIPPoolGroupEntry 3 }

starIPPoolGroupVpnName OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The context name string for this pool group"
    ::= { starIPPoolGroupEntry 4 }

starIPPoolGroupUsed OBJECT-TYPE
    SYNTAX      Gauge32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of IP addresses in USED state in the pool group"
    ::= { starIPPoolGroupEntry 5 }

starIPPoolGroupHold OBJECT-TYPE
    SYNTAX      Gauge32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of IP addresses in HOLD state in the pool group"
    ::= { starIPPoolGroupEntry 6 }

starIPPoolGroupRelease OBJECT-TYPE
    SYNTAX      Gauge32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of IP addresses in RELEASE state in the pool group"
    ::= { starIPPoolGroupEntry 7 }

starIPPoolGroupFree OBJECT-TYPE
    SYNTAX      Gauge32
    MAX-ACCESS  read-only

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

STATUS      current
DESCRIPTION
    "The number of IP addresses in FREE state in the pool group"
 ::= { starIPPoolGroupEntry 8 }

starIPPoolGroupPctUsed OBJECT-TYPE
SYNTAX      Integer32(0..10000)
UNITS       "percentage times 100"
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The percentage of IP addresses in USED state in the pool group is the
    percentage value times 100; for example,2.3% would be represented as 230"
 ::= { starIPPoolGroupEntry 9 }

starIPPoolGroupAvail OBJECT-TYPE
SYNTAX      Gauge32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The number of IP addresses in AVAILABLE state in the pool group"
 ::= { starIPPoolGroupEntry 10 }

-- Objects used only in traps

starentTrapData OBJECT IDENTIFIER ::= { starentMIBObjects 31 }

starCongestionPolicy OBJECT-TYPE
SYNTAX      INTEGER {
    reject(1),
    redirect(2),
    drop(3)
}
MAX-ACCESS  accessible-for-notify
STATUS      current
DESCRIPTION
    "The policy invoked for congestion events"
 ::= { starentTrapData 1 }

starCongestionResourceType OBJECT-TYPE
SYNTAX      INTEGER {
    systemcpu(1),
    servicecpu(2),
    averagememory(3),
    queuesize(4),
    queuedelay(5),
    license(6),
    portutil(7),
    rxportutil(8),
    txportutil(9),
    rxperportutil(10),
    txperportutil(11),
    servicecapacity(12)
}
MAX-ACCESS  accessible-for-notify
STATUS      current
DESCRIPTION
    "The resource type for a congestion event"
 ::= { starentTrapData 2 }

starPTACConfig OBJECT-TYPE
SYNTAX      Integer32(0..14)
MAX-ACCESS  accessible-for-notify
STATUS      current
DESCRIPTION
    "The number of PACs/PSCs//TACs configured in the system"

```



## STARENT-MIB DEFINITIONS ::= BEGIN

```

 ::= { starentTrapData 3 }

starPTACActive OBJECT-TYPE
    SYNTAX      Integer32(0..14)
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "The number of PACs/PSCs/TACs active in the system"
 ::= { starentTrapData 4 }

starContextName OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "The name of a context configured on the IMG"
 ::= { starentTrapData 5 }

starInterfaceName OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "The name of an interface"
 ::= { starentTrapData 6 }

starPCFAddress OBJECT-TYPE
    SYNTAX      IPAddress
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "The IP address of a PCF"
 ::= { starentTrapData 7 }

starPeerAddress OBJECT-TYPE
    SYNTAX      IPAddress
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "Peer Address"
 ::= { starentTrapData 8 }

-- License traps

starLicensedSessions OBJECT-TYPE
    SYNTAX      Unsigned32
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "The number of sessions enabled by the software license"
 ::= { starentTrapData 9 }

starCurrentSessions OBJECT-TYPE
    SYNTAX      Gauge32
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "The number of current sessions in use against a software license"
 ::= { starentTrapData 10 }

starL3Address OBJECT-TYPE
    SYNTAX      IPAddress
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "L3 Address"
 ::= { starentTrapData 11 }

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

starUDPPortNum OBJECT-TYPE
    SYNTAX      Integer32(1..65535)
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "UDP Port Number"
    ::= { starentTrapData 12 }

starSRPIpAddress OBJECT-TYPE
    SYNTAX      IPAddress
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "SRP IP Address"
    ::= { starentTrapData 13 }

starBGPPeerIpAddress OBJECT-TYPE
    SYNTAX      IPAddress
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "BGP Peer IP Address"
    ::= { starentTrapData 14 }

starContFiltCFFilename OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "File name for the OPTCMDB"
    ::= { starentTrapData 15 }

starContFiltCFErrorCode OBJECT-TYPE
    SYNTAX      INTEGER {
                unknownerror(1),
                notavailable(2),
                loadfailure(3)
                }
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "Error code"
    ::= { starentTrapData 16 }

starFecthedFromAAAMgr OBJECT-TYPE
    SYNTAX      Integer32
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "The number calls fetched from aaa mgr"
    ::= { starentTrapData 17 }

starPriorToAudit OBJECT-TYPE
    SYNTAX      Integer32
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "The number calls prior to audit"
    ::= { starentTrapData 18 }

starPassedAudits OBJECT-TYPE
    SYNTAX      Integer32
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

        "The number of calls passed audit"
        ::= { starentTrapData 19 }

starCallsRecovered OBJECT-TYPE
    SYNTAX      Integer32
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "The number of calls recovered"
        ::= { starentTrapData 20 }

starAllCallLines OBJECT-TYPE
    SYNTAX      Integer32
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "The number of all call lines"
        ::= { starentTrapData 21 }

starElapsedMs OBJECT-TYPE
    SYNTAX      Integer32
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "The audit time elapsed in ms"
        ::= { starentTrapData 22 }

starCDRFilename OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "The name of a CDR (EDR/UDR) file"
        ::= { starentTrapData 23 }

-- Diameter

starDiameterVpnName OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "Diameter VPN (Context) Name"
        ::= { starentTrapData 24 }

starDiameterPeerAddr OBJECT-TYPE
    SYNTAX      IPAddress
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "Diameter Peer Address"
        ::= { starentTrapData 25 }

starDiameterEndpointName OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "Diameter Endpoint Name"
        ::= { starentTrapData 26 }

starDiameterPeerAddrIpv6 OBJECT-TYPE
    SYNTAX      Ipv6Address
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "Diameter Peer Address"

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

 ::= { starentTrapData 34 }

starInterfaceIPAddress OBJECT-TYPE
    SYNTAX      IpAddress
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "Interface IP Address"
 ::= { starentTrapData 27 }

starOSPFNeighborRouterID OBJECT-TYPE
    SYNTAX      IpAddress
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "Interface IP Address"
 ::= { starentTrapData 28 }

starOSPFFromState OBJECT-TYPE
    SYNTAX      StarOSPFNeighborState
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "FROM state for OSPF Neighbor"
 ::= { starentTrapData 29 }

starOSPFToState OBJECT-TYPE
    SYNTAX      StarOSPFNeighborState
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "TO state for OSPF Neighbor"
 ::= { starentTrapData 30 }

starBLFilename OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "File name for the OPTBLDB"
 ::= { starentTrapData 31 }

starBLErrorCode OBJECT-TYPE
    SYNTAX      INTEGER {
        unknownerror(1),
        notavailable(2),
        loadfailure(3)
    }
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "Error code"
 ::= { starentTrapData 32 }

starDiameterECode OBJECT-TYPE
    SYNTAX      INTEGER {
        notcomplete(1),
        hostnamemismatch(2),
        hostrealmmismatch(3),
        securitymismatch(4),
        tlssertificateerror(5),
        tlshandshakeerror(6),
        authappidmismatch(7)
    }
    MAX-ACCESS  accessible-for-notify

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

STATUS      current
DESCRIPTION
"Diameter Cause Code"
 ::= { starentTrapData 33 }

starContFiltCFUpgradeFilename OBJECT-TYPE
SYNTAX      DisplayString
MAX-ACCESS  accessible-for-notify
STATUS      current
DESCRIPTION
"File name for the Full or Incremental OPTCMDB"
 ::= { starentTrapData 35 }

starContFiltCFUpgradeErrorCode OBJECT-TYPE
SYNTAX      INTEGER {
                unknownerror(1),
                upgradefullfailure(2),
                upgradeincrfailure(3)
            }
MAX-ACCESS  accessible-for-notify
STATUS      current
DESCRIPTION
"Error code"
 ::= { starentTrapData 36 }

starBLUpgradeFilename OBJECT-TYPE
SYNTAX      DisplayString
MAX-ACCESS  accessible-for-notify
STATUS      current
DESCRIPTION
"File name for the Full OPTBLDB"
 ::= { starentTrapData 37 }

starBLUpgradeErrorCode OBJECT-TYPE
SYNTAX      INTEGER {
                unknownerror(1),
                upgradefullfailure(2)
            }
MAX-ACCESS  accessible-for-notify
STATUS      current
DESCRIPTION
"Error code"
 ::= { starentTrapData 38 }

starDynPkgFilename OBJECT-TYPE
SYNTAX      DisplayString
MAX-ACCESS  accessible-for-notify
STATUS      current
DESCRIPTION
"File name for the DynPkg"
 ::= { starentTrapData 39 }

starDynCFErrorCode OBJECT-TYPE
SYNTAX      INTEGER {
                unknownerror(1),
                notavailable(2),
                loadfailure(3)
            }
MAX-ACCESS  accessible-for-notify
STATUS      current
DESCRIPTION
"Error code"
 ::= { starentTrapData 40 }

starDynPkgUpgradeFilename OBJECT-TYPE

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

SYNTAX      DisplayString
MAX-ACCESS  accessible-for-notify
STATUS      current
DESCRIPTION
"File name for the Full DynPkg"
::= { starentTrapData 41 }

starDynCFUpgradeErrorCode OBJECT-TYPE
SYNTAX      INTEGER {
    unknownerror(1),
    upgradefullfailure(2)
}

MAX-ACCESS  accessible-for-notify
STATUS      current
DESCRIPTION
"Error code"
::= { starentTrapData 42 }

starCscfSessCongestionResourceType OBJECT-TYPE
SYNTAX      INTEGER {
    cpu(1),
    memory(2)
}
MAX-ACCESS  accessible-for-notify
STATUS      current
DESCRIPTION
"Cscf Session resource type for a congestion event"
::= { starentTrapData 43 }

starSmgrId OBJECT-TYPE
SYNTAX      Integer32(1..255)
MAX-ACCESS  accessible-for-notify
STATUS      current
DESCRIPTION
"Session Manager Instance ID"
::= { starentTrapData 44 }

-- EGTp traps

starEGTPVpnName OBJECT-TYPE
SYNTAX      DisplayString
MAX-ACCESS  accessible-for-notify
STATUS      current
DESCRIPTION
"The name of this VPN (context)"
::= { starentTrapData 45 }

starEGTPServName OBJECT-TYPE
SYNTAX      DisplayString
MAX-ACCESS  accessible-for-notify
STATUS      current
DESCRIPTION
"The name of this service"
::= { starentTrapData 46 }

starEGTPInterfaceType OBJECT-TYPE
SYNTAX      INTEGER {
    invalid(0),
    sgwingress(1),
    sgwegress(2),
    pgwingress(3),
    sgsn(4)
}
MAX-ACCESS  accessible-for-notify
STATUS      current

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

DESCRIPTION
    "Egtp interface type"
 ::= { starentTrapData 47 }

starEGTPSelfPort OBJECT-TYPE
SYNTAX      Gauge32
MAX-ACCESS  accessible-for-notify
STATUS      current
DESCRIPTION
    "The Port number of the EGTP"
 ::= { starentTrapData 48 }

starEGTPSelfAddr OBJECT-TYPE
SYNTAX      IpAddress
MAX-ACCESS  accessible-for-notify
STATUS      current
DESCRIPTION
    "The IP Address of the EGTP"
 ::= { starentTrapData 49 }

starEGTPPeerPort OBJECT-TYPE
SYNTAX      Gauge32
MAX-ACCESS  accessible-for-notify
STATUS      current
DESCRIPTION
    "The Port number of the PeerNode"
 ::= { starentTrapData 50 }

starEGTPPeerAddr OBJECT-TYPE
SYNTAX      IpAddress
MAX-ACCESS  accessible-for-notify
STATUS      current
DESCRIPTION
    "The IP Address of the PeerNode"
 ::= { starentTrapData 51 }

starEGTPPeerOldRstCnt OBJECT-TYPE
SYNTAX      Gauge32
MAX-ACCESS  accessible-for-notify
STATUS      current
DESCRIPTION
    "EGTP peer old restart counter"
 ::= { starentTrapData 52 }

starEGTPPeerNewRstCnt OBJECT-TYPE
SYNTAX      Gauge32
MAX-ACCESS  accessible-for-notify
STATUS      current
DESCRIPTION
    "EGTP peer new restart counter"
 ::= { starentTrapData 53 }

starEGTPPeerSessCnt OBJECT-TYPE
SYNTAX      Gauge32
MAX-ACCESS  accessible-for-notify
STATUS      current
DESCRIPTION
    "EGTP peer session count"
 ::= { starentTrapData 54 }

starEGTPFailureReason OBJECT-TYPE
SYNTAX      INTEGER {
                unknown(0),
                restartcounterchange(1),
                noresponsefrompeer(2)
            }
MAX-ACCESS  accessible-for-notify

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

STATUS      current
DESCRIPTION
    "Egtp path failure reason"
 ::= { starentTrapData 55 }

starGSSCDRLossConfigured OBJECT-TYPE
    SYNTAX      Unsigned32
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "The configured value of threshold CDR Loss at GSS"
    ::= { starentTrapData 56 }

starGSSCDRLossMeasured OBJECT-TYPE
    SYNTAX      Unsigned32
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "The Measured value of CDR Loss at GSS"
    ::= { starentTrapData 57 }

starLicenseKey OBJECT-TYPE
    SYNTAX      Unsigned32
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "The license key"
    ::= { starentTrapData 58 }

starLicenseExpiryDate OBJECT-TYPE
    SYNTAX      DateAndTime
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "The license expiration date/time"
    ::= { starentTrapData 59 }

starLicenseDaysRemaining OBJECT-TYPE
    SYNTAX      Unsigned32
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "The number of days remaining before the license expires"
    ::= { starentTrapData 60 }

starLicenseDaysAfterExpiry OBJECT-TYPE
    SYNTAX      Unsigned32
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "The number of days after the license has expired"
    ::= { starentTrapData 61 }

starNPUSlot OBJECT-TYPE
    SYNTAX      Integer32(1..48)
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "The NPU slot number"
    ::= { starentTrapData 62 }

starSPRServerIpAddr OBJECT-TYPE
    SYNTAX      IpAddress
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION

```



## STARENT-MIB DEFINITIONS ::= BEGIN

```

        "The IP Address of the SSC Server"
        ::= { starentTrapData 63 }

-- MVG objects,used for traps only

starMVGEndpointName OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "MVG Endpoint Name"
    ::= { starentTrapData 66 }

starMVGCauseCode OBJECT-TYPE
    SYNTAX      INTEGER {
        servernotreachable(1),
        servicereachable(2)
    }
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "MVG Cause Code"
    ::= { starentTrapData 69 }

starMVGProtocolType OBJECT-TYPE
    SYNTAX      INTEGER {
        protocolhttp(1),
        protocoltcp(2),
        protocolicmp(3)
    }
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "MVG Protocol Types"
    ::= { starentTrapData 68 }

starPCCntfyIntfPeerName OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        " IPCF Event Notification Interface Peer Name "
    ::= { starentTrapData 73 }

starECSTotalDNSLearntIPThresholdInstance OBJECT-TYPE
    SYNTAX      Integer32(1..65535)
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        " ACSMgr Instance Id"
    ::= { starentTrapData 74 }

starECSTotalDNSLearntIPThresholdconfigured OBJECT-TYPE
    SYNTAX      Integer32 (1..100)
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        " Configured Threshold value in Percentage"
    ::= { starentTrapData 75 }

starECSTotalDNSLearntIPThresholdmeasured OBJECT-TYPE
    SYNTAX      Integer32 (1..100)
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        " Measured value in Percentage"

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

 ::= { starentTrapData 76 }

starPeerAddressIpv6 OBJECT-TYPE
    SYNTAX      Ipv6Address
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "Peer Ipv6 Address"
 ::= { starentTrapData 77 }

starLAGPartner OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "The name of this service"
 ::= { starentTrapData 78 }

starSGSServiceVpnName OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "SGS service context name"
 ::= { starentTrapData 79 }

starSGSServiceServName OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "SGS service name"
 ::= { starentTrapData 80 }

starVLRName OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "VLR name"
 ::= { starentTrapData 81 }

starVLRIpAddr1 OBJECT-TYPE
    SYNTAX      IpAddress
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "VLR IP Address1"
 ::= { starentTrapData 82 }

starVLRIpAddr2 OBJECT-TYPE
    SYNTAX      IpAddress
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "VLR IP Address2"
 ::= { starentTrapData 83 }

starVLRPortNum OBJECT-TYPE
    SYNTAX      Integer32(1..65535)
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "VLR Port Number"
 ::= { starentTrapData 84 }

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

starCongestionType OBJECT-TYPE
    SYNTAX      INTEGER {
                critical(1),
                major(2),
                minor(3)
                }
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "The type congestion threshold hit"
    ::= { starentTrapData 85 }

starCongestionActionProfileName OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "The name of a action profile associated with the threshold type"
    ::= { starentTrapData 86 }

starSessMgrFlowInstId OBJECT-TYPE
    SYNTAX      Integer32(1..65535)
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "Session Manager instance ID"
    ::= { starentTrapData 87 }

starSessMgrFlowPDNNo OBJECT-TYPE
    SYNTAX      Integer32(1..65535)
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "Tota PDNs Available"
    ::= { starentTrapData 88 }

starSessMgrFlowMemUsage OBJECT-TYPE
    SYNTAX      Integer32(1..65535)
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "Totat Memory Usage of this instance"
    ::= { starentTrapData 89 }

starSessMgrFlowCounter OBJECT-TYPE
    SYNTAX      Integer32(1..65535)
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "Session Manager Active Flows"
    ::= { starentTrapData 90 }

starSessMgrTotalFlowCount OBJECT-TYPE
    SYNTAX      Integer32(1..65535)
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "Session Manager Active Flows"
    ::= { starentTrapData 91 }

starHENBGWServiceVpnName OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "HENBGW Service VPN Name"

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

 ::= { starentTrapData 92 }

starHENBGWServiceServName OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "HENBGW Service Name"
 ::= { starentTrapData 93 }

starHENBGWServiceLogicalENBId OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "HENBGW Service Logical Enodb ID"
 ::= { starentTrapData 94 }

starHENBGWServiceMMEServName OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "HENBGW Service MME Name"
 ::= { starentTrapData 95 }

starHENBGWServiceSelfAddr OBJECT-TYPE
    SYNTAX      IpAddress
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "HENBGW Service Self IP Address"
 ::= { starentTrapData 96 }

starHENBGWServicePeerAddr OBJECT-TYPE
    SYNTAX      IpAddress
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "HENBGW Service Peer IP Address"
 ::= { starentTrapData 97 }

starHENBGWServiceSelfPort OBJECT-TYPE
    SYNTAX      Integer32(1..65535)
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "HENBGW Service Self Port Number"
 ::= { starentTrapData 98 }

starHENBGWServicePeerPort OBJECT-TYPE
    SYNTAX      Integer32(1..65535)
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "HENBGW Service Peer Port Number"
 ::= { starentTrapData 99 }

starNPUSlotNumber OBJECT-TYPE
    SYNTAX      Integer32(1..65535)
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "NPU Slot Number"
 ::= { starentTrapData 100 }

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

starNPUCPUNumber OBJECT-TYPE
    SYNTAX      Integer32(1..65535)
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "NPU CPU Number"
    ::= { starentTrapData 101 }

starNPUNPUNumber OBJECT-TYPE
    SYNTAX      Integer32(1..65535)
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "NPU's NPU Number"
    ::= { starentTrapData 102 }

starChassisCrashList OBJECT-TYPE
    SYNTAX      TruthValue
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "Chassis Crash List Full"
    ::= { starentTrapData 103 }

starLIRcvryErrType OBJECT-TYPE
    SYNTAX      INTEGER {
        syncerror(0),
        readerror(1),
        writeerror(2),
        integrityerror(3)
    }
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "LI Recovery Error Types"
    ::= { starentTrapData 104 }

starLIRcvryErrString OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "LI Recovery Error String"
    ::= { starentTrapData 105 }

-- PMIP

starPMIPVpnName OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "The name of this VPN (context)"
    ::= { starentTrapData 106 }

starPMIPServName OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "The name of this service"
    ::= { starentTrapData 107 }

starPMIPSelfAddrType OBJECT-TYPE
    SYNTAX      InetAddressType
    MAX-ACCESS  accessible-for-notify
    STATUS      current

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

DESCRIPTION
    "The IP Address of the PMIP"
 ::= { starentTrapData 108 }

starPMIPSelfAddr OBJECT-TYPE
SYNTAX      InetAddress
MAX-ACCESS  accessible-for-notify
STATUS      current
DESCRIPTION
    "The IP Address of the PMIP"
 ::= { starentTrapData 109 }

starPMIPPeerAddrType OBJECT-TYPE
SYNTAX      InetAddressType
MAX-ACCESS  accessible-for-notify
STATUS      current
DESCRIPTION
    "The IP Address of the PMIP"
 ::= { starentTrapData 110 }

starPMIPPeerAddr OBJECT-TYPE
SYNTAX      InetAddress
MAX-ACCESS  accessible-for-notify
STATUS      current
DESCRIPTION
    "The IP Address of the PMIP"
 ::= { starentTrapData 111 }

starPMIPPeerOldRstCnt OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  accessible-for-notify
STATUS      current
DESCRIPTION
    "PMIP peer old restart counter"
 ::= { starentTrapData 112 }

starPMIPPeerNewRstCnt OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  accessible-for-notify
STATUS      current
DESCRIPTION
    "PMIP peer new restart counter"
 ::= { starentTrapData 113 }

starPMIPPeerSessCnt OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  accessible-for-notify
STATUS      current
DESCRIPTION
    "PMIP peer session count"
 ::= { starentTrapData 114 }

starPMIPFailureReason OBJECT-TYPE
SYNTAX      INTEGER {
                unknown(0),
                heartbeatsprestartchange(1),
                noresponsefrompeer(2)
            }
MAX-ACCESS  accessible-for-notify
STATUS      current
DESCRIPTION
    "PMIP path failure reason"
 ::= { starentTrapData 115 }

starMMEInitialDisallowReason OBJECT-TYPE

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

SYNTAX      DisplayString
MAX-ACCESS  accessible-for-notify
STATUS      current
DESCRIPTION
    "MME initial connection disallow reason."
 ::= { starentTrapData 116 }

starSLSServiceVpnName OBJECT-TYPE
SYNTAX      DisplayString
MAX-ACCESS  accessible-for-notify
STATUS      current
DESCRIPTION
    "SLS service context name"
 ::= { starentTrapData 117 }

starSLSServiceServName OBJECT-TYPE
SYNTAX      DisplayString
MAX-ACCESS  accessible-for-notify
STATUS      current
DESCRIPTION
    "SLS service name"
 ::= { starentTrapData 118 }

starESMLCId OBJECT-TYPE
SYNTAX      Integer32(0..255)
MAX-ACCESS  accessible-for-notify
STATUS      current
DESCRIPTION
    "ESMLC Id"
 ::= { starentTrapData 119 }

starESMLCIpAddr1 OBJECT-TYPE
SYNTAX      IpAddress
MAX-ACCESS  accessible-for-notify
STATUS      current
DESCRIPTION
    "ESMLC IP Address1"
 ::= { starentTrapData 120 }

starESMLCIpAddr2 OBJECT-TYPE
SYNTAX      IpAddress
MAX-ACCESS  accessible-for-notify
STATUS      current
DESCRIPTION
    "ESMLC IP Address2"
 ::= { starentTrapData 121 }

starESMLCPortNum OBJECT-TYPE
SYNTAX      Integer32(1..65535)
MAX-ACCESS  accessible-for-notify
STATUS      current
DESCRIPTION
    "ESMLC Port Number"
 ::= { starentTrapData 122 }

starSBCServiceVpnName OBJECT-TYPE
SYNTAX      DisplayString
MAX-ACCESS  accessible-for-notify
STATUS      current
DESCRIPTION
    "SBC service context name"
 ::= { starentTrapData 123 }

starSBCServiceServName OBJECT-TYPE
SYNTAX      DisplayString
MAX-ACCESS  accessible-for-notify
STATUS      current

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

DESCRIPTION
    "SBC service name"
 ::= { starentTrapData 124 }

starPeerId OBJECT-TYPE
    SYNTAX      Integer32(0..255)
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "Peer Id"
    ::= { starentTrapData 125 }

starPeerIpAddr OBJECT-TYPE
    SYNTAX      IPAddress
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "Peer IP Address"
    ::= { starentTrapData 126 }

starPeerPortNum OBJECT-TYPE
    SYNTAX      Integer32(1..65535)
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "Peer Port Number"
    ::= { starentTrapData 127 }

starBfdSrcAddressType OBJECT-TYPE
    SYNTAX      InetAddressType
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "This object specifies IP address type of the source IP
        address of this BFD session. Only values unknown(0),
        ipv4(1), ipv6(2), or ipv6z(4) have to be supported.
        The value of unknown(0) is allowed only when the session
        is singleHop(1) and the source IP address of this BFD
        session is derived from the outgoing interface, or when
        the BFD session is not associated with a specific
        interface."
    ::= { starentTrapData 128 }

starBfdSrcAddress OBJECT-TYPE
    SYNTAX      InetAddress
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "This object specifies the source IP address of this BFD
        session."
    ::= { starentTrapData 129 }

starBfdDstAddressType OBJECT-TYPE
    SYNTAX      InetAddressType
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "This object specifies IP address type of the neighboring IP
        address which is being monitored with this BFD session.
        Only values unknown(0), ipv4(1), ipv6(2), or ipv6z(4)
        have to be supported. The value of unknown(0) is allowed
        only when the session is singleHop(1) and the outgoing
        interface is of type point-to-point, or when the BFD
        session is not associated with a specific interface."
    ::= { starentTrapData 130 }

```



## STARENT-MIB DEFINITIONS ::= BEGIN

```

starBfdDstAddress OBJECT-TYPE
    SYNTAX      InetAddress
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "This object specifies the neighboring IP address which is
        being monitored with this BFD session."
    ::= { starentTrapData 131 }

starBfdLocalDisc OBJECT-TYPE
    SYNTAX      Unsigned32
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "This object specifies the local discriminator for this BFD
        session, used to uniquely identify it"
    ::= { starentTrapData 132 }

starBfdRemDisc OBJECT-TYPE
    SYNTAX      Unsigned32
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "This object specifies the session discriminator chosen
        by the remote system for this BFD session. The value may
        be zero(0) if the remote discriminator is not yet known
        or if the session is in the down or adminDown(1) state."
    ::= { starentTrapData 133 }

starBfdSessDiagCode OBJECT-TYPE
    SYNTAX      INTEGER {
        noDiagnostic(0),
        controlDetectionTimeExpired(1),
        echoFunctionFailed(2),
        neighborSignaledSessionDown(3),
        forwardingPlaneReset(4),
        pathDown(5),
        concatenatedPathDown(6),
        administrativelyDown(7),
        reverseConcatenatedPathDown(8),
        misConnectivityDefect(9)
    }
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "A diagnostic code specifying the local system's reason
        for the last transition of the session from up(4)
        to some other state."
    ::= { starentTrapData 134 }

starSRPSwitchReason OBJECT-TYPE
    SYNTAX      INTEGER {
        notDefined(0),
        aaaFailure(1),
        bgpFailure(2),
        bfdFailure(3),
        diameterFailure(4),
        hsrpSwitchover(5),
        chassisChassisBfdFailure(6),
        dualActive(7),
        dualStandby(8),
        deadTimerExpiry(9),
        forceStateChange(10),
        manualSwitchOver(11),
        egqcFailure(12)
    }
    MAX-ACCESS  accessible-for-notify

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

STATUS      current
DESCRIPTION
    "A Switchover code specifying the SRP's Switchover reason.
    The following reasons would appear when chassis transitioning
    from Active to Standby State:
        notDefined(0),
        aaaFailure(1),
        bgpFailure(2),
        bfdFailure(3),
        diameterFailure(4),
        hsrpSwitchover(5),
        dualActive(7),
        manualSwitchOver(11),
        egqcFailure(12),
    The following reasons would appear when chassis transitioning
    from Standby to Pending Active State:
        notDefined(0),
        chassisChassisBfdFailure(6),
        deadTimerExpiry(9)
    "
 ::= { starentTrapData 135 }

starHENBGWServiceTLRI OBJECT-TYPE
SYNTAX      Unsigned32
MAX-ACCESS  accessible-for-notify
STATUS      current
DESCRIPTION
    "HENBGW Service Overload Traffic load reduction indication percentage."
 ::= { starentTrapData 136 }

-- CBS START

starCBSServiceVpnName OBJECT-TYPE
SYNTAX      DisplayString
MAX-ACCESS  accessible-for-notify
STATUS      current
DESCRIPTION
    "CBS service context name"
 ::= { starentTrapData 139 }

starIuBcSelfPortNum OBJECT-TYPE
SYNTAX      Integer32(1..65535)
MAX-ACCESS  accessible-for-notify
STATUS      current
DESCRIPTION
    "IuBc Self Port Number"
 ::= { starentTrapData 140 }

starIuBcSelfIpAddr OBJECT-TYPE
SYNTAX      IpAddress
MAX-ACCESS  accessible-for-notify
STATUS      current
DESCRIPTION
    "IuBc Self IP Address"
 ::= { starentTrapData 141 }

starIuBcPeerPortNum OBJECT-TYPE
SYNTAX      Integer32(1..65535)
MAX-ACCESS  accessible-for-notify
STATUS      current
DESCRIPTION
    "Peer Port Number"
 ::= { starentTrapData 142 }

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

starIuBcPeerIpAddress OBJECT-TYPE
    SYNTAX      IPAddress
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "IuBc Peer IP Address"
    ::= { starentTrapData 143 }

starIuBcTcpConnCauseStr OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "IuBc Tcp Conn Cause Str"
    ::= { starentTrapData 144 }

starPhyPortId OBJECT-TYPE
    SYNTAX      Integer32
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "Physical Port Id as IfIndex"
    ::= { starentTrapData 145 }

starGTPCRLFSessMgrInst OBJECT-TYPE
    SYNTAX      Integer32
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "Session Manager Instance"
    ::= { starentTrapData 146 }

starGTPCRLFVPNName OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "The context name of VPN is "
    ::= { starentTrapData 147 }

starGTPCRLFVPNId OBJECT-TYPE
    SYNTAX      Integer32
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "The context Id of VPN is "
    ::= { starentTrapData 148 }

starGTPCRLFContextName OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "The name of Context is "
    ::= { starentTrapData 149 }

starGTPCRLFCurrAppTPS OBJECT-TYPE
    SYNTAX      Integer32
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "The current applied TPS value is "
    ::= { starentTrapData 150 }

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

starGTPCRLFCCurrAppDelayTol OBJECT-TYPE
    SYNTAX      Integer32
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "The current applied delay Tolerance value is "
    ::= { starentTrapData 151 }

starBGPPeerIpv6Address OBJECT-TYPE
    SYNTAX      Ipv6Address
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "Diameter Peer Address in IPv6"
    ::= { starentTrapData 152 }

-- CBS END
-- MME-EMBMS START
starMMEEMBMSServiceVpnName OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "MME-EMBMS service context name"
    ::= { starentTrapData 153 }

starMMEEMBMSServiceServName OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "MME-EMBMS service name"
    ::= { starentTrapData 154 }

starMMEEMBMSPeerId OBJECT-TYPE
    SYNTAX      Integer32(0..255)
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "Peer Id"
    ::= { starentTrapData 155 }

starMMEEMBMSPeerIpAddr OBJECT-TYPE
    SYNTAX      IpAddress
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "Peer IP Address"
    ::= { starentTrapData 156 }

starMMEEMBMSPeerPortNum OBJECT-TYPE
    SYNTAX      Integer32(1..65535)
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "Peer Port Number"
    ::= { starentTrapData 157 }

starImsimgrInstId OBJECT-TYPE
    SYNTAX      Integer32
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "IMSI Manager Instance"
    ::= { starentTrapData 158 }

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

starLAGGroup OBJECT-TYPE
    SYNTAX      Integer32(1..29)
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "The group number of the LAG group"
    ::= { starentTrapData 159 }

starLAGMinlink OBJECT-TYPE
    SYNTAX      Integer32(1..29)
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "The Minlink configured for this lag_group"
    ::= { starentTrapData 160 }

starVRFName OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "VRF Name"
    ::= { starentTrapData 161 }

starStatFilesizeLimit OBJECT-TYPE
    SYNTAX      Integer32(1..29)
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "The Stat File Size in integer"
    ::= { starentTrapData 162 }

starStatFilesizeMeasured OBJECT-TYPE
    SYNTAX      Integer32(1..29)
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "The Stat file Size measured"
    ::= { starentTrapData 163 }

starTetheringDatabasePreDBVersion OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "Tethering Database Pre-DB Version"
    ::= { starentTrapData 164 }

starTetheringDatabaseUpgradeDBVersion OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "Tethering Database Upgrade DB Version"
    ::= { starentTrapData 165 }

starTetheringDatabaseUpgradeComment OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "Tethering Database Upgrade Comment String"
    ::= { starentTrapData 166 }

starDiscReasons OBJECT-TYPE
    SYNTAX      OCTET STRING (SIZE (1..512))

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

MAX-ACCESS accessible-for-notify
STATUS      current
DESCRIPTION
    "Disconnect Reasons"
 ::= { starentTrapData 167 }

starDdfDev OBJECT-TYPE
SYNTAX      INTEGER {
                ddf0(0),
                ddf1(1)
            }
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "Identifies DDF Engine number that was reloaded"
 ::= { starentTrapData 168 }

starHdRaidMgmtCardSwitchoverCause OBJECT-TYPE
SYNTAX      INTEGER {
                unknown(0),
                stuck(1)
            }
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "Management Card Switchover due to HD Raid irrecoverable error cause"
 ::= { starentTrapData 169 }

starDiameterPeerName OBJECT-TYPE
SYNTAX      DisplayString
MAX-ACCESS  accessible-for-notify
STATUS      current
DESCRIPTION
    "Diameter Peer Name"
 ::= { starentTrapData 170 }

starDiameterRlfContext OBJECT-TYPE
SYNTAX      DisplayString
MAX-ACCESS  accessible-for-notify
STATUS      current
DESCRIPTION
    "RLF Context Name"
 ::= { starentTrapData 171 }

starDiameterRlfECode OBJECT-TYPE
SYNTAX      INTEGER {
                thresholdgood(0),
                thresholdover(1),
                overlimiterror(2)
            }
MAX-ACCESS  accessible-for-notify
STATUS      current
DESCRIPTION
    "Diameter Rlf Status Code"
 ::= { starentTrapData 172 }

starDiameterRlfTps OBJECT-TYPE
SYNTAX      Integer32
MAX-ACCESS  accessible-for-notify
STATUS      current
DESCRIPTION
    "Diameter RLF Configured TPS"
 ::= { starentTrapData 173 }

starDiameterRlfDelayTolerance OBJECT-TYPE

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

SYNTAX      Integer32
MAX-ACCESS  accessible-for-notify
STATUS      current
DESCRIPTION
    "Diameter RLF Configured Delay Tolerance"
 ::= { starentTrapData 174 }

starDiameterRlfQueuePercent OBJECT-TYPE
SYNTAX      Integer32(0..100)
MAX-ACCESS  accessible-for-notify
STATUS      current
DESCRIPTION
    "Diameter RLF Current Queue Percentage"
 ::= { starentTrapData 175 }

starDiameterDiamproxyInstance OBJECT-TYPE
SYNTAX      Integer32(1..144)
MAX-ACCESS  accessible-for-notify
STATUS      current
DESCRIPTION
    "Diameter Proxy Instance Number"
 ::= { starentTrapData 176 }

starSmartLicenseServiceUsage OBJECT-TYPE
SYNTAX      Unsigned32
MAX-ACCESS  accessible-for-notify
STATUS      current
DESCRIPTION
    "Smart License Service usage count"
 ::= { starentTrapData 177 }

starSmartLicenseServiceName OBJECT-TYPE
SYNTAX      DisplayString
MAX-ACCESS  accessible-for-notify
STATUS      current
DESCRIPTION
    "Smart License Service name"
 ::= { starentTrapData 178 }

starSmartLicenseEvalModeRemaining OBJECT-TYPE
SYNTAX      Unsigned32
MAX-ACCESS  accessible-for-notify
STATUS      current
DESCRIPTION
    "Renaming number of days the device can be used in Evaluation Mode"
 ::= { starentTrapData 179 }

starRuleBaseName OBJECT-TYPE
SYNTAX      DisplayString
MAX-ACCESS  accessible-for-notify
STATUS      current
DESCRIPTION
    "Rulebase Name"
 ::= { starentTrapData 180 }

starRuleDefName OBJECT-TYPE
SYNTAX      DisplayString
MAX-ACCESS  accessible-for-notify
STATUS      current
DESCRIPTION
    "Ruledef/GroupOfRuledef Name"
 ::= { starentTrapData 181 }

starGroupOfRuledef OBJECT-TYPE
SYNTAX      INTEGER {
    Ruledef(0),
    GroupOfRuledef(1)

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

    }
    MAX-ACCESS accessible-for-notify
    STATUS current
    DESCRIPTION
        "GroupOfRuledef flag"
    ::= { starentTrapData 182 }

starIkeV2DDoSUDPFailClearStr OBJECT-TYPE
    SYNTAX Unsigned32
    MAX-ACCESS accessible-for-notify
    STATUS current
    DESCRIPTION
        "Clear string for IKEv2 DDoS UDP Fail clear alarm"
    ::= { starentTrapData 183 }

starMacaddress OBJECT-TYPE
    SYNTAX DisplayString
    MAX-ACCESS accessible-for-notify
    STATUS current
    DESCRIPTION
        "Mac Address for NicBondChange trap"
    ::= { starentTrapData 184 }

starP2PPluginVersion OBJECT-TYPE
    SYNTAX DisplayString
    MAX-ACCESS accessible-for-notify
    STATUS current
    DESCRIPTION
        "P2P Plugin Version for ADC license"
    ::= { starentTrapData 185 }

starADCLicenseExpiryDate OBJECT-TYPE
    SYNTAX DateAndTime
    MAX-ACCESS accessible-for-notify
    STATUS current
    DESCRIPTION
        "The license expiration date/time"
    ::= { starentTrapData 186 }

starSxInterfaceType OBJECT-TYPE
    SYNTAX INTEGER {
        invalid(0),
        sxa(1),
        sxb(2),
        sxab(3)
    }
    MAX-ACCESS accessible-for-notify
    STATUS current
    DESCRIPTION
        "Sx interface type"
    ::= { starentTrapData 187 }

starSxSelfAddr OBJECT-TYPE
    SYNTAX IpAddress
    MAX-ACCESS accessible-for-notify
    STATUS current
    DESCRIPTION
        "The IP Address of the Sx Service"
    ::= { starentTrapData 188 }

starSxPeerAddr OBJECT-TYPE
    SYNTAX IpAddress
    MAX-ACCESS accessible-for-notify
    STATUS current
    DESCRIPTION
        "The IP Address of the Sx Peer Node"

```



## STARENT-MIB DEFINITIONS ::= BEGIN

```

 ::= { starentTrapData 189 }

starSxPeerNewRecTimeStamp OBJECT-TYPE
    SYNTAX      DateAndTime
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "The New Recovery timestamp of the Peer"
 ::= { starentTrapData 190 }

starSxPeerOldRecTimeStamp OBJECT-TYPE
    SYNTAX      DateAndTime
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "The Old Recovery timestamp of the Peer"
 ::= { starentTrapData 191 }

starSxFailureCause OBJECT-TYPE
    SYNTAX      INTEGER {
        unknown(0),
        no-response-from-peer(1),
        recovery-timestamp-change-in-heartbeat-req-msg(2),
        recovery-timestamp-change-in-heartbeat-rsp-msg(3),
        recovery-timestamp-change-in-control-msg(4),
        heartbeat-rsp-received(5),
        heartbeat-req-received(6),
        sx-association-established(7),
        bfd-failure(8)
    }
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "Sx Path failure cause"
 ::= { starentTrapData 192 }

starChassisThroughputLimit OBJECT-TYPE
    SYNTAX      Gauge32
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "The committed chassis throughput"
 ::= { starentTrapData 193 }

starChassisThroughputMeasured OBJECT-TYPE
    SYNTAX      Gauge32
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "The served chassis throughput"
 ::= { starentTrapData 194 }

starSmartLicenseFeatureUsage OBJECT-TYPE
    SYNTAX      Unsigned32
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "Smart License Feature usage count"
 ::= { starentTrapData 195 }

starSmartLicenseFeatureName OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "Smart License Feature name"
 ::= { starentTrapData 196 }

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

starCommonDatabasePreDBVersion OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "Common Database Pre-DB Version"
    ::= { starentTrapData 197 }

starCommonDatabaseUpgradeDBVersion OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "Common Database Upgrade DB Version"
    ::= { starentTrapData 198 }

starCommonDatabaseUpgradeComment OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "Common Database Upgrade Comment String"
    ::= { starentTrapData 199 }

starSxCPUGroupNames OBJECT-TYPE
    SYNTAX      OCTET STRING (SIZE (1..32))
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "The name of the CP or UP group"
    ::= { starentTrapData 200 }

-- MME-EMBMS END

-- L2TP objects, used for traps only

starentL2TP OBJECT IDENTIFIER ::= { starentMIBObjects 33 }

starL2TPTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF StarL2TPEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "A table containing L2TP related information"
    ::= { starentL2TP 1 }

starL2TPEntry OBJECT-TYPE
    SYNTAX      StarL2TPEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "The statistics for a L2TP entry"
    INDEX { starL2TPLocalTunnelID, starL2TPPeerTunnelID }
    ::= { starL2TPTable 1 }

StarL2TPEntry ::=
    SEQUENCE {
        starL2TPLocalTunnelID      Unsigned32,
        starL2TPPeerTunnelID      Unsigned32,
        starL2TPContextName       DisplayString,
        starL2TPServiceName       DisplayString,
        starL2TPServiceTypeName   DisplayString,
        starL2TPLocalAddress      IpAddress,
        starL2TPPeerAddress       IpAddress
    }

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

    }

starL2TPLocalTunnelID OBJECT-TYPE
    SYNTAX      Unsigned32
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "The internal identification of the L2TP local tunnel ID"
    ::= { starL2TPEntry 1 }

starL2TPPeerTunnelID OBJECT-TYPE
    SYNTAX      Unsigned32
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "The internal identification of the L2TP peer tunnel ID"
    ::= { starL2TPEntry 2 }

starL2TPContextName OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "The name of the context"
    ::= { starL2TPEntry 3 }

starL2TPServiceName OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "The name of the service"
    ::= { starL2TPEntry 4 }

starL2TPServiceTypeName OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "The name of the service type"
    ::= { starL2TPEntry 5 }

starL2TPLocalAddress OBJECT-TYPE
    SYNTAX      IpAddress
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "The local address of the service"
    ::= { starL2TPEntry 6 }

starL2TPPeerAddress OBJECT-TYPE
    SYNTAX      IpAddress
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "The peer address of the service"
    ::= { starL2TPEntry 7 }

-- GGSN; these objects are provided for use in SNMP Traps only

starentGGSNService OBJECT IDENTIFIER ::= { starentMIBObjects 32 }

starGGSNSerTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF StarGGSNSerEntry
    MAX-ACCESS  not-accessible
    STATUS      current

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

DESCRIPTION
    "A table containing GGSN related information"
 ::= { starentGGSNService 1 }

starGGSNSerEntry OBJECT-TYPE
SYNTAX      StarGGSNSerEntry
MAX-ACCESS not-accessible
STATUS      current
DESCRIPTION
    "The statistics for a specific GGSN service"
INDEX { starGGSNSerVpnID, starGGSNSerSvcID }
 ::= { starGGSNSerTable 1 }

StarGGSNSerEntry ::=
SEQUENCE {
    starGGSNSerVpnID          Gauge32,
    starGGSNSerSvcID         Gauge32,
    starSessGGSNVpnName      DisplayString,
    starSessGGSNServName     DisplayString,
    starSessGGSNPeerPort     Gauge32,
    starSessGGSNPeerAddr     IPAddress,
    starSessGGSNImsi         OCTET STRING,
    starSessGGSNSubsName     OCTET STRING,
    starSessGGSNAPNName      OCTET STRING,
    starSessGTPPGroupName    OCTET STRING
}

starGGSNSerVpnID OBJECT-TYPE
SYNTAX      Gauge32
MAX-ACCESS not-accessible
STATUS      current
DESCRIPTION
    "The internal identification of the VPN (context)"
 ::= { starGGSNSerEntry 1 }

starGGSNSerSvcID OBJECT-TYPE
SYNTAX      Gauge32
MAX-ACCESS not-accessible
STATUS      current
DESCRIPTION
    "The internal identification of this service; unique within a specific context"
 ::= { starGGSNSerEntry 2 }

starSessGGSNVpnName OBJECT-TYPE
SYNTAX      DisplayString
MAX-ACCESS read-only
STATUS      current
DESCRIPTION
    "The name of this VPN (context)"
 ::= { starGGSNSerEntry 3 }

starSessGGSNServName OBJECT-TYPE
SYNTAX      DisplayString
MAX-ACCESS read-only
STATUS      current
DESCRIPTION
    "The name of this service"
 ::= { starGGSNSerEntry 4 }

starSessGGSNPeerPort OBJECT-TYPE
SYNTAX      Gauge32
MAX-ACCESS accessible-for-notify
STATUS      current
DESCRIPTION
    "The Peer Port for which PATH Failure has occurred"

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

 ::= { starGGSNSerEntry 5 }

starSessGGSNPeerAddr OBJECT-TYPE
    SYNTAX      IPAddress
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The Peer Address for which PATH Failure has occurred"
 ::= { starGGSNSerEntry 6 }

starSessGGSNImsi OBJECT-TYPE
    SYNTAX      OCTET STRING (SIZE (1..8))
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "The IMSI of the subscriber"
 ::= { starGGSNSerEntry 7 }

starSessGGSNSubsName OBJECT-TYPE
    SYNTAX      OCTET STRING (SIZE (1..128))
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "The name of the subscriber"
 ::= { starGGSNSerEntry 8 }

starSessGGSNAPNName OBJECT-TYPE
    SYNTAX      OCTET STRING (SIZE (1..64))
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "The name of the APN"
 ::= { starGGSNSerEntry 9 }

starSessGTPPGroupName OBJECT-TYPE
    SYNTAX      OCTET STRING (SIZE (1..64))
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "The name of the GTPP Group"
 ::= { starGGSNSerEntry 10 }

-- single subscriber info

-- This is used to perform a lookup on information on a single subscriber.  This is done in a
-- two-step process
--
-- 1. Use a SET pdu to provide the keys to lookup.  Set one or more of the fields
--    starSessSublContext, starSessSublNAI, starSessSublMSID, starSessSublIpAddr
--
--    The SET pdu returns once the query is complete.  This query can takes some time
--    especially on large systems, so do not use small retry timers.
--
-- 2. Use a GET pdu to retrieve the data.
--
-- Note that in some cases, multiple subscribers might match the given search criteria.
-- The starSessSublLastResult field identifies if zero, one or multiple matches were found.
-- If multiple matches are found, data is returned for one of them.

starSessSubl OBJECT IDENTIFIER ::= { starentMIBObjects 34 }

starSessSublContext OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  read-write

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

STATUS      current
DESCRIPTION
    "The name of the context for this subscriber.

    If a SET is received, triggers a lookup for a subscriber that matches the
    specified search criteria and fills in the various objects in this row."
 ::= { starSessSub1 1 }

starSessSub1NAI OBJECT-TYPE
SYNTAX      OCTET STRING (SIZE (1..128))
MAX-ACCESS  read-write
STATUS      current
DESCRIPTION
    "The NAI for this subscriber

    If a SET is received, triggers a lookup for a subscriber that matches the
    specified search criteria and fills in the various objects in this row."
 ::= { starSessSub1 2 }

starSessSub1MSID OBJECT-TYPE
SYNTAX      OCTET STRING (SIZE (1..16))
MAX-ACCESS  read-write
STATUS      current
DESCRIPTION
    "The MSID for this subscriber

    If a SET is received, triggers a lookup for a subscriber that matches the
    specified search criteria and fills in the various objects in this row."
 ::= { starSessSub1 3 }

starSessSub1IpAddr OBJECT-TYPE
SYNTAX      IpAddress
MAX-ACCESS  read-write
STATUS      current
DESCRIPTION
    "The remote IP address for this subscriber

    If a SET is received, triggers a lookup for a subscriber that matches the
    specified search criteria and fills in the various objects in this row."
 ::= { starSessSub1 4 }

starSessSub1LastResult OBJECT-TYPE
SYNTAX      INTEGER {
        unknown(0),
        error(1),
        nomatch(2),
        onematch(3),
        multimatch(4)
        }
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The result of the last search.  A value of unknown(0) means that the query
    wasn't created properly, or that no query has been performed; error(1)
    indicates an internal error performing the query, this is an abnormal
    condition that shouldn't normally be seen; nomatch(2) means that the
    query did not find a matching subscriber; onematch(3) means that the
    query found exactly one subscriber; multimatch(4) means that more than
    one subscriber matched; the information for one (random) subscriber
    was fetched"
 ::= { starSessSub1 5 }

starSessSub1ServiceName OBJECT-TYPE
SYNTAX      OCTET STRING (SIZE (1..63))
MAX-ACCESS  read-only
STATUS      current

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

DESCRIPTION
    "The service name of the subscriber."
 ::= { starSessSub1 6 }

starSessSub1HAIpAddress OBJECT-TYPE
SYNTAX      IpAddress
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The HA IP address for FA MIP connections"
 ::= { starSessSub1 7 }

starSessSub1PeerIpAddress OBJECT-TYPE
SYNTAX      IpAddress
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The remote IP address of the peer.  The type of peer depends
    on the session type.

    Session Type          Peer
    -----
    PDSN                  PCF
    GGSN                  SGSN
    HA Mobile IP/HA IPSEC FA
    LAC                   LNS
    LNS                   LAC"
 ::= { starSessSub1 8 }

starSessSub1InPackets OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The number of incoming packets for the subscriber"
 ::= { starSessSub1 9 }

starSessSub1InPacketsDropped OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The number of incoming packets dropped for the subscriber"
 ::= { starSessSub1 10 }

starSessSub1InBytes OBJECT-TYPE
SYNTAX      Counter32
UNITS       "KB"
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The count of incoming bytes for the subscriber, in kilobytes,
    rounded down (i.e. 1023 bytes = 0 kilobytes)"
 ::= { starSessSub1 11 }

starSessSub1OutPackets OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The number of outgoing packets for the subscriber"
 ::= { starSessSub1 12 }

starSessSub1OutPacketsDropped OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

DESCRIPTION
    "The number of out going packets dropped for the subscriber"
 ::= { starSessSub1 13 }

starSessSub1OutBytes OBJECT-TYPE
    SYNTAX      Counter32
    UNITS       "KB"
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The count of outgoing bytes for the subscriber, in kilobytes,
         rounded down (i.e. 1023 bytes = 0 kilobytes)"
 ::= { starSessSub1 14 }

starSessSub1Activity OBJECT-TYPE
    SYNTAX      Gauge32
    UNITS       "%"
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "TBD"
 ::= { starSessSub1 15 }

starSessSub1State OBJECT-TYPE
    SYNTAX      INTEGER {
        unknown(0),
        connecting(1),
        connected(2),
        disconnecting(3)
    }
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The state of the subscriber"
 ::= { starSessSub1 16 }

starSessSub1CallID OBJECT-TYPE
    SYNTAX      Integer32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The internal call ID of the subscriber"
 ::= { starSessSub1 17 }

starSessSub1ConnectTime OBJECT-TYPE
    SYNTAX      DateAndTime
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The connect time for the subscriber, in UTC.  The UNIX epoch (Jan 1, 1970) is used if no
         value is available"
 ::= { starSessSub1 18 }

starSessSub1CallDuration OBJECT-TYPE
    SYNTAX      Counter32
    UNITS       "Seconds"
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The duration of the call, in seconds"
 ::= { starSessSub1 19 }

starSessSub1TimeIdle OBJECT-TYPE
    SYNTAX      Gauge32
    UNITS       "Seconds"
    MAX-ACCESS  read-only

```



## STARENT-MIB DEFINITIONS ::= BEGIN

```

STATUS      current
DESCRIPTION
    "The idle time of the call, in seconds"
 ::= { starSessSub1 20 }

starSessSub1AccessType OBJECT-TYPE
SYNTAX      INTEGER {
    unknown(0),
    pdsnsimpleip(1),
    pdsnmobileip(2),
    hamobileip(3),
    ggsnpdtypeipv4(4),
    ggsnpdtypeppp(5),
    ggsnpdtypeipv6(6),
    lns12tp(7),
    haipsec(8),
    ipsg(9),
    pdsnsipmip(10),
    miproxyfa(11),
    imsa(12),
    bcmcs(13),
    ggsnmip(14),
    ipprobe(15),
    ansgw(16)
}
MAX-ACCESS read-only
STATUS      current
DESCRIPTION
    "The access type for the subscriber"
 ::= { starSessSub1 21 }

starSessSub1AccessTech OBJECT-TYPE
SYNTAX      INTEGER {
    unknown(0),
    cdmalxrtt(1),
    cdmaevdo(2),
    cdmaother(3),
    wcdmautran(4),
    gprsgeran(5),
    gprsother(6),
    wirelesslan(7),
    ipsg(8),
    wimax(9),
    sip(10),
    other(11),
    cdmaevdoreva(12),
    pdif(13),
    phs(14),
    ehrpd(15),
    eutran(16),
    gan(17),
    hspa(18)
}
MAX-ACCESS read-only
STATUS      current
DESCRIPTION
    "The access technology for the subscriber"
 ::= { starSessSub1 22 }

starSessSub1LinkStatus OBJECT-TYPE
SYNTAX      INTEGER {
    unknown(0),
    active(1),
    dormant(2)
}
MAX-ACCESS read-only
STATUS      current

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

DESCRIPTION
    "The link status for the subscriber"
 ::= { starSessSub1 23 }

starSessSub1NetworkType OBJECT-TYPE
    SYNTAX      INTEGER {
        unknown(0),
        ip(1),
        mobileip(2),
        l2tp(3),
        proxymobileip(4),
        ipinip(5),
        gre(6),
        ipv6inipv4(7)
    }
    MAX-ACCESS read-only
    STATUS      current
    DESCRIPTION
        "The network type for the subscriber"
 ::= { starSessSub1 24 }

starSessSub1CarrierID OBJECT-TYPE
    SYNTAX      OCTET STRING (SIZE (0..6))
    MAX-ACCESS read-only
    STATUS      current
    DESCRIPTION
        "Carrier ID"
 ::= { starSessSub1 25 }

starSessSub1ESN OBJECT-TYPE
    SYNTAX      OCTET STRING (SIZE (0..15))
    MAX-ACCESS read-only
    STATUS      current
    DESCRIPTION
        "Electronic Serial Number"
 ::= { starSessSub1 26 }

starSessSub1GMTTimezoneOffset OBJECT-TYPE
    SYNTAX      Integer32
    UNITS       "Seconds"
    MAX-ACCESS read-only
    STATUS      current
    DESCRIPTION
        "Timezone offset from GMT, in seconds. This is a signed value"
 ::= { starSessSub1 27 }

starSessSub1SessMgr OBJECT-TYPE
    SYNTAX      Unsigned32
    MAX-ACCESS read-only
    STATUS      current
    DESCRIPTION
        "The instance number of the session manager for this subscriber."
 ::= { starSessSub1 28 }

starSessSub1RemoteIPAddr OBJECT-TYPE
    SYNTAX      IpAddress
    MAX-ACCESS read-only
    STATUS      current
    DESCRIPTION
        "Remote IP Address"
 ::= { starSessSub1 29 }

starSessSub1Card OBJECT-TYPE
    SYNTAX      Integer32(1..16)
    MAX-ACCESS read-only
    STATUS      current

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

DESCRIPTION
"The card holding the session manager for this session. Use in combination
with starSessSub1CPU"
 ::= { starSessSub1 30 }

starSessSub1CPU OBJECT-TYPE
SYNTAX      Integer32(0..3)
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
"The CPU holding the session manager for this session. Use in combination
with starSessSub1Card"
 ::= { starSessSub1 31 }

starSessSub1TimeIdleLeft OBJECT-TYPE
SYNTAX      Gauge32
UNITS       "Seconds"
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
"The remaining idle time of the call, in seconds. A value of 0xffffffff is used if the call
does not have an idle timeout"
 ::= { starSessSub1 32 }

starSessSub1TimeLeft OBJECT-TYPE
SYNTAX      Gauge32
UNITS       "Seconds"
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
"The remaining session time of the call, in seconds. A value of 0xffffffff is used if the call
does not have a session timeout"
 ::= { starSessSub1 33 }

starSessSub1TimeLongDurLeft OBJECT-TYPE
SYNTAX      Gauge32
UNITS       "Seconds"
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
"The remaining long duration time of the call, in seconds. A value of 0xffffffff is used if the
call
does not have a long duration timer"
 ::= { starSessSub1 34 }

starSessSub1LongDurAction OBJECT-TYPE
SYNTAX      StarLongDurTimeoutAction
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
"The action to take when the long duration timer is reached"
 ::= { starSessSub1 35 }

starSessSub1AlwaysOn OBJECT-TYPE
SYNTAX      INTEGER {
                unknown(0),
                enabled(1),
                disabled(2)
              }
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
" "
 ::= { starSessSub1 36 }

starSessSub1IPPoolName OBJECT-TYPE
SYNTAX      OCTET STRING (SIZE(0..31))

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

MAX-ACCESS read-only
STATUS current
DESCRIPTION
" "
 ::= { starSessSub1 37 }

starSessSub1VLANID OBJECT-TYPE
SYNTAX Unsigned32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
"0 is returned if this is not applicable"
 ::= { starSessSub1 38 }

starSessSub1LNSIPAddr OBJECT-TYPE
SYNTAX IpAddress
MAX-ACCESS read-only
STATUS current
DESCRIPTION
"Only valid if starSessSub1NetworkType is l2tp(3), otherwise 0.0.0.0"
 ::= { starSessSub1 39 }

starSessSub1ProxyMIP OBJECT-TYPE
SYNTAX INTEGER {
    unknown(0),
    enabled(1),
    disabled(2)
}
MAX-ACCESS read-only
STATUS current
DESCRIPTION
" "
 ::= { starSessSub1 40 }

starSessSub1GGSNMIP OBJECT-TYPE
SYNTAX INTEGER {
    unknown(0),
    enabled(1),
    disabled(2)
}
MAX-ACCESS read-only
STATUS current
DESCRIPTION
" "
 ::= { starSessSub1 41 }

starSessSub1HomeAgentIpAddr OBJECT-TYPE
SYNTAX IpAddress
MAX-ACCESS read-only
STATUS current
DESCRIPTION
"The IP address of the Home Agent. This value is applicable only if one of the following
is true:
    1. The value of starSessSub1AccessType is pdsmobileip(2)
    2. The value of starSessSub1ProxyMIP is enabled(1)
    3. The value of starSessSub1GGSNMIP is enabled(1)
If not applicable, a value of 0.0.0.0 will be returned"
 ::= { starSessSub1 42 }

starSessSub1LocalIPAddr OBJECT-TYPE
SYNTAX IpAddress
MAX-ACCESS read-only
STATUS current
DESCRIPTION
"The Local IP address of the Home Agent. This value is applicable only if one of the following
is true:

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

        1. The value of starSessSub1AccessType is pdsnsimpleip(1)
        2. The value of starSessSub1AccessType is ggsnpdptypeppp(5)
        3. The value of starSessSub1AccessType is lns12tp(7)
    If not applicable, a value of 0.0.0.0 will be returned"
 ::= { starSessSub1 43 }

starSessSub1FAServiceName OBJECT-TYPE
    SYNTAX      OCTET STRING (SIZE (1..63))
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The FA service name for the subscriber. This value is applicable only if one of the following
    is true:
        1. The value of starSessSub1AccessType is pdsnmobileip(2)
        2. The value of starSessSub1ProxyMIP is enabled(1)
        3. The value of starSessSub1GGSNMIP is enabled(1)
    "
 ::= { starSessSub1 44 }

starSessSub1FAVPNName OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The FA VPN (Context) name. This value is applicable only if one of the following
    is true:
        1. The value of starSessSub1AccessType is pdsnmobileip(2)
        2. The value of starSessSub1ProxyMIP is enabled(1)
        3. The value of starSessSub1GGSNMIP is enabled(1)
    "
 ::= { starSessSub1 45 }

starSessSub1SourceVPN OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The Source VPN (Context) name."
 ::= { starSessSub1 46 }

starSessSub1DestVPN OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The Destination VPN (Context) name."
 ::= { starSessSub1 47 }

starSessSub1AAAVPN OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        " "
 ::= { starSessSub1 48 }

starSessSub1AAADomain OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        " "
 ::= { starSessSub1 49 }

starSessSub1AAASStart OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

    STATUS      current
    DESCRIPTION
    " "
    ::= { starSessSub1 50 }

starSessSub1AAAStop OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
    " "
    ::= { starSessSub1 51 }

starSessSub1AAAInterim OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
    " "
    ::= { starSessSub1 52 }

starSessSub1AcctSessionID OBJECT-TYPE
    SYNTAX      OCTET STRING (SIZE(0..47))
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
    " "
    ::= { starSessSub1 53 }

starSessSub1AAARadiusGroup OBJECT-TYPE
    SYNTAX      OCTET STRING (SIZE(0..63))
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
    " "
    ::= { starSessSub1 54 }

starSessSub1AAARadiusAuthServerIPAddr OBJECT-TYPE
    SYNTAX      IpAddress
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
    " "
    ::= { starSessSub1 55 }

starSessSub1AAARadiusAcctServerIPAddr OBJECT-TYPE
    SYNTAX      IpAddress
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
    " "
    ::= { starSessSub1 56 }

starSessSub1NASIPAddr OBJECT-TYPE
    SYNTAX      IpAddress
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
    "NAS IP Address (D2)"
    ::= { starSessSub1 57 }

starSessSub1NextHopIPAddr OBJECT-TYPE
    SYNTAX      IpAddress
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

" "
 ::= { starSessSub1 58 }

starSessSub1ActiveInACL OBJECT-TYPE
    SYNTAX      OCTET STRING (SIZE(0..79))
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
    " "
    ::= { starSessSub1 59 }

starSessSub1ActiveOutACL OBJECT-TYPE
    SYNTAX      OCTET STRING (SIZE(0..79))
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
    " "
    ::= { starSessSub1 60 }

starSessSub1ECSRulebase OBJECT-TYPE
    SYNTAX      OCTET STRING (SIZE(0..63))
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
    " "
    ::= { starSessSub1 61 }

starSessSub1InPlcyGrp OBJECT-TYPE
    SYNTAX      OCTET STRING (SIZE(0..15))
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
    " "
    ::= { starSessSub1 62 }

starSessSub1OutPlcyGrp OBJECT-TYPE
    SYNTAX      OCTET STRING (SIZE(0..15))
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
    " "
    ::= { starSessSub1 63 }

starSessSub1DownTrafPolState OBJECT-TYPE
    SYNTAX      INTEGER {
        unknown(0),
        enabled(1),
        disabled(2)
    }
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
    "Downlink traffic policing state"
    ::= { starSessSub1 64 }

starSessSub1DownCommDataRate OBJECT-TYPE
    SYNTAX      Unsigned32
    UNITS       "bps"
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
    "Downlink committed data rate, in bps. This value is only valid if
    starSessSub1DownTrafPolState is enabled(1)"
    ::= { starSessSub1 65 }

starSessSub1DownPeakDataRate OBJECT-TYPE
    SYNTAX      Unsigned32

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

UNITS          "bps"
MAX-ACCESS    read-only
STATUS        current
DESCRIPTION
"Downlink peak data rate, in bps.  This value will be 0 if the value
of starSessSub1DownTrafPolState is anything other than enabled(1)"
 ::= { starSessSub1 66 }

starSessSub1DownBurstSize OBJECT-TYPE
SYNTAX        Unsigned32
UNITS          "bytes"
MAX-ACCESS    read-only
STATUS        current
DESCRIPTION
"Downlink burst size, in bytes.  This value will be 0 if the value
of starSessSub1DownTrafPolState is anything other than enabled(1)"
 ::= { starSessSub1 67 }

starSessSub1DownExceedAction OBJECT-TYPE
SYNTAX        StarQOSTPAction
MAX-ACCESS    read-only
STATUS        current
DESCRIPTION
"Downlink Exceed Action.  This value will be notapplicable(1) if the value
of starSessSub1DownTrafPolState is anything other than enabled(1)"
 ::= { starSessSub1 68 }

starSessSub1DownViolateAction OBJECT-TYPE
SYNTAX        StarQOSTPAction
MAX-ACCESS    read-only
STATUS        current
DESCRIPTION
"Downlink Violate Action.  This value will be notapplicable(1) if the value
of starSessSub1DownTrafPolState is anything other than enabled(1)"
 ::= { starSessSub1 69 }

starSessSub1DownExceed OBJECT-TYPE
SYNTAX        Counter32
UNITS          "packets"
MAX-ACCESS    read-only
STATUS        current
DESCRIPTION
"Downlink packets exceeded bandwidth parameters"
 ::= { starSessSub1 70 }

starSessSub1DownViolate OBJECT-TYPE
SYNTAX        Counter32
UNITS          "packets"
MAX-ACCESS    read-only
STATUS        current
DESCRIPTION
"Downlink packets violated bandwidth parameters"
 ::= { starSessSub1 71 }

starSessSub1UpTrafPolState OBJECT-TYPE
SYNTAX        INTEGER {
            unknown(0),
            enabled(1),
            disabled(2)
        }
MAX-ACCESS    read-only
STATUS        current
DESCRIPTION
"Uplink traffic policing state"
 ::= { starSessSub1 72 }

```



## STARENT-MIB DEFINITIONS ::= BEGIN

```

starSessSub1UpCommDataRate OBJECT-TYPE
    SYNTAX Unsigned32
    UNITS "bps"
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Uplink committed data rate, in bps. This value is only valid if
        starSessSub1UpTrafPolState is enabled(1)"
    ::= { starSessSub1 73 }

starSessSub1UpPeakDataRate OBJECT-TYPE
    SYNTAX Unsigned32
    UNITS "bps"
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Uplink peak data rate, in bps. This value will be 0 if the value
        of starSessSub1UpTrafPolState is anything other than enabled(1)"
    ::= { starSessSub1 74 }

starSessSub1UpBurstSize OBJECT-TYPE
    SYNTAX Unsigned32
    UNITS "bytes"
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Uplink burst size, in bytes. This value will be 0 if the value
        of starSessSub1UpTrafPolState is anything other than enabled(1)"
    ::= { starSessSub1 75 }

starSessSub1UpExceedAction OBJECT-TYPE
    SYNTAX StarQOSTPAction
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Uplink Exceed Action. This value will be notapplicable(1) if the value
        of starSessSub1UpTrafPolState is anything other than enabled(1)"
    ::= { starSessSub1 76 }

starSessSub1UpViolateAction OBJECT-TYPE
    SYNTAX StarQOSTPAction
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Uplink Violate Action. This value will be notapplicable(1) if the value
        of starSessSub1UpTrafPolState is anything other than enabled(1)"
    ::= { starSessSub1 77 }

starSessSub1UpExceed OBJECT-TYPE
    SYNTAX Counter32
    UNITS "packets"
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Uplink packets exceeded bandwidth parameters"
    ::= { starSessSub1 78 }

starSessSub1UpViolate OBJECT-TYPE
    SYNTAX Counter32
    UNITS "packets"
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Uplink packets violated bandwidth parameters"
    ::= { starSessSub1 79 }

starSessSub1L3TunnelingState OBJECT-TYPE

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

SYNTAX      INTEGER {
    unknown(0),
    enabled(1),
    disabled(2)
}
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
"Identifies if L3 tunneling is enabled. This value should be enabled(1) if
starSessSub1NetworkType is ipinip(5) or gre(6)"
 ::= { starSessSub1 80 }

starSessSub1L3TunLocalIPAddr OBJECT-TYPE
SYNTAX      IPAddress
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
"L3 tunnel local address. This value is valid only if starSessSub1L3TunnelState
is enabled(1), other it will be 0.0.0.0"
 ::= { starSessSub1 81 }

starSessSub1L3TunRemoteIPAddr OBJECT-TYPE
SYNTAX      IPAddress
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
"L3 tunnel remote address. This value is valid only if starSessSub1L3TunnelState
is enabled(1), other it will be 0.0.0.0"
 ::= { starSessSub1 82 }

starSessSub1AddrViaDHCP OBJECT-TYPE
SYNTAX      INTEGER {
    unknown(0),
    enabled(1),
    disabled(2)
}
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
" "
 ::= { starSessSub1 83 }

starSessSub1DHCPServName OBJECT-TYPE
SYNTAX      OCTET STRING (SIZE(0..63))
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
"DHCP service name. This value is only valid if starSessSub1DHCPAddrViaDHCP
is enabled(1)"
 ::= { starSessSub1 84 }

starSessSub1DHCPServIPAddr OBJECT-TYPE
SYNTAX      IPAddress
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
"DHCP service IP address. This value is only valid if starSessSub1DHCPAddrViaDHCP
is enabled(1), otherwise it will be 0.0.0.0"
 ::= { starSessSub1 85 }

starSessSub1AccessLinkIPFrag OBJECT-TYPE
SYNTAX      INTEGER {
    unknown(0),
    normal(1),
    dfignore(2),
    dffragandicmp(3)
}

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

    }
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
    " "
    ::= { starSessSub1 86 }

starSessSub1IgnoreDFBit OBJECT-TYPE
    SYNTAX INTEGER {
        unknown(0),
        enabled(1),
        disabled(2)
    }
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
    "Ignore DF-bit data-tunnel"
    ::= { starSessSub1 87 }

starSessSub1MIPGratARPMode OBJECT-TYPE
    SYNTAX INTEGER {
        unknown(0),
        notapplicable(1),
        aggressive(2),
        normal(3)
    }
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
    "This field is only applicable if starSessSub1AccessType is hamobileip(3) or haipsec(8)"
    ::= { starSessSub1 88 }

starSessSub1ExtInlSrvrProc OBJECT-TYPE
    SYNTAX INTEGER {
        unknown(0),
        enabled(1),
        disabled(2)
    }
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
    "The state of external inline server processing"
    ::= { starSessSub1 89 }

starSessSub1ExtInlSrvrIngrIPAddr OBJECT-TYPE
    SYNTAX IpAddress
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
    "The external inline server ingress IP address. This value is only valid if
    starSessSub1ExtInlSrvrProc is enabled(1)"
    ::= { starSessSub1 90 }

starSessSub1ExtInlSrvrIngrVLANTag OBJECT-TYPE
    SYNTAX Unsigned32
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
    "The external inline server ingress VLAN tag. This value is only valid if
    starSessSub1ExtInlSrvrProc is enabled(1)"
    ::= { starSessSub1 91 }

starSessSub1ExtInlSrvrEgrIPAddr OBJECT-TYPE
    SYNTAX IpAddress
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

    "The external inline server egress IP address. This value is only valid if
    starSessSublExtInlSrvrProc is enabled(1)"
    ::= { starSessSubl 92 }

```

```

starSessSublExtInlSrvrEgrVLANtag OBJECT-TYPE

```

```

    SYNTAX Unsigned32

```

```

    MAX-ACCESS read-only

```

```

    STATUS current

```

```

    DESCRIPTION

```

```

    "The external inline server egress VLAN tag. This value is only valid if
    starSessSublExtInlSrvrProc is enabled(1)"

```

```

    ::= { starSessSubl 93 }

```

```

starSessSublExtInlSrvrVPNName OBJECT-TYPE

```

```

    SYNTAX DisplayString

```

```

    MAX-ACCESS read-only

```

```

    STATUS current

```

```

    DESCRIPTION

```

```

    "The external inline server context (VPN). This value is only valid if
    starSessSublExtInlSrvrProc is enabled(1)"

```

```

    ::= { starSessSubl 94 }

```

```

starSessSublRadAcctMode OBJECT-TYPE

```

```

    SYNTAX INTEGER {

```

```

        unknown(0),

```

```

        flowbasedaux(1),

```

```

        flowbasedall(2),

```

```

        flowbasednone(3),

```

```

        sessionbased(4)

```

```

    }

```

```

    MAX-ACCESS read-only

```

```

    STATUS current

```

```

    DESCRIPTION

```

```

    "Radius Accounting Mode"

```

```

    ::= { starSessSubl 95 }

```

```

starSessSublInBytesDropped OBJECT-TYPE

```

```

    SYNTAX Counter32

```

```

    UNITS "KB"

```

```

    MAX-ACCESS read-only

```

```

    STATUS current

```

```

    DESCRIPTION

```

```

    "The count of incoming bytes dropped for the subscriber, in kilobytes,
    rounded down (i.e. 1023 bytes = 0 kilobytes)"

```

```

    ::= { starSessSubl 96 }

```

```

starSessSublOutBytesDropped OBJECT-TYPE

```

```

    SYNTAX Counter32

```

```

    UNITS "KB"

```

```

    MAX-ACCESS read-only

```

```

    STATUS current

```

```

    DESCRIPTION

```

```

    "The count of outgoing bytes dropped for the subscriber, in kilobytes,
    rounded down (i.e. 1023 bytes = 0 kilobytes)"

```

```

    ::= { starSessSubl 97 }

```

```

starSessSublPeakBPSTx OBJECT-TYPE

```

```

    SYNTAX Gauge32

```

```

    UNITS "Bytes per second"

```

```

    MAX-ACCESS read-only

```

```

    STATUS current

```

```

    DESCRIPTION

```

```

    "Peak rate from user, in bytes per second"

```

```

    ::= { starSessSubl 98 }

```

```

starSessSublPeakBPSRx OBJECT-TYPE

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

SYNTAX      Gauge32
UNITS       "Bytes per second"
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
"Peak rate to user, in bytes per second"
 ::= { starSessSub1 99 }

```

```

starSessSub1AveBPSTx OBJECT-TYPE
SYNTAX      Gauge32
UNITS       "Bytes per second"
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
"Average rate from user, in bytes per second"
 ::= { starSessSub1 100 }

```

```

starSessSub1AveBPSRx OBJECT-TYPE
SYNTAX      Gauge32
UNITS       "Bytes per second"
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
"Average rate to user, in bytes per second"
 ::= { starSessSub1 101 }

```

```

starSessSub1SustBPSTx OBJECT-TYPE
SYNTAX      Gauge32
UNITS       "Bytes per second"
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
"Sustained rate from user, in bytes per second"
 ::= { starSessSub1 102 }

```

```

starSessSub1SustBPSRx OBJECT-TYPE
SYNTAX      Gauge32
UNITS       "Bytes per second"
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
"Sustained rate to user, in bytes per second"
 ::= { starSessSub1 103 }

```

```

starSessSub1PeakPPSTx OBJECT-TYPE
SYNTAX      Gauge32
UNITS       "Packets per second"
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
"Peak rate from user, in packets per second"
 ::= { starSessSub1 104 }

```

```

starSessSub1PeakPPSRx OBJECT-TYPE
SYNTAX      Gauge32
UNITS       "Packets per second"
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
"Peak rate to user, in packets per second"
 ::= { starSessSub1 105 }

```

```

starSessSub1AvePPSTx OBJECT-TYPE
SYNTAX      Gauge32
UNITS       "Packets per second"
MAX-ACCESS  read-only
STATUS      current

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

DESCRIPTION
"Average rate from user, in packets per second"
 ::= { starSessSub1 106 }

starSessSub1AvePPSRx OBJECT-TYPE
SYNTAX      Gauge32
UNITS       "Packets per second"
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
"Average rate to user, in packets per second"
 ::= { starSessSub1 107 }

starSessSub1SustPPSTx OBJECT-TYPE
SYNTAX      Gauge32
UNITS       "Packets per second"
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
"Sustained rate from user, in packets per second"
 ::= { starSessSub1 108 }

starSessSub1SustPPSRx OBJECT-TYPE
SYNTAX      Gauge32
UNITS       "Packets per second"
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
"Sustained rate to user, in packets per second"
 ::= { starSessSub1 109 }

starSessSub1ActivePct OBJECT-TYPE
SYNTAX      Integer32(0..100)
UNITS       "percent"
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
"Link online/active percentage"
 ::= { starSessSub1 110 }

starSessSub1IPv4BadHdr OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
"IPv4 Bad Headers"
 ::= { starSessSub1 111 }

starSessSub1IPv4TtlExceeded OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
"IPv4 Total Exceeded"
 ::= { starSessSub1 112 }

starSessSub1IPv4FragSent OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
"IPv4 Fragments sent"
 ::= { starSessSub1 113 }

starSessSub1IPv4FragFail OBJECT-TYPE
SYNTAX      Counter32

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

MAX-ACCESS read-only
STATUS current
DESCRIPTION
"IPv4 Could Not Fragment errors"
 ::= { starSessSub1 114 }

starSessSub1IPv4InACLDrop OBJECT-TYPE
SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
"IPv4 Input ACL Drops"
 ::= { starSessSub1 115 }

starSessSub1IPv4OutACLDrop OBJECT-TYPE
SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
"IPv5 Output ACL Drops"
 ::= { starSessSub1 116 }

starSessSub1IPv4InCSSDownDrop OBJECT-TYPE
SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
"IPv4 Input CSS Down Drops"
 ::= { starSessSub1 117 }

starSessSub1IPv4OutCSSDownDrop OBJECT-TYPE
SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
"IPv4 Output CSS Down Drops"
 ::= { starSessSub1 118 }

starSessSub1IPv4OutXOFFDropPkt OBJECT-TYPE
SYNTAX Counter32
UNITS "packets"
MAX-ACCESS read-only
STATUS current
DESCRIPTION
"IPv4 Output XOFF Packets Drop"
 ::= { starSessSub1 119 }

starSessSub1IPv4OutXOFFDropByte OBJECT-TYPE
SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
"IPv4 Output XOFF Bytes Drop"
 ::= { starSessSub1 120 }

starSessSub1IPv4SrcViol OBJECT-TYPE
SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
"IPv4 Source Violations"
 ::= { starSessSub1 121 }

starSessSub1IPv4ProxyDNSRedir OBJECT-TYPE
SYNTAX Counter32
MAX-ACCESS read-only
STATUS current

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

DESCRIPTION
"IPv4 Proxy-DNS Redirect"
 ::= { starSessSub1 122 }

starSessSub1IPv4SrcProxyDNSPThru OBJECT-TYPE
SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
"IPv4 Proxy-DNS Pass-Thru"
 ::= { starSessSub1 123 }

starSessSub1IPv4ProxyDNSDrop OBJECT-TYPE
SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
"IPv4 Proxy-DNS Drop"
 ::= { starSessSub1 124 }

starSessSub1IPv4SrcViolNoAcct OBJECT-TYPE
SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
"IPv4 Source Violations No Account"
 ::= { starSessSub1 125 }

starSessSub1IPv4SrcViolIgnored OBJECT-TYPE
SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
"IPv4 Source Violations Ignored"
 ::= { starSessSub1 126 }

starSessSub1ExtInlSrvrTxPkt OBJECT-TYPE
SYNTAX Counter32
UNITS "packets"
MAX-ACCESS read-only
STATUS current
DESCRIPTION
"Packets transmitted to inline server. This value is valid only if
the value of starSessSub1ExtInlSrvrProc is enabled(1)"
 ::= { starSessSub1 127 }

starSessSub1ExtInlSrvrRxPkt OBJECT-TYPE
SYNTAX Counter32
UNITS "packets"
MAX-ACCESS read-only
STATUS current
DESCRIPTION
"Packets received from inline server. This value is valid only if
the value of starSessSub1ExtInlSrvrProc is enabled(1)"
 ::= { starSessSub1 128 }

starSessSub1IPv4ICMPDropPkt OBJECT-TYPE
SYNTAX Counter32
UNITS "packets"
MAX-ACCESS read-only
STATUS current
DESCRIPTION
"IPv4 ICMP Packets dropped"
 ::= { starSessSub1 129 }

starSessSub1TunnelType OBJECT-TYPE

```



## STARENT-MIB DEFINITIONS ::= BEGIN

```

SYNTAX      INTEGER {
    unknown(0),
    none(1),
    pptp(2),
    l2tp(3),
    ah(4),
    ipinip(5),
    esp(6),
    gre(7)
}
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
"Tunnel Type"
 ::= { starSessSub1 130 }

starSessSub1IPSECTunDownDropPkt OBJECT-TYPE
SYNTAX Counter32
UNITS "packets"
MAX-ACCESS read-only
STATUS      current
DESCRIPTION
"Pool IPSEC tunnel down packets dropped. This value is only valid if the
value of starSessSub1TunnelType is esp(6)"
 ::= { starSessSub1 131 }

starSessSub1IPSECFlowID OBJECT-TYPE
SYNTAX      Integer32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
"IP Pool IPSEC flow id. This value is only valid if the
value of starSessSub1TunnelType is esp(6)"
 ::= { starSessSub1 132 }

starSessSub1DormancyTotal OBJECT-TYPE
SYNTAX Counter32
MAX-ACCESS read-only
STATUS      current
DESCRIPTION
"Dormancy total. This value is not valid if the value of
starSessSub1AccessType is ggsnpdptypeipv4(4) or ggsnpdtypeppp(5)"
 ::= { starSessSub1 133 }

starSessSub1HandoffTotal OBJECT-TYPE
SYNTAX Counter32
MAX-ACCESS read-only
STATUS      current
DESCRIPTION
"Handoff total. This value is not valid if the value of
starSessSub1AccessType is ggsnpdptypeipv4(4) or ggsnpdtypeppp(5)"
 ::= { starSessSub1 134 }

starSessSub1AccessFlows OBJECT-TYPE
SYNTAX Gauge32
MAX-ACCESS read-only
STATUS      current
DESCRIPTION
"Access flows"
 ::= { starSessSub1 135 }

starSessSub1TFT OBJECT-TYPE
SYNTAX Gauge32
MAX-ACCESS read-only
STATUS      current
DESCRIPTION
"Number of TFTs"

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

 ::= { starSessSub1 136 }

starSessSub1NASPort OBJECT-TYPE
    SYNTAX Integer32
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "NAS port"
    ::= { starSessSub1 137 }

starSessSub1CorrID OBJECT-TYPE
    SYNTAX OCTET STRING (SIZE(0..47))
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "ThreeGPP2-correlation-id (C2)"
    ::= { starSessSub1 139 }

starSessSub1L2TPPeerIPAddr OBJECT-TYPE
    SYNTAX IpAddress
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "L2TP Peer address. This value is only valid if the value of
        starSessSub1NetworkType is l2tp(3)"
    ::= { starSessSub1 140 }

starSessSub1IPv4EarlyPDUREcv OBJECT-TYPE
    SYNTAX Counter32
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "IPv4 early PDU received"
    ::= { starSessSub1 141 }

-- Nw Reacheability Srvr; these objects are provided for use in SNMP Traps only

starentNwReachServer OBJECT IDENTIFIER ::= { starentMIBObjects 35 }

starNwReachTable OBJECT-TYPE
    SYNTAX SEQUENCE OF StarNwReachEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "A table containing Network Reacheable Server information"
    ::= { starentNwReachServer 1 }

starNwReachEntry OBJECT-TYPE
    SYNTAX StarNwReachEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "Information for a specific Ntw Reachable Server"
    INDEX { starNwReachName }
    ::= { starNwReachTable 1 }

StarNwReachEntry ::=
    SEQUENCE {
        starNwReachName OCTET STRING,
        starNwReachSrvrAddr IpAddress
    }

starNwReachName OBJECT-TYPE
    SYNTAX OCTET STRING (SIZE (1..16))
    MAX-ACCESS accessible-for-notify
    STATUS current

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

DESCRIPTION
"The Name for this Network Reacheable Server"
 ::= { starNwReachEntry 1 }

starNwReachSrvrAddr OBJECT-TYPE
SYNTAX      IpAddress
MAX-ACCESS  accessible-for-notify
STATUS      current
DESCRIPTION
"The IP Address for the Network Reacheable Server"
 ::= { starNwReachEntry 2 }

-- IPSEC; these objects are provided for use in SNMP Traps only

starentIPSEC OBJECT IDENTIFIER ::= { starentMIBObjects 36 }

starIPSECContextName OBJECT-TYPE
SYNTAX      DisplayString
MAX-ACCESS  accessible-for-notify
STATUS      current
DESCRIPTION
"The name of a context"
 ::= { starentIPSEC 1 }

starIPSECGroupName OBJECT-TYPE
SYNTAX      DisplayString
MAX-ACCESS  accessible-for-notify
STATUS      current
DESCRIPTION
"The name of a crypto group"
 ::= { starentIPSEC 2 }

starIPSECTunLocalIpAddr OBJECT-TYPE
SYNTAX      DisplayString
MAX-ACCESS  accessible-for-notify
STATUS      current
DESCRIPTION
"The local IP Address for an IPSEC tunnel"
 ::= { starentIPSEC 3 }

starIPSECTunRemoteIpAddr OBJECT-TYPE
SYNTAX      DisplayString
MAX-ACCESS  accessible-for-notify
STATUS      current
DESCRIPTION
"The remote IP Address for an IPSEC tunnel"
 ::= { starentIPSEC 4 }

starIPSECPolicyName OBJECT-TYPE
SYNTAX      DisplayString
MAX-ACCESS  accessible-for-notify
STATUS      current
DESCRIPTION
"An IPSEC policy name"
 ::= { starentIPSEC 5 }

starIPSECDynPolicyType OBJECT-TYPE
SYNTAX      INTEGER {
        unknown(0),
        manual(1),
        isakmp(2),
        subscribertemplate(3),
        subscribertunnel(4),
        test(5),
        dynamic(6)
      }
MAX-ACCESS  accessible-for-notify

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

STATUS      current
DESCRIPTION
"An IPSEC dynamic policy type. Note that the value test(5) is used only for internal testing"
 ::= { starentIPSEC 6 }

starIPSECDynPolicyPayloadType OBJECT-TYPE
SYNTAX INTEGER {
    unknown(0),
    control(1),
    data(2),
    ipip(3),
    gre(4),
    test(5)
}
MAX-ACCESS  accessible-for-notify
STATUS      current
DESCRIPTION
"An IPSEC dynamic policy payload type"
 ::= { starentIPSEC 7 }

starIPSECLocalGateway OBJECT-TYPE
SYNTAX IpAddress
MAX-ACCESS  accessible-for-notify
STATUS      current
DESCRIPTION
" "
 ::= { starentIPSEC 8 }

starIPSECRemoteGateway OBJECT-TYPE
SYNTAX IpAddress
MAX-ACCESS  accessible-for-notify
STATUS      current
DESCRIPTION
" "
 ::= { starentIPSEC 9 }

starentSIPRoute OBJECT IDENTIFIER ::= { starentMIBObjects 37 }

starSIPRouteTable OBJECT-TYPE
SYNTAX      SEQUENCE OF StarSIPRouteEntry
MAX-ACCESS  not-accessible
STATUS      current
DESCRIPTION
    "A table containing SIPRoute related information"
 ::= { starentSIPRoute 1}

starSIPRouteEntry OBJECT-TYPE
SYNTAX      StarSIPRouteEntry
MAX-ACCESS  not-accessible
STATUS      current
DESCRIPTION
    "The statistics for a specific SIPRoute service"
INDEX { starSIPRouteVpnID }
 ::= { starSIPRouteTable 1 }

StarSIPRouteEntry ::=
SEQUENCE {
    starSIPRouteVpnID          Gauge32,
    starSIPRouteVpnName       DisplayString,
    starSIPRouteVmgName       DisplayString,
    starSIPRouteAsName        DisplayString,
    starSIPRouteDestPartyNum   DisplayString,
    starSIPRouteReqNum        DisplayString
}

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

starSIPRouteVpnID OBJECT-TYPE
    SYNTAX      Gauge32
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "The internal identification of the VPN (context)"
    ::= { starSIPRouteEntry 1 }

starSIPRouteVpnName OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The name of this VPN (context)"
    ::= { starSIPRouteEntry 2 }

starSIPRouteVmgName OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The name of this VMG (context)"
    ::= { starSIPRouteEntry 3 }

starSIPRouteAsName OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The name of this AS (context)"
    ::= { starSIPRouteEntry 4 }

starSIPRouteDestPartyNum OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The dest. party number"
    ::= { starSIPRouteEntry 5 }

starSIPRouteReqNum OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The request number"
    ::= { starSIPRouteEntry 6 }

starentRPServiceOption OBJECT IDENTIFIER ::= { starentMIBObjects 38 }

starRPServiceOptionTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF StarRPServiceOptionEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        " "
    ::= { starentRPServiceOption 1 }

starRPServiceOptionEntry OBJECT-TYPE
    SYNTAX      StarRPServiceOptionEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        " "
    INDEX { starRPServiceOptionNum }

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

 ::= { starRPServiceOptionTable 1 }

StarRPServiceOptionEntry ::=
  SEQUENCE {
    starRPServiceOptionNum      Integer32,
    starRPServiceOptionCalls   Gauge32
  }

starRPServiceOptionNum OBJECT-TYPE
  SYNTAX      Integer32 (1..255)
  MAX-ACCESS not-accessible
  STATUS      current
  DESCRIPTION
  " "
  ::= { starRPServiceOptionEntry 1 }

starRPServiceOptionCalls OBJECT-TYPE
  SYNTAX      Gauge32
  MAX-ACCESS read-only
  STATUS      current
  DESCRIPTION
  " "
  ::= { starRPServiceOptionEntry 2 }

-- PCF statistics

starentPCFStats OBJECT IDENTIFIER ::= { starentMIBObjects 39 }

starPCFStatTable OBJECT-TYPE
  SYNTAX      SEQUENCE OF StarPCFStatEntry
  MAX-ACCESS not-accessible
  STATUS      current
  DESCRIPTION
  "A table of per-PCF statistics"
  ::= { starentPCFStats 1 }

starPCFStatEntry OBJECT-TYPE
  SYNTAX      StarPCFStatEntry
  MAX-ACCESS not-accessible
  STATUS      current
  DESCRIPTION
  "The statistics for a specific PCF"
  INDEX { starPCFStatVpnID, starPCFStatIpAddr }
  ::= { starPCFStatTable 1 }

StarPCFStatEntry ::=
  SEQUENCE {
    starPCFStatVpnID          Gauge32,
    starPCFStatIpAddr        IpAddress,
    starPCFStatVpnName       DisplayString,
    starPCFStatRxPkts        Counter32,
    starPCFStatTxPkts        Counter32,
    starPCFStatRxBytes        Counter32,
    starPCFStatTxBytes        Counter32,
    starPCFStatTotalSessions Counter32,
    starPCFStatCurrentSessions Gauge32,
    starPCFStatCurrentActiveSessions Gauge32,
    starPCFStatCurrentDormantSessions Gauge32,
    starPCFStatCurrentSIPConnected Gauge32,
    starPCFStatCurrentMIPConnected Gauge32,
    starPCFStatCurrentPMIPConnected Gauge32,
    starPCFStatCurrentL2TPLACConnected Gauge32,
    starPCFStatCurrentOtherConnected Gauge32
  }

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

starPCFStatVpnID OBJECT-TYPE
    SYNTAX      Gauge32
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
    " "
    ::= { starPCFStatEntry 1 }

starPCFStatIpAddr OBJECT-TYPE
    SYNTAX      IpAddress
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
    " "
    ::= { starPCFStatEntry 2 }

starPCFStatVpnName OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
    " "
    ::= { starPCFStatEntry 3 }

starPCFStatRxPkts OBJECT-TYPE
    SYNTAX      Counter32
    UNITS       "Millions"
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
    " "
    ::= { starPCFStatEntry 4 }

starPCFStatTxPkts OBJECT-TYPE
    SYNTAX      Counter32
    UNITS       "Millions"
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
    " "
    ::= { starPCFStatEntry 5 }

starPCFStatRxBytes OBJECT-TYPE
    SYNTAX      Counter32
    UNITS       "Megabytes"
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
    " "
    ::= { starPCFStatEntry 6 }

starPCFStatTxBytes OBJECT-TYPE
    SYNTAX      Counter32
    UNITS       "Megabytes"
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
    " "
    ::= { starPCFStatEntry 7 }

starPCFStatTotalSessions OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
    " "
    ::= { starPCFStatEntry 8 }

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

starPCFStatCurrentSessions OBJECT-TYPE
    SYNTAX      Gauge32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
    " "
    ::= { starPCFStatEntry 9 }

starPCFStatCurrentActiveSessions OBJECT-TYPE
    SYNTAX      Gauge32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
    " "
    ::= { starPCFStatEntry 10 }

starPCFStatCurrentDormantSessions OBJECT-TYPE
    SYNTAX      Gauge32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
    " "
    ::= { starPCFStatEntry 11 }

starPCFStatCurrentSIPConnected OBJECT-TYPE
    SYNTAX      Gauge32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
    " "
    ::= { starPCFStatEntry 12 }

starPCFStatCurrentMIPConnected OBJECT-TYPE
    SYNTAX      Gauge32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
    " "
    ::= { starPCFStatEntry 13 }

starPCFStatCurrentPMIPConnected OBJECT-TYPE
    SYNTAX      Gauge32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
    " "
    ::= { starPCFStatEntry 14 }

starPCFStatCurrentL2TPLACConnected OBJECT-TYPE
    SYNTAX      Gauge32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
    " "
    ::= { starPCFStatEntry 15 }

starPCFStatCurrentOtherConnected OBJECT-TYPE
    SYNTAX      Gauge32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
    " "
    ::= { starPCFStatEntry 16 }

-- Per Service PCF statistics

```



## STARENT-MIB DEFINITIONS ::= BEGIN

```

starPCFTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF StarPCFEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "A table of per service PCF statistics"
    ::= { starentPCFStats 2 }

starPCFEntry OBJECT-TYPE
    SYNTAX      StarPCFEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "The statistics for a specific PCF per service"
    INDEX { starPCFSvcID, starPCFIpAddr }
    ::= { starPCFTable 1 }

StarPCFEntry ::=
    SEQUENCE {
        starPCFSvcID                StarShortID,
        starPCFIpAddr                IPAddress,
        starPCFVpnID                 Gauge32,
        starPCFVpnName               DisplayString,
        starPCFServName              DisplayString,
        starPCFRrqRcvd               Counter32,
        starPCFRrqAccepted           Counter32,
        starPCFRrqDenied             Counter32,
        starPCFRrqDiscarded          Counter32,
        starPCFInitialRrqRcvd        Counter32,
        starPCFInitialRrqAccepted    Counter32,
        starPCFIntraPDSNActiveHORrqAccepted Counter32,
        starPCFIntraPDSNDormantHORrqAccepted Counter32,
        starPCFInterPDSNHORrqAccepted Counter32,
        starPCFInitialRrqDenied      Counter32,
        starPCFInitialRrqDiscarded   Counter32,
        starPCFRenewRrqRcvd          Counter32,
        starPCFRenewRrqAccepted      Counter32,
        starPCFRenewActiveRrqAccepted Counter32,
        starPCFRenewDormantRrqAccepted Counter32,
        starPCFRenewRrqDenied        Counter32,
        starPCFRenewRrqDiscarded     Counter32,
        starPCFDeregRrqRcvd          Counter32,
        starPCFDeregRrqAccepted      Counter32,
        starPCFDeregDormantRrqAccepted Counter32,
        starPCFDeregRrqDenied        Counter32,
        starPCFDeregRrqDiscarded     Counter32,
        starPCFIntraPDSNActiveAnidHORrqAccepted Counter32,
        starPCFIntraPDSNDormantAnidHORrqAccepted Counter32,
        starPCFDeniedUnSpeReason     Counter32,
        starPCFDeniedAdmProh         Counter32,
        starPCFDeniedInsufResource   Counter32,
        starPCFDeniedMobNodeAuthFail Counter32,
        starPCFDeniedIdentMismatch   Counter32,
        starPCFDeniedPoorFormedReq   Counter32,
        starPCFDeniedUnknownPDSNAddr Counter32,
        starPCFDeniedRevTunnelUnavail Counter32,
        starPCFDeniedRevTunnelRequire Counter32,
        starPCFDeniedUnrecogVendorId Counter32,
        starPCFDeniedSessionClosed   Counter32,
        starPCFDeniedBsnSessionInfoUnavail Counter32,
        starPCFRegUpdTransmitted     Counter32,
        starPCFRegUpdAccepted        Counter32,
        starPCFRegUpdateRpLifetimeExpiry Counter32,
        starPCFRegUpdateUpperLayerIntiated Counter32,
        starPCFRegUpdateOtherReason  Counter32,
        starPCFRegUpdateHORelease    Counter32,
    }

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

        starPCFRegUpdateSessmgrDied          Counter32,
        starPCFAuxA10ConnectionsSetup       Counter32,
        starPCFSessionsDenied               Counter32,
        starPCFSessionsInit                 Counter32,
        starPCFSessionsReneg                Counter32,
        starPCFDiscLcpRemote                Counter32,
        starPCFDiscRpRemote                 Counter32,
        starPCFDiscRpLocal                  Counter32,
        starPCFDiscMaxIpcpRetr              Counter32,
        starPCFDiscMaxIpv6cpRetr           Counter32,
        starPCFDiscMaxLcpRetr               Counter32,
        starPCFDiscAuthFail                 Counter32,
        starPCFDiscSessSetupTimeout         Counter32,
        starPCFDiscFlowAddFail              Counter32,
        starPCFDiscInvDestContext           Counter32,
        starPCFDiscLcpOptFail               Counter32,
        starPCFDiscIpcpOptFail              Counter32,
        starPCFDiscIpv6cpOptFail            Counter32,
        starPCFDiscNoRemIpAddr              Counter32,
        starPCFDiscDetectionFail            Counter32,
        starPCFDiscMisc                      Counter32,
        starPCFCurrentSessions               Gauge32,
        starPCFSessionsSetup                 Counter32,
        starPCFSessionsRelse                Counter32,
        starPCFCurrentRevaSessions           Gauge32,
        starPCFRevaSessionsSetup             Counter32,
        starPCFRevaSessionsRelse            Counter32
    }

starPCFSvcID OBJECT-TYPE
    SYNTAX      StarShortID
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "The service identification is made up from first 8 chars of context name
        and first 8 chars of service name separated by (:), with the lengh of this
        structure at the beginning"
    ::= { starPCFEntry 1 }

starPCFIpAddr OBJECT-TYPE
    SYNTAX      IpAddress
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "The PCF IP address"
    ::= { starPCFEntry 2 }

starPCFVpnID OBJECT-TYPE
    SYNTAX      Gauge32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The internal identification of the VPN (context)"
    ::= { starPCFEntry 3 }

starPCFVpnName OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The VPN (context) name"
    ::= { starPCFEntry 4 }

starPCFServName OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  read-only

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

STATUS      current
DESCRIPTION
    "The name of this service"
 ::= { starPCFEntry 5 }

starPCFRrqRcvd OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "Number of rrq received"
 ::= { starPCFEntry 6 }

starPCFRrqAccepted OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "Number of rrq accepted"
 ::= { starPCFEntry 7 }

starPCFRrqDenied OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "Number of rrq denied"
 ::= { starPCFEntry 8 }

starPCFRrqDiscarded OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "Number of rrq discarded"
 ::= { starPCFEntry 9 }

starPCFInitialRrqRcvd OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "Initial rrq received"
 ::= { starPCFEntry 10 }

starPCFInitialRrqAccepted OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "Initial rrq accepted"
 ::= { starPCFEntry 11 }

starPCFIntraPDSNActiveHORrqAccepted OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "Intra PDSN active handoff rrq accepted"
 ::= { starPCFEntry 12 }

starPCFIntraPDSNDormantHORrqAccepted OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "Intra PDSN dormant handoff rrq accepted"

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```
 ::= { starPCFEntry 13 }

starPCFInterPDSNHORrqAccepted OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Inter PDSN handoff rrq acpcted"
 ::= { starPCFEntry 14 }

starPCFInitialRrqDenied OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Intial rrq denied"
 ::= { starPCFEntry 15 }

starPCFInitialRrqDiscarded OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Intial rrq discarded"
 ::= { starPCFEntry 16 }

starPCFRenewRrqRcvd OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Renew rrq received"
 ::= { starPCFEntry 17 }

starPCFRenewRrqAccepted OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Renew rrq accepted"
 ::= { starPCFEntry 18 }

starPCFRenewActiveRrqAccepted OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Renew active rrq accepted"
 ::= { starPCFEntry 19 }

starPCFRenewDormantRrqAccepted OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Renew dormant rrq accepted"
 ::= { starPCFEntry 20 }

starPCFRenewRrqDenied OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Renew rrq denied"
 ::= { starPCFEntry 21 }
```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

starPCFRenewRrqDiscarded OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Renew rrq discarded"
    ::= { starPCFEntry 22 }

starPCFDeregRrqRcvd OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Deregistration rrq received"
    ::= { starPCFEntry 23 }

starPCFDeregRrqAccepted OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Deregistration rrq accepted"
    ::= { starPCFEntry 24 }

starPCFDeregDormantRrqAccepted OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Deregistration dormant rrq accepted"
    ::= { starPCFEntry 25 }

starPCFDeregRrqDenied OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Deregistration rrq denied"
    ::= { starPCFEntry 26 }

starPCFDeregRrqDiscarded OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Deregistration rrq discarded"
    ::= { starPCFEntry 27 }

starPCFIntraPDSNActiveAnidHORrqAccepted OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Intra PDSN active anid handoff rrq accepted"
    ::= { starPCFEntry 28 }

starPCFIntraPDSNDormantAnidHORrqAccepted OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Intra PDSN dormant anidhandoff rrq accepted"
    ::= { starPCFEntry 29 }

starPCFDeniedUnSpeReason OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```
STATUS      current
DESCRIPTION
    "Denied unspecified reason"
 ::= { starPCFEntry 30 }

starPCFDeniedAdmProh OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "Denied admin prohibited"
 ::= { starPCFEntry 31 }

starPCFDeniedInsufResource OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "Denied insufficient resources"
 ::= { starPCFEntry 32 }

starPCFDeniedMobNodeAuthFail OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "Denied mobile node authentication failure"
 ::= { starPCFEntry 33 }

starPCFDeniedIdentMismatch OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "Denied identification mismatch"
 ::= { starPCFEntry 34 }

starPCFDeniedPoorFormedReq OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "Denied poor formed request"
 ::= { starPCFEntry 35 }

starPCFDeniedUnknownPDSNAddr OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "Denied unknown PDSN address"
 ::= { starPCFEntry 36 }

starPCFDeniedRevTunnelUnavail OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "Denied rev tunnel unavailable"
 ::= { starPCFEntry 37 }

starPCFDeniedRevTunnelRequire OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

        "Denied rev tunnel required"
 ::= { starPCFEntry 38 }

starPCFDeniedUnrecogVendorId OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Denied unrecognized vendor id"
 ::= { starPCFEntry 39 }

starPCFDeniedSessionClosed OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Denied session closed"
 ::= { starPCFEntry 40 }

starPCFDeniedBsnSessionInfoUnavail OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Denied bsn session information unavailable"
 ::= { starPCFEntry 41 }

starPCFRegUpdTransmitted OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Registration updates transmitted"
 ::= { starPCFEntry 42 }

starPCFRegUpdAccepted OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Registration updates accepted"
 ::= { starPCFEntry 43 }

starPCFRegUpdateRpLifetimeExpiry OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Registration update rp life time expiry"
 ::= { starPCFEntry 44 }

starPCFRegUpdateUpperLayerIntiated OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Registration update upper layer intiated"
 ::= { starPCFEntry 45 }

starPCFRegUpdateOtherReason OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Registration update other reason"
 ::= { starPCFEntry 46 }

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

starPCFRegUpdateHORElease OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Registration update handoff release"
    ::= { starPCFEntry 47 }

starPCFRegUpdateSessmgrDied OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Registration update sessmgr denied "
    ::= { starPCFEntry 48 }

starPCFAuxA10ConnectionsSetup OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Aux a10 connections setup"
    ::= { starPCFEntry 49 }

starPCFSessionsDenied OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Number of sessions denied"
    ::= { starPCFEntry 50 }

starPCFSessionsInit OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Number of sessions initiated"
    ::= { starPCFEntry 51 }

starPCFSessionsReneg OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Number of PCF sessions renegotiated"
    ::= { starPCFEntry 52 }

starPCFDiscLcpRemote OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Disconnect reason lcp remote"
    ::= { starPCFEntry 53 }

starPCFDiscRpRemote OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Disconnect reason rp remote"
    ::= { starPCFEntry 54 }

starPCFDiscRpLocal OBJECT-TYPE
    SYNTAX      Counter32

```



## STARENT-MIB DEFINITIONS ::= BEGIN

```

MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "Disconnect reason rp local"
 ::= { starPCFEntry 55 }

starPCFDiscMaxIpcpRetr OBJECT-TYPE
SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "Disconnect reason ppp maximum ipcp retries"
 ::= { starPCFEntry 56 }

starPCFDiscMaxIpv6cpRetr OBJECT-TYPE
SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "Disconnect reason max ipv6cp retries"
 ::= { starPCFEntry 57 }

starPCFDiscMaxLcpRetr OBJECT-TYPE
SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "Disconnect reason max lcp retries"
 ::= { starPCFEntry 58 }

starPCFDiscAuthFail OBJECT-TYPE
SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "Disconnect reason authentication failure"
 ::= { starPCFEntry 59 }

starPCFDiscSessSetupTimeout OBJECT-TYPE
SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "Disconnect reason session setup timeout"
 ::= { starPCFEntry 60 }

starPCFDiscFlowAddFail OBJECT-TYPE
SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "Disconnect reason flow add failure"
 ::= { starPCFEntry 61 }

starPCFDiscInvDestContext OBJECT-TYPE
SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "Disconnect reason invalid destination context"
 ::= { starPCFEntry 62 }

starPCFDiscLcpOptFail OBJECT-TYPE
SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

        "Disconnect reason lcp option failure"
 ::= { starPCFEntry 63 }

starPCFDiscIpcpOptFail OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Disconnect reason lcp option failure"
 ::= { starPCFEntry 64 }

starPCFDiscIpv6cpOptFail OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Disconnect reason ipv6cp option failure"
 ::= { starPCFEntry 65 }

starPCFDiscNoRemIpAddr OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Disconnect reason no ip remote ip address"
 ::= { starPCFEntry 66 }

starPCFDiscDetectionFail OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Disconnect reason detection failure"
 ::= { starPCFEntry 67 }

starPCFDiscMisc OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Disconnect reason misallaneous"
 ::= { starPCFEntry 68 }

starPCFCurrentSessions OBJECT-TYPE
    SYNTAX      Gauge32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Current sessions"
 ::= { starPCFEntry 69 }

starPCFSessionsSetup OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Session setup"
 ::= { starPCFEntry 70 }

starPCFSessionsRelsese OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Sessions release"
 ::= { starPCFEntry 71 }

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

starPCFCurrentRevaSessions OBJECT-TYPE
    SYNTAX      Gauge32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Current reva sessions"
    ::= { starPCFEntry 72 }

starPCFRevaSessionsSetup OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Reva session setup"
    ::= { starPCFEntry 73 }

starPCFRevaSessionsRelse OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Reva session release"
    ::= { starPCFEntry 74 }

-- SIP Route Server
-- These objects are defined only for use in traps

starentSIPRouteServer OBJECT IDENTIFIER ::= { starentMIBObjects 40 }

starSIPRouteServerTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF StarSIPRouteServerEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "A table containing SIPRouteServer related information"
    ::= { starentSIPRouteServer 1}

starSIPRouteServerEntry OBJECT-TYPE
    SYNTAX      StarSIPRouteServerEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "The statistics for a specific SIPRouteServer"
    INDEX { starSIPRouteServerVpnID }
    ::= { starSIPRouteServerTable 1 }

StarSIPRouteServerEntry ::=
    SEQUENCE {
        starSIPRouteServerVpnID          Gauge32,
        starSIPRouteServerVpnName       DisplayString,
        starSIPRouteServerVmgName       DisplayString,
        starSIPRouteServerAsName        DisplayString,
        starSIPRouteServerIpAddr        IPAddress
    }

starSIPRouteServerVpnID OBJECT-TYPE
    SYNTAX      Gauge32
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "The internal identification of the VPN (context)"
    ::= { starSIPRouteServerEntry 1 }

starSIPRouteServerVpnName OBJECT-TYPE
    SYNTAX      DisplayString

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The name of this VPN (context)"
    ::= { starSIPRouteServerEntry 2 }

starSIPRouteServerVmgName OBJECT-TYPE
    SYNTAX DisplayString
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The name of this VMG (context)"
    ::= { starSIPRouteServerEntry 3 }

starSIPRouteServerAsName OBJECT-TYPE
    SYNTAX DisplayString
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The name of this AS (context)"
    ::= { starSIPRouteServerEntry 4 }

starSIPRouteServerIpAddr OBJECT-TYPE
    SYNTAX IPAddress
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The Sip Route Server IP Address"
    ::= { starSIPRouteServerEntry 5 }

-- VIM Service
-- These objects are defined only for use in traps

starentVIMService OBJECT IDENTIFIER ::= { starentMIBObjects 41 }

starVIMServiceTable OBJECT-TYPE
    SYNTAX SEQUENCE OF StarVIMServiceEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "A table containing VIM's Service related information"
    ::= { starentVIMService 1 }

starVIMServiceEntry OBJECT-TYPE
    SYNTAX StarVIMServiceEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "The statistics for a specific VIM's Service"
    INDEX { starVIMServiceVpnID, starVIMServiceInstanceId }
    ::= { starVIMServiceTable 1 }

StarVIMServiceEntry ::=
    SEQUENCE {
        starVIMServiceVpnID Gauge32,
        starVIMServiceVpnName DisplayString,
        starVIMServiceInstanceId Unsigned32,
        starVIMServiceFMDMaxCallRate Unsigned32,
        starVIMServiceFMDContinuousLoadCount Unsigned32
    }

starVIMServiceVpnID OBJECT-TYPE
    SYNTAX Gauge32
    MAX-ACCESS not-accessible
    STATUS current

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

DESCRIPTION
    "The internal identification of the VPN (context)"
 ::= { starVIMServiceEntry 1 }

starVIMServiceVpnName OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The name of this VPN (context)"
 ::= { starVIMServiceEntry 2 }

starVIMServiceInstanceId OBJECT-TYPE
    SYNTAX      Unsigned32
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "The VIM Instance ID"
 ::= { starVIMServiceEntry 3 }

starVIMServiceFMDMaxCallRate OBJECT-TYPE
    SYNTAX      Unsigned32
    UNITS       "Calls per minute"
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Configured FMD max call rate"
 ::= { starVIMServiceEntry 4 }

starVIMServiceFMDContinuousLoadCount OBJECT-TYPE
    SYNTAX      Unsigned32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Configured FMD continuous load count"
 ::= { starVIMServiceEntry 5 }

-- GTPP Storage Server, used for traps only
-- The GTPP Storage Server is an external entity, but the ST-16/ST-40 reports notifications
-- on its behalf

starentGSS OBJECT IDENTIFIER ::= { starentMIBObjects 42 }

starGSSClusterName OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "The name of the Storage Server Cluster"
 ::= { starentGSS 1 }

starGSSClusterNodeName OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "The name of a node within a Storage Server Cluster"
 ::= { starentGSS 2 }

starGSSClusterRgName OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "Resource Group"
 ::= { starentGSS 3 }

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

starGSSClusterRsName OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
    "Resource Name"
    ::= { starentGSS 4 }

starGSSClusterNodeState OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
    " "
    ::= { starentGSS 5 }

starGSSClusterPrevOnlineNode OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
    " "
    ::= { starentGSS 6 }

starGSSClusterFromNode OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
    " "
    ::= { starentGSS 7 }

starGSSClusterToNode OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
    " "
    ::= { starentGSS 8 }

starGSSDiskPath OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
    " "
    ::= { starentGSS 9 }

starGSSTransportPath OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
    " "
    ::= { starentGSS 10 }

starGSSIPMPGroupName OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
    " "
    ::= { starentGSS 11 }

starGSSInterfaceName OBJECT-TYPE

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

SYNTAX      DisplayString
MAX-ACCESS  accessible-for-notify
STATUS      current
DESCRIPTION
" "
 ::= { starentGSS 12 }

--

starentPDIFSys OBJECT IDENTIFIER ::= { starentMIBObjects 43 }

starPDIFSysStatus OBJECT-TYPE
    SYNTAX      INTEGER {
        unknown(0),
        noservice(1),
        active(2),
        temporary(3),
        outofservice(4)
    }
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
    "The overall status of the chassis as a PDIF service.  A value of noservice(1) means that
    the chassis is not configured/licensed for PDIF; active(2) indicates that at least one
    PDIF service is available for processing sessions; temporary(3) indicates that PDIF is
    running in a temporary capacity, such as running in standby mode during an online
    upgrade; outofservice(4) indicates that no PDIF service is currently active,
    but one or more PDIF services are configured"
    ::= { starentPDIFSys 1 }

starPDIFSysNumService OBJECT-TYPE
    SYNTAX      Unsigned32
    UNITS       "Services"
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
    "The number of PDIF services configured"
    ::= { starentPDIFSys 2 }

starPDIFSysSessCurrent OBJECT-TYPE
    SYNTAX      Gauge32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
    "The number of current PDIF sessions for this chassis"
    ::= { starentPDIFSys 3 }

starPDIFSysSessCurrActive OBJECT-TYPE
    SYNTAX      Gauge32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
    "The number of currently active PDIF sessions for this chassis"
    ::= { starentPDIFSys 4 }

starPDIFSysSessCurrDormant OBJECT-TYPE
    SYNTAX      Gauge32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
    "The number of currently dormant PDIF sessions for this chassis"
    ::= { starentPDIFSys 5 }

starPDIFSysSessTtlSetup OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

DESCRIPTION
"The cumulative total number of PDIF sessions that has been setup"
 ::= { starentPDIFSys 6 }

starPDIFSysChildSACurrent OBJECT-TYPE
SYNTAX Gauge32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
"The number of current PDIF child SAs for this chassis"
 ::= { starentPDIFSys 7 }

--

starentPDIFService OBJECT IDENTIFIER ::= { starentMIBObjects 44 }

starPDIFTable OBJECT-TYPE
SYNTAX SEQUENCE OF StarPDIFEntry
MAX-ACCESS not-accessible
STATUS current
DESCRIPTION
"A table of per-service PDIF information"
 ::= { starentPDIFService 1 }

starPDIFEntry OBJECT-TYPE
SYNTAX StarPDIFEntry
MAX-ACCESS not-accessible
STATUS current
DESCRIPTION
"The information for a PDIF service"
INDEX { IMPLIED starPDIFSvcID }
 ::= { starPDIFTable 1 }

StarPDIFEntry ::=
SEQUENCE {
starPDIFSvcID StarShortID,
starPDIFVpnID Gauge32,
starPDIFVpnName DisplayString,
starPDIFServName DisplayString,
starPDIFStatus INTEGER,
starPDIFSessCurrent Gauge32,
starPDIFSessRemain Gauge32,
starPDIFSessCurrentActive Gauge32,
starPDIFSessCurrentDormant Gauge32,
starPDIFSessCurrentIpv6Active Gauge32,
starPDIFSessCurrentIpv6Dormant Gauge32,
starPDIFSessCurrentIpv4Active Gauge32,
starPDIFSessCurrentIpv4Dormant Gauge32,
starPDIFBindIpAddress IpAddress,
starPDIFBindIpPort Integer32,
starPDIFBindSlot Integer32,
starPDIFBindPort Integer32
}

starPDIFSvcID OBJECT-TYPE
SYNTAX StarShortID
MAX-ACCESS not-accessible
STATUS current
DESCRIPTION
"The service identification is made up from first 8 chars of context name
and first 8 chars of service name separated by (:)"
 ::= { starPDIFEntry 1 }

starPDIFVpnID OBJECT-TYPE
SYNTAX Gauge32
MAX-ACCESS read-only

```



## STARENT-MIB DEFINITIONS ::= BEGIN

```

STATUS      current
DESCRIPTION
    "The internal identification of the VPN (context).  Note that this identifier can change due to
    configuration changes and/or the restart of the PDIF device; in general starPDIFVpnName should
    be used to identify the VPN (context)"
 ::= { starPDIFEntry 2 }

starPDIFVpnName OBJECT-TYPE
SYNTAX      DisplayString
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The VPN (context) name"
 ::= { starPDIFEntry 3 }

starPDIFServName OBJECT-TYPE
SYNTAX      DisplayString
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The name of this service"
 ::= { starPDIFEntry 4 }

starPDIFStatus OBJECT-TYPE
SYNTAX      INTEGER {
                unknown(0),
                inservice(1),
                outofservice(2)
            }
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The state of this PDIF service.  The value unknown(0) indicates that the
    system is unable to determine the status; inservice(1) indicates that the
    service is available for processing sessions; outofservice(2) indicates that
    the service is configured, but unavailable, either due to operator action
    or due to a fault."
 ::= { starPDIFEntry 5 }

starPDIFSessCurrent OBJECT-TYPE
SYNTAX      Gauge32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The number of current sessions for this PDIF service."
 ::= { starPDIFEntry 6 }

starPDIFSessRemain OBJECT-TYPE
SYNTAX      Gauge32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "A count of the remaining capacity for this PDIF service, in terms
    of sessions.  If a session limit is configured for this PDIF service,
    starPDIFSessRemain will identify the difference between this limit
    and starPDIFSessCurrent.  If no individual limit has been configured
    for this service, starPDIFSessRemain will identify the remaining
    capacity for the entire chassis.  Note that in this latter case,
    the value for starPDIFSessRemain cannot be summed across multiple
    services."
 ::= { starPDIFEntry 7 }

starPDIFSessCurrentActive OBJECT-TYPE
SYNTAX      Gauge32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

    "The number of currently active sessions for this PDIF service"
    ::= { starPDIFEntry 8 }

starPDIFSessCurrentDormant OBJECT-TYPE
    SYNTAX Gauge32
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
    "The number of currently dormant sessions for this PDIF service. Note that this value
    will always be 0, as the current system does not identify PDIF sessions as dormant."
    ::= { starPDIFEntry 9 }

starPDIFSessCurrentIpv6Active OBJECT-TYPE
    SYNTAX Gauge32
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
    "The number of currently active IPv6 sessions for this PDIF service. Note that this value
    will always be 0, as the current system does not support IPv6 sessions."
    ::= { starPDIFEntry 10 }

starPDIFSessCurrentIpv6Dormant OBJECT-TYPE
    SYNTAX Gauge32
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
    "The number of currently dormant IPv6 sessions for this PDIF service. Note that this value
    will always be 0, as the current system does not support IPv6 sessions."
    ::= { starPDIFEntry 11 }

starPDIFSessCurrentIpv4Active OBJECT-TYPE
    SYNTAX Gauge32
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
    "The number of currently active IPv4 sessions for this PDIF service. Note that all PDIF
    sessions are currently identified as 'active', and the value for starPDIFSessCurrentIpv4Dormant
    will always be zero."
    ::= { starPDIFEntry 12 }

starPDIFSessCurrentIpv4Dormant OBJECT-TYPE
    SYNTAX Gauge32
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
    "The number of currently dormant IPv4 sessions for this PDIF service. Note that all PDIF
    sessions are currently identified as 'active', so the value for starPDIFSessCurrentIPv4Dormant
    will always be zero."
    ::= { starPDIFEntry 13 }

starPDIFBindIpAddress OBJECT-TYPE
    SYNTAX IpAddress
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
    "The bind IP address for this PDIF service"
    ::= { starPDIFEntry 14 }

starPDIFBindIpPort OBJECT-TYPE
    SYNTAX Integer32
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
    "The bind IP port for this PDIF service"
    ::= { starPDIFEntry 15 }

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

starPDIFBindSlot OBJECT-TYPE
    SYNTAX Integer32
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The physical slot number for the physical port which holds the interface
        bound to the starPDIFBindIpAddress address."
    ::= { starPDIFEntry 16 }

starPDIFBindPort OBJECT-TYPE
    SYNTAX Integer32
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The physical port number for the physical port which holds the interface
        bound to the starPDIFBindIpAddress address."
    ::= { starPDIFEntry 17 }

--PDG      - START

starentPDGSys OBJECT IDENTIFIER ::= { starentMIBObjects 62 }

starPDGSysStatus OBJECT-TYPE
    SYNTAX      INTEGER {
        unknown(0),
        noservice(1),
        active(2),
        temporary(3),
        outofservice(4)
    }
    MAX-ACCESS read-only
    STATUS      current
    DESCRIPTION
        "The overall status of the chassis as a PDG service.  A value of noservice(1) means that
        the chassis is not configured/licensed for PDG; active(2) indicates that at least one
        PDG service is available for processing sessions; temporary(3) indicates that PDG is
        running in a temporary capacity, such as running in standby mode during an online
        upgrade; outofservice(4) indicates that no PDG service is currently active,
        but one or more PDG services are configured"
    ::= { starentPDGSys 1 }

starPDGSysNumService OBJECT-TYPE
    SYNTAX      Unsigned32
    UNITS       "Services"
    MAX-ACCESS read-only
    STATUS      current
    DESCRIPTION
        "The number of PDG services configured"
    ::= { starentPDGSys 2 }

starPDGSysSessCurrent OBJECT-TYPE
    SYNTAX      Gauge32
    MAX-ACCESS read-only
    STATUS      current
    DESCRIPTION
        "The number of current PDG sessions for this chassis"
    ::= { starentPDGSys 3 }

starPDGSysSessCurrActive OBJECT-TYPE
    SYNTAX      Gauge32
    MAX-ACCESS read-only
    STATUS      current
    DESCRIPTION
        "The number of currently active PDG sessions for this chassis"
    ::= { starentPDGSys 4 }

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

starPDGSysSessCurrDormant OBJECT-TYPE
    SYNTAX      Gauge32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of currently dormant PDG sessions for this chassis"
    ::= { starentPDGSys 5 }

starPDGSysSessTtlSetup OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The cumulative total number of PDG sessions that has been setup"
    ::= { starentPDGSys 6 }

starPDGSysChildSACurrent OBJECT-TYPE
    SYNTAX      Gauge32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of current PDG child SAs for this chassis"
    ::= { starentPDGSys 7 }

starentPDGService OBJECT IDENTIFIER ::= { starentMIBObjects 63 }

starPDGTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF StarPDGEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "A table of per-service PDG information"
    ::= { starentPDGService 1 }

starPDGEntry OBJECT-TYPE
    SYNTAX      StarPDGEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "The information for a PDG service"
    INDEX { IMPLIED starPDGSvcID }
    ::= { starPDGTable 1 }

StarPDGEntry ::=
    SEQUENCE {
        starPDGSvcID          StarShortID,
        starPDGVpnID          Gauge32,
        starPDGVpnName        DisplayString,
        starPDGServName       DisplayString,
        starPDGStatus         INTEGER,
        starPDGSessCurrent    Gauge32,
        starPDGSessRemain     Gauge32,
        starPDGSessCurrentActive Gauge32,
        starPDGSessCurrentDormant Gauge32,
        starPDGSessCurrentIpv6Active Gauge32,
        starPDGSessCurrentIpv6Dormant Gauge32,
        starPDGSessCurrentIpv4Active Gauge32,
        starPDGSessCurrentIpv4Dormant Gauge32,
        starPDGBindIpAddress  IpAddress,
        starPDGBindIpPort     Integer32,
        starPDGBindSlot       Integer32,
        starPDGBindPort       Integer32
    }

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

starPDGSvcID OBJECT-TYPE
    SYNTAX      StarShortID
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "The service identification is made up from first 8 chars of context name
         and first 8 chars of service name separated by (:)"
    ::= { starPDGEntry 1 }

starPDGVpnID OBJECT-TYPE
    SYNTAX      Gauge32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The internal identification of the VPN (context). Note that this identifier can change due to
         configuration changes and/or the restart of the PDG device; in general starPDGVpnName should
         be used to identify the VPN (context)"
    ::= { starPDGEntry 2 }

starPDGVpnName OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The VPN (context) name"
    ::= { starPDGEntry 3 }

starPDGServName OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The name of this service"
    ::= { starPDGEntry 4 }

starPDGStatus OBJECT-TYPE
    SYNTAX      INTEGER {
        unknown(0),
        inservice(1),
        outofservice(2)
        }
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The state of this PDG service. The value unknown(0) indicates that the
         system is unable to determine the status; inservice(1) indicates that the
         service is available for processing sessions; outofservice(2) indicates that
         the service is configured, but unavailable, either due to operator action
         or due to a fault."
    ::= { starPDGEntry 5 }

starPDGSessCurrent OBJECT-TYPE
    SYNTAX      Gauge32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of current sessions for this PDG service."
    ::= { starPDGEntry 6 }

starPDGSessRemain OBJECT-TYPE
    SYNTAX      Gauge32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "A count of the remaining capacity for this PDG service, in terms
         of sessions. If a session limit is configured for this PDG service,
         starPDGSessRemain will identify the difference between this limit

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

        and starPDGSessCurrent.  If no individual limit has been configured
        for this service, starPDGSessRemain will identify the remaining
        capacity for the entire chassis.  Note that in this latter case,
        the value for starPDGSessRemain cannot be summed across multiple
        services."
 ::= { starPDGEntry 7 }

starPDGSessCurrentActive OBJECT-TYPE
    SYNTAX      Gauge32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of currently active sessions for this PDG service"
 ::= { starPDGEntry 8 }

starPDGSessCurrentDormant OBJECT-TYPE
    SYNTAX      Gauge32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of currently dormant sessions for this PDG service"
 ::= { starPDGEntry 9 }

starPDGSessCurrentIpv6Active OBJECT-TYPE
    SYNTAX      Gauge32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of currently active IPv6 sessions for this PDG service.  Note that this value
        will always be 0, as the current system does not support IPv6 sessions."
 ::= { starPDGEntry 10 }

starPDGSessCurrentIpv6Dormant OBJECT-TYPE
    SYNTAX      Gauge32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of currently dormant IPv6 sessions for this PDG service.  Note that this value
        will always be 0, as the current system does not support IPv6 sessions."
 ::= { starPDGEntry 11 }

starPDGSessCurrentIpv4Active OBJECT-TYPE
    SYNTAX      Gauge32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of currently active IPv4 sessions for this PDG service.  Note that all PDG
        sessions are currently identified as 'active', and the value for starPDGSessCurrentIPV4Dormant
        will always be zero."
 ::= { starPDGEntry 12 }

starPDGSessCurrentIpv4Dormant OBJECT-TYPE
    SYNTAX      Gauge32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of currently dormant IPv4 sessions for this PDG service.  Note that all PDG
        sessions are currently identified as 'active', so the value for starPDGSessCurrentIPV4Dormant
        will always be zero."
 ::= { starPDGEntry 13 }

starPDGBindIpAddress OBJECT-TYPE
    SYNTAX      IpAddress
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

        "The bind IP address for this PDG service"
        ::= { starPDGEntry 14 }

starPDGBindIpPort OBJECT-TYPE
    SYNTAX      Integer32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The bind IP port for this PDG service"
        ::= { starPDGEntry 15 }

starPDGBindSlot OBJECT-TYPE
    SYNTAX      Integer32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The physical slot number for the physical port which holds the interface
        bound to the starPDGBindIpAddress address."
        ::= { starPDGEntry 16 }

starPDGBindPort OBJECT-TYPE
    SYNTAX      Integer32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The physical port number for the physical port which holds the interface
        bound to the starPDGBindIpAddress address."
        ::= { starPDGEntry 17 }

-- PDG End

-- HNBGW -START

starentHNBGWService OBJECT IDENTIFIER ::= { starentMIBObjects 65 }

starHNBGWServTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF StarHNBGWServEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "A table containing HNBGW related information"
        ::= { starentHNBGWService 1 }

starHNBGWServEntry OBJECT-TYPE
    SYNTAX      StarHNBGWServEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "The statistics for a specific HNBGW service"
    INDEX { starHNBGWServVpnID, starHNBGWServSvcID }
    ::= { starHNBGWServTable 1 }

StarHNBGWServEntry ::=
    SEQUENCE {
        starHNBGWServVpnID      Gauge32,
        starHNBGWServSvcID      Gauge32,
        starSessHNBGWVpnName    DisplayString,
        starSessHNBGWServName    DisplayString,
        starSessHNBGWCSNwName    DisplayString,
        starSessHNBGWPsNwName    DisplayString,

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

starSessHNBGWSgsnPtCd   Integer32,
starSessHNBGWMscPtCd   Integer32
}

```

```

starHNBGWServVpnID OBJECT-TYPE
    SYNTAX      Gauge32
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "The internal identification of the VPN (context)"
    ::= { starHNBGWServEntry 1 }

```

```

starHNBGWServSvcID OBJECT-TYPE
    SYNTAX      Gauge32
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "The internal identification of this service; unique within a specific context"
    ::= { starHNBGWServEntry 2 }

```

```

starSessHNBGWVpnName OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The name of this VPN (context)"
    ::= { starHNBGWServEntry 3 }

```

```

starSessHNBGWServName OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The name of this Service"
    ::= { starHNBGWServEntry 4 }

```

```

starSessHNBGWCsNwName OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The name of the CS NW"
    ::= { starHNBGWServEntry 5 }

```

```

starSessHNBGWPsNwName OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The name of the PS NW"
    ::= { starHNBGWServEntry 6 }

```

```

starSessHNBGWSgsnPtCd OBJECT-TYPE
    SYNTAX      Integer32
    MAX-ACCESS  read-only
    STATUS      current

```



## STARENT-MIB DEFINITIONS ::= BEGIN

```

DESCRIPTION
    "SGSN Point Code"
 ::= { starHNBGWServiceEntry 7 }

starSessHNBGWServiceEntry OBJECT-TYPE
SYNTAX      Integer32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "MSC Point Code"
 ::= { starHNBGWServiceEntry 8 }

--End of HNBGW Service

-- ALCAP Service

starentALCAPService OBJECT IDENTIFIER ::= { starentMIBObjects 66 }

starALCAPServiceTable OBJECT-TYPE
SYNTAX      SEQUENCE OF StarALCAPServiceEntry
MAX-ACCESS  not-accessible
STATUS      current
DESCRIPTION
    "A table containing ALCAP relate information"
 ::= { starentALCAPService 1 }

starALCAPServiceEntry OBJECT-TYPE
SYNTAX      StarALCAPServiceEntry
MAX-ACCESS  not-accessible
STATUS      current
DESCRIPTION
    "The statistics for a specific ALCAP service"
INDEX { starALCAPServiceVpnID, starALCAPServiceSvcID }
 ::= { starALCAPServiceTable 1 }

StarALCAPServiceEntry ::=
SEQUENCE {
    starALCAPServiceVpnID      Gauge32,
    starALCAPServiceSvcID      Gauge32,
    starSessALCAPVpnName       DisplayString,
    starSessALCAPServiceName    DisplayString,
    starSessALCAPAAL2NodeName  DisplayString,
    starSessALCAPPathId        Integer32
}

starALCAPServiceVpnID OBJECT-TYPE
SYNTAX      Gauge32
MAX-ACCESS  not-accessible
STATUS      current
DESCRIPTION
    "The internal identification of the VPN (context)"
 ::= { starALCAPServiceEntry 1 }

starALCAPServiceSvcID OBJECT-TYPE
SYNTAX      Gauge32
MAX-ACCESS  not-accessible
STATUS      current
DESCRIPTION

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

        "The internal identification of this service; unique within a specific context"
 ::= { starALCAPServEntry 2 }

starSessALCAPVpnName OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The name of this VPN (context)"
 ::= { starALCAPServEntry 3 }

starSessALCAPServName OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The name of this Service"
 ::= { starALCAPServEntry 4 }

starSessALCAPAAL2NodeName OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The name of the AAL2 Node"
 ::= { starALCAPServEntry 5 }

starSessALCAPPathId OBJECT-TYPE
    SYNTAX      Integer32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The path id of AAL2 path"
 ::= { starALCAPServEntry 6 }

-- ALCAP END

--FNG      - START

starentFNGSys OBJECT IDENTIFIER ::= { starentMIBObjects 60 }

starFNGSysStatus OBJECT-TYPE
    SYNTAX      INTEGER {
        unknown(0),
        noservice(1),
        active(2),
        temporary(3),
        outofservice(4)
    }
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The overall status of the chassis as a FNG service. A value of noservice(1) means that
        the chassis is not configured/licensed for FNG; active(2) indicates that at least one
        FNG service is available for processing sessions; temporary(3) indicates that FNG is
        running in a temporary capacity, such as running in standby mode during an online
        upgrade; outofservice(4) indicates that no FNG service is currently active,
        but one or more FNG services are configured"
 ::= { starentFNGSys 1 }

starFNGSysNumService OBJECT-TYPE

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

SYNTAX      Unsigned32
UNITS       "Services"
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The number of FNG services configured"
 ::= { starentFNGSys 2 }

starFNGSysSessCurrent OBJECT-TYPE
SYNTAX      Gauge32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The number of current FNG sessions for this chassis"
 ::= { starentFNGSys 3 }

starFNGSysSessCurrActive OBJECT-TYPE
SYNTAX      Gauge32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The number of currently active FNG sessions for this chassis"
 ::= { starentFNGSys 4 }

starFNGSysSessCurrDormant OBJECT-TYPE
SYNTAX      Gauge32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The number of currently dormant FNG sessions for this chassis"
 ::= { starentFNGSys 5 }

starFNGSysSessTtlSetup OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The cumulative total number of FNG sessions that has been setup"
 ::= { starentFNGSys 6 }

starFNGSysChildSACurrent OBJECT-TYPE
SYNTAX      Gauge32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The number of current FNG child SAs for this chassis"
 ::= { starentFNGSys 7 }

starentFNGService OBJECT IDENTIFIER ::= { starentMIBObjects 61 }

starFNGTable OBJECT-TYPE
SYNTAX      SEQUENCE OF StarFNGEntry
MAX-ACCESS  not-accessible
STATUS      current
DESCRIPTION
    "A table of per-service FNG information"
 ::= { starentFNGService 1 }

starFNGEntry OBJECT-TYPE
SYNTAX      StarFNGEntry
MAX-ACCESS  not-accessible
STATUS      current
DESCRIPTION
    "The information for a FNG service"
INDEX { IMPLIED starFNGSvcID }

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

 ::= { starFNGTable 1 }

StarFNGEntry ::=
  SEQUENCE {
    starFNGSvcID          StarShortID,
    starFNGVpnID         Gauge32,
    starFNGVpnName       DisplayString,
    starFNGServName      DisplayString,
    starFNGStatus        INTEGER,
    starFNGSessCurrent   Gauge32,
    starFNGSessRemain    Gauge32,
    starFNGSessCurrentActive Gauge32,
    starFNGSessCurrentDormant Gauge32,
    starFNGSessCurrentIpv6Active Gauge32,
    starFNGSessCurrentIpv6Dormant Gauge32,
    starFNGSessCurrentIpv4Active Gauge32,
    starFNGSessCurrentIpv4Dormant Gauge32,
    starFNGBindIpAddress IpAddress,
    starFNGBindIpPort    Integer32,
    starFNGBindSlot      Integer32,
    starFNGBindPort      Integer32
  }

starFNGSvcID OBJECT-TYPE
  SYNTAX      StarShortID
  MAX-ACCESS  not-accessible
  STATUS      current
  DESCRIPTION
    "The service identification is made up from first 8 chars of context name
    and first 8 chars of service name separated by (:)"
  ::= { starFNGEntry 1 }

starFNGVpnID OBJECT-TYPE
  SYNTAX      Gauge32
  MAX-ACCESS  read-only
  STATUS      current
  DESCRIPTION
    "The internal identification of the VPN (context). Note that this identifier can change due to
    configuration changes and/or the restart of the FNG device; in general starFNGVpnName should
    be used to identify the VPN (context)"
  ::= { starFNGEntry 2 }

starFNGVpnName OBJECT-TYPE
  SYNTAX      DisplayString
  MAX-ACCESS  read-only
  STATUS      current
  DESCRIPTION
    "The VPN (context) name"
  ::= { starFNGEntry 3 }

starFNGServName OBJECT-TYPE
  SYNTAX      DisplayString
  MAX-ACCESS  read-only
  STATUS      current
  DESCRIPTION
    "The name of this service"
  ::= { starFNGEntry 4 }

starFNGStatus OBJECT-TYPE
  SYNTAX      INTEGER {
        unknown(0),
        inservice(1),
        outofservice(2)
      }
  MAX-ACCESS  read-only
  STATUS      current

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

DESCRIPTION
    "The state of this FNG service.  The value unknown(0) indicates that the
    system is unable to determine the status; inservice(1) indicates that the
    service is available for processing sessions; outofservice(2) indicates that
    the service is configured, but unavailable, either due to operator action
    or due to a fault."
 ::= { starFNGEntry 5 }

starFNGSessCurrent OBJECT-TYPE
    SYNTAX      Gauge32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of current sessions for this FNG service."
 ::= { starFNGEntry 6 }

starFNGSessRemain OBJECT-TYPE
    SYNTAX      Gauge32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "A count of the remaining capacity for this FNG service, in terms
        of sessions.  If a session limit is configured for this FNG service,
        starFNGSessRemain will identify the difference between this limit
        and starFNGSessCurrent.  If no individual limit has been configured
        for this service, starFNGSessRemain will identify the remaining
        capacity for the entire chassis.  Note that in this latter case,
        the value for starFNGSessRemain cannot be summed across multiple
        services."
 ::= { starFNGEntry 7 }

starFNGSessCurrentActive OBJECT-TYPE
    SYNTAX      Gauge32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of currently active sessions for this FNG service"
 ::= { starFNGEntry 8 }

starFNGSessCurrentDormant OBJECT-TYPE
    SYNTAX      Gauge32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of currently dormant sessions for this FNG service"
 ::= { starFNGEntry 9 }

starFNGSessCurrentIpv6Active OBJECT-TYPE
    SYNTAX      Gauge32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of currently active IPv6 sessions for this FNG service.  Note that this value
        will always be 0, as the current system does not support IPv6 sessions."
 ::= { starFNGEntry 10 }

starFNGSessCurrentIpv6Dormant OBJECT-TYPE
    SYNTAX      Gauge32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of currently dormant IPv6 sessions for this FNG service.  Note that this value
        will always be 0, as the current system does not support IPv6 sessions."
 ::= { starFNGEntry 11 }

starFNGSessCurrentIpv4Active OBJECT-TYPE
    SYNTAX      Gauge32

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The number of currently active IPv4 sessions for this FNG service. Note that all FNG
    sessions are currently identified as 'active', and the value for starFNGSessCurrentIPv4Dormant
    will always be zero."
 ::= { starFNGEntry 12 }

starFNGSessCurrentIpv4Dormant OBJECT-TYPE
SYNTAX Gauge32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The number of currently dormant IPv4 sessions for this FNG service. Note that all FNG
    sessions are currently identified as 'active', so the value for starFNGSessCurrentIPv4Dormant
    will always be zero."
 ::= { starFNGEntry 13 }

starFNGBindIpAddress OBJECT-TYPE
SYNTAX IpAddress
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The bind IP address for this FNG service"
 ::= { starFNGEntry 14 }

starFNGBindIpPort OBJECT-TYPE
SYNTAX Integer32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The bind IP port for this FNG service"
 ::= { starFNGEntry 15 }

starFNGBindSlot OBJECT-TYPE
SYNTAX Integer32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The physical slot number for the physical port which holds the interface
    bound to the starFNGBindIpAddress address."
 ::= { starFNGEntry 16 }

starFNGBindPort OBJECT-TYPE
SYNTAX Integer32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The physical port number for the physical port which holds the interface
    bound to the starFNGBindIpAddress address."
 ::= { starFNGEntry 17 }

-- FNG End

-- SGSN
starentSGSNService OBJECT IDENTIFIER ::= { starentMIBObjects 45 }

starSGSNSerTable OBJECT-TYPE
SYNTAX SEQUENCE OF StarSGSNSerEntry
MAX-ACCESS not-accessible
STATUS current
DESCRIPTION
    "A table containing SGSN related information"

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

 ::= { starentSGSNService 1 }

starSGSNSerEntry OBJECT-TYPE
    SYNTAX      StarSGSNSerEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "The statistics for a specific SGSN service"
    INDEX { starSGSNSerVpnID, starSGSNSerSvcID }
    ::= { starSGSNSerTable 1 }

StarSGSNSerEntry ::=
    SEQUENCE {
        starSGSNSerVpnID          Gauge32,
        starSGSNSerSvcID          Gauge32,
        starSessSGSNVpnName       DisplayString,
        starSessSGSNServName      DisplayString,
        starSessSGSNMcc           OCTET STRING,
        starSessSGSNMnc           OCTET STRING,
        starSessSGSNRncId         Gauge32,
        starSessSGSNHlrNum        OCTET STRING
    }

starSGSNSerVpnID OBJECT-TYPE
    SYNTAX      Gauge32
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "The internal identification of the VPN (context)"
    ::= { starSGSNSerEntry 1 }

starSGSNSerSvcID OBJECT-TYPE
    SYNTAX      Gauge32
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "The internal identification of this service; unique within a specific context"
    ::= { starSGSNSerEntry 2 }

starSessSGSNVpnName OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The name of this VPN (context)"
    ::= { starSGSNSerEntry 3 }

starSessSGSNServName OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The name of this service"
    ::= { starSGSNSerEntry 4 }

starSessSGSNMcc OBJECT-TYPE
    SYNTAX      OCTET STRING (SIZE (1..3))
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Mobile Country Code"
    ::= { starSGSNSerEntry 5 }

starSessSGSNMnc OBJECT-TYPE
    SYNTAX      OCTET STRING (SIZE (1..3))
    MAX-ACCESS  read-only
    STATUS      current

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

DESCRIPTION
"Mobile Network Code"
 ::= { starSGSNSerEntry 6 }

starSessSGSNRncId OBJECT-TYPE
SYNTAX      Gauge32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
"The Id of the RNC "
 ::= { starSGSNSerEntry 7 }

starSessSGSNHlrNum OBJECT-TYPE
SYNTAX      OCTET STRING (SIZE (1..16))
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
"The Id of the HLR "
 ::= { starSGSNSerEntry 8 }

--SS7Rd

starentSS7Rd OBJECT IDENTIFIER ::= { starentMIBObjects 46 }

starSS7RdTable OBJECT-TYPE
SYNTAX      SEQUENCE OF StarSS7RdEntry
MAX-ACCESS  not-accessible
STATUS      current
DESCRIPTION
"A table containing SS7Rd related information"
 ::= { starentSS7Rd 1 }

starSS7RdEntry OBJECT-TYPE
SYNTAX      StarSS7RdEntry
MAX-ACCESS  not-accessible
STATUS      current
DESCRIPTION
"The statistics for a specific ss7rd "
INDEX { starSS7rdId }
 ::= { starSS7RdTable 1 }

StarSS7RdEntry ::=
SEQUENCE {
    starSS7rdId          Gauge32,
    starSS7Pc            Gauge32,
    starSS7M3UAPsId     Gauge32,
    starSS7M3UAPspId    Gauge32,
    starSS7MTP3LinkSetId Gauge32,
    starSS7MTP3LinkId   Gauge32,
    starSS7SCTPSelfAddr IpAddress,
    starSS7SCTPPeerAddr IpAddress,
    starSS7SCTPSelfPort Gauge32,
    starSS7SCTPPeerPort Gauge32,
    starSS7CongLevel    Gauge32,
    starSS7LocalCong    Gauge32,
    starSS7CauseString  DisplayString
}

starSS7rdId OBJECT-TYPE
SYNTAX      Gauge32
MAX-ACCESS  accessible-for-notify
STATUS      current
DESCRIPTION
"SS7 Routing Domain identification"

```



## STARENT-MIB DEFINITIONS ::= BEGIN

```

 ::= { starSS7RdEntry 1 }

starSS7Pc OBJECT-TYPE
    SYNTAX      Gauge32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Point Code"
    ::= { starSS7RdEntry 2 }

starSS7M3UAPsId OBJECT-TYPE
    SYNTAX      Gauge32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Peer Server identification"
    ::= { starSS7RdEntry 3 }

starSS7M3UAPspId OBJECT-TYPE
    SYNTAX      Gauge32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Peer Server process identification"
    ::= { starSS7RdEntry 4 }

starSS7MTP3LinkSetId OBJECT-TYPE
    SYNTAX      Gauge32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "MTP3 LinkSet Identifier"
    ::= { starSS7RdEntry 5 }

starSS7MTP3LinkId OBJECT-TYPE
    SYNTAX      Gauge32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "MTP3 Link Identifier"
    ::= { starSS7RdEntry 6 }

starSS7SCTPSelfAddr OBJECT-TYPE
    SYNTAX      IpAddress
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The self end point IP Address"
    ::= { starSS7RdEntry 7 }

starSS7SCTPPeerAddr OBJECT-TYPE
    SYNTAX      IpAddress
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The IP Address of the PeerNode"
    ::= { starSS7RdEntry 8 }

starSS7SCTPSelfPort OBJECT-TYPE
    SYNTAX      Gauge32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The self end point sctp port"
    ::= { starSS7RdEntry 9 }

starSS7SCTPPeerPort OBJECT-TYPE

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

SYNTAX      Gauge32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
"The peer end point sctp port"
::= { starSS7RdEntry 10 }

starSS7CongLevel OBJECT-TYPE
SYNTAX      Gauge32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
"Congestion Level Value"
::= { starSS7RdEntry 11 }

starSS7LocalCong OBJECT-TYPE
SYNTAX      Gauge32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
"Local Congestion Value"
::= { starSS7RdEntry 12 }

starSS7CauseString OBJECT-TYPE
SYNTAX      DisplayString
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
"Cause string for failure"
::= { starSS7RdEntry 13 }

--SCCP Network

starentSccpNw OBJECT IDENTIFIER ::= { starentMIBObjects 47 }

starSccpNwTable OBJECT-TYPE
SYNTAX      SEQUENCE OF StarSccpNwEntry
MAX-ACCESS  not-accessible
STATUS      current
DESCRIPTION
"A table containing Sccp Network related information"
::= { starentSccpNw 1 }

starSccpNwEntry OBJECT-TYPE
SYNTAX      StarSccpNwEntry
MAX-ACCESS  not-accessible
STATUS      current
DESCRIPTION
"The statistics for a specific Sccp Network"
INDEX { starSccpNwId }
::= { starSccpNwTable 1 }

StarSccpNwEntry ::=
SEQUENCE {
    starSccpNwId          Gauge32,
    starSccpSsn          Gauge32
}

starSccpNwId OBJECT-TYPE
SYNTAX      Gauge32
MAX-ACCESS  accessible-for-notify
STATUS      current
DESCRIPTION
"SCCP Network Id"
::= { starSccpNwEntry 1 }

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

starSccpSsn OBJECT-TYPE
    SYNTAX      Gauge32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Sub System Number"
    ::= { starSccpNwEntry 2 }

-- SGTP Service
starentSGTPService OBJECT IDENTIFIER ::= { starentMIBObjects 48 }

starSGTPSerTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF StarSGTPSerEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "A table containing SGTP Service related information"
    ::= { starentSGTPService 1 }

starSGTPSerEntry OBJECT-TYPE
    SYNTAX      StarSGTPSerEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "The statistics for a specific SGTP service"
    INDEX { starSGTPSerVpnID, starSGTPSerSvcID }
    ::= { starSGTPSerTable 1 }

StarSGTPSerEntry ::=
SEQUENCE {
    starSGTPSerVpnID          Gauge32,
    starSGTPSerSvcID         Gauge32,
    starSGTPVpnName          DisplayString,
    starSGTPServName         DisplayString,
    starSGTPSelfAddr         IPAddress,
    starSGTPPeerAddr         IPAddress,
    starSGTPSelfPort         Gauge32,
    starSGTPPeerPort         Gauge32
}

starSGTPSerVpnID OBJECT-TYPE
    SYNTAX      Gauge32
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "The internal identification of the VPN (context)"
    ::= { starSGTPSerEntry 1 }

starSGTPSerSvcID OBJECT-TYPE
    SYNTAX      Gauge32
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "The internal identification of this service; unique within a specific context"
    ::= { starSGTPSerEntry 2 }

starSGTPVpnName OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The name of this VPN (context)"
    ::= { starSGTPSerEntry 3 }

starSGTPServName OBJECT-TYPE

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

SYNTAX      DisplayString
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
"The name of this service"
::= { starSGTPSerEntry 4 }

starSGTPSelfAddr OBJECT-TYPE
SYNTAX      IPAddress
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
"The IP Address of the SGSN"
::= { starSGTPSerEntry 5 }

starSGTPPeerAddr OBJECT-TYPE
SYNTAX      IPAddress
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
"The IP Address of the PeerNode"
::= { starSGTPSerEntry 6 }

starSGTPSelfPort OBJECT-TYPE
SYNTAX      Gauge32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
"The self end point sgtp port"
::= { starSGTPSerEntry 7 }

starSGTPPeerPort OBJECT-TYPE
SYNTAX      Gauge32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
"The peer end point sgtp port"
::= { starSGTPSerEntry 8 }

-- IPMS

starentIPMSServer OBJECT IDENTIFIER ::= { starentMIBObjects 49 }

starIPMSServerTable OBJECT-TYPE
SYNTAX      SEQUENCE OF StarIPMSServerEntry
MAX-ACCESS  not-accessible
STATUS      current
DESCRIPTION
"A table containing information on IPMS Servers"
::= { starentIPMSServer 1 }

starIPMSServerEntry OBJECT-TYPE
SYNTAX      StarIPMSServerEntry
MAX-ACCESS  not-accessible
STATUS      current
DESCRIPTION
"Information about a particular IPMS Server"
INDEX { starIPMSServerVpnID, starIPMSServerAddr }
::= { starIPMSServerTable 1 }

StarIPMSServerEntry ::=
SEQUENCE {
starIPMSServerVpnID      Gauge32,
starIPMSServerAddr      IPAddress,
starIPMSServerVpnName    DisplayString
}

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

starIPMSServerVpnID OBJECT-TYPE
    SYNTAX      Gauge32
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "The internal identification of the VPN (context)"
    ::= { starIPMSServerEntry 1 }

starIPMSServerAddr OBJECT-TYPE
    SYNTAX      IpAddress
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "The IP address of the IPMS server within this VPN (context)"
    ::= { starIPMSServerEntry 2 }

starIPMSServerVpnName OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The name of this VPN (context)"
    ::= { starIPMSServerEntry 3 }

-- Certificates

starentCert OBJECT IDENTIFIER ::= { starentMIBObjects 50 }

starCertTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF StarCertEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "A table containing information on X.509 Certificates"
    ::= { starentCert 1 }

starCertEntry OBJECT-TYPE
    SYNTAX      StarCertEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "Information about a particular X.509 Certificate"
    INDEX { IMPLIED starCertSerialNumber }
    ::= { starCertTable 1 }

StarCertEntry ::=
    SEQUENCE {
        starCertSerialNumber      DisplayString,
        starCertExpiryTime        DateAndTime,
        starCertIssuer             DisplayString
    }

starCertSerialNumber OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "The serial number for the certificate"
    ::= { starCertEntry 1 }

starCertExpiryTime OBJECT-TYPE
    SYNTAX      DateAndTime
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The Certificate expiration date/time"

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

 ::= { starCertEntry 2 }

starCertIssuer OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
    "The Certificate issuer"
    ::= { starCertEntry 3 }

-- Files; defined for traps only

starentFile OBJECT IDENTIFIER ::= { starentMIBObjects 51 }

starFileTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF StarFileEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
    "A table of files stored on a mass storage device"
    ::= { starentFile 1 }

starFileEntry OBJECT-TYPE
    SYNTAX      StarFileEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
    "Information about a particular file on a mass storage device"
    INDEX { IMPLIED starFileName }
    ::= { starFileTable 1 }

StarFileEntry ::=
    SEQUENCE {
        starFileName      DisplayString,
        starFileApplication  INTEGER
    }

starFileName OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
    "The name (full path) of the file"
    ::= { starFileEntry 1 }

starFileApplication OBJECT-TYPE
    SYNTAX      INTEGER {
        unknown(0),
        systemfile(1),
        cdrmod(2)
    }
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
    "The application that owns this file"
    ::= { starFileEntry 2 }

-- FTP Servers, defined for use in traps only

starentFTPServ OBJECT IDENTIFIER ::= { starentMIBObjects 52 }

starFTPServTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF StarFTPServEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

    "A table of FTP servers configured"
    ::= { starentFTPServ 1 }

starFTPServEntry OBJECT-TYPE
    SYNTAX      StarFTPServEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "Information about a particular FTP Server"
    INDEX { starFTPServVpnID, starFTPServIpAddress }
    ::= { starFTPServTable 1 }

StarFTPServEntry ::=
    SEQUENCE {
        starFTPServVpnID  Unsigned32,
        starFTPServIpAddr IpAddress,
        starFTPServVpnName DisplayString
    }

starFTPServVpnID OBJECT-TYPE
    SYNTAX      Unsigned32
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "The internal identification of the VPN (context) used to reach this FTP server"
    ::= { starFTPServEntry 1 }

starFTPServIpAddress OBJECT-TYPE
    SYNTAX      IpAddress
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "The IP address of the FTP server"
    ::= { starFTPServEntry 2 }

starFTPServVpnName OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The name of the VPN (context)"
    ::= { starFTPServEntry 3 }

---for cscf peer server
starentCSCFPeerServer OBJECT IDENTIFIER ::= { starentMIBObjects 53 }

starCSCFPeerServerTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF StarCSCFPeerServerEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "A table containing PeerServer related information"
    ::= { starentCSCFPeerServer 1 }

starCSCFPeerServerEntry OBJECT-TYPE
    SYNTAX      StarCSCFPeerServerEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "The statistics for a specific CSCF service"
    INDEX { starCSCFPeerServerVpnID, starCSCFPeerServerSvcID}
    ::= { starCSCFPeerServerTable 1 }

StarCSCFPeerServerEntry ::=
    SEQUENCE {
        starCSCFPeerServerVpnID Gauge32,
        starCSCFPeerServerSvcID Gauge32,

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

        starCSCFPeerServerVpnName      DisplayString,
        starCSCFPeerServerSvcName      DisplayString,
        starCSCFPeerServerListName     DisplayString,
        starCSCFPeerServerName         DisplayString,
        starCSCFPeerServerState        DisplayString
    }

starCSCFPeerServerVpnID OBJECT-TYPE
    SYNTAX      Gauge32
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "The internal identification of the VPN (context)"
    ::= { starCSCFPeerServerEntry 1 }

starCSCFPeerServerSvcID OBJECT-TYPE
    SYNTAX      Gauge32
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "The internal identification of this CSCF service; unique within a specific context"
    ::= { starCSCFPeerServerEntry 2 }

starCSCFPeerServerVpnName OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The name of this VPN (context)"
    ::= { starCSCFPeerServerEntry 3 }

starCSCFPeerServerSvcName OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The name of this CSCF-service"
    ::= { starCSCFPeerServerEntry 4 }

starCSCFPeerServerListName OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The name of the cscf-peer-server"
    ::= { starCSCFPeerServerEntry 5 }

starCSCFPeerServerName OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The name of the cscf-peer-server"
    ::= { starCSCFPeerServerEntry 6 }

starCSCFPeerServerState OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The state of the cscf-peer-server"
    ::= { starCSCFPeerServerEntry 7 }

---end for cscf peer server

```



## STARENT-MIB DEFINITIONS ::= BEGIN

--

```
starentSDH OBJECT IDENTIFIER ::= { starentMIBObjects 54 }
```

```
starSDHTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF StarSDHEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "A table ..."
    ::= { starentSDH 1 }
```

```
starSDHEntry OBJECT-TYPE
    SYNTAX      StarSDHEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "Information about a specific ..."
    INDEX { starSDHslot, starSDHport }
    ::= { starSDHTable 1 }
```

```
StarSDHEntry ::=
    SEQUENCE {
        starSDHslot      Integer32,
        starSDHport      Integer32,
        starSDHOperState Integer32
    }
```

```
starSDHslot OBJECT-TYPE
    SYNTAX Integer32(17..48)
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "The slot number for this port"
    ::= { starSDHEntry 1 }
```

```
starSDHport OBJECT-TYPE
    SYNTAX      Integer32(1..8)
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "The port number within this slot"
    ::= { starSDHEntry 2 }
```

```
starSDHOperState OBJECT-TYPE
    SYNTAX Integer32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "A bitmask indicating the state of SDH layer SCT.
         0x0000      Good
         0x0001      lais
         0x0002      linesd
         0x0004      linesf
         0x0010      lof
         0x0020      los
         0x0040      msrdi"
    ::= { starSDHEntry 3 }
```

---

```
starentSDHPath OBJECT IDENTIFIER ::= { starentMIBObjects 55 }
```

```
starSDHPathTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF StarSDHPathEntry
    MAX-ACCESS  not-accessible
```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

STATUS      current
DESCRIPTION
"A table ..."
 ::= { starentSDHPath 1 }

starSDHPathEntry OBJECT-TYPE
SYNTAX      StarSDHPathEntry
MAX-ACCESS  not-accessible
STATUS      current
DESCRIPTION
"Information about a specific ..."
INDEX { starSDHPathSlot, starSDHPathPort, starSDHPathNum }
 ::= { starSDHPathTable 1 }

StarSDHPathEntry ::=
SEQUENCE {
starSDHPathSlot      Integer32,
starSDHPathPort      Integer32,
starSDHPathNum       Integer32,
starSDHPathOperState Integer32
}

starSDHPathSlot OBJECT-TYPE
SYNTAX Integer32(17..48)
MAX-ACCESS  accessible-for-notify
STATUS      current
DESCRIPTION
"The slot number for this port"
 ::= { starSDHPathEntry 1 }

starSDHPathPort OBJECT-TYPE
SYNTAX      Integer32(1..8)
MAX-ACCESS  accessible-for-notify
STATUS      current
DESCRIPTION
"The port number within this slot"
 ::= { starSDHPathEntry 2 }

starSDHPathNum OBJECT-TYPE
SYNTAX      Integer32(1..3)
MAX-ACCESS  accessible-for-notify
STATUS      current
DESCRIPTION
"The path number"
 ::= { starSDHPathEntry 3 }

starSDHPathOperState OBJECT-TYPE
SYNTAX Integer32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
"A bitmask indicating the state of SDH Path HOP.
0x0000      Good
0x0001      hopathsd
0x0002      hopathsf
0x0020      ppdi
0x0040      prdi
0x0080      perdi
0x0100      perdival
0x0200      perdivaloff"
 ::= { starSDHPathEntry 4 }

---

starentElTrib OBJECT IDENTIFIER ::= { starentMIBObjects 56 }

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

starElTribTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF StarElTribEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "A table ..."
    ::= { starentElTrib 1 }

starElTribEntry OBJECT-TYPE
    SYNTAX      StarElTribEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "Information about a specific ..."
    INDEX { starElTribSlot, starElTribPort, starElTribPath, starElTribTug2, starElTribTu12 }
    ::= { starElTribTable 1 }

StarElTribEntry ::=
    SEQUENCE {
        starElTribSlot      Integer32,
        starElTribPort      Integer32,
        starElTribPath      Integer32,
        starElTribTug2      Integer32,
        starElTribTu12      Integer32,
        starElTribOperStateLOP Integer32,
        starElTribOperState Integer32
    }

starElTribSlot OBJECT-TYPE
    SYNTAX Integer32(17..48)
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "The slot number for this port"
    ::= { starElTribEntry 1 }

starElTribPort OBJECT-TYPE
    SYNTAX      Integer32(1..8)
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "The port number within this slot"
    ::= { starElTribEntry 2 }

starElTribPath OBJECT-TYPE
    SYNTAX      Integer32(1..3)
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        " "
    ::= { starElTribEntry 3 }

starElTribTug2 OBJECT-TYPE
    SYNTAX Integer32(1..7)
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        " "
    ::= { starElTribEntry 4 }

starElTribTu12 OBJECT-TYPE
    SYNTAX Integer32(1..3)
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        " "

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

 ::= { starElTribEntry 5 }

starElTribOperStateLOP OBJECT-TYPE
    SYNTAX Integer32
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "A bitmask indicating the state of SDH layer LOP.
         0x0000 Good
         0x0001 lopathsd
         0x0002 lopathsf
         0x0100 erdi
         0x0200 rdi
         0x0400 lop
         0x0800 ais
         0x1000 lom"
 ::= { starElTribEntry 6 }

starElTribOperState OBJECT-TYPE
    SYNTAX Integer32
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "A bitmask
         0x0000 Good
         0x0001 inf
         0x0002 insmf
         0x0004 incmf
         0x0008 ooof
         0x0010 raicrcr
         0x0020 cfebe
         0x0040 rai
         0x0080 rmai
         0x0100 aisd
         0x0200 red
         0x0400 ais
         0x0800 tsl6aisd"
 ::= { starElTribEntry 7 }

---

starentFractElTrib OBJECT IDENTIFIER ::= { starentMIBObjects 58 }

starFractElTribTable OBJECT-TYPE
    SYNTAX SEQUENCE OF StarFractElTribEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "A table ..."
 ::= { starentFractElTrib 1 }

starFractElTribEntry OBJECT-TYPE
    SYNTAX StarFractElTribEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "Information about a specific ..."
    INDEX { starFractElTribSlot, starFractElTribPort, starFractElTribPath, starFractElTribTug2,
starFractElTribTul2, starFractElTribBundNum }
 ::= { starFractElTribTable 1 }

StarFractElTribEntry ::=
    SEQUENCE {
        starFractElTribSlot Integer32,
        starFractElTribPort Integer32,
        starFractElTribPath Integer32,

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

    starFractElTribTug2      Integer32,
    starFractElTribTul2     Integer32,
    starFractElTribBundNum  Integer32,
    starFractElTribTimeslots DisplayString
}

starFractElTribSlot OBJECT-TYPE
    SYNTAX Integer32(17..48)
    MAX-ACCESS accessible-for-notify
    STATUS      current
    DESCRIPTION
        "The slot number for this port"
    ::= { starFractElTribEntry 1 }

starFractElTribPort OBJECT-TYPE
    SYNTAX      Integer32(1..8)
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "The port number within this slot"
    ::= { starFractElTribEntry 2 }

starFractElTribPath OBJECT-TYPE
    SYNTAX      Integer32(1..3)
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        " "
    ::= { starFractElTribEntry 3 }

starFractElTribTug2 OBJECT-TYPE
    SYNTAX Integer32(1..7)
    MAX-ACCESS accessible-for-notify
    STATUS      current
    DESCRIPTION
        " "
    ::= { starFractElTribEntry 4 }

starFractElTribTul2 OBJECT-TYPE
    SYNTAX Integer32(1..3)
    MAX-ACCESS accessible-for-notify
    STATUS      current
    DESCRIPTION
        " "
    ::= { starFractElTribEntry 5 }

starFractElTribBundNum OBJECT-TYPE
    SYNTAX Integer32(0..31)
    MAX-ACCESS not-accessible
    STATUS      obsolete
    DESCRIPTION
        " "
    ::= { starFractElTribEntry 6 }

starFractElTribTimeslots OBJECT-TYPE
    SYNTAX DisplayString
    MAX-ACCESS read-only
    STATUS      current
    DESCRIPTION
        " "
    ::= { starFractElTribEntry 7 }

--GPRSLink
starentGPRSLink OBJECT IDENTIFIER ::= { starentMIBObjects 57 }

starGPRSLinkTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF StarGPRSLinkEntry

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

MAX-ACCESS not-accessible
STATUS      current
DESCRIPTION
"A table containing GPRSService Link related information"
 ::= { starentGPRSLink 1 }

starGPRSLinkEntry OBJECT-TYPE
SYNTAX      StarGPRSLinkEntry
MAX-ACCESS not-accessible
STATUS      current
DESCRIPTION
"The link statistics for a specific GPRS service"
INDEX { starGPRSNsei }
 ::= { starGPRSLinkTable 1 }

StarGPRSLinkEntry ::=
SEQUENCE {
    starGPRSNsei          Gauge32,
    starGPRSNsvci        Gauge32,
    starGPRSBvci         Gauge32
}

starGPRSNsei OBJECT-TYPE
SYNTAX      Gauge32
MAX-ACCESS accessible-for-notify
STATUS      current
DESCRIPTION
"Network Service Entity Identifier"
 ::= { starGPRSLinkEntry 1 }

starGPRSNsvci OBJECT-TYPE
SYNTAX      Gauge32
MAX-ACCESS read-only
STATUS      current
DESCRIPTION
"Network Service Virtual Circuit Identifier"
 ::= { starGPRSLinkEntry 2 }

starGPRSBvci OBJECT-TYPE
SYNTAX      Gauge32
MAX-ACCESS read-only
STATUS      current
DESCRIPTION
"Base Station System GPRS(General Packet Radio Service) Protocol Virtual Circuit Identifier"
 ::= { starGPRSLinkEntry 3 }

-- end of GPRSLink

-- Files; defined for traps only

starentStorage OBJECT IDENTIFIER ::= { starentMIBObjects 59 }

starStorageTable OBJECT-TYPE
SYNTAX      SEQUENCE OF StarStorageEntry
MAX-ACCESS not-accessible
STATUS      current
DESCRIPTION
"A table of mass storage devices"
 ::= { starentStorage 1 }

starStorageEntry OBJECT-TYPE
SYNTAX      StarStorageEntry
MAX-ACCESS not-accessible
STATUS      current
DESCRIPTION
"Information about a particular file on a mass storage device"

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

INDEX { starStorageSlot, IMPLIED starStorageName }
 ::= { starStorageTable 1 }

StarStorageEntry ::=
  SEQUENCE {
    starStorageSlot      Integer32,
    starStorageName      DisplayString,
    starStorageDeviceType INTEGER
  }

starStorageSlot OBJECT-TYPE
  SYNTAX      Integer32(1..16)
  MAX-ACCESS  accessible-for-notify
  STATUS      current
  DESCRIPTION
    "The slot number of the card holding this storage device"
  ::= { starStorageEntry 1 }

starStorageName OBJECT-TYPE
  SYNTAX      DisplayString
  MAX-ACCESS  accessible-for-notify
  STATUS      current
  DESCRIPTION
    "The name of the storage device"
  ::= { starStorageEntry 2 }

starStorageDeviceType OBJECT-TYPE
  SYNTAX      INTEGER {
    unknown(0),
    independent(1),
    raid(2),
    raidmember(3)
  }
  MAX-ACCESS  read-only
  STATUS      current
  DESCRIPTION
    "The storage device type. A value of independent(1) means that the device can be
    accessed as a standalone device, and is not part of a raid array. A value of
    raid(2) means that this device is a raid array. A value of raidmember(3) means
    the device is part of a raid array, and thus cannot be read/written to
    outside of the raid array"
  ::= { starStorageEntry 3 }

-- MME S1 Associations; defined for traps only

starentMMES1Assoc OBJECT IDENTIFIER ::= { starentMIBObjects 67 }

starMMES1AssocTable OBJECT-TYPE
  SYNTAX      SEQUENCE OF StarMMES1AssocEntry
  MAX-ACCESS  not-accessible
  STATUS      current
  DESCRIPTION
    "A table of MME S1 Associations"
  ::= { starentMMES1Assoc 1 }

starMMES1AssocEntry OBJECT-TYPE
  SYNTAX      StarMMES1AssocEntry
  MAX-ACCESS  not-accessible
  STATUS      current
  DESCRIPTION
    "Information about a particular MME S1 Association"
  INDEX { starMMES1AssocSvcID, starMMES1AssocENBID }
  ::= { starMMES1AssocTable 1 }

StarMMES1AssocEntry ::=
  SEQUENCE {
    starMMES1AssocSvcID  StarMediumID,

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

    starMMES1AssocENBID      StarENBID,
    starMMES1AssocVpnName   DisplayString,
    starMMES1AssocServName  DisplayString
  }

starMMES1AssocSvcID OBJECT-TYPE
    SYNTAX      StarMediumID
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "The service identification is made up from the first 8 characters of the
        VPN name and the first 16 characters of the service name separated by (:)"
    ::= { starMMES1AssocEntry 1 }

starMMES1AssocENBID OBJECT-TYPE
    SYNTAX      StarENBID
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "The identification of the eNodeB"
    ::= { starMMES1AssocEntry 2 }

starMMES1AssocVpnName OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The name of this VPN (context)"
    ::= { starMMES1AssocEntry 3 }

starMMES1AssocServName OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The name of this MME Service"
    ::= { starMMES1AssocEntry 4 }

-- MME S1 path; defined for traps only

starentMMES1Path OBJECT IDENTIFIER ::= { starentMIBObjects 70 }

starMMES1PathTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF StarMMES1PathEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "A table of MME S1 Path"
    ::= { starentMMES1Path 1 }

starMMES1PathEntry OBJECT-TYPE
    SYNTAX      StarMMES1PathEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "Information about a particular MME S1 Pathiation"
    INDEX { starMMES1PathSvcID, starMMES1PathENBID }
    ::= { starMMES1PathTable 1 }

StarMMES1PathEntry ::=
    SEQUENCE {
        starMMES1PathSvcID      StarMediumID,
        starMMES1PathENBID     StarENBID,
        starMMES1PathVpnName   DisplayString,
        starMMES1PathServName  DisplayString,
        starMMES1PathSelfAddr  IpAddress,

```



## STARENT-MIB DEFINITIONS ::= BEGIN

```

    starMMES1PathSelfPort Gauge32,
    starMMES1PathPeerAddr  IPAddress,
    starMMES1PathPeerPort  Gauge32
}

starMMES1PathSvcID OBJECT-TYPE
    SYNTAX      StarMediumID
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "The service identification is made up from the first 8 characters of the
        VPN name and the first 16 characters of the service name seperated by (:)"
    ::= { starMMES1PathEntry 1 }

starMMES1PathENBID OBJECT-TYPE
    SYNTAX      StarENBID
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "The identification of the eNodeB"
    ::= { starMMES1PathEntry 2 }

starMMES1PathVpnName OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The name of this VPN (context)"
    ::= { starMMES1PathEntry 3 }

starMMES1PathServName OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The name of this MME Service"
    ::= { starMMES1PathEntry 4 }

starMMES1PathSelfAddr OBJECT-TYPE
    SYNTAX      IPAddress
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Interface IP Address"
    ::= { starMMES1PathEntry 5 }

starMMES1PathSelfPort OBJECT-TYPE
    SYNTAX      Gauge32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Self port number"
    ::= { starMMES1PathEntry 6 }

starMMES1PathPeerAddr OBJECT-TYPE
    SYNTAX      IPAddress
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Interface IP Address"
    ::= { starMMES1PathEntry 7 }

starMMES1PathPeerPort OBJECT-TYPE
    SYNTAX      Gauge32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

        "Peer port number"
 ::= { starMMES1PathEntry 8 }

-- traps

starentTraps OBJECT IDENTIFIER ::= { starentMIB 2 }

-- Card Trap

starCardTempOverheat NOTIFICATION-TYPE
    OBJECTS { starSlotNum,
              starCardTemperature }
    STATUS current
    DESCRIPTION
        "The card has reached a temperature beyond its safe operating range.

        Probable Cause: External temperature is too high; One or more fan
        failures; blockages the prevent fan air inflow/outflow.

        Action to be Taken: Inspect chassis for any item that may be blocking chassis
        air flow. Verify adjacent equipment is not obstructing air flow.
        Verify that the fans are running via the CLI/EMS. Check air filters.
        Check chassis maintenance schedule to see if chassis needs routine
        air filter replacement. Verify room temperature is within acceptable
        operating conditions.

        Clear Condition: This condition is cleared when the card reaches its
        operating temperature range or is removed from the system.

        Condition Clear Alarm: This condition is cleared by a starCardTempOK notification.
        This is not applicable to QVPC-SI and QVPC-DI"
    --#SUMMARY "[Card %d] Card has overheated; measured temperature %d C"
    --#ARGUMENTS {0,1}
    --#STATE NONOPERATIONAL
    --#SEVERITY CRITICAL
 ::= { starentTraps 1 }

starCardTempOK NOTIFICATION-TYPE
    OBJECTS { starSlotNum,
              starCardTemperature }
    STATUS current
    DESCRIPTION
        "The temperature of the card is now within its safe operating range.
        This notification is only generated if the card has previously
        generated a starCardTempOverheat notification.

        Action to be Taken: No action required. The cause for the card overheat
        condition should be investigated.This is not applicable to QVPC-SI and QVPC-DI."
    --#SUMMARY "[Slot %d] Temperature OK (%d C)"
    --#ARGUMENTS {0,1}
    --#STATE OPERATIONAL
    --#SEVERITY INFORMATIONAL
 ::= { starentTraps 2 }

starCardReset NOTIFICATION-TYPE
    OBJECTS { starSlotNum,
              starCardType,
              starSlotSerialNumber}
    STATUS obsolete
    DESCRIPTION
        "A reset operation has been invoked on the card. This trap is obsolete.
        This is not applicable to QVPC-SI."
    --#SUMMARY "[Card %s-%d] Card has been reset UUID %s"
    --#ARGUMENTS {1,0,2}
    --#STATE DEGRADED
    --#SEVERITY MAJOR

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

 ::= { starentTraps 3 }

starCardRebootRequest NOTIFICATION-TYPE
  OBJECTS { starSlotNum,
            starCardType,
            starSlotSerialNumber}
  STATUS current
  DESCRIPTION
    "A Reboot operation has been invoked on this card by an administrator.  If successful,
    a subsequent CardDown trap is typically generated.

    Action to be Taken: No action required.  If the reboot was not scheduled the admin
    logs can be examined to determine who invoked the reboot operation.  This is not applicable to QVPC-
    SI."
  --#SUMMARY "[Card %s-%d] Reboot operation invoked on card UUID %s"
  --#ARGUMENTS {1,0,2}
  --#STATE DEGRADED
  --#SEVERITY MAJOR
  ::= { starentTraps 4 }

starCardUp NOTIFICATION-TYPE
  OBJECTS { starSlotNum, starCardType, starSlotSerialNumber }
  STATUS current
  DESCRIPTION
    "The card is up (operational).  This is not applicable to QVPC-SI."
  --#SUMMARY "[Card %s-%d] Card is up UUID %s"
  --#ARGUMENTS {1,0, 2}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 5 }

starCardVoltageFailure NOTIFICATION-TYPE
  OBJECTS { starSlotNum, starCardType, starSlotSerialNumber }
  STATUS current
  DESCRIPTION
    "A voltage regulation failure has been detected this card.

    Probable Cause: Problem with incoming power; failure of power filters;
    hardware issue with card.  Note that this is an extremely abnormal
    condition.

    Action To Be Taken: Verify that the power supplied to the chassis is
    operating correctly; use the CLI/EMS to check the state of the chassis
    power filters; replace the card

    Clear Condition: This is not a recoverable error except via restarting the card,
    so the condition is only cleared via a starCardUp or starCardActive notification.
    This is not applicable to QVPC-SI and QVPC-DI."
  --#SUMMARY "[Card %s-%d] Voltage Failure UUID %s"
  --#ARGUMENTS {1,0,2}
  --#STATE NONOPERATIONAL
  --#SEVERITY CRITICAL
  ::= { starentTraps 6 }

starCardRemoved NOTIFICATION-TYPE
  OBJECTS { starSlotNum,
            starCardType,
            starSlotSerialNumber}
  STATUS current
  DESCRIPTION
    "A card has been removed from the chassis.

    Probable Cause: An operator has physically unlocked and removed a card from
    the chassis

    Action to be Taken: No action is required.  If the card removal was unplanned,
    the admin logs can identify the time when the card was initially unlocked.

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

        This is not applicable to QVPC-SI."
--#SUMMARY "[Card %s-%d] Card removed UUID %s"
--#ARGUMENTS {1,0,2}
--#STATE NONOPERATIONAL
--#SEVERITY MAJOR
 ::= { starentTraps 7 }

starCardInserted NOTIFICATION-TYPE
  OBJECTS { starSlotNum,
            starCardType,
            starSlotSerialNumber}
  STATUS current
  DESCRIPTION
    "A card has been inserted into the chassis.This is not applicable to QVPC-SI."
--#SUMMARY "[Card %s-%d] Card inserted UUID $s"
--#ARGUMENTS {1,0,2}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starentTraps 8 }

starCardBootFailed NOTIFICATION-TYPE
  OBJECTS { starSlotNum,
            starCardType,
            starSlotSerialNumber}
  STATUS current
  DESCRIPTION
    "A card has failed to startup properly.  The card is not operational

    Probable Cause: The system logs should contain additional information
    about the cause of the boot failure. This is not applicable to QVPC-SI."
--#SUMMARY "[Card %s-%d] Card boot failure UUID %s"
--#ARGUMENTS {1,0,2}
--#STATE NONOPERATIONAL
--#SEVERITY MAJOR
 ::= { starentTraps 9 }

starCardFailed NOTIFICATION-TYPE
  OBJECTS { starSlotNum, starCardType, starSlotSerialNumber }
  STATUS obsolete
  DESCRIPTION
    "The card has failed and is no longer operational.  This trap is obsolete
    and has been replaced with more specific traps to identify specific
    failures.This is not applicable to QVPC-SI."
 ::= { starentTraps 10 }

starCardSWFailed NOTIFICATION-TYPE
  OBJECTS { starSlotNum }
  STATUS obsolete
  DESCRIPTION
    "A unrecoverable software error has occurred on the card.  This trap is obsolete
    and has been replaced with more specific traps to identify specific
    failures.This is not applicable to QVPC-SI."
 ::= { starentTraps 11 }

starCardRCCFailed NOTIFICATION-TYPE
  OBJECTS { starSlotNum }
  STATUS obsolete
  DESCRIPTION
    "The RCC has failed.

    Probable Cause: A hardware failure on the RCC card.  This trap is obsolete.
    This is not applicable to QVPC-SI and QVPC-DI."
--#SUMMARY "[Card RCC-%d] Card failure"
--#ARGUMENTS {0}
--#STATE NONOPERATIONAL
--#SEVERITY MAJOR

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

 ::= { starentTraps 12 }

starCardMismatch NOTIFICATION-TYPE
  OBJECTS { starSlotNum, starCardType, starSlotSerialNumber }
  STATUS current
  DESCRIPTION
    "The card does not match its configuration, or the card does not
    match the slot it was inserted into, or the card is of an
    unsupported type.

    Probable Cause: A card was inserted into a slot which was configured
    for a different type of card. For example, a Gigabit Ethernet card
    was inserted into a slot configured for a Fast Ethernet card.

    A starCardUp or starCardActive notification would indicate that this
    condition has been cleared.This is not applicable to QVPC-SI."
  --#SUMMARY "[Card %s-%d] Card does not match system configuration UUID %s"
  --#ARGUMENTS {1,0,2}
  --#STATE NONOPERATIONAL
  --#SEVERITY MAJOR
  ::= { starentTraps 13 }

starCardFailureLEDOn NOTIFICATION-TYPE
  OBJECTS { starSlotNum,
            starCardType,
            starSlotSerialNumber}
  STATUS obsolete
  DESCRIPTION
    "The failure LED is illuminated on the card. This trap is obsolete and
    has been replaced with more specific traps for specific failures.
    This is not applicable to QVPC-SI and QVPC-DI."
  ::= { starentTraps 14 }

starCardFailureLEDOff NOTIFICATION-TYPE
  OBJECTS { starSlotNum,
            starCardType,
            starSlotSerialNumber}
  STATUS obsolete
  DESCRIPTION
    "The failure LED is no longer illuminated on the card. This notification
    is only generated if the card has previously generated a
    starCardFailureLEDOn notification. This trap is obsolete and has been
    replaced with more specific traps for specific failures.This is not
    applicable to QVPC-SI and QVPC-DI."
  ::= { starentTraps 15 }

starCardPACmigrateStart NOTIFICATION-TYPE
  OBJECTS { starSlotNum, starSlotNum }
  STATUS deprecated
  DESCRIPTION
    "A PAC/PSC Migration operation has begun. The first varbind identifies the PAC/PSC
    being migrated away from; the second varbind identifies the PAC/PSC being
    migrated to.

    Probable Cause: This is typically caused by an operator action; it can also
    represent the system recovering from a software or hardware fault.

    A starCardPACmigrateComplete is generated when the migration is completed"
  --#SUMMARY "[Card PAC-%d] Migration start to card PAC-%d"
  --#ARGUMENTS {0,1}
  --#STATE DEGRADED
  --#SEVERITY MAJOR
  ::= { starentTraps 16 }

starCardPACmigrateComplete NOTIFICATION-TYPE
  OBJECTS { starSlotNum, starSlotNum }
  STATUS deprecated

```

## STARENT-MIB DEFINITIONS ::= BEGIN

## DESCRIPTION

"A PAC/PSC Migration operation has successfully completed. The first varbind identifies the PAC/PSC that was migrated away from; the second varbind identifies the PAC/PSC that was migrated to."

--#SUMMARY "[Card PAC-%d] Migration completed from card PAC-%d"

--#ARGUMENTS {1,0}

--#STATE OPERATIONAL

--#SEVERITY INFORMATIONAL

::= { starentTraps 17 }

## starCardPACMigrateFailed NOTIFICATION-TYPE

OBJECTS { starSlotNum, starSlotNum }

STATUS deprecated

## DESCRIPTION

"A PAC/PSC Migration operation has failed. The first varbind identifies the PAC/PSC that was attempted to be migrated away from; the second varbind identifies the PAC/PSC that was attempted to be migrated to.

Probable Cause: The PAC/PSC being migrated to was removed or reset before the migration completed; the migration operation was terminated by an operator; or a software or hardware failure on either PAC/PSC involved in the migration operation.

The PAC/PSC in question will be reset; a starCardUp notification will be generated when the card is operational again."

--#SUMMARY "[Card PAC-%d] Migration failed to card PAC-%d"

--#ARGUMENTS {0,1}

--#STATE DEGRADED

--#SEVERITY MAJOR

::= { starentTraps 18 }

## starCardSPCSwitchoverStart NOTIFICATION-TYPE

OBJECTS { starSlotNum, starSlotNum }

STATUS deprecated

## DESCRIPTION

"An SPC switchover operation has begun. The first varbind identifies the SPC being switched away from; the second varbind identifies the SPC being switched to. Note that since an SPC switchover can cause a momentary loss of communication through the management (SPIO) interface, it is possible that this trap will not be successfully delivered.

Probable Cause: This is typically caused by an operator action; it can also represent the system recovering from a software or hardware fault.

Action to be Taken: If the SPC switchover was unplanned, the admin logs should be examined for the cause of the switchover. If the cause was a software failure, the system crash logs should be examined.

Clear Condition: Verify the SPC switchover completes successfully.

Clear Condition Alarm: A starCardSPCSwitchoverComplete is generated when the switchover operation has completed."

--#SUMMARY "[Card SPC-%d] Switchover started to card SPC-%d"

--#ARGUMENTS {0,1}

--#STATE DEGRADED

--#SEVERITY MAJOR

::= { starentTraps 19 }

## starCardSPCSwitchoverComplete NOTIFICATION-TYPE

OBJECTS { starSlotNum }

STATUS deprecated

## DESCRIPTION

"An SPC Switchover has completed successfully. The starSlotNum varbind identifies the new primary SPC

Action to be Taken: If the SPC switchover was unplanned, the admin logs should

## STARENT-MIB DEFINITIONS ::= BEGIN

be examined for the cause of the switchover. If the cause was a software failure, the system crash logs should be examined."

--#SUMMARY "[Card SPC-%d] Switchover complete to card SPC-%d"

--#ARGUMENTS {0,0}

--#STATE OPERATIONAL

--#SEVERITY INFORMATIONAL

::= { starentTraps 20 }

starCardSPCSwitchoverFailed NOTIFICATION-TYPE

OBJECTS { starSlotNum, starSlotNum }

STATUS deprecated

DESCRIPTION

"An SPC switchover operation has failed. The first varbind identifies the SPC that was attempted to be switched away from; the second varbind identifies the SPC that was attempted to be switched to.

Probable Cause: The SPC being migrated to was removed or reset before the migration completed; the migration operation was terminated by an operator; or a software or hardware failure on either SPC.

Action to be Taken: Verify that both SPCs have the card locks in the locked position; examine the admin logs for the cause of the failure. If the cause was a software failure, the system crash logs should be examined.

Clear Condition: The SPC in question will be reset; a starCardUp notification will be generated when the card is operational again."

--#SUMMARY "[Card SPC-%d] Switchover failed to card SPC-%d"

--#ARGUMENTS {0,1}

--#STATE NONOPERATIONAL

--#SEVERITY CRITICAL

::= { starentTraps 21 }

-- Fan Notifications

starFanFailed NOTIFICATION-TYPE

OBJECTS { starFanNum,  
starFanStatus }

STATUS current

DESCRIPTION

"One of more fans have failed on the indicated fan controller.

Probable Cause: A hardware failure on the fan tray. The fan tray should be replaced.

Action to be Taken: Verify there is no physical obstruction to the fans; Replace the fan tray.

Clear Condition: Verify the fans are running

Condition Clear Alarm: A starFanInserted notification will be generated when the fan tray is replaced.

This is not applicable to QVPC-SI and QVPC-DI."

--#SUMMARY "[FTC] Fan failure fan number %d fan status %s"

--#ARGUMENTS {0,1}

--#STATE DEGRADED

--#SEVERITY MAJOR

::= { starentTraps 22 }

starFanRemoved NOTIFICATION-TYPE

OBJECTS { starFanNum }

STATUS current

DESCRIPTION

"A fan tray has been removed

Action to be Taken: Replace the fan tray

Clear Condition: Verify both fan trays are present and operational.

## STARENT-MIB DEFINITIONS ::= BEGIN

```

    Condition Clear Alarm: A starFanInserted notification will be generated when the
    fan tray is replaced.
    This is not applicable to QVPC-SI and QVPC-DI."
--#SUMMARY "[FTC] Fan tray removed fan number %d"
--#ARGUMENTS {0}
--#STATE DEGRADED
--#SEVERITY MAJOR
 ::= { starentTraps 23 }

starFanInserted NOTIFICATION-TYPE
OBJECTS { starFanNum }
STATUS current
DESCRIPTION
    "A fan tray has been inserted
    This is not applicable to QVPC-SI and QVPC-DI."
--#SUMMARY "[FTC] Fan tray inserted fan number %d"
--#ARGUMENTS {0}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starentTraps 24 }

-- Log Notifications.

starLogThreshold NOTIFICATION-TYPE
OBJECTS { starLogName,
          starLogCurSize,
          starLogMaxSize }
STATUS obsolete
DESCRIPTION
    "A system log has reached its maximum size. This trap is obsolete."
 ::= { starentTraps 25 }

-- CPU Notifications

starCPUBusy NOTIFICATION-TYPE
OBJECTS { starCPUSlot, starCPUNumber }
STATUS current
DESCRIPTION
    "The CPU is experiencing very high usage.

    Probable Cause: For SPC/SMC CPUs this typically represents an abnormal amount
    of management (CLI, SNMP, CORBA) requests. For PAC/PSC cards this indicates
    that the system is reaching its capacity.

    Action to be Taken: For SPC/SMC cards, this may be a transient condition because
    of a burst of management activity. Monitor the CPU usage and if it is persistently
    high, examine the CPU table to determine which management activity is causing the
    excessive usage. For PAC/PSC cards, this indicates the system is nearing its overall
    capacity. Monitor CPU usage and if it is persistently high, the system may need
    additional PACs/PSCs to keep up with the system load.

    Clear Condition: Verify that CPU usage returned to a normal load.
    This can represent a transient condition; the trap will be periodically
    repeated if the condition persists."
--#SUMMARY "[Card %d] CPU %d is experiencing very high usage"
--#ARGUMENTS {0,1}
--#STATE DEGRADED
--#SEVERITY MAJOR
 ::= { starentTraps 26 }

starCPUMemoryLow NOTIFICATION-TYPE
OBJECTS { starCPUSlot, starCPUNumber }
STATUS current
DESCRIPTION
    "The CPU is experiencing a low memory condition.

```



Probable Cause: For SPC CPUs this typically represents an abnormal number of management sessions, in particular CLI sessions. For PAC/PCS cards this indicates that the system is reaching its capacity.

Action to be Taken: For SPC cards, this may be a transient condition because of a burst of management activity. Monitor memory usage and if it is persistently high, examine the CPU table to determine which management activity is causing the excessive usage. Verify that large numbers of CLI sessions are not being generated and, if needed, terminate extra sessions. For PAC/PCS cards, this indicated the system is nearing its overall capacity. Monitor memory usage and if it is persistently high, the system may need additional PACs/PCSs or additional PAC/PCS memory to keep up with the system load.

Clear Condition: Verify that memory usage returned to a normal load. This can represent a transient condition; the trap will be periodically repeated if the condition persists."

```
--#SUMMARY "[Card %d] CPU %d is low on available memory"
--#ARGUMENTS {0,1}
--#STATE DEGRADED
--#SEVERITY MAJOR
::= { starentTraps 27 }
```

```
starCPUMemoryFailed NOTIFICATION-TYPE
OBJECTS { starCPUSlot, starCPUNumber }
STATUS current
DESCRIPTION
    "The memory on this CPU has failed.
```

Probable Cause: This indicates a hardware problem.

Action to be Taken: Replace the failing card.

The card will be reset; a starCardUp will be generated if the card is restored to an operational state."

```
--#SUMMARY "[Card %d] CPU %d memory failure"
--#ARGUMENTS {0,1}
--#STATE NONOPERATIONAL
--#SEVERITY CRITICAL
::= { starentTraps 28 }
```

```
starCPUFailed NOTIFICATION-TYPE
OBJECTS { starCPUSlot, starCPUNumber }
STATUS current
DESCRIPTION
    "The CPU has failed.
```

Probable Cause: This indicates a hardware problem.

Action to be Taken: Replace the failing card.

The card will be reset; a starCardUp will be generated if the card is restored to an operational state."

```
--#SUMMARY "[Card %d] CPU %d failure"
--#ARGUMENTS {0,1}
--#STATE NONOPERATIONAL
--#SEVERITY CRITICAL
::= { starentTraps 29 }
```

```
starCPUWatchDogExpired NOTIFICATION-TYPE
OBJECTS { starCPUSlot, starCPUNumber }
STATUS current
DESCRIPTION
    "The watch dog timer has failed on this CPU.
```

Probable Cause; This could indicate an extremely busy CPU, a software problem, or a hardware issue.

## STARENT-MIB DEFINITIONS ::= BEGIN

Action to be Taken: Check the admin logs for an indication of the problem. Check the system crash logs for an indication of software problems. If the problem persists, replace the card.

Clear Condition: Verify that an SPC/SMC switchover or PAC/PSC migration completes successfully to recover from the failure condition.

Condition Clear Alarm: A starCardUp will be generated if the card is restored to an operational state."

```
--#SUMMARY "[Card %d] CPU %d watchdog expiry"
--#ARGUMENTS {0,1}
--#STATE NONOPERATIONAL
--#SEVERITY CRITICAL
::= { starentTraps 30 }
```

-- NPU Manager Notifications

starNPUARPPoolExhausted NOTIFICATION-TYPE

```
OBJECTS { starNPUMgrNumber }
STATUS current
DESCRIPTION
```

"The ARP pool on this NPU manager is exhausted. When this occurs, the ARP entry isn't added and traffic to the local device is forwarded through a slower path.

Action To Be Taken: Reduce the total number of directly connected devices or clear ARP entries."

```
--#SUMMARY "[System] NPU ARP pool exhausted for NPU Manager %d"
--#ARGUMENTS {0}
--#STATE DEGRADED
--#SEVERITY MAJOR
::= { starentTraps 31 }
```

-- Power Notifications

starPowerFilterUnitFailed NOTIFICATION-TYPE

```
OBJECTS { starPowerNumber }
STATUS deprecated
DESCRIPTION
```

"A Power Filter Unit (PFU) failed.

Probable Cause: The external power source has failed or has been disconnected, or a hardware failure on the PFU.

Action to be Taken: Verify that the input power to the power filter is operational and repair if needed. Verify that the connections to the power filter are intact and that the power filter is properly inserted into the chassis. Replace the power filter if required.

Clear Condition: Verify that both power filters are operating.

Condition Clear Alarm: A starPowerFilterAvail will be generated when the power filter is replaced."

```
--#SUMMARY "[Power %d] Power filter has failed."
--#ARGUMENTS {0}
--#STATE DEGRADED
--#SEVERITY MAJOR
::= { starentTraps 32 }
```

starPowerFilterUnitUnavail NOTIFICATION-TYPE

```
OBJECTS { starPowerNumber }
STATUS current
DESCRIPTION
```

"A Power Filter Unit (PFU) is unavailable.

## STARENT-MIB DEFINITIONS ::= BEGIN

Probable Cause: The power filter has been removed from the chassis, or no power is being provided to the PFU.

Action to be Taken: If the power filter removal wasn't planned, Verify that the input power to the power filter is operational and repair if needed. Verify that the connections to the power filter are intact and that the power filter is properly inserted into the chassis. Replace the power filter if required.

Clear Condition: Verify that both power filters are operating.

Condition Clear Alarm: A starPowerFilterUnitAvail will be generated when the power filter is replaced.

This is not applicable to QVPC-SI and QVPC-DI."

```
--#SUMMARY "[Power %d] Power filter has been removed"
--#ARGUMENTS {0}
--#STATE DEGRADED
--#SEVERITY MAJOR
::= { starentTraps 33 }
```

starPowerFilterUnitAvail NOTIFICATION-TYPE

OBJECTS { starPowerNumber }

STATUS current

DESCRIPTION

"A Power Filter Unit (PFU) is available. This typically means that a PFU has been inserted into the chassis or has has its power source restored.

Action to be Taken: No action required

This is not applicable to QVPC-SI and QVPC-DI."

```
--#SUMMARY "[Power %d] Power filter is available"
--#ARGUMENTS {0}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 34 }
```

starAlertsDisabled NOTIFICATION-TYPE

OBJECTS { starMaxAlertsPerTime,  
starWindowTime }

STATUS current

DESCRIPTION

"The sending of SNMP Traps has been disabled because too many alerts were generated within the defined window type

Probable Cause: Either a large number of SNMP notifications are being generated, or the configured threshold which limits the number of notifications is set too aggressively.

Actions to be Taken: Examine the admin logs and the SNMP trap logs to determine the source of the large number of traps and take appropriate actions; verify that the configured limit for the rate at which traps will be sent is appropriate for your environment.

Clear Condition Alarm: When the rate of SNMP notifications goes down a starAlertsEnabled notification is generated"

```
--#SUMMARY "[System] SNMP alerts disabled; %d alerts generated in %d seconds"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY MINOR
::= { starentTraps 37 }
```

starAlertsEnabled NOTIFICATION-TYPE

STATUS current

DESCRIPTION

"The sending of SNMP Traps has been reenabled"

```
--#SUMMARY "[System] SNMP alert re-enabled"
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

 ::= { starentTraps 38 }

-- AAA Failures

starAAAAuthServerUnreachable NOTIFICATION-TYPE
  OBJECTS { radiusAuthServerIndex, radiusAuthServerAddress }
  STATUS current
  DESCRIPTION
    "The Authentication, Authorization and Accounting (AAA) server cannot be
    reached.

    Probable Cause: The AAA server is down, or there is a network issue
    preventing communication with the AAA server.

    Actions to be Taken: Restore the AAA server to an operational status;
    Verify that the AAA server is reachable by performing a 'ping' operation
    from the CLI in the appropriate context. Check the admin logs for
    notification of communication problems.

    Clear Condition: Verify that communication to the AAA authentication
    server has been restored.

    Condition Clear Alarm: When this condition clears a starAAAAuthServerReachable
    notification will be generated."
  --#SUMMARY "[System] AAA Authentication Server %d (%s) is unreachable"
  --#ARGUMENTS {0,1}
  --#STATE DEGRADED
  --#SEVERITY MAJOR
  ::= { starentTraps 39 }

starAAAAuthServerReachable NOTIFICATION-TYPE
  OBJECTS { radiusAuthServerIndex, radiusAuthServerAddress }
  STATUS current
  DESCRIPTION
    "The Authentication, Authorization and Accounting (AAA) server is now
    reachable. This can be the result of a system startup, the configuration
    of a new server, or a previously unreachable server becoming reachable.

    Action to be Taken: No Action Required."
  --#SUMMARY "[System] AAA Authentication Server %d (%s) is reachable"
  --#ARGUMENTS {0,1}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 40 }

starAAAAuthServerMisconfigured NOTIFICATION-TYPE
  OBJECTS { radiusAuthServerIndex, radiusAuthServerAddress }
  STATUS current
  DESCRIPTION
    "The Authentication, Authorization and Accounting (AAA) server has been
    misconfigured. This server is not usable until this condition is repaired.

    Action to be Taken: Examine the system configuration and correct the
    misconfiguration. See the user documentation for details on AAA
    configuration.

    Clear Condition: Verify that communication to the AAA authentication
    server has been restored.

    Condition Clear Alarm: When this condition clears a starAAAAuthServerReachable
    notification will be generated."
  --#SUMMARY "[System] AAA Authentication Server %d (%s) is misconfigured"
  --#ARGUMENTS {0,1}
  --#STATE DEGRADED
  --#SEVERITY MAJOR
  ::= { starentTraps 41 }

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

starAAAaccServerUnreachable NOTIFICATION-TYPE
  OBJECTS { radiusAccServerIndex, radiusAccServerAddress }
  STATUS current
  DESCRIPTION
    "The Authentication, Authorization and Accounting (AAA) server cannot be
    reached.

    Probable Cause: The AAA server is down, or there is a network issue
    preventing communication with the AAA server.

    Actions to be Taken: Restore the AAA server to an operational status;
    Verify that the AAA server is reachable by performing a 'ping' operation
    from the CLI in the appropriate context. Check the admin logs for
    notification of communication problems.

    Clear Condition: Verify that communication to the AAA accounting
    server has been restored.

    Condition Clear Alarm: When this condition clears a starAAAaccServerReachable
    notification will be generated."
  --#SUMMARY "[System] AAA Accounting Server %d (%s) is unreachable"
  --#ARGUMENTS {0,1}
  --#STATE DEGRADED
  --#SEVERITY MAJOR
  ::= { starentTraps 42 }

```

```

starAAAaccServerReachable NOTIFICATION-TYPE
  OBJECTS { radiusAccServerIndex, radiusAccServerAddress }
  STATUS current
  DESCRIPTION
    "The Authentication, Authorization and Accounting (AAA) server is now
    reachable. This can be the result of a system startup, the configuration
    of a new server, or a previously unreachable server becoming reachable.

    Note that since Accounting servers are not responding to 'hello'-type
    messages, it is not always possible to accurately determine when an accounting
    server is reachable. A server may be declared 'reachable' when the ST16
    is ready to start using the server, but before any acknowledgement is actually
    received from the server. Once accounting information actually is sent to the
    server a starAAAaccServerUnreachable will be generated if the server does
    not properly respond.

    Action to be Taken: No Action Required."
  --#SUMMARY "[System] AAA Authentication Server %d (%s) is reachable"
  --#ARGUMENTS {0,1}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 43 }

```

```

starAAAaccServerMisconfigured NOTIFICATION-TYPE
  OBJECTS { radiusAccServerIndex, radiusAccServerAddress }
  STATUS current
  DESCRIPTION
    "The Authentication, Authorization and Accounting (AAA) server has been
    misconfigured. This server is not usable until this condition is repaired.

    Action to be Taken: Examine the system configuration and correct the
    misconfiguration. See the user documentation for details on AAA
    configuration.

    Clear Condition: Verify that communication to the AAA authentication
    server has been restored.

    Condition Clear Alarm: When this condition clears a starAAAaccServerReachable
    notification will be generated."
  --#SUMMARY "[System] AAA Accounting Server %d (%s) is misconfigured"

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

--#ARGUMENTS {0,1}
--#STATE DEGRADED
--#SEVERITY MAJOR
 ::= { starentTraps 44 }

--- Log Message, debugging use only

starLogMsg NOTIFICATION-TYPE
  OBJECTS { starLogText }
  STATUS current
  DESCRIPTION
    "A log message. This trap is used only for debugging.This is not applicable to QVPC-SI and QVPC-
  DI."
  --#SUMMARY "[System] Log message: %s"
  --#ARGUMENTS {0}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 45 }

--- Service Traps

starPDSNServiceStart NOTIFICATION-TYPE
  OBJECTS { starServiceVpnName, starServiceServName }
  STATUS current
  DESCRIPTION
    "A PDSN Service has started

    Action to be Taken: No action required"
  --#SUMMARY "[Service PDSN-%s-%s] PDSN service has started"
  --#ARGUMENTS {0,1}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 46 }

starPDSNServiceStop NOTIFICATION-TYPE
  OBJECTS { starServiceVpnName, starServiceServName }
  STATUS current
  DESCRIPTION
    "A PDSN Service has stopped.

    Probable Cause: This is typically caused by operator invention. In
    unusual cases it can be caused by the loss of resources (PACs/PSCs) to
    support the running configuration.

    Action to be Taken: If the PDSN service shutdown was not planned,
    examine the admin logs for an indication of the failure. Verify that
    all configured PACs/PSCs are present and running in the system. Check the
    crash logs for an indication of a software failure.

    Clear Condition: Verify that the PDSN service is operational.

    Condition Clear Alarm: A starPDSNServiceStart notification will be generated when
    the service is restarted"
  --#SUMMARY "[Service PDSN-%s-%s] PDSN service has stopped"
  --#ARGUMENTS {0,1}
  --#STATE DEGRADED
  --#SEVERITY MAJOR
  ::= { starentTraps 47 }

starHAServiceStart NOTIFICATION-TYPE
  OBJECTS { starServiceVpnName, starServiceServName }
  STATUS current
  DESCRIPTION
    "An HA Service has started

    Action to be Taken: No action required"

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

--#SUMMARY "[Service HA-%s-%s] HA service has started"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 48 }

starHAServiceStop NOTIFICATION-TYPE
OBJECTS { starServiceVpnName, starServiceServName }
STATUS current
DESCRIPTION
    "An HA Service has stopped

Probable Cause: This is typically caused by operator invention. In
    unusual cases it can be caused by the loss of resources (PACs/PSCs) to
    support the running configuration.

Action to be Taken: If the PDSN service shutdown was not planned,
    examine the admin logs for an indication of the failure. Verify that
    all configured PACs/PSCs are present and running in the system. Check the
    crash logs for an indication of a software failure.

Clear Condition: Verify that the PDSN service is operational.

Condition Clear Alarm: A starHAServiceStart notification will be generated when
    the service is restarted"
--#SUMMARY "[Service HA-%s-%s] HA service has stopped"
--#ARGUMENTS {0,1}
--#STATE DEGRADED
--#SEVERITY MAJOR
::= { starentTraps 49 }

starFAServiceStart NOTIFICATION-TYPE
OBJECTS { starServiceVpnName, starServiceServName }
STATUS current
DESCRIPTION
    "An FA Service has started

Action to be Taken: No action required"
--#SUMMARY "[Service FA-%s-%s] FA service has started"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 50 }

starFAServiceStop NOTIFICATION-TYPE
OBJECTS { starServiceVpnName, starServiceServName }
STATUS current
DESCRIPTION
    "An FA Service has stopped

Probable Cause: This is typically caused by operator invention. In
    unusual cases it can be caused by the loss of resources (PACs/PSCs) to
    support the running configuration.

Action to be Taken: If the FA service shutdown was not planned,
    examine the admin logs for an indication of the failure. Verify that
    all configured PACs/PSCs are present and running in the system. Check the
    crash logs for an indication of a software failure.

Clear Condition: Verify that the FA service is operational.

Condition Clear Alarm: A starFAServiceStart notification will be generated when
    the service is restarted"
--#SUMMARY "[FA %s-%s] FA service has stopped"
--#ARGUMENTS {0,1}
--#STATE DEGRADED
--#SEVERITY MAJOR

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

 ::= { starentTraps 51 }

starCLISessionStart NOTIFICATION-TYPE
  OBJECTS { starCLIUsername, starCLIPrivs, starCLITtyname }
  STATUS current
  DESCRIPTION
    "An interactive CLI session has started

    A starCLISessionEnd notification will be sent when the CLI
    session is terminated."
  --#SUMMARY "[System] CLI session for %s %s started on %s"
  --#ARGUMENTS {1,0,2}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
 ::= { starentTraps 52 }

starCLISessionEnd NOTIFICATION-TYPE
  OBJECTS { starCLIUsername, starCLIPrivs, starCLITtyname }
  STATUS current
  DESCRIPTION
    "An interactive CLI session has ended.

    The CLI session may have been terminated by the CLI user; the session
    may have expired due to an idle timeout, or a session timeout; or the
    session may have been terminated by operator intervention."
  --#SUMMARY "[System] CLI session for %s %s ended on %s"
  --#ARGUMENTS {1,0,2}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
 ::= { starentTraps 53 }

starCritTaskFailed NOTIFICATION-TYPE
  OBJECTS { starTaskFacilityName, starTaskInstance, starTaskCard, starTaskCPU }
  STATUS current
  DESCRIPTION
    "A critical task has failed and the appropriate recovery steps begun.
    The card containing the failed task will be restarted; migration/recovery
    operations will proceed.

    Probable Cause: Software error

    Actions to be Taken: Examine the admin logs for an indication of the source
    of the failure.

    Clear Condition: Verify that an SPC switchover or PAC/PSC migration completes
    to recover from this condition.

    Condition Clear Alarm: A starCardUp will be generated when the card
    has successfully restarted."
  --#SUMMARY "[Card %d] Task %s/%d on CPU %d has failed"
  --#ARGUMENTS {2,0,1,3}
  --#STATE NONOPERATIONAL
  --#SEVERITY CRITICAL
 ::= { starentTraps 54 }

starCardActive NOTIFICATION-TYPE
  OBJECTS { starSlotNum,
            starCardType,
            starSlotSerialNumber}
  STATUS current
  DESCRIPTION
    "The card is now active.This is not applicable to QVPC-SI."
  --#SUMMARY "[%s-%d] Card is active UUID %s"
  --#ARGUMENTS {1,0,2}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL

```



## STARENT-MIB DEFINITIONS ::= BEGIN

```

 ::= { starentTraps 55 }

starLACServiceStart NOTIFICATION-TYPE
  OBJECTS { starServiceVpnName, starServiceServName }
  STATUS current
  DESCRIPTION
    "A LAC Service has started

    Action to be Taken: No action required"
  --#SUMMARY "[Service LAC-%s-%s] LAC service has started"
  --#ARGUMENTS {0,1}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 56 }

starLACServiceStop NOTIFICATION-TYPE
  OBJECTS { starServiceVpnName, starServiceServName }
  STATUS current
  DESCRIPTION
    "A LAC Service has stopped

    Probable Cause: This is typically caused by operator invention. In
    unusual cases it can be caused by the loss of resources (PACs/PSCs) to
    support the running configuration.

    Action to be Taken: If the LAC service shutdown was not planned,
    examine the admin logs for an indication of the failure. Verify that
    all configured PACs/PSCs are present and running in the system. Check the
    crash logs for an indication of a software failure.

    Clear Condition: Verify that the LAC service is operational.

    Condition Clear Alarm: A starLACServiceStart notification will be generated when
    the service is restarted"
  --#SUMMARY "[Service LAC-%s-%s] LAC service has stopped"
  --#ARGUMENTS {0,1}
  --#STATE DEGRADED
  --#SEVERITY MAJOR
  ::= { starentTraps 57 }

starLNSServiceStart NOTIFICATION-TYPE
  OBJECTS { starServiceVpnName, starServiceServName }
  STATUS current
  DESCRIPTION
    "A LNS Service has started

    Action to be Taken: No Action Required"
  --#SUMMARY "[Service LNS-%s-%s] LNS service has started"
  --#ARGUMENTS {0,1}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 58 }

starLNSServiceStop NOTIFICATION-TYPE
  OBJECTS { starServiceVpnName, starServiceServName }
  STATUS current
  DESCRIPTION
    "A LNS Service has stopped

    Probable Cause: This is typically caused by operator invention. In
    unusual cases it can be caused by the loss of resources (PACs/PSCs) to
    support the running configuration.

    Action to be Taken: If the LNS service shutdown was not planned,
    examine the admin logs for an indication of the failure. Verify that
    all configured PACs/PSCs are present and running in the system. Check the
    crash logs for an indication of a software failure.

```

Clear Condition: Verify that the LNS service is operational.

Condition Clear Alarm: A starLNSServiceStart notification will be generated when the service is restarted"

```
--#SUMMARY "[Service LNS-%s-%s] LNS service has stopped"
--#ARGUMENTS {0,1}
--#STATE DEGRADED
--#SEVERITY MAJOR
::= { starentTraps 59 }
```

starCardDown NOTIFICATION-TYPE

```
OBJECTS { starSlotNum,
          starCardType,
          starSlotSerialNumber}
```

STATUS current

DESCRIPTION

"The card is now down.

Probable Cause: The card was shut down by an operator; the card was removed by an operator; or a hardware or software fault caused the card to shut down. In the latter case an additional notification is generated with the specific failure.

Action to be Taken: If the card shutdown was not planned, verify that the card is present in the system and its card lock is in the locked position. Check the admin logs for the cause of the card shutdown.

Clear Condition: Verify that an SPC switchover/card migration completes to recover from the card shutdown.

Condition Clear Alarm: A starCardUp notification is generated when the card is restarted. This is not applicable to QVPC-SI."

```
--#SUMMARY "[Card %s-%d] Card down UUID %s"
--#ARGUMENTS {1,0,2}
--#STATE NONOPERATIONAL
--#SEVERITY CRITICAL
::= { starentTraps 60 }
```

-- The Following two traps are using the Standard MIB

-- See rfc2495 and rfc2496

-- ds3Traps OBJECT IDENTIFIER ::= {ds3 15}

-- starDs3LineStatusChange NOTIFICATION-TYPE

-- ::= { starentTraps 61 }

-- severity INFORMATIONAL

-- This is not applicable to QVPC-SI and QVPC-DI.

-- ds1Traps OBJECT IDENTIFIER ::= {ds1 15}

-- starDs1LineStatusChange NOTIFICATION-TYPE

-- ::= { starentTraps 62 }

-- severity INFORMATIONAL

-- This is not applicable to QVPC-SI and QVPC-DI.

starGGSNServiceStart NOTIFICATION-TYPE

```
OBJECTS { starServiceVpnName, starServiceServName }
```

STATUS current

DESCRIPTION

"A GGSN Service has started

Action to be Taken: No action required"

```
--#SUMMARY "[Service GGSN-%s-%s] GGSN service has started"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 63 }
```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

starGGSNServiceStop NOTIFICATION-TYPE
  OBJECTS { starServiceVpnName, starServiceServName }
  STATUS current
  DESCRIPTION
    "A GGSN Service has stopped

    Probable Cause: This is typically caused by operator invention. In
    unusual cases it can be caused by the loss of resources (PACs/PSCs) to
    support the running configuration.

    Action to be Taken: If the GGSN service shutdown was not planned,
    examine the admin logs for an indication of the failure. Verify that
    all configured PACs/PSCs are present and running in the system. Check the
    crash logs for an indication of a software failure.

    Clear Condition: Verify that the GGSN service is operational.

    Condition Clear Alarm: A starGGSNServiceStart notification will be generated when
    the service is restarted"
  --#SUMMARY "[Service GGSN-%s-%s] GGSN service has stopped"
  --#ARGUMENTS {0,1}
  --#STATE DEGRADED
  --#SEVERITY MAJOR
  ::= { starentTraps 64 }

starLicenseExceeded NOTIFICATION-TYPE
  OBJECTS { starLicensedSessions, starCurrentSessions, starServiceType }
  STATUS current
  DESCRIPTION
    "The licenses session limit has been exceeded; note that a small number of
    sessions are permitted beyond the licensed limit.

    Probable Cause: The usage of the system has exceeded the capacity of the
    license installed; The license installed does not match the identification
    of the system; No license is installed

    Action to be Taken: Verify that the proper license is installed on the
    system; verify that the SPCs present in the system match those identified
    in the software license. If required, install an additional higher-capacity
    license.

    Clear Condition: This condition is cleared when usage goes under the licensed
    limit.

    Condition Clear Alarm: This condition is cleared by a starLicenseUnderLimit
    notification."
  --#SUMMARY "[System] License Exceeded for %s service; current sessions %d exceeds license %d"
  --#ARGUMENTS {2,0,1}
  --#STATE DEGRADED
  --#SEVERITY MAJOR
  ::= { starentTraps 65 }

starSubscriberLimit NOTIFICATION-TYPE
  OBJECTS { starServiceVpnName, starServiceServName, starServiceSubLimit, starServiceSubCurrent,
  starServiceType }
  STATUS current
  DESCRIPTION
    "The specified service has reached its configured limit for number of subscribers

    Action to be Taken: Verify that the configured subscriber limit is correct.
    Configure additional services, or configure the existing service to permit
    a larger number of subscribers"
  --#SUMMARY "[System] License Exceeded for %s service %s-%s; current sessions %d exceeds license %d"
  --#ARGUMENTS {4,0,1,3,2}
  --#STATE DEGRADED
  --#SEVERITY MAJOR

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

 ::= { starentTraps 66 }

starSessionRejectNoResource NOTIFICATION-TYPE
  OBJECTS { starServiceVpnName, starServiceType }
  STATUS current
  DESCRIPTION
    "A session setup was rejected because of a lack of available resources

    Probable Cause: The system has reached its maximum capacity based on the
    number of available PACs/PSCs/CPUs/memory.

    Actions to be Taken: Examine the system CPU table to determine if there
    is abnormal system usage or if the system is reaching its capacity.
    If this condition persists, additional PACs/PSCs or PAC/PSC memory may be required.
    Note that there is a configuration threshold which can be setup to monitor
    the number of NORESOURCE rejects."
  --#SUMMARY "[System] Session rejected NORESOURCE for %s service of type %d"
  --#ARGUMENTS {0,1}
  --#STATE DEGRADED
  --#SEVERITY MAJOR
 ::= { starentTraps 67 }

starLongDurTimerExpiry NOTIFICATION-TYPE
  OBJECTS { starSubContext, starSubMSID, starSubName, starSubTimerDuration,
starSubLongDurTimeoutAction, starSubSetupTime, starSubHomeAddr, starSubHomeAddrv6 }
  STATUS current
  DESCRIPTION
    "The long duration timer has expired for the identified subscriber.

    Note that either starSubHomeAddr or starSubHomeAddrv6 is typically filled in,
    as appropriate. The other attribute will be all zero octets.

    Action to be Taken: No action is typically required. If an abnormal
    number of expiries occur, verify that the configuration expiry time
    is correct"
  --#SUMMARY "[System] context %s subscriber name %s MSID %s timer duration %d timeout action %d setup
time %s home address(ipv4/ipv6) %s"
  --#ARGUMENTS {0,2,1,3,4,5,6}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
 ::= { starentTraps 68 }

starClosedRPServiceStart NOTIFICATION-TYPE
  OBJECTS { starServiceVpnName, starServiceServName }
  STATUS current
  DESCRIPTION
    "Closed RP Service has started

    Action to be Taken: No action required"
  --#SUMMARY "[Service CLOSED RP-%s-%s] Closed RP service has started"
  --#ARGUMENTS {0,1}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
 ::= { starentTraps 69 }

starClosedRPServiceStop NOTIFICATION-TYPE
  OBJECTS { starServiceVpnName, starServiceServName }
  STATUS current
  DESCRIPTION
    "Closed RP Service has stopped

    Probable Cause: This is typically caused by operator invention. In
    unusual cases it can be caused by the loss of resources (PACs/PSCs) to
    support the running configuration.

    Action to be Taken: If the Closed RP service shutdown was not planned,

```

## STARENT-MIB DEFINITIONS ::= BEGIN

examine the admin logs for an indication of the failure. Verify that all configured PACs/PSCs are present and running in the system. Check the crash logs for an indication of a software failure.

Clear Condition: Verify that the Closed RP service is operational.

Condition Clear Alarm: A starClosedRPServiceStart notification will be generated when the service is restarted"

```
--#SUMMARY "[Service CLOSED RP-%s-%s] Closed RP service has stopped"
--#ARGUMENTS {0,1}
--#STATE DEGRADED
--#SEVERITY MAJOR
::= { starentTraps 70 }
```

starGtpcPathFailure NOTIFICATION-TYPE

```
OBJECTS {starSessGGSNVpnName, starSessGGSNServName, starSessGGSNPeerAddr }
STATUS current
DESCRIPTION
    "GTP Control Path Failure."
--#SUMMARY "[Service GGSN-%s-%s] GTP control path failure to %s"
--#ARGUMENTS {0,1,2}
--#STATE DEGRADED
--#SEVERITY MAJOR
::= { starentTraps 71 }
```

starGtpuPathFailure NOTIFICATION-TYPE

```
OBJECTS {starSessGGSNVpnName, starSessGGSNServName, starSessGGSNPeerAddr }
STATUS current
DESCRIPTION
    "GTP Data Path Failure."
--#SUMMARY "[Service GGSN-%s-%s] GTP data path failure to %s"
--#ARGUMENTS {0,1,2}
--#STATE DEGRADED
--#SEVERITY MAJOR
::= { starentTraps 72 }
```

starManagerFailure NOTIFICATION-TYPE

```
OBJECTS { starTaskFacilityName, starTaskInstance, starTaskCard, starTaskCPU}
STATUS current
DESCRIPTION
    "Software manager Failure.
```

Probable Cause: A software failure. The failing manager will be restarted.

Action to be Taken: Examine the admin and crash logs for more information about the failure"

```
--#SUMMARY "[System] Manager %s/%d failure on card %d cpu %d"
--#ARGUMENTS {0,1,2,3}
--#STATE DEGRADED
--#SEVERITY MAJOR
::= { starentTraps 73 }
```

starEISServerAlive NOTIFICATION-TYPE

```
OBJECTS { starEISServerVPNName, starEISServerAddr }
STATUS current
DESCRIPTION
    "EIS Server alive"
--#SUMMARY "[System] EIS server alive, VPN %d Server Address %s"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 74 }
```

starEISServerDead NOTIFICATION-TYPE

```
OBJECTS { starEISServerVPNName, starEISServerAddr }
STATUS current
DESCRIPTION
```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

        "EIS Server down.

Probable Cause: The remote EIS server is down or there is a network
error making it unreachable.

Condition Clear Alarm: A starEISServerAlive notification will be generated
when this condition is cleared"
--#SUMMARY "[System] EIS server dead, VPN %d Server Address %s"
--#ARGUMENTS {0,1}
--#STATE DEGRADED
--#SEVERITY MAJOR
::= { starentTraps 75 }

starCgfAlive NOTIFICATION-TYPE
OBJECTS { starSessGGSNVpnName, starSessGGSNPeerPort, starSessGGSNPeerAddr }
STATUS current
DESCRIPTION
    "GTPP CGF Server Alive."
--#SUMMARY "[System] GTPP CGF server alive, VPN %s Server Address %s/%d"
--#ARGUMENTS {0,2,1}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 76 }

starCgfDead NOTIFICATION-TYPE
OBJECTS { starSessGGSNVpnName, starSessGGSNPeerPort, starSessGGSNPeerAddr }
STATUS current
DESCRIPTION
    "GTPP CGF Server Dead.

Probable Cause: The remote CGF server is down or there is a network
error making it unreachable.

Action to be Taken: Verify that the CGF server is functioning properly;
verify network connectivity to the CGF server.

Clear Condition: This condition is cleared when the CGF server becomes
reachable.

Condition Clear Alarm: A starCgfServerAlive notification will be generated
when this condition is cleared"
--#SUMMARY "[System] GTPP CGF server dead, VPN %s Server Address %s/%d"
--#ARGUMENTS {0,2,1}
--#STATE DEGRADED
--#SEVERITY MAJOR
::= { starentTraps 77 }

starStorageServerAlive NOTIFICATION-TYPE
OBJECTS { starSessGGSNVpnName, starSessGGSNPeerAddr }
STATUS current
DESCRIPTION
    "GTPP Storage Server is Alive."
--#SUMMARY "[System] GTPP Storage Server alive, VPN %s Server Address %s"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 78 }

starStorageServerDead NOTIFICATION-TYPE
OBJECTS { starSessGGSNVpnName, starSessGGSNPeerAddr }
STATUS current
DESCRIPTION
    "GTPP Storage Server is Dead.

Probable Cause: The remote Storage server is down or there is a network
error making it unreachable.

```

## STARENT-MIB DEFINITIONS ::= BEGIN

Action to be Taken: Verify that the Storage server is functioning properly; verify network connectivity to the Storage server.

Clear Condition: This condition is cleared when the Storage server becomes reachable.

Condition Clear Alarm: A starStorageServerAlive notification will be generated when this condition is cleared"

```
--#SUMMARY "[System] GTPP Storage Server dead, VPN %s Server Address %s"
--#ARGUMENTS {0,1}
--#STATE DEGRADED
--#SEVERITY CRITICAL
::= { starentTraps 79 }
```

starGgsnInitiatedUpdtFailed NOTIFICATION-TYPE

```
OBJECTS { starSessGGSNVpnName, starSessGGSNServName, starSessGGSNSubsName,
          starSessGGSNAPNName, starSessGGSNImsi, starSessGGSNPeerAddr}
```

STATUS current

DESCRIPTION

"GGSN Initiated Update PDP Context Response Failed.

Probable Cause: This can happen if there is an inter-SGSN handoff and the new SGSN is not listed in GGSN service and its PLMN policy is set to reject unknown SGSNs.

Action to be Taken: List the SGSN address in the GGSN service.

Condition Clear Alarm: NA"

```
--#SUMMARY "[System] SGSN Initiated Update PDP context response failed for APN %s Imsi %d, VPN %s
Server Address %s"
--#ARGUMENTS {3,4,0,1}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 80 }
```

starCongestion NOTIFICATION-TYPE

```
OBJECTS { starServiceType, starCongestionPolicy, starCongestionResourceType }
```

STATUS current

DESCRIPTION

"A congestion condition has occurred.

Probable Cause: This is the result of an operator-configured congestion threshold being reached. This can be due to high usage of the resource being monitored which indicates that the IMG is reaching its peak capacity, or could be caused by the incorrect configuration of the congestion thresholds.

Actions to be Taken: Verify that the congestion thresholds are correct; if the congested state is seen repeatedly, or for sustained periods of time, additional system capacity may need to be brought online.

This system is cleared when the use of the specific resource falls below the configured limit.

Condition Clear Alarm: A starCongestionClear notification is sent when there are no congestion conditions for a service type"

```
--#SUMMARY "[System] Congestion seen for %s service; resource %s, policy %s applied"
--#ARGUMENTS {0,2,1}
--#STATE DEGRADED
--#SEVERITY MAJOR
::= { starentTraps 81 }
```

starCongestionClear NOTIFICATION-TYPE

```
OBJECTS { starServiceType }
```

STATUS current

DESCRIPTION

## STARENT-MIB DEFINITIONS ::= BEGIN

```

        "A congestion condition has cleared"
--#SUMMARY "[System] Congestion clear for %s service"
--#ARGUMENTS {0}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 82 }

starServiceLossPTACs NOTIFICATION-TYPE
OBJECTS { starCardMode, starPTACConfig, starPTACActive }
STATUS current
DESCRIPTION
    "A service loss condition has occurred due to PAC/PSC/TAC failure or removal.

    Probable cause: Multiple PAC/PSC/TAC cards are no longer available, due to failure,
    removal, or operator action -- or configuration changes have been made which
    eliminated the availability of redundant cards.

    Action to be Taken: Bring additional PAC/PSC/TAC cards online to match the
    number of configured cards, or update the configuration to require fewer
    active PAC/PSC/TAC cards.

    Clear Condition: This condition is cleared when the number of active
    PAC/PSC/TAC cards reaches or exceeds the configured number."
--#SUMMARY "[System] Service Loss - Not enough PAC/PSC/TACs, %d configured, %d active"
--#ARGUMENTS {1,2}
--#STATE NONOPERATIONAL
--#SEVERITY CRITICAL
::= { starentTraps 83 }

starServiceLossLC NOTIFICATION-TYPE
OBJECTS { starCardType, starSlotNum, starSlotNum }
STATUS current
DESCRIPTION
    "A service loss condition has occurred due to LC failure or removal.

    Probable cause: The upper and lower Line Cards (LCs) are both no longer
    available, due to failure, removal, or operator action.

    Action to be Taken: Fix or replace the line cards.

    Clear Condition: This condition is cleared when one of the two card
    becomes active."
--#SUMMARY "[System] Service Loss - (%s) Line Cards %d and %d are both unavailable"
--#ARGUMENTS {0,1,2}
--#STATE NONOPERATIONAL
--#SEVERITY CRITICAL
::= { starentTraps 84 }

starServiceLossSPIO NOTIFICATION-TYPE
STATUS current
DESCRIPTION
    "A service loss condition has occurred due to SPIO failure or removal.

    NOTE: Since the SPIO contains the ports used for SNMP access, this
    notification cannot normally be delivered as an SNMP trap. The notification
    will be logged and stored in the historical trap list, and if the system
    is configured to send INFORM PDUs the notification might be delivered
    at a later time.

    Probable cause: Both SPIOs are no longer available, due to failure,
    removal, or operator action.

    Action to be Taken: Bring at least one SPIO online.

    Clear Condition: This condition is cleared when a SPIO is made active"
--#SUMMARY "[System] Service Loss - No SPIO is available"

```



## STARENT-MIB DEFINITIONS ::= BEGIN

```

--#STATE OPERATIONAL
--#SEVERITY WARNING
--NB: Lower severity than other 'service loss' traps as the SPIO does not carry
--    end-user traffic.
::= { starentTraps 85 }

-- IPSP trap

starIPSPAllAddrsFree NOTIFICATION-TYPE
  OBJECTS { starContextName, starInterfaceName }
  STATUS obsolete
  DESCRIPTION
    "All IP addresses are now free on the IP Pool Sharing Protocol (IPSP) primary HA.

    Probable Cause: IP Pool Sharing Protocol (IPSP) is running between two HAs
    (a primary and a secondary). The primary HA has now released the last address
    that was in use. This presumably is done in preparation for taking the
    primary HA out of server.

    User Action: Perform the desired maintenance on the primary HA that required
    taking the device out of service."
  --#SUMMARY "[System] IPSP - all IP addresses are now free, context %s interface %s"
  --#ARGUMENTS {0,1}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 86 }

-- PCF trap

starPCFUnreachable NOTIFICATION-TYPE
  OBJECTS { starContextName, starPCFAddress }
  STATUS current
  DESCRIPTION
    "A PCF that the IMG communicates which is no longer reachable.

    Probable Cause: The PCF has failed or is otherwise unavailable, or
    a network connectivity problem makes it unreachable.

    Action to be Taken: If the PCF outage was unplanned, restart/reset the
    PCF; verify network connectivity

    Clear Condition: The condition is cleared when the PCF address becomes
    reachable, or if the configuration is changes to not use this server.

    Condition Clear Alarm: A starPCFReachable notification is generated when
    the pcf address becomes reachable."
  --#SUMMARY "[System] PCF Unreachable, VPN %s PCF address %s"
  --#ARGUMENTS {0,1}
  --#STATE DEGRADED
  --#SEVERITY MAJOR
  ::= { starentTraps 87 }

starDhcpAlive NOTIFICATION-TYPE
  OBJECTS { starSessGGSNVpnName, starSessGGSNPeerPort, starSessGGSNPeerAddr }
  STATUS current
  DESCRIPTION
    "DHCP Server Alive."
  --#SUMMARY "[System] DHCP server alive, VPN %s Server Address %s/%d"
  --#ARGUMENTS {0,2,1}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 88 }

starDhcpDead NOTIFICATION-TYPE
  OBJECTS { starSessGGSNVpnName, starSessGGSNPeerPort, starSessGGSNPeerAddr }
  STATUS current

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

DESCRIPTION
    "DHCP Server Dead.

Probable Cause: The remote DHCP server is down or there is a network
error making it unreachable.

Action to be Taken: Verify that the DHCP server is functioning properly;
verify network connectivity to the DHCP server.

Clear Condition: The condition is cleared when the DHCP server becomes
reachable, or if the configuration is changes to not use this server.

Condition Clear Alarm: A starDhcpAlive notification is generated when
the server becomes reachable."
--#SUMMARY "[System] DHCP server dead, VPN %s Server Address %s/%d"
--#ARGUMENTS {0,2,1}
--#STATE DEGRADED
--#SEVERITY MAJOR
::= { starentTraps 89 }

-- NTP traps
starNTPPeerUnreachable NOTIFICATION-TYPE
    OBJECTS { starPeerAddress }
    STATUS current
    DESCRIPTION
        "NTP Peer Unreachable.

Probable Cause: The NTP server is down or unavailable, or there is a network
connectivity issue that prevents access to the NTP server.

Action to be Taken: Verify that the NTP server is running properly; verify
that the connection to the NTP server is functioning.

Clear Condition: This condition is cleared when the NTP server
becomes reachable.

Condition Clear Alarm: This condition is cleared by a starNTPPeerReachable notification."
--#SUMMARY "[System] NTP Peer Unreachable; peer address %s"
--#ARGUMENTS {0}
--#STATE OPERATIONAL
--#SEVERITY WARNING
::= { starentTraps 90 }

starNTPSyncLost NOTIFICATION-TYPE
    STATUS current
    DESCRIPTION
        "NTP Synchronization Lost.

Probable Cause: All configured NTP server are no longer available, or
some/all NTP servers have been unconfigured by an operator.

Action to be Taken: Verify that the NTP server(s) are running properly and
that the network connections to the NTP servers are available. Check the
configured of the NTP servers for correctness. If needed, configure
additional NTP servers.

Clear Condition: This condition is cleared when any (one) NTP server
becomes reachable.

Condition Clear Alarm: This condition is cleared by a starNTPSyncEstablished notification."
--#SUMMARY "[System] NTP Sync Lost"
--#STATE OPERATIONAL
--#SEVERITY MAJOR
::= { starentTraps 91 }

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

--- L2TP traps
starL2TPTunnelDownPeerUnreachable NOTIFICATION-TYPE
  OBJECTS { starL2TPLocalTunnelID,
            starL2TPPeerTunnelID,
            starL2TPContextName,
            starL2TPServiceName,
            starL2TPServiceTypeName,
            starL2TPLocalAddress,
            starL2TPPeerAddress }
  STATUS current
  DESCRIPTION
    "L2TP tunnel down due to peer unreachable.

    Probable Cause: Misconfiguration of the peer router address or
    inability to route to the peer.

    Action to be Taken: Verify the peer address is correct; verify that the
    peer is operational; verify network connectivity to the peer."
  --#SUMMARY "[System] L2TP tunnel down due to peer unreachable, context %s service type %s service
name %s local tun id %d peer tun id %d local address %s peer address %s"
  --#ARGUMENTS {2,4,3,0,1,5,6}
  --#STATE OPERATIONAL
  --#SEVERITY WARNING
  ::= { starentTraps 92 }

-- Card traps again
starCardStandby NOTIFICATION-TYPE
  OBJECTS { starSlotNum,
            starCardType,
            starSlotSerialNumber}
  STATUS current
  DESCRIPTION
    "The card is now standby.This is not applicable to QVPC-SI."
  --#SUMMARY "[%s-%d] Card is standby UUID %s"
  --#ARGUMENTS {1,0,2}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 93 }

starLicenseUnderLimit NOTIFICATION-TYPE
  OBJECTS { starLicensedSessions, starCurrentSessions, starServiceType }
  STATUS current
  DESCRIPTION
    "Usage is now under the licensed session limit."
  --#SUMMARY "[System] System under license limit for %s service; current sessions %d license %d"
  --#ARGUMENTS {2,0,1}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 94 }

-- IPSEC

starIPSECPriTunDown NOTIFICATION-TYPE
  OBJECTS { starIPSECContextName, starIPSECGroupName, starIPSECTunLocalIpAddr, starIPSECTunRemoteIpAddr
}
  STATUS current
  DESCRIPTION "IPSEC Primary Tunnel Down"
  --#SUMMARY "[System] IPSEC primary tunnel down, context %s, group %s, local ip address %s, remote ip
address %s"
  --#ARGUMENTS {0,1,2,3}
  --#STATE DEGRADED
  --#SEVERITY MAJOR
  ::= { starentTraps 95 }

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

starIPSECPriTunUp NOTIFICATION-TYPE
    OBJECTS { starIPSECContextName, starIPSECGroupName, starIPSECTunLocalIpAddr, starIPSECTunRemoteIpAddr
    }
    STATUS current
    DESCRIPTION "IPSEC Primary Tunnel Up"
    --#SUMMARY "[System] IPSEC primary tunnel up, context %s, group %s, local ip address %s, remote ip
address %s"
    --#ARGUMENTS {0,1,2,3}
    --#STATE OPERATIONAL
    --#SEVERITY INFORMATIONAL
    ::= { starentTraps 96 }

starIPSECSecTunDown NOTIFICATION-TYPE
    OBJECTS { starIPSECContextName, starIPSECGroupName, starIPSECTunLocalIpAddr, starIPSECTunRemoteIpAddr
    }
    STATUS current
    DESCRIPTION "IPSEC Secondary Tunnel Down"
    --#SUMMARY "[System] IPSEC secondary tunnel down, context %s, group %s, local ip address %s, remote
ip address %s"
    --#ARGUMENTS {0,1,2,3}
    --#STATE DEGRADED
    --#SEVERITY MAJOR
    ::= { starentTraps 97 }

starIPSECSecTunUp NOTIFICATION-TYPE
    OBJECTS { starIPSECContextName, starIPSECGroupName, starIPSECTunLocalIpAddr, starIPSECTunRemoteIpAddr
    }
    STATUS current
    DESCRIPTION "IPSEC Secondary Tunnel Up"
    --#SUMMARY "[System] IPSEC secondary tunnel up, context %s, group %s, local ip address %s, remote ip
address %s"
    --#ARGUMENTS {0,1,2,3}
    --#STATE DEGRADED
    --#SEVERITY INFORMATIONAL
    ::= { starentTraps 98 }

starIPSECTunSwitchFail NOTIFICATION-TYPE
    OBJECTS { starIPSECContextName, starIPSECGroupName }
    STATUS current
    DESCRIPTION "IPSEC Tunnel Switchover failed or unable to be attempted"
    --#SUMMARY "[System] IPSEC tunnel switchover failed, context %s, group %s"
    --#ARGUMENTS {0,1}
    --#STATE NONOPERATIONAL
    --#SEVERITY CRITICAL
    ::= { starentTraps 99 }

starIPSECTunSwitchComplete NOTIFICATION-TYPE
    OBJECTS { starIPSECContextName, starIPSECGroupName, starIPSECTunLocalIpAddr, starIPSECTunRemoteIpAddr
    }
    STATUS current
    DESCRIPTION "IPSEC Tunnel Switchover complete"
    --#SUMMARY "[System] IPSEC tunnel switchover complete, context %s, group %s, active tunnel: local ip
address %s, remote ip address %s"
    --#ARGUMENTS {0,1,2,3}
    --#STATE OPERATIONAL
    --#SEVERITY INFORMATIONAL
    ::= { starentTraps 100 }

starNwReachServerAlive NOTIFICATION-TYPE
    OBJECTS { starNwReachName, starNwReachSrvrAddr}
    STATUS current
    DESCRIPTION
        "Nw Reacheable Server alive"
    --#SUMMARY "[System] Network Reachability server alive, Name %s Server Address %s"
    --#ARGUMENTS {0,1}
    --#STATE OPERATIONAL

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

--#SEVERITY INFORMATIONAL
 ::= { starentTraps 101 }

starNwReachServerDead NOTIFICATION-TYPE
OBJECTS { starNwReachName, starNwReachSrvrAddr}
STATUS current
DESCRIPTION
    "Nw Reacheable Server Dead.

    Probable Cause: The remote server is down or there is a network
    error making it unreachable.

    A starNwReachServerAlive notification will be generated when this condition is cleared"
--#SUMMARY "[System] Network Reachability server dead, Name %s Server Address %s"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY MAJOR
 ::= { starentTraps 102 }

starStorageServerUnackedGcdrVolPurge NOTIFICATION-TYPE
OBJECTS { starSessGGSNVpnName, starSessGGSNPeerAddr }
STATUS current
DESCRIPTION
    "GTPP storage server has performed unacked GCDRs volume purge.

    Probable Cause: GTPP storage server has purged unacked GCDRs after hitting the
    max allowed configured limit on unacked GCDR in the backup database.

    Action to be Taken: Check for the unacked file generated for these GCDRs.

    Clear Condition: There is no clear condition for this notification.

    Condition Clear Alarm: There is no clear alarm for this notification."

--#SUMMARY "[System] GTPP Storage Server has performed unacked GCDRs volume purge. VPN %s Server
Address %s"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY CRITICAL
 ::= { starentTraps 103 }

starStorageServerUnackedGcdrFileGen NOTIFICATION-TYPE
OBJECTS { starSessGGSNVpnName, starSessGGSNPeerAddr }
STATUS current
DESCRIPTION
    "GTPP storage server has exported the unacked GCDRs to file from backup db.

    Probable Cause: GTPP storage server has generated and saved all the unacked GCDRs to file.

    Action to be Taken: Operator needs to ftp the generated file.

    Clear Condition: There is no clear condition for this notification.

    Condition Clear Alarm: There is no clear alarm for this notification."

--#SUMMARY "[System] GTPP storage server has exported the unacked GCDRs to file from backup db. VPN
%s Server Address %s"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starentTraps 104 }

starNTPPeerReachable NOTIFICATION-TYPE
OBJECTS { starPeerAddress }
STATUS current
DESCRIPTION
    "NTP Peer Reachable.

```

Probable Cause: The NTP server is reachable. This could indicate a newly configured NTP server (including an initial configuration on system startup) or could indicate a previously unreachable server has become reachable.

Action to be Taken: No action required."

```
--#SUMMARY "[System] NTP Peer Reachable; peer address %s"
--#ARGUMENTS {0}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 105 }
```

starNTPSyncEstablished NOTIFICATION-TYPE

```
STATUS current
DESCRIPTION
    "NTP Synchronization Established.
```

Probable Cause: An NTP server is available when previously no server was available. This could indicate a newly configured NTP server (including an initial configuration on system startup) or could indicate that one or more previously unreachable server(s) has become reachable.

Action to be Taken: No action required."

```
--#SUMMARY "[System] NTP Sync Established"
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 106 }
```

starSIPServiceStart NOTIFICATION-TYPE

```
OBJECTS { starServiceVpnName, starServiceServName }
STATUS current
DESCRIPTION
    "A SIP service has started
```

Action to be Taken: No action required"

```
--#SUMMARY "[Service SIP-%s-%s] SIP service has started"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 107 }
```

starSIPServiceStop NOTIFICATION-TYPE

```
OBJECTS { starServiceVpnName, starServiceServName }
STATUS current
DESCRIPTION
    "A SIP service has stopped
```

Action to be Taken: No action required"

```
--#SUMMARY "[Service SIP-%s-%s] SIP service has stopped"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY MAJOR
::= { starentTraps 108 }
```

starVIMServiceStart NOTIFICATION-TYPE

```
OBJECTS { starServiceVpnName, starServiceServName }
STATUS current
DESCRIPTION
    "A VIM service has started
```

Action to be taken: No action required"

```
--#SUMMARY "[Service VIM-%s-%s] VIM service has started"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 109 }
```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

starVIMServiceStop NOTIFICATION-TYPE
    OBJECTS { starServiceVpnName, starServiceServName }
    STATUS current
    DESCRIPTION
        "A VIM service has stopped. This is because of application out-of-service
        or if vim is down or no app. server

        Action to be taken: No action required"
    --#SUMMARY "[Service VIM-%s-%s] VIM service has stopped"
    --#ARGUMENTS {0,1}
    --#STATE OPERATIONAL
    --#SEVERITY MAJOR
    ::= { starentTraps 110 }

starCHATCONFServiceStart NOTIFICATION-TYPE
    OBJECTS { starServiceVpnName, starServiceServName }
    STATUS current
    DESCRIPTION
        "A CHAT/CONF service has started

        Action to be taken: No action required"
    --#SUMMARY "[Service CHAT/CONF-%s-%s] CHAT/CONF service has started"
    --#ARGUMENTS {0,1}
    --#STATE OPERATIONAL
    --#SEVERITY INFORMATIONAL
    ::= { starentTraps 111 }

starCHATCONFServiceStop NOTIFICATION-TYPE
    OBJECTS { starServiceVpnName, starServiceServName }
    STATUS current
    DESCRIPTION
        "A CHAT/CONF service has stopped. This is because of application out-of-service
        or if chatconf is down or no app. server

        Action to be taken: No action required"
    --#SUMMARY "[Service CHAT/CONF-%s-%s] CHAT/CONF service has stopped"
    --#ARGUMENTS {0,1}
    --#STATE OPERATIONAL
    --#SEVERITY MAJOR
    ::= { starentTraps 112 }

starSIPRouteNomatch NOTIFICATION-TYPE
    OBJECTS { starSIPRouteVpnName, starSIPRouteVmgName, starSIPRouteAsName, starSIPRouteDestPartyNum,
starSIPRouteReqNum }
    STATUS current
    DESCRIPTION
        "SIP session has failed since there is no match in the routing table with matching prefix

        Action to be taken: Operator has to configure with matching prefix if required"
    --#SUMMARY "[Service SIPROUTENOMATCH-%s-%s-%s-%s-%s] SIP Session failed: nomatch in routing table"
    --#ARGUMENTS {0,1,2,3,4}
    --#STATE OPERATIONAL
    --#SEVERITY INFORMATIONAL
    ::= { starentTraps 113 }

starL3AddrUnreachable NOTIFICATION-TYPE
    OBJECTS { starL3Address, starPortSlot, starPortNum }
    STATUS current
    DESCRIPTION
        "A L3 Address is unreachable through the specific slot and port.

        Action to be taken: No action required"
    --#SUMMARY "[System] L3 Address %s unreachable through Slot %d/Port %d"
    --#ARGUMENTS {0,1,2}
    --#STATE OPERATIONAL
    --#SEVERITY INFORMATIONAL

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

 ::= { starentTraps 114 }

starSWUpgradeStart NOTIFICATION-TYPE
  STATUS current
  DESCRIPTION
    "An operator has begun to upgrade the software on the chassis."
  --#SUMMARY "[System] Software Upgrade started"
  --#STATE DEGRADED
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 115 }

starSWUpgradeComplete NOTIFICATION-TYPE
  STATUS current
  DESCRIPTION
    "An operator-initiated software upgrade has been completed."
  --#SUMMARY "[System] Software Upgrade complete"
  --#STATE DEGRADED
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 116 }

starSWUpgradeAborted NOTIFICATION-TYPE
  STATUS current
  DESCRIPTION
    "An operator-initiated software upgrade has been aborted."
  --#SUMMARY "[System] Software Upgrade started"
  --#STATE DEGRADED
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 117 }

--- BGP

starBGPPeerSessionUp NOTIFICATION-TYPE
  OBJECTS { starContextName, starBGPPeerIpAddress }
  STATUS current
  DESCRIPTION
    "The BGP peer session to the specified IP address is operational.
    This may indicate the initial configuration of a new peer, the initial
    connectivity after a system restart, or the restoration of connectivity
    after a starBGNPeerSessionDown event.

    Action to be Taken: No action required."
  --#SUMMARY "[System] BGP peer session, vpn %s, address %s, is operational"
  --#ARGUMENTS {0,1}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 118 }

starBGPPeerSessionDown NOTIFICATION-TYPE
  OBJECTS { starContextName, starBGPPeerIpAddress }
  STATUS current
  DESCRIPTION
    "The BGP peer session to the specified IP address is no longer operational.

    Probable Cause: The BGP peer is not-operational; the network between the
    ST16 and the BGP peer is experiencing an outage; LC failure(s) on the ST16.

    Action to be Taken: Verify the BGP peer is operational; verify network
    connectivity to the BGP peer.

    Clear Condition Alarm: A starBGPPeerSessionUp is generated when connectivity is reestablished"
  --#SUMMARY "[System] BGP peer session, vpn %s, address %s, is non-operational"
  --#ARGUMENTS {0,1}
  --#STATE DEGRADED
  --#SEVERITY MAJOR
  ::= { starentTraps 119 }

```



## STARENT-MIB DEFINITIONS ::= BEGIN

```

-- ICSR

starSRPActive NOTIFICATION-TYPE
  OBJECTS { starContextName, starSRPIpAddress }
  STATUS current
  DESCRIPTION
    "The SRP Chassis Status is now Active.

    Action to be Taken: No action is required."
  --#SUMMARY "[System] vpn %s SRP %s is now active"
  --#ARGUMENTS {0,1}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 120 }

starSRPStandby NOTIFICATION-TYPE
  OBJECTS { starContextName, starSRPIpAddress }
  STATUS current
  DESCRIPTION
    "The SRP Chassis Status is now Standby.

    Action to be Taken: No action is required."
  --#SUMMARY "[System] vpn %s SRP %s is now standby"
  --#ARGUMENTS {0,1}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 121 }

starBGPPeerReachable NOTIFICATION-TYPE
  OBJECTS { starContextName,
            starSRPIpAddress,
            starUDPPortNum,
            starBGPPeerIpAddress }
  STATUS obsolete
  DESCRIPTION
    "The monitored BGP peer is now Reachable. This notification can represent the
    initial detection of the peer's state, or the reconnection to a peer
    after a starBGPPeerDown notification. This attribute is obsolete.

    Action to be Taken: No action is required."
  --#SUMMARY "[System] vpn %s SRP %s port %d BGP Peer %s is up"
  --#ARGUMENTS {0,1,2,3}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 122 }

starBGPPeerUnreachable NOTIFICATION-TYPE
  OBJECTS { starContextName,
            starSRPIpAddress,
            starUDPPortNum,
            starBGPPeerIpAddress }
  STATUS obsolete
  DESCRIPTION
    "The monitored BGP peer is now Unreachable.

    Action to be Taken: Verify that the BGP Peer is running and is properly
    configured. Verify the network link to the BGP Peer. This attribute is obsolete.

    Clear Condition: This condition is cleared when communication with the
    BGP peer is reestablished.

    Condition Clear Alarm: This condition is cleared by a starBGPPeerReachable
    notification."
  --#SUMMARY "[System] vpn %s SRP %s port %d BGP Peer %s is unreachable"
  --#ARGUMENTS {0,1,2,3}
  --#STATE OPERATIONAL
  --#SEVERITY WARNING

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

 ::= { starentTraps 123 }

starSRPAAAReachable NOTIFICATION-TYPE
  OBJECTS { starContextName,
            starSRPIpAddress,
            starUDPPortNum }
  STATUS current
  DESCRIPTION
    "The SRP AAA monitor has found a reachable AAA server. This notification
    can represent the initial detection of an AAA server, or the restoration
    of reachability after a starSRPAAAUnreachable notification. This
    notification is only generated if there was previously no reachable AAA server.

    Action to be Taken: No action required."
  --#SUMMARY "[System] vpn %s SRP %s port %d reports AAA Reachable"
  --#ARGUMENTS {0,1,2}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 124 }

starSRPAAAUnreachable NOTIFICATION-TYPE
  OBJECTS { starContextName,
            starSRPIpAddress,
            starUDPPortNum }
  STATUS current
  DESCRIPTION
    "The SRP AAA monitor has determined that all AAA servers are unreachable.

    Action to be Taken: Verify the state of the configured AAA Server(s) and
    restart them if required. Verify the network link to the AAA Server(s).
    Configure additional AAA Servers if required.

    Clear Condition: This condition is cleared when communication with any single
    AAA service is (re)established.

    Condition Clear Alarm: This condition is cleared by a starSRPAAAReachable
    notification."
  --#SUMMARY "[System] vpn %s SRP %s port %d reports AAA Unreachable"
  --#ARGUMENTS {0,1,2}
  --#STATE DEGRADED
  --#SEVERITY MAJOR
  ::= { starentTraps 125 }

starSRPSwitchoverInitiated NOTIFICATION-TYPE
  OBJECTS { starContextName,
            starSRPIpAddress }
  STATUS current
  DESCRIPTION
    "An SRP (ICSR) Switchover operation has been initiated by an operator.

    Action to be Taken: Verify that the switchover was a planned
    operator action."
  --#SUMMARY "[System] SRP Switchover Initiated, vpn %s SRP %s"
  --#ARGUMENTS {0,1}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 126 }

starSRPCheckpointFailure NOTIFICATION-TYPE
  OBJECTS { starContextName,
            starSRPIpAddress }
  STATUS current
  DESCRIPTION
    "The system has detected that a checkpoint message failed to be sent
    successfully to the standby HA. If the active HA were to fail, this
    information will be lost.

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

        Action to be Taken: Verify the communication path to the Standby HA."
--#SUMMARY "[System] vpn %s SRP %s session checkpoint failure"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY WARNING
::= { starentTraps 127 }

starSRPConfigOutOfSync NOTIFICATION-TYPE
    OBJECTS { starContextName,
              starSRIPAddress }
    STATUS current
    DESCRIPTION
    "The system has detected that the standby HA has a different configuration
    than the active HA. In the event of a failure of the active HA, it is
    possible that the standby HA is not configured properly to be able to take over.

    Action to be Taken: Update the configuration of the standby HA to match the active HA.

    Clear Condition: This condition is cleared when the active HA confirms that the
    standby HA has an identify configuration.

    Condition Clear Alarm: This condition is cleared by a starSRPConfigInSync
    notification."
--#SUMMARY "[System] vpn %s SRP %s configuration not synchronized"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY WARNING
::= { starentTraps 128 }

starSRPConfigInSync NOTIFICATION-TYPE
    OBJECTS { starContextName,
              starSRIPAddress }
    STATUS current
    DESCRIPTION
    "The system has detected that the standby HA has a matching configuration as the
    active HA. This notification is generated only after a starSRPConfigOutOfSync
    notification.

    Action to be Taken: No action required."
--#SUMMARY "[System] vpn %s SRP %s configuration synchronized"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 129 }

starGESwitchFailure NOTIFICATION-TYPE
    OBJECTS { starSlotNum }
    STATUS current
    DESCRIPTION
    "A failure of an internal Gigabit Ethernet switch has been detected. If
    it is possible to determine the slot containing the failed switch it is
    identified in starSlotNum, otherwise starSlotNum is 0.

    Action to be Taken: If this condition persists, the identified card
    needs to be replaced. This is not applicable to QVPC-SI and QVPC-DI."
--#SUMMARY "[Card %d] GE Switch Failure"
--#ARGUMENTS {0}
--#STATE NONOPERATIONAL
--#SEVERITY MAJOR
::= { starentTraps 130 }

starSIPRouteServerAvailable NOTIFICATION-TYPE
    OBJECTS { starSIPRouteServerVpnName, starSIPRouteServerVmgName, starSIPRouteServerAsName,
              starSIPRouteServerIpAddr }
    STATUS current
    DESCRIPTION

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

        "SIP route server is available

        Action to be taken: None"
--#SUMMARY "[Service SIPROUTESERVER-%s-%s-%s-%s] SIP Route Server Available"
--#ARGUMENTS {0,1,2,3}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starentTraps 131 }

starSIPRouteServerUnavailable NOTIFICATION-TYPE
    OBJECTS { starSIPRouteServerVpnName, starSIPRouteServerVmgName, starSIPRouteServerAsName,
starSIPRouteServerIpAddr }
    STATUS current
    DESCRIPTION
        "SIP session has failed since the server is unavailable

        Action to be taken: Operator has to check the reasons for the unavailability of the server and
act accordingly"
--#SUMMARY "[Service SIPROUTESERVER-%s-%s-%s-%s] SIP Route Server Unavailable"
--#ARGUMENTS {0,1,2,3}
--#STATE DEGRADED
--#SEVERITY WARNING
 ::= { starentTraps 132 }

starFMDMaxCallRateReached NOTIFICATION-TYPE
    OBJECTS { starVIMServiceVpnName, starVIMServiceInstanceId, starVIMServiceFMDMaxCallRate,
starVIMServiceFMDContinuousLoadCount }
    STATUS current
    DESCRIPTION
        "FMD max call rate reached

        Action to be taken: Increase the value of fmd-max-call-rate or set no fmd-max-call-rate

        Condition Clear Alarm: This condition is cleared by a starFMDCallRateUnderControl
notification"
--#SUMMARY "[Service VIM-%s-%d] Number of FMD messages processed per minute reached its limit (%d)
continuously for %d measurement periods."
--#ARGUMENTS {0,1,2,3}
--#STATE DEGRADED
--#SEVERITY MAJOR
 ::= { starentTraps 133 }

starFMDCallRateUnderControl NOTIFICATION-TYPE
    OBJECTS { starVIMServiceVpnName, starVIMServiceInstanceId, starVIMServiceFMDMaxCallRate,
starVIMServiceFMDContinuousLoadCount }
    STATUS current
    DESCRIPTION
        "FMD call rate under control

        Action to be taken: None"
--#SUMMARY "[Service VIM-%s-%d] Number of FMD messages processed per minute, under limit (%d) for %d
measurement periods."
--#ARGUMENTS {0,1,2,3}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starentTraps 134 }

starStorageServerCPUBusy NOTIFICATION-TYPE
    OBJECTS { starSessGGSNVpnName, starSessGGSNPeerAddr, starThreshPct, starThreshMeasuredPct,
        starGSSClusterName, starGSSClusterNodeName }
    STATUS current
    DESCRIPTION
        "GTPP Storage Server is experiencing high CPU usage. The usage has exceeded
an operator-configure value.

        Note that this is an external server, not part of the ST16.

```

## STARENT-MIB DEFINITIONS ::= BEGIN

Probable Cause: The amount of information being sent to the Storage Server is approaching the server's capacity; the Storage Server has other tasks running on it which are taking CPU time; a problem with the Storage Server is causing the CPU to be abnormally busy;

Condition Clear Alarm: This condition is cleared by a starStorageServerCPUNormal notification"

```
--#SUMMARY "[System] GTPP Storage Server CPU busy, VPN %s Server Address %s, GTPP Storage Server
Cluster %s node %s, CPU usage %d percent (alarm at %d percent)"
```

```
--#ARGUMENTS {0,1,4,5,3,2}
```

```
--#STATE OPERATIONAL
```

```
--#SEVERITY MAJOR
```

```
::= { starentTraps 135 }
```

```
starStorageServerCPUNormal NOTIFICATION-TYPE
```

```
OBJECTS { starSessGGSNVpnName, starSessGGSNPeerAddr, starThreshPct, starThreshMeasuredPct,
          starGSSClusterName, starGSSClusterNodeName }
```

```
STATUS current
```

```
DESCRIPTION
```

```
"GTPP Storage Server CPU usage has returned to a normal range.
```

Note that this is an external server, not part of the ST16."

```
--#SUMMARY "[System] GTPP Storage Server CPU usage normal, VPN %s Server Address %s, GTPP Storage
Server Cluster %s node %s, CPU usage %d percent (alarm at %d percent)"
```

```
--#ARGUMENTS {0,1,4,5,3,2}
```

```
--#STATE OPERATIONAL
```

```
--#SEVERITY INFORMATIONAL
```

```
::= { starentTraps 136 }
```

```
starStorageServerDiskSpaceLow NOTIFICATION-TYPE
```

```
OBJECTS { starSessGGSNVpnName, starSessGGSNPeerAddr, starThreshGB, starThreshMeasuredGB,
          starGSSClusterName, starGSSClusterNodeName }
```

```
STATUS current
```

```
DESCRIPTION
```

```
"GTPP Storage Server is experiencing low available disk space. The available
disk space has gone below an operator-configure value.
```

Note that this is an external server, not part of the ST16.

Probable Cause: The amount of information being sent to the Storage Server is approaching the server's capacity; the Storage Server has other information consuming disk space; a problem with the Storage Server is causing less disk space to be available than normal.

Condition Clear Alarm: If the GTPP Storage Server is configured to run in an 'alarm' model, this condition is cleared by a starStorageServerDiskSpaceOK notification. Otherwise the starStorageServerDiskSpaceLow notification will be generated periodically until the condition is cleared."

```
--#SUMMARY "[System] GTPP Storage Server Disk space low, VPN %s Server Address %s, GTPP Storage
Server Cluster %s node %s, disk available %d GB (alarm at %d GB)"
```

```
--#ARGUMENTS {0,1,4,5,3,2}
```

```
--#STATE OPERATIONAL
```

```
--#SEVERITY MAJOR
```

```
::= { starentTraps 137 }
```

```
starStorageServerDiskSpaceOK NOTIFICATION-TYPE
```

```
OBJECTS { starSessGGSNVpnName, starSessGGSNPeerAddr, starThreshPct, starThreshMeasuredPct,
          starGSSClusterName, starGSSClusterNodeName }
```

```
STATUS current
```

```
DESCRIPTION
```

```
"GTPP Storage Server available disk space to a normal range.
```

Note that this is an external server, not part of the ST16."

```
--#SUMMARY "[System] GTPP Storage Server Disk space OK, VPN %s Server Address %s, GTPP Storage Server
Cluster %s node %s, disk available %d GB (alarm at %d GB)"
```

```
--#ARGUMENTS {0,1,4,5,3,2}
```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starentTraps 138 }

starCardSPOFAlarm NOTIFICATION-TYPE
OBJECTS { starSlotNum, starCardType, starSlotSerialNumber }
STATUS current
DESCRIPTION
"The identified card is a Single Point of Failure (SPOF). There is no redundant card
available to take over in the event of a failure.

Probable Cause: This can be caused by an improper
configuration, or by the failure or removal of other cards in the system.

Action to be Taken: Install or configure additional redundant cards.

Clear Condition: A starCardSPOFClear notification will be generated is a redundant
card becomes available. Notifications like starCardDown could also obsolete this
notification"
--#SUMMARY "[Card %s-%d] Card is Single Point of Failure (SPOF) UUID %s. This is not applicable to
QVPC-SI."
--#ARGUMENTS {1,0,2}
--#STATE DEGRADED
--#SEVERITY MAJOR
 ::= { starentTraps 139 }

starCardSPOFClear NOTIFICATION-TYPE
OBJECTS { starSlotNum, starCardType, starSlotSerialNumber }
STATUS current
DESCRIPTION
"The identified card is no longer a Single Point of Failure (SPOF)"
--#SUMMARY "[Card %s-%d] Card is no longer a Single Point of Failure (SPOF) UUID %s. This is not
applicable to QVPC-SI."
--#ARGUMENTS {1,0,2}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starentTraps 140 }

starStorageServerOldGcdrPending NOTIFICATION-TYPE
OBJECTS { starSessGGSNVpnName, starSessGGSNPeerAddr, starThreshInt, starThreshMeasuredInt,
          starGSSClusterName, starGSSClusterNodeName }
STATUS current
DESCRIPTION
"GTPP Storage Server reports that GCDR files have been unprocessed for too long.

Note that this is an external server, not part of the ST16.

Probable Cause: No action has been taken long for the GCDR files generated by Storage Server.

Condition Clear Alarm: If the GTPP Storage Server is configured to run in an 'alarm'
model, this condition is cleared by a starStorageServerOldGcdrCleared notification.
Otherwise the starStorageServerOldGCDRPending notification will be generated
periodically"
--#SUMMARY "[System] GTPP Storage Server has many unprocessed GCDR files, VPN %s Server Address %s,
GTPP Storage Server Cluster %s node %s, Oldest unprocessed GCDR file %d mins. Configured period %d mins"
--#ARGUMENTS {0,1,4,5,3,2}
--#STATE OPERATIONAL
--#SEVERITY WARNING
 ::= { starentTraps 141 }

starStorageServerOldGcdrCleared NOTIFICATION-TYPE
OBJECTS { starSessGGSNVpnName, starSessGGSNPeerAddr, starThreshInt,
          starGSSClusterName, starGSSClusterNodeName }
STATUS current
DESCRIPTION
"GCDR files on the Storage Server have been processed on the Storage Server.

```

## STARENT-MIB DEFINITIONS ::= BEGIN

The threshold condition is now clear.

Note that this is an external server, not part of the ST16."

--#SUMMARY "[System] All old GCDR files on Storage Server over the configured period of %lu min have been processed. VPN %s Storage Server Address %s, GTPP Storage Server Cluster %s node %s, "

--#ARGUMENTS {2,0,1,3,4}

--#STATE OPERATIONAL

--#SEVERITY INFORMATIONAL

::= { starentTraps 142 }

starLoginFailure NOTIFICATION-TYPE

OBJECTS { starCLITtyname, starCLIRemoteIpAddrType,  
starCLIRemoteIpAddr, starCLIType }

STATUS current

DESCRIPTION

"A login failure occurred attempting to establish a CLI or FTP session."

--#SUMMARY "[System] CLI/FTP login failure from %s/%s, failure starting %s"

--#ARGUMENTS {1,0,2}

--#STATE OPERATIONAL

--#SEVERITY INFORMATIONAL

::= { starentTraps 143 }

starIPSGServiceStart NOTIFICATION-TYPE

OBJECTS { starServiceVpnName, starServiceServName }

STATUS current

DESCRIPTION

"A IP Services Gateway (IPSG) Service has started

Action to be Taken: No action required"

--#SUMMARY "[Service IPSG-%s-%s] IPSG service has started"

--#ARGUMENTS {0,1}

--#STATE OPERATIONAL

--#SEVERITY INFORMATIONAL

::= { starentTraps 144 }

starIPSGServiceStop NOTIFICATION-TYPE

OBJECTS { starServiceVpnName, starServiceServName }

STATUS current

DESCRIPTION

"A IP Services Gateway (IPSG) Service has stopped.

Probable Cause: This is typically caused by operator invention. In

unusual cases it can be caused by the loss of resources (PACs/PSCs) to support the running configuration.

Action to be Taken: If the IPSG service shutdown was not planned, examine the admin logs for an indication of the failure. Verify that all configured PACs/PSCs are present and running in the system. Check the crash logs for an indication of a software failure.

Clear Condition: Verify that the IPSG service is operational.

Condition Clear Alarm: A starIPSGServiceStart notification will be generated when the service is restarted"

--#SUMMARY "[Service IPSG-%s-%s] IPSG service has stopped"

--#ARGUMENTS {0,1}

--#STATE DEGRADED

--#SEVERITY MAJOR

::= { starentTraps 145 }

starHAUnreachable NOTIFICATION-TYPE

OBJECTS { starServiceVpnName, starServiceServName, starServiceFAIpAddr, starServiceHAIpAddr }

STATUS current

DESCRIPTION

"A monitored HA is unreachable from the identified FA Service.

Condition Clear Alarm: A starHAReachable notification will be generated when the

## STARENT-MIB DEFINITIONS ::= BEGIN

```

    HA becomes reachable"
--#SUMMARY "[FA %s-%s] HA Unreachable; HA address %s"
--#ARGUMENTS {0,1,3}
--#STATE DEGRADED
--#SEVERITY MAJOR
 ::= { starentTraps 146 }

starHAReachable NOTIFICATION-TYPE
OBJECTS { starServiceVpnName, starServiceServName, starServiceFAIpAddr, starServiceHAIpAddr }
STATUS current
DESCRIPTION
"A monitored HA is now reachable. A starHAReachable notification is only
generated for monitored HA's which previously were marked unreachable."
--#SUMMARY "[FA %s-%s] HA Reachable; HA address %s"
--#ARGUMENTS {0,1,3}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starentTraps 147 }

starASNGWServiceStart NOTIFICATION-TYPE
OBJECTS { starServiceVpnName, starServiceServName }
STATUS obsolete
DESCRIPTION
    "A WiMAX ASN Gateway (ASNGW) Service has started

    Action to be Taken: No action required"
--#SUMMARY "[Service ASNGW-%s-%s] ASNGW service has started"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starentTraps 148 }

starASNGWServiceStop NOTIFICATION-TYPE
OBJECTS { starServiceVpnName, starServiceServName }
STATUS obsolete
DESCRIPTION
    "A WiMAX ASN Gateway (ASNGW) Service has stopped.

    Probable Cause: This is typically caused by operator invention. In
    unusual cases it can be caused by the loss of resources (PACs/PSCs) to
    support the running configuration.

    Action to be Taken: If the ASNGW service shutdown was not planned,
    examine the admin logs for an indication of the failure. Verify that
    all configured PACs/PSCs are present and running in the system. Check the
    crash logs for an indication of a software failure.

    Clear Condition: Verify that the ASNGW service is operational.

    Condition Clear Alarm: A starASNGWServiceStart notification will be generated when
    the service is restarted"
--#SUMMARY "[Service ASNGW-%s-%s] ASNGW service has stopped"
--#ARGUMENTS {0,1}
--#STATE DEGRADED
--#SEVERITY MAJOR
 ::= { starentTraps 149 }

starTaskFailed NOTIFICATION-TYPE
OBJECTS { starTaskFacilityName, starTaskInstance, starTaskCard, starTaskCPU }
STATUS current
DESCRIPTION
    "A non-critical task has failed and the appropriate recovery steps begun.
    The failing task will be restarted.

    Probable Cause: Software error

```



## STARENT-MIB DEFINITIONS ::= BEGIN

Actions to be Taken: Examine the admin logs for an indication of the source of the failure.

Clear Condition: Verify that the task has been restarted.

Condition Clear Alarm: A starTaskRestart notification will be generated when task has successfully restarted."

```
--#SUMMARY "[Card %d] Task %s/%d on CPU %d has failed"
--#ARGUMENTS {2,0,1,3}
--#STATE DEGRADED
--#SEVERITY MAJOR
::= { starentTraps 150 }
```

starTaskRestart NOTIFICATION-TYPE

```
OBJECTS { starTaskFacilityName, starTaskInstance, starTaskCard, starTaskCPU }
STATUS current
DESCRIPTION
    "A non-critical task has restarted after an earlier failure.
```

Actions to be Taken: None"

```
--#SUMMARY "[Card %d] Task %s/%d on CPU %d has been restarted"
--#ARGUMENTS {2,0,1,3}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 151 }
```

starCSCFServiceStart NOTIFICATION-TYPE

```
OBJECTS { starServiceVpnName, starServiceServName }
STATUS current
DESCRIPTION
    "An CSCF Service has started
```

Action to be Taken: No action required"

```
--#SUMMARY "[Service CSCF-%s-%s] CSCF service has started"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 152 }
```

starCSCFServiceStop NOTIFICATION-TYPE

```
OBJECTS { starServiceVpnName, starServiceServName }
STATUS current
DESCRIPTION
    "An CSCF Service has stopped
```

Probable Cause: This is typically caused by operator invention. In unusual cases it can be caused by the loss of resources (PACs/PSCs) to support the running configuration.

Action to be Taken: If the CSCF service shutdown was not planned, examine the admin logs for an indication of the failure. Verify that all configured PACs/PSCs are present and running in the system. Check the crash logs for an indication of a software failure.

Clear Condition: Verify that the CSCF service is operational.

Condition Clear Alarm: A starCSCFServiceStart notification will be generated when the service is restarted"

```
--#SUMMARY "[CSCF %s-%s] CSCF service has stopped"
--#ARGUMENTS {0,1}
--#STATE DEGRADED
--#SEVERITY MAJOR
::= { starentTraps 153 }
```

starDhcpServiceStarted NOTIFICATION-TYPE

```
OBJECTS { starServiceVpnName, starServiceServName }
STATUS current
```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

DESCRIPTION
"A DHCP Service has started

Action to be Taken: No action required"
--#SUMMARY "[System] DHCP service started, VPN %s Service Name %s"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 154 }

starDhcpServiceStopped NOTIFICATION-TYPE
OBJECTS { starServiceVpnName, starServiceServName }
STATUS current
DESCRIPTION
"A DHCP Service has stopped

Probable Cause: This is typically caused by operator invention. In
unusual cases it can be caused by the loss of resources (PACs/PSCs) to
support the running configuration.

Action to be Taken: If the DHCP service shutdown was not planned,
examine the admin logs for an indication of the failure. Verify that
all configured PACs/PSCs are present and running in the system. Check the
crash logs for an indication of a software failure.

Clear Condition: Verify that the DHCP service is operational.

Condition Clear Alarm: A starDHCPServiceStart notification will be generated when
the service is restarted"

--#SUMMARY "[System] DHCP service stopped, VPN %s Service Name %s"
--#ARGUMENTS {0,1}
--#STATE DEGRADED
--#SEVERITY MAJOR
::= { starentTraps 155 }

starContFiltDBError NOTIFICATION-TYPE
OBJECTS { starContFiltCFFilename, starContFiltCFErrorCode }
STATUS current
DESCRIPTION
"The Content Filtering OPTCMDB file error displayed with an error code.

Action to be Taken: If no OPTCMDB file is there in the specified directory then
Place a OPTCMDB-FULL file in the directory and give an upgrade command or place
an OPTCMDB file and load the SRDBs by killing them all.

Condition Clear Alarm: This condition is cleared by a starContFiltDBErrorClear
notification"
--#SUMMARY "[System] Content Filtering file %s error code: %s"
--#ARGUMENTS {0,1}
--#STATE DEGRADED
--#SEVERITY MAJOR
::= { starentTraps 156 }

starContFiltDBErrorClear NOTIFICATION-TYPE
OBJECTS { starContFiltCFFilename, starContFiltCFErrorCode }
STATUS current
DESCRIPTION
"The Content Filtering OPTCMDB file error removed.

Action to be Taken: No action required"
--#SUMMARY "[System] Content Filtering file %s error code: %s cleared"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 157 }

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

starBLDBError NOTIFICATION-TYPE
    OBJECTS { starBLFilename, starBLErrorCode }
    STATUS current
    DESCRIPTION
        "The Blacklisting OPTBLDB file error displayed with an error code.

    Action to be Taken: If no or invalid OPTBLDB file is there in the specified directory then
    Place a OPTBLDB_FULL file in the directory and give an upgrade command.

    Condition Clear Alarm: This condition is cleared by a starBLDBErrorClear
    notification"
    --#SUMMARY "[System] Blacklisting file %s error code: %s"
    --#ARGUMENTS {0,1}
    --#STATE DEGRADED
    --#SEVERITY MAJOR
    ::= { starentTraps 158 }

starBLDBErrorClear NOTIFICATION-TYPE
    OBJECTS { starBLFilename, starBLErrorCode }
    STATUS current
    DESCRIPTION
        "The Blacklisting OPTBLDB file error removed.

    Action to be Taken: No action required"
    --#SUMMARY "[System] Blacklisting file %s error code: %s cleared"
    --#ARGUMENTS {0,1}
    --#STATE OPERATIONAL
    --#SEVERITY INFORMATIONAL
    ::= { starentTraps 159 }

starContFiltDBUpgradeError NOTIFICATION-TYPE
    OBJECTS { starContFiltCFUpgradeFilename, starContFiltCFUpgradeErrorCode }
    STATUS current
    DESCRIPTION
        "The Content Filtering OPTCMDB file error displayed with an error code.

    Action to be Taken: Place a valid OPTCMDB-FULL file or OPTCMDB_INCR file in the
    directory and give an upgrade command.

    Condition Clear Alarm: This condition is cleared by a starContFiltDBUpgradeErrorClear
    notification"
    --#SUMMARY "[System] Content Filtering file %s error code: %s"
    --#ARGUMENTS {0,1}
    --#STATE DEGRADED
    --#SEVERITY INFORMATIONAL
    ::= { starentTraps 160 }

starContFiltDBUpgradeErrorClear NOTIFICATION-TYPE
    OBJECTS { starContFiltCFUpgradeFilename, starContFiltCFUpgradeErrorCode }
    STATUS current
    DESCRIPTION
        "The Content Filtering OPTCMDB file error removed.

    Action to be Taken: No action required"
    --#SUMMARY "[System] Content Filtering file %s error code: %s cleared"
    --#ARGUMENTS {0,1}
    --#STATE OPERATIONAL
    --#SEVERITY INFORMATIONAL
    ::= { starentTraps 161 }

starBLDBUpgradeError NOTIFICATION-TYPE
    OBJECTS { starBLUpgradeFilename, starBLUpgradeErrorCode }
    STATUS current
    DESCRIPTION
        "The Blacklisting OPTBLDB file error displayed with an error code.

```

## STARENT-MIB DEFINITIONS ::= BEGIN

Action to be Taken: Place a valid OPTBLDB-FULL file file in the directory and give an upgrade command.

Condition Clear Alarm: This condition is cleared by a starBLDBUpgradeErrorClear notification"

```
--#SUMMARY "[System] Blacklisting file %s error code: %s"
--#ARGUMENTS {0,1}
--#STATE DEGRADED
--#SEVERITY INFORMATIONAL
::= { starentTraps 162 }
```

starBLDBUpgradeErrorClear NOTIFICATION-TYPE

```
OBJECTS { starBLUpgradeFilename, starBLUpgradeErrorCode }
STATUS current
DESCRIPTION
"The Blacklisting OPTBLDB file error removed.
```

Action to be Taken: No action required"

```
--#SUMMARY "[System] Blacklisting file %s error code: %s cleared"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 163 }
```

starIPSECDynTunUp NOTIFICATION-TYPE

```
OBJECTS { starIPSECContextName, starIPSECPolicyName, starIPSECDynPolicyType,
starIPSECDynPolicyPayloadType, starIPSECLocalGateway, starIPSECRemoteGateway }
STATUS current
DESCRIPTION
"IPSEC Dynamic Tunnel Up.
```

Action to be Taken: No action required"

```
--#SUMMARY "[System] IPSEC Dynamic Tunnel Up; context %s, policy name %s, policy type %d, payload
type %d, local gateway %s, remote gateway %s"
--#ARGUMENTS {0,1,2,3,4,5}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 164 }
```

starIPSECDynTunDown NOTIFICATION-TYPE

```
OBJECTS { starIPSECContextName, starIPSECPolicyName, starIPSECDynPolicyType,
starIPSECDynPolicyPayloadType, starIPSECLocalGateway, starIPSECRemoteGateway }
STATUS current
DESCRIPTION
"IPSEC Dynamic Tunnel Down.
```

Condition Clear Alarm: a starIPSECDynTunUp notification will be sent when the tunnel is operational again. Note however that a tunnel may go down due to administrative action, or the tunnel may not longer be required, thus a starIPSECDynTunUp may not follow."

```
--#SUMMARY "[System] IPSEC Dynamic Tunnel Down; context %s, policy name %s, policy type %d, payload
type %d, local gateway %s, remote gateway %s"
--#ARGUMENTS {0,1,2,3,4,5}
--#STATE DEGRADED
--#SEVERITY MINOR
::= { starentTraps 165 }
```

starHeartbeat NOTIFICATION-TYPE

```
STATUS current
DESCRIPTION
"Periodic SNMP heartbeat. A starHeartbeat notification can be generated periodically if the system is configured to do so. These notifications serve only to validate that there is communication to external entities which sink SNMP notifications"
--#SUMMARY "[System] SNMP Heartbeat"
--#STATE OPERATIONAL
```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

--#SEVERITY INFORMATIONAL
 ::= { starentTraps 166 }

starOverloadSystem NOTIFICATION-TYPE
 OBJECTS { starCongestionResourceType }
 STATUS current
 DESCRIPTION
     "A system-wide congestion overload condition has occurred.

     Probable Cause: This is the result of an operator-configured congestion
     overload value reached. This notification indicated a chassis-wide
     overload condition, typically overall system usage reaching some fraction
     of capacity.

     Once this limit is reached, the configured behavior is taken. This will
     cause certain older and/or dormant calls to be dropped in favor of newer calls.

     Note that this is similar to, but different than, the starCongestion
     notification. Typically the 'overload' condition will be configured to
     trigger at an earlier point.

     Actions to be Taken: Verify that the congestion overload thresholds are correct;
     if the congested state is seen repeatedly, or for sustained periods of
     time, additional system capacity may need to be brought online.

     This system is cleared when the use of the specific resource falls below
     the configured limit.

     Condition Clear Alarm: A starOverloadSystemClear notification is sent when the
     system overload condition is clear"
 --#SUMMARY "[System] System Congestion Overload; resource type %s"
 --#ARGUMENTS {0}
 --#STATE DEGRADED
 --#SEVERITY MAJOR
 ::= { starentTraps 167 }

starOverloadSystemClear NOTIFICATION-TYPE
 STATUS current
 DESCRIPTION
     "A system-wide congestion overload condition has cleared"
 --#SUMMARY "[System] Congestion overload clear"
 --#STATE OPERATIONAL
 --#SEVERITY INFORMATIONAL
 ::= { starentTraps 168 }

starOverloadService NOTIFICATION-TYPE
 OBJECTS { starCongestionResourceType, starServiceVpnName, starServiceServName }
 STATUS current
 DESCRIPTION
     "A service-specific congestion overload condition has occurred.

     Probable Cause: This is the result of an operator-configured congestion
     overload value reached. This notification indicated a service-specific
     overload condition, typically the use of the service reaching some fraction
     of capacity.

     Once this limit is reached, the configured behavior is taken. This will
     cause certain older and/or dormant calls to be dropped in favor of newer calls.

     Note that this is similar to, but different than, the starCongestion
     notification. Typically the 'overload' condition will be configured to
     trigger at an earlier point.

     Since this is a service-specific notification, it is possible to receive
     multiple notifications for different services. Each

     Actions to be Taken: Verify that the congestion overload thresholds are correct;

```

## STARENT-MIB DEFINITIONS ::= BEGIN

if the congested state is seen repeatedly, or for sustained periods of time, additional system capacity may need to be brought online.

This system is cleared when the use of the specific resource falls below the configured limit.

Condition Clear Alarm: A starOverloadServiceClear notification is sent when the service-specific overload condition is clear."

```
--#SUMMARY "[Service %s-%s] System Congestion Overload; resource type %s"
--#ARGUMENTS {1,2,0}
--#STATE DEGRADED
--#SEVERITY MAJOR
::= { starentTraps 169 }
```

starOverloadServiceClear NOTIFICATION-TYPE

```
OBJECTS { starServiceVpnName, starServiceServName }
STATUS current
DESCRIPTION
    "A service-specific congestion overload condition has cleared"
--#SUMMARY "[Service %s-%s] Congestion overload clear"
--#ARGUMENTS {1,2}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 170 }
```

starStorageServerClusterStateChange NOTIFICATION-TYPE

```
OBJECTS { starSessGGSNVpnName, starSessGGSNPeerAddr, starGSSClusterName,
          starGSSClusterRgName, starGSSClusterRsName, starGSSClusterNodeState,
          starGSSClusterPrevOnlineNode }
STATUS current
DESCRIPTION
    "GTPP Storage Server cluster state has been changed.
```

GTPP Storage Server may have gone offline from all the nodes or switchover has been occurred.

Note that this is an external server, not part of the ST16.

Probable Cause: GTPP Storage Server cluster hardware/software component failure or maintenance of GTPP Storage Server is in progress"

```
--#SUMMARY "[System] GTPP Storage Server cluster state changed, VPN %s Server Address %s, GTPP
Storage Server Cluster name %s, Associated resource group name %s and Associated resource name %s,
Cluster node state %s, Previous online node name %s"
--#ARGUMENTS {0,1,2,3,4,5,6}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 171 }
```

starStorageServerClusSwitchOver NOTIFICATION-TYPE

```
OBJECTS { starSessGGSNVpnName, starSessGGSNPeerAddr, starGSSClusterName,
          starGSSClusterRgName, starGSSClusterFromNode, starGSSClusterToNode }
STATUS current
DESCRIPTION
    "GTPP Storage Server switchover from current online node to next available node in cluster.
```

Note that this is an external server, not part of the ST16.

Probable Cause: GTPP Storage Server cluster Hardware/Software component failure or maintenance of GTPP Storage Server is in progress"

```
--#SUMMARY "[System] GTPP Storage Server switchover, VPN %s Server Address %s, GTPP Storage Server
Cluster name %s, Associated resource group name %s , Switched-over from node %s to node %s"
--#ARGUMENTS {0,1,2,3,4,5}
--#STATE OPERATIONAL
--#SEVERITY CRITICAL
::= { starentTraps 172 }
```

starStorageServerClusPathFail NOTIFICATION-TYPE

## STARENT-MIB DEFINITIONS ::= BEGIN

```

OBJECTS { starSessGGSNVpnName, starSessGGSNPeerAddr, starGSSDiskPath, starGSSClusterName,
          starGSSClusterNodeName }
STATUS current
DESCRIPTION
"GTPP Storage Server cluster disk path failure has been occurred.

    Note that this is an external server, not part of the ST16.

    Probable Cause: Fibre cable may have been damaged, fibre cable may have been pulled out or disk
    fault may have been occurred.

    Condition Clear Alarm: This condition is cleared by a starStorageServerClusPathOK notification"
--#SUMMARY "[System] GTPP Storage Server cluster disk path failure, VPN %s Server Address %s, Cluster
Disk Path %s, GTPP Storage Server Cluster %s node %s"
--#ARGUMENTS {0,1,2,3,4}
--#STATE OPERATIONAL
--#SEVERITY CRITICAL
::= { starentTraps 173 }

starStorageServerClusPathOK NOTIFICATION-TYPE
OBJECTS { starSessGGSNVpnName, starSessGGSNPeerAddr, starGSSDiskPath, starGSSClusterName,
          starGSSClusterNodeName }
STATUS current
DESCRIPTION
"GTPP Storage Server cluster disk path failure has been restored to ok state.

    Note that this is an external server, not part of the ST16"
--#SUMMARY "[System] GTPP Storage Server cluster disk path OK, VPN %s Server Address %s, Cluster Disk
Path %s, GTPP Storage Server Cluster %s node %s"
--#ARGUMENTS {0,1,2,3,4}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 174 }

starStorageServerClusInterCFail NOTIFICATION-TYPE
OBJECTS { starSessGGSNVpnName, starSessGGSNPeerAddr, starGSSTransportPath,
          starGSSClusterName, starGSSClusterNodeName }
STATUS current
DESCRIPTION
"GTPP Storage Server cluster transport path (Interconnect) failure has been occurred.

    Note that this is an external server, not part of the ST16.

    Probable Cause: Interconnect interface may have been failed, Interconnect interface cable may
    have been pulled out.

    Condition Clear Alarm: This condition is cleared by a starStorageServerClusInterCOK
notification"
--#SUMMARY "[System] GTPP Storage Server cluster transport path (Interconnect) failure, VPN %s Server
Address %s, Cluster Transport Path %s, GTPP Storage Server Cluster %s node %s"
--#ARGUMENTS {0,1,2,3,4}
--#STATE OPERATIONAL
--#SEVERITY CRITICAL
::= { starentTraps 175 }

starStorageServerClusInterCOK NOTIFICATION-TYPE
OBJECTS { starSessGGSNVpnName, starSessGGSNPeerAddr, starGSSTransportPath,
          starGSSClusterName, starGSSClusterNodeName }
STATUS current
DESCRIPTION
"GTPP Storage Server cluster transport path (Interconnect) failure has been restored to
an operational state.

    Note that this is an external server, not part of the ST16"
--#SUMMARY "[System] GTPP Storage Server cluster transport path (Interconnect) ok, VPN %s Server
Address %s, Cluster Transport Path %s, GTPP Storage Server Cluster %s node %s"
--#ARGUMENTS {0,1,2,3,4}

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starentTraps 176 }

starStorageServerClusIntfFail NOTIFICATION-TYPE
  OBJECTS { starSessGGSNVpnName, starSessGGSNPeerAddr, starGSSIPMPGroupName,
            starGSSInterfaceName, starGSSClusterName, starGSSClusterNodeName }
  STATUS current
  DESCRIPTION
    "GTPP Storage Server cluster GE Interface failure has been occurred.

    Note that this is an external server, not part of the ST16.

    Probable Cause: Interface may have been failed, interface cable may have been pulled out.

    Condition Clear Alarm: This condition is cleared by a starStorageServerClusIntfOK notification"
  --#SUMMARY "[System] GTPP Storage Server cluster interface failure, VPN %s Server Address %s, Cluster
  IPMP Group name %s and associated interface name %s, GTPP Storage Server Cluster %s node %s"
  --#ARGUMENTS {0,1,2,3,4,5}
  --#STATE OPERATIONAL
  --#SEVERITY MAJOR
  ::= { starentTraps 177 }

starStorageServerClusIntfOK NOTIFICATION-TYPE
  OBJECTS { starSessGGSNVpnName, starSessGGSNPeerAddr, starGSSIPMPGroupName,
            starGSSInterfaceName, starGSSClusterName, starGSSClusterNodeName }
  STATUS current
  DESCRIPTION
    "GTPP Storage Server cluster GE Interface failure failure has been restored to ok state.

    Note that this is an external server, not part of the ST16"
  --#SUMMARY "[System] GTPP Storage Server cluster GE interface ok, VPN %s Server Address %s, Cluster
  IPMP Group name %s and associated GE interface name %s, GTPP Storage Server Cluster %s node %s"
  --#ARGUMENTS {0,1,2,3,4,5}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 178 }

starStorageServerMemLow NOTIFICATION-TYPE
  OBJECTS { starSessGGSNVpnName, starSessGGSNPeerAddr, starThreshMB,
            starThreshMeasuredMB, starGSSClusterName, starGSSClusterNodeName }
  STATUS current
  DESCRIPTION
    "GTPP Storage Server is experiencing a low memory condition.

    Note that this is an external server, not part of the ST16.

    Probable Cause: The amount of free memory used by Storage Server
    is approaching the server's capacity;

    Condition Clear Alarm: This condition is cleared by a starStorageServerMemNormal
    notification"
  --#SUMMARY "[System] GTPP Storage Server memory low, VPN %s Server Address %s, Available free memory
  %d MB (notification at %d MB), GTPP Storage Server Cluster %s node %s"
  --#ARGUMENTS {0,1,3,2,4,5}
  --#STATE OPERATIONAL
  --#SEVERITY MAJOR
  ::= { starentTraps 179 }

starStorageServerMemNormal NOTIFICATION-TYPE
  OBJECTS { starSessGGSNVpnName, starSessGGSNPeerAddr, starThreshMB,
            starThreshMeasuredMB, starGSSClusterName, starGSSClusterNodeName }
  STATUS current

```



## STARENT-MIB DEFINITIONS ::= BEGIN

```

DESCRIPTION
    "GTPP Storage Server Memory usage has returned to a normal range.

    Note that this is an external server, not part of the ST16."
--#SUMMARY "[System] GTPP Storage Server memory normal, VPN %s Server Address %s, Available free
memory %d MB (notification at %d MB), GTPP Storage Server Cluster %s node %s"
--#ARGUMENTS {0,1,3,2,4,5}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 180 }

starPDIFServiceStart NOTIFICATION-TYPE
    OBJECTS { starServiceVpnName, starServiceServName }
    STATUS current
    DESCRIPTION
        "A PDIF Service has started

        Action to be Taken: No action required"
--#SUMMARY "[Service PDIF-%s-%s] PDIF service has started"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 181 }

starPDIFServiceStop NOTIFICATION-TYPE
    OBJECTS { starServiceVpnName, starServiceServName }
    STATUS current
    DESCRIPTION
        "A PDIF Service has stopped.

        Probable Cause: This is typically caused by operator invention. In
        rare cases it can be caused by the loss of resources (PACs) to
        support the running configuration.

        Action to be Taken: If the PDIF service shutdown was not planned,
        examine the admin logs for an indication of the failure. Verify that
        all configured PACs are present and running in the system. Check the
        crash logs for an indication of a software failure.

        Clear Condition: Verify that the PDIF service is operational.

        Condition Clear Alarm: A starPDIFServiceStart notification will be generated when
        the service is restarted"
--#SUMMARY "[Service PDIF-%s-%s] PDIF service has stopped"
--#ARGUMENTS {0,1}
--#STATE DEGRADED
--#SEVERITY MAJOR
::= { starentTraps 182 }

starSessMgrRecoveryComplete NOTIFICATION-TYPE
    OBJECTS { starCPUSlot, starCPUNumber, starFetchedFromAAAMgr, starPriorToAudit, starPassedAudits,
starCallsRecovered, starAllCallLines, starElapsedMs }
    STATUS current
    DESCRIPTION
        "A Sess Mgr Recovery Complete

        Probable Cause: This is typically caused by session manager task fails
        and successfully completed recovery.

        Action to be Taken: None"
--#SUMMARY "[System] Session Manager task recovery completed, in %d (ms) fetched from aaamgr %d calls
recovered %d passed audit %d prior to audit %d all call lines %d on Slot Number %d Cpu Number %d"
--#ARGUMENTS {7,2,3,4,5,6,0,1}
--#STATE DEGRADED
--#SEVERITY MAJOR
::= { starentTraps 183 }

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

starDiameterPeerDown NOTIFICATION-TYPE
    OBJECTS { starDiameterVpnName, starDiameterPeerAddr, starDiameterEndpointName }
    STATUS current
    DESCRIPTION
        "A diameter peer is down.

        Problem Cause: The diameter peer has failed, or a network connectivity
        prevents reaching the peer.

        Condition Clear Alarm: A starDiameterPeerUp notification will be generated when
        the peer is up"
    --#SUMMARY "[VPN %s] Diameter Peer %s endpoint %s is down"
    --#ARGUMENTS {0,1,2}
    --#STATE DEGRADED
    --#SEVERITY MAJOR
    ::= { starentTraps 184 }

starDiameterPeerUp NOTIFICATION-TYPE
    OBJECTS { starDiameterVpnName, starDiameterPeerAddr, starDiameterEndpointName }
    STATUS current
    DESCRIPTION
        "A diameter peer is up. This notification is only generated for peers which
        have previously been declared down."
    --#SUMMARY "[VPN %s] Diameter Peer %s endpoint %s is up"
    --#ARGUMENTS {0,1,2}
    --#STATE OPERATIONAL
    --#SEVERITY INFORMATIONAL
    ::= { starentTraps 185 }

starDiameterServerUnreachable NOTIFICATION-TYPE
    OBJECTS { starServiceVpnName, starDiameterPeerAddr, starDiameterEndpointName }
    STATUS current
    DESCRIPTION
        "A diameter server is down.

        Problem Cause: The diameter server has failed, or a network connectivity
        prevents reaching the server.

        Condition Clear Alarm: A starDiameterServerReachable notification will be generated when
        the server is reachable"
    --#SUMMARY "[VPN %s] Diameter Server %s endpoint %s is unreachable"
    --#ARGUMENTS {0,1,2}
    --#STATE DEGRADED
    --#SEVERITY MAJOR
    ::= { starentTraps 186 }

starDiameterServerReachable NOTIFICATION-TYPE
    OBJECTS { starServiceVpnName, starDiameterPeerAddr, starDiameterEndpointName }
    STATUS current
    DESCRIPTION
        "A diameter server is up. This notification is only generated for servers which
        have previously been declared unreachable."
    --#SUMMARY "[VPN %s] Diameter Server %s endpoint %s is reachable"
    --#ARGUMENTS {0,1,2}
    --#STATE OPERATIONAL
    --#SEVERITY INFORMATIONAL
    ::= { starentTraps 187 }

starCDRFileRemoved NOTIFICATION-TYPE
    OBJECTS { starCDRFilename }
    STATUS current
    DESCRIPTION
        "A Charging Data Record (CDR) file has been deleted from the system due to a
        lack of available storage space. When required, the system deletes old files
        to make space for new files. This notification is only generated when
        specifically enabled on the system."

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

    Probable Cause: CDR files are not being moved off the system, or these files
    are not being deleted after they have been transferred."
--#SUMMARY "[System] CDR file %s removed"
--#ARGUMENTS {0}
--#STATE OPERATIONAL
--#SEVERITY MAJOR
 ::= { starentTraps 188 }

starCSCFPeerServerReachable NOTIFICATION-TYPE
  OBJECTS { starCSCFPeerServerVpnName, starCSCFPeerServerSvcName, starCSCFPeerServerListName }
  STATUS current
  DESCRIPTION
    "A peer server is reachable"
--#SUMMARY "[CSCF %s-%s] CSCF Peer Server %s Reachable"
--#ARGUMENTS {0,1,2}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starentTraps 189 }

starCSCFPeerServerUnreachable NOTIFICATION-TYPE
  OBJECTS { starCSCFPeerServerVpnName, starCSCFPeerServerSvcName, starCSCFPeerServerListName }
  STATUS current
  DESCRIPTION
    "A peer server is unreachable"
--#SUMMARY "[CSCF %s-%s] CSCF Peer Server %s UnReachable"
--#ARGUMENTS {0,1,2}
--#STATE DEGRADED
--#SEVERITY MINOR
 ::= { starentTraps 190 }

starDHCIPv6ServiceStart NOTIFICATION-TYPE
  OBJECTS { starServiceVpnName, starServiceServName }
  STATUS current
  DESCRIPTION
    "A SGSN Service has started
    Action to be Taken: No action required"
--#SUMMARY "[Service DHCP V6 %s-%s] DHCP V6 service has started"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starentTraps 191 }

starCLIConfigMode NOTIFICATION-TYPE
  OBJECTS { starCLIUsername, starCLIContext }
  STATUS current
  DESCRIPTION
    "An interactive CLI session has enter 'configuration' mode for the specified
    context. This CLI user can thus potentially start issuing configuration
    commands which will impact the overall system configuration.

    Note that this notification is not enabled by default; it is only generated
    if the system is specifically configured to enable it."
--#SUMMARY "[System] CLI session entered configuration mode for context %s, CLI user %s"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starentTraps 192 }

starDHCIPv6ServiceStop NOTIFICATION-TYPE
  OBJECTS { starServiceVpnName, starServiceServName }
  STATUS current
  DESCRIPTION
    "A DHCPV6 Service has stopped.
    Clear Condition: Verify that the DHCPV6 service is operational.

    Condition Clear Alarm: A starDHCIPv6ServiceStart notification will be generated when

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

the service is restarted"
--#SUMMARY "[Service DHCPV6 %s-%s] DHCPV6 service has stopped"
--#ARGUMENTS {0,1}
--#STATE DEGRADED
--#SEVERITY MAJOR
 ::= { starentTraps 193 }

starSGSNServiceStart NOTIFICATION-TYPE
OBJECTS { starServiceVpnName, starServiceServName }
STATUS current
DESCRIPTION
"A SGSN Service has started
Action to be Taken: No action required"
--#SUMMARY "[Service SGSN %s-%s] SGSN service has started"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starentTraps 194 }

starSGSNServiceStop NOTIFICATION-TYPE
OBJECTS { starServiceVpnName, starServiceServName }
STATUS current
DESCRIPTION
"A SGSN Service has stopped.
Probable Cause: This is typically caused by operator invention. In
unusual cases it can be caused by the loss of resources (PACs/PSCs) to
support the running configuration.

Action to be Taken: If the SGSN service shutdown was not planned,
examine the admin logs for an indication of the failure. Verify that
all configured PACs/PSCs are present and running in the system. Check the
crash logs for an indication of a software failure.

Clear Condition: Verify that the SGSN service is operational.

Condition Clear Alarm: A starSGSNServiceStart notification will be generated when
the service is restarted"
--#SUMMARY "[Service SGSN %s-%s] SGSN service has stopped"
--#ARGUMENTS {0,1}
--#STATE DEGRADED
--#SEVERITY MAJOR
 ::= { starentTraps 195 }

starM3UAPCUnavailable NOTIFICATION-TYPE
OBJECTS {
    starSS7rdId,
    starSS7Pc,
    starSS7M3UAPsId,
    starSS7CauseString
}
STATUS current
DESCRIPTION
"M3UA Route to the Point code becomes unavailable.

Possibe reason:
1. Received destination unavailable (DUNA) message or
2. SCTP association is down or
3. Remote peer server is down

Condition Clear Alarm: A starM3UAPCAvailable notification will be generated when
the reemore peer identified by the point code becomes reachable"

--#SUMMARY "[ss7-routing-domain %d] m3ua point-code %d through peer-server %d unavailable cause %s"
--#ARGUMENTS {0,1,2,3}
--#STATE DEGRADED
--#SEVERITY MINOR

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

 ::= { starentTraps 196 }

starM3UAPCAvailable NOTIFICATION-TYPE
  OBJECTS {
    starSS7rdId,
    starSS7Pc,
    starSS7M3UAPsId,
    starSS7CauseString
  }
  STATUS current
  DESCRIPTION
    "M3UA Route to the Point code becomes available.

    Possible reason:
    1. Received destination available (DAVA) message.
    2. SCTP association is up
    3. Remote peer server is up

    starM3UAPCAvailable is generated only when a previous starM3UAPCUnavailable is generated.
    "
    --#SUMMARY "[ss7-routing-domain %d] m3ua point-code %d through peer-server %d available cause %s"
    --#ARGUMENTS {0,1,2,3}
    --#STATE OPERATIONAL
    --#SEVERITY INFORMATIONAL
    ::= { starentTraps 197 }

-- Thresholds

starThreshCPUUtilization NOTIFICATION-TYPE
  OBJECTS { starCPUSlot, starCPUNumber, starThreshPct, starThreshMeasuredPct }
  STATUS current
  DESCRIPTION
    "The overall CPU utilization for the identified processor has exceeded for configured
    threshold value for the current monitoring period.

    Probable Cause: This is a user configurable threshold.

    If the thresholding subsystem is configured to run in an 'alarm' model,
    a starThreshClearCPUUtilization notification will be generated when the measured
    value falls below the threshold."
    --#SUMMARY "[Card] Threshold: CPU utilization threshold for card %d CPU %d threshold %d%% measured
    %d%"
    --#ARGUMENTS {0,1,2,3}
    --#STATE OPERATIONAL
    --#SEVERITY WARNING
    ::= { starentTraps 200 }

starThreshClearCPUUtilization NOTIFICATION-TYPE
  OBJECTS { starCPUSlot, starCPUNumber, starThreshPct, starThreshMeasuredPct }
  STATUS current
  DESCRIPTION
    "The threshold condition is now clear."
    --#SUMMARY "[Card] Threshold: CPU utilization threshold clear card %d for CPU %d threshold %d%%
    measured %d%"
    --#ARGUMENTS {0,1,2,3}
    --#STATE OPERATIONAL
    --#SEVERITY INFORMATIONAL
    ::= { starentTraps 201 }

starThreshCPUMemory NOTIFICATION-TYPE
  OBJECTS { starCPUSlot, starCPUNumber, starThreshInt, starThreshMeasuredInt }
  STATUS current
  DESCRIPTION
    "The amount of available memory for the identified processor has fallen below the
    configured threshold value.

```

## STARENT-MIB DEFINITIONS ::= BEGIN

Probable Cause: This is a user configurable threshold.

If the thresholding subsystem is configured to run in an 'alarm' model,  
a starThreshClearCPUMemory notification will be generated when the measured  
value falls below the threshold."

```
--#SUMMARY "[Card %d] Threshold: CPU memory threshold for CPU %d; measured %d threshold %d"
--#ARGUMENTS {0,1,3,2}
--#STATE OPERATIONAL
--#SEVERITY WARNING
::= { starentTraps 202 }
```

starThreshClearCPUMemory NOTIFICATION-TYPE

```
OBJECTS { starCPUSlot, starCPUNumber, starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
```

"The threshold condition is now clear."

```
--#SUMMARY "[Card %d] Threshold: CPU memory threshold CLEAR for CPU %d; measured %d threshold %d"
--#ARGUMENTS {0,1,3,2}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 203 }
```

starThreshLicense NOTIFICATION-TYPE

```
OBJECTS { starThreshPct, starThreshMeasuredPct, starServiceType }
STATUS current
DESCRIPTION
```

"The percentage available, licensed subscribers has fallen below the configured  
threshold value.

Probable Cause: This is a user configurable threshold.

If the thresholding subsystem is configured to run in an 'alarm' model,  
a starThreshClearLicense notification will be generated when the measured  
value falls below the threshold."

```
--#SUMMARY "[System] Threshold: license threshold for service %s threshold %d%% measured %d%%"
--#ARGUMENTS {2,0,1}
--#STATE OPERATIONAL
--#SEVERITY WARNING
::= { starentTraps 204 }
```

starThreshClearLicense NOTIFICATION-TYPE

```
OBJECTS { starThreshPct, starThreshMeasuredPct, starServiceType }
STATUS current
DESCRIPTION
```

"The threshold condition is now clear."

```
--#SUMMARY "[System] Threshold: license threshold for service %s threshold %d%% measured %d%%"
--#ARGUMENTS {2,0,1}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 205 }
```

starThreshSubscriberTotal NOTIFICATION-TYPE

```
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
```

"The total number of subscribers is above the configured threshold value.

Probable Cause: This is a user configurable threshold.

If the thresholding subsystem is configured to run in an 'alarm' model,  
a starThreshClearSubscriberTotal notification will be generated when the measured  
value falls below the threshold."

```
--#SUMMARY "[System] Threshold: subscriber total threshold; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

--#SEVERITY WARNING
 ::= { starentTraps 206 }

starThreshClearSubscriberTotal NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
"The threshold condition is now clear."
--#SUMMARY "[System] Threshold: subscriber total threshold CLEAR; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starentTraps 207 }

starThreshSubscriberActive NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
"The total number of active subscribers is above the configured threshold value.

        Probable Cause: This is a user configurable threshold.

        If the thresholding subsystem is configured to run in an 'alarm' model,
        a starThreshClearSubscriberActive notification will be generated when the measured
        value falls below the threshold."
--#SUMMARY "[System] Threshold: active subscribers threshold; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY WARNING
 ::= { starentTraps 208 }

starThreshClearSubscriberActive NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
"The threshold condition is now clear."
--#SUMMARY "[System] Threshold: active subscribers threshold CLEAR; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starentTraps 209 }

starThreshPortRxUtil NOTIFICATION-TYPE
OBJECTS { starPortSlot, starPortNum, starThreshPct, starThreshMeasuredPct, starSlotSerialNumber }
STATUS current
DESCRIPTION
"The Rx utilization of the port has exceeded the configured threshold value during
the current monitoring period.

        Probable Cause: This is a user configurable threshold.

        If the thresholding subsystem is configured to run in an 'alarm' model,
        a starThreshClearPortRxUtil notification will be generated when the measured
        value falls below the threshold."
--#SUMMARY "[System] Threshold: port rx utilization threshold on slot %d port %d threshold %d%%
measured %d%% UUID %s"
--#ARGUMENTS {0,1,2,3}
--#STATE OPERATIONAL
--#SEVERITY WARNING
 ::= { starentTraps 210 }

starThreshClearPortRxUtil NOTIFICATION-TYPE
OBJECTS { starPortSlot, starPortNum, starThreshPct, starThreshMeasuredPct, starSlotSerialNumber }
STATUS current
DESCRIPTION
"The threshold condition is now clear."

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

--#SUMMARY "[System] Threshold: port rx utilization threshold clear on slot %d port %d threshold %d%%
measured %d%% UUID %s"
--#ARGUMENTS {0,1,2,3,4}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 211 }

```

```

starThreshPortTxUtil NOTIFICATION-TYPE
OBJECTS { starPortSlot, starPortNum, starThreshPct, starThreshMeasuredPct, starSlotSerialNumber }
STATUS current
DESCRIPTION
"The Tx utilization of the port has exceeded the configured threshold value during
the current monitoring period.

```

Probable Cause: This is a user configurable threshold.

If the thresholding subsystem is configured to run in an 'alarm' model,  
a starThreshClearPortTxUtil notification will be generated when the measured  
value falls below the threshold."

```

--#SUMMARY "[System] Threshold: port tx utilization threshold on slot %d port %d threshold %d%%
measured %d%% UUID %s"
--#ARGUMENTS {0,1,2,3,4}
--#STATE OPERATIONAL
--#SEVERITY WARNING
::= { starentTraps 212 }

```

```

starThreshClearPortTxUtil NOTIFICATION-TYPE
OBJECTS { starPortSlot, starPortNum, starThreshPct, starThreshMeasuredPct, starSlotSerialNumber }
STATUS current
DESCRIPTION
"The threshold condition is now clear."
--#SUMMARY "[System] Threshold: port tx utilization threshold clear on slot %d port %d threshold %d%%
measured %d%% UUID %s"
--#ARGUMENTS {0,1,2,3,4}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 213 }

```

```

starThreshPortHighActivity NOTIFICATION-TYPE
OBJECTS { starPortSlot, starPortNum, starThreshPct, starThreshMeasuredPct, starSlotSerialNumber }
STATUS current
DESCRIPTION
"High activity on the port has exceeded the configured
threshold value during the current monitoring period.

```

Probable Cause: This is a user configurable threshold.

If the thresholding subsystem is configured to run in an 'alarm' model,  
a starThreshClearPortHighActivity notification will be generated when the measured  
value falls below the threshold."

```

--#SUMMARY "[System] Threshold: port high activity threshold on slot %d port %d threshold %d%%
measured %d%% UUID %s"
--#ARGUMENTS {0,1,2,3,4}
--#STATE OPERATIONAL
--#SEVERITY WARNING
::= { starentTraps 214 }

```

```

starThreshClearPortHighActivity NOTIFICATION-TYPE
OBJECTS { starPortSlot, starPortNum, starThreshPct, starThreshMeasuredPct, starSlotSerialNumber }
STATUS current
DESCRIPTION
"The threshold condition is now clear."
--#SUMMARY "[System] Threshold: port high activity threshold clear on slot %d port %d threshold %d%%
measured %d%% UUID %s"
--#ARGUMENTS {0,1,2,3,4}
--#STATE OPERATIONAL

```



## STARENT-MIB DEFINITIONS ::= BEGIN

```

--#SEVERITY INFORMATIONAL
 ::= { starentTraps 215 }

starThreshAAAAAuthFail NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
"The number of AAA authentication failures has exceeded the configured threshold
during the current monitoring period.

    Probable Cause: This is a user configurable threshold.

    If the thresholding subsystem is configured to run in an 'alarm' model,
    a starThreshClearAAAAAuthFail notification will be generated when the measured
    value falls below the threshold."
--#SUMMARY "[System] Threshold: AAA authentication failures threshold; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY WARNING
 ::= { starentTraps 216 }

starThreshClearAAAAAuthFail NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
"The threshold condition is now clear."
--#SUMMARY "[System] Threshold: AAA authentication failures threshold CLEAR; measured %d threshold
%d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starentTraps 217 }

starThreshAAAAAuthFailRate NOTIFICATION-TYPE
OBJECTS { starThreshPct, starThreshMeasuredPct }
STATUS current
DESCRIPTION
"The percentage of AAA authentication requests which failed has exceeded the configured threshold
during the current monitoring period.

    Probable Cause: This is a user configurable threshold.

    If the thresholding subsystem is configured to run in an 'alarm' model,
    a starThreshClearAAAAAuthFailRate notification will be generated when the measured
    value falls below the threshold."
--#SUMMARY "[System] Threshold: AAA authentication failure rate threshold for threshold %d%% measured
%d%%"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY WARNING
 ::= { starentTraps 218 }

starThreshClearAAAAAuthFailRate NOTIFICATION-TYPE
OBJECTS { starThreshPct, starThreshMeasuredPct }
STATUS current
DESCRIPTION
"The threshold condition is now clear."
--#SUMMARY "[System] Threshold: AAA authentication failure rate threshold clear for threshold %d%%
measured %d%%"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starentTraps 219 }

starThreshAAAAcctFail NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS current

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

DESCRIPTION
"The number of AAA accounting failures has exceeded the configured threshold
during the current monitoring period.

    Probable Cause: This is a user configurable threshold.

    If the thresholding subsystem is configured to run in an 'alarm' model,
    a starThreshClearAAAacctFail notification will be generated when the measured
    value falls below the threshold."
--#SUMMARY "[System] Threshold: AAA accounting failures threshold; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY WARNING
 ::= { starentTraps 220 }

starThreshClearAAAacctFail NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
"The threshold condition is now clear."
--#SUMMARY "[System] Threshold: AAA accounting failures threshold CLEAR; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starentTraps 221 }

starThreshAAAacctFailRate NOTIFICATION-TYPE
OBJECTS { starThreshPct, starThreshMeasuredPct }
STATUS current
DESCRIPTION
"The percentage of AAA accounting requests which failed has exceeded the configured threshold
during the current monitoring period.

    Probable Cause: This is a user configurable threshold.

    If the thresholding subsystem is configured to run in an 'alarm' model,
    a starThreshClearAAAacctFailRate notification will be generated when the measured
    value falls below the threshold."
--#SUMMARY "[System] Threshold: AAA accounting failure rate threshold for threshold %d%% measured
%d%%"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY WARNING
 ::= { starentTraps 222 }

starThreshClearAAAacctFailRate NOTIFICATION-TYPE
OBJECTS { starThreshPct, starThreshMeasuredPct }
STATUS current
DESCRIPTION
"The threshold condition is now clear."
--#SUMMARY "[System] Threshold: AAA accounting failure rate threshold clear for threshold %d%%
measured %d%%"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starentTraps 223 }

starThreshAAARetryRate NOTIFICATION-TYPE
OBJECTS { starThreshPct, starThreshMeasuredPct }
STATUS current
DESCRIPTION
"The percentage of AAA requests which has to be retried has exceeded the configured threshold
during the current monitoring period.

    Probable Cause: This is a user configurable threshold.

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

        If the thresholding subsystem is configured to run in an 'alarm' model,
        a starThreshClearAAARetryRate notification will be generated when the measured
        value falls below the threshold."
--#SUMMARY "[System] Threshold: AAA retry rate threshold for threshold %d%% measured %d%%"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY WARNING
::= { starentTraps 224 }

starThreshClearAAARetryRate NOTIFICATION-TYPE
OBJECTS { starThreshPct, starThreshMeasuredPct }
STATUS current
DESCRIPTION
"The threshold condition is now clear."
--#SUMMARY "[System] Threshold: AAA retry rate threshold clear for threshold %d%% measured %d%%"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 225 }

starThreshCallSetup NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
"The number of call setup operations has exceeded the configured threshold during the
current monitoring period.

        Probable Cause: This is a user configurable threshold.

        If the thresholding subsystem is configured to run in an 'alarm' model,
        a starThreshClearCallSetup notification will be generated when the measured
        value falls below the threshold."
--#SUMMARY "[System] Threshold: call setups threshold; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY WARNING
::= { starentTraps 226 }

starThreshClearCallSetup NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
"The threshold condition is now clear."
--#SUMMARY "[System] Threshold: call setups threshold CLEAR; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 227 }

starThreshCallSetupFailure NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
"The number of call setup operations which failed has exceeded the configured threshold during the
current monitoring period.

        Probable Cause: This is a user configurable threshold.

        If the thresholding subsystem is configured to run in an 'alarm' model,
        a starThreshClearCallSetupFailure notification will be generated when the measured
        value falls below the threshold."
--#SUMMARY "[System] Threshold: call setup failures threshold; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY WARNING
::= { starentTraps 228 }

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

starThreshClearCallSetupFailure NOTIFICATION-TYPE
    OBJECTS { starThreshInt, starThreshMeasuredInt }
    STATUS current
    DESCRIPTION
        "The threshold condition is now clear."
    --#SUMMARY "[System] Threshold: call setup failures threshold CLEAR; measured %d threshold %d"
    --#ARGUMENTS {1,0}
    --#STATE OPERATIONAL
    --#SEVERITY INFORMATIONAL
    ::= { starentTraps 229 }

starThreshCallRejectNoResource NOTIFICATION-TYPE
    OBJECTS { starThreshInt, starThreshMeasuredInt }
    STATUS current
    DESCRIPTION
        "The number of call setup operations which were rejected due to a no resource condition
        has exceeded the configured threshold during the current monitoring period.

        Probable Cause: This is a user configurable threshold.

        If the thresholding subsystem is configured to run in an 'alarm' model,
        a starThreshClearCallRejectNoResource notification will be generated when the measured
        value falls below the threshold."
    --#SUMMARY "[System] Threshold: calls rejects for no resource condition threshold; measured %d
    threshold %d"
    --#ARGUMENTS {1,0}
    --#STATE OPERATIONAL
    --#SEVERITY WARNING
    ::= { starentTraps 230 }

starThreshClearCallRejectNoResource NOTIFICATION-TYPE
    OBJECTS { starThreshInt, starThreshMeasuredInt }
    STATUS current
    DESCRIPTION
        "The threshold condition is now clear."
    --#SUMMARY "[System] Threshold: calls rejects for no resource condition threshold CLEAR; measured %d
    threshold %d"
    --#ARGUMENTS {1,0}
    --#STATE OPERATIONAL
    --#SEVERITY INFORMATIONAL
    ::= { starentTraps 231 }

starThreshPacketsFilteredDropped NOTIFICATION-TYPE
    OBJECTS { starThreshInt, starThreshMeasuredInt }
    STATUS current
    DESCRIPTION
        "The number of user data packets filtered has exceeded the configured threshold
        for the current monitoring period.

        Probable Cause: This is a user configurable threshold.

        If the thresholding subsystem is configured to run in an 'alarm' model,
        a starThreshClearPacketsFilteredDropped notification will be generated when the measured
        value falls below the threshold."
    --#SUMMARY "[System] Threshold: user packets filtered threshold; measured %d threshold %d"
    --#ARGUMENTS {1,0}
    --#STATE OPERATIONAL
    --#SEVERITY WARNING
    ::= { starentTraps 232 }

starThreshClearPacketsFilteredDropped NOTIFICATION-TYPE
    OBJECTS { starThreshInt, starThreshMeasuredInt }
    STATUS current
    DESCRIPTION
        "The threshold condition is now clear."
    --#SUMMARY "[System] Threshold: user packets filtered threshold CLEAR; measured %d threshold %d"

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starentTraps 233 }

starThreshPacketsForwarded NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
"The number of user data packets forwarded has exceeded the configured threshold
for the current monitoring period.

    Probable Cause: This is a user configurable threshold.

    If the thresholding subsystem is configured to run in an 'alarm' model,
    a starThreshClearPacketsForwarded notification will be generated when the measured
    value falls below the threshold."
--#SUMMARY "[System] Threshold: user packets forwarded threshold; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY WARNING
 ::= { starentTraps 234 }

starThreshClearPacketsForwarded NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
"The threshold condition is now clear."
--#SUMMARY "[System] Threshold: user packets forwarded threshold CLEAR; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starentTraps 235 }

starThreshSessCPUThroughput NOTIFICATION-TYPE
OBJECTS { starCPUSlot, starCPUNumber, starThreshMB, starThreshMeasuredMB }
STATUS current
DESCRIPTION
"The total session throughout for the specified processor has exceeded the configured
threshold for the current monitoring period.

    Probable Cause: This is a user configurable threshold.

    If the thresholding subsystem is configured to run in an 'alarm' model,
    a starThreshClearSessCPUThroughput notification will be generated when the measured
    value falls below the threshold."
--#SUMMARY "[Card %d] Threshold: CPU throughput threshold on CPU %d; measured %d threshold %d"
--#ARGUMENTS {0,1,3,2}
--#STATE OPERATIONAL
--#SEVERITY WARNING
 ::= { starentTraps 236 }

starThreshClearSessCPUThroughput NOTIFICATION-TYPE
OBJECTS { starCPUSlot, starCPUNumber, starThreshMB, starThreshMeasuredMB }
STATUS current
DESCRIPTION
"The threshold condition is now clear."
--#SUMMARY "[Card %d] Threshold: CPU throughput threshold CLEAR on CPU %d; measured %d threshold %d"
--#ARGUMENTS {0,1,3,2}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starentTraps 237 }

starThreshIPPoolAvail NOTIFICATION-TYPE
OBJECTS { starIPPoolContext, starIPPoolGroup, starThreshPct, starThreshMeasuredPct }
STATUS current
DESCRIPTION

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

    "The available IP pool addresses in a context has fallen below the configured
    threshold

        Probable Cause: This is a user configurable threshold.

        If the thresholding subsystem is configured to run in an 'alarm' model,
        a starThreshClearIPPoolAvail notification will be generated when the measured
        value falls below the threshold."
    --#SUMMARY "[System] Threshold: IP Pool availability threshold for context %s pool group %s threshold
    %d%% measured %d%%"
    --#ARGUMENTS {0,1,2,3}
    --#STATE OPERATIONAL
    --#SEVERITY WARNING
    ::= { starentTraps 238 }

starThreshClearIPPoolAvail NOTIFICATION-TYPE
    OBJECTS { starIPPoolContext, starIPPoolGroup, starThreshPct, starThreshMeasuredPct }
    STATUS current
    DESCRIPTION
        "The threshold condition is now clear."
    --#SUMMARY "[System] Threshold: IP Pool availability threshold clear for context %s pool group %s
    threshold %d%% measured %d%%"
    --#ARGUMENTS {0,1,2,3}
    --#STATE OPERATIONAL
    --#SEVERITY INFORMATIONAL
    ::= { starentTraps 239 }

starThreshCPUUtilization10Sec NOTIFICATION-TYPE
    OBJECTS { starCPUSlot, starCPUNumber, starThreshPct, starThreshMeasuredPct }
    STATUS current
    DESCRIPTION
        "The CPU utilization of 10 second measurement for the identified processor has exceeded for
    configured
        threshold value for the current monitoring period."
    --#SUMMARY "[Card] Threshold: 10 Second Average utilization for card %d CPU %d threshold %d%%
    measured %d%%"
    --#ARGUMENTS {0,1,2,3}
    --#STATE OPERATIONAL
    --#SEVERITY WARNING
    ::= { starentTraps 240 }

starThreshClearCPUUtilization10Sec NOTIFICATION-TYPE
    OBJECTS { starCPUSlot, starCPUNumber, starThreshPct, starThreshMeasuredPct }
    STATUS current
    DESCRIPTION
        "The threshold condition is now clear."
    --#SUMMARY "[Card] Threshold: 10 Second Average utilization clear for card %dCPU %d threshold %d%%
    measured %d%%"
    --#ARGUMENTS {0,1,2,3}
    --#STATE OPERATIONAL
    --#SEVERITY INFORMATIONAL
    ::= { starentTraps 241 }

starThreshCPULoad NOTIFICATION-TYPE
    OBJECTS { starCPUSlot, starCPUNumber, starThreshInt, starThreshMeasuredInt }
    STATUS current
    DESCRIPTION
        "The CPU load for the identified processor has exceeded for configured
        threshold value for the current monitoring period."
    --#SUMMARY "[Card %d] Threshold: CPU Load for CPU %d; measured %d threshold %d"
    --#ARGUMENTS {0,1,3,2}
    --#STATE OPERATIONAL
    --#SEVERITY WARNING
    ::= { starentTraps 242 }

starThreshClearCPULoad NOTIFICATION-TYPE

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

OBJECTS { starCPUSlot, starCPUNumber, starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
"The threshold condition is now clear."
--#SUMMARY "[Card %d] Threshold: CPU Load CLEAR for CPU %d; measured %d threshold %d"
--#ARGUMENTS {0,1,3,2}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 243 }

starThreshCPUMemUsage NOTIFICATION-TYPE
OBJECTS { starCPUSlot, starCPUNumber, starThreshPct, starThreshMeasuredPct }
STATUS current
DESCRIPTION
"The CPU mem usage for the identified processor has exceeded for configured
threshold value for the current monitoring period."
--#SUMMARY "[Card] Threshold: CPU Memory Usage for card %d CPU %d threshold %d%% measured %d%%"
--#ARGUMENTS {0,1,2,3}
--#STATE OPERATIONAL
--#SEVERITY WARNING
::= { starentTraps 244 }

starThreshClearCPUMemUsage NOTIFICATION-TYPE
OBJECTS { starCPUSlot, starCPUNumber, starThreshPct, starThreshMeasuredPct }
STATUS current
DESCRIPTION
"The threshold condition is now clear."
--#SUMMARY "[Card] Threshold: Memory Usage clear for card %d CPU %d threshold %d%% measured %d%%"
--#ARGUMENTS {0,1,2,3}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 245 }

starThreshPDSNSessions NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
"The total number of PDSN sessions is above the configured threshold value."
--#SUMMARY "[System] Threshold: Total PDSN Sessions; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY WARNING
::= { starentTraps 246 }

starThreshClearPDSNSessions NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
"The threshold condition is now clear."
--#SUMMARY "[System] Threshold: Total PDSN Sessions CLEAR; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 247 }

starThreshGGSNSessions NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
"The total number of GGSN sessions is above the configured threshold value."
--#SUMMARY "[System] Threshold: Total GGSN Sessions; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY WARNING
::= { starentTraps 248 }

starThreshClearGGSNSessions NOTIFICATION-TYPE

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
"The threshold condition is now clear."
--#SUMMARY "[System] Threshold: Total GGSN Sessions CLEAR; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 249 }

starThreshHASessions NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
"The total number of HA sessions is above the configured threshold value."
--#SUMMARY "[System] Threshold: Total HA Sessions; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY WARNING
::= { starentTraps 250 }

starThreshClearHASessions NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
"The threshold condition is now clear."
--#SUMMARY "[System] Threshold: Total HA Sessions CLEAR; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 251 }

starThreshLNSSessions NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
"The total number of L2TP LNS sessions is above the configured threshold value."
--#SUMMARY "[System] Threshold: Total L2TP LNS Sessions; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY WARNING
::= { starentTraps 252 }

starThreshClearLNSSessions NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
"The threshold condition is now clear."
--#SUMMARY "[System] Threshold: Total L2TP LNS Sessions CLEAR; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 253 }

starThreshPerServicePDSNSessions NOTIFICATION-TYPE
OBJECTS { starServiceVpnName, starServiceServName, starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
"The total number of PDSN sessions in a service is above the configured threshold value."
--#SUMMARY "[System] Threshold: Per Service PDSN Sessions, context %s service name %s; measured %d
threshold %d"
--#ARGUMENTS {0,1,3,2}
--#STATE OPERATIONAL
--#SEVERITY WARNING
::= { starentTraps 254 }

```



## STARENT-MIB DEFINITIONS ::= BEGIN

```

starThreshClearPerServicePDSNSessions NOTIFICATION-TYPE
    OBJECTS { starServiceVpnName, starServiceServName, starThreshInt, starThreshMeasuredInt }
    STATUS current
    DESCRIPTION
        "The threshold condition is now clear."
    --#SUMMARY "[System] Threshold: Per Sevice PDSN Sessions CLEAR, context %s service name %s; measured
%d threshold %d"
    --#ARGUMENTS {0,1,3,2}
    --#STATE OPERATIONAL
    --#SEVERITY INFORMATIONAL
    ::= { starentTraps 255 }

starThreshPerServiceGGSNSessions NOTIFICATION-TYPE
    OBJECTS { starServiceVpnName, starServiceServName, starThreshInt, starThreshMeasuredInt }
    STATUS current
    DESCRIPTION
        "The total number of GGSN sessions in a service is above the configured threshold value."
    --#SUMMARY "[System] Threshold: Per Sevice GGSN Sessions, context %s service name %s; measured %d
threshold %d"
    --#ARGUMENTS {0,1,3,2}
    --#STATE OPERATIONAL
    --#SEVERITY WARNING
    ::= { starentTraps 256 }

starThreshClearPerServiceGGSNSessions NOTIFICATION-TYPE
    OBJECTS { starServiceVpnName, starServiceServName, starThreshInt, starThreshMeasuredInt }
    STATUS current
    DESCRIPTION
        "The threshold condition is now clear."
    --#SUMMARY "[System] Threshold: Per Sevice GGSN Sessions CLEAR, context %s service name %s; measured
%d threshold %d"
    --#ARGUMENTS {0,1,3,2}
    --#STATE OPERATIONAL
    --#SEVERITY INFORMATIONAL
    ::= { starentTraps 257 }

starThreshPerServiceHASessions NOTIFICATION-TYPE
    OBJECTS { starServiceVpnName, starServiceServName, starThreshInt, starThreshMeasuredInt }
    STATUS current
    DESCRIPTION
        "The total number of HA sessions in a service is above the configured threshold value."
    --#SUMMARY "[System] Threshold: Per Sevice HA Sessions, context %s service name %s; measured %d
threshold %d"
    --#ARGUMENTS {0,1,3,2}
    --#STATE OPERATIONAL
    --#SEVERITY WARNING
    ::= { starentTraps 258 }

starThreshClearPerServiceHASessions NOTIFICATION-TYPE
    OBJECTS { starServiceVpnName, starServiceServName, starThreshInt, starThreshMeasuredInt }
    STATUS current
    DESCRIPTION
        "The threshold condition is now clear."
    --#SUMMARY "[System] Threshold: Per Sevice HA Sessions CLEAR, context %s service name %s; measured %d
threshold %d"
    --#ARGUMENTS {0,1,3,2}
    --#STATE OPERATIONAL
    --#SEVERITY INFORMATIONAL
    ::= { starentTraps 259 }

starThreshPerServiceLNSSessions NOTIFICATION-TYPE
    OBJECTS { starServiceVpnName, starServiceServName, starThreshInt, starThreshMeasuredInt }
    STATUS current
    DESCRIPTION
        "The total number of L2TP LNS sessions in a service is above the configured threshold value."
    --#SUMMARY "[System] Threshold: Per Sevice L2TP LNS Sessions, context %s service name %s; measured %d
threshold %d"

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

--#ARGUMENTS {0,1,3,2}
--#STATE OPERATIONAL
--#SEVERITY WARNING
::= { starentTraps 260 }

starThreshClearPerServiceLNSSessions NOTIFICATION-TYPE
  OBJECTS { starServiceVpnName, starServiceServName, starThreshInt, starThreshMeasuredInt }
  STATUS current
  DESCRIPTION
    "The threshold condition is now clear."
  --#SUMMARY "[System] Threshold: Per Sevice L2TP LNS Sessions CLEAR, context %s service name %s;
measured %d threshold %d"
  --#ARGUMENTS {0,1,3,2}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 261 }

starThreshIPPoolHold NOTIFICATION-TYPE
  OBJECTS { starIPPoolContext, starIPPoolName, starThreshPct, starThreshMeasuredPct }
  STATUS current
  DESCRIPTION
    "The percentage IP pool addresses in HOLD state in a context has gone above the configured
    threshold"
  --#SUMMARY "[System] Threshold: IP Pool Address in Hold State for context %s pool %s threshold %d%%
measured %d%%"
  --#ARGUMENTS {0,1,2,3}
  --#STATE OPERATIONAL
  --#SEVERITY WARNING
  ::= { starentTraps 262 }

starThreshClearIPPoolHold NOTIFICATION-TYPE
  OBJECTS { starIPPoolContext, starIPPoolName, starThreshPct, starThreshMeasuredPct }
  STATUS current
  DESCRIPTION
    "The threshold condition is now clear."
  --#SUMMARY "[System] Threshold: IP Pool Address in Hold State clear for context %s pool %s threshold
%d%% measured %d%%"
  --#ARGUMENTS {0,1,2,3}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 263 }

starThreshIPPoolUsed NOTIFICATION-TYPE
  OBJECTS { starIPPoolContext, starIPPoolName, starThreshPct, starThreshMeasuredPct }
  STATUS current
  DESCRIPTION
    "The percentage IP pool addresses in USED state in a context has gone above the configured
    threshold"
  --#SUMMARY "[System] Threshold: IP Pool Address in Used State for context %s pool %s threshold %d%%
measured %d%%"
  --#ARGUMENTS {0,1,2,3}
  --#STATE OPERATIONAL
  --#SEVERITY WARNING
  ::= { starentTraps 264 }

starThreshClearIPPoolUsed NOTIFICATION-TYPE
  OBJECTS { starIPPoolContext, starIPPoolName, starThreshPct, starThreshMeasuredPct }
  STATUS current
  DESCRIPTION
    "The threshold condition is now clear."
  --#SUMMARY "[System] Threshold: IP Pool Address in Used State clear for context %s pool %s threshold
%d%% measured %d%%"
  --#ARGUMENTS {0,1,2,3}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 265 }

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

starThreshIPPoolRelease NOTIFICATION-TYPE
    OBJECTS { starIPPoolContext, starIPPoolName, starThreshPct, starThreshMeasuredPct }
    STATUS current
    DESCRIPTION
        "The percentage IP pool addresses in RELEASE state in a context has gone above the configured
        threshold"
    --#SUMMARY "[System] Threshold: IP Pool Address in Release State for context %s pool %s threshold
%d%% measured %d%%"
    --#ARGUMENTS {0,1,2,3}
    --#STATE OPERATIONAL
    --#SEVERITY WARNING
    ::= { starentTraps 266 }

starThreshClearIPPoolRelease NOTIFICATION-TYPE
    OBJECTS { starIPPoolContext, starIPPoolName, starThreshPct, starThreshMeasuredPct }
    STATUS current
    DESCRIPTION
        "The threshold condition is now clear."
    --#SUMMARY "[System] Threshold: IP Pool Address in Release State clear for context %s pool %s
threshold %d%% measured %d%%"
    --#ARGUMENTS {0,1,2,3}
    --#STATE OPERATIONAL
    --#SEVERITY INFORMATIONAL
    ::= { starentTraps 267 }

starThreshIPPoolFree NOTIFICATION-TYPE
    OBJECTS { starIPPoolContext, starIPPoolName, starThreshPct, starThreshMeasuredPct }
    STATUS current
    DESCRIPTION
        "The percentage IP pool addresses in HOLD state in a context has gone below the configured
        threshold"
    --#SUMMARY "[System] Threshold: IP Pool Address in Free State for context %s pool %s threshold %d%%
measured %d%%"
    --#ARGUMENTS {0,1,2,3}
    --#STATE OPERATIONAL
    --#SEVERITY WARNING
    ::= { starentTraps 268 }

starThreshClearIPPoolFree NOTIFICATION-TYPE
    OBJECTS { starIPPoolContext, starIPPoolName, starThreshPct, starThreshMeasuredPct }
    STATUS current
    DESCRIPTION
        "The threshold condition is now clear."
    --#SUMMARY "[System] Threshold: IP Pool Address in Free State clear for context %s pool %s threshold
%d%% measured %d%%"
    --#ARGUMENTS {0,1,2,3}
    --#STATE OPERATIONAL
    --#SEVERITY INFORMATIONAL
    ::= { starentTraps 269 }

starThreshAAAacctArchive NOTIFICATION-TYPE
    OBJECTS { starThreshInt, starThreshMeasuredInt }
    STATUS current
    DESCRIPTION
        "The AAA accounting archive size has gone above the configured
        threshold"
    --#SUMMARY "[System] Threshold: AAA Accounting Archive Size; measured %d threshold %d"
    --#ARGUMENTS {1,0}
    --#STATE OPERATIONAL
    --#SEVERITY WARNING
    ::= { starentTraps 270 }

starThreshClearAAAacctArchive NOTIFICATION-TYPE
    OBJECTS { starThreshInt, starThreshMeasuredInt }
    STATUS current
    DESCRIPTION

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

    "The threshold condition is now clear."
    --#SUMMARY "[System] Threshold: AAA Accounting Archive Size CLEAR; measured %d threshold %d"
    --#ARGUMENTS {1,0}
    --#STATE OPERATIONAL
    --#SEVERITY INFORMATIONAL
    ::= { starentTraps 271 }

starThreshPortSpecRxUtil NOTIFICATION-TYPE
    OBJECTS { starPortSlot, starPortNum, starThreshPct, starThreshMeasuredPct }
    STATUS deprecated
    DESCRIPTION
    "The Rx utilization of the port has exceeded the configured threshold value during
    the current monitoring period.

        Probable Cause: This is a user configurable threshold.

        If the thresholding subsystem is configured to run in an 'alarm' model,
        a starThreshClearPortSpecRxUtil notification will be generated when the measured
        value falls below the threshold."
    --#SUMMARY "[System] Threshold: port rx utilization threshold on card %d port %d; measured %d
threshold %d"
    --#ARGUMENTS {0,1,3,2}
    --#STATE OPERATIONAL
    --#SEVERITY WARNING
    ::= { starentTraps 272 }

starThreshClearPortSpecRxUtil NOTIFICATION-TYPE
    OBJECTS { starPortSlot, starPortNum, starThreshPct, starThreshMeasuredPct }
    STATUS deprecated
    DESCRIPTION
    "The threshold condition is now clear."
    --#SUMMARY "[System] Threshold: port rx utilization threshold CLEAR on card %d port %d; measured %d
threshold %d"
    --#ARGUMENTS {0,1,3,2}
    --#STATE OPERATIONAL
    --#SEVERITY INFORMATIONAL
    ::= { starentTraps 273 }

starThreshPortSpecTxUtil NOTIFICATION-TYPE
    OBJECTS { starPortSlot, starPortNum, starThreshPct, starThreshMeasuredPct }
    STATUS deprecated
    DESCRIPTION
    "The Tx utilization of the port has exceeded the configured threshold value during
    the current monitoring period.

        Probable Cause: This is a user configurable threshold.

        If the thresholding subsystem is configured to run in an 'alarm' model,
        a starThreshClearPortSpecTxUtil notification will be generated when the measured
        value falls below the threshold."
    --#SUMMARY "[System] Threshold: port tx utilization threshold on card %d port %d; measured %d
threshold %d"
    --#ARGUMENTS {0,1,3,2}
    --#STATE OPERATIONAL
    --#SEVERITY WARNING
    ::= { starentTraps 274 }

starThreshClearPortSpecTxUtil NOTIFICATION-TYPE
    OBJECTS { starPortSlot, starPortNum, starThreshPct, starThreshMeasuredPct }
    STATUS deprecated
    DESCRIPTION
    "The threshold condition is now clear."
    --#SUMMARY "[System] Threshold: port tx utilization threshold CLEAR on card %d port %d; measured %d
threshold %d"
    --#ARGUMENTS {0,1,3,2}
    --#STATE OPERATIONAL

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

--#SEVERITY INFORMATIONAL
 ::= { starentTraps 275 }

starThreshHACallSetupRate NOTIFICATION-TYPE
 OBJECTS { starServiceVpnName, starThreshInt, starThreshMeasuredInt }
 STATUS current
 DESCRIPTION
    "The per-context HA call setup rate (calls per second) has gone above the configured threshold

    Probable Cause: This is a user configurable threshold.

    If the thresholding subsystem is configured to run in an 'alarm' model,
    a starThreshClearHACallSetupRate notification will be generated when the measured
    value falls below the threshold."
--#SUMMARY "[VPN %s] Threshold: HA Per-Context Call Setup Rate; measured %d (cps) threshold %d (cps)"
--#ARGUMENTS {0,2,1}
--#STATE OPERATIONAL
--#SEVERITY WARNING
 ::= { starentTraps 276 }

starThreshClearHACallSetupRate NOTIFICATION-TYPE
 OBJECTS { starServiceVpnName, starThreshInt, starThreshMeasuredInt }
 STATUS current
 DESCRIPTION
    "The threshold condition is now clear."
--#SUMMARY "[VPN %s] Threshold: HA Per-Context Call Setup Rate CLEAR; measured %d (cps) threshold %d
(cps)"
--#ARGUMENTS {0,2,1}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starentTraps 277 }

starThreshHASvcCallSetupRate NOTIFICATION-TYPE
 OBJECTS { starServiceVpnName, starServiceServName, starThreshInt, starThreshMeasuredInt }
 STATUS current
 DESCRIPTION
    "The per-service HA Call setup rate (calls per second) has gone above the configured threshold

    Probable Cause: This is a user configurable threshold.

    If the thresholding subsystem is configured to run in an 'alarm' model,
    a starThreshClearHASvcCallSetupRate notification will be generated when the measured
    value falls below the threshold."
--#SUMMARY "[Service HA-%s-%s] Threshold: HA Per-Service Call Setup Rate; measured %d (cps) threshold
%d (cps)"
--#ARGUMENTS {0,1,3,2}
--#STATE OPERATIONAL
--#SEVERITY WARNING
 ::= { starentTraps 278 }

starThreshClearHASvcCallSetupRate NOTIFICATION-TYPE
 OBJECTS { starServiceVpnName, starServiceServName, starThreshInt, starThreshMeasuredInt }
 STATUS current
 DESCRIPTION
    "The threshold condition is now clear."
--#SUMMARY "[Service HA-%s-%s] Threshold: HA Per-Service Call Setup Rate CLEAR; measured %d (cps)
threshold %d (cps)"
--#ARGUMENTS {0,1,3,2}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starentTraps 279 }

starThreshHASvcRegReplyError NOTIFICATION-TYPE
 OBJECTS { starServiceVpnName, starServiceServName, starThreshInt, starThreshMeasuredInt }
 STATUS current
 DESCRIPTION
    "The per-service HA Reg Reply Error count has gone above the configured threshold

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

        Probable Cause: This is a user configurable threshold.

        If the thresholding subsystem is configured to run in an 'alarm' model,
        a starThreshClearHASvcRegReplyError notification will be generated when the measured
        value falls below the threshold."
--#SUMMARY "[Service HA-%s-%s] Threshold: HA Per-Service Reg Reply Error; measured %d threshold %d"
--#ARGUMENTS {0,1,3,2}
--#STATE OPERATIONAL
--#SEVERITY WARNING
 ::= { starentTraps 280 }

starThreshClearHASvcRegReplyError NOTIFICATION-TYPE
  OBJECTS { starServiceVpnName, starServiceServName, starThreshInt, starThreshMeasuredInt }
  STATUS current
  DESCRIPTION
    "The threshold condition is now clear."
--#SUMMARY "[Service HA-%s-%s] Threshold: HA Per-Service Reg Reply Error CLEAR; measured %d threshold
%d"
--#ARGUMENTS {0,1,3,2}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starentTraps 281 }

starThreshHASvcReregReplyError NOTIFICATION-TYPE
  OBJECTS { starServiceVpnName, starServiceServName, starThreshInt, starThreshMeasuredInt }
  STATUS current
  DESCRIPTION
    "The per-service HA Rereg Reply Error count has gone above the configured threshold

    Probable Cause: This is a user configurable threshold.

    If the thresholding subsystem is configured to run in an 'alarm' model,
    a starThreshClearHASvcReregReplyError notification will be generated when the measured
    value falls below the threshold."
--#SUMMARY "[Service HA-%s-%s] Threshold: HA Per-Service Rereg Reply Error; measured %d threshold %d"
--#ARGUMENTS {0,1,3,2}
--#STATE OPERATIONAL
--#SEVERITY WARNING
 ::= { starentTraps 282 }

starThreshClearHASvcReregReplyError NOTIFICATION-TYPE
  OBJECTS { starServiceVpnName, starServiceServName, starThreshInt, starThreshMeasuredInt }
  STATUS current
  DESCRIPTION
    "The threshold condition is now clear."
--#SUMMARY "[Service HA-%s-%s] Threshold: HA Per-Service Rereg Reply Error CLEAR; measured %d
threshold %d"
--#ARGUMENTS {0,1,3,2}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starentTraps 283 }

starThreshHASvcDeregReplyError NOTIFICATION-TYPE
  OBJECTS { starServiceVpnName, starServiceServName, starThreshInt, starThreshMeasuredInt }
  STATUS current
  DESCRIPTION
    "The per-service HA Dereg Reply Error count has gone above the configured threshold

    Probable Cause: This is a user configurable threshold.

    If the thresholding subsystem is configured to run in an 'alarm' model,
    a starThreshClearHASvcDeregReplyError notification will be generated when the measured
    value falls below the threshold."
--#SUMMARY "[Service HA-%s-%s] Threshold: HA Per-Service Dereg Reply Error; measured %d threshold %d"
--#ARGUMENTS {0,1,3,2}

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

--#STATE OPERATIONAL
--#SEVERITY WARNING
 ::= { starentTraps 284 }

starThreshClearHASvcDeregReplyError NOTIFICATION-TYPE
  OBJECTS { starServiceVpnName, starServiceServName, starThreshInt, starThreshMeasuredInt }
  STATUS current
  DESCRIPTION
    "The threshold condition is now clear."
  --#SUMMARY "[Service HA-%s-%s] Threshold: HA Per-Service Dereg Reply Error CLEAR; measured %d
threshold %d"
  --#ARGUMENTS {0,1,3,2}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 285 }

starThreshFASvcRegReplyError NOTIFICATION-TYPE
  OBJECTS { starServiceVpnName, starServiceServName, starThreshInt, starThreshMeasuredInt }
  STATUS current
  DESCRIPTION
    "The Per-Service FA Reg Reply Error count has gone above the configured threshold

    Probable Cause: This is a user configurable threshold.

    If the thresholding subsystem is configured to run in an 'alarm' model,
    a starThreshClearFASvcRegReplyError notification will be generated when the measured
    value falls below the threshold."
  --#SUMMARY "[Service FA-%s-%s] Threshold: FA Per-Service Reg Reply Error; measured %d threshold %d"
  --#ARGUMENTS {0,1,3,2}
  --#STATE OPERATIONAL
  --#SEVERITY WARNING
  ::= { starentTraps 286 }

starThreshClearFASvcRegReplyError NOTIFICATION-TYPE
  OBJECTS { starServiceVpnName, starServiceServName, starThreshInt, starThreshMeasuredInt }
  STATUS current
  DESCRIPTION
    "The threshold condition is now clear."
  --#SUMMARY "[Service FA-%s-%s] Threshold: FA Per-Service Reg Reply Error CLEAR; measured %d threshold
%d"
  --#ARGUMENTS {0,1,3,2}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 287 }

starThreshPDSNCallSetupRate NOTIFICATION-TYPE
  OBJECTS { starServiceVpnName, starThreshInt, starThreshMeasuredInt }
  STATUS current
  DESCRIPTION
    "The Per-Context PDSN Call Setup Rate (calls per second) has gone above the
    configured threshold

    Probable Cause: This is a user configurable threshold.

    If the thresholding subsystem is configured to run in an 'alarm' model,
    a starThreshClearPDSNCallSetupRate notification will be generated when the measured
    value falls below the threshold."
  --#SUMMARY "[VPN %s] Threshold: PDSN Per-Context Call Setup Rate; measured %d (cps) threshold %d
(cps)"
  --#ARGUMENTS {0,2,1}
  --#STATE OPERATIONAL
  --#SEVERITY WARNING
  ::= { starentTraps 288 }

starThreshClearPDSNCallSetupRate NOTIFICATION-TYPE
  OBJECTS { starServiceVpnName, starThreshInt, starThreshMeasuredInt }
  STATUS current

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

DESCRIPTION
"The threshold condition is now clear."
--#SUMMARY "[VPN %s] Threshold: PDSN Per-Context Call Setup Rate CLEAR; measured %d (cps) threshold
%d (cps)"
--#ARGUMENTS {0,2,1}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 289 }

starThreshPDSNSvcCallSetupRate NOTIFICATION-TYPE
OBJECTS { starServiceVpnName, starServiceServName, starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
"The Per-Service PDSN Call Setup Rate (calls per second) has gone above the
configured threshold

Probable Cause: This is a user configurable threshold.

If the thresholding subsystem is configured to run in an 'alarm' model,
a starThreshClearPDSNSvcCallSetupRate notification will be generated when the measured
value falls below the threshold."

--#SUMMARY "[Service PDSN-%s-%s] Threshold: PDSN Per-Service Call Setup Rate; measured %d (cps)
threshold %d (cps)"
--#ARGUMENTS {0,1,3,2}
--#STATE OPERATIONAL
--#SEVERITY WARNING
::= { starentTraps 290 }

starThreshClearPDSNSvcCallSetupRate NOTIFICATION-TYPE
OBJECTS { starServiceVpnName, starServiceServName, starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
"The threshold condition is now clear."
--#SUMMARY "[Service PDSN-%s-%s] Threshold: PDSN Per-Service Call Setup Rate CLEAR; measured %d (cps)
threshold %d (cps)"
--#ARGUMENTS {0,1,3,2}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 291 }

starThreshPDSNSvcAllRRPFailure NOTIFICATION-TYPE
OBJECTS { starServiceVpnName, starServiceServName, starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
"The Per-Service PDSN All RRP Failure count has gone above the configured threshold

Probable Cause: This is a user configurable threshold.

If the thresholding subsystem is configured to run in an 'alarm' model,
a starThreshClearPDSNSvcAllRRPFailure notification will be generated when the measured
value falls below the threshold."
--#SUMMARY "[Service PDSN-%s-%s] Threshold: PDSN Per-Service All RRP Failure; measured %d threshold
%d"
--#ARGUMENTS {0,1,3,2}
--#STATE OPERATIONAL
--#SEVERITY WARNING
::= { starentTraps 292 }

starThreshClearPDSNSvcAllRRPFailure NOTIFICATION-TYPE
OBJECTS { starServiceVpnName, starServiceServName, starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
"The threshold condition is now clear."
--#SUMMARY "[Service PDSN-%s-%s] Threshold: PDSN Per-Service All RRP Failure CLEAR; measured %d
threshold %d"

```



## STARENT-MIB DEFINITIONS ::= BEGIN

```

--#ARGUMENTS {0,1,3,2}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starentTraps 293 }

starThreshPDSNSvcAllRRQMsgDiscard NOTIFICATION-TYPE
  OBJECTS { starServiceVpnName, starServiceServName, starThreshInt, starThreshMeasuredInt }
  STATUS current
  DESCRIPTION
    "The Per-Service PDSN All RRQ Msg Discard count has gone above the configured threshold

    Probable Cause: This is a user configurable threshold.

    If the thresholding subsystem is configured to run in an 'alarm' model,
    a starThreshClearPDSNSvcAllRRQMsgDiscard notification will be generated when the measured
    value falls below the threshold."
  --#SUMMARY "[Service PDSN-%s-%s] Threshold: PDSN Per-Service All RRQ Msg Discard; measured %d
  threshold %d"
  --#ARGUMENTS {0,1,3,2}
  --#STATE OPERATIONAL
  --#SEVERITY WARNING
  ::= { starentTraps 294 }

starThreshClearPDSNSvcAllRRQMsgDiscard NOTIFICATION-TYPE
  OBJECTS { starServiceVpnName, starServiceServName, starThreshInt, starThreshMeasuredInt }
  STATUS current
  DESCRIPTION
    "The threshold condition is now clear."
  --#SUMMARY "[Service PDSN-%s-%s] Threshold: PDSN Per-Service All RRQ Msg Discard CLEAR; measured %d
  threshold %d"
  --#ARGUMENTS {0,1,3,2}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 295 }

starThreshPDSNSvcAllRACMsgDiscard NOTIFICATION-TYPE
  OBJECTS { starServiceVpnName, starServiceServName, starThreshInt, starThreshMeasuredInt }
  STATUS current
  DESCRIPTION
    "The Per-Service PDSN All RAC Msg Discard count has gone above the configured threshold

    Probable Cause: This is a user configurable threshold.

    If the thresholding subsystem is configured to run in an 'alarm' model,
    a starThreshClearPDSNSvcAllRACMsgDiscard notification will be generated when the measured
    value falls below the threshold."
  --#SUMMARY "[Service PDSN-%s-%s] Threshold: PDSN Per-Service All RAC Msg Discard; measured %d
  threshold %d"
  --#ARGUMENTS {0,1,3,2}
  --#STATE OPERATIONAL
  --#SEVERITY WARNING
  ::= { starentTraps 296 }

starThreshClearPDSNSvcAllRACMsgDiscard NOTIFICATION-TYPE
  OBJECTS { starServiceVpnName, starServiceServName, starThreshInt, starThreshMeasuredInt }
  STATUS current
  DESCRIPTION
    "The threshold condition is now clear."
  --#SUMMARY "[Service PDSN-%s-%s] Threshold: PDSN Per-Service All RAC Msg Discard CLEAR; measured %d
  threshold %d"
  --#ARGUMENTS {0,1,3,2}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 297 }

starThreshPDSNSvcAllPPPSendDiscard NOTIFICATION-TYPE
  OBJECTS { starServiceVpnName, starServiceServName, starThreshInt, starThreshMeasuredInt }

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

STATUS current
DESCRIPTION
    "The Per-Service PDSN All PPP Send Discard count has gone above the configured threshold

    Probable Cause: This is a user configurable threshold.

    If the thresholding subsystem is configured to run in an 'alarm' model,
    a starThreshClearPDSNSvcAllPPPSendDiscard notification will be generated when the measured
    value falls below the threshold."
--#SUMMARY "[Service PDSN-%s-%s] Threshold: PDSN Per-Service All PPP Send Discard; measured %d
threshold %d"
--#ARGUMENTS {0,1,3,2}
--#STATE OPERATIONAL
--#SEVERITY WARNING
::= { starentTraps 298 }

starThreshClearPDSNSvcAllPPPSendDiscard NOTIFICATION-TYPE
OBJECTS { starServiceVpnName, starServiceServName, starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
    "The threshold condition is now clear."
--#SUMMARY "[Service PDSN-%s-%s] Threshold: PDSN Per-Service All PPP Send Discard CLEAR; measured %d
threshold %d"
--#ARGUMENTS {0,1,3,2}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 299 }

starThreshAAAMgrQueue NOTIFICATION-TYPE
OBJECTS { starTaskInstance, starThreshPct, starThreshMeasuredPct }
STATUS current
DESCRIPTION
    "The Per-AAA Manager internal request queue usage has gone above the configured threshold

    Probable Cause: This is a user configurable threshold.

    If the thresholding subsystem is configured to run in an 'alarm' model,
    a starThreshClearAAAMgrQueue will be generated when the measured
    value falls below the threshold."
--#SUMMARY "[System] Threshold: AAA Mgr internal request queue for AAA Manager %d threshold %d%%
measured %d%%"
--#ARGUMENTS {0,1,2}
--#STATE OPERATIONAL
--#SEVERITY WARNING
::= { starentTraps 300 }

starThreshClearAAAMgrQueue NOTIFICATION-TYPE
OBJECTS { starTaskInstance, starThreshPct, starThreshMeasuredPct }
STATUS current
DESCRIPTION
    "The threshold condition is now clear."
--#SUMMARY "[System] Threshold: AAA Mgr internal request queue clear for AAA Manager %d threshold
%d%% measured %d%%"
--#ARGUMENTS {0,1,2}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 301 }

starThreshAAAAacctArchiveQueue1 NOTIFICATION-TYPE
OBJECTS { starTaskInstance, starThreshPct, starThreshMeasuredPct }
STATUS current
DESCRIPTION
    "The Per-Sessmgr Archive queue usage is above the configured threshold percentage

    Probable Cause: This is a user configurable threshold.

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

        If the thresholding subsystem is configured to run in an 'alarm' model,
        a starThreshClearAAAAcctArchiveQueue-1 notification will be generated when the measured
        value falls below the threshold."
--#SUMMARY "[System] Threshold: Sessmgr Archive Queue for SessMgr instance %d threshold %d%% measured
%d%%"
--#ARGUMENTS {0,1,2}
--#STATE OPERATIONAL
--#SEVERITY WARNING
 ::= { starentTraps 505 }

starThreshClearAAAAcctArchiveQueue1 NOTIFICATION-TYPE
OBJECTS { starTaskInstance, starThreshPct, starThreshMeasuredPct }
STATUS current
DESCRIPTION
    "The threshold condition is now clear."
--#SUMMARY "[System] Threshold:Sessmgr Archive Queue clear for SessMgr instance %d threshold %d%%
measured %d%%"
--#ARGUMENTS {0,1,2}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starentTraps 506 }

starThreshAAAAcctArchiveQueue2 NOTIFICATION-TYPE
OBJECTS { starTaskInstance, starThreshPct, starThreshMeasuredPct }
STATUS current
DESCRIPTION
    "The Sessmgr Archive queue usage is above the configured threshold percentage

    Probable Cause: This is a user configurable threshold.

    If the thresholding subsystem is configured to run in an 'alarm' model,
    a starThreshClearAAAAcctArchiveQueue-2 notification will be generated when the measured
    value falls below the threshold."
--#SUMMARY "[System] Threshold: Sessmgr Archive Queue for Sessmgr instance %d threshold %d%% measured
%d%%"
--#ARGUMENTS {0,1,2}
--#STATE OPERATIONAL
--#SEVERITY WARNING
 ::= { starentTraps 507 }

starThreshClearAAAAcctArchiveQueue2 NOTIFICATION-TYPE
OBJECTS { starTaskInstance, starThreshPct, starThreshMeasuredPct }
STATUS current
DESCRIPTION
    "The threshold condition is now clear."
--#SUMMARY "[System] Threshold: Sessmgr Archive Queue clear for Sessmgr instance %d threshold %d%%
measured %d%%"
--#ARGUMENTS {0,1,2}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starentTraps 508 }

starThreshAAAAcctArchiveQueue3 NOTIFICATION-TYPE
OBJECTS { starTaskInstance, starThreshPct, starThreshMeasuredPct }
STATUS current
DESCRIPTION
    "The Sessmgr Archive queue usage is above the configured threshold percentage

    Probable Cause: This is a user configurable threshold.

    If the thresholding subsystem is configured to run in an 'alarm' model,
    a starThreshClearAAAAcctArchiveQueue-3 notification will be generated when the measured
    value falls below the threshold."
--#SUMMARY "[System] Threshold: Sessmgr Archive Queue for Sessmgr instance %d threshold %d%% measured
%d%%"
--#ARGUMENTS {0,1,2}
--#STATE OPERATIONAL

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

--#SEVERITY WARNING
 ::= { starentTraps 509 }

starThreshClearAAAActArchiveQueue3 NOTIFICATION-TYPE
  OBJECTS { starTaskInstance, starThreshPct, starThreshMeasuredPct }
  STATUS current
  DESCRIPTION
    "The threshold condition is now clear."
  --#SUMMARY "[System] Threshold: Sessmgr Archive Queue Clear for Sessmgr instance %d threshold %d%%
measured %d%%"
  --#ARGUMENTS {0,1,2}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 510 }

starThreshDnsLookupSrvFailure NOTIFICATION-TYPE
  OBJECTS { starContextName, starThreshInt, starThreshMeasuredInt }
  STATUS current
  DESCRIPTION
    "The Total number of DNS SRV lookup failures  is above the configured threshold value.

    Probable Cause: This is a user configurable threshold.

    If the thresholding subsystem is configured to run in an 'alarm' model,
    a starThreshClearSrvLookupSrvFailure notification will be generated when the measured
    value falls below the threshold."
  --#SUMMARY "[System] Threshold: DNS SRV lookup failure; context %s measured %d threshold %d"
  --#ARGUMENTS {0,2,1}
  --#STATE OPERATIONAL
  --#SEVERITY WARNING
  ::= { starentTraps 511 }

starThreshClearDnsLookupSrvFailure NOTIFICATION-TYPE
  OBJECTS { starContextName, starThreshInt, starThreshMeasuredInt }
  STATUS current
  DESCRIPTION
    "The threshold condition is now clear."
  --#SUMMARY "[System] Threshold: DNS SRV lookup failure CLEAR; context %s measured %d threshold %d"
  --#ARGUMENTS {0,2,1}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 512 }

starThreshCPUOrbsWarn NOTIFICATION-TYPE
  OBJECTS { starCPUSlot, starCPUNumber, starThreshPct, starThreshMeasuredPct }
  STATUS current
  DESCRIPTION
    "The ORBs task has exceeding the CPU usage configured as a warning"
  --#SUMMARY "[System] Threshold: ORBs process CPU warning on card %d CPU %d threshold %d%% measured
%d%%"
  --#ARGUMENTS {0,1,2,3}
  --#STATE OPERATIONAL
  --#SEVERITY WARNING
  ::= { starentTraps 302 }

starThreshClearCPUOrbsWarn NOTIFICATION-TYPE
  OBJECTS { starCPUSlot, starCPUNumber, starThreshPct, starThreshMeasuredPct }
  STATUS current
  DESCRIPTION
    "The threshold condition is now clear"
  --#SUMMARY "[System] Threshold: ORBs process CPU warning clear on card %d CPU %d threshold %d%%
measured %d%%"
  --#ARGUMENTS {0,1,2,3}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

 ::= { starentTraps 303 }

starThreshCPUOrbsCritical NOTIFICATION-TYPE
  OBJECTS { starCPUSlot, starCPUNumber, starThreshPct, starThreshMeasuredPct }
  STATUS current
  DESCRIPTION
    "The ORBs task has exceeded the CPU usage configured as a critical error"
  --#SUMMARY "[System] Threshold: ORBs process CPU critical on card %d CPU %d threshold %d%% measured
%d%%"
  --#ARGUMENTS {0,1,2,3}
  --#STATE OPERATIONAL
  --#SEVERITY CRITICAL
  ::= { starentTraps 304 }

starThreshClearCPUOrbsCritical NOTIFICATION-TYPE
  OBJECTS { starCPUSlot, starCPUNumber, starThreshPct, starThreshMeasuredPct }
  STATUS current
  DESCRIPTION
    "The threshold condition is now clear"
  --#SUMMARY "[System] Threshold: ORBs process CPU critical clear on card %d CPU %d threshold %d%%
measured %d%%"
  --#ARGUMENTS {0,1,2,3}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 305 }

starThreshRPSetupFailRate NOTIFICATION-TYPE
  OBJECTS { starThreshPct, starThreshMeasuredPct }
  STATUS current
  DESCRIPTION
    "The RP call setup failure rate has exceeded the configured threshold"
  --#SUMMARY "[System] Threshold: RP Setup failure rate for threshold %d%% measured %d%%"
  --#ARGUMENTS {0,1}
  --#STATE OPERATIONAL
  --#SEVERITY WARNING
  ::= { starentTraps 306 }

starThreshClearRPSetupFailRate NOTIFICATION-TYPE
  OBJECTS { starThreshPct, starThreshMeasuredPct }
  STATUS current
  DESCRIPTION
    "The threshold condition is now clear"
  --#SUMMARY "[System] Threshold: RP Setup failure rate clear for threshold %d%% measured %d%%"
  --#ARGUMENTS {0,1}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 307 }

starThreshPPPSetupFailRate NOTIFICATION-TYPE
  OBJECTS { starThreshPct, starThreshMeasuredPct }
  STATUS current
  DESCRIPTION
    "The PPP call setup failure rate has exceeded the configured threshold"
  --#SUMMARY "[System] Threshold: PPP Setup failure rate for threshold %d%% measured %d%%"
  --#ARGUMENTS {0,1}
  --#STATE OPERATIONAL
  --#SEVERITY WARNING
  ::= { starentTraps 308 }

starThreshClearPPPSetupFailRate NOTIFICATION-TYPE
  OBJECTS { starThreshPct, starThreshMeasuredPct }
  STATUS current
  DESCRIPTION
    "The threshold condition is now clear"
  --#SUMMARY "[System] Threshold: PPP Setup failure rate clear for threshold %d%% measured %d%%"
  --#ARGUMENTS {0,1}
  --#STATE OPERATIONAL

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

--#SEVERITY INFORMATIONAL
 ::= { starentTraps 309 }

starThreshStorageUtilization NOTIFICATION-TYPE
  OBJECTS { starStorageSlot, starStorageName, starThreshPct, starThreshMeasuredPct }
  STATUS current
  DESCRIPTION
    "The utilization of a mass storage device has exceeded the configured threshold"
  --#SUMMARY "[System] Threshold: Mass storage device usage on card %d storage device %s threshold %d%%
measured %d%%"
  --#ARGUMENTS {0,1,2,3}
  --#STATE OPERATIONAL
  --#SEVERITY WARNING
  ::= { starentTraps 310 }

starThreshClearStorageUtilization NOTIFICATION-TYPE
  OBJECTS { starStorageSlot, starStorageName, starThreshPct, starThreshMeasuredPct }
  STATUS current
  DESCRIPTION
    "The threshold condition is now clear"
  --#SUMMARY "[System] Threshold: Mass storage device usage clear on card %d storage device %s
threshold %d%% measured %d%%"
  --#ARGUMENTS {0,1,2,3}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 311 }

starThreshDCCAProtocolErrors NOTIFICATION-TYPE
  OBJECTS { starThreshInt, starThreshMeasuredInt }
  STATUS current
  DESCRIPTION
    "The number of DCCA Protocol Errors has exceeded the configured threshold"
  --#SUMMARY "[System] Threshold: DCCAProtocol Errors; %d measured threshold %d"
  --#ARGUMENTS {1,0}
  --#STATE OPERATIONAL
  --#SEVERITY WARNING
  ::= { starentTraps 312 }

starThreshClearDCCAProtocolErrors NOTIFICATION-TYPE
  OBJECTS { starThreshInt, starThreshMeasuredInt }
  STATUS current
  DESCRIPTION
    "The threshold condition is now clear"
  --#SUMMARY "[System] Threshold: DCCA Protocol Errors CLEAR; %d measured threshold %d"
  --#ARGUMENTS {1,0}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 313 }

starThreshDCCABadAnswers NOTIFICATION-TYPE
  OBJECTS { starThreshInt, starThreshMeasuredInt }
  STATUS current
  DESCRIPTION
    "The number of DCCA BadAnswers has exceeded the configured threshold"
  --#SUMMARY "[System] Threshold: DCCA BadAnswers; %d measured threshold %d"
  --#ARGUMENTS {1,0}
  --#STATE OPERATIONAL
  --#SEVERITY WARNING
  ::= { starentTraps 314 }

starThreshClearDCCABadAnswers NOTIFICATION-TYPE
  OBJECTS { starThreshInt, starThreshMeasuredInt }
  STATUS current
  DESCRIPTION
    "The threshold condition is now clear"
  --#SUMMARY "[System] Threshold: DCCA BadAnswers CLEAR; %d measured threshold %d"

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starentTraps 315 }

starThreshDCCAUnknownRatingGroup NOTIFICATION-TYPE
  OBJECTS { starThreshInt, starThreshMeasuredInt }
  STATUS current
  DESCRIPTION
    "The number of DCCA UnknownRatingGroup has exceeded the configured threshold"
  --#SUMMARY "[System] Threshold: DCCA UnknownRatingGroup; %d measured threshold %d"
  --#ARGUMENTS {1,0}
  --#STATE OPERATIONAL
  --#SEVERITY WARNING
  ::= { starentTraps 316 }

starThreshClearDCCAUnknownRatingGroup NOTIFICATION-TYPE
  OBJECTS { starThreshInt, starThreshMeasuredInt }
  STATUS current
  DESCRIPTION
    "The threshold condition is now clear"
  --#SUMMARY "[System] Threshold: DCCA UnknownRatingGroup CLEAR; %d measured threshold %d"
  --#ARGUMENTS {1,0}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 317 }

starThreshDCCARatingFailed NOTIFICATION-TYPE
  OBJECTS { starThreshInt, starThreshMeasuredInt }
  STATUS current
  DESCRIPTION
    "The number of DCCA RatingFailed has exceeded the configured threshold"
  --#SUMMARY "[System] Threshold: DCCA RatingFailed; %d measured threshold %d"
  --#ARGUMENTS {1,0}
  --#STATE OPERATIONAL
  --#SEVERITY WARNING
  ::= { starentTraps 318 }

starThreshClearDCCARatingFailed NOTIFICATION-TYPE
  OBJECTS { starThreshInt, starThreshMeasuredInt }
  STATUS current
  DESCRIPTION
    "The threshold condition is now clear"
  --#SUMMARY "[System] Threshold: DCCA RatingFailed CLEAR; %d measured threshold %d"
  --#ARGUMENTS {1,0}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 319 }

starThreshIPSECIKERequests NOTIFICATION-TYPE
  OBJECTS { starServiceVpnName, starServiceServName, starThreshInt, starThreshMeasuredInt }
  STATUS current
  DESCRIPTION
    "The number of IPSEC IKE requests seen for this HA service has exceeded the configured
    threshold.

    Probable Cause: This is a user configurable threshold.

    If the thresholding subsystem is configured to run in an 'alarm' model,
    a starThreshClearIPSECIKERequests notification will be generated when the measured
    value falls below the threshold."
  --#SUMMARY "[Service HA-%s-%s] Threshold: HA Per-Service IPSEC IKE Requests; measured %d threshold
%d"
  --#ARGUMENTS {0,1,3,2}
  --#STATE OPERATIONAL
  --#SEVERITY WARNING
  ::= { starentTraps 320 }

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

starThreshClearIPSECIKERequests NOTIFICATION-TYPE
  OBJECTS { starServiceVpnName, starServiceServName, starThreshInt, starThreshMeasuredInt }
  STATUS current
  DESCRIPTION
    "The threshold condition is now clear"
    --#SUMMARY "Service HA-%s-%s] Threshold: HA Per-Service IPSEC IKE Requests CLEAR; measured %d
threshold %d"
    --#ARGUMENTS {0,1,3,2}
    --#STATE OPERATIONAL
    --#SEVERITY INFORMATIONAL
    ::= { starentTraps 321 }

starThreshIPSECIKEFailures NOTIFICATION-TYPE
  OBJECTS { starServiceVpnName, starServiceServName, starThreshInt, starThreshMeasuredInt }
  STATUS current
  DESCRIPTION
    "The number of IPSEC IKE failures seen for this HA service has exceeded the configured
threshold.

    Probable Cause: This is a user configurable threshold.

    If the thresholding subsystem is configured to run in an 'alarm' model,
    a starThreshClearIPSECIKEFailures notification will be generated when the measured
    value falls below the threshold."
    --#SUMMARY "[Service HA-%s-%s] Threshold: HA Per-Service IPSEC IKE Failed; measured %d threshold
%d"
    --#ARGUMENTS {0,1,3,2}
    --#STATE OPERATIONAL
    --#SEVERITY WARNING
    ::= { starentTraps 322 }

starThreshClearIPSECIKEFailures NOTIFICATION-TYPE
  OBJECTS { starServiceVpnName, starServiceServName, starThreshInt, starThreshMeasuredInt }
  STATUS current
  DESCRIPTION
    "The threshold condition is now clear"
    --#SUMMARY "[Service HA-%s-%s] Threshold: HA Per-Service IPSEC IKE Failures CLEAR; measured %d
threshold %d"
    --#ARGUMENTS {0,1,3,2}
    --#STATE OPERATIONAL
    --#SEVERITY INFORMATIONAL
    ::= { starentTraps 323 }

starThreshIPSECIKEFailRate NOTIFICATION-TYPE
  OBJECTS { starServiceVpnName, starServiceServName, starThreshPct, starThreshMeasuredPct }
  STATUS current
  DESCRIPTION
    "The rate of IPSEC IKE failures (as a percentage of total requests) seen for this HA service
has exceeded the configured threshold.

    Probable Cause: This is a user configurable threshold.

    If the thresholding subsystem is configured to run in an 'alarm' model,
    a starThreshClearIPSECIKEFailRate notification will be generated when the measured
    value falls below the threshold."
    --#SUMMARY "[Service] Threshold: HA Per-Service IPSEC IKE Failure Rate for context %s service %s
threshold %d%% measured %d%%"
    --#ARGUMENTS {0,1,2,3}
    --#STATE OPERATIONAL
    --#SEVERITY WARNING
    ::= { starentTraps 324 }

starThreshClearIPSECIKEFailRate NOTIFICATION-TYPE
  OBJECTS { starServiceVpnName, starServiceServName, starThreshPct, starThreshMeasuredPct }
  STATUS current

```



## STARENT-MIB DEFINITIONS ::= BEGIN

```

DESCRIPTION
"The threshold condition is now clear"
--#SUMMARY "[Service] Threshold: HA Per-Service IPSEC IKE Failure Rate clear for context %s service
%s threshold %d%% measured %d%%"
--#ARGUMENTS {0,1,2,3}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 325 }

starThreshIPSECTunSetup NOTIFICATION-TYPE
OBJECTS { starServiceVpnName, starServiceServName, starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
"The number of IPSEC tunnels setup over the last measurement period for this HA service
has exceeded the configured threshold.

Probable Cause: This is a user configurable threshold.

If the thresholding subsystem is configured to run in an 'alarm' model,
a starThreshClearIPSECTunSetup notification will be generated when the measured
value falls below the threshold."
--#SUMMARY "[Service HA-%s-%s] Threshold: HA Per-Service IPSEC Tunnels Setup; measured %d threshold
%d"
--#ARGUMENTS {0,1,3,2}
--#STATE OPERATIONAL
--#SEVERITY WARNING
::= { starentTraps 326 }

starThreshClearIPSECTunSetup NOTIFICATION-TYPE
OBJECTS { starServiceVpnName, starServiceServName, starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
"The threshold condition is now clear"
--#SUMMARY "[Service HA-%s-%s] Threshold: HA Per-Service IPSEC Tunnels Setup CLEAR; measured %d
threshold %d"
--#ARGUMENTS {0,1,3,2}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 327 }

starThreshIPSECTunEstabl NOTIFICATION-TYPE
OBJECTS { starServiceVpnName, starServiceServName, starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
"The current number of IPSEC tunnels established for this HA service
has exceeded the configured threshold.

Probable Cause: This is a user configurable threshold.

If the thresholding subsystem is configured to run in an 'alarm' model,
a starThreshClearIPSECTunEstabl notification will be generated when the measured
value falls below the threshold."
--#SUMMARY "[Service HA-%s-%s] Threshold: HA Per-Service IPSEC Tunnels Established; measured %d
threshold %d"
--#ARGUMENTS {0,1,3,2}
--#STATE OPERATIONAL
--#SEVERITY WARNING
::= { starentTraps 328 }

starThreshClearIPSECTunEstabl NOTIFICATION-TYPE
OBJECTS { starServiceVpnName, starServiceServName, starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
"The threshold condition is now clear"
--#SUMMARY "[Service HA-%s-%s] Threshold: HA Per-Service IPSEC Tunnels Established CLEAR; measured %d
threshold %d"
--#ARGUMENTS {0,1,3,2}

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 329 }

starThreshIPSECCallReqRej NOTIFICATION-TYPE
  OBJECTS { starServiceVpnName, starServiceServName, starThreshInt, starThreshMeasuredInt }
  STATUS current
  DESCRIPTION
    "The number of IPSEC Rejected Call Requests
    has exceeded the configured threshold.

    Probable Cause: This is a user configurable threshold. Reject Call Requests indicate
    that an IPSEC Manager has reached its maximum allowable number of IPSEC tunnels.

    If the thresholding subsystem is configured to run in an 'alarm' model,
    a starThreshClearIPSECTunnelsTotal notification will be generated when the measured
    value falls below the threshold."
  --#SUMMARY "[Service HA-%s-%s] Threshold: HA Per-Service IPSEC Reject Call Requests CLEAR; measured
%d threshold %d"
  --#ARGUMENTS {0,1,3,2}
  --#STATE OPERATIONAL
  --#SEVERITY WARNING
  ::= { starentTraps 330 }

starThreshClearIPSECCallReqRej NOTIFICATION-TYPE
  OBJECTS { starServiceVpnName, starServiceServName, starThreshInt, starThreshMeasuredInt }
  STATUS current
  DESCRIPTION
    "The threshold condition is now clear"
  --#SUMMARY "[Service HA-%s-%s] Threshold: HA Per-Service IPSEC Rejected Call Requests CLEAR; measured
%d threshold %d"
  --#ARGUMENTS {0,1,3,2}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 331 }

starThreshCSCFSvcRouteFailure NOTIFICATION-TYPE
  OBJECTS { starServiceVpnName, starServiceServName, starThreshInt, starThreshMeasuredInt }
  STATUS current
  DESCRIPTION
    "The Per-Service CSCF Route failure count has gone above the configured threshold

    Probable Cause: This is a user configurable threshold.

    If the thresholding subsystem is configured to run in an 'alarm' model,
    a starThreshClearCSCFSvcRouteFailure notification will be generated when the measured
    value falls below the threshold."
  --#SUMMARY "[Service CSCF-%s-%s] Threshold: CSCF Per-Service Route failure; measured %d threshold %d"
  --#ARGUMENTS {0,1,3,2}
  --#STATE OPERATIONAL
  --#SEVERITY WARNING
  ::= { starentTraps 332 }

starThreshClearCSCFSvcRouteFailure NOTIFICATION-TYPE
  OBJECTS { starServiceVpnName, starServiceServName, starThreshInt, starThreshMeasuredInt }
  STATUS current
  DESCRIPTION
    "The threshold condition is now clear."
  --#SUMMARY "[Service CSCF-%s-%s] Threshold: CSCF Per-Service Route failure CLEAR; measured %d
threshold %d"
  --#ARGUMENTS {0,1,3,2}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 333 }

starThreshContFiltRating NOTIFICATION-TYPE

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
"The number of Content Filtering Rating operations performed has gone above
the configured threshold.

    Probable Cause: This is a user configurable threshold.

    If the thresholding subsystem is configured to run in an 'alarm' model,
    a starThreshClearContFiltRating notification will be generated when the measured
    value falls below the threshold."
--#SUMMARY "[System] Threshold: Content Filtering 'ratings'; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY WARNING
::= { starentTraps 334 }

starThreshClearContFiltRating NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
"The threshold condition is now clear."
--#SUMMARY "[System] Threshold: Content Filtering 'ratings' CLEAR; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 335 }

starThreshContFiltBlock NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
"The number of Content Filtering Block operations performed has gone above
the configured threshold.

    Probable Cause: This is a user configurable threshold.

    If the thresholding subsystem is configured to run in an 'alarm' model,
    a starThreshClearContFiltBlock notification will be generated when the measured
    value falls below the threshold."
--#SUMMARY "[System] Threshold: Content Filtering 'blocks'; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY WARNING
::= { starentTraps 336 }

starThreshClearContFiltBlock NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
"The threshold condition is now clear."
--#SUMMARY "[System] Threshold: Content Filtering 'blocks' CLEAR; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 337 }

starThreshCDRFileSpace NOTIFICATION-TYPE
OBJECTS { starThreshPct, starThreshMeasuredPct }
STATUS current
DESCRIPTION
"The CDR file space usage is above the configured threshold percentage

    Probable Cause: This is a user configurable threshold.

    If the thresholding subsystem is configured to run in an 'alarm' model,
    a starThreshClearCDRFileSpaceOverLimit notification will be generated when the measured

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

        value falls below the threshold."
--#SUMMARY "Threshold: CDR File space for threshold %d%% measured %d%%"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY WARNING
::= { starentTraps 338 }

starThreshClearCDRFileSpace NOTIFICATION-TYPE
OBJECTS { starThreshPct, starThreshMeasuredPct }
STATUS current
DESCRIPTION
    "The threshold condition is now clear."
--#SUMMARY "Threshold: CDR File space clear for threshold %d%% measured %d%%"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 339 }

starThreshEDRFileSpace NOTIFICATION-TYPE
OBJECTS { starThreshPct, starThreshMeasuredPct }
STATUS current
DESCRIPTION
    "The EDR file space usage is above the configured threshold percentage

    Probable Cause: This is a user configurable threshold.

    If the thresholding subsystem is configured to run in an 'alarm' model,
    a starThreshClearEDRFileSpaceOverLimit notification will be generated when the measured
    value falls below the threshold."
--#SUMMARY "Threshold: EDR File space for threshold %d%% measured %d%%"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY WARNING
::= { starentTraps 340 }

starThreshClearEDRFileSpace NOTIFICATION-TYPE
OBJECTS { starThreshPct, starThreshMeasuredPct }
STATUS current
DESCRIPTION
    "The threshold condition is now clear."
--#SUMMARY "Threshold: EDR File space clear for threshold %d%% measured %d%%"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 341 }

starThreshPDIFCurrSess NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
    "The chassis-wide count of current PDIF sessions has gone above the configured threshold

    Probable Cause: This is a user configurable threshold.

    If the thresholding subsystem is configured to run in an 'alarm' model,
    a starThreshClearPDIFCurrSess notification will be generated when the measured
    value falls below the threshold."
--#SUMMARY "[System] Threshold: PDIF Current Sessions; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY WARNING
::= { starentTraps 342 }

starThreshClearPDIFCurrSess NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS current

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

DESCRIPTION
"The threshold condition is now clear."
--#SUMMARY "[System] Threshold: PDIF Current Sessions CLEAR; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 343 }

starThreshPDIFCurrActSess NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
"The chassis-wide count of current PDIF active sessions has gone above the configured threshold

Probable Cause: This is a user configurable threshold.

If the thresholding subsystem is configured to run in an 'alarm' model,
a starThreshClearPDIFCurrActiveSess notification will be generated when the measured
value falls below the threshold."
--#SUMMARY "[System] Threshold: PDIF Current Active Sessions; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY WARNING
::= { starentTraps 344 }

starThreshClearPDIFCurrActSess NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
"The threshold condition is now clear."
--#SUMMARY "[System] Threshold: PDIF Current Active Sessions CLEAR; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 345 }

starThreshCDRFlowControl NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
"The number of Charging Data Record (CDR) records which have been discarded at an ACSMGR
due to flow control has gone above the configured threshold.

Probable Cause: This is a user configurable threshold. This threshold potentially
indicates an overload condition due which prevents processes CDR messages at the same rate as
the incoming packets."

--#SUMMARY "[System] Threshold: Total num of CDR records discarded by due to flow control; measured
%d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 346 }

starThreshClearCDRFlowControl NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
"The threshold condition is now clear."
--#SUMMARY "[System] Threshold: Total number of CDR records discarded due to clow control CLEAR;
measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY MAJOR
::= { starentTraps 347 }

starThreshASNGWSessTimeout NOTIFICATION-TYPE

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS obsolete
DESCRIPTION
    "The ASNGW session timeout has gone above the configured threshold

    Probable Cause: This is a user configurable threshold.

    If the thresholding subsystem is configured to run in an 'alarm' model,
    a starThreshASNGWSessTimeout notification will be generated when the measured
    value falls below the threshold."
--#SUMMARY "[System] Threshold: ASNGW Session Timeout; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY WARNING
::= { starentTraps 348 }

starThreshClearASNGWSessTimeout NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS obsolete
DESCRIPTION
    "The threshold condition is now clear."
--#SUMMARY "[System] Threshold: ASNGW Session Timeout CLEAR; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY WARNING
::= { starentTraps 349 }

starThreshASNGWSessSetupTimeout NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS obsolete
DESCRIPTION
    "The ASNGW session setup timeout has gone above the configured threshold

    Probable Cause: This is a user configurable threshold.

    If the thresholding subsystem is configured to run in an 'alarm' model,
    a starThreshASNGWSessSetupTimeout notification will be generated when the measured
    value falls below the threshold."
--#SUMMARY "[System] Threshold: ASNGW Session Setup Timeout; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY WARNING
::= { starentTraps 350 }

starThreshClearASNGWSessSetupTimeout NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS obsolete
DESCRIPTION
    "The threshold condition is now clear."
--#SUMMARY "[System] Threshold: ASNGW Session Setup Timeout CLEAR; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY WARNING
::= { starentTraps 351 }

starThreshASNGWAuthFail NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS obsolete
DESCRIPTION
    "The number of ASNGW authentication failures has exceeded the configured threshold
    during the current monitoring period.

    Probable Cause: This is a user configurable threshold.

    If the thresholding subsystem is configured to run in an 'alarm' model,
    a starThreshASNGWAuthFail notification will be generated when the measured

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

        value falls below the threshold."
--#SUMMARY "[System] Threshold: ASNGW authentication failures threshold; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY WARNING
::= { starentTraps 352}

starThreshClearASNGWAuthFail NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS obsolete
DESCRIPTION
"The threshold condition is now clear."
--#SUMMARY "[System] Threshold: ASNGW authentication failures threshold CLEAR; measured %d threshold
%d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY WARNING
::= { starentTraps 353 }

starThreshASNGWR6InvNai NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS obsolete
DESCRIPTION
"The number of ASNGW R6 Invalid Nai has exceeded the configured threshold
during the current monitoring period.

        Probable Cause: This is a user configurable threshold.

        If the thresholding subsystem is configured to run in an 'alarm' model,
        a starThreshASNGWR6InvNai notification will be generated when the measured
        value falls below the threshold. This trap is obsolete."
--#SUMMARY "[System] Threshold: ASNGW R6 Invalid NAI threshold; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY WARNING
::= { starentTraps 354 }

starThreshClearASNGWR6InvNai NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS obsolete
DESCRIPTION
"The threshold condition is now clear. This trap is obsolete."
--#SUMMARY "[System] Threshold: ASNGW R6 Invalid NAI threshold CLEAR; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY WARNING
::= { starentTraps 355 }

starThreshASNGWMaxEAPRetry NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS obsolete
DESCRIPTION
"The number of ASNGW Maximum EAP Retry has exceeded the configured threshold
during the current monitoring period.

        Probable Cause: This is a user configurable threshold.

        If the thresholding subsystem is configured to run in an 'alarm' model,
        a starThreshASNGWMaxEAPRetry notification will be generated when the measured
        value falls below the threshold."
--#SUMMARY "[System] Threshold: ASNGW Maximum EAP Retry threshold; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY WARNING
::= { starentTraps 356 }

starThreshClearASNGWMaxEAPRetry NOTIFICATION-TYPE

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS obsolete
DESCRIPTION
"The threshold condition is now clear."
--#SUMMARY "[System] Threshold: ASNGW Maximum EAP Retry threshold CLEAR; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY WARNING
::= { starentTraps 357 }

starThreshASNGWNWEntryDenial NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS obsolete
DESCRIPTION
"The number of ASNGW Network Entry Denial has exceeded the configured threshold
during the current monitoring period.

        Probable Cause: This is a user configurable threshold.

        If the thresholding subsystem is configured to run in an 'alarm' model,
        a starThreshASNGWNWEntryDenial notification will be generated when the measured
        value falls below the threshold."
--#SUMMARY "[System] Threshold: ASNGW Network Entry Denial threshold; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY WARNING
::= { starentTraps 358 }

starThreshClearASNGWNWEntryDenial NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS obsolete
DESCRIPTION
"The threshold condition is now clear."
--#SUMMARY "[System] Threshold: ASNGW Network Entry Denial threshold CLEAR; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY WARNING
::= { starentTraps 359 }

starThreshASNGWHandoffDenial NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS obsolete
DESCRIPTION
"The number of ASNGW Handoff Denial has exceeded the configured threshold
during the current monitoring period.

        Probable Cause: This is a user configurable threshold.

        If the thresholding subsystem is configured to run in an 'alarm' model,
        a starThreshASNGWHandoffDenial notification will be generated when the measured
        value falls below the threshold."
--#SUMMARY "[System] Threshold: ASNGW Handoff Denial threshold; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY WARNING
::= { starentTraps 360 }

starThreshClearASNGWHandoffDenial NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS obsolete
DESCRIPTION
"The threshold condition is now clear."
--#SUMMARY "[System] Threshold: ASNGW Handoff Denial threshold CLEAR; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY WARNING

```



## STARENT-MIB DEFINITIONS ::= BEGIN

```

 ::= { starentTraps 361 }

starThreshSGSNSessions NOTIFICATION-TYPE
  OBJECTS { starThreshInt, starThreshMeasuredInt }
  STATUS current
  DESCRIPTION
    "The total number of SGSN sessions is above the configured threshold value."
  --#SUMMARY "[System] Threshold: Total SGSN Sessions; measured %d threshold %d"
  --#ARGUMENTS {1,0}
  --#STATE OPERATIONAL
  --#SEVERITY WARNING
  ::= { starentTraps 362 }

starThreshClearSGSNSessions NOTIFICATION-TYPE
  OBJECTS { starThreshInt, starThreshMeasuredInt }
  STATUS current
  DESCRIPTION
    "The threshold condition is now clear."
  --#SUMMARY "[System] Threshold: Total SGSN Sessions CLEAR; measured %d threshold %d"
  --#ARGUMENTS {1,0}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 363 }

starThreshPerServiceSGSNSessions NOTIFICATION-TYPE
  OBJECTS { starServiceVpnName, starServiceServName, starThreshInt, starThreshMeasuredInt }
  STATUS current
  DESCRIPTION
    "The total number of SGSN sessions in a service is above the configured threshold value."
  --#SUMMARY "[System] Threshold: Per Sevice SGSN Sessions, context %s service name %s; measured %d
threshold %d"
  --#ARGUMENTS {0,1,3,2}
  --#STATE OPERATIONAL
  --#SEVERITY WARNING
  ::= { starentTraps 364 }

starThreshClearPerServiceSGSNSessions NOTIFICATION-TYPE
  OBJECTS { starServiceVpnName, starServiceServName, starThreshInt, starThreshMeasuredInt }
  STATUS current
  DESCRIPTION
    "The threshold condition is now clear."
  --#SUMMARY "[System] Threshold: Per Sevice SGSN Sessions CLEAR, context %s service name %s; measured
%d threshold %d"
  --#ARGUMENTS {0,1,3,2}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 365 }

starThreshSGSNPdpSessions NOTIFICATION-TYPE
  OBJECTS { starThreshInt, starThreshMeasuredInt }
  STATUS current
  DESCRIPTION
    "The total number of SGSN PDP sessions is above the configured threshold value."
  --#SUMMARY "[System] Threshold: Total SGSN PDP Sessions; measured %d threshold %d"
  --#ARGUMENTS {1,0}
  --#STATE OPERATIONAL
  --#SEVERITY WARNING
  ::= { starentTraps 366 }

starThreshClearSGSNPdpSessions NOTIFICATION-TYPE
  OBJECTS { starThreshInt, starThreshMeasuredInt }
  STATUS current
  DESCRIPTION
    "The threshold condition is now clear."
  --#SUMMARY "[System] Threshold: Total SGSN PDP Sessions CLEAR; measured %d threshold %d"
  --#ARGUMENTS {1,0}
  --#STATE OPERATIONAL

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

--#SEVERITY INFORMATIONAL
 ::= { starentTraps 367 }

starThreshPerServiceSGSNPdpSessions NOTIFICATION-TYPE
  OBJECTS { starServiceVpnName, starServiceServName, starThreshInt, starThreshMeasuredInt }
  STATUS current
  DESCRIPTION
    "The total number of SGSN PDP sessions in a service is above the configured threshold value."
  --#SUMMARY "[System] Threshold: Per Sevice SGSN PDP Sessions, context %s service name %s; measured %d
threshold %d"
  --#ARGUMENTS {0,1,3,2}
  --#STATE OPERATIONAL
  --#SEVERITY WARNING
  ::= { starentTraps 368 }

starThreshClearPerServiceSGSNPdpSessions NOTIFICATION-TYPE
  OBJECTS { starServiceVpnName, starServiceServName, starThreshInt, starThreshMeasuredInt }
  STATUS current
  DESCRIPTION
    "The threshold condition is now clear."
  --#SUMMARY "[System] Threshold: Per Sevice SGSN PDP Sessions CLEAR, context %s service name %s;
measured %d threshold %d"
  --#ARGUMENTS {0,1,3,2}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 369 }

starThreshFWDosAttack NOTIFICATION-TYPE
  OBJECTS { starThreshInt, starThreshMeasuredInt }
  STATUS current
  DESCRIPTION
    "The cumulative number of FW Dos-Attacks has exceeded the configured
    threshold during the current monitoring period.

    Probable Cause: This is a user configurable threshold.

    If the thresholding subsystem is configured to run in an 'alarm' model,
    a starThreshClearFWDosAttack notification will be generated when the
    measured value falls below the threshold."
  --#SUMMARY "[System] Threshold: Firewall 'Dos-Attack'; measured %d threshold %d"
  --#ARGUMENTS {1,0}
  --#STATE OPERATIONAL
  --#SEVERITY WARNING
  ::= { starentTraps 370 }

starThreshClearFWDosAttack NOTIFICATION-TYPE
  OBJECTS { starThreshInt, starThreshMeasuredInt }
  STATUS current
  DESCRIPTION
    "The threshold condition is now clear."
  --#SUMMARY "[System] Threshold: Firewall 'Dos-Attack' CLEAR; measured %d threshold %d"
  --#ARGUMENTS {1,0}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 371 }

starThreshFWDropPacket NOTIFICATION-TYPE
  OBJECTS { starThreshInt, starThreshMeasuredInt }
  STATUS current
  DESCRIPTION
    "The cumulative number of FW Dropped Packets has exceeded the configured
    threshold during the current monitoring period.

    Probable Cause: This is a user configurable threshold.

    If the thresholding subsystem is configured to run in an 'alarm' model,

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

    a starThreshClearFWDropPacket notification will be generated when the
    measured value falls below the threshold."
--#SUMMARY "[System] Threshold: Firewall 'Drop-Packet'; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY WARNING
::= { starentTraps 372 }

starThreshClearFWDropPacket NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
"The threshold condition is now clear."
--#SUMMARY "[System] Threshold: Firewall 'Drop-Packet' CLEAR; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 373 }

starThreshFWDenyRule NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
"The cumulative number of FW Deny-Rules has exceeded the configured
threshold during the current monitoring period.

    Probable Cause: This is a user configurable threshold.

    If the thresholding subsystem is configured to run in an 'alarm' model,
    a starThreshClearFWDenyRule notification will be generated when the
    measured value falls below the threshold."
--#SUMMARY "[System] Threshold: Firewall 'Deny-Rule'; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY WARNING
::= { starentTraps 374 }

starThreshClearFWDenyRule NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
"The threshold condition is now clear."
--#SUMMARY "[System] Threshold: Firewall 'Deny-Rule' CLEAR; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 375 }

starThreshFWNoRule NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
"The cumulative number of FW No Rules has exceeded the configured
threshold during the current monitoring period.

    Probable Cause: This is a user configurable threshold.

    If the thresholding subsystem is configured to run in an 'alarm' model,
    a starThreshClearFWNoRule notification will be generated when the
    measured value falls below the threshold."
--#SUMMARY "[System] Threshold: Firewall 'No-Rule'; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY WARNING
::= { starentTraps 376 }

starThreshClearFWNoRule NOTIFICATION-TYPE
```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
"The threshold condition is now clear."
--#SUMMARY "[System] Threshold: Firewall 'No-Rule' CLEAR; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 377 }

starThreshPHSGWSessTimeout NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
"The PHSGW session timeout has gone above the configured threshold

Probable Cause: This is a user configurable threshold.

If the thresholding subsystem is configured to run in an 'alarm' model,
a starThreshPHSGWSessTimeout notification will be generated when the measured
value falls below the threshold."
--#SUMMARY "[System] Threshold: PHSGW Session Timeout; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY WARNING
::= { starentTraps 378 }

starThreshClearPHSGWSessTimeout NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
"The threshold condition is now clear."
--#SUMMARY "[System] Threshold: PHSGW Session Timeout CLEAR; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 379 }

starThreshPHSGWSessSetupTimeout NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
"The PHSGW session setup timeout has gone above the configured threshold

Probable Cause: This is a user configurable threshold.

If the thresholding subsystem is configured to run in an 'alarm' model,
a starThreshPHSGWSessSetupTimeout notification will be generated when the measured
value falls below the threshold."
--#SUMMARY "[System] Threshold: PHSGW Session Setup Timeout; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY WARNING
::= { starentTraps 380 }

starThreshClearPHSGWSessSetupTimeout NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS obsolete
DESCRIPTION
"The threshold condition is now clear."
--#SUMMARY "[System] Threshold: PHSGW Session Setup Timeout CLEAR; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 381 }

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

starThreshPHSGWAuthFail NOTIFICATION-TYPE
  OBJECTS { starThreshInt, starThreshMeasuredInt }
  STATUS obsolete
  DESCRIPTION
    "The number of PHSGW authentication failures has exceeded the configured threshold
    during the current monitoring period.

    Probable Cause: This is a user configurable threshold.

    If the thresholding subsystem is configured to run in an 'alarm' model,
    a starThreshPHSGWAuthFail notification will be generated when the measured
    value falls below the threshold."
  --#SUMMARY "[System] Threshold: PHSGW authentication failures threshold; measured %d threshold %d"
  --#ARGUMENTS {1,0}
  --#STATE OPERATIONAL
  --#SEVERITY WARNING
  ::= { starentTraps 382}

starThreshClearPHSGWAuthFail NOTIFICATION-TYPE
  OBJECTS { starThreshInt, starThreshMeasuredInt }
  STATUS obsolete
  DESCRIPTION
    "The threshold condition is now clear."
  --#SUMMARY "[System] Threshold: PHSGW authentication failures threshold CLEAR; measured %d threshold
%d"
  --#ARGUMENTS {1,0}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 383 }

starThreshPHSGWMaxEAPRetry NOTIFICATION-TYPE
  OBJECTS { starThreshInt, starThreshMeasuredInt }
  STATUS obsolete
  DESCRIPTION
    "The number of PHSGW Maximum EAP Retry has exceeded the configured threshold
    during the current monitoring period.

    Probable Cause: This is a user configurable threshold.

    If the thresholding subsystem is configured to run in an 'alarm' model,
    a starThreshPHSGWMaxEAPRetry notification will be generated when the measured
    value falls below the threshold."
  --#SUMMARY "[System] Threshold: PHSGW Maximum EAP Retry threshold; measured %d threshold %d"
  --#ARGUMENTS {1,0}
  --#STATE OPERATIONAL
  --#SEVERITY WARNING
  ::= { starentTraps 384 }

starThreshClearPHSGWMaxEAPRetry NOTIFICATION-TYPE
  OBJECTS { starThreshInt, starThreshMeasuredInt }
  STATUS obsolete
  DESCRIPTION
    "The threshold condition is now clear."
  --#SUMMARY "[System] Threshold: PHSGW Maximum EAP Retry threshold CLEAR; measured %d threshold %d"
  --#ARGUMENTS {1,0}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 385 }

starThreshPHSGWNWEntryDenial NOTIFICATION-TYPE
  OBJECTS { starThreshInt, starThreshMeasuredInt }
  STATUS obsolete
  DESCRIPTION
    "The number of PHSGW Network Entry Denial has exceeded the configured threshold
    during the current monitoring period.

    Probable Cause: This is a user configurable threshold.

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

        If the thresholding subsystem is configured to run in an 'alarm' model,
        a starThreshPHSGWNWEntryDenial notification will be generated when the measured
        value falls below the threshold."
--#SUMMARY "[System] Threshold: PHSGW Network Entry Denial threshold; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY WARNING
 ::= { starentTraps 386 }

starThreshClearPHSGWNWEntryDenial NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS obsolete
DESCRIPTION
"The threshold condition is now clear."
--#SUMMARY "[System] Threshold: PHSGW Network Entry Denial threshold CLEAR; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starentTraps 387 }

starThreshPHSGWHandoffDenial NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS obsolete
DESCRIPTION
"The number of PHSGW Handoff Denial has exceeded the configured threshold
during the current monitoring period.

        Probable Cause: This is a user configurable threshold.

        If the thresholding subsystem is configured to run in an 'alarm' model,
        a starThreshPHSGWHandoffDenial notification will be generated when the measured
        value falls below the threshold."
--#SUMMARY "[System] Threshold: PHSGW Handoff Denial threshold; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY WARNING
 ::= { starentTraps 388 }

starThreshClearPHSGWHandoffDenial NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS obsolete
DESCRIPTION
"The threshold condition is now clear."
--#SUMMARY "[System] Threshold: PHSGW Handoff Denial threshold CLEAR; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starentTraps 389 }

starThreshASNGWSessions NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS obsolete
DESCRIPTION
"The total number of ASNGW sessions is above the configured threshold value."
--#SUMMARY "[System] Threshold: Total ASNGW Sessions; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY WARNING
 ::= { starentTraps 390 }

starThreshClearASNGWSessions NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS obsolete
DESCRIPTION
"The threshold condition is now clear."

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

--#SUMMARY "[System] Threshold: Total ASNGW Sessions CLEAR; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starentTraps 391 }

starThreshPerServiceASNGWSessions NOTIFICATION-TYPE
  OBJECTS { starServiceVpnName, starServiceServName, starThreshInt, starThreshMeasuredInt }
  STATUS obsolete
  DESCRIPTION
    "The total number of ASNGW sessions in a service is above the configured threshold value."
  --#SUMMARY "[System] Threshold: Per Sevice ASNGW Sessions, context %s service name %s; measured %d
threshold %d"
  --#ARGUMENTS {0,1,3,2}
  --#STATE OPERATIONAL
  --#SEVERITY WARNING
  ::= { starentTraps 392 }

starThreshClearPerServiceASNGWSessions NOTIFICATION-TYPE
  OBJECTS { starServiceVpnName, starServiceServName, starThreshInt, starThreshMeasuredInt }
  STATUS obsolete
  DESCRIPTION
    "The threshold condition is now clear."
  --#SUMMARY "[System] Threshold: Per Sevice ASNGW Sessions CLEAR, context %s service name %s; measured
%d threshold %d"
  --#ARGUMENTS {0,1,3,2}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 393 }

starThreshPHSPCSessSetupTimeout NOTIFICATION-TYPE
  OBJECTS { starThreshInt, starThreshMeasuredInt }
  STATUS obsolete
  DESCRIPTION
    "The PHSPC session setup timeout has gone above the configured threshold

    Probable Cause: This is a user configurable threshold.

    If the thresholding subsystem is configured to run in an 'alarm' model,
    a starThreshPHSPCSessSetupTimeout notification will be generated when the measured
    value falls below the threshold."
  --#SUMMARY "[System] Threshold: PHSPC Session Setup Timeout; measured %d threshold %d"
  --#ARGUMENTS {1,0}
  --#STATE OPERATIONAL
  --#SEVERITY WARNING
  ::= { starentTraps 394 }

starThreshClearPHSPCSessSetupTimeout NOTIFICATION-TYPE
  OBJECTS { starThreshInt, starThreshMeasuredInt }
  STATUS obsolete
  DESCRIPTION
    "The threshold condition is now clear."
  --#SUMMARY "[System] Threshold: PHSPC Session Setup Timeout CLEAR; measured %d threshold %d"
  --#ARGUMENTS {1,0}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 395 }

starThreshPHSPCSleepModeTimeout NOTIFICATION-TYPE
  OBJECTS { starThreshInt, starThreshMeasuredInt }
  STATUS obsolete
  DESCRIPTION
    "The PHSPC idle mode timeout has gone above the configured threshold

    Probable Cause: This is a user configurable threshold.

    If the thresholding subsystem is configured to run in an 'alarm' model,

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

    a starThreshPHSPCSleepModeTimeout notification will be generated when the measured
    value falls below the threshold."
--#SUMMARY "[System] Threshold: PHSPC Idle Mode Timeout; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY WARNING
 ::= { starentTraps 396 }

starThreshClearPHSPCSleepModeTimeout NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS obsolete
DESCRIPTION
"The threshold condition is now clear."
--#SUMMARY "[System] Threshold: PHSPC Idle Mode Timeout CLEAR; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starentTraps 397 }

starThreshPHSPCSmEntryDenial NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS obsolete
DESCRIPTION
"The number of PHSPC sm entry denial has exceeded the configured threshold
during the current monitoring period.

    Probable Cause: This is a user configurable threshold.

    If the thresholding subsystem is configured to run in an 'alarm' model,
    a starThreshPHSPCSmEntryDenial notification will be generated when the measured
    value falls below the threshold."
--#SUMMARY "[System] Threshold: PHSPC Sm Entry Denial threshold; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY WARNING
 ::= { starentTraps 398}

starThreshClearPHSPCSmEntryDenial NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS obsolete
DESCRIPTION
"The threshold condition is now clear."
--#SUMMARY "[System] Threshold: PHSPC Sm Entry Denial threshold CLEAR; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starentTraps 399 }

starThreshSGWSessions NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
"The total number of SGW sessions is above the configured threshold value.

    Probable Cause: This is a user configurable threshold.

    If the thresholding subsystem is configured to run in an 'alarm' model,
    a starThreshClearSGWSessions notification will be generated when the measured
    value falls below the threshold."
--#SUMMARY "[System] Threshold: Total SGW Sessions; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY WARNING
 ::= { starentTraps 408 }

starThreshClearSGWSessions NOTIFICATION-TYPE

```



## STARENT-MIB DEFINITIONS ::= BEGIN

```

OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
    "The threshold condition is now clear."
--#SUMMARY "[System] Threshold: Total SGW Sessions CLEAR; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starentTraps 409 }

starThreshPGWSessions NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
    "The total number of PGW sessions is above the configured threshold value.

    Probable Cause: This is a user configurable threshold.

    If the thresholding subsystem is configured to run in an 'alarm' model,
    a starThreshClearSGWSessions notification will be generated when the measured
    value falls below the threshold."
--#SUMMARY "[System] Threshold: Total PGW Sessions; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY WARNING
 ::= { starentTraps 410 }

starThreshClearPGWSessions NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
    "The threshold condition is now clear."
--#SUMMARY "[System] Threshold: Total PGW Sessions CLEAR; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starentTraps 411 }

starThreshLMASessions NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
    "The total number of LMA sessions is above the configured threshold value.

    Probable Cause: This is a user configurable threshold.

    If the thresholding subsystem is configured to run in an 'alarm' model,
    a starThreshClearLMASessions notification will be generated when the measured
    value falls below the threshold."
--#SUMMARY "[System] Threshold: Total LMA Sessions; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY WARNING
 ::= { starentTraps 412 }

starThreshClearLMASessions NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
    "The threshold condition is now clear."
--#SUMMARY "[System] Threshold: Total LMA Sessions CLEAR; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starentTraps 413 }

starThreshMAGSessions NOTIFICATION-TYPE

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
    "The total number of MAG sessions is above the configured threshold value.

    Probable Cause: This is a user configurable threshold.

    If the thresholding subsystem is configured to run in an 'alarm' model,
    a starThreshClearMAGSessions notification will be generated when the measured
    value falls below the threshold."
--#SUMMARY "[System] Threshold: Total MAG Sessions; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY WARNING
::= { starentTraps 414 }

starThreshClearMAGSessions NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
    "The threshold condition is now clear."
--#SUMMARY "[System] Threshold: Total MAG Sessions CLEAR; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 415 }

starThreshFNGCurrSess NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
    "The chassis-wide count of current FNG sessions has gone above the configured threshold

    Probable Cause: This is a user configurable threshold.

    If the thresholding subsystem is configured to run in an 'alarm' model,
    a starThreshClearFNGCurrSess notification will be generated when the measured
    value falls below the threshold."
--#SUMMARY "[System] Threshold: FNG Current Sessions; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY WARNING
::= { starentTraps 416 }

starThreshClearFNGCurrSess NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
    "The threshold condition is now clear."
--#SUMMARY "[System] Threshold: FNG Current Sessions CLEAR; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 417 }

starThreshFNGCurrActSess NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
    "The chassis-wide count of current FNG active sessions has gone above the configured threshold

    Probable Cause: This is a user configurable threshold.

    If the thresholding subsystem is configured to run in an 'alarm' model,
    a starThreshClearFNGCurrActiveSess notification will be generated when the measured

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

        value falls below the threshold."
--#SUMMARY "[System] Threshold: FNG Current Active Sessions; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY WARNING
 ::= { starentTraps 418 }

starThreshClearFNGCurrActSess NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
"The threshold condition is now clear."
--#SUMMARY "[System] Threshold: FNG Current Active Sessions CLEAR; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starentTraps 419 }

starThreshPHSGWEAPOLAuthFailure NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
"The number of PHSGW EAPOL Auth Failure has exceeded the configured threshold
during the current monitoring period.

        Probable Cause: This is a user configurable threshold.

        If the thresholding subsystem is configured to run in an 'alarm' model,
        a starThreshPHSGWEAPOLAuthFailure notification will be generated when the measured
        value falls below the threshold."
--#SUMMARY "[System] Threshold: PHSGW EAPOL Auth Failure threshold; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY WARNING
 ::= { starentTraps 420 }

starThreshClearPHSGWEAPOLAuthFailure NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
"The threshold condition is now clear."
--#SUMMARY "[System] Threshold: PHSGW EAPOL Auth Failure threshold CLEAR; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY WARNING
 ::= { starentTraps 421 }

starThreshPHSGWMaxEAPOLRetry NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
"The number of PHSGW max EAPOL retry has exceeded the configured threshold
during the current monitoring period.

        Probable Cause: This is a user configurable threshold.

        If the thresholding subsystem is configured to run in an 'alarm' model,
        a starThreshPHSGWMaxEAPOLRetry notification will be generated when the measured
        value falls below the threshold."
--#SUMMARY "[System] Threshold: PHSGW max EAPOL retry threshold; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY WARNING
 ::= { starentTraps 422 }

starThreshClearPHSGWMaxEAPOLRetry NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

STATUS obsolete
DESCRIPTION
"The threshold condition is now clear."
--#SUMMARY "[System] Threshold: PHSGW max EAPOL retry threshold CLEAR; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY WARNING
 ::= { starentTraps 423 }

starThreshHSGWSessions NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
"The total number of HSGW sessions is above the configured threshold value.

Probable Cause: This is a user configurable threshold.

If the thresholding subsystem is configured to run in an 'alarm' model,
a starThreshClearHSGWSessions notification will be generated when the measured
value falls below the threshold."
--#SUMMARY "[System] Threshold: Total HSGW Sessions; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY WARNING
 ::= { starentTraps 424 }

starThreshClearHSGWSessions NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
"The threshold condition is now clear."
--#SUMMARY "[System] Threshold: Total HSGW Sessions CLEAR; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starentTraps 425 }

starThreshPDGCurrSess NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
"The chassis-wide count of current PDG sessions has gone above the configured threshold

Probable Cause: This is a user configurable threshold.

If the thresholding subsystem is configured to run in an 'alarm' model,
a starThreshClearPDGCurrSess notification will be generated when the measured
value falls below the threshold."
--#SUMMARY "[System] Threshold: PDG Current Sessions; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY WARNING
 ::= { starentTraps 426 }

starThreshClearPDGCurrSess NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
"The threshold condition is now clear."
--#SUMMARY "[System] Threshold: PDG Current Sessions CLEAR; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starentTraps 427 }

starThreshPDGCurrActSess NOTIFICATION-TYPE

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
    "The chassis-wide count of current PDG active sessions has gone above the configured threshold

    Probable Cause: This is a user configurable threshold.

    If the thresholding subsystem is configured to run in an 'alarm' model,
    a starThreshClearPDGCurrActiveSess notification will be generated when the measured
    value falls below the threshold."
--#SUMMARY "[System] Threshold: PDG Current Active Sessions; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY WARNING
::= { starentTraps 428 }

starThreshClearPDGCurrActSess NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
    "The threshold condition is now clear."
--#SUMMARY "[System] Threshold: PDG Current Active Sessions CLEAR; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 429 }

starThreshNATPortChunks NOTIFICATION-TYPE
OBJECTS { starIPPoolContext, starIPPoolName, starThreshPct, starThreshMeasuredPct }
STATUS current
DESCRIPTION
    "The NAT port chunks utilization of NAT pool is above the configured
    threshold value.

    Probable Cause: This is a user configurable threshold.

    If the thresholding subsystem is configured to run in an 'alarm' model,
    a starThreshClearNATPortChunks notification will be generated when the measured
    value exceeds the threshold."
--#SUMMARY "[System] Threshold: NAT port chunk utilization in context %s for pool %s threshold %d%%
measured %d%%"
--#ARGUMENTS {0,1,2,3}
--#STATE OPERATIONAL
--#SEVERITY WARNING
::= { starentTraps 430 }

starThreshClearNATPortChunks NOTIFICATION-TYPE
OBJECTS { starIPPoolContext, starIPPoolName, starThreshPct, starThreshMeasuredPct }
STATUS current
DESCRIPTION
    "The threshold condition is now clear."
--#SUMMARY "[System] Threshold: NAT port chunk utilization threshold clear in context %s pool %s
threshold %d%% measured %d%%"
--#ARGUMENTS {0,1,2,3}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 431 }

starThreshGPRSSessions NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
    "The total number of GPRS sessions is above the configured threshold value."
--#SUMMARY "[System] Threshold: Total GPRS Sessions; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY WARNING

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

 ::= { starentTraps 432 }

starThreshClearGPRSSessions NOTIFICATION-TYPE
  OBJECTS { starThreshInt, starThreshMeasuredInt }
  STATUS current
  DESCRIPTION
    "The threshold condition is now clear."
  --#SUMMARY "[System] Threshold: Total GPRS Sessions CLEAR; measured %d threshold %d"
  --#ARGUMENTS {1,0}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 433 }

starThreshPerServiceGPRSSessions NOTIFICATION-TYPE
  OBJECTS { starServiceVpnName, starServiceServName, starThreshInt, starThreshMeasuredInt }
  STATUS current
  DESCRIPTION
    "The total number of GPRS sessions in a service is above the configured threshold value."
  --#SUMMARY "[System] Threshold: Per Sevice SGSN Sessions, context %s service name %s; measured %d
threshold %d"
  --#ARGUMENTS {0,1,3,2}
  --#STATE OPERATIONAL
  --#SEVERITY WARNING
  ::= { starentTraps 434 }

starThreshClearPerServiceGPRSSessions NOTIFICATION-TYPE
  OBJECTS { starServiceVpnName, starServiceServName, starThreshInt, starThreshMeasuredInt }
  STATUS current
  DESCRIPTION
    "The threshold condition is now clear."
  --#SUMMARY "[System] Threshold: Per Sevice GPRS Sessions CLEAR, context %s service name %s; measured
%d threshold %d"
  --#ARGUMENTS {0,1,3,2}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 435 }

starThreshGPRSPdpSessions NOTIFICATION-TYPE
  OBJECTS { starThreshInt, starThreshMeasuredInt }
  STATUS current
  DESCRIPTION
    "The total number of GPRS PDP sessions is above the configured threshold value."
  --#SUMMARY "[System] Threshold: Total GPRS PDP Sessions; measured %d threshold %d"
  --#ARGUMENTS {1,0}
  --#STATE OPERATIONAL
  --#SEVERITY WARNING
  ::= { starentTraps 436 }

starThreshClearGPRSPdpSessions NOTIFICATION-TYPE
  OBJECTS { starThreshInt, starThreshMeasuredInt }
  STATUS current
  DESCRIPTION
    "The threshold condition is now clear."
  --#SUMMARY "[System] Threshold: Total GPRS PDP Sessions CLEAR; measured %d threshold %d"
  --#ARGUMENTS {1,0}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 437 }

starThreshPerServiceGPRSPdpSessions NOTIFICATION-TYPE
  OBJECTS { starServiceVpnName, starServiceServName, starThreshInt, starThreshMeasuredInt }
  STATUS current
  DESCRIPTION
    "The total number of GPRS PDP sessions in a service is above the configured threshold value."

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

--#SUMMARY "[System] Threshold: Per Sevice GPRS PDP Sessions, context %s service name %s; measured %d
threshold %d"
--#ARGUMENTS {0,1,3,2}
--#STATE OPERATIONAL
--#SEVERITY WARNING
 ::= { starentTraps 438 }

```

```

starThreshClearPerServiceGPRSPdpSessions NOTIFICATION-TYPE
OBJECTS { starServiceVpnName, starServiceServName, starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
"The threshold condition is now clear."
--#SUMMARY "[System] Threshold: Per Sevice GPRS PDP Sessions CLEAR, context %s service name %s;
measured %d threshold %d"
--#ARGUMENTS {0,1,3,2}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starentTraps 439 }

```

```

starThreshMMESessions NOTIFICATION-TYPE

OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
"The total number of subscribers is above the configured threshold value.

Probable Cause: This is a user configurable threshold.

If the thresholding subsystem is configured to run in an 'alarm' model,
a starThreshClearMMESessions notification will be generated when the measured
value falls below the threshold."
--#SUMMARY "[System] Threshold: Session total threshold measured %d threshold %d"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY WARNING
 ::= { starentTraps 440 }

```

```

starThreshClearMMESessions NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
"The threshold condition is now clear."
--#SUMMARY "[System] Threshold: Total MME Sessions CLEAR; measured %d threshold %d"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starentTraps 441 }

```

```

starThreshMMEAuthFail NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
"The total number of subscribers is above the configured threshold value.

Probable Cause: This is a user configurable threshold.

If the thresholding subsystem is configured to run in an 'alarm' model,
a starThreshClearMMEAuthFail notification will be generated when the measured
value falls below the threshold."
--#SUMMARY "[System] Threshold: MME Auth Fail measured %d threshold %d"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY WARNING
 ::= { starentTraps 442 }

```

```

starThreshClearMMEAuthFail NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

STATUS current
DESCRIPTION
"The threshold condition is now clear."
--#SUMMARY "[System] Threshold: Total MME Auth Fail CLEAR; measured %d threshold %d"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starentTraps 443 }

starThreshMMEAttachFail NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
"The total number of subscribers is above the configured threshold value.

Probable Cause: This is a user configurable threshold.

If the thresholding subsystem is configured to run in an 'alarm' model,
a starThreshClearMMEAttachFail notification will be generated when the measured
value falls below the threshold."
--#SUMMARY "[System] Threshold: MME AttachFail measured %d threshold %d"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY WARNING
 ::= { starentTraps 444 }

starThreshClearMMEAttachFail NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
"The threshold condition is now clear."
--#SUMMARY "[System] Threshold: Total MME Attach Fail CLEAR; measured %d threshold %d"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starentTraps 445 }

starThreshCSCFSvcRegRcvdRate NOTIFICATION-TYPE
OBJECTS { starServiceVpnName, starServiceServName, starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
"The Per-Service CSCF Registration Per Interval count has gone above the configured threshold

Probable Cause: This is a user configurable threshold.

If the thresholding subsystem is configured to run in an 'alarm' model,
a starThreshClearCSCFSvcRegRcvdRate notification will be generated when the measured
value falls below the threshold."
--#SUMMARY "[Service CSCF-%s-%s] Threshold: CSCF Per-Service Registrations Per Interval; measured %d
threshold %d"
--#ARGUMENTS {0,1,3,2}
--#STATE OPERATIONAL
--#SEVERITY WARNING
 ::= { starentTraps 446 }

starThreshClearCSCFSvcRegRcvdRate NOTIFICATION-TYPE
OBJECTS { starServiceVpnName, starServiceServName, starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
"The threshold condition is now clear."
--#SUMMARY "[Service CSCF-%s-%s] Threshold: CSCF Per-Service Registrations Per Interval CLEAR;
measured %d threshold %d"
--#ARGUMENTS {0,1,3,2}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starentTraps 447 }

```



## STARENT-MIB DEFINITIONS ::= BEGIN

```

starThreshCSCFSvcTotalActiveReg NOTIFICATION-TYPE
    OBJECTS { starServiceVpnName, starServiceServName, starThreshInt, starThreshMeasuredInt }
    STATUS current
    DESCRIPTION
        "The Per-Service CSCF Total Active Registrations count has gone above the configured threshold

        Probable Cause: This is a user configurable threshold.

        If the thresholding subsystem is configured to run in an 'alarm' model,
        a starThreshClearCSCFSvcTotalActiveReg notification will be generated when the measured
        value falls below the threshold."
    --#SUMMARY "[Service CSCF-%s-%s] Threshold: CSCF Per-Service Total Active Registrations; measured %d
threshold %d"
    --#ARGUMENTS {0,1,3,2}
    --#STATE OPERATIONAL
    --#SEVERITY WARNING
    ::= { starentTraps 448 }

```

```

starThreshClearCSCFSvcTotalActiveReg NOTIFICATION-TYPE
    OBJECTS { starServiceVpnName, starServiceServName, starThreshInt, starThreshMeasuredInt }
    STATUS current
    DESCRIPTION
        "The threshold condition is now clear."
    --#SUMMARY "[Service CSCF-%s-%s] Threshold: CSCF Per-Service Total Active Registrations CLEAR;
measured %d threshold %d"
    --#ARGUMENTS {0,1,3,2}
    --#STATE OPERATIONAL
    --#SEVERITY INFORMATIONAL
    ::= { starentTraps 449 }

```

```

starThreshCSCFSvcInviteRcvdRate NOTIFICATION-TYPE
    OBJECTS { starServiceVpnName, starServiceServName, starThreshInt, starThreshMeasuredInt }
    STATUS current
    DESCRIPTION
        "The Per-Service CSCF Calls Per Interval count has gone above the configured threshold

        Probable Cause: This is a user configurable threshold.

        If the thresholding subsystem is configured to run in an 'alarm' model,
        a starThreshClearCSCFSvcInviteRcvdRate notification will be generated when the measured
        value falls below the threshold."
    --#SUMMARY "[Service CSCF-%s-%s] Threshold: CSCF Per-Service Calls Per Interval ; measured %d
threshold %d"
    --#ARGUMENTS {0,1,3,2}
    --#STATE OPERATIONAL
    --#SEVERITY WARNING
    ::= { starentTraps 450 }

```

```

starThreshClearCSCFSvcInviteRcvdRate NOTIFICATION-TYPE
    OBJECTS { starServiceVpnName, starServiceServName, starThreshInt, starThreshMeasuredInt }
    STATUS current
    DESCRIPTION
        "The threshold condition is now clear."
    --#SUMMARY "[Service CSCF-%s-%s] Threshold: CSCF Per-Service Calls Per Interval CLEAR; measured %d
threshold %d"
    --#ARGUMENTS {0,1,3,2}
    --#STATE OPERATIONAL
    --#SEVERITY INFORMATIONAL
    ::= { starentTraps 451 }

```

```

starThreshCSCFSvcTotalActiveCalls NOTIFICATION-TYPE
    OBJECTS { starServiceVpnName, starServiceServName, starThreshInt, starThreshMeasuredInt }
    STATUS current

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

DESCRIPTION
    "The Per-Service CSCF Total Active Calls count has gone above the configured threshold

    Probable Cause: This is a user configurable threshold.

    If the thresholding subsystem is configured to run in an 'alarm' model,
    a starThreshClearCSCFSvcTotalActiveCalls notification will be generated when the measured
    value falls below the threshold."
--#SUMMARY "[Service CSCF-%s-%s] Threshold: CSCF Per-Service Total Active Calls; measured %d
threshold %d"
--#ARGUMENTS {0,1,3,2}
--#STATE OPERATIONAL
--#SEVERITY WARNING
 ::= { starentTraps 452 }

starThreshClearCSCFSvcTotalActiveCalls NOTIFICATION-TYPE
    OBJECTS { starServiceVpnName, starServiceServName, starThreshInt, starThreshMeasuredInt }
    STATUS current
    DESCRIPTION
        "The threshold condition is now clear."
    --#SUMMARY "[Service CSCF-%s-%s] Threshold: CSCF Per-Service Total Active Calls CLEAR; measured %d
threshold %d"
    --#ARGUMENTS {0,1,3,2}
    --#STATE OPERATIONAL
    --#SEVERITY INFORMATIONAL
    ::= { starentTraps 453 }

starThreshCSCFSvcTotalCallFailure NOTIFICATION-TYPE
    OBJECTS { starServiceVpnName, starServiceServName, starThreshInt, starThreshMeasuredInt }
    STATUS current
    DESCRIPTION
        "The Per-Service CSCF Total Call Failure count has gone above the configured threshold

        Probable Cause: This is a user configurable threshold.

        If the thresholding subsystem is configured to run in an 'alarm' model,
        a starThreshClearCSCFSvcTotalCallFailure notification will be generated when the measured
        value falls below the threshold."
    --#SUMMARY "[Service CSCF-%s-%s] Threshold: CSCF Per-Service Total Call Failure; measured %d
threshold %d"
    --#ARGUMENTS {0,1,3,2}
    --#STATE OPERATIONAL
    --#SEVERITY WARNING
    ::= { starentTraps 454 }

starThreshClearCSCFSvcTotalCallFailure NOTIFICATION-TYPE
    OBJECTS { starServiceVpnName, starServiceServName, starThreshInt, starThreshMeasuredInt }
    STATUS current
    DESCRIPTION
        "The threshold condition is now clear."
    --#SUMMARY "[Service CSCF-%s-%s] Threshold: CSCF Per-Service Total Call Failure CLEAR; measured %d
threshold %d"
    --#ARGUMENTS {0,1,3,2}
    --#STATE OPERATIONAL
    --#SEVERITY INFORMATIONAL
    ::= { starentTraps 455 }

starThreshCSCFSvcErrorNoResource NOTIFICATION-TYPE
    OBJECTS { starServiceVpnName, starServiceServName, starThreshInt, starThreshMeasuredInt }
    STATUS current
    DESCRIPTION
        "The Per-Service CSCF No resource failure count has gone above the configured threshold

        Probable Cause: This is a user configurable threshold.

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

        If the thresholding subsystem is configured to run in an 'alarm' model,
        a starThreshClearCSCFSvcErrorNoResource notification will be generated when the measured
        value falls below the threshold."
--#SUMMARY "[Service CSCF-%s-%s] Threshold: CSCF Per-Service No resource failure; measured %d
threshold %d"
--#ARGUMENTS {0,1,3,2}
--#STATE OPERATIONAL
--#SEVERITY WARNING
 ::= { starentTraps 456 }

starThreshClearCSCFSvcErrorNoResource NOTIFICATION-TYPE
  OBJECTS { starServiceVpnName, starServiceServName, starThreshInt, starThreshMeasuredInt }
  STATUS current
  DESCRIPTION
    "The threshold condition is now clear."
  --#SUMMARY "[Service CSCF-%s-%s] Threshold: CSCF Per-Service No resource failure CLEAR; measured %d
threshold %d"
  --#ARGUMENTS {0,1,3,2}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 457 }

starThreshCSCFSvcErrorTcp NOTIFICATION-TYPE
  OBJECTS { starServiceVpnName, starServiceServName, starThreshInt, starThreshMeasuredInt }
  STATUS current
  DESCRIPTION
    "The Per-Service CSCF Tcp failure count has gone above the configured threshold

    Probable Cause: This is a user configurable threshold.

    If the thresholding subsystem is configured to run in an 'alarm' model,
    a starThreshClearCSCFSvcErrorTcp notification will be generated when the measured
    value falls below the threshold."
  --#SUMMARY "[Service CSCF-%s-%s] Threshold: CSCF Per-Service Tcp failure; measured %d threshold %d"
  --#ARGUMENTS {0,1,3,2}
  --#STATE OPERATIONAL
  --#SEVERITY WARNING
  ::= { starentTraps 458 }

starThreshClearCSCFSvcErrorTcp NOTIFICATION-TYPE
  OBJECTS { starServiceVpnName, starServiceServName, starThreshInt, starThreshMeasuredInt }
  STATUS current
  DESCRIPTION
    "The threshold condition is now clear."
  --#SUMMARY "[Service CSCF-%s-%s] Threshold: CSCF Per-Service Tcp failure CLEAR; measured %d threshold
%d"
  --#ARGUMENTS {0,1,3,2}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 459 }

starThreshCSCFSvcErrorPresence NOTIFICATION-TYPE
  OBJECTS { starServiceVpnName, starServiceServName, starThreshInt, starThreshMeasuredInt }
  STATUS current
  DESCRIPTION
    "The Per-Service CSCF Presence failure count has gone above the configured threshold

    Probable Cause: This is a user configurable threshold.

    If the thresholding subsystem is configured to run in an 'alarm' model,
    a starThreshClearCSCFSvcErrorPresence notification will be generated when the measured
    value falls below the threshold."
  --#SUMMARY "[Service CSCF-%s-%s] Threshold: CSCF Per-Service Presence failure; measured %d threshold
%d"
  --#ARGUMENTS {0,1,3,2}

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

--#STATE OPERATIONAL
--#SEVERITY WARNING
::= { starentTraps 460 }

starThreshClearCSCFSvcErrorPresence NOTIFICATION-TYPE
  OBJECTS { starServiceVpnName, starServiceServName, starThreshInt, starThreshMeasuredInt }
  STATUS current
  DESCRIPTION
    "The threshold condition is now clear."
  --#SUMMARY "[Service CSCF-%s-%s] Threshold: CSCF Per-Service Presence failure CLEAR; measured %d
threshold %d"
  --#ARGUMENTS {0,1,3,2}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 461 }

starThreshCSCFSvcErrorRegAuth NOTIFICATION-TYPE
  OBJECTS { starServiceVpnName, starServiceServName, starThreshInt, starThreshMeasuredInt }
  STATUS current
  DESCRIPTION
    "The Per-Service CSCF Reg-Auth failure count has gone above the configured threshold

    Probable Cause: This is a user configurable threshold.

    If the thresholding subsystem is configured to run in an 'alarm' model,
    a starThreshClearCSCFSvcErrorRegAuth notification will be generated when the measured
    value falls below the threshold."
  --#SUMMARY "[Service CSCF-%s-%s] Threshold: CSCF Per-Service Reg-Auth failure; measured %d threshold
%d"
  --#ARGUMENTS {0,1,3,2}
  --#STATE OPERATIONAL
  --#SEVERITY WARNING
  ::= { starentTraps 462 }

starThreshClearCSCFSvcErrorRegAuth NOTIFICATION-TYPE
  OBJECTS { starServiceVpnName, starServiceServName, starThreshInt, starThreshMeasuredInt }
  STATUS current
  DESCRIPTION
    "The threshold condition is now clear."
  --#SUMMARY "[Service CSCF-%s-%s] Threshold: CSCF Per-Service Reg-Auth failure CLEAR; measured %d
threshold %d"
  --#ARGUMENTS {0,1,3,2}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 463 }

starThreshBGPRoutes NOTIFICATION-TYPE
  OBJECTS { starServiceVpnName, starThreshPct, starThreshMeasuredPct }
  STATUS current
  DESCRIPTION
    "The Total number of BGP routes is above the configured threshold value.

    Probable Cause: This is a user configurable threshold.

    If the thresholding subsystem is configured to run in an 'alarm' model,
    a starThreshClearBGPRoutes notification will be generated when the measured
    value falls below the threshold."
  --#SUMMARY "[System] Threshold: maximum routes for context %s threshold %d%% measured %d%%"
  --#ARGUMENTS {0,1,2}
  --#STATE OPERATIONAL
  --#SEVERITY WARNING
  ::= { starentTraps 464 }

starThreshClearBGPRoutes NOTIFICATION-TYPE
  OBJECTS { starServiceVpnName, starThreshPct, starThreshMeasuredPct }

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

STATUS current
DESCRIPTION
    "The threshold condition is now clear."
--#SUMMARY "[System] Threshold: maximum routes clear for context %s threshold %d%% measured %d%%"
--#ARGUMENTS {0,1,2}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 465 }

starThreshPCCPolicySessions NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
    "The total number of PCC-Policy sessions is above the configured threshold value."
--#SUMMARY "[System] Threshold: Total PCC-Policy Sessions; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY WARNING
::= { starentTraps 466 }

starThreshClearPCCPolicySessions NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
    "The threshold condition is now clear."
--#SUMMARY "[System] Threshold: Total PCC-Policy Sessions CLEAR; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 467 }

starThreshPerServicePCCPolicySessions NOTIFICATION-TYPE
OBJECTS { starServiceVpnName, starServiceServName, starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
    "The total number of PCC-Policy sessions in a service is above the configured threshold value."
--#SUMMARY "[System] Threshold: Per Sevice PCC-Policy Sessions, context %s service name %s; measured
%d threshold %d"
--#ARGUMENTS {0,1,3,2}
--#STATE OPERATIONAL
--#SEVERITY WARNING
::= { starentTraps 468 }

starThreshClearPerServicePCCPolicySessions NOTIFICATION-TYPE
OBJECTS { starServiceVpnName, starServiceServName, starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
    "The threshold condition is now clear."
--#SUMMARY "[System] Threshold: Per Sevice PCC-Policy Sessions CLEAR, context %s service name %s;
measured %d threshold %d"
--#ARGUMENTS {0,1,3,2}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 469 }

starThreshPCCQuotaSessions NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
    "The total number of PCC-Quota sessions is above the configured threshold value."
--#SUMMARY "[System] Threshold: Total PCC-Quota Sessions; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY WARNING
::= { starentTraps 470 }

starThreshClearPCCQuotaSessions NOTIFICATION-TYPE

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
"The threshold condition is now clear."
--#SUMMARY "[System] Threshold: Total PCC-Quota Sessions CLEAR; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 471 }

starThreshPerServicePCCQuotaSessions NOTIFICATION-TYPE
OBJECTS { starServiceVpnName, starServiceServName, starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
"The total number of PCC-Quota sessions in a service is above the configured threshold value."
--#SUMMARY "[System] Threshold: Per Sevice PCC-Quota Sessions, context %s service name %s; measured
%d threshold %d"
--#ARGUMENTS {0,1,3,2}
--#STATE OPERATIONAL
--#SEVERITY WARNING
::= { starentTraps 472 }

starThreshClearPerServicePCCQuotaSessions NOTIFICATION-TYPE
OBJECTS { starServiceVpnName, starServiceServName, starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
"The threshold condition is now clear."
--#SUMMARY "[System] Threshold: Per Sevice PCC-Quota Sessions CLEAR, context %s service name %s;
measured %d threshold %d"
--#ARGUMENTS {0,1,3,2}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 473 }

starThreshPCCAFSessions NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
"The total number of PCC-AF sessions is above the configured threshold value."
--#SUMMARY "[System] Threshold: Total PCC-AF Sessions; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY WARNING
::= { starentTraps 474 }

starThreshClearPCCAFSessions NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
"The threshold condition is now clear."
--#SUMMARY "[System] Threshold: Total PCC-AF Sessions CLEAR; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 475 }

starThreshPerServicePCCAFSessions NOTIFICATION-TYPE
OBJECTS { starServiceVpnName, starServiceServName, starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
"The total number of PCC-AF sessions in a service is above the configured threshold value."
--#SUMMARY "[System] Threshold: Per Sevice PCC-AF Sessions, context %s service name %s; measured %d
threshold %d"
--#ARGUMENTS {0,1,3,2}
--#STATE OPERATIONAL
--#SEVERITY WARNING

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

 ::= { starentTraps 476 }

starThreshClearPerServicePCCAFSessions NOTIFICATION-TYPE
  OBJECTS { starServiceVpnName, starServiceServName, starThreshInt, starThreshMeasuredInt }
  STATUS current
  DESCRIPTION
    "The threshold condition is now clear."
    --#SUMMARY "[System] Threshold: Per Sevice PCC-AF Sessions CLEAR, context %s service name %s;
measured %d threshold %d"
    --#ARGUMENTS {0,1,3,2}
    --#STATE OPERATIONAL
    --#SEVERITY INFORMATIONAL
    ::= { starentTraps 477 }

starThreshNPUUtilization NOTIFICATION-TYPE
  OBJECTS { starNPUSlot, starThreshPct, starThreshMeasuredPct }
  STATUS current
  DESCRIPTION
    "The overall NPU utilization for the identified processor has exceeded for
    configured threshold value for the current monitoring period.

    Probable Cause: This is a user configurable threshold.

    If the thresholding subsystem is configured to run in an 'alarm' model,
    a starThreshClearNPUUtilization notification will be generated when the measured
    value falls below the threshold.This is not applicable to QVPC-SI and QVPC-DI."
    --#SUMMARY "[Card] Threshold: NPU utilization threshold for card %d threshold %d%% measured %d%%"
    --#ARGUMENTS {0,1,2}
    --#STATE OPERATIONAL
    --#SEVERITY WARNING
    ::= { starentTraps 478 }

starThreshClearNPUUtilization NOTIFICATION-TYPE
  OBJECTS { starNPUSlot, starThreshPct, starThreshMeasuredPct }
  STATUS current
  DESCRIPTION
    "The threshold condition is now clear.This is not applicable to QVPC-SI and QVPC-DI."
    --#SUMMARY "[Card] Threshold: NPU utilization threshold clear for card %d threshold %d%% measured
%d%%"
    --#ARGUMENTS {0,1,2}
    --#STATE OPERATIONAL
    --#SEVERITY INFORMATIONAL
    ::= { starentTraps 479 }

starThreshDnsLookupFailure NOTIFICATION-TYPE
  OBJECTS { starServiceVpnName, starThreshPct, starThreshMeasuredPct }
  STATUS current
  DESCRIPTION
    "The Total number of DNS lookup failures is above the configured threshold value.

    Probable Cause: This is a user configurable threshold.

    If the thresholding subsystem is configured to run in an 'alarm' model,
    a starThreshClearDnsLookupFailure notification will be generated when the measured
    value falls below the threshold."
    --#SUMMARY "[System] Threshold: DNS lookup failure for context %s threshold %d%% measured %d%%"
    --#ARGUMENTS {0,1,2}
    --#STATE OPERATIONAL
    --#SEVERITY WARNING
    ::= { starentTraps 480 }

starThreshClearDnsLookupFailure NOTIFICATION-TYPE
  OBJECTS { starServiceVpnName, starThreshPct, starThreshMeasuredPct }
  STATUS current
  DESCRIPTION
    "The threshold condition is now clear."
    --#SUMMARY "[System] Threshold: DNS lookup failure clear for context %s threshold %d%% measured %d%%"

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

--#ARGUMENTS {0,1,2}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starentTraps 481 }

starThreshDiameterRetryRate NOTIFICATION-TYPE
OBJECTS { starThreshPct, starThreshMeasuredPct }
STATUS current
DESCRIPTION
"The percentage of Diameter requests which has to be retried has exceeded the configured threshold
during the current monitoring period.

    Probable Cause: This is a user configurable threshold.

    If the thresholding subsystem is configured to run in an 'alarm' model,
    a starThreshClearDiameterRetryRate notification will be generated when the measured
    value falls below the threshold."
--#SUMMARY "[System] Threshold: Diameter retry rate threshold for threshold %d%% measured %d%%"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY WARNING
 ::= { starentTraps 482 }

starThreshClearDiameterRetryRate NOTIFICATION-TYPE
OBJECTS { starThreshPct, starThreshMeasuredPct }
STATUS current
DESCRIPTION
"The threshold condition is now clear."
--#SUMMARY "[System] Threshold: Diameter retry rate threshold clear for threshold %d%% measured %d%%"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starentTraps 483 }

starThreshHNBGWHnbSess NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
"The chassis-wide count of current HNBGW HNB sessions has gone above the configured threshold"
--#SUMMARY "[System] Threshold: HNBGW HNB Sessions; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY WARNING
 ::= { starentTraps 484 }

starThreshClearHNBGWHnbSess NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
"The threshold condition is now clear."
--#SUMMARY "[System] Threshold: HNBGW HNB Sessions CLEAR; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starentTraps 485 }

starThreshHNBGWUeSess NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
"The chassis-wide count of current HNBGW UE sessions has gone above the configured threshold "
--#SUMMARY "[System] Threshold: HNBGW UE Sessions; measured %d threshold %d"
--#ARGUMENTS {1,0}

```



## STARENT-MIB DEFINITIONS ::= BEGIN

```
--#STATE OPERATIONAL
--#SEVERITY WARNING
::= { starentTraps 486 }
```

```
starThreshClearHNBGWUeSess NOTIFICATION-TYPE
  OBJECTS { starThreshInt, starThreshMeasuredInt }
  STATUS current
  DESCRIPTION
    "The threshold condition is now clear."
  --#SUMMARY "[System] Threshold: HNBGW UE Sessions CLEAR; measured %d threshold %d"
  --#ARGUMENTS {1,0}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 487 }
```

```
starThreshHNBGWiuSess NOTIFICATION-TYPE
  OBJECTS { starThreshInt, starThreshMeasuredInt }
  STATUS current
  DESCRIPTION
    "The chassis-wide count of current HNBGW IU sessions has gone above the configured threshold"
  --#SUMMARY "[System] Threshold: HNBGW IU Sessions; measured %d threshold %d"
  --#ARGUMENTS {1,0}
  --#STATE OPERATIONAL
  --#SEVERITY WARNING
  ::= { starentTraps 488 }
```

```
starThreshClearHNBGWiuSess NOTIFICATION-TYPE
  OBJECTS { starThreshInt, starThreshMeasuredInt }
  STATUS current
  DESCRIPTION
    "The threshold condition is now clear."
  --#SUMMARY "[System] Threshold: HNBGW IU Sessions CLEAR; measured %d threshold %d"
  --#ARGUMENTS {1,0}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 489 }
```

```
starThreshPerServicePDGSessions NOTIFICATION-TYPE
  OBJECTS { starThreshInt, starThreshMeasuredInt }
  STATUS current
  DESCRIPTION
    "The total number of PDG sessions in a service is above the configured threshold value."
  --#SUMMARY "[System] Threshold: Per Service PDG Sessions; measured %d threshold %d"
  --#ARGUMENTS {1,0}
  --#STATE OPERATIONAL
  --#SEVERITY WARNING
  ::= { starentTraps 491 }
```

```
starThreshClearPerServicePDGSessions NOTIFICATION-TYPE
  OBJECTS { starThreshInt, starThreshMeasuredInt }
  STATUS current
  DESCRIPTION
    "The threshold condition is now clear."
  --#SUMMARY "[System] Threshold: Per Service PDG Sessions CLEAR, measured %d threshold %d"
  --#ARGUMENTS {1,0}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 492 }
```

```
starThreshSystemCapacity NOTIFICATION-TYPE
  OBJECTS { starThreshPct, starThreshMeasuredPct }
  STATUS current
  DESCRIPTION
    "The System resource capacity has exceeded the configured threshold"
```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

--#SUMMARY "[System] Threshold: System Resource Capacity for threshold %d%% measured %d%%"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY WARNING
::= { starentTraps 493 }

starThreshClearSystemCapacity NOTIFICATION-TYPE
OBJECTS { starThreshPct, starThreshMeasuredPct }
STATUS current
DESCRIPTION
    " The threshold condition is now clear for system capacity."
--#SUMMARY "[System] Threshold: System Resource Capacity clear for threshold %d%% measured %d%%"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 494 }

starThreshTpoRtoTimeout NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
    "The total number of TPO RTO timeouts is above the configured
    threshold value.
    Probable Cause: This is a user configurable threshold.
    If the thresholding subsystem is configured to run in an 'alarm' model,
    a starThreshClearTpoRtoTimeout notification will be generated when the
    measured value falls below the threshold."
--#SUMMARY "[System] Threshold: TPO RTO timeouts; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY WARNING
::= { starentTraps 495 }

starThreshClearTpoRtoTimeout NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
    "The threshold condition is now clear."
--#SUMMARY "[System] Threshold: TPO RTO timeouts CLEAR; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 496 }

starThreshTpoDnsFailure NOTIFICATION-TYPE
OBJECTS { starThreshPct, starThreshMeasuredPct }
STATUS current
DESCRIPTION
    "The total number of TPO DNS query failure is above the configured threshold value.
    Probable Cause: This is a user configurable threshold.
    If the thresholding subsystem is configured to run in an 'alarm' model,
    a starThreshClearTpoDnsFailure notification will be generated when the
    measured value falls below the threshold. "
--#SUMMARY "[System] Threshold: TPO DNS query failure for threshold %d%% measured %d%%"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY WARNING
::= { starentTraps 497 }

starThreshClearTpoDnsFailure NOTIFICATION-TYPE
OBJECTS { starThreshPct, starThreshMeasuredPct }
STATUS current
DESCRIPTION
    "The threshold condition is now clear."
--#SUMMARY "[System] Threshold: TPO DNS query failure clear for threshold %d%% measured %d%%"
--#ARGUMENTS {0,1}

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starentTraps 498 }

starThreshTpoLowCompressionGain NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
    "The total number of TPO low compression gain is above the configured
    threshold value.
    Probable Cause: This is a user configurable threshold.
    If the thresholding subsystem is configured to run in an 'alarm' model,
    a starThreshClearTpoLowCompressionGain notification will be generated
    when the measured value falls below the threshold."
--#SUMMARY "[System] Threshold: TPO TPO low compression gain; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY WARNING
 ::= { starentTraps 499 }

starThreshClearTpoLowCompressionGain NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
    "The threshold condition is now clear."
--#SUMMARY "[System] Threshold: TPO low compression gain CLEAR; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starentTraps 500 }

starThreshEPDGCurrSess NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
    "The chassis-wide count of current EPDG sessions has gone above the configured threshold

    Probable Cause: This is a user configurable threshold.

    If the thresholding subsystem is configured to run in an 'alarm' model, a
    starThreshClearEPDGCurrSess notification will be generated when the measured
    value falls below the threshold."
--#SUMMARY "[System] Threshold: EPDG Current Sessions; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY WARNING
 ::= { starentTraps 501 }

starThreshClearEPDGCurrSess NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
    "The threshold condition is now clear."
--#SUMMARY "[System] Threshold: EPDG Current Sessions CLEAR; measured %d threshold %d"
--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starentTraps 502 }

starThreshCardTemperatureNearPowerOffLimit NOTIFICATION-TYPE
OBJECTS { starSlotNum, starThreshInt, starThreshMeasuredInt}
STATUS current
DESCRIPTION
    "On the certain card, the distance between the poweroff/reset point and
    current temperature on card is smaller than the setted threshold, during
    the current monitoring period.

```

```

    Probable Cause: This is a user configurable threshold.
    Possible reason to cause this alarm:
    1) External temperature is too high;
    2) One or more fan failures;
    3) Blockages the prevent fan air inflow/outflow.

    If the thresholding subsystem is configured to run in an 'alarm' model, a
    starThreshClearCardTemperaturePowerOffLimit notification will be generated
    when the measured temperature falls, making the distance between the
    poweroff/reset point and current temperature larger than the setted
    threshold."
    --#SUMMARY "[Card] Threshold: Card temperature near power off limit alarm for slot number %d
threshold %d measured %d"
    --#ARGUMENTS {0,1,2}
    --#STATE OPERATIONAL
    --#SEVERITY MAJOR
    ::= { starentTraps 503 }

starThreshClearCardTemperaturePowerOffLimit NOTIFICATION-TYPE
    OBJECTS {starSlotNum, starThreshInt, starThreshMeasuredInt}
    STATUS current
    DESCRIPTION
        "On the certain card, the distance between the poweroff/reset point and
        current temperature on card is larger than the setted clear point."
    --#SUMMARY "[Card] Threshold: Card temperature near power off limit clear for slot number %d
threshold %d measured %d"
    --#ARGUMENTS {0,1,2}
    --#STATE OPERATIONAL
    --#SEVERITY INFORMATIONAL
    ::= { starentTraps 504 }

starThreshHENBGWHenbSessions NOTIFICATION-TYPE
    OBJECTS {starThreshInt, starThreshMeasuredInt}
    STATUS current
    DESCRIPTION
        "The total number of HENBGW Henb sessions is above the configured threshold value.

        Probable Cause: This is a user configurable threshold.

        If the thresholding subsystem is configured to run in an 'alarm' model, a
    starThreshClearHENBGWHenbSessions
        notification will be generated when the measure value falls below the threshold."
    --#SUMMARY "[System] Threshold: Total HENBGW Henb Sessions; measured %d threshold %d"
    --#ARGUMENTS {1,0}
    --#STATE OPERATIONAL
    --#SEVERITY WARNING
    ::= { starentTraps 513 }

starThreshClearHENBGWHenbSessions NOTIFICATION-TYPE
    OBJECTS { starThreshInt, starThreshMeasuredInt }
    STATUS current
    DESCRIPTION
        "The threshold condition is now clear."
    --#SUMMARY "[System] Threshold: Total HENBGW Henb Sessions CLEAR; measured %d threshold %d"
    --#ARGUMENTS {1,0}
    --#STATE OPERATIONAL
    --#SEVERITY INFORMATIONAL
    ::= { starentTraps 514 }

starThreshHENBGWUeSessions NOTIFICATION-TYPE
    OBJECTS {starThreshInt, starThreshMeasuredInt}
    STATUS current
    DESCRIPTION
        "The total number of HENBGW UE sessions is above the configured threshold value.

```

## STARENT-MIB DEFINITIONS ::= BEGIN

Probable Cause: This is a user configurable threshold.

If the thresholding subsystem is configured to run in an 'alarm' model, a  
 starThreshClearHENBGWUeSessions  
 notification will be generated when the measure value falls below the threshold."  
 --#SUMMARY "[System] Threshold: Total HENBGW Sessions; measured %d threshold %d"  
 --#ARGUMENTS {1,0}  
 --#STATE OPERATIONAL  
 --#SEVERITY WARNING  
 ::= { starentTraps 515 }

starThreshClearHENBGWUeSessions NOTIFICATION-TYPE  
 OBJECTS { starThreshInt, starThreshMeasuredInt }  
 STATUS current  
 DESCRIPTION  
 "The threshold condition is now clear."  
 --#SUMMARY "[System] Threshold: Total HENBGW UE Sessions CLEAR; measured %d threshold %d"  
 --#ARGUMENTS {1,0}  
 --#STATE OPERATIONAL  
 --#SEVERITY INFORMATIONAL  
 ::= { starentTraps 516 }

starThreshHENBGWPagingMessages NOTIFICATION-TYPE  
 OBJECTS { starThreshInt, starThreshMeasuredInt }  
 STATUS current  
 DESCRIPTION  
 "The total number of HENBGW Paging Messages received is above the configured threshold value.  
  
 Probable Cause: This is a user configurable threshold.

If the thresholding subsystem is configured to run in an 'alarm' model, a  
 starThreshClearHENBGWPagingMessages  
 notification will be generated when the measured value falls below the threshold."  
 --#SUMMARY "[System] Threshold: Total HENBGW Paging Messages; measured %d threshold %d"  
 --#ARGUMENTS {1,0}  
 --#STATE OPERATIONAL  
 --#SEVERITY WARNING  
 ::= { starentTraps 517 }

starThreshClearHENBGWPagingMessages NOTIFICATION-TYPE  
 OBJECTS { starThreshInt, starThreshMeasuredInt }  
 STATUS current  
 DESCRIPTION  
 "The threshold condition is now clear."  
 --#SUMMARY "[System] Threshold: Total HENBGW Paging Messages CLEAR; measured %d threshold %d"  
 --#ARGUMENTS {1,0}  
 --#STATE OPERATIONAL  
 --#SEVERITY INFORMATIONAL  
 ::= { starentTraps 518}

starThreshPerServiceSAMOGSessions NOTIFICATION-TYPE  
 OBJECTS { starThreshInt, starThreshMeasuredInt }  
 STATUS current  
 DESCRIPTION  
 "The total number of SAMOG sessions in a service is above the configured threshold value."  
 --#SUMMARY "[System] Threshold: Per Sevice SAMOG Sessions, measured %d threshold %d"  
 --#ARGUMENTS {1,0}  
 --#STATE OPERATIONAL  
 --#SEVERITY WARNING  
 ::= { starentTraps 519 }

starThreshClearPerServiceSAMOGSessions NOTIFICATION-TYPE  
 OBJECTS { starThreshInt, starThreshMeasuredInt }  
 STATUS current  
 DESCRIPTION  
 "The threshold condition is now clear."  
 --#SUMMARY "[System] Threshold: Per Sevice SAMOG Sessions CLEAR, measured %d threshold %d"

## STARENT-MIB DEFINITIONS ::= BEGIN

```

--#ARGUMENTS {1,0}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 520 }

starThreshNATPktDrop NOTIFICATION-TYPE
  OBJECTS { starIPPoolContext,starIPPoolName, starThreshPct, starThreshMeasuredPct }
  STATUS current
  DESCRIPTION
    "The NAT packet drops from a NAT pool is above the configured threshold value.

    Probable Cause: This is a user configurable threshold.

    If the thresholding subsystem is configured to run in an 'alarm' model,
    a starThreshNATPktDrop notification will be generated when the measured
    value exceeds the threshold."
  --#SUMMARY "[System] Threshold: NAT Pkt Drop in context %s for pool %s threshold %d%% measured %d%%"
  --#ARGUMENTS {0,1,2,3}
  --#STATE OPERATIONAL
  --#SEVERITY WARNING
  ::= { starentTraps 521 }

starThreshClearNATPktDrop NOTIFICATION-TYPE
  OBJECTS { starIPPoolContext,starIPPoolName, starThreshPct, starThreshMeasuredPct }
  STATUS current
  DESCRIPTION
    "The threshold condition is now clear."
  --#SUMMARY "[System] Threshold: NAT Pkt Drop threshold clear in context %s pool %s threshold %d%%
measured %d%%"
  --#ARGUMENTS {0,1,2,3}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 522 }

starThreshFabricEGQDiscards NOTIFICATION-TYPE
  OBJECTS { starSlotNum, starThreshDeviceNum, starThreshMeasuredInt, starThreshInt, starThreshPeriodInt
}
  STATUS current
  DESCRIPTION
    "The number of EGQDiscards observed during configured threshold and interval exceeded.
    Probable Cause: Possible FAP or FE issue. Collect more data by running .show fabric health.
command."
  --#SUMMARY "Threshold EGQDiscards slot %d device %d measured %d threshold %d per %d sec"
  --#ARGUMENTS {0,1,2,3,4}
  --#STATE OPERATIONAL
  --#SEVERITY CRITICAL
  ::= { starentTraps 523 }

starThreshClearFabricEGQDiscards NOTIFICATION-TYPE
  OBJECTS { starSlotNum, starThreshDeviceNum, starThreshMeasuredInt, starThreshInt }
  STATUS current
  DESCRIPTION
    "The threshold condition is now clear."
  --#SUMMARY "Threshold EGQDiscards slot %d device %d threshold CLEAR measured %d threshold %d"
  --#ARGUMENTS {0,1,2,3}
  --#STATE OPERATIONAL
  --#SEVERITY CRITICAL
  ::= { starentTraps 524 }

starGILANServiceStart NOTIFICATION-TYPE
  OBJECTS { starServiceVpnName, starServiceServName }
  STATUS current
  DESCRIPTION
    "A GILAN Service has started

    Action to be Taken: No action required"

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

--#SUMMARY "[Service GILAN-%s-%s] GILAN service has started"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starentTraps 525 }

starGILANServiceStop NOTIFICATION-TYPE
OBJECTS { starServiceVpnName, starServiceServName }
STATUS current
DESCRIPTION
    "A GILAN Service has stopped

    Probable Cause: This is typically caused by operator invention. In
    unusual cases it can be caused by the loss of resources (PACs/PSCs) to
    support the running configuration.

    Action to be Taken: If the GILAN service shutdown was not planned,
    examine the admin logs for an indication of the failure. Check the
    crash logs for an indication of a software failure.

    Clear Condition: Verify that the GILAN service is operational.

    Condition Clear Alarm: A starGILANServiceStart notification will be generated when
    the service is restarted"
--#SUMMARY "[Service GILAN-%s-%s] GILAN service has stopped"
--#ARGUMENTS {0,1}
--#STATE DEGRADED
--#SEVERITY MAJOR
 ::= { starentTraps 526 }

starThreshEPDGIKEV2SetupAttempts NOTIFICATION-TYPE
OBJECTS { starServiceVpnName, starServiceServName, starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
    "The number of IKEv2 Setup attempts requests seen for this ePDG service has exceeded the
    configured
    threshold.

    Probable Cause: This is a user configurable threshold.

    If the thresholding subsystem is configured to run in an 'alarm' model,
    a starThreshEPDGIKEV2SetupAttempts notification will be generated when the measured
    value falls below the threshold."
--#SUMMARY "[Service ePDG-%s-%s] Threshold: ePDG Per-Service IKEv2 Setup Attempts; measured %d
threshold %d"
--#ARGUMENTS {0,1,3,2}
--#STATE OPERATIONAL
--#SEVERITY WARNING
 ::= { starentTraps 527 }

starThreshClearEPDGIKEV2SetupAttempts NOTIFICATION-TYPE
OBJECTS { starServiceVpnName, starServiceServName, starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
    "The threshold condition is now clear"
--#SUMMARY "[Service ePDG-%s-%s] Threshold: ePDG Per-Service IKEv2 Setup Attempts CLEAR; measured %d
threshold %d"
--#ARGUMENTS {0,1,3,2}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starentTraps 528 }

starThreshEPDGIKEV2AuthFailures NOTIFICATION-TYPE
OBJECTS { starServiceVpnName, starServiceServName, starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

        "The number of IKEv2 Authentication Failures seen for this ePDG service has exceeded the
configured
        threshold.

        Probable Cause: This is a user configurable threshold.

        If the thresholding subsystem is configured to run in an 'alarm' model,
        a starThreshEPDGIKEV2AuthFailures notification will be generated when the measured
        value falls below the threshold."
--#SUMMARY "[Service ePDG-%s-%s] Threshold: ePDG Per-Service IKEv2 Authentication Failures; measured
%d threshold %d"
--#ARGUMENTS {0,1,3,2}
--#STATE OPERATIONAL
--#SEVERITY WARNING
::= { starentTraps 529 }

starThreshClearEPDGIKEV2AuthFailures NOTIFICATION-TYPE
OBJECTS { starServiceVpnName, starServiceServName, starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
    "The threshold condition is now clear"
--#SUMMARY "[Service ePDG-%s-%s] Threshold: ePDG Per-Service IKEv2 Authentication Failures CLEAR;
measured %d threshold %d"
--#ARGUMENTS {0,1,3,2}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 530 }

starThreshEPDGIKEV2SetupSuccess NOTIFICATION-TYPE
OBJECTS { starServiceVpnName, starServiceServName, starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
    "The number of IKEv2 Setup Success seen for this ePDG service has exceeded the configured
threshold.

    Probable Cause: This is a user configurable threshold.

    If the thresholding subsystem is configured to run in an 'alarm' model,
    a starThreshEPDGIKEV2SetupSuccess notification will be generated when the measured
    value falls below the threshold."
--#SUMMARY "[Service ePDG-%s-%s] Threshold: ePDG Per-Service IKEv2 Setup Success; measured %d
threshold %d"
--#ARGUMENTS {0,1,3,2}
--#STATE OPERATIONAL
--#SEVERITY WARNING
::= { starentTraps 531 }

starThreshClearEPDGIKEV2SetupSuccess NOTIFICATION-TYPE
OBJECTS { starServiceVpnName, starServiceServName, starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
    "The threshold condition is now clear"
--#SUMMARY "[Service ePDG-%s-%s] Threshold: ePDG Per-Service IKEv2 Setup Success CLEAR; measured %d
threshold %d"
--#ARGUMENTS {0,1,3,2}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 532 }

starThreshEPDGIKEV2SetupFailure NOTIFICATION-TYPE
OBJECTS { starServiceVpnName, starServiceServName, starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
    "The number of IKEv2 Setup Failure seen for this ePDG service has exceeded the configured
threshold.

```



## STARENT-MIB DEFINITIONS ::= BEGIN

```

        Probable Cause: This is a user configurable threshold.

        If the thresholding subsystem is configured to run in an 'alarm' model,
        a starThreshEPDGIKEV2SetupFailure notification will be generated when the measured
        value falls below the threshold."
--#SUMMARY "[Service ePDG-%s-%s] Threshold: ePDG Per-Service IKEv2 Setup Failure; measured %d
threshold %d"
--#ARGUMENTS {0,1,3,2}
--#STATE OPERATIONAL
--#SEVERITY WARNING
::= { starentTraps 533 }

starThreshClearEPDGIKEV2SetupFailure NOTIFICATION-TYPE
OBJECTS { starServiceVpnName, starServiceServName, starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
    "The threshold condition is now clear"
--#SUMMARY "[Service ePDG-%s-%s] Threshold: ePDG Per-Service IKEv2 Setup Failure CLEAR; measured %d
threshold %d"
--#ARGUMENTS {0,1,3,2}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 534 }

starThreshEPDGIKEV2SetupFailureRate NOTIFICATION-TYPE
OBJECTS { starServiceVpnName, starServiceServName, starThreshPct, starThreshMeasuredPct }
STATUS current
DESCRIPTION
    "The rate of IKEv2 Setup failures (as a percentage of total requests) seen for this ePDG service
    has exceeded the configured threshold.

    Probable Cause: This is a user configurable threshold.

    If the thresholding subsystem is configured to run in an 'alarm' model,
    a starThreshEPDGIKEV2SetupFailureRate notification will be generated when the measured
    value falls below the threshold."
--#SUMMARY "[Service ePDG-%s-%s] Threshold: ePDG Per-Service IKEv2 Setup Failure Rate; measured %d%
threshold %d%"
--#ARGUMENTS {0,1,2,3}
--#STATE OPERATIONAL
--#SEVERITY WARNING
::= { starentTraps 535 }

starThreshClearEPDGIKEV2SetupFailureRate NOTIFICATION-TYPE
OBJECTS { starServiceVpnName, starServiceServName, starThreshPct, starThreshMeasuredPct }
STATUS current
DESCRIPTION
    "The threshold condition is now clear"
--#SUMMARY "[Service ePDG-%s-%s] Threshold: ePDG Per-Service IKEv2 Setup Failure Rate CLEAR; measured
%d% threshold %d%"
--#ARGUMENTS {0,1,2,3}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 536 }

starThreshLagRxUtil NOTIFICATION-TYPE
OBJECTS { starLAGGroup, starThreshPct, starThreshMeasuredPct }
STATUS current
DESCRIPTION
    "The Rx utilization of port on a lag group has exceeded the configured threshold value during
    the current monitoring period.

    Probable Cause: This is a user configurable threshold.

    If the thresholding subsystem is configured to run in an 'alarm' model,
    a starThreshClearLagRxUtil notification will be generated when the measured
    value falls below the threshold."

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

--#SUMMARY "[System] Threshold: lag ports rx utilization threshold for lag group id %d threshold %d%%
measured %d%%"
--#ARGUMENTS {0,1,2}
--#STATE OPERATIONAL
--#SEVERITY WARNING
::= { starentTraps 537 }

```

```

starThreshClearLagRxUtil NOTIFICATION-TYPE
OBJECTS { starLAGGroup, starThreshPct, starThreshMeasuredPct }
STATUS current
DESCRIPTION
"The threshold condition is now clear."
--#SUMMARY "[System] Threshold: lag ports rx utilization threshold clear for lag group id %d
threshold %d%% measured %d%%"
--#ARGUMENTS {0,1,2}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 538 }

```

```

starThreshLagTxUtil NOTIFICATION-TYPE
OBJECTS { starLAGGroup, starThreshPct, starThreshMeasuredPct }
STATUS current
DESCRIPTION
"The Tx utilization of port on a lag group has exceeded the configured threshold value during
the current monitoring period.

```

Probable Cause: This is a user configurable threshold.

If the thresholding subsystem is configured to run in an 'alarm' model,  
a starThreshClearLagTxUtil notification will be generated when the measured  
value falls below the threshold."

```

--#SUMMARY "[System] Threshold: lag ports tx utilization threshold for lag group id %d threshold %d%%
measured %d%%"
--#ARGUMENTS {0,1,2}
--#STATE OPERATIONAL
--#SEVERITY WARNING
::= { starentTraps 539 }

```

```

starThreshClearLagTxUtil NOTIFICATION-TYPE
OBJECTS { starLAGGroup, starThreshPct, starThreshMeasuredPct }
STATUS current
DESCRIPTION
"The threshold condition is now clear."
--#SUMMARY "[System] Threshold: lag ports tx utilization threshold clear for lag group id %d
threshold %d%% measured %d%%"
--#ARGUMENTS {0,1,2}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 540 }

```

```

starThreshCPUCryptoCoresUtilization NOTIFICATION-TYPE
OBJECTS { starCPUSlot, starCPUNumber, starCPUCoreNumber, starThreshPct, starThreshMeasuredPct }
STATUS current
DESCRIPTION
"The CPU Crypto Core utilization has exceeded for configured
threshold value for the current monitoring period.

```

Probable Cause: This is a user configurable threshold.

If the thresholding subsystem is configured to run in an 'alarm' model,  
a starThreshClearCPUCryptoCoresUtilization notification will be generated when the measured  
value falls below the threshold."

```

--#SUMMARY "[Card] Threshold: CPU utilization threshold for card %d CPU %d CORE %d threshold %d%%
measured %d%%"
--#ARGUMENTS {0,1,2,3,4}

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

--#STATE OPERATIONAL
--#SEVERITY WARNING
::= { starentTraps 541 }

starThreshClearCPUCryptoCoresUtilization NOTIFICATION-TYPE
  OBJECTS { starCPUSlot, starCPUNumber, starCPUCoreNumber, starThreshPct, starThreshMeasuredPct }
  STATUS current
  DESCRIPTION
    "The threshold condition is now clear."
  --#SUMMARY "[Card] Threshold: CPU utilization threshold clear card %d for CPU %d CORE %d threshold
%d%% measured %d%%"
  --#ARGUMENTS {0,1,2,3,4}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 542}

-- Non Thresholds Range 2

starOSPFNeighborDown NOTIFICATION-TYPE
  OBJECTS { starContextName, starInterfaceName, starInterfaceIPAddress, starOSPFNeighborRouterID,
starOSPFFromState, starOSPFToState }
  STATUS current
  DESCRIPTION
    "An OSPF neighbor is down.

    Condition Clear Alarm: A starOSPFNeighborFull notification will be generated when the neighbor
    is restored."
  --#SUMMARY "[VPN %s] OSPF Neighbor down, interface %s/%s, OSPF Neighbor %s, transitioned from state
%s to %s"
  --#ARGUMENTS {0,1,2,3,4,5}
  --#STATE DEGRADED
  --#SEVERITY MINOR
  ::= { starentTraps 1001 }

starOSPFNeighborFull NOTIFICATION-TYPE
  OBJECTS { starContextName, starInterfaceName, starInterfaceIPAddress, starOSPFNeighborRouterID }
  STATUS current
  DESCRIPTION
    "An OSPF neighbor is full. A starOSPFNeighborFull notification is only sent for neighbors
    which had previous been declared down via a starOSPFNeighborDown notification."
  --#SUMMARY "[VPN %s] OSPF Neighbor full, interface %s/%s, OSPF Neighbor %s"
  --#ARGUMENTS {0,1,2,3}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 1002 }

starM3UAPSDown NOTIFICATION-TYPE
  OBJECTS { starSS7rdId, starSS7M3UAPsId }
  STATUS current
  DESCRIPTION
    "The M3UA Peer Server is unavailable.

    Possibe reason: All related Peer Server Processes(PSPs) are in the ASP-DOWN state for this Peer
    Server.

    Condition Clear Alarm: A starM3UAPSActive notification will be generated when
    the Peer Server becomes reachable as at least one PSP is in ASP-ACTIVE state"
  --#SUMMARY "[ss7-routing-domain %d] peer-server-%d is down"
  --#ARGUMENTS {0,1}
  --#STATE DEGRADED
  --#SEVERITY MAJOR
  ::= { starentTraps 1004 }

starM3UAPSActive NOTIFICATION-TYPE
  OBJECTS { starSS7rdId, starSS7M3UAPsId }
  STATUS current

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

DESCRIPTION
"Peer Server is available and application traffic is active.This state implies that at
least one PSP is in the ASP-ACTIVE state.
starM3UAPSActive is only generated for Application Services which were previously declared down via a
starM3UAPSDown notification"

--#SUMMARY "[ss7-routing-domain %d] peer-server-%d is active"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 1005 }

starM3UAPSPDown NOTIFICATION-TYPE
OBJECTS {
    starSS7rdId,
    starSS7M3UAPsId,
    starSS7M3UAPspId,
    starSS7CauseString
}
STATUS current
DESCRIPTION
"An ASP Down message received from the remote M3UA peer indicates the adaptation layer at the remote
M3UA peer
is NOT ready to receive DATA, SSNM, RKM or ASPTM messages

Possibe reason:
1. SCTP association is down or
2. Remote peer server process is down

Condition Clear Alarm: A starM3UAPSPUp notification will be generated when
the reemote ASP becomes available"
--#SUMMARY "[ss7-routing-domain %d] peer-server %d peer-server-process %d is down cause %s"
--#ARGUMENTS {0,1,2,3}
--#STATE DEGRADED
--#SEVERITY MINOR
::= { starentTraps 1006 }

starM3UAPSPUp NOTIFICATION-TYPE
OBJECTS {
    starSS7rdId,
    starSS7M3UAPsId,
    starSS7M3UAPspId,
    starSS7CauseString
}
STATUS current
DESCRIPTION
"An ASP Up message received from the remote M3UA peer indicates that that the
adaptation layer at the remote peer is ready to receive any ASPSM/ASPTM messages for all
Routing Keys that the ASP is configured to serve
starM3UAPSPUp is generated only when previous starM3UAPSPDown was generated"
--#SUMMARY "[ss7-routing-domain %d] peer-server %d peer-server-process %d is active cause %s"
--#ARGUMENTS {0,1,2,3}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 1007 }

starSCCPSPspRcvd NOTIFICATION-TYPE
OBJECTS { starSccpNwId, starSS7Pc, starSccpSsn }
STATUS current
DESCRIPTION
"Subsystem prohibitted received from a peer. The receiving node needs to update the translation
tables so that traffic could be re routed to a
backup system if available
Condition Clear: A starSCCPSPspClear notification will be generated when this condition is cleared."
--#SUMMARY "[sccp-network %d] dpc-%d ssn-%d prohibited"

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

--#ARGUMENTS {0,1,2}
--#STATE DEGRADED
--#SEVERITY MAJOR
 ::= { starentTraps 1008 }

starSCCPSSpClear NOTIFICATION-TYPE
  OBJECTS { starSccpNwId, starSS7Pc, starSccpSsn }
  STATUS current
  DESCRIPTION
    "Subsystem available received from a peer. This indicates a previously prohibited
    node is now available. Receiving node needs to update its translation tables
    A starSCCPSSpClear notification is only generated for peers which had previously generated a
    starSCCPSSpRcvd notification"
  --#SUMMARY "[sccp-network %d] dpc-%d ssn-%d allowed"
  --#ARGUMENTS {0,1,2}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 1009 }

starSGSNRNCReset NOTIFICATION-TYPE
  OBJECTS { starSessSGSNVpnName,
starSessSGSNServName,starSessSGSNMcc,starSessSGSNMnc,starSessSGSNRncId}
  STATUS current
  DESCRIPTION
    "SGSN has received an Radio Network Controller(RNC) reset event.SGSN will clean up all the Iu
    connections with the RNC.
    This event is not generated when we get RNC Reset the first time system boots up. This trap is
    generated only on subsequent reset events"

    --#SUMMARY "[Service SGSN %s-%s] RNC Reset event received ; MCC %s MNC %s RncId %d"
    --#ARGUMENTS {0,1,2,3,4}
    --#STATE OPERATIONAL
    --#SEVERITY INFORMATIONAL
    ::= { starentTraps 1010 }

starSGSNHLRReset NOTIFICATION-TYPE
  OBJECTS { starSessSGSNVpnName, starSessSGSNServName, starSessSGSNHlrNum}
  STATUS current
  DESCRIPTION
    "Home Location register(HLR) reset event received. SGSN will mark all the subscribers served by this
    HLR so that the
    subscription record can be fetched again on subsequent user activity"

    --#SUMMARY "[Service SGSN %s-%s] HLR Reset event received ; HLR Number %s"
    --#ARGUMENTS {0,1,2}
    --#STATE OPERATIONAL
    --#SEVERITY INFORMATIONAL
    ::= { starentTraps 1011 }

starSGSNGtpcPathFailure NOTIFICATION-TYPE
  OBJECTS {starSGTPVpnName, starSGTPServName, starSGTPPeerAddr , starSGTPPeerPort , starSGTPSelfAddr,
starSGTPSelfPort}
  STATUS current
  DESCRIPTION
    "No response received from peer GPRS Serving Node(GSN) as several messages have timed out. The
    control path towards the peer GSN is down.
    Check that the peer GGSN or SGSN is UP

    Possibe reason: Remote GSN is down

    Condition Clear Alarm: A starSGSNGtpcPathFailureClear notification will be generated when
    the control path towards the peer GSN is available"
  --#SUMMARY "[Service SGTP %s-%s] GTP control path failure. peer-end-point %s:%d , self-end-point
%s:%d"
  --#ARGUMENTS {0,1,2,3,4,5}
  --#STATE DEGRADED

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

--#SEVERITY MAJOR
 ::= { starentTraps 1012 }

starSGSNGtpcPathFailureClear NOTIFICATION-TYPE
  OBJECTS {starSGTPVpnName, starSGTPServName, starSGTPPeerAddr , starSGTPPeerPort , starSGTPSelfAddr,
starSGTPSelfPort}
  STATUS current
  DESCRIPTION
    "The path to the peer GSN which was down is now available
    A starSGSNGtpcPathFailureClear notification is only generated for GSNs which had previously generated a
starSGSNGtpcPathFailure notification"
  --#SUMMARY "[Service SGTP %s-%s] GTP control path active peer-end-point %s:%d , self-end-point
%s:%d"
  --#ARGUMENTS {0,1,2,3,4,5}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 1013 }

starSGSNGtpuPathFailure NOTIFICATION-TYPE
  OBJECTS {starSGTPVpnName, starSGTPServName, starSGTPPeerAddr , starSGTPPeerPort , starSGTPSelfAddr,
starSGTPSelfPort}
  STATUS current
  DESCRIPTION
    "No response received for ECHO request sent from SGSN. Data path failure detected towards peer GPRS
Serving Node(GSN) or Radio Network Controller(RNC) .
    Check if the peer RNC or GSN is up

    Possibe reason: Remote GSN is down

    Condition Clear Alarm: A starSGSNGtpuPathFailureClear notification will be generated when
the data path to the remote GSN becomes available"
  --#SUMMARY "[Service SGTP %s-%s] GTP data path failure. peer-end-point %s:%d , self-end-point %s:%d"
  --#ARGUMENTS {0,1,2,3,4,5}
  --#STATE DEGRADED
  --#SEVERITY MAJOR
  ::= { starentTraps 1014 }

starSGSNGtpuPathFailureClear NOTIFICATION-TYPE
  OBJECTS {starSGTPVpnName, starSGTPServName, starSGTPPeerAddr , starSGTPPeerPort , starSGTPSelfAddr,
starSGTPSelfPort}
  STATUS current
  DESCRIPTION
    "The data path toward peer GSN or RNC is now available
    A starSGSNGtpuPathFailureClear notification is only sent for peers which had previously generated a
starSGSNGtpuPathFailure notification."
  --#SUMMARY "[Service SGTP %s-%s] GTP data path is available peer-end-point %s:%d , self-end-point
%s:%d"
  --#ARGUMENTS {0,1,2,3,4,5}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 1015 }

starMTP3LinkOutOfService NOTIFICATION-TYPE
  OBJECTS {starSS7rdId,starSS7MTP3LinkSetId, starSS7MTP3LinkId}
  STATUS current
  DESCRIPTION
    "Message Transfer Part(MTP3) link out of service.

    Possibe reason:
    1. Physical link is down or
    2. Layer 2 (SSCOP/MTP2) is down
    3. Operator action - link deactivated.

    Condition Clear Alarm: A starMTP3LinkInService notification will be generated when
the link comes back in service"

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

--#SUMMARY "[ss7-routing-domain %d] linkset-%d link-%d out of service"
--#ARGUMENTS {0,1,2}
--#STATE DEGRADED
--#SEVERITY MINOR
 ::= { starentTraps 1016 }

starMTP3LinkInService NOTIFICATION-TYPE
OBJECTS {starSS7rdId,starSS7MTP3LinkSetId, starSS7MTP3LinkId}
STATUS current
DESCRIPTION
"Message Transfer Part(MTP3) link is in service."
--#SUMMARY "[ss7-routing-domain %d] linkset-%d link-%d in service"
--#ARGUMENTS {0,1,2}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starentTraps 1017 }

starMTP3LinkSetUnAvailable NOTIFICATION-TYPE
OBJECTS {starSS7rdId,starSS7MTP3LinkSetId}
STATUS current
DESCRIPTION
"Message Transfer Part(MTP3) linkset Unavailable

Possible reason:
1. All the links in the linkset is down.
2. Operator action - linkset deactivated.

Condition Clear Alarm: A starMTP3LinkSetAvailable notification will be generated when
the previously down linkset is available"
--#SUMMARY "[ss7-routing-domain%d] linkset-%d unavailable"
--#ARGUMENTS {0,1}
--#STATE DEGRADED
--#SEVERITY MAJOR
 ::= { starentTraps 1018 }

starMTP3LinkSetAvailable NOTIFICATION-TYPE
OBJECTS {starSS7rdId, starSS7MTP3LinkSetId}
STATUS current
DESCRIPTION
"Message Transfer Part(MTP3) linkset Available.
A starMTP3LinkSetAvailable notification is only generated for linksets which previously generated a
starMTP3LinkSetUnavailable notification"
--#SUMMARY "[ss7-routing-domain%d] linkset-%d available"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starentTraps 1019 }

starSCTPAssociationFail NOTIFICATION-TYPE
OBJECTS {starSS7rdId, starSS7M3UAPsId, starSS7M3UAPspId }
STATUS current
DESCRIPTION
"M3UA Stream Control Transmission Protocol(SCTP) association establishment failure.
Possible reason: The peer is down. or network reachability to the remote server is down or the end
point configuration is not correct at our end.
Condition Clear Alarm: A starSCTPAssociationEstablished notification will be generated when
the previously failed association is successfully established again"
--#SUMMARY "[ss7-routing-domain %d] peer-server-%d peer-server-process-%d association down"
--#ARGUMENTS {0,1,2}
--#STATE DEGRADED
--#SEVERITY MAJOR
 ::= { starentTraps 1020 }

starSCTPAssociationEstablished NOTIFICATION-TYPE
OBJECTS {starSS7rdId, starSS7M3UAPsId, starSS7M3UAPspId }
STATUS current

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

DESCRIPTION
    "M3UA Stream Control Transmission Protocol (SCTP) association establishment ok. Previously there was
a failure to establish the same association
    A starM3UASCTPAssociationEstabalish notification is only generated for peers which previously
generated a starM3UASCRPAssociationFail notification"
    --#SUMMARY "[ss7-routing-domain %d] peer-server-%d peer-server-process-%d association up"
    --#ARGUMENTS {0,1,2}
    --#STATE OPERATIONAL
    --#SEVERITY INFORMATIONAL
    ::= { starentTraps 1021 }

starSCTPPathDown NOTIFICATION-TYPE

OBJECTS {
    starSS7rdId,
    starSS7M3UAPsId,
    starSS7M3UAPspId,
    starSS7SCTPSelfAddr,
    starSS7SCTPSelfPort,
    starSS7SCTPPeerAddr,
    starSS7SCTPPeerPort,
    starSS7CauseString
}
STATUS current
DESCRIPTION
    "Stream Control Transmission Protoco(SCTP) path down.
Possible reason: The peer is down. or network reachability to the remote server is down or the end
point configuration is not correct at our end.
Condition Clear Alarm: A starSCTPPathUp notification will be generated when the previously down path
becomes usable"
    --#SUMMARY "[ss7-routing-domain %d] peer-server %d peer-server-process %d self-end-point %s:%d peer-
end-point %s:%d sctp path down cause %s"
    --#ARGUMENTS {0,1,2,3,4,5,6,7}
    --#STATE DEGRADED
    --#SEVERITY MINOR
    ::= { starentTraps 1022 }

starSCTPPathUp NOTIFICATION-TYPE
OBJECTS {
    starSS7rdId,
    starSS7M3UAPsId,
    starSS7M3UAPspId,
    starSS7SCTPSelfAddr,
    starSS7SCTPSelfPort,
    starSS7SCTPPeerAddr,
    starSS7SCTPPeerPort,
    starSS7CauseString
}
STATUS current
DESCRIPTION
    "Stream Control Transmission Protocol(SCTP) path up.
A starSCTPPathUp notification is only generated for peers which had previously generated a
starSCTPPathDown notification"
    --#SUMMARY "[ss7-routing-domain %d] peer-server %d peer-server-process %d self-end-point %s:%d peer-
end-point %s:%d sctp path up cause %s"
    --#ARGUMENTS {0,1,2,3,4,5,6,7}
    --#STATE OPERATIONAL
    --#SEVERITY INFORMATIONAL
    ::= { starentTraps 1023 }

starPortDown NOTIFICATION-TYPE
OBJECTS { starPortSlot, starPortNum, starPortType,starSlotSerialNumber }
STATUS current
DESCRIPTION
    "Port status is Down. This notification is only generated for physical port.

```



## STARENT-MIB DEFINITIONS ::= BEGIN

```

        Action to be Taken: No action required. The cause for the port down should be investigated."
--#SUMMARY "[Card] Port status is down Slot %d Port %d port type %s UUID %s"
--#ARGUMENTS {0,1,2,3}
--#STATE DEGRADED
--#SEVERITY MAJOR
::= { starentTraps 1024 }

starPortUp NOTIFICATION-TYPE
OBJECTS { starPortSlot, starPortNum, starPortType, starSlotSerialNumber }
STATUS current
DESCRIPTION
"Port status is up. This notification is only generated for physical port and a
'starPortDown' notification was previously generated.

Action to be Taken: No action required"
--#SUMMARY "[Card] Port status is up Slot %d Port %d port type %s UUID %s"
--#ARGUMENTS {0,1,2,3}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 1025 }

-- BS trap

starBSReachable NOTIFICATION-TYPE
OBJECTS { starServiceVpnName, starServiceServName, starPeerAddress }
STATUS current
DESCRIPTION
"The Base Station is reachable now. This can be result of Base Station Startup, etc.

Action to be Taken: No Action Required"
--#SUMMARY "[ASNGW Service %s-%s] Base Station Reachable, Base Station address %s"
--#ARGUMENTS {0,1,2}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 1026 }

starBSUnreachable NOTIFICATION-TYPE
OBJECTS { starServiceVpnName, starServiceServName, starPeerAddress }
STATUS current
DESCRIPTION
"A Base Station that the IMG communicates with is no longer reachable.

Probable Cause: The Base Station has failed or is otherwise unavailable, or
a network connectivity problem makes it unreachable.

Action to be Taken: If the Base Station outage was unplanned, restart/reset the
Base Station; verify network connectivity.

Condition Clear Alarm: This condition is cleared by a starBSReachable notification."
--#SUMMARY "[ASNGW Service %s-%s] Base Station Unreachable, Base Station address %s"
--#ARGUMENTS {0,1,2}
--#STATE DEGRADED
--#SEVERITY MAJOR
::= { starentTraps 1027 }

starSystemStartup NOTIFICATION-TYPE
OBJECTS { starChassisType, starChassisDescription, starChassisSWRevision }
STATUS current
DESCRIPTION
"The system has completed a reboot/startup"
--#SUMMARY "[Chassis] System Startup, Cisco %s chassis, '%s', SW Revision %s"
--#ARGUMENTS {0,1,2}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 1028 }

```

```

starMTP3PCUnavailable NOTIFICATION-TYPE
  OBJECTS { starSS7rdId, starSS7Pc, starSS7MTP3LinkSetId}
  STATUS current
  DESCRIPTION
    "Message Transfer Part(MTP3) Route to the Point code becomes unavailable.

    Possibe reason:
    1. Associated linkset (all links within this linkset) becomes unavailable,
    hence route to the point code also becomes unavailable throught this linkset.
    2. Remote peer is down

    Condition Clear Alarm: A starMTP3PCAvailable notification will be generated when
    the reemore peer identified by the point code becomes reachable"

  --#SUMMARY "[ss7-routing-domain %d] mtp3 point code-%d through linkset-%d unavailable"
  --#ARGUMENTS {0,1,2}
  --#STATE DEGRADED
  --#SEVERITY MINOR
  ::= { starentTraps 1029 }

starMTP3PCAvailable NOTIFICATION-TYPE
  OBJECTS { starSS7rdId, starSS7Pc, starSS7MTP3LinkSetId}
  STATUS current
  DESCRIPTION
    "Message Transfer Part(MTP3) Route to the Point code becomes available.

    Possible reason:
    1. Associated linkset (one of the links in the linkset) becomes available.
    2. Remote peer is up

    starMTP3PCAvailable is generated only when a previous starMTP3PCUnavailable is generated.
    "
  --#SUMMARY "[ss7-routing-domain %d] mtp3 point code-%d through linkset-%d available"
  --#ARGUMENTS {0,1,2}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 1030 }

starSS7PCUnavailable NOTIFICATION-TYPE
  OBJECTS { starSS7rdId, starSS7Pc}
  STATUS current
  DESCRIPTION
    "SS7 Point code is unavailable, all the routes to this point code is unavailable.

    Possibe reason:
    1. All the routes (both M3UA and MTP3) to this point code becomes unavailable.

    Condition Clear Alarm: A starSS7PCAvailable notification will be generated when
    the reemore peer identified by the point code becomes reachable"

  --#SUMMARY "[ss7-routing-domain %d] point code-%d unavailable"
  --#ARGUMENTS {0,1}
  --#STATE DEGRADED
  --#SEVERITY MINOR
  ::= { starentTraps 1031 }

starSS7PCAvailable NOTIFICATION-TYPE
  OBJECTS { starSS7rdId, starSS7Pc}
  STATUS current
  DESCRIPTION
    "SS7 Point code is available, one of the routes to this point code is available.

    Possible reason:
    1. One of the routes (either M3UA or MTP3) to this point code becomes available.

    starSS7PCAvailable is generated only when a previous starSS7PCUnavailable is generated.

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

"
--#SUMMARY "[ss7-routing-domain %d] point code-%d available"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 1032 }

starASNPCServiceStart NOTIFICATION-TYPE
OBJECTS { starServiceVpnName, starServiceServName }
STATUS obsolete
DESCRIPTION
    "A WiMAX ASN Paging Controller (ASNPC) Service has started

    Action to be Taken: No action required"
--#SUMMARY "[Service ASNPC-%s-%s] ASNPC service has started"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 1033 }

starASNPCServiceStop NOTIFICATION-TYPE
OBJECTS { starServiceVpnName, starServiceServName }
STATUS obsolete
DESCRIPTION
    "A WiMAX ASN Paging Controller (ASNPC) Service has stopped.

    Probable Cause: This is typically caused by operator invention. In
        unusual cases it can be caused by the loss of resources (PACs/PSCs) to
        support the running configuration.

    Action to be Taken: If the ASNPC service shutdown was not planned,
        examine the admin logs for an indication of the failure. Verify that
        all configured PACs/PSCs are present and running in the system. Check the
        crash logs for an indication of a software failure.

    Clear Condition: Verify that the ASNPC service is operational.

    Condition Clear Alarm: A starASNPCServiceStart notification will be generated when
        the service is restarted"
--#SUMMARY "[Service ASNPC-%s-%s] ASNPC service has stopped"
--#ARGUMENTS {0,1}
--#STATE DEGRADED
--#SEVERITY MAJOR
::= { starentTraps 1034 }

starDiameterCapabilitiesExchangeFailure NOTIFICATION-TYPE
OBJECTS { starDiameterVpnName, starDiameterPeerAddr, starDiameterEndpointName , starDiameterECode}
STATUS current
DESCRIPTION
    "Capability negotiations has failed and connections are down.

    Problem Cause: Due to an error in Capability Exchange Answer received from the peer
        the connections have been torn down.
    "
--#SUMMARY "[VPN %s] Capability exchange for %s endpoint %s failed. Cause Code: %d"
--#ARGUMENTS {0,1,2,3}
--#STATE DEGRADED
--#SEVERITY MAJOR
::= { starentTraps 1035 }

starDiameterCapabilitiesExchangeSuccess NOTIFICATION-TYPE
OBJECTS { starDiameterVpnName, starDiameterPeerAddr, starDiameterEndpointName}
STATUS current
DESCRIPTION
    "A diameter server is up. This notification is only generated for servers which
        have previously been declared unreachable."

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

--#SUMMARY "[VPN %s] Capability exchange for %s endpoint %s is a success"
--#ARGUMENTS {0,1,2}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starentTraps 1036 }

starSRPConnDown NOTIFICATION-TYPE
OBJECTS { starContextName, starSRPIpAddress }
STATUS current
DESCRIPTION
"The connection to the standby SRP system is down. While this connection is down, the
active system is operating without a standby and would be unable to perform an SRP
switchover.

Action to be Taken: Verify that the standby system is operational; verify the network
between systems is operational.

Clear Condition: This condition is cleared when the active system is reconnected to the
standby SRP system.

Condition Clear Alarm: A starSRPConnUp notification is generated when this condition is clear"
--#SUMMARY "[System] SRP Connection Down, SRP standby vpn %s address %s"
--#ARGUMENTS {0,1}
--#STATE DEGRADED
--#SEVERITY MAJOR
 ::= { starentTraps 1037 }

starSRPConnUp NOTIFICATION-TYPE
OBJECTS { starContextName, starSRPIpAddress }
STATUS current
DESCRIPTION
"The connection to the standby SRP system is now up. This notification is only generated
if a starSRPConnDown had previously been generated."
--#SUMMARY "[System] SRP Connection Up, SRP standby vpn %s address %s"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starentTraps 1038 }

starDiameterIpv6PeerDown NOTIFICATION-TYPE
OBJECTS { starDiameterVpnName, starDiameterPeerAddrIpv6, starDiameterEndpointName }
STATUS current
DESCRIPTION
"A diameter peer is down. This diameter peer is reached using an IPv6 address.

For IPv4-connected diameter peers, a starDiameterPeerDown notification
would be generated.

Problem Cause: The diameter peer has failed, or a network connectivity
prevents reaching the peer.

Condition Clear Alarm: A starDiameterPeerUp notification will be generated when
the peer is up"
--#SUMMARY "[VPN %s] Diameter Peer %s endpoint %s is down"
--#ARGUMENTS {0,1,2}
--#STATE DEGRADED
--#SEVERITY MAJOR
 ::= { starentTraps 1039 }

starDiameterIpv6PeerUp NOTIFICATION-TYPE
OBJECTS { starDiameterVpnName, starDiameterPeerAddrIpv6, starDiameterEndpointName }
STATUS current
DESCRIPTION
"A diameter peer is up. This diameter peer is reached using an IPv6 address.
This notification is only generated for peers which have previously been declared down.

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

        For IPv4-connected diameter peers, a starDiameterPeerUp notification
        would be generated."
--#SUMMARY "[VPN %s] Diameter Peer %s endpoint %s is up"
--#ARGUMENTS {0,1,2}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 1040 }

starIPMSServerUnreachable NOTIFICATION-TYPE
OBJECTS { starIPMSServerVpnName, starIPMSServerAddr }
STATUS current
DESCRIPTION
    "An IPMS server is unreachable.

    Probable Cause: The IPMS server has failed, or a network connectivity
    issue prevents reaching the server.

    Condition Clear Alarm: A starIPMSServerReachable notification will be generated
    when the server becomes reachable."
--#SUMMARY "[VPN %s] IPMS Server %s is unreachable"
--#ARGUMENTS {0,1}
--#STATE DEGRADED
--#SEVERITY MINOR
::= { starentTraps 1041 }

starIPMSServerReachable NOTIFICATION-TYPE
OBJECTS { starIPMSServerVpnName, starIPMSServerAddr }
STATUS current
DESCRIPTION
    "An IPMS server is reachable. A starIPMSServerReachable notification is only
    generated for servers which had previously been declared unreachable."
--#SUMMARY "[VPN %s] IPMS Server %s is reachable"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 1042 }

starCertShortLifetime NOTIFICATION-TYPE
OBJECTS { starCertSerialNumber, starCertIssuer, starCertExpiryTime }
STATUS current
DESCRIPTION
    "A certificate is approaching its expiration. The certificate is still valid,
    but should be updated with a new certificate.

    Action to be Taken: A new certificate should be created and configured on the system."
--#SUMMARY "[System] Certificate short lifetime, certificate serial number %s, expiration date %s"
--#ARGUMENTS {0,2}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 1043 }

starCertExpired NOTIFICATION-TYPE
OBJECTS { starCertSerialNumber, starCertIssuer, starCertExpiryTime }
STATUS current
DESCRIPTION
    "A certificate has expired. The certificate is no longer valid.

    Action to be Taken: A new certificate should be created and configured on the system.

    Condition Clear Alarm: A starCertValid notification is sent when a new, valid, certificate
    is configured."
--#SUMMARY "[System] Certificate expired, certificate serial number %s, expiration date %s"
--#ARGUMENTS {0,2}
--#STATE NONOPERATIONAL
--#SEVERITY CRITICAL
::= { starentTraps 1044 }

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

starCertValid NOTIFICATION-TYPE
    OBJECTS { starCertSerialNumber, starCertIssuer, starCertExpiryTime }
    STATUS current
    DESCRIPTION
        "A valid certificate has been configured. This notification is only generated if a
        starCertExpired had been previously generated."
    --#SUMMARY "[System] Certificate valid, certificate serial number %s, expiration date %s"
    --#ARGUMENTS {0,2}
    --#STATE OPERATIONAL
    --#SEVERITY INFORMATIONAL
    ::= { starentTraps 1045 }

starFTPPushFail NOTIFICATION-TYPE
    OBJECTS { starFTPServVpnName, starFTPServIpAddr, starFileName, starFileApplication }
    STATUS current
    DESCRIPTION
        "An FTP push operation has failed for the specified file to the specified server."
    --#SUMMARY "[System] FTP file push failure; server %s/%s, file %s (application %s)"
    --#ARGUMENTS { 0,1,2,3 }
    --#STATE OPERATIONAL
    --#SEVERITY INFORMATIONAL
    ::= { starentTraps 1046 }

starFTPServSwitch NOTIFICATION-TYPE
    OBJECTS { starFTPServVpnName, starFTPServIpAddr, starFTPServIpAddr, starFileApplication }
    STATUS current
    DESCRIPTION
        "An FTP server switchover has been performed; that is, the system has determined
        that an external FTP server is unreachable, and is not using an alternate FTP
        server"
    --#SUMMARY "[System] FTP Server switchover; from server %s/%s to %s/%s (application %s)"
    --#ARGUMENTS { 0,1,0,2,3 }
    --#STATE OPERATIONAL
    --#SEVERITY INFORMATIONAL
    ::= { starentTraps 1047 }

starSDHSectionDown NOTIFICATION-TYPE
    OBJECTS { starSDHslot, starSDHPort, starSDHOperState }
    STATUS current
    DESCRIPTION
        "The SDH interface on this port is down. The starSDHOperState identifies the specific
        issue.

        Probable Cause:

        Action to be Taken:

        Condition Clear Alarm: This condition is cleared by a starSDHSectionUp notification,"
    --#SUMMARY "[Port %d-%d] SDH Down, operstate %x"
    --#ARGUMENTS {0,1,2}
    --#STATE NONOPERATIONAL
    --#SEVERITY MAJOR
    ::= { starentTraps 1048 }

starSDHSectionUp NOTIFICATION-TYPE
    OBJECTS { starSDHslot, starSDHPort }
    STATUS current
    DESCRIPTION
        "The SDH interface on this port is now up. A starSDHSectionUp notification is only generated
        if a starSDHSectionDown was previously generated for this port."
    --#SUMMARY "[Port %d-%d] SDH Up"
    --#ARGUMENTS {0,1}
    --#STATE OPERATIONAL
    --#SEVERITY INFORMATIONAL
    ::= { starentTraps 1049 }

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

starSDHPATHHopDown NOTIFICATION-TYPE
    OBJECTS { starSDHPATHSlot, starSDHPATHPort, starSDHPATHNum, starSDHPATHOperState }
    STATUS current
    DESCRIPTION
        "The identified SDH Path is down. The value of starSDHPATHOperState identifies the
        specific failure bits."
    --#SUMMARY "[Port %d-%d] SDH Path down, path %d, operstate %x"
    --#ARGUMENTS {0,1,2,3}
    --#STATE DEGRADED
    --#SEVERITY MAJOR
    ::= { starentTraps 1050 }

starSDHPATHHopUp NOTIFICATION-TYPE
    OBJECTS { starSDHPATHSlot, starSDHPATHPort, starSDHPATHNum }
    STATUS current
    DESCRIPTION
        "The identified SDH Path is up."
    --#SUMMARY "[Port %d-%d] SDH Path up, path %d"
    --#ARGUMENTS {0,1,2}
    --#STATE OPERATIONAL
    --#SEVERITY INFORMATIONAL
    ::= { starentTraps 1051 }

starSDHLOPDown NOTIFICATION-TYPE
    OBJECTS { starE1TribSlot, starE1TribPort, starE1TribPath, starE1TribTug2, starE1TribTul2,
starE1TribOperStateLOP }
    STATUS current
    DESCRIPTION
        "The identified E1 Tributary on this port is down. The value of starE1TribOperStateLOP identifies
        the specific failure bits.

        Probable Cause:

        Action to be Taken:

        Condition Clear Alarm: This condition is cleared by a starSDHLOPDown notification,"
    --#SUMMARY "[Port %d-%d] E1 Tributary down, path %d, E1 tributary %d/%d, LOP operstate %x"
    --#ARGUMENTS {0,1,2,3,4,5}
    --#STATE DEGRADED
    --#SEVERITY MAJOR
    ::= { starentTraps 1052 }

starSDHLOPUp NOTIFICATION-TYPE
    OBJECTS { starE1TribSlot, starE1TribPort, starE1TribPath, starE1TribTug2, starE1TribTul2 }
    STATUS current
    DESCRIPTION
        "The identified E1 Tributary on this port is now up. A starE1TributaryUp notification is
        only generated if a starSDHLOPDown was previously generated for this E1 tributary."
    --#SUMMARY "[Port %d-%d] E1 Tributary up, path %d, E1 tributary %d/%d"
    --#ARGUMENTS {0,1,2,3,4}
    --#STATE OPERATIONAL
    --#SEVERITY INFORMATIONAL
    ::= { starentTraps 1053 }

starIMSUEServiceStart NOTIFICATION-TYPE
    OBJECTS { starServiceVpnName, starServiceServName }
    STATUS current
    DESCRIPTION
        "A IMSUE Service has started

        Action to be Taken: No action required"
    --#SUMMARY "[Service IMSUE-%s-%s] IMSUE service has started"
    --#ARGUMENTS {0,1}
    --#STATE OPERATIONAL
    --#SEVERITY INFORMATIONAL
    ::= { starentTraps 1054 }

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

starIMSUEServiceStop NOTIFICATION-TYPE
  OBJECTS { starServiceVpnName, starServiceServName }
  STATUS current
  DESCRIPTION
    "A IMSUE Service has stopped.

    Probable Cause: This is typically caused by operator invention. In
    rare cases it can be caused by the loss of resources (PACs/PSCs) to
    support the running configuration.

    Action to be Taken: If the IMSUE service shutdown was not planned,
    examine the admin logs for an indication of the failure. Verify that
    all configured PACs are present and running in the system. Check the
    crash logs for an indication of a software failure.

    Clear Condition: Verify that the IMSUE service is operational.

    Condition Clear Alarm: A starIMSUEServiceStart notification will be
    generated when the service is restarted"
  --#SUMMARY "[Service IMSUE-%s-%s] IMSUE service has stopped"
  --#ARGUMENTS {0,1}
  --#STATE DEGRADED
  --#SEVERITY MAJOR
  ::= { starentTraps 1055 }

starSS7PCCongested NOTIFICATION-TYPE
  OBJECTS { starSS7rdId, starSS7Pc, starSS7CongLevel, starSS7LocalCong}
  STATUS current
  DESCRIPTION
    "SS7 Point code is congested, all the routes to this point-code is congested.

    Possible reason:
    1. All the routes (both M3UA and MTP3) to this Point Code have become congested.

    Condition Clear Alarm: A starSS7PCCongestionCleared notification will be generated when the
    congestion gets cleared for any one of the routes
    "
  --#SUMMARY "[ss7-routing-domain %d] point code-%d %d congested level-%d"
  --#ARGUMENTS {0,1,2,3}
  --#STATE DEGRADED
  --#SEVERITY MAJOR
  ::= { starentTraps 1056 }

starSS7PCCongestionCleared NOTIFICATION-TYPE
  OBJECTS { starSS7rdId, starSS7Pc, starSS7CongLevel, starSS7LocalCong}
  STATUS current
  DESCRIPTION
    "SS7 Point code Congestion gets cleared, one of the routes to this point-code is cleared from
    congestion.

    Possible reason:
    1. One of the routes (either M3UA or MTP3) to this Point Code has resumed from congestion.

    starSS7PCCongestionCleared is generated only when a previous starSS7PCCongested is generated.
    "
  --#SUMMARY "[ss7-routing-domain %d] point code-%d %d congestion cleared level-%d"
  --#ARGUMENTS {0,1,2,3}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 1057 }

starPHSGWServiceStart NOTIFICATION-TYPE
  OBJECTS { starServiceVpnName, starServiceServName }
  STATUS obsolete
  DESCRIPTION
    "A PHS-GW Service has started

```



```

        Action to be Taken: No action required"
--#SUMMARY "[Service PHW-GW-%s-%s] PHS-GW service has started"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 1058 }

starPHSGWServiceStop NOTIFICATION-TYPE
OBJECTS { starServiceVpnName, starServiceServName }
STATUS obsolete
DESCRIPTION
    "A PHS-GW Service has stopped.

    Probable Cause: This is typically caused by operator invention. In
    rare cases it can be caused by the loss of resources (PACs/PSCs) to
    support the running configuration.

    Action to be Taken: If the PHS-GW service shutdown was not planned,
    examine the admin logs for an indication of the failure. Verify that
    all configured PACs are present and running in the system. Check the
    crash logs for an indication of a software failure.

    Clear Condition: Verify that the PHS-GW service is operational.

    Condition Clear Alarm: A starPHSGWServiceStart notification will be
    generated when the service is restarted"
--#SUMMARY "[Service PHS-GW-%s-%s] PHS-GW service has stopped"
--#ARGUMENTS {0,1}
--#STATE DEGRADED
--#SEVERITY MAJOR
::= { starentTraps 1059 }

starGPRSServiceStart NOTIFICATION-TYPE
OBJECTS { starServiceVpnName, starServiceServName}
STATUS current
DESCRIPTION
    "A GPRS Service has started
    Action to be Taken: No action required"
--#SUMMARY "[Service GPRS %s-%s] GPRS service has started"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 1060 }

starGPRSServiceStop NOTIFICATION-TYPE
OBJECTS { starServiceVpnName , starServiceServName}
STATUS current
DESCRIPTION
    "A GPRS Service has stopped.
    Probable Cause:
    In unusual cases it can be caused by the loss of resources (PACs/PSCs) to
    support the running configuration.This can also happen due to some misconfiguration of the
    service parameters.

    Action to be Taken: If the GPRS service shutdown was not planned,
    examine the admin logs for an indication of the failure. Verify that
    all configured PACs/PSCs are present and running in the system. Check the
    crash logs for an indication of a software failure.

    Clear Condition: Verify that the GPRS service is operational.

    Condition Clear Alarm: A starGPRSServiceStart notification will be generated when
    the service is restarted"
--#SUMMARY "[Service GPRS %s-%s] GPRS service has stopped"
--#ARGUMENTS {0,1}
--#STATE DEGRADED

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

--#SEVERITY MAJOR
 ::= { starentTraps 1061 }

starGPRSnsedown NOTIFICATION-TYPE
OBJECTS { starGPRSnssei }
STATUS current
DESCRIPTION
"Network Service Entity (NSE) is down.

Possible reason:
The Last NSVC(Network Service virtual circuit in the NSE is down.

Condition Clear Alarm: A starGPRSnsseup will be generated when at least one NSVC in the NSE comes up"

--#SUMMARY "[nsei %d] NSE down "
--#ARGUMENTS {0}
--#STATE DEGRADED
--#SEVERITY MAJOR
 ::= { starentTraps 1062 }

starGPRSnsseup NOTIFICATION-TYPE
OBJECTS { starGPRSnssei }
STATUS current
DESCRIPTION
"Network Service Entity (NSE) is up.

Possible reason:
The First NSVC(Network Service virtual circuit in the NSE is up.

starGPRSnsseup is generated only when a previous starGPRSnsseDown has been generated"

--#SUMMARY "[nsei %d] NSE Up"
--#ARGUMENTS {0}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starentTraps 1063 }

starGPRSnsvcDown NOTIFICATION-TYPE
OBJECTS { starGPRSnssei, starGPRSnsvc }
STATUS current
DESCRIPTION
"Network Service Entity Virtual Circuit (NSVC) is down.

Possible reasons:
1) NS_ALIVE heartbeat messages sent from the Serving GPRS support Node (SGSN) were not acknowledged
by the Base Station Subsystem(BSS)
for a configured number of maximum retries.

This trap is generated only when an NSVC goes down due to reasons other than physical port failure. A
separate trap
is generated for a physical port failure event.

Condition Clear Alarm: A starGPRSnsvcUp will be generated when the NSVC comes up"

--#SUMMARY "[nsei %d] nsvci %d NSVC is down "
--#ARGUMENTS {0,1}
--#STATE DEGRADED
--#SEVERITY MAJOR
 ::= { starentTraps 1064 }

starGPRSnsvcUp NOTIFICATION-TYPE
OBJECTS { starGPRSnssei, starGPRSnsvc }
STATUS current
DESCRIPTION
"An Network Service Entity Virtual Circuit (NSVC) comes up
An starGPRSnsvcUp trap is generated only when a previous starGPRSnsvcDown was generated"

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

--#SUMMARY "[nsei %d] nsvci %d NSVC is up"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 1065 }

```

## starGPRSBvcDown NOTIFICATION-TYPE

```

OBJECTS { starGPRSNsei, starGPRSBvci }
STATUS current
DESCRIPTION

```

"Base Station Subsystem (BSS) GPRS (General Packet Radio Service) Protocol (BSSGP) Virtual Circuit (BVC) is Down.

Possible reason:

1) ALL Network Service Entity Virtual Circuit (NSVC) associated with this BVC are down

Condition Clear Alarm: A starGPRSBvcUp will be generated when the BVC is available"

```

--#SUMMARY "[nsei %d] bvci %d BVC is down"
--#ARGUMENTS {0,1}
--#STATE DEGRADED
--#SEVERITY MAJOR
::= { starentTraps 1066 }

```

## starGPRSBvcUp NOTIFICATION-TYPE

```

OBJECTS { starGPRSNsei, starGPRSBvci }
STATUS current
DESCRIPTION

```

"Base Station Subsystem (BSS) GPRS ((General Packet Radio Service) Protocol (BSSGP) Virtual Circuit (BVC) is Up

Possible reasons:

1) Atleast one NSVC associated with the BVC becomes available.

starGPRSBvcUp is generated only when a previous starGPRSBvcDown has been generated.

```

--#SUMMARY "[nsei %d] bvci %d BVC Up"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 1067 }

```

## starSDHE1TribDown NOTIFICATION-TYPE

```

OBJECTS { starE1TribSlot, starE1TribPort, starE1TribPath, starE1TribTug2, starE1TribTu12,
starE1TribOperState }
STATUS current
DESCRIPTION

```

"The identified E1 Tributary on this port is down.

Probable Cause:

Action to be Taken:

Condition Clear Alarm: This condition is cleared by a starSDHTugUp notification,"

```

--#SUMMARY "[Port %d-%d] E1 Tributary down, path %d, E1 tributary %d/%d, operstate %x"
--#ARGUMENTS {0,1,2,3,4,5}
--#STATE DEGRADED
--#SEVERITY MAJOR
::= { starentTraps 1068 }

```

## starSDHE1TribUp NOTIFICATION-TYPE

```

OBJECTS { starE1TribSlot, starE1TribPort, starE1TribPath, starE1TribTug2, starE1TribTu12 }
STATUS current
DESCRIPTION

```

"The identified E1 Tributary on this port is up."

```

--#SUMMARY "[Port %d-%d] E1 Tributary up, path %d, E1 tributary %d/%d"

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

--#ARGUMENTS {0,1,2,3,4}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 1069 }

starSDHFractE1LMIDown NOTIFICATION-TYPE
  OBJECTS { starFractE1TribSlot, starFractE1TribPort, starFractE1TribPath, starFractE1TribTug2,
starFractE1TribTul2, starFractE1TribTimeslots }
  STATUS current
  DESCRIPTION
    "The identified fractional E1 Tributary on this port is down."
  --#SUMMARY "[Port %d-%d] Fractional E1 LMI down, path %d, E1 tributary %d/%d, timeslots %s"
  --#ARGUMENTS {0,1,2,3,4,5}
  --#STATE DEGRADED
  --#SEVERITY MAJOR
  ::= { starentTraps 1070 }

starSDHFractE1LMIUp NOTIFICATION-TYPE
  OBJECTS {
    starFractE1TribSlot,
    starFractE1TribPort,
    starFractE1TribPath,
    starFractE1TribTug2,
    starFractE1TribTul2,
    starFractE1TribTimeslots
  }
  STATUS current
  DESCRIPTION
    "The identified fractional E1 Tributary on this port is up."
  --#SUMMARY "[Port %d-%d] Fractional E1 up, path %d, E1 tributary %d/%d, timeslots %s"
  --#ARGUMENTS {0,1,2,3,4,5}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 1071 }

starPHSPServiceStart NOTIFICATION-TYPE
  OBJECTS { starServiceVpnName, starServiceServName }
  STATUS obsolete
  DESCRIPTION
    "A PHS-PC Service has started

    Action to be Taken: No action required"
  --#SUMMARY "[Service PHS-PC-%s-%s] PHS-PC service has started"
  --#ARGUMENTS {0,1}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 1072 }

starPHSPServiceStop NOTIFICATION-TYPE
  OBJECTS { starServiceVpnName, starServiceServName }
  STATUS obsolete
  DESCRIPTION
    "A PHS-PC Service has stopped.

    Probable Cause: This is typically caused by operator invention. In
    rare cases it can be caused by the loss of resources (PACs/PSCs) to
    support the running configuration.

    Action to be Taken: If the PHS-PC service shutdown was not planned,
    examine the admin logs for an indication of the failure. Verify that
    all configured PACs are present and running in the system. Check the
    crash logs for an indication of a software failure.

    Clear Condition: Verify that the PHS-PC service is operational.

    Condition Clear Alarm: A starPHSPServiceStart notification will be

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

    generated when the service is restarted"
--#SUMMARY "[Service PHS-PC-%s-%s] PHS-PC service has stopped"
--#ARGUMENTS {0,1}
--#STATE DEGRADED
--#SEVERITY MAJOR
 ::= { starentTraps 1073 }

starM3UAPSPCongested NOTIFICATION-TYPE
OBJECTS { starSS7rdId, starSS7M3UAPsId, starSS7M3UAPspId, starSS7Pc, starSS7CongLevel}
STATUS current
DESCRIPTION
  "Peer Server Process (PSP) link is congested, when the congestion queue size rises above the
threshold limit.

Possible reason:
1. No Stream Control Transmission Protocol (SCTP) Acknowledgement from peer end due to packet loss
2. Acknowledgement with zero window size

Condition Clear Alarm: A starM3UAPSPCongestionCleared notification will be generated when the
congestion queue size goes below the threshold limit
"
--#SUMMARY "[ss7-routing-domain %d] peer-server-%d peer-server-porcess-%d (point-code-%d) congested"
--#ARGUMENTS {0,1,2,3}
--#STATE DEGRADED
--#SEVERITY MAJOR
 ::= { starentTraps 1074 }

starM3UAPSPCongestionCleared NOTIFICATION-TYPE
OBJECTS { starSS7rdId, starSS7M3UAPsId, starSS7M3UAPspId, starSS7Pc, starSS7CongLevel}
STATUS current
DESCRIPTION
  "Peer Server Process (PSP) link Congestion gets cleared, when the congestion queue size goes below
the threshold limit.
starM3UAPSPCongestionCleared is generated only when a previous starM3UAPSPCongested is generated.
"
--#SUMMARY "[ss7-routing-domain %d] peer-server-%d peer-server-porcess-%d (point-code-%d) congestion
cleared"
--#ARGUMENTS {0,1,2,3}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starentTraps 1075 }

starStorageFailed NOTIFICATION-TYPE
OBJECTS { starStorageSlot, starStorageName }
STATUS current
DESCRIPTION
  "The specified storage device has failed. This storage device is now out of service
and cannot be used to store additional data.

This notification is currently only generated for failures on the hard drive attached
to the SMC card.

Probable Cause: A hardware failure on the device; a hardware failure on the card
to which the device is attached.

Action to be Taken: Replace the card

Condition Clear Alarm: A starCardRemoved notification will be generated when the
card is removed from the chassis."
--#SUMMARY "[Slot-%d] Storage device %s failed"
--#ARGUMENTS {0,1}
--#STATE DEGRADED
--#SEVERITY MAJOR
 ::= { starentTraps 1076 }

starRaidFailed NOTIFICATION-TYPE
OBJECTS { starStorageName }

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

STATUS current
DESCRIPTION
"The specified raid array has failed. The raid array can no longer be used to
store data.

Probable Cause: Hardware failure(s) on the devices within the raid array;
Hardware failure(s) on the card(s) to which the devices are attached;
the removal of the cards containing devices in the array; operator action
which disabled the raid array.

Condition Clear Alarm: a starRaidStarted notification will be generated when the
raid array is online."
--#SUMMARY "[System] Raid array %s failed"
--#ARGUMENTS {0}
--#STATE DEGRADED
--#SEVERITY MAJOR
::= { starentTraps 1077 }

starRaidStarted NOTIFICATION-TYPE
OBJECTS { starStorageName }
STATUS current
DESCRIPTION
"The specific raid array has resumed operation. This notification is only generated
if a starRaidFailed notification was previously generated for this array."
--#SUMMARY "[System] Raid array %s started"
--#ARGUMENTS {0}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 1078 }

starRaidDegraded NOTIFICATION-TYPE
OBJECTS { starStorageName, starStorageSlot, starStorageName }
STATUS current
DESCRIPTION
"The specified raid array is running in a degraded state. This typically means
one of the member devices has failed or become unavailable. The raid array
continues to function and can read/store data, but may not be operating in
a redundant manner.

Probable Cause: Hardware failure(s) on the devices within the raid array;
Hardware failure(s) on the card(s) to which the devices are attached;
the removal of the cards containing devices in the array; operator action
which disabled the raid array.

The first variable binding, starStorageName is indicating the raid array
name; The second variable binding, starStorageSlot is the disk card number,
in which the fail happens; The third varbind, which is also the second
starStorageName, is the name of the disk that the fail happens.

Condition Clear Alarm: a starRaidRecovered notification will be generated when the
raid array is fully recovered."
--#SUMMARY "[System] Raid array %s degraded; slot/device %d/%s unavailable"
--#ARGUMENTS {0,1,2}
--#STATE DEGRADED
--#SEVERITY MAJOR
::= { starentTraps 1079 }

starRaidRecovered NOTIFICATION-TYPE
OBJECTS { starStorageName, starStorageSlot, starStorageName }
STATUS current
DESCRIPTION
"The specific raid array has been recovered and is running in its normal,
redundant state. This notification is only generated if a starRaidDegraded
notification was previously generated for this array. As to the variable
bindings, please refer to the trap starRaidDegraded.
"

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

--#SUMMARY "[System] Raid array %s recovered; slot/device %d/%s added to array"
--#ARGUMENTS {0,1,2}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 1080 }

starPGWServiceStart NOTIFICATION-TYPE
OBJECTS { starServiceVpnName, starServiceServName }
STATUS current
DESCRIPTION
    "A Packet Data Network Gateway (PGW) Service has started.

    Action to be Taken: No action required"
--#SUMMARY "[Service PGW-%s-%s] PGW service has started"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY INFORMATION
::= { starentTraps 1081 }

starPGWServiceStop NOTIFICATION-TYPE
OBJECTS { starServiceVpnName, starServiceServName }
STATUS current
DESCRIPTION
    "A Packet Data Network Gateway (PGN) Service has stopped.

    Probable Cause: This is typically caused by operator intervention. In
    rare cases it can be caused by the loss of resources (PSCs) to support
    the running configuration.

    Action to be Taken: If the PGW service shutdown was not planned,
    examine the admin logs for an indication of the failure. Verify that
    all configured PSCs are present and running in the system. Check the
    crash logs for an indication of a software failure.

    Clear Condition: Verify that the PGW service is operational.

    Condition Clear Alarm: A starPGWServiceStart notification will be
    generated when the service is restarted"
--#SUMMARY "[Service PGW-%s-%s] PGW service has stopped"
--#ARGUMENTS {0,1}
--#STATE DEGRADED
--#SEVERITY MAJOR
::= { starentTraps 1082 }

starSGWServiceStart NOTIFICATION-TYPE
OBJECTS { starServiceVpnName, starServiceServName }
STATUS current
DESCRIPTION
    "A Serving Gateway (SGW) Service has started.

    Action to be Taken: No action required"
--#SUMMARY "[Service SGW-%s-%s] SGW service has started"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY INFORMATION
::= { starentTraps 1083 }

starSGWServiceStop NOTIFICATION-TYPE
OBJECTS { starServiceVpnName, starServiceServName }
STATUS current
DESCRIPTION
    "A Serving Gateway (SGW) Service has stopped.

    Probable Cause: This is typically caused by operator intervention. In
    rare cases it can be caused by the loss of resources (PSCs) to support
    the running configuration.

```

## STARENT-MIB DEFINITIONS ::= BEGIN

Action to be Taken: If the SGW service shutdown was not planned, examine the admin logs for an indication of the failure. Verify that all configured PSCs are present and running in the system. Check the crash logs for an indication of a software failure.

Clear Condition: Verify that the SGW service is operational.

Condition Clear Alarm: A starSGWServiceStart notification will be generated when the service is restarted"

```
--#SUMMARY "[Service SGW-%s-%s] SGW service has stopped"
--#ARGUMENTS {0,1}
--#STATE DEGRADED
--#SEVERITY MAJOR
::= { starentTraps 1084 }
```

starEGTPServiceStart NOTIFICATION-TYPE

```
OBJECTS { starServiceVpnName, starServiceServName }
STATUS current
DESCRIPTION
```

"An Evolved GPRS Tunneling Protocol (EGTP) Service has started.

Action to be Taken: No action required"

```
--#SUMMARY "[Service EGTP-%s-%s] EGTP service has started"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY INFORMATION
::= { starentTraps 1085 }
```

starEGTPServiceStop NOTIFICATION-TYPE

```
OBJECTS { starServiceVpnName, starServiceServName }
STATUS current
DESCRIPTION
```

"An Evolved GPRS Tunneling Protocol (EGTP) Service has stopped.

Probable Cause: This is typically caused by operator intervention. In rare cases it can be caused by the loss of resources (PSCs) to support the running configuration.

Action to be Taken: If the EGTP service shutdown was not planned, examine the admin logs for an indication of the failure. Verify that all configured PSCs are present and running in the system. Check the crash logs for an indication of a software failure.

Clear Condition: Verify that the EGTP service is operational.

Condition Clear Alarm: A starEGTPServiceStart notification will be generated when the service is restarted"

```
--#SUMMARY "[Service EGTP-%s-%s] EGTP service has stopped"
--#ARGUMENTS {0,1}
--#STATE DEGRADED
--#SEVERITY MAJOR
::= { starentTraps 1086 }
```

starLMAServiceStart NOTIFICATION-TYPE

```
OBJECTS { starServiceVpnName, starServiceServName }
STATUS current
DESCRIPTION
```

"A Local Mobility Anchor (LMA) Service has started.

Action to be Taken: No action required"

```
--#SUMMARY "[Service LMA-%s-%s] LMA service has started"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY INFORMATION
::= { starentTraps 1087 }
```



## STARENT-MIB DEFINITIONS ::= BEGIN

```

starLMAServiceStop NOTIFICATION-TYPE
  OBJECTS { starServiceVpnName, starServiceServName }
  STATUS current
  DESCRIPTION
    "A Local Mobility Anchor (LMA) Service has stopped.

    Probable Cause: This is typically caused by operator intervention. In
    rare cases it can be caused by the loss of resources (PSCs) to support
    the running configuration.

    Action to be Taken: If the LMA service shutdown was not planned,
    examine the admin logs for an indication of the failure. Verify that
    all configured PSCs are present and running in the system. Check the
    crash logs for an indication of a software failure.

    Clear Condition: Verify that the LMA service is operational.

    Condition Clear Alarm: A starLMAServiceStart notification will be
    generated when the service is restarted"
  --#SUMMARY "[Service LMA-%s-%s] LMA service has stopped"
  --#ARGUMENTS {0,1}
  --#STATE DEGRADED
  --#SEVERITY MAJOR
  ::= { starentTraps 1088 }

starMAGServiceStart NOTIFICATION-TYPE
  OBJECTS { starServiceVpnName, starServiceServName }
  STATUS current
  DESCRIPTION
    "A Mobile Access Gateway (MAG) Service has started.

    Action to be Taken: No action required"
  --#SUMMARY "[Service MAG-%s-%s] MAG service has started"
  --#ARGUMENTS {0,1}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATION
  ::= { starentTraps 1089 }

starMAGServiceStop NOTIFICATION-TYPE
  OBJECTS { starServiceVpnName, starServiceServName }
  STATUS current
  DESCRIPTION
    "A MAG Service has stopped.

    Probable Cause: This is typically caused by operator intervention. In
    rare cases it can be caused by the loss of resources (PSCs) to support
    the running configuration.

    Action to be Taken: If the MAG service shutdown was not planned,
    examine the admin logs for an indication of the failure. Verify that
    all configured PSCs are present and running in the system. Check the
    crash logs for an indication of a software failure.

    Clear Condition: Verify that the MAG service is operational.

    Condition Clear Alarm: A starMAGServiceStart notification will be
    generated when the service is restarted"
  --#SUMMARY "[Service MAG-%s-%s] MAG service has stopped"
  --#ARGUMENTS {0,1}
  --#STATE DEGRADED
  --#SEVERITY MAJOR
  ::= { starentTraps 1090 }

starMMEServiceStart NOTIFICATION-TYPE
  OBJECTS { starServiceVpnName, starServiceServName }
  STATUS current
  DESCRIPTION

```

```

        "A Mobility Management Entity (MME) Service has started.

        Action to be Taken: No action required"
--#SUMMARY "[Service MME-%s-%s] MME service has started"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY INFORMATION
 ::= { starentTraps 1091 }

starMMEServiceStop NOTIFICATION-TYPE
OBJECTS { starServiceVpnName, starServiceServName }
STATUS current
DESCRIPTION
    "A Mobility Management Entity (MME) Service has stopped.

    Probable Cause: This is typically caused by operator intervention. In
    rare cases it can be caused by the loss of resources (PSCs) to support
    the running configuration.

    Action to be Taken: If the MME service shutdown was not planned,
    examine the admin logs for an indication of the failure. Verify that
    all configured PSCs are present and running in the system. Check the
    crash logs for an indication of a software failure.

    Clear Condition: Verify that the MME service is operational.

    Condition Clear Alarm: A starMMEServiceStart notification will be
    generated when the service is restarted"
--#SUMMARY "[Service MME-%s-%s] MME service has stopped"
--#ARGUMENTS {0,1}
--#STATE DEGRADED
--#SEVERITY MAJOR
 ::= { starentTraps 1092 }

starHSGWServiceStart NOTIFICATION-TYPE
OBJECTS { starServiceVpnName, starServiceServName }
STATUS current
DESCRIPTION
    "A HRPD Serving Gateway (HSGW) Service has started.

    Action to be Taken: No action required"
--#SUMMARY "[Service HSGW-%s-%s] HSGW service has started"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY INFORMATION
 ::= { starentTraps 1093 }

starHSGWServiceStop NOTIFICATION-TYPE
OBJECTS { starServiceVpnName, starServiceServName }
STATUS current
DESCRIPTION
    "A HRPD Serving Gateway (HSGW) Service has stopped.

    Probable Cause: This is typically caused by operator intervention. In
    rare cases it can be caused by the loss of resources (PSCs) to support
    the running configuration.

    Action to be Taken: If the HSGW service shutdown was not planned,
    examine the admin logs for an indication of the failure. Verify that
    all configured PSCs are present and running in the system. Check the
    crash logs for an indication of a software failure.

    Clear Condition: Verify that the HSGW service is operational.

    Condition Clear Alarm: A starHSGWServiceStart notification will be
    generated when the service is restarted"

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

--#SUMMARY "[Service HSGW-%s-%s] HSGW service has stopped"
--#ARGUMENTS {0,1}
--#STATE DEGRADED
--#SEVERITY MAJOR
 ::= { starentTraps 1094 }

starCPUBusyClear NOTIFICATION-TYPE
OBJECTS { starCPUSlot, starCPUNumber }
STATUS current
DESCRIPTION
    "The CPU is no longer busy."
--#SUMMARY "[Card %d] CPU %d is no longer experiencing very high usage"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starentTraps 1095 }

starCPUMemoryLowClear NOTIFICATION-TYPE
OBJECTS { starCPUSlot, starCPUNumber }
STATUS current
DESCRIPTION
    "The CPU is no longer experiencing a low memory condition."
--#SUMMARY "[Card %d] CPU %d is no longer low on available memory"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starentTraps 1096 }

-- FNG Service

starFNGServiceStart NOTIFICATION-TYPE
OBJECTS { starServiceVpnName, starServiceServName }
STATUS current
DESCRIPTION
    "A FNG Service has started
    Action to be Taken: No action required"
--#SUMMARY "[Service FNG-%s-%s] FNG service has started"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starentTraps 1097 }

starFNGServiceStop NOTIFICATION-TYPE
OBJECTS { starServiceVpnName, starServiceServName }
STATUS current
DESCRIPTION
    "A FNG Service has stopped.
    Probable Cause: This is typically caused by operator invention. In
    rare cases it can be caused by the loss of resources (PACs) to
    support the running configuration.

    Action to be Taken: If the FNG service shutdown was not planned,
    examine the admin logs for an indication of the failure. Verify that
    all configured PACs are present and running in the system. Check the
    crash logs for an indication of a software failure.

    Clear Condition: Verify that the FNG service is operational.

    Condition Clear Alarm: A starFNGServiceStart notification will be generated when
    the service is restarted"

--#SUMMARY "[Service FNG-%s-%s] FNG service has stopped"
--#ARGUMENTS {0,1}
--#STATE DEGRADED
--#SEVERITY MAJOR
 ::= { starentTraps 1098 }

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

starManagerRestart NOTIFICATION-TYPE
    OBJECTS { starTaskFacilityName, starTaskInstance, starTaskCard, starTaskCPU }
    STATUS current
    DESCRIPTION
        "The identified manager task has been restarted."
    --#SUMMARY "[System] Manager %s/%d restarted on %d/%d"
    --#ARGUMENTS {0,1,2,3}
    --#STATE OPERATIONAL
    --#SEVERITY INFORMATIONAL
    ::= { starentTraps 1099 }

starConfigurationUpdate NOTIFICATION-TYPE
    STATUS current
    DESCRIPTION
    "The configuration of the chassis has been changed. This notification is
    generated based on a periodic polling of the chassis, it is not real-time
    generated based on individual changes. The configuration change could
    have been made via CLI sessions, CORBA management operations, or other
    methods.

    This notification is not generated by default; it is only generated if the
    configuration polling mechanism is specifically enabled."
    --#SUMMARY "[System] System configuration updated"
    --#STATE OPERATIONAL
    --#SEVERITY INFORMATIONAL
    ::= { starentTraps 1100 }

-- PDG Service

starPDGServiceStart NOTIFICATION-TYPE
    OBJECTS { starServiceVpnName, starServiceServName }
    STATUS current
    DESCRIPTION
        "A PDG Service has started
        Action to be Taken: No action required"
    --#SUMMARY "[Service PDG-%s-%s] PDG service has started"
    --#ARGUMENTS {0,1}
    --#STATE OPERATIONAL
    --#SEVERITY INFORMATIONAL
    ::= { starentTraps 1101 }

starPDGServiceStop NOTIFICATION-TYPE
    OBJECTS { starServiceVpnName, starServiceServName }
    STATUS current
    DESCRIPTION
        "A PDG Service has stopped.
        Probable Cause: This is typically caused by operator invention. In
        rare cases it can be caused by the loss of resources (PACs) to
        support the running configuration.

        Action to be Taken: If the PDG service shutdown was not planned,
        examine the admin logs for an indication of the failure. Verify that
        all configured PACs are present and running in the system. Check the
        crash logs for an indication of a software failure.

        Clear Condition: Verify that the PDG service is operational.

        Condition Clear Alarm: A starPDGServiceStart notification will be generated when
        the service is restarted"
    --#SUMMARY "[Service PDG-%s-%s] PDG service has stopped"
    --#ARGUMENTS {0,1}
    --#STATE DEGRADED
    --#SEVERITY MAJOR
    ::= { starentTraps 1102 }

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

starDynPkgLoadError NOTIFICATION-TYPE
  OBJECTS { starDynPkgFilename, starDynCFErrorCode }
  STATUS current
  DESCRIPTION
    "The Dynamic rater package error displayed with an error code.

    Action to be Taken: If no or invalid rater.pkg file is there in the specified directory then
    Place a rater_f.pkg file in the directory and give an upgrade command or place a valid
    Rater.pkg file and load the SRDBs by killing them all.

    Condition Clear Alarm: This condition is cleared by a starDynPkgLoadErrorClear
    notification"

  --#SUMMARY "[System] Dynamic Rater package %s error code: %s"
  --#ARGUMENTS {0,1}
  --#STATE DEGRADED
  --#SEVERITY MAJOR
  ::= { starentTraps 1103 }

starDynPkgLoadErrorClear NOTIFICATION-TYPE
  OBJECTS { starDynPkgFilename, starDynCFErrorCode }
  STATUS current
  DESCRIPTION
    "The Dynamic rater package error removed.

    Action to be Taken: No action required"
  --#SUMMARY "[System] Dynamic Rater package %s error code: %s cleared"
  --#ARGUMENTS {0,1}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 1104 }

starDynPkgUpgradeError NOTIFICATION-TYPE
  OBJECTS { starDynPkgUpgradeFilename, starDynCFUpgradeErrorCode }
  STATUS current
  DESCRIPTION
    "The Dynamic rater package error displayed with an error code.

    Action to be Taken: Place a valid rater_f.pkg file in the
    directory and give an upgrade command.

    Condition Clear Alarm: This condition is cleared by a starDynPkgUpgradeErrorClear
    notification"
  --#SUMMARY "[System] Dynamic Rater package %s error code: %s"
  --#ARGUMENTS {0,1}
  --#STATE DEGRADED
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 1105 }

starDynPkgUpgradeErrorClear NOTIFICATION-TYPE
  OBJECTS { starDynPkgUpgradeFilename, starDynCFUpgradeErrorCode }
  STATUS current
  DESCRIPTION
    "The Dynamic Rater package error removed.

    Action to be Taken: No action required"
  --#SUMMARY "[System] Dynamic Rater package %s error code: %s cleared"
  --#ARGUMENTS {0,1}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 1106 }

starCSCFPeerServerUnavailable NOTIFICATION-TYPE
  OBJECTS { starCSCFPeerServerVpnName, starCSCFPeerServerSvcName, starCSCFPeerServerName }
  STATUS current
  DESCRIPTION
    "Peer server is unavailable"

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

--#SUMMARY "[CSCF %s-%s] CSCF Peer Server %s Unavailable"
--#ARGUMENTS {0,1,2}
--#STATE DEGRADED
--#SEVERITY MAJOR
 ::= { starentTraps 1107 }

starCSCFPeerServerOutOfService NOTIFICATION-TYPE
  OBJECTS { starCSCFPeerServerVpnName, starCSCFPeerServerSvcName, starCSCFPeerServerName }
  STATUS current
  DESCRIPTION
    "Peer server is out-of-service"
  --#SUMMARY "[CSCF %s-%s] CSCF Peer Server %s Out-of-service"
  --#ARGUMENTS {0,1,2}
  --#STATE DEGRADED
  --#SEVERITY CRITICAL
  ::= { starentTraps 1108 }

starCSCFPeerServerInService NOTIFICATION-TYPE
  OBJECTS { starCSCFPeerServerVpnName, starCSCFPeerServerSvcName, starCSCFPeerServerName }
  STATUS current
  DESCRIPTION
    "Peer server unavailable and/or out of service condition cleared"
  --#SUMMARY "[CSCF %s-%s] CSCF Peer Server %s Available and In Service"
  --#ARGUMENTS {0,1,2}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 1109 }

starServiceLossPTACsClear NOTIFICATION-TYPE
  OBJECTS {starCardMode}
  STATUS current
  DESCRIPTION
    "Service Loss condition is no longer valid for PAC/PSC/TACs."
  --#SUMMARY "[System] Service Loss condition clear for cardmode %s"
  --#ARGUMENTS {0}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 1110 }

starServiceLossLCClear NOTIFICATION-TYPE
  OBJECTS { starCardType, starSlotNum, starSlotNum }
  STATUS current
  DESCRIPTION
    "Service Loss condition is no longer valid for LC."
  --#SUMMARY "[System] Service Loss condition clear because one of the two %s cards (%d, %d) is active
now"
  --#ARGUMENTS {0,1,2}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 1111 }

starEgtpcPathFailure NOTIFICATION-TYPE
  OBJECTS { starEGTPVpnName, starEGTPServName, starEGTPInterfaceType,
starEGTPSelfAddr,starEGTPPeerAddr, starEGTPPeerOldRstCnt, starEGTPPeerNewRstCnt, starEGTPPeerSessCnt,
starEGTPFailureReason }
  STATUS current
  DESCRIPTION
    "EGTP Control Path Failure. No response received for GTPV2 request sent from MME or SGW or PGW.

    Possibe reason: Remote peer MME or SGW or PGW is down

    Condition Clear Alarm: A StarEgtpcPathFailureClear notification will be generated when
the control path to the remote peer MME or SGW or PGW becomes available"
  --#SUMMARY "[Service GTPV2-%s-%s] EGTP control path failure interface type %s, self address %s,
peer address %s, peer old restart counter %d, peer new restart counter %d, peer session count %d,
failure reason %s"

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

--#ARGUMENTS {0,1,2,3,4,5,6,7,8}
--#STATE DEGRADED
--#SEVERITY MAJOR
 ::= { starentTraps 1112 }

starEgtpcPathFailureClear NOTIFICATION-TYPE
  OBJECTS { starEGTPVpnName, starEGTPServName, starEGTPInterfaceType, starEGTPSelfAddr,
starEGTPPeerAddr, starEGTPPeerOldRstCnt, starEGTPPeerSessCnt}
  STATUS current
  DESCRIPTION
    "EGTP Control Path Failure condition is no longer valid."
  --#SUMMARY "[Service GTPV2-%s-%s] EGTP control path failure condition clear for interface type %s,
self address %s, peer address %s, peer restart counter %d, peer session count %d"
  --#ARGUMENTS {0,1,2,3,4,5,6}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 1113 }

starCscfSessResourceCongestion NOTIFICATION-TYPE
  OBJECTS { starSmgrId, starCongestionPolicy, starCscfSessCongestionResourceType }
  STATUS current
  DESCRIPTION
    "A congestion condition has occurred at Session Manager for Cscf Service.

    Probable Cause: This is the result of an operator-configured congestion
    threshold being reached for Cscf Service at Session Manager. This can be due to high
    usage of the resource being monitored which indicates that the
    IMG is reaching its peak capacity, or could be caused by the
    incorrect configuration of the congestion thresholds.

    Actions to be Taken: Verify that the congestion thresholds are correct;
    if the congested state is seem repeatedly, or for sustained periods of
    time, additional system capacity may need to be brought online.

    This system is cleared when the use of the specific resource falls below
    the configured limit.

    Condition Clear Alarm: A starCscfSessResourceCongestionClear notification is sent when there
    are no congestion conditions for cscf service in that Session Manager Instance"
  --#SUMMARY "[System] Cscf Congestion seen for sessmgr-%d; resource %s, policy %s applied"
  --#ARGUMENTS {0,2,1}
  --#STATE DEGRADED
  --#SEVERITY MAJOR
  ::= { starentTraps 1114 }

starCscfSessResourceCongestionClear NOTIFICATION-TYPE
  OBJECTS { starSmgrId }
  STATUS current
  DESCRIPTION
    "A congestion condition has cleared at Session Manager for Cscf service"
  --#SUMMARY "[System] Cscf Congestion clear for sessmgr-%d"
  --#ARGUMENTS {0}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 1115 }

starOSPFv3NeighborDown NOTIFICATION-TYPE
  OBJECTS { starContextName, starInterfaceName, starInterfaceIPAddress, starOSPFNeighborRouterID,
starOSPFFromState, starOSPFToState }
  STATUS current
  DESCRIPTION
    "An OSPFv3 neighbor is down.

    Condition Clear Alarm: A starOSPFv3NeighborFull notification will be generated when the neighbor is
    restored."
  --#SUMMARY "[VPN %s] OSPFv3 Neighbor down, interface %s/%s, OSPFv3 Neighbor %s, transitioned from
state %s to %s"

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

--#ARGUMENTS {0,1,2,3,4,5}
--#STATE DEGRADED
--#SEVERITY MINOR
::= { starentTraps 1116 }

starOSPFv3NeighborFull NOTIFICATION-TYPE
  OBJECTS { starContextName, starInterfaceName, starInterfaceIPAddress, starOSPFNeighborRouterID }
  STATUS current
  DESCRIPTION
    "An OSPFv3 neighbor is full. A starOSPFv3NeighborFull notification is only sent for neighbors
which had previous been declared down via a starOSPFv3NeighborDown notification."
  --#SUMMARY "[VPN %s] OSPFv3 Neighbor full, interface %s/%s, OSPFv3 Neighbor %s"
  --#ARGUMENTS {0,1,2,3}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 1117 }

starServiceLossSPIOClear NOTIFICATION-TYPE
  STATUS current
  DESCRIPTION
    "Service Loss condition is no longer valid for SPIO."
  --#SUMMARY "[System] Service Loss condition clear for SPIO"
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 1118 }

starEgtpuPathFailure NOTIFICATION-TYPE
  OBJECTS { starEGTPVpnName, starEGTPServName, starEGTPSelfAddr, starEGTPPeerAddr, starEGTPSelfPort,
starEGTPPeerPort, starEGTPPeerSessCnt }
  STATUS current
  DESCRIPTION
    "No response received for GTP-U ECHO requests. Data path failure detected towards peer EPC Node.

    Check if the peer RNC or GSN is up

    Possible reason: Remote EPC node is down

    Condition Clear Alarm: A starEgtpuPathFailureClear notification will be generated when the
data
    path towards the peer node is available"
  --#SUMMARY "[Service GTPU-%s-%s] EGTPU path failure self address %s, peer address %s, self port %d,
peer port %d, peer session count %d"
  --#ARGUMENTS {0,1,2,3,4,5,6}
  --#STATE DEGRADED
  --#SEVERITY MAJOR
  ::= { starentTraps 1119 }

starEgtpuPathFailureClear NOTIFICATION-TYPE
  OBJECTS { starEGTPVpnName, starEGTPServName, starEGTPSelfAddr, starEGTPPeerAddr, starEGTPSelfPort,
starEGTPPeerPort }
  STATUS current
  DESCRIPTION
    "The data path to the peer EPC node which was down is now available
    A starEgtpuPathFailureClear notification is only generated for nodes which had previously
generated a
    starEgtpuPathFailure notification"
  --#SUMMARY "[Service GTPU-%s-%s] EGTPU path failure condition clear for self address %s, peer address
%s self port %d, peer port %d"
  --#ARGUMENTS {0,1,2,3,4,5}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 1120 }

starStorageServerCDRLoss NOTIFICATION-TYPE
  OBJECTS { starSessGGSNVpnName, starSessGGSNPeerAddr, starGSSCDRLossConfigured,
starGSSCDRLossMeasured, starGSSClusterName, starGSSClusterNodeName }

```



## STARENT-MIB DEFINITIONS ::= BEGIN

```

STATUS current
DESCRIPTION
    "GTPP Storage Server is experiencing CDR Loss greater than the configured threshold value at the
GSS.

    Note that this is an external server, not part of the ST16."
--#SUMMARY "[System] GTPP Storage Server CDR Loss, VPN %s Server Address %s, GTPP Storage Server
Cluster %s node %s, CDR Lost %d (alarm at %d )"
--#ARGUMENTS {0,1,4,5,3,2}
--#STATE OPERATIONAL
--#SEVERITY MAJOR
::= { starentTraps 1121 }

```

```

starHNBGWServiceStart NOTIFICATION-TYPE
OBJECTS { starServiceVpnName, starServiceServName }
STATUS current
DESCRIPTION
    "A Home Node B Gateway (HNB GW) Service has started.

    Action to be Taken: No action required"
--#SUMMARY "[Service HNBGW-%s-%s] HNB GW service has started"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY INFORMATION
::= { starentTraps 1122 }

```

```

starHNBGWServiceStop NOTIFICATION-TYPE
OBJECTS { starServiceVpnName, starServiceServName }
STATUS current
DESCRIPTION
    "A Home Node B Gateway (PGN) Service has stopped.

    Probable Cause: This is typically caused by operator intervention. In
rare cases it can be caused by the loss of resources (PSCs) to support
the running configuration.

    Action to be Taken: If the HNB GW service shutdown was not planned,
examine the admin logs for an indication of the failure. Verify that
all configured PSCs are present and running in the system. Check the
crash logs for an indication of a software failure.

    Clear Condition: Verify that the HNB GW service is operational.

    Condition Clear Alarm: A starHNBGWServiceStart notification will be
generated when the service is restarted"
--#SUMMARY "[Service HNBGW-%s-%s] HNB GW service has stopped"
--#ARGUMENTS {0,1}
--#STATE DEGRADED
--#SEVERITY MAJOR
::= { starentTraps 1123 }

```

```

starSystemReboot NOTIFICATION-TYPE
OBJECTS { starChassisType, starChassisDescription, starChassisSWRevision }
STATUS current
DESCRIPTION
    "The system has rebooted by the operator. If successful, a subsequent
starSystemStartup trap is typically generated.

    Action to be Taken: No action required. If the reboot was not scheduled the
admin logs can be examined to determine who invoked the reboot operation."
--#SUMMARY "[Chassis] System Reboot, Starent %s chassis, '%s', SW Revision %s"
--#ARGUMENTS {0,1,2}
--#STATE DEGRADED
--#SEVERITY MAJOR
::= { starentTraps 1124 }

```

```

starLicenseAboutToExpire NOTIFICATION-TYPE
OBJECTS { starLicenseKey, starLicenseExpiryDate, starLicenseDaysRemaining }

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

STATUS current
DESCRIPTION
    "A license is about to expire.

    Action to be Taken: A new license should be created and configured on the system
    before the grace period is over."
--#SUMMARY "[System] License is about to expire for license with key %d, expiration date %s with %d
day to expire."
--#ARGUMENTS {0,1,2}
--#STATE OPERATIONAL
--#SEVERITY CRITICAL
::= { starentTraps 1125 }

starLicenseExpired NOTIFICATION-TYPE
OBJECTS { starLicenseKey, starLicenseExpiryDate, starLicenseDaysAfterExpiry }
STATUS current
DESCRIPTION
    "A license is in the grace period and should be updated with a new license.

    Action to be Taken: A new license should be created and configured on the system."
--#SUMMARY "[System] License expired for license with key %d, expiration date %s and it has been %d
day the license has expired."
--#ARGUMENTS {0,1,2}
--#STATE NONOPERATIONAL
--#SEVERITY CRITICAL
::= { starentTraps 1126 }

-- PCC-Policy Service

starPCCPolicyServiceStart NOTIFICATION-TYPE
OBJECTS { starServiceVpnName, starServiceServName }
STATUS current
DESCRIPTION
    "A PCC-Policy Service has started
    Action to be Taken: No action required"
--#SUMMARY "[Service PCC-Policy-%s-%s] PCC-Policy service has started"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 1127 }

starPCCPolicyServiceStop NOTIFICATION-TYPE
OBJECTS { starServiceVpnName, starServiceServName }
STATUS current
DESCRIPTION
    "A PCC-Policy Service has stopped.
    Probable Cause: This is typically caused by operator invention. In
    rare cases it can be caused by the loss of resources (PACs/PSCs) to
    support the running configuration.

    Action to be Taken: If the PCC-Policy service shutdown was not planned,
    examine the admin logs for an indication of the failure. Verify that
    all configured PACs/PSCs are present and running in the system. Check
    the crash logs for an indication of a software failure.

    Clear Condition: Verify that the PCC-Policy service is operational.

    Condition Clear Alarm: A starPCCPolicyServiceStart notification will
    be generated when the service is restarted"

--#SUMMARY "[Service PCC-Policy-%s-%s] PCC-Policy service has stopped"
--#ARGUMENTS {0,1}
--#STATE DEGRADED
::= { starentTraps 1128 }

-- PCC-Quota Service

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

starPCCQuotaServiceStart NOTIFICATION-TYPE
  OBJECTS { starServiceVpnName, starServiceServName }
  STATUS current
  DESCRIPTION
    "A PCC-Quota Service has started
    Action to be Taken: No action required"
    --#SUMMARY "[Service PCC-Quota-%s-%s] PCC-Quota service has started"
    --#ARGUMENTS {0,1}
    --#STATE OPERATIONAL
    --#SEVERITY INFORMATIONAL
  ::= { starentTraps 1129 }

starPCCQuotaServiceStop NOTIFICATION-TYPE
  OBJECTS { starServiceVpnName, starServiceServName }
  STATUS current
  DESCRIPTION
    "A PCC-Quota Service has stopped.
    Probable Cause: This is typically caused by operator invention. In
    rare cases it can be caused by the loss of resources (PACs/PSCs) to
    support the running configuration.

    Action to be Taken: If the PCC-Quota service shutdown was not planned,
    examine the admin logs for an indication of the failure. Verify that
    all configured PACs/PSCs are present and running in the system. Check
    the crash logs for an indication of a software failure.

    Clear Condition: Verify that the PCC-Quota service is operational.

    Condition Clear Alarm: A starPCCQuotaServiceStart notification will
    be generated when the service is restarted"

    --#SUMMARY "[Service PCC-Quota-%s-%s] PCC-Quota service has stopped"
    --#ARGUMENTS {0,1}
    --#STATE DEGRADED
    --#SEVERITY MAJOR
  ::= { starentTraps 1130 }

-- PCC-AF Service

starPCCAFServiceStart NOTIFICATION-TYPE
  OBJECTS { starServiceVpnName, starServiceServName }
  STATUS current
  DESCRIPTION
    "A PCC-AF Service has started
    Action to be Taken: No action required"
    --#SUMMARY "[Service PCC-AF-%s-%s] PCC-AF service has started"
    --#ARGUMENTS {0,1}
    --#STATE OPERATIONAL
    --#SEVERITY INFORMATIONAL
  ::= { starentTraps 1131 }

starPCCAFServiceStop NOTIFICATION-TYPE
  OBJECTS { starServiceVpnName, starServiceServName }
  STATUS current
  DESCRIPTION
    "A PCC-AF Service has stopped.
    Probable Cause: This is typically caused by operator invention. In
    rare cases it can be caused by the loss of resources (PACs/PSCs) to
    support the running configuration.

    Action to be Taken: If the PCC-AF service shutdown was not planned,
    examine the admin logs for an indication of the failure. Verify that
    all configured PACs/PSCs are present and running in the system. Check
    the crash logs for an indication of a software failure.

    Clear Condition: Verify that the PCC-AF service is operational.

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

        Condition Clear Alarm: A starPCCAFServiceStart notification will
        be generated when the service is restarted"

        --#SUMMARY "[Service PCC-AF-%s-%s] PCC-AF service has stopped"
        --#ARGUMENTS {0,1}
        --#STATE DEGRADED
        --#SEVERITY MAJOR
 ::= { starentTraps 1132 }

--SPR Failures

starSPRServerUnreachable NOTIFICATION-TYPE
    OBJECTS { starSPRServerIpAddr }
    STATUS current
    DESCRIPTION
        "The Subscriber Profile Repository (SPR) server cannot be reached.

        Probable Cause: The SPR server is down, or there is a network issue
        preventing communication with the SPR server.

        Actions to be Taken: Restore the SPR server to an operational status;
        Verify that the SPR server is reachable by performing a 'ping' operation
        from the CLI in the appropriate context. Check the admin logs for
        notification of communication problems.

        Clear Condition: Verify that communication to the SPR authentication
        server has been restored.

        Condition Clear Alarm: When this condition clears a starSPRServerReachable
        notification will be generated."
    --#SUMMARY "[System] SPR Server %s is unreachable"
    --#ARGUMENTS {0}
    --#STATE DEGRADED
    --#SEVERITY MAJOR
 ::= { starentTraps 1133 }

starSPRServerReachable NOTIFICATION-TYPE
    OBJECTS { starSPRServerIpAddr }
    STATUS current
    DESCRIPTION
        "The Subscriber Profile Repository (SPR) server is now reachable.
        This can be the result of a system startup, the configuration
        of a new server, or a previously unreachable server becoming reachable.

        Action to be Taken: No Action Required."
    --#SUMMARY "[System] SPR Server %s is reachable"
    --#ARGUMENTS {0}
    --#STATE OPERATIONAL
    --#SEVERITY INFORMATIONAL
 ::= { starentTraps 1134 }

starGSServiceStart NOTIFICATION-TYPE
    OBJECTS { starServiceVpnName, starServiceServName }
    STATUS current
    DESCRIPTION
        "A GS Service has started

        Action to be Taken: No action required"
    --#SUMMARY "[Service GS %s-%s] GS service has started"
    --#ARGUMENTS {0,1}
    --#STATE OPERATIONAL
    --#SEVERITY INFORMATIONAL
 ::= { starentTraps 1135 }

starGSServiceStop NOTIFICATION-TYPE

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

OBJECTS { starServiceVpnName, starServiceServName }
STATUS current
DESCRIPTION
"A GS Service has stopped.
Probable Cause: This is typically caused by operator invention. In
unusual cases it can be caused by the loss of resources (PACs/PSCs) to
support the running configuration.

Action to be Taken: If the GS service shutdown was not planned,
examine the admin logs for an indication of the failure. Verify that
all configured PACs/PSCs are present and running in the system. Check the
crash logs for an indication of a software failure.

Clear Condition: Verify that the GS service is operational.

Condition Clear Alarm: A starGSServiceStart notification will be generated when
the service is restarted"
--#SUMMARY "[Service GS %s-%s] GS service has stopped"
--#ARGUMENTS {0,1}
--#STATE DEGRADED
--#SEVERITY MAJOR
::= { starentTraps 1136 }

starMAPServiceStart NOTIFICATION-TYPE
OBJECTS { starServiceVpnName, starServiceServName }
STATUS current
DESCRIPTION
"A MAP Service has started
Action to be Taken: No action required"
--#SUMMARY "[Service MAP %s-%s] MAP service has started"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 1137 }

starMAPServiceStop NOTIFICATION-TYPE
OBJECTS { starServiceVpnName, starServiceServName }
STATUS current
DESCRIPTION
"A MAP Service has stopped.
Probable Cause: This is typically caused by operator invention. In
unusual cases it can be caused by the loss of resources (PACs/PSCs) to
support the running configuration.

Action to be Taken: If the MAP service shutdown was not planned,
examine the admin logs for an indication of the failure. Verify that
all configured PACs/PSCs are present and running in the system. Check the
crash logs for an indication of a software failure.

Clear Condition: Verify that the MAP service is operational.

Condition Clear Alarm: A starMAPServiceStart notification will be generated when
the service is restarted"
--#SUMMARY "[Service MAP %s-%s] MAP service has stopped"
--#ARGUMENTS {0,1}
--#STATE DEGRADED
--#SEVERITY MAJOR
::= { starentTraps 1138 }

starIUPSServiceStart NOTIFICATION-TYPE
OBJECTS { starServiceVpnName, starServiceServName }
STATUS current
DESCRIPTION
"An IUPS Service has started
Action to be Taken: No action required"
--#SUMMARY "[Service IUPS %s-%s] IUPS service has started"
--#ARGUMENTS {0,1}

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starentTraps 1139 }

starIUPSServiceStop NOTIFICATION-TYPE
  OBJECTS { starServiceVpnName, starServiceServName }
  STATUS current
  DESCRIPTION
    "An IUPS Service has stopped.
    Probable Cause: This is typically caused by operator invention. In
    unusual cases it can be caused by the loss of resources (PACs/PSCs) to
    support the running configuration.

    Action to be Taken: If the IUPS service shutdown was not planned,
    examine the admin logs for an indication of the failure. Verify that
    all configured PACs/PSCs are present and running in the system. Check the
    crash logs for an indication of a software failure.

    Clear Condition: Verify that the IUPS service is operational.

    Condition Clear Alarm: A starIUPSServiceStart notification will be generated when
    the service is restarted"
  --#SUMMARY "[Service IUPS %s-%s] IUPS service has stopped"
  --#ARGUMENTS {0,1}
  --#STATE DEGRADED
  --#SEVERITY MAJOR
  ::= { starentTraps 1140 }

starSGTPServiceStart NOTIFICATION-TYPE
  OBJECTS { starServiceVpnName, starServiceServName }
  STATUS current
  DESCRIPTION
    "A SGTP Service has started
    Action to be Taken: No action required"
  --#SUMMARY "[Service SGTP %s-%s] SGTP service has started"
  --#ARGUMENTS {0,1}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 1141 }

starSGTPServiceStop NOTIFICATION-TYPE
  OBJECTS { starServiceVpnName, starServiceServName }
  STATUS current
  DESCRIPTION
    "A SGTP Service has stopped.
    Probable Cause: This is typically caused by operator invention. In
    unusual cases it can be caused by the loss of resources (PACs/PSCs) to
    support the running configuration.

    Action to be Taken: If the SGTP service shutdown was not planned,
    examine the admin logs for an indication of the failure. Verify that
    all configured PACs/PSCs are present and running in the system. Check the
    crash logs for an indication of a software failure.

    Clear Condition: Verify that the SGTP service is operational.

    Condition Clear Alarm: A starSGTPServiceStart notification will be generated when
    the service is restarted"
  --#SUMMARY "[Service SGTP %s-%s] SGTP service has stopped"
  --#ARGUMENTS {0,1}
  --#STATE DEGRADED
  --#SEVERITY MAJOR
  ::= { starentTraps 1142 }

starEPDGSServiceStart NOTIFICATION-TYPE
  OBJECTS { starServiceVpnName, starServiceServName }

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

STATUS current
DESCRIPTION
    "A EPDG Service has started

    Action to be Taken: No action required"
--#SUMMARY "[Service EPDG-%s-%s] EPDG service has started"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 1143 }

starEPDGServiceStop NOTIFICATION-TYPE
OBJECTS { starServiceVpnName, starServiceServName }
STATUS current
DESCRIPTION
    "A EPDG Service has stopped.

    Probable Cause: This is typically caused by operator invention. In
    unusual cases it can be caused by the loss of resources (PACs/PSCs) to
    support the running configuration.

    Action to be Taken: If the EPDG service shutdown was not planned,
    examine the admin logs for an indication of the failure. Verify that
    all configured PACs/PSCs are present and running in the system. Check the
    crash logs for an indication of a software failure.

    Clear Condition: Verify that the EPDG service is operational.

    Condition Clear Alarm: A starEPDGServiceStart notification will be generated when
    the service is restarted"
--#SUMMARY "[Service EPDG-%s-%s] EPDG service has stopped"
--#ARGUMENTS {0,1}
--#STATE DEGRADED
--#SEVERITY MAJOR
::= { starentTraps 1144 }

starApsCommandSuccess NOTIFICATION-TYPE
OBJECTS { starSlotNum, starCardType, starPortNum, starPortType }
STATUS current
DESCRIPTION
    "APS Command Success Status."
--#SUMMARY "APS Command Success for card %d card type %d port %d port type %s"
--#ARGUMENTS {0,1,2,3}
--#STATE DEGRADED
--#SEVERITY MAJOR
::= { starentTraps 1145 }

starApsCommandFailure NOTIFICATION-TYPE
OBJECTS { starSlotNum, starCardType, starPortNum, starPortType }
STATUS current
DESCRIPTION
    "APS Command Failure Status."
--#SUMMARY "APS Command Failure for card %d card type %d port %d port type %d"
--#ARGUMENTS {0,1,2,3}
--#STATE DEGRADED
--#SEVERITY MAJOR
::= { starentTraps 1146 }

starApsSwitchSuccess NOTIFICATION-TYPE
OBJECTS { starSlotNum, starCardType, starPortNum, starPortType }
STATUS current
DESCRIPTION
    "APS Switch Success Status."
--#SUMMARY "APS Switch Command Status for card %d card type %d port %d port type %d"
--#ARGUMENTS {0,1,2,3}
--#STATE DEGRADED
--#SEVERITY MAJOR

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

 ::= { starentTraps 1147 }

starApsSwitchFailure NOTIFICATION-TYPE
  OBJECTS { starSlotNum, starCardType, starPortNum, starPortType }
  STATUS current
  DESCRIPTION
    "APS Switch Failure Status."
  --#SUMMARY "APS Switch Command Failure Status for card %d card type %d port %d port type %s"
  --#ARGUMENTS {0,1,2,3}
  --#STATE DEGRADED
  --#SEVERITY MAJOR
  ::= { starentTraps 1148 }

starApsModeMismatch NOTIFICATION-TYPE
  OBJECTS { starSlotNum, starCardType, starPortNum }
  STATUS current
  DESCRIPTION
    "APS Mode Mismatch Status."
  --#SUMMARY "APS Mode Mismatch for card %d card type %s port %d"
  --#ARGUMENTS {0,1,2}
  --#STATE DEGRADED
  --#SEVERITY MAJOR
  ::= { starentTraps 1149 }

starApsChannelMismatch NOTIFICATION-TYPE
  OBJECTS { starSlotNum, starCardType, starSlotNum }
  STATUS current
  DESCRIPTION
    "APS Channel Mismatch Status."
  --#SUMMARY "APS Channel Mismatch for card %d card type %s port %d"
  --#ARGUMENTS {0,1,2}
  --#STATE DEGRADED
  --#SEVERITY MAJOR
  ::= { starentTraps 1150 }

starApsByteMismatch NOTIFICATION-TYPE
  OBJECTS { starSlotNum, starCardType, starSlotNum }
  STATUS current
  DESCRIPTION
    "APS Byte Mismatch Status."
  --#SUMMARY "APS Byte Mismatch for card %d card type %s for card %d"
  --#ARGUMENTS {0,1,2}
  --#STATE DEGRADED
  --#SEVERITY MAJOR
  ::= { starentTraps 1151 }

starApsFeProtLineFailure NOTIFICATION-TYPE
  OBJECTS { starSlotNum, starCardType, starSlotNum, starSlotNum }
  STATUS current
  DESCRIPTION
    "APS FE Protocol Line Failure Status."
  --#SUMMARY "APS FE Port Line Failure Status for card %d card type %s from card %d to card %d"
  --#ARGUMENTS {0,1,2,3}
  --#STATE DEGRADED
  --#SEVERITY MAJOR
  ::= { starentTraps 1152 }

starApsLossOfRedundancy NOTIFICATION-TYPE
  OBJECTS { starSlotNum, starCardType, starSlotNum, starSlotNum }
  STATUS current
  DESCRIPTION
    "APS Loss of Redundancy Status."
  --#SUMMARY "APS Loss of Redundancy for card %d card type %s from card %d to card %d"
  --#ARGUMENTS {0,1,2,3}
  --#STATE DEGRADED
  --#SEVERITY MAJOR

```



## STARENT-MIB DEFINITIONS ::= BEGIN

```

 ::= { starentTraps 1153}

starApsLossOfRedundancyClear NOTIFICATION-TYPE
  OBJECTS { starSlotNum, starCardType, starSlotNum, starSlotNum }
  STATUS current
  DESCRIPTION
    "APS Loss of Redundancy Clear Status."
  --#SUMMARY "APS Redundancy Restored for card %d card type %s from card %d to card %d"
  --#ARGUMENTS {0,1,2,3}
  --#STATE DEGRADED
  --#SEVERITY MAJOR
  ::= { starentTraps 1154 }

starHNBGWSGSNRanapReset NOTIFICATION-TYPE
  OBJECTS { starSessHNBGWVpnName, starSessHNBGWServName, starSessHNBGWPsNwName, starSessHNBGWSgsnPtCd }
  STATUS current
  DESCRIPTION
    "RANAP Reset Received from SGSN"

  --#SUMMARY "[Service HNBGW %s-%s PS Network %s] Received RANAP Reset from SGSN %d"
  --#ARGUMENTS {0,1,2,3}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 1155 }

starHNBGWMSCRanapReset NOTIFICATION-TYPE
  OBJECTS { starSessHNBGWVpnName, starSessHNBGWServName, starSessHNBGWCsNwName, starSessHNBGWMscPtCd }
  STATUS current
  DESCRIPTION
    "RANAP Reset Received from MSC"

  --#SUMMARY "[Service HNBGW %s-%s CS Network %s] Received RANAP Reset from MSC %d"
  --#ARGUMENTS {0,1,2,3}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 1156 }

starALCAPNodeReset NOTIFICATION-TYPE
  OBJECTS { starSessALCAPVpnName, starSessALCAPServName, starSessALCAPAAL2NodeName }
  STATUS current
  DESCRIPTION
    "ALCAP Node Reset Received from MGW"

  --#SUMMARY "[Service ALCAP %s-%s] AAL2 Node %s Received ALCAP Node Reset"
  --#ARGUMENTS {0,1,2}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 1157 }

starALCAPPathReset NOTIFICATION-TYPE
  OBJECTS { starSessALCAPVpnName, starSessALCAPServName, starSessALCAPAAL2NodeName, starSessALCAPPathId }
  STATUS current
  DESCRIPTION
    "ALCAP Path Reset Received from MGW"

  --#SUMMARY "[Service ALCAP %s-%s] AAL2 Node %s Path %d Received ALCAP Path Reset"
  --#ARGUMENTS {0,1,2,3}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 1158 }

starALCAPPathBlock NOTIFICATION-TYPE
  OBJECTS { starSessALCAPVpnName, starSessALCAPServName, starSessALCAPPathId }
  STATUS current
  DESCRIPTION
    "ALCAP Block Received from MGW"

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

--#SUMMARY "[Service ALCAP %s-%s] Path %d Received ALCAP Block"
--#ARGUMENTS {0,1,2}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 1159 }

starALCAPPathUnBlock NOTIFICATION-TYPE
OBJECTS { starSessALCAPVpnName, starSessALCAPServName, starSessALCAPPathId }
STATUS current
DESCRIPTION
"ALCAP Un Block Received from MGW"

--#SUMMARY "[Service ALCAP %s-%s] Path %d Received ALCAP Un Block"
--#ARGUMENTS {0,1,2}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 1160 }

starSGSServiceStart NOTIFICATION-TYPE
OBJECTS { starServiceVpnName, starServiceServName }
STATUS current
DESCRIPTION
"A SGS Service has started

Action to be Taken: No action required"
--#SUMMARY "[Service SGS-%s-%s] SGS service has started"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 1161 }

starSGSServiceStop NOTIFICATION-TYPE
OBJECTS { starServiceVpnName, starServiceServName }
STATUS current
DESCRIPTION
"A SGS Service has stopped.

Probable Cause: This is typically caused by operator invention. In
unusual cases it can be caused by the loss of resources (PACs/PSCs) to
support the running configuration.

Action to be Taken: If the SGS service shutdown was not planned,
examine the admin logs for an indication of the failure. Verify that
all configured PACs/PSCs are present and running in the system. Check the
crash logs for an indication of a software failure.

Clear Condition: Verify that the SGS service is operational.

Condition Clear Alarm: A starSGSServiceStart notification will be generated when
the service is restarted"
--#SUMMARY "[Service SGS-%s-%s] SGS service has stopped"
--#ARGUMENTS {0,1}
--#STATE DEGRADED
--#SEVERITY MAJOR
::= { starentTraps 1162 }

starSgsnGnMsgDelay NOTIFICATION-TYPE
OBJECTS { starSGTPVpnName, starSGTPServName, starSGTPPeerAddr }
STATUS current
DESCRIPTION
"Messaging Dealy seen towards GGSN as many messages sent to that GGSN did
not receive response within a certain time"

--#SUMMARY "[Service SGTP %s-%s] SGSN Gn Message delay towards GGSN %s"
--#ARGUMENTS {0,1,2}

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

--#STATE OPERATIONAL
--#SEVERITY WARNING
::= { starentTraps 1163 }

starSgsnGnMsgDelayClear NOTIFICATION-TYPE
OBJECTS { starSGTPVpnName, starSGTPServName, starSGTPPeerAddr}
STATUS current
DESCRIPTION
"The delay seen towards GGSN is no longer seen as message responses are received in time as expected"

--#SUMMARY "[Service SGTP %s-%s] Clear SGSN Gn Message delay towards GGSN %s"
--#ARGUMENTS {0,1,2}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 1164 }

starBNGServiceStart NOTIFICATION-TYPE
OBJECTS { starServiceVpnName, starServiceServName }
STATUS current
DESCRIPTION
    "A BNG Service has started

    Action to be Taken: No action required"
--#SUMMARY "[Service BNG-%s-%s] BNG service has started"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 1165 }

starBNGServiceStop NOTIFICATION-TYPE
OBJECTS { starServiceVpnName, starServiceServName }
STATUS current
DESCRIPTION
    "A BNG Service has stopped.

    Probable Cause: This is typically caused by operator invention. In
    unusual cases it can be caused by the loss of resources (PACs/PSCs) to
    support the running configuration.

    Action to be Taken: If the BNG service shutdown was not planned,
    examine the admin logs for an indication of the failure. Verify that
    all configured PACs/PSCs are present and running in the system. Check the
    crash logs for an indication of a software failure.

    Clear Condition: Verify that the BNG service is operational.

    Condition Clear Alarm: A starBNGServiceStart notification will be generated when
    the service is restarted"
--#SUMMARY "[Service BNG-%s-%s] BNG service has stopped"
--#ARGUMENTS {0,1}
--#STATE DEGRADED
--#SEVERITY MAJOR
::= { starentTraps 1166 }

starMMESlAssocFail NOTIFICATION-TYPE
OBJECTS { starMMESlAssocVpnName, starMMESlAssocServName, starMMESlAssocENBID }
STATUS current
DESCRIPTION
    "An S1 Association between an MME service and an eNodeB has failed.

    Action to be Taken: If the shutdown of the eNodeB was not planned,
    determine the health/status of the eNodeB. If available, verify the
    health of the network between the two elements.

    Clear Condition: The condition is cleared with the S1 Association
    is reestablished.

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

    Condition Clear Alarm: A starMMESlAssocEstab notification will be generated
    when the S1 association is re-established"
--#SUMMARY "[S1 Association %s-%s-%s] Association Failed"
--#ARGUMENTS {0,1,2}
--#STATE DEGRADED
--#SEVERITY MAJOR
 ::= { starentTraps 1167 }

starMMESlAssocSetup NOTIFICATION-TYPE
  OBJECTS { starMMESlAssocVpnName, starMMESlAssocServName, starMMESlAssocENBID }
  STATUS current
  DESCRIPTION
    "An S1 Association between an MME service and an eNodeB has been
    established. Normally a starMMESlAssocSetup notification would be
    generated only for an associated which had previously failed, but
    optionally this notification can be generated for any association
    setup."
--#SUMMARY "[S1 Association %s-%s-%s] Association Setup"
--#ARGUMENTS {0,1,2}
--#STATE DEGRADED
--#SEVERITY INFORMATIONAL
 ::= { starentTraps 1168 }

--MVG Traps

starMVGPeerDown NOTIFICATION-TYPE
  OBJECTS { starServiceVpnName, starPeerAddress, starMVGEndpointName,
    starMVGCauseCode, starMVGProtocolType }
  STATUS current
  DESCRIPTION
    "A MVG peer is down.

    Problem Cause: The MVG peer has failed, or a network connectivity
    prevents reaching the peer.

    Condition Clear Alarm: A starMVGPeerUp notification will be generated when
    the peer is up"
--#SUMMARY "[VPN %s] MVG Peer %s endpoint %s is down"
--#ARGUMENTS {0,1,2}
--#STATE DEGRADED
--#SEVERITY MAJOR
 ::= { starentTraps 1169 }

starMVGPeerUp NOTIFICATION-TYPE
  OBJECTS { starServiceVpnName, starPeerAddress, starMVGEndpointName,
    starMVGCauseCode, starMVGProtocolType }
  STATUS current
  DESCRIPTION
    "A MVG peer is up. This notification is only generated for peers which
    have previously been declared down."
--#SUMMARY "[VPN %s] MVG Peer %s endpoint %s is up"
--#ARGUMENTS {0,1,2}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starentTraps 1170 }

starPCCNtfyIntfPeerUnreachable NOTIFICATION-TYPE
  OBJECTS { starPCCNtfyIntfPeerName }
  STATUS current
  DESCRIPTION
    "The IPCF Event Notification Interface peer cannot be reached. ?

    Probable Cause: The Event Notification server on SPR is down Or the IP-address/port configuration
    does not match with the server

```

## STARENT-MIB DEFINITIONS ::= BEGIN

Actions to be Taken: Check the Event notification server on SPR and ensure it is running. Ensure that IP-address port combination on IPCF match the server side configurations.

Clear Condition: Verify that the Event notification interface status on boxer is up.

Condition Clear Alarm: When this condition clears a starNtfyIntfPeerReachable notification will be generated."

```
--#SUMMARY "[System] Event Notification Peer (%s) is unreachable"
--#ARGUMENTS {0}
--#STATE DEGRADED
--#SEVERITY MAJOR
::= { starentTraps 1173 }
```

starPCCntfyIntfPeerReachable NOTIFICATION-TYPE

```
OBJECTS { starPCCntfyIntfPeerName }
STATUS current
DESCRIPTION
" The Notification Interface peer can be reached.?
```

Action to be Taken: No Action Required."

```
--#SUMMARY "[System] Event Notification Peer (%s) is reachable"
--#ARGUMENTS {0}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 1174 }
```

starIPSecNodePeerDown NOTIFICATION-TYPE

```
OBJECTS { starServiceVpnName, starServiceServName, starPeerAddress }
STATUS current
DESCRIPTION
"A Node Service peer has stopped responding.
```

Problem Cause: The IPSec Node peer has failed, or a network connectivity prevents reaching the peer.

Condition Clear Alarm: A starIPSecNodePeerUp notification will be generated when the peer is up"

```
--#SUMMARY "[Service %s-%s] IPSec Node peer %s is down"
--#ARGUMENTS {0,1,2}
--#STATE DEGRADED
--#SEVERITY MAJOR
::= { starentTraps 1175 }
```

starIPSecNodePeerUp NOTIFICATION-TYPE

```
OBJECTS { starServiceVpnName, starServiceServName, starPeerAddress }
STATUS current
DESCRIPTION
```

"A Node Service peer is back online

Action to be Taken: No action required"

```
--#SUMMARY "[Service %s-%s] IPSec Node peer %s is up"
--#ARGUMENTS {0,1,2}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 1176 }
```

starApsRemoteResponseFail NOTIFICATION-TYPE

```
OBJECTS { starSlotNum, starCardType, starPortSlot }
STATUS current
DESCRIPTION
```

"APS Remote Response Fail."

```
--#SUMMARY "APS Remote Response Fail for card %d type %s port %d"
--#ARGUMENTS {0,1,2}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 1177 }
```

starCdrPurged NOTIFICATION-TYPE

## STARENT-MIB DEFINITIONS ::= BEGIN

```

OBJECTS {starSessGGSNVpnName,starSessGGSNAPNName,starSessGTPPGroupName }
STATUS current
DESCRIPTION
    "CDRs purged"
--#SUMMARY "[System] CDRs pugrd for context %s in apn %s for gtpg group%d"
--#ARGUMENTS {0,1,2}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 1178 }

starLocalUserAdded NOTIFICATION-TYPE
OBJECTS {
    starCLContext,
    starCLIUsername,
    starCLITtyname,
    starCLIRemoteIpAddrType,
    starCLIRemoteIpAddr,
    starCLIDatabaseUsername,
    starCLIPrivs
}
STATUS current
DESCRIPTION
"A local user was added to the system.
Probable Cause: A command was issued which resulted in a new user
being added to the local user database. If this was not a planned
action then further investigation is advised."
--#SUMMARY "[System] Security: Context %s User %s %s from IP %s added user %s with %s privileges to
the local database"
--#ARGUMENTS {0,1,2,3,4,5}
--#STATE OPERATIONAL
--#SEVERITY WARNING
::= { starentTraps 1180 }

starLocalUserRemoved NOTIFICATION-TYPE
OBJECTS {
    starCLContext,
    starCLIUsername,
    starCLITtyname,
    starCLIRemoteIpAddrType,
    starCLIRemoteIpAddr,
    starCLIDatabaseUsername
}
STATUS current
DESCRIPTION
"A local user was removed from the system.
Probable Cause: A command was issued which resulted in an existing
user being removed from the local user database. If this was not
a planned action then further investigation is advised."
--#SUMMARY "[System] Security: Context %s User %s %s from IP %s removed user %s from the local
database"
--#ARGUMENTS {0,1,2,3,4}
--#STATE OPERATIONAL
--#SEVERITY WARNING
::= { starentTraps 1181 }

starLocalUserPrivilegeChanged NOTIFICATION-TYPE
OBJECTS {
    starCLIUsername,
    starCLITtyname,
    starCLIRemoteIpAddrType,
    starCLIRemoteIpAddr,
    starCLIDatabaseUsername,
    starCLIPrivs
}
STATUS current
DESCRIPTION

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

    "A local user's privileges were modified.
    Probable Cause: A command was issued which resulted in an existing
    user's privileges being modified.  If this was not a planned action
    then further investigation is advised."
    --#SUMMARY "[System] Security: User %s %s from IP %s changed user %s privilege to %s in the local
    database"
    --#ARGUMENTS {0,1,2,3,4}
    --#STATE OPERATIONAL
    --#SEVERITY WARNING
    ::= { starentTraps 1182 }

starOsShellAccessed NOTIFICATION-TYPE
    OBJECTS {
        starCLIContext,
        starCLIUsername,
        starCLITtyname,
        starCLIRemoteIpAddrType,
        starCLIRemoteIpAddr
    }
    STATUS current
    DESCRIPTION
    "A user has accessed the OS shell.
    Probable Cause: A command was issued which resulted in a user's
    access to the operating system shell.  If this activity was not
    anticipated, then further investigation should be performed."
    --#SUMMARY "[System] Security: Context %s User %s %s from IP %s has gained access to the OS shell"
    --#ARGUMENTS {0,1,2,3}
    --#STATE OPERATIONAL
    --#SEVERITY WARNING
    ::= { starentTraps 1183 }

starTestModeEntered NOTIFICATION-TYPE
    OBJECTS {
        starCLIContext,
        starCLIUsername,
        starCLITtyname,
        starCLIRemoteIpAddrType,
        starCLIRemoteIpAddr
    }
    STATUS current
    DESCRIPTION
    "A user has entered the StarOS Test Mode.
    Probable Cause: A command was issued which resulted in a user
    entering the CLI test command mode.  The test command mode is
    only intended for maintenance and diagnostic activity and could
    result in major service disruptions.  If this action was not
    intentional, the user should exit from test mode."
    --#SUMMARY "[System] Security: Context %s User %s %s from IP %s has entered test mode"
    --#ARGUMENTS {0,1,2,3}
    --#STATE OPERATIONAL
    --#SEVERITY WARNING
    ::= { starentTraps 1184 }

starLicenseFeaturesModified NOTIFICATION-TYPE
    OBJECTS {
        starCLIContext,
        starCLIUsername,
        starCLITtyname,
        starCLIRemoteIpAddrType,
        starCLIRemoteIpAddr
    }
    STATUS current
    DESCRIPTION
    "A user has manually modified the StarOS license feature set through the CLI.
    Probable Cause: A command was issued which resulted in a user
    modifying the set of license features available to the user.  This
    capability was only intended for maintenance and diagnostic activity

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

    and could result in major service disruptions.  If this action was not
    intentional, the user should restore the original license feature set."
--#SUMMARY "[System] Security: Context %s User %s %s from IP %s has modified the license feature set"
--#ARGUMENTS {0,1,2,3}
--#STATE OPERATIONAL
--#SEVERITY WARNING
 ::= { starentTraps 1185 }

starHiddenAccessEnabled NOTIFICATION-TYPE
  OBJECTS {
      starCLIContext,
      starCLIUsername,
      starCLITtyname,
      starCLIRemoteIpAddrType,
      starCLIRemoteIpAddr
  }
  STATUS current
  DESCRIPTION
  "An administrator has explicitly enabled the use of hidden test commands.
  Probable Cause: A command was configured which resulted in users
  having access to the specific test commands which may have been previously
  unavailable.  If this action was not intentional, the user should disable
  access to the hidden test commands."
--#SUMMARY "[System] Security: Context %s User %s %s from IP %s has enabled access to hidden test
commands"
--#ARGUMENTS {0,1,2,3}
--#STATE OPERATIONAL
--#SEVERITY WARNING
 ::= { starentTraps 1186 }

starHiddenAccessDisabled NOTIFICATION-TYPE
  OBJECTS {
      starCLIContext,
      starCLIUsername,
      starCLITtyname,
      starCLIRemoteIpAddrType,
      starCLIRemoteIpAddr
  }
  STATUS current
  DESCRIPTION
  "An administrator has explicitly disabled the use of hidden test commands.
  Probable Cause: A command was configured which resulted in users no longer
  having access to specific test commands which may have been previously
  available.  If this action was not intentional, the user should re-enable
  access to the hidden test commands."
--#SUMMARY "[System] Security: Context %s User %s %s from IP %s has disabled access to hidden test
commands"
--#ARGUMENTS {0,1,2,3}
--#STATE OPERATIONAL
--#SEVERITY WARNING
 ::= { starentTraps 1187 }

starLawfulInterceptChanged NOTIFICATION-TYPE
  OBJECTS { starCLIUsername, starCLIUsername }
  STATUS current
  DESCRIPTION
  "Original Lawful Intercept configured by Admin: %s is changed by Admin: %s"
--#SUMMARY "Original Lawful Intercept configured by Admin: %s is changed by Admin: %s"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starentTraps 1188 }

starMMES1PathFail NOTIFICATION-TYPE
  OBJECTS { starMMES1PathVpnName, starMMES1PathServName, starMMES1PathENBID, starMMES1PathSelfAddr,
      starMMES1PathSelfPort, starMMES1PathPeerAddr, starMMES1PathPeerPort }

```



## STARENT-MIB DEFINITIONS ::= BEGIN

```

STATUS current
DESCRIPTION
  "An S1 Path between an MME service and an eNodeB has failed.

  Action to be Taken: If the shutdown of the eNodeB was not planned,
  determine the health/status of the eNodeB. If available, verify the
  health of the network between the two elements.

  Clear Condition: The condition is cleared with the S1 Path is
  reestablished.

  Condition Clear Alarm: A starMMES1PathEstab notification will be generated
  when the S1 path is re-established"
--#SUMMARY "[S1 Path %s-%s-%s] Path Failed for self endpoint %s:%d peer endpoint %s:%d"
--#ARGUMENTS {0,1,2,3,4,5,6}
--#STATE DEGRADED
--#SEVERITY MAJOR
 ::= { starentTraps 1189 }

starMMES1PathSetup NOTIFICATION-TYPE
  OBJECTS { starMMES1PathVpnName, starMMES1PathServName, starMMES1PathENBID, starMMES1PathSelfAddr,
            starMMES1PathSelfPort, starMMES1PathPeerAddr, starMMES1PathPeerPort }
  STATUS current
  DESCRIPTION
    "An S1 Path between an MME service and an eNodeB has been
    established. Normally a starMMES1PathSetup notification would be
    generated only for a path which had previously failed, but
    optionally this notification can be generated for any path
    setup."
--#SUMMARY "[S1 Path %s-%s-%s] Path Setup for self endpoint %s:%d peer endpoint %s:%d"
--#ARGUMENTS {0,1,2,3,4,5,6}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starentTraps 1190 }

starSAEGWServiceStart NOTIFICATION-TYPE
  OBJECTS { starServiceVpnName, starServiceServName }
  STATUS current
  DESCRIPTION
    "A SAEGW Service has started

    Action to be Taken: No action required"
--#SUMMARY "[Service SAEGW -%s-%s] SAEGW service has started"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starentTraps 1191 }

starSAEGWServiceStop NOTIFICATION-TYPE
  OBJECTS { starServiceVpnName, starServiceServName }
  STATUS current
  DESCRIPTION
    "A SEAGW Service has stopped.

    Probable Cause: This is typically caused by operator invention. In
    unusual cases it can be caused by the loss of resources (PACs/PSCs) to
    support the running configuration.

    Action to be Taken: If the SAEGW service shutdown was not planned,
    examine the admin logs for an indication of the failure. Verify that
    all configured PACs/PSCs are present and running in the system. Check the
    crash logs for an indication of a software failure.

    Clear Condition: Verify that the SEAGW service is operational.

    Condition Clear Alarm: A starSAEGWServiceStart notification will be
    generated when the service is restarted"

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

--#SUMMARY "[Service SAEGW-%s-%s] SAEGW service has stopped"
--#ARGUMENTS {0,1}
--#STATE DEGRADED
--#SEVERITY MAJOR
 ::= { starentTraps 1192 }

starHenbgwAccessServiceStart NOTIFICATION-TYPE
  OBJECTS { starServiceVpnName, starServiceServName }
  STATUS current
  DESCRIPTION
    "A HENBGW Access Service has started

    Action to be Taken: No action required"
--#SUMMARY "[Service HenbgwAccess-%s-%s] HENBGW Access service has started"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starentTraps 1193 }

starHenbgwAccessServiceStop NOTIFICATION-TYPE
  OBJECTS { starServiceVpnName, starServiceServName }
  STATUS current
  DESCRIPTION
    "A HENBGW Access Service has stopped.

    Probable Cause: This is typically caused by operator invention. In
    unusual cases it can be caused by the loss of resources (PACs/PSCs) to
    support the running configuration.

    Action to be Taken: If the HENBGW Access service shutdown was not planned,
    examine the admin logs for an indication of the failure. Verify that
    all configured PACs/PSCs are present and running in the system. Check the
    crash logs for an indication of a software failure.

    Clear Condition: Verify that the HENBGW Access service is operational.

    Condition Clear Alarm: A starHenbgwAccessServiceStart notification will be
    generated when the service is restarted"
--#SUMMARY "[Service HenbgwAccess-%s-%s] HENBGW Access service has stopped"
--#ARGUMENTS {0,1}
--#STATE DEGRADED
--#SEVERITY MAJOR
 ::= { starentTraps 1194 }

starHenbgwNetworkServiceStart NOTIFICATION-TYPE
  OBJECTS { starServiceVpnName, starServiceServName }
  STATUS current
  DESCRIPTION
    "A HENBGW Network Service has started

    Action to be Taken: No action required"
--#SUMMARY "[Service HenbgwNetwork-%s-%s] HENBGW Network service has started"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starentTraps 1195 }

starHenbgwNetworkServiceStop NOTIFICATION-TYPE
  OBJECTS { starServiceVpnName, starServiceServName }
  STATUS current
  DESCRIPTION
    "A HENBGW Network Service has stopped.

    Probable Cause: This is typically caused by operator invention. In
    unusual cases it can be caused by the loss of resources (PACs/PSCs) to

```

## STARENT-MIB DEFINITIONS ::= BEGIN

support the running configuration.

Action to be Taken: If the HENBGW Network service shutdown was not planned, examine the admin logs for an indication of the failure. Verify that all configured PACs/PSCs are present and running in the system. Check the crash logs for an indication of a software failure.

Clear Condition: Verify that the HENBGW Network service is operational.

Condition Clear Alarm: A starHenbgwNetworkServiceStart notification will be generated when the service is restarted"

```
--#SUMMARY "[Service HenbgwNetwork-%s-%s] HENBGW Network service has stopped"
--#ARGUMENTS {0,1}
--#STATE DEGRADED
--#SEVERITY MAJOR
::= { starentTraps 1196 }
```

starAAAArchiveStarted NOTIFICATION-TYPE

```
OBJECTS {starTaskInstance}
STATUS current
DESCRIPTION
    "Archive started"
--#SUMMARY "[System] AAA Archive started for sessmgr instance %d"
--#ARGUMENTS {1}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 1197 }
```

starECSTotalDNSLearntIPv4Threshold NOTIFICATION-TYPE

```
OBJECTS {starECSTotalDNSLearntIPThresholdInstance, starECSTotalDNSLearntIPThresholdconfigured,
starECSTotalDNSLearntIPThresholdmeasured}
STATUS current
DESCRIPTION
    " DNS Learnt IPv4 entries exceed the threshold limit (high water mark) configured.
    For IPv4 Max IP entries = 512,00
    Alarm Cleared when the IPv4 entries go below the Lower Water Mark configured"
--#SUMMARY "[ACSMgr Instance %d] Threshold-%d Measured value-%d"
--#ARGUMENTS {0,1,2}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 1198 }
```

starECSTotalDNSLearntIPv4ThresholdClear NOTIFICATION-TYPE

```
OBJECTS {starECSTotalDNSLearntIPThresholdInstance, starECSTotalDNSLearntIPThresholdconfigured,
starECSTotalDNSLearntIPThresholdmeasured}
STATUS current
DESCRIPTION
    "DNS Learnt IPv4 entries reach below the threshold limit (lower water mark) configured."
--#SUMMARY "[ACSMgr Instance %d] Threshold-%d Measured value-%d"
--#ARGUMENTS {0,1,2}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 1199 }
```

starECSTotalDNSLearntIPv6Threshold NOTIFICATION-TYPE

```
OBJECTS {starECSTotalDNSLearntIPThresholdInstance, starECSTotalDNSLearntIPThresholdconfigured,
starECSTotalDNSLearntIPThresholdmeasured}
STATUS current
DESCRIPTION
    "DNS Learnt IPv6 entries exceed the threshold limit (high water mark) configured.
    For IPv6 Max IP entries = 256,00
    Alarm Cleared when the IPv6 entries go below the Lower Water Mark configured"
--#SUMMARY "[ACSMgr Instance %d] Threshold-%d Measured value-%d"
--#ARGUMENTS {0,1,2}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 1200 }
```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

starECSTotalDNSLearntIPv6ThresholdClear NOTIFICATION-TYPE
    OBJECTS {starECSTotalDNSLearntIPThresholdInstance, starECSTotalDNSLearntIPThresholdconfigured,
starECSTotalDNSLearntIPThresholdmeasured}
    STATUS current
    DESCRIPTION
        "DNS Learnt IPv6 entries reach below the threshold limit (lower water mark) configured."
        --#SUMMARY "[ACSMgr Instance %d] Threshold-%d Measured value-%d"
        --#ARGUMENTS {0,1,2}
        --#STATE OPERATIONAL
        --#SEVERITY INFORMATIONAL
    ::= { starentTraps 1201 }

```

```

starIPSecNodeIpv6PeerDown NOTIFICATION-TYPE
    OBJECTS { starServiceVpnName, starServiceServName, starPeerAddressIpv6 }
    STATUS current
    DESCRIPTION
        "A Node Service peer has stopped responding. This peer is reached using an IPv6 address.

        For IPv4-connected peers, a starIPSecNodePeerDown notification would be generated.

        Problem Cause: The IPSec Node peer has failed, or a network connectivity
        prevents reaching the peer.

        Condition Clear Alarm: A starIPSecNodeIpv6PeerUp notification will be generated when
        the peer is up"
        --#SUMMARY "[Service %s-%s] IPSec Node peer %s is down"
        --#ARGUMENTS {0,1,2}
        --#STATE DEGRADED
        --#SEVERITY MAJOR
    ::= { starentTraps 1202 }

```

```

starIPSecNodeIpv6PeerUp NOTIFICATION-TYPE
    OBJECTS { starServiceVpnName, starServiceServName, starPeerAddressIpv6 }
    STATUS current
    DESCRIPTION
        "A Node Service peer is back online. This peer is reached using an IPv6 address.

        For IPv4-connected peers, a starIPSecNodePeerUp notification would be generated.

        Action to be Taken: No action required"
        --#SUMMARY "[Service %s-%s] IPSec Node peer %s is up"
        --#ARGUMENTS {0,1,2}
        --#STATE OPERATIONAL
        --#SEVERITY INFORMATIONAL
    ::= { starentTraps 1203 }

```

```

starLAGGroupDown NOTIFICATION-TYPE
    OBJECTS { starPortSlot, starPortNum, starLAGPartner }
    STATUS current
    DESCRIPTION
        "LAG group status is Down. This notification is only generated for master physical port and
        a previous 'starLAGGroupUp' notification was previously generated.

        Action to be Taken: No action required. The cause for the LAG down should be investigated."
        --#SUMMARY "[Port] LAG group status is down Slot %d Port %d Partner %s"
        --#ARGUMENTS {0,1,2}
        --#STATE DEGRADED
        --#SEVERITY MAJOR
    ::= { starentTraps 1204 }

```

```

starLAGGroupUp NOTIFICATION-TYPE
    OBJECTS { starPortSlot, starPortNum, starLAGPartner }
    STATUS current
    DESCRIPTION

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

"LAG group status is up. This notification is only generated for master physical port.

Action to be Taken: No action required"
--#SUMMARY "[Port] LAG group status is up Slot %d Port %d Partner %s"
--#ARGUMENTS {0,1,2}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 1205 }

starVLRAssocDown NOTIFICATION-TYPE
OBJECTS { starSGSServiceVpnName, starSGSServiceServName, starVLRName, starVLRIpAddr1,
          starVLRIpAddr2, starVLRPortNum }
STATUS current
DESCRIPTION
    "A VLR Association is down.

    Problem Cause: The VLR Association has failed, or a network connectivity prevents reaching the
VLR.

    Condition Clear Alarm: A starVLRAssocUp notification will be generated when the VLR association
is up"
--#SUMMARY "[ VLR Association %s-%s-%s] is down; End point Addr1: %s Addr2: %s Port: %d"
--#ARGUMENTS {0,1,2,3,4,5}
--#STATE DEGRADED
--#SEVERITY MAJOR
::= { starentTraps 1206}

starVLRAssocUp NOTIFICATION-TYPE
OBJECTS { starSGSServiceVpnName, starSGSServiceServName, starVLRName, starVLRIpAddr1,
          starVLRIpAddr2, starVLRPortNum }
STATUS current
DESCRIPTION
    "A VLR Association is up. This notification is only generated for Association
    which have previously been declared down."
--#SUMMARY "[ VLR Association %s-%s-%s] is up; End pointAddr1: %s Addr2: %s Port %d"
--#ARGUMENTS {0,1,2,3,4,5}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 1207}

starVLRAllAssocDown NOTIFICATION-TYPE
OBJECTS { starSGSServiceVpnName, starSGSServiceServName }
STATUS current
DESCRIPTION
    "All the VLR Associations are down.

    Problem Cause: All the VLR Associations has failed, or network connectivity
prevents reaching the VLRs.

    Condition Clear Alarm: A starVLRAllAssocUp notification will be generated when
    all the VLR associations are up"
--#SUMMARY "All VLR Associations are down %s-%s"
--#ARGUMENTS {0,1}
--#STATE DEGRADED
--#SEVERITY MAJOR
::= { starentTraps 1208}

starVLRAllAssocDownClear NOTIFICATION-TYPE
OBJECTS { starSGSServiceVpnName, starSGSServiceServName }
STATUS current
DESCRIPTION
    "VLR at least one association is up. This notification is only generated for all the Association
which
    have previously been declared down."
--#SUMMARY "VLR at least one association is up %s-%s"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

--#SEVERITY INFORMATIONAL
 ::= { starentTraps 1209 }

starEnhancedCongestion NOTIFICATION-TYPE
  OBJECTS { starServiceType, starCongestionPolicy, starCongestionResourceType, starCongestionType,
starCongestionActionProfileName}
  STATUS current
  DESCRIPTION
    "A congestion condition has occurred.

    Probable Cause: This is the result of an operator-configured congestion
    threshold being reached. This can be due to high usage of the resource
    being monitored which indicates that the IMG is reaching its peak
    capacity, or could be caused by the incorrect configuration of the
    congestion thresholds.

    Actions to be Taken: Verify that the congestion thresholds are correct;
    if the congested state is seem repeatedly, or for sustained periods of
    time, additional system capacity may need to be brought online.

    This system is cleared when the use of the specific resource falls below
    the configured limit.

    Condition Clear Alarm: A starCongestionClear notification is sent when there
    are no congestion conditions for a service type"
  --#SUMMARY "[System] Congestion seen for %s service; resource %s, policy %s applied, %s threshold
exceeded, action profile %s"
  --#ARGUMENTS {0,2,1,3,4}
  --#STATE DEGRADED
  --#SEVERITY MAJOR
  ::= { starentTraps 1210 }

starEnhancedCongestionClear NOTIFICATION-TYPE
  OBJECTS { starServiceType, starCongestionType }
  STATUS current
  DESCRIPTION
    "A congestion condition has cleared."
  --#SUMMARY "[System] Congestion cleared for service %s threshold %s"
  --#ARGUMENTS {0,1}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 1211 }

starSGSNRNCNoResetAck NOTIFICATION-TYPE
  OBJECTS { starSessSGSNVpnName,
starSessSGSNServName,starSessSGSNMcc,starSessSGSNMnc,starSessSGSNRncId}
  STATUS current
  DESCRIPTION
    "SGSN has not received an Radio Network Controller(RNC) reset-ack event.
    This event is generated on expiry of all retransmission for RNC Reset and non-receipt of Reset-Ack."

  --#SUMMARY "[Service SGSN %s-%s] RNC Reset Ack event not received ; MCC %s MNC %s RncId %d"
  --#ARGUMENTS {0,1,2,3,4}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 1212 }

starThreshSAEGWSessions NOTIFICATION-TYPE
  OBJECTS { starThreshInt, starThreshMeasuredInt }
  STATUS current
  DESCRIPTION
    "The total number of SAEGW sessions is above the configured threshold
    value.

    Probable Cause: This is a user configurable threshold.

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

        If the thresholding subsystem is configured to run in an 'alarm'
        model, a starThreshClearSAEGWSessions notification will be generated
        when the measured value falls below the threshold"
--#SUMMARY "ThreshSAEGWSessions threshold %d measured value %d"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY WARNING
::= { starentTraps 1213 }

starThreshClearSAEGWSessions NOTIFICATION-TYPE
OBJECTS { starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
    "The threshold condition is now clear."
--#SUMMARY "ThreshClearSAEGWSessions threshold %d measured value %d"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY INFORMATION
::= { starentTraps 1214 }

starSGSNRMCPUWarn NOTIFICATION-TYPE
OBJECTS { starTaskFacilityName, starTaskInstance, starTaskCard,
          starTaskCPU, starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
    "The CPU usage is goin in Warning level.
    This event is generated when current CPU usage reaches 90% of allocated limit.

    Condition Clear Alarm: A starSGSNRMCPUWarnClear notification is sent when there
    CPU usage reaches 50% of allocated limit after warning"

--#SUMMARY "[SGSN Facility %s-%d] Card %d CPU %d allocated %d used %d"
--#ARGUMENTS {0,1,2,3,4,5}
--#STATE OPERATIONAL
--#SEVERITY WARNING
::= { starentTraps 1215 }

starSGSNRMCPUWarnClear NOTIFICATION-TYPE
OBJECTS { starTaskFacilityName, starTaskInstance, starTaskCard,
          starTaskCPU, starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
    "The CPU usage is coming back to normal once warned.
    This event is generated when current CPU usage reaches 50% of allocated limit after warning."

--#SUMMARY "[SGSN Facility %s-%d] Card %d CPU %d allocated %d used %d"
--#ARGUMENTS {0,1,2,3,4,5}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 1216 }

starSGSNRMMemWarn NOTIFICATION-TYPE
OBJECTS { starTaskFacilityName, starTaskInstance, starTaskCard,
          starTaskCPU, starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
    "The Memory usage for the procllet is going in Warning level.
    This event is generated when current Memory usage exceeds allocated limit.

    Condition Clear Alarm: A starSGSNRMMemWarnClear notification is sent when
    current Memory usage reaches below 95% of allocated limit once warned."

--#SUMMARY "[SGSN Facility %s-%d] Card %d CPU %d allocated %d used %d"
--#ARGUMENTS {0,1,2,3,4,5}
--#STATE OPERATIONAL
--#SEVERITY WARNING
::= { starentTraps 1217 }

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

starSGSNRMMemWarnClear NOTIFICATION-TYPE
    OBJECTS { starTaskFacilityName, starTaskInstance, starTaskCard,
              starTaskCPU, starThreshInt, starThreshMeasuredInt }
    STATUS current
    DESCRIPTION
        "The Memory usage for the procllet is coming back to normal once warned.
        This event is generated when current Memory usage reaches below 95% of allocated limit once warned."

    --#SUMMARY "[SGSN Facility %s-%d] Card %d CPU %d allocated %d used %d"
    --#ARGUMENTS {0,1,2,3,4,5}
    --#STATE OPERATIONAL
    --#SEVERITY INFORMATIONAL
    ::= { starentTraps 1218 }

starRMCPUOver NOTIFICATION-TYPE
    OBJECTS { starTaskFacilityName, starTaskInstance, starTaskCard,
              starTaskCPU, starThreshInt, starThreshMeasuredInt }
    STATUS current
    DESCRIPTION
        "The CPU usage is goin in Overlaod level.
        This event is generated when current CPU usage reaches 50% more of allocated limit.

        Condition Clear Alarm: A starRMCPUOverClear notification is sent when
        urrent CPU usage reaches 50% of allocated limit after over"

    --#SUMMARY "[SGSN Facility %s-%d] Card %d CPU %d allocated %d used %d"
    --#ARGUMENTS {0,1,2,3,4,5}
    --#STATE OPERATIONAL
    --#SEVERITY WARNING
    ::= { starentTraps 1219 }

starRMCPUOverClear NOTIFICATION-TYPE
    OBJECTS { starTaskFacilityName, starTaskInstance, starTaskCard,
              starTaskCPU, starThreshInt, starThreshMeasuredInt }
    STATUS current
    DESCRIPTION
        "The CPU usage is going back to normal level.
        This event is generated when current CPU usage reaches 50% of allocated limit after over."

    --#SUMMARY "[SGSN Facility %s-%d] Card %d CPU %d allocated %d used %d"
    --#ARGUMENTS {0,1,2,3,4,5}
    --#STATE OPERATIONAL
    --#SEVERITY INFORMATIONAL
    ::= { starentTraps 1220 }

starSGSNRMMemOver NOTIFICATION-TYPE
    OBJECTS { starTaskFacilityName, starTaskInstance, starTaskCard,
              starTaskCPU, starThreshInt, starThreshMeasuredInt }
    STATUS current
    DESCRIPTION
        "The Memory usage of the task is going in Overload level.
        This event is generated when current Memory usage reached twice allocated limit."

    --#SUMMARY "[SGSN Facility %s-%d] Card %d CPU %d allocated %d used %d"
    --#ARGUMENTS {0,1,2,3,4,5}
    --#STATE OPERATIONAL
    --#SEVERITY WARNING
    ::= { starentTraps 1221 }

starSGSNRMMemOverClear NOTIFICATION-TYPE
    OBJECTS { starTaskFacilityName, starTaskInstance, starTaskCard,
              starTaskCPU, starThreshInt, starThreshMeasuredInt }
    STATUS current
    DESCRIPTION
        "The Memory usage for a procllet reached normal after overload.

```



## STARENT-MIB DEFINITIONS ::= BEGIN

```

    This event is generated when current Memory usage reaches 95% of allocated limit once overloaded."

--#SUMMARY "[SGSN Facility %s-%d] Card %d CPU %d allocated %d used %d"
--#ARGUMENTS {0,1,2,3,4,5}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 1222 }

starSessMgrFlowCount NOTIFICATION-TYPE
    OBJECTS {
        starSessMgrFlowInstId,
        starSessMgrFlowPDNNo,
        starSessMgrFlowMemUsage,
        starSessMgrFlowCounter,
        starSessMgrTotalFlowCount
    }
    STATUS current
    DESCRIPTION
        "Session Manager Flows counting, This event is generated when number of flows in a session manager
        instance goes beyond configured threshold,it will also print number of PDN, Memeory usage and sess manager
        instance number."

--#SUMMARY "[Session Manager Instance %d] is Having Total number of PDNs %d with Memory Usage %d and
Max Flows per Session %d, Total used Flows %d"
--#ARGUMENTS {0,1,2,3,4}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 1223 }

starSessMgrFlowCountClear NOTIFICATION-TYPE
    OBJECTS {
        starSessMgrFlowInstId,
        starSessMgrFlowPDNNo,
        starSessMgrFlowMemUsage,
        starSessMgrFlowCounter,
        starSessMgrTotalFlowCount
    }
    STATUS current
    DESCRIPTION
        "Clear Session Manager Flows Counting Trap, This event is generated when number of flows in a session
        manager instance goes below configured threshold,it will also print number of PDN, Memeory usage and sess manager
        instance number."

--#SUMMARY "[Session Manager Instance %d] is Having Total number of PDNs %d with Memory Usage %d and
Max Flows per Session %d, Total used Flows %d"
--#ARGUMENTS {0,1,2,3,4}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 1224 }

starStorageFound NOTIFICATION-TYPE
    OBJECTS { starStorageSlot, starStorageName }
    STATUS current
    DESCRIPTION
        "The specified storage device is found and mounted successfully
        on the card. This notification only generated to the storage device for
        which 'starStorageNotFound' notification was generated"

--#SUMMARY "[Slot-%d] Storage device is found and mounted on %s"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 1225 }

starStorageNotFound NOTIFICATION-TYPE

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

OBJECTS { starStorageSlot, starStorageName }
STATUS current
DESCRIPTION
"The specified storage device not found on the card.
This notification is currently only generated for failures to access
the specified storage device on the card.
Probable Cause: The storage device is not accessible on the card.

Action to be Taken: Verify the storage device on the card is attached
correctly.

Condition Clear Alarm: A starStorageFound notification will be generated
when the storage device is mounted on the card."
--#SUMMARY "[Slot-%d] Storage device %s is not mounted or present"
--#ARGUMENTS {0,1}
--#STATE DEGRADED
--#SEVERITY MAJOR
::= { starentTraps 1226 }

starHENBGWMMESCTPAssocDown NOTIFICATION-TYPE
OBJECTS { starHENBGWServiceVpnName, starHENBGWServiceServName, starHENBGWServiceLogicalENBid,
          starHENBGWServiceMMEServName, starHENBGWServicePeerAddr, starHENBGWServicePeerPort }
STATUS current
DESCRIPTION
"A HENBGW MME SCTP Association is down.
Problem Cause: The HENBGW MME SCTP Association has failed, or a network
connectivity prevents reaching the MME.

Condition Clear Alarm: A starHENBGWMMESCTPAssocUp notification will be generated when
the HENBGW MME SCTP association is up."
--#SUMMARY "[ HENBGW MME Association %s-%s-%s-%s] is down; End pointAddr: %s Port %d"
--#ARGUMENTS {0,1,2,3,4,5}
--#STATE DEGRADED
--#SEVERITY MAJOR
::= { starentTraps 1227 }

starHENBGWMMESCTPAssocUp NOTIFICATION-TYPE
OBJECTS { starHENBGWServiceVpnName, starHENBGWServiceServName, starHENBGWServiceLogicalENBid,
          starHENBGWServiceMMEServName, starHENBGWServicePeerAddr, starHENBGWServicePeerPort }
STATUS current
DESCRIPTION
"A HENBGW MME SCTP Association is up. This notification is only generated for
Association which have previously been declared down, optionally this notification
can be generated for any association up."
--#SUMMARY "[HENBGW MME Association %s-%s-%s-%s] is up; End pointAddr: %s Port %d"
--#ARGUMENTS {0,1,2,3,4,5}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 1228 }

starHENBGWMMESCTPAllAssocDown NOTIFICATION-TYPE
OBJECTS { starHENBGWServiceVpnName, starHENBGWServiceServName }
STATUS current
DESCRIPTION
"All the HENBGW MME SCTP Associations are down.
Problem Cause: All the HENBGW MME SCTP Associations has failed, or network connectivity
prevents reaching the MMEs.

Condition Clear Alarm: A starHENBGWMMESCTPAllAssocDownClear notification will be
generated when at least one HENBGW MME SCTP association is up."
--#SUMMARY "All HENBGW MME SCTP Associations are down %s-%s"
--#ARGUMENTS {0,1}
--#STATE NONOPERATIONAL
--#SEVERITY CRITICAL
::= { starentTraps 1229 }

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

starHENBGWMMESCTPAllAssocDownClear NOTIFICATION-TYPE
  OBJECTS { starHENBGWServiceVpnName, starHENBGWServiceServName }
  STATUS current
  DESCRIPTION
    "HENBGW MME SCTP at least one association is up. This notification is only generated for
    all the Association which have previously been declared down."
  --#SUMMARY "HENBGW MME SCTP at least one association is up %s-%s"
  --#ARGUMENTS {0,1}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 1230 }

starNPDBConnectionDown NOTIFICATION-TYPE
  OBJECTS { starTaskFacilityName, starTaskInstance, starNwReachSrvrAddr}
  STATUS current
  DESCRIPTION
    " A NPDB connection is down.

    Probable Cause: This is typically caused when NPDB server resets the socket.

    Action to be Taken: Check if the NDPB Server is running.

    Clear Condition: Verify that PING PONG messages are exchanged with the NPDB Server.

    Condition Clear Alarm: A startNPDBConnectionUp notification will be generated when
    the service is restarted"
  --#SUMMARY "[CSCF Task %s/%d] Connection to NPDB server %s is down"
  --#ARGUMENTS {0,1,2}
  --#STATE DEGRADED
  --#SEVERITY MAJOR
  ::= { starentTraps 1231 }

starNPDBConnectionUp NOTIFICATION-TYPE
  OBJECTS { starTaskFacilityName, starTaskInstance, starNwReachSrvrAddr}
  STATUS current
  DESCRIPTION
    " A NPDB connection is up.

    Action to be Taken: No action required"
  --#SUMMARY "[CSCF Task %s/%d] Connection to NPDB server %s is up"
  --#ARGUMENTS {0,1,2}
  --#STATE OPERATIONAL
  --#SEVERITY MAJOR
  ::= { starentTraps 1232 }

starNPUMissedARPFFrames NOTIFICATION-TYPE
  OBJECTS { starNPUSlotNumber, starNPUCPUNumber, starNPUNPUNumber }
  STATUS current
  DESCRIPTION
    "This trap will be raised when NPU misses the ARP and packets route
    to kernel. This will print the slot number CPU number and NPU number"

  --#SUMMARY "[Slot-%d] CPU %d NPU %d are routed through the kernel"
  --#ARGUMENTS {0,1,2}
  --#STATE DEGRADED
  --#SEVERITY MAJOR
  ::= { starentTraps 1233 }

starNPUMissedARPFFramesClear NOTIFICATION-TYPE
  OBJECTS { starNPUSlotNumber, starNPUCPUNumber, starNPUNPUNumber }
  STATUS current
  DESCRIPTION
    "This clear trap will be raised when NPU misses the ARP and packets route
    to kernel recovers. This will print the slot number CPU number and NPU number"

  --#SUMMARY "[Slot-%d] CPU %d NPU %d are routed through the kernel"
  --#ARGUMENTS {0,1,2}

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

--#STATE DEGRADED
--#SEVERITY MAJOR
 ::= { starentTraps 1234 }

starChassisCrashListFull NOTIFICATION-TYPE
OBJECTS { starChassisCrashList }
STATUS current
DESCRIPTION
    "Chassis crash list is reached full. This notification is generated
    when no more space is left to store the crash list and reached
    to disk limit."
--#SUMMARY "[System] Chassis Crash List is %s"
--#ARGUMENTS {0}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starentTraps 1235 }

starSessMgrCSCFServiceRecoveryComplete NOTIFICATION-TYPE
OBJECTS {starServiceVpnName, starServiceServName, starTaskInstance, starCPUSlot, starCPUNumber}
STATUS current
DESCRIPTION
    "Indicates that the CSCF Service had completed recovery.
    This trap is generated when all the calls are recovered and the listen socket becomes active to
    accept packets"

--#SUMMARY "[Service CSCF %s-%s] CSCF Service Recovery Complete For Sessmgr Instance %d on %d/%d"
--#ARGUMENTS {0,1,2,3,4}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starentTraps 1236 }

starECSreaddressServerDown NOTIFICATION-TYPE
OBJECTS { starPeerAddress, starUDPPortNum}
STATUS current
DESCRIPTION
    "Server from readdress server list is detected down
    This notification is generated when there are consecutive failures for server."
--#SUMMARY "ECS Readdress server-list server %s:%d going down"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starentTraps 1237 }

starECSreaddressServerUp NOTIFICATION-TYPE
OBJECTS { starPeerAddress, starUDPPortNum}
STATUS current
DESCRIPTION
    "Server from readdress server list is detected up
    This notification is generated when after deadtime server is detected up."
--#SUMMARY "ECS Readdress server-list server %s:%d is up"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starentTraps 1238 }

starCdrHDDStart NOTIFICATION-TYPE
OBJECTS {starServiceVpnName,starSessGTPPGroupName}
STATUS current
DESCRIPTION
    "CDRs are being written to the HDD"
--#SUMMARY "[System] CDRs are being written to the HDD for context %s for gtp group%s"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starentTraps 1239 }

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

starCdrStreamingStart NOTIFICATION-TYPE
    OBJECTS {starServiceVpnName,starSessGTPPGroupName}
    STATUS current
    DESCRIPTION
        "CDR streaming is started"
    --#SUMMARY "[System] CDR streaming is started for context %s for gtp group%s"
    --#ARGUMENTS {0,1}
    --#STATE OPERATIONAL
    --#SEVERITY INFORMATIONAL
    ::= { starentTraps 1240 }

starCdrStreamingComplete NOTIFICATION-TYPE
    OBJECTS {starServiceVpnName,starSessGTPPGroupName}
    STATUS current
    DESCRIPTION
        "CDR streaming is Completed"
    --#SUMMARY "[System] CDR streaming is completed for context %s for gtp group%s"
    --#ARGUMENTS {0,1}
    --#STATE OPERATIONAL
    --#SEVERITY INFORMATIONAL
    ::= { starentTraps 1241 }

starVLRDown NOTIFICATION-TYPE
    OBJECTS { starSGSServiceVpnName, starSGSServiceServName, starVLRName }
    STATUS current
    DESCRIPTION
        "A VLR is down.

        Problem Cause: The VLR has failed, or a network connectivity prevents reaching the VLR.

        Condition Clear Alarm: A starVLRUp notification will be generated when the VLR is up"
    --#SUMMARY "[ VLR %s-%s-%s] is down"
    --#ARGUMENTS {0,1,2}
    --#STATE DEGRADED
    --#SEVERITY MAJOR
    ::= { starentTraps 1242}

starVLRUp NOTIFICATION-TYPE
    OBJECTS { starSGSServiceVpnName, starSGSServiceServName, starVLRName }
    STATUS current
    DESCRIPTION
        "A VLR is up. This notification is only generated for VLRs
        which have previously been declared down."
    --#SUMMARY "[ VLR %s-%s-%s] is up"
    --#ARGUMENTS {0,1,2}
    --#STATE OPERATIONAL
    --#SEVERITY INFORMATIONAL
    ::= { starentTraps 1243}

starPCFReachable NOTIFICATION-TYPE
    OBJECTS { starContextName, starPCFAddress }
    STATUS current
    DESCRIPTION
        "A PCF that the IMG communication is reachable."

    --#SUMMARY "[System] PCF Reachable, VPN %s PCF address %s"
    --#ARGUMENTS {0,1}
    --#STATE OPERATIONAL
    --#SEVERITY INFORMATIONAL
    ::= { starentTraps 1244 }

starLIRcvryError NOTIFICATION-TYPE
    OBJECTS { starLIRcvryErrType, starLIRcvryErrString }
    STATUS current
    DESCRIPTION
        "This trap will be raised when Lawful Intercepts cannot be saved or recovered

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

to/from backup. This will print the type of error and error string"

--#SUMMARY "Lawful Intercept Recovery Error %d: %s"
--#ARGUMENTS {0,1}
--#STATE DEGRADED
--#SEVERITY MAJOR
 ::= { starentTraps 1245 }

starLIRcvryComplete NOTIFICATION-TYPE
  STATUS current
  DESCRIPTION
    "This trap will be raised when Lawful Intercepts are successfully recovered"

    --#SUMMARY "Lawful Intercepts are recovered successfully"
    --#STATE DEGRADED
    --#SEVERITY INFORMATIONAL
    ::= { starentTraps 1246 }

starCGWServiceStart NOTIFICATION-TYPE
  OBJECTS { starServiceVpnName, starServiceServName }
  STATUS current
  DESCRIPTION
    "A Serving Gateway (CGW) Service has started.

    Action to be Taken: No action required"
    --#SUMMARY "[Service CGW-%s-%s] CGW service has started"
    --#ARGUMENTS {0,1}
    --#STATE OPERATIONAL
    --#SEVERITY INFORMATION
    ::= { starentTraps 1247 }

starCGWServiceStop NOTIFICATION-TYPE
  OBJECTS { starServiceVpnName, starServiceServName }
  STATUS current
  DESCRIPTION
    "A Serving Gateway (CGW) Service has stopped.

    Probable Cause: This is typically caused by operator intervention. In
    rare cases it can be caused by the loss of resources (PSCs) to support
    the running configuration.

    Action to be Taken: If the CGW service shutdown was not planned,
    examine the admin logs for an indication of the failure. Verify that
    all configured PSCs are present and running in the system. Check the
    crash logs for an indication of a software failure.

    Clear Condition: Verify that the CGW service is operational.

    Condition Clear Alarm: A starCGWServiceStart notification will be
    generated when the service is restarted"
    --#SUMMARY "[Service CGW-%s-%s] CGW service has stopped"
    --#ARGUMENTS {0,1}
    --#STATE DEGRADED
    --#SEVERITY MAJOR
    ::= { starentTraps 1248 }

starMMENewConnectionsDisallowed NOTIFICATION-TYPE
  OBJECTS { starMMEInitialDisallowReason, starImSimgrInstId }
  STATUS current
  DESCRIPTION
    "The demultiplexer on the MME chassis has reached a condition where new connections are being
    dropped/rejected on MME services due to the specified reason. Please note that this is the initial trigger
    for this condition. More reasons/triggers may be activated later i.e. after the trap has been sent. These
    are not indicated via a new trap.

    Action to be Taken: If this is not intentional (i.e not driven by policy/configuration), cross-
    check IMSImgr counters using the reason provided.

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

        Clear Condition: The condition is cleared when new connections at the MME are re-allowed.
        Condition Clear Alarm: A starMMENewConnectionsAllowed notification will be generated
        when the condition is cleared."
--#SUMMARY "New connections being dropped/rejected at MME chassis %s due to reason %s"
--#ARGUMENTS {0,1}
--#STATE DEGRADED
--#SEVERITY MAJOR
 ::= { starentTraps 1249}

starMMENewConnectionsAllowed NOTIFICATION-TYPE
  STATUS current
  DESCRIPTION
    "The MME chassis is now accepting new connections again. All conditions causing MME to disallow
    new connections have cleared."
--#SUMMARY "New connections now being allowed at MME chassis %s "
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starentTraps 1250 }

starSAMOGServiceStart NOTIFICATION-TYPE
  OBJECTS { starServiceVpnName, starServiceServName }
  STATUS current
  DESCRIPTION
    "A SAMOG Service has started

    Action to be Taken: No action required"
--#SUMMARY "[Service SAMOG-%s-%s] SAMOG service has started"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starentTraps 1251 }

starSAMOGServiceStop NOTIFICATION-TYPE
  OBJECTS { starServiceVpnName, starServiceServName }
  STATUS current
  DESCRIPTION
    "A SAMOG Service has stopped.

    Probable Cause: This is typically caused by operator invention. In
    unusual cases it can be caused by the loss of resources (PACs/PSCs) to
    support the running configuration.

    Action to be Taken: If the SAMOG service shutdown was not planned,
    examine the admin logs for an indication of the failure. Verify that
    all configured PACs/PSCs are present and running in the system. Check the
    crash logs for an indication of a software failure.

    Clear Condition: Verify that the SAMOG service is operational.

    Condition Clear Alarm: A starSAMOGServiceStart notification will be generated when
    the service is restarted"
--#SUMMARY "[Service SAMOG-%s-%s] SAMOG service has stopped"
--#ARGUMENTS {0,1}
--#STATE DEGRADED
--#SEVERITY MAJOR
 ::= { starentTraps 1252 }

starCardSwitchoverStart NOTIFICATION-TYPE
  OBJECTS { starSlotNum, starSlotNum }
  STATUS current
  DESCRIPTION
    "A management card (SPC/MMIO) switchover operation has begun.
    The first varbind identifies from which management card switchover
    started.
    The second varbind identifies to which management card switchover is
    planned to switch.

```

## STARENT-MIB DEFINITIONS ::= BEGIN

Switchover can cause a momentary loss of communication through the management interface (SPIO incase of ASR5000) , it is possible that this trap will not be successfully delivered.

Probable Cause: This is typically caused by an operator action; it can also represent the system recovering from a software or hardware fault.

Action to be Taken: If the management card switchover was unplanned, the admin logs should be examined for the cause of the switchover. If the cause was a software failure, the system crash logs should be examined.

Clear Condition: Verify the management card switchover completed successfully.

Clear Condition Alarm: A starCardSPCSwitchoverComplete is generated when the switchover operation has completed.This is not applicable to QVPC-SI."

--#SUMMARY "Card Switchover start from card %d to card %d"

--#ARGUMENTS {0,1}

--#STATE DEGRADED

--#SEVERITY MAJOR

::= { starentTraps 1253 }

starCardSwitchoverComplete NOTIFICATION-TYPE

OBJECTS { starSlotNum, starSlotNum }

STATUS current

DESCRIPTION

"A management card (SPC/MMIO) Switchover has completed successfully.

The first varbind identifies from which management card switchover started.

The second varbind identifies to which management card switchover is completed.

Action to be Taken: If the management card switchover was unplanned, the admin logs should be examined for the cause of the switchover.

If the cause was a software failure, the system crash logs should be examined.This is not applicable to QVPC-SI."

--#SUMMARY "Card Switchover completed from card %d to card %d"

--#ARGUMENTS {0,1}

--#STATE OPERATIONAL

--#SEVERITY INFORMATIONAL

::= { starentTraps 1254 }

starCardSwitchoverFailed NOTIFICATION-TYPE

OBJECTS { starSlotNum, starSlotNum }

STATUS current

DESCRIPTION

"A management card (SPC/MMIO) switchover operation has failed.

The first varbind identifies from which management card switchover started.

The second varbind identifies to which management card switchover is failed.

Probable Cause: The management card being switched to was removed or reset before the switchover completed; the switchover operation was terminated by an operator; or a software or hardware failure on another management card.

Action to be Taken: Verify that both management cards have the card locks in the locked position; examine the admin logs for the cause of the failure. If the cause was a software failure, the system crash logs should be examined.

Clear Condition: The management card in question will be reset; a starCardUp notification will be generated when the card is operational again.This is not applicable to QVPC-SI."



## STARENT-MIB DEFINITIONS ::= BEGIN

```

--#SUMMARY "Card Switchover failed from card %d to card %d"
--#ARGUMENTS {0,1}
--#STATE NONOPERATIONAL
--#SEVERITY CRITICAL
 ::= { starentTraps 1255 }

starCardMigrateStart NOTIFICATION-TYPE
  OBJECTS { starSlotNum, starSlotNum }
  STATUS current
  DESCRIPTION
    "A data processing card (PAC/PSC/DPC) Migration operation has begun.
    The first varbind identifies from which data processing card migration
    has started.
    The second varbind identifies to which data processing card migration is
    planned to migrate.

    Probable Cause: This is typically caused by an operator action; it can also
    represent the system recovering from a software or hardware fault.

    A starCardMigrateComplete is generated when the migration is completed.
    This is not applicable to QVPC-SI."

--#SUMMARY "Card Migration started from card %d to card %d"
--#ARGUMENTS {0,1}
--#STATE DEGRADED
--#SEVERITY MAJOR
 ::= { starentTraps 1256 }

starCardMigrateComplete NOTIFICATION-TYPE
  OBJECTS { starSlotNum, starSlotNum }
  STATUS current
  DESCRIPTION
    "A data processing card (PAC/PSC/DPC) Migration operation has
    successfully completed.
    The first varbind identifies from which data processing card migration has
    started.
    The second varbind identifies to which data processing card migration has
    completed.This is not applicable to QVPC-SI."
--#SUMMARY "Card Migration completed from card %d to card %d"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starentTraps 1257 }

starCardMigrateFailed NOTIFICATION-TYPE
  OBJECTS { starSlotNum, starSlotNum }
  STATUS current
  DESCRIPTION
    "A data processing card (PAC/PSC/DPC) Migration operation has failed.
    The first varbind identifies from which data processing card migration has
    started.
    The second varbind identifies to which data processing card migration has
    failed to migrate.

    Probable Cause: The data processing card being migrated to was removed or
    reset before the migration completed; the migration operation was
    terminated by an operator; or a software or hardware failure on another
    data processing card involved
    in the migration operation.

    The data processing card in question will be reset; a starCardUp
    notification will be generated when the card is operational again.This is not
    applicable to QVPC-SI."
--#SUMMARY "Card Migration failed from card %d to card %d"
--#ARGUMENTS {0,1}
--#STATE DEGRADED

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

--#SEVERITY MAJOR
 ::= { starentTraps 1258 }

starTechSuppPasswdChanged NOTIFICATION-TYPE
OBJECTS {
    starCLIContext,
    starCLIUsername,
    starCLITtyname,
    starCLIRemoteIpAddrType,
    starCLIRemoteIpAddr
}
STATUS current
DESCRIPTION
    "A user has changed the StarOS tech-support password.
    Probable Cause: A command was issued which resulted in a user
    changing the tech-support password value. The tech-support
    password is used to gain access to the CLI test-commands.
    These CLI test commands are only intended for maintenance
    and diagnostic activity and could result in major service
    disruptions. If this action was unintended, the user should
    notify the Cisco TAC group to reset the tech-support password."
--#SUMMARY "[System] Security: context %s user %s ttyname %s address type %s remote ip address %s"
--#ARGUMENTS {0,1,2,3,4}
--#STATE OPERATIONAL
--#SEVERITY WARNING
 ::= { starentTraps 1259 }

starPMIPPathFailure NOTIFICATION-TYPE
OBJECTS { starPMIPVpnName,
    starPMIPServName,
    starPMIPSelfAddrType,
    starPMIPSelfAddr,
    starPMIPPeerAddrType,
    starPMIPPeerAddr,
    starPMIPPeerOldRstCnt,
    starPMIPPeerNewRstCnt,
    starPMIPPeerSessCnt,
    starPMIPFailureReason
}
STATUS current
DESCRIPTION
    "PMIP Path Failure.

    Possibe reason: This trap will be triggered by MAGMGR/HAMGR when path failure or node restart
    is detected."
--#SUMMARY "[Service PMIP-%s-%s] path failure, self address %s, peer address %s, peer old restart
counter %d, peer new restart counter %d, peer session count %d, failure reason %s"
--#ARGUMENTS {0,1,3,5,6,7,8,9}
--#STATE DEGRADED
--#SEVERITY MAJOR
 ::= { starentTraps 1260 }

starPMIPPathFailureClear NOTIFICATION-TYPE
OBJECTS { starPMIPVpnName,
    starPMIPServName,
    starPMIPSelfAddrType,
    starPMIPSelfAddr,
    starPMIPPeerAddrType,
    starPMIPPeerAddr
}
STATUS current
DESCRIPTION
    "PMIP Control Path Failure condition is no longer valid."
--#SUMMARY "[Service PMIP-%s-%s] path failure condition clear for self address %s, peer address %s"
--#ARGUMENTS {0,1,3,5}
--#STATE DEGRADED

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

--#SEVERITY MAJOR
 ::= { starentTraps 1261 }

starHENBGWMMESCTPAssocDestAddrDown NOTIFICATION-TYPE
OBJECTS { starHENBGWServiceVpnName, starHENBGWServiceServName, starHENBGWServiceLogicalENBid,
          starHENBGWServiceMMEServName, starHENBGWServicePeerAddr, starHENBGWServicePeerPort }
STATUS current
DESCRIPTION
  "A HENBGW MME SCTP Association Destination Address is down.
  Problem Cause: One of destination MME SCTP address is not reachable or removed.

  Condition Clear Alarm: A starHENBGWMMESCTPAssocDestAddrUp notification will be generated when
  the HENBGW MME SCTP association destination address is reachable again"
--#SUMMARY "[ HENBGW MME Association %s-%s-%s-%s] destination address:%s is down; Port %d"
--#ARGUMENTS {0,1,2,3,4,5}
--#STATE DEGRADED
--#SEVERITY MAJOR
 ::= { starentTraps 1262 }

starHENBGWMMESCTPAssocDestAddrUp NOTIFICATION-TYPE
OBJECTS { starHENBGWServiceVpnName, starHENBGWServiceServName, starHENBGWServiceLogicalENBid,
          starHENBGWServiceMMEServName, starHENBGWServicePeerAddr, starHENBGWServicePeerPort }
STATUS current
DESCRIPTION
  "A HENBGW MME SCTP Association Destination Address is up.
  This notification is only generated for
  Association Destination Address which have previously been declared down."
--#SUMMARY "[HENBGW MME Association %s-%s-%s-%s] destination address:%s is up; Port %d"
--#ARGUMENTS {0,1,2,3,4,5}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starentTraps 1263 }

starMRMEServiceStart NOTIFICATION-TYPE
OBJECTS { starServiceVpnName, starServiceServName }
STATUS current
DESCRIPTION
  "A Multi Radio Management (MRME) Service has started.

  Action to be Taken: No action required"
--#SUMMARY "[Service MRME-%s-%s] MRME service has started"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starentTraps 1264 }

starMRMEServiceStop NOTIFICATION-TYPE
OBJECTS { starServiceVpnName, starServiceServName }
STATUS current
DESCRIPTION
  "A Multi Radio Management (MRME) Service has stopped.

  Probable Cause: This is typically caused by operator invention. In
  unusual cases it can be caused by the loss of resources (PACs/PSCs) to
  support the running configuration.

  Action to be Taken: If the MRME service shutdown was not planned,
  examine the admin logs for an indication of the failure. Verify that
  all configured PACs/PSCs are present and running in the system. Check
  the crash logs for an indication of a software failure.

  Clear Condition: Verify that the MRME service is operational.

  Condition Clear Alarm: A starMRMEServiceStart notification will be
  generated when the service is restarted"

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

--#SUMMARY "[Service MRME-%s-%s] MRME service has stopped"
--#ARGUMENTS {0,1}
--#STATE DEGRADED
--#SEVERITY MAJOR
 ::= { starentTraps 1265 }

starSLSServiceStart NOTIFICATION-TYPE
OBJECTS { starServiceVpnName, starServiceServName }
STATUS current
DESCRIPTION
    "An SLS Service has started

    Action to be Taken: No action required"
--#SUMMARY "[Service SLS-%s-%s] SLS service has started"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starentTraps 1266 }

starSLSServiceStop NOTIFICATION-TYPE
OBJECTS { starServiceVpnName, starServiceServName }
STATUS current
DESCRIPTION
    "An SLS Service has stopped.

    Probable Cause: This is typically caused by operator invention. In
    unusual cases it can be caused by the loss of resources (PACs/PSCs) to
    support the running configuration.

    Action to be Taken: If the SLS service shutdown was not planned,
    examine the admin logs for an indication of the failure. Verify that
    all configured PACs/PSCs are present and running in the system. Check the
    crash logs for an indication of a software failure.

    Clear Condition: Verify that the SLS service is operational.

    Condition Clear Alarm: A starSLSServiceStart notification will be generated when
    the service is restarted"
--#SUMMARY "[Service SLS-%s-%s] SLS service has stopped"
--#ARGUMENTS {0,1}
--#STATE DEGRADED
--#SEVERITY MAJOR
 ::= { starentTraps 1267 }

starESMLCAssocDown NOTIFICATION-TYPE
OBJECTS { starSLSServiceVpnName, starSLSServiceServName, starESMLCId, starESMLCipAddr1,
          starESMLCipAddr2, starESMLCPortNum }
STATUS current
DESCRIPTION
    "An ESMLC Association is down.

    Problem Cause: The ESMLC Association has failed, or a network connectivity prevents reaching the
    ESMLC.

    Condition Clear Alarm: A starESMLCAssocUp notification will be generated when the ESMLC
    association is up"
--#SUMMARY "[ ESMLC Association %s-%s-%d] is down; End point Addr1: %s Addr2: %s Port: %d"
--#ARGUMENTS {0,1,2,3,4,5}
--#STATE DEGRADED
--#SEVERITY MAJOR
 ::= { starentTraps 1268}

starESMLCAssocUp NOTIFICATION-TYPE
OBJECTS { starSLSServiceVpnName, starSLSServiceServName, starESMLCId, starESMLCipAddr1,
          starESMLCipAddr2, starESMLCPortNum }
STATUS current

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

DESCRIPTION
    "An ESMLC Association is up. This notification is only generated for Association
    which have previously been declared down."
--#SUMMARY "[ ESMLC Association %s-%s-%d] is up; End pointAddr1: %s Addr2: %s Port %d"
--#ARGUMENTS {0,1,2,3,4,5}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 1269}

starESMLCAllAssocDown NOTIFICATION-TYPE
OBJECTS { starSLSServiceVpnName, starSLSServiceServName }
STATUS current
DESCRIPTION
    "All the ESMLC Associations are down.

    Problem Cause: All the ESMLC Associations has failed, or network connectivity
    prevents reaching the ESMLCs.

    Condition Clear Alarm: An starESMLCAllAssocUp notification will be generated when
    all the ESMLC associations are up"
--#SUMMARY "All ESMLC Associations are down %s-%s"
--#ARGUMENTS {0,1}
--#STATE DEGRADED
--#SEVERITY MAJOR
::= { starentTraps 1270}

starESMLCAllAssocDownClear NOTIFICATION-TYPE
OBJECTS { starSLSServiceVpnName, starSLSServiceServName }
STATUS current
DESCRIPTION
    "At least one ESMLC associations is up. This notification is only generated for all the
Association which
    have previously been declared down."
--#SUMMARY "All ESMLCs associations are up %s-%s"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 1271 }

starSBCServiceStart NOTIFICATION-TYPE
OBJECTS { starServiceVpnName, starServiceServName }
STATUS current
DESCRIPTION
    "An SBC Service has started

    Action to be Taken: No action required"
--#SUMMARY "[Service SBC-%s-%s] SBC service has started"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 1272 }

starSBCServiceStop NOTIFICATION-TYPE
OBJECTS { starServiceVpnName, starServiceServName }
STATUS current
DESCRIPTION
    "An SBC Service has stopped.
    Probable Cause: This is typically caused by operator intervention, when a
    critical parameter associated with sbc-service is changed/removed. In
    unusual cases it can be caused by the loss of resources (PACs/PSCs) to
    support the running configuration.

    Action to be Taken: If the SBC service shutdown was not planned,
    examine the admin logs for any indication of the failure. Verify that
    all configured PACs/PSCs are present and running in the system. Check for
    any sbc-service related configuration errors by running show configuration errors
    section sbc-service. Note that sbc-service should be associated to an

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

        mme-service to be operationally up. In case the associated mme-service is down,
        sbc-service is also stopped. Also check the
        crash logs for any indication of a software failure."

--#SUMMARY "[Service Sbc-%s-%s] Sbc service has stopped"
--#ARGUMENTS {0,1}
--#STATE DEGRADED
--#SEVERITY MAJOR
::= { starentTraps 1273 }

starCBCAssocDown NOTIFICATION-TYPE
    OBJECTS { starSBCServiceVpnName, starSBCServiceServName, starPeerId, starPeerIpAddr, starPeerPortNum
    }
    STATUS current
    DESCRIPTION
        "A CBC Association is down.
        Problem Cause: SCTP connection between MME and CBC has been brought down - could be for any of
the
        following reasons -
            i) network connectivity between MME and CBC is broken.
            ii) CBC has gracefully terminated the SCTP association with MME.
            iii) MME has gracefully terminated the SCTP association with CBC, typically due to
                operation intervention that would have effected sbc-service.

        Action to be taken - In case the SCTP association between MME and CBC is abnormally
        closed, check for network connectivity between MME and CBC.

        Condition Clear Alarm: In case the association termination was abnormal, A
        starPeerAssocUp notification will be generated when the CBC association is up"

--#SUMMARY "[ CBC Association %s-%d] is down; End point Addr: %s Port: %d"
--#ARGUMENTS {0,1,2,3,4}
--#STATE DEGRADED
--#SEVERITY MAJOR
::= { starentTraps 1274}

starCBCAssocUp NOTIFICATION-TYPE
    OBJECTS { starSBCServiceVpnName, starSBCServiceServName, starPeerId, starPeerIpAddr, starPeerPortNum
    }
    STATUS current
    DESCRIPTION
        "A CBC Association is up."
--#SUMMARY "[ CBC Association %s-%d] is up; End point Addr: %s Port %d"
--#ARGUMENTS {0,1,2,3,4}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 1275}

starCBCBufSizeExceeded NOTIFICATION-TYPE
    OBJECTS { starSBCServiceVpnName, starSBCServiceServName, starPeerId, starPeerIpAddr, starPeerPortNum
    }
    STATUS current
    DESCRIPTION
        "A received CBC message exceeded our buffer size limit"
--#SUMMARY "[ CBC Association %s-%d] message size exceeded"
--#ARGUMENTS {0,1,2,3,4}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 1403}

starBFDSessUp NOTIFICATION-TYPE
    OBJECTS { starContextName,
              starBfdSrcAddressType,
              starBfdSrcAddress,
              starBfdDstAddressType,
              starBfdDstAddress,
    }

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

        starBfdLocalDisc,
        starBfdRemDisc,
        starPhyPortId }
STATUS current
DESCRIPTION
    "The BFD Session to the specified IP address is operational.
    This may indicate the initial configuration of a new neighbor,
    the initial connectivity after a system restart, or the
    restoration of connectivity after a starBFDSessDown event.

    Action to be Taken: No action required."
--#SUMMARY "[System] BFD Session, vpn %s SrcAddr %s DstAddr %s, PhyPortId %d is operational"
--#ARGUMENTS {0,2,4}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 1276 }

starBFDSessDown NOTIFICATION-TYPE
OBJECTS { starContextName,
          starBfdSrcAddressType,
          starBfdSrcAddress,
          starBfdDstAddressType,
          starBfdDstAddress,
          starBfdLocalDisc,
          starBfdRemDisc,
          starBfdSessDiagCode,
          starPhyPortId }
STATUS current
DESCRIPTION
    "The BFD Session to the specified IP address is no longer
    operational.

    Probable Cause: The BFD Session is not-operational;
    the network between the ASR5x00 and the BFD Neighbor is
    experiencing an outage; Look into the Diagnostic Code for
    further details.

    Action to be Taken: Verify the BFD Session is operational;
    verify network connectivity to the BFD Neighbor.

    Clear Condition Alarm: A starBFDSessUp is generated when
    connectivity is reestablished"

--#SUMMARY "[System] BFD Session, vpn %s SrcAddr %s DstAddr %s, PhyPortId %d is not operational and
Diagnostic Code is %d"
--#ARGUMENTS {0,2,4,7}
--#STATE DEGRADED
--#SEVERITY MAJOR
::= { starentTraps 1277 }

starSRPSwitchoverOccured NOTIFICATION-TYPE
OBJECTS { starContextName,
          starSRPIpAddress,
          starSRPSwitchReason }
STATUS current
DESCRIPTION
    "An SRP (ICSR) Switchover Occurred.
    Chassis has transitioned from Active to Standby State or
    Chassis has transitioned from Standby to PendingActive State.

    Action to be Taken: Verify Active and Standby Chassis States of ICSR pair."

--#SUMMARY "[System] SRP Switchover Occurred, vpn %s SRP %s Switchover Reason: %d"
--#ARGUMENTS {0,1,2}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 1278 }

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

starHENBGWMMEOverloadStart NOTIFICATION-TYPE
    OBJECTS {starHENBGWServiceVpnName, starHENBGWServiceServName,
             starHENBGWServiceLogicaleNBId, starHENBGWServiceMMEServName,
             starHENBGWServicePeerAddr, starHENBGWServicePeerPort,
             starHENBGWServiceTLRI}
    STATUS current
    DESCRIPTION
        "A HENBGW MME Overload Start message received.
         Condition Clear Alarm: A starHENBGWMMEOverloadStop notification will be generated
         when the HENBGW MME overload stop message received."
    --#SUMMARY "[HENBGW MME %s-%s-%s-%s] received overload start message with traffic load reduction
    indication percentage %d. End pointAddr: %s Port %d"
    --#ARGUMENTS {0,1,2,3,6,4,5}
    --#STATE DEGRADED
    --#SEVERITY MAJOR
    ::= {starentTraps 1279}

starHENBGWMMEOverloadStop NOTIFICATION-TYPE
    OBJECTS {starHENBGWServiceVpnName, starHENBGWServiceServName,
             starHENBGWServiceLogicaleNBId, starHENBGWServiceMMEServName,
             starHENBGWServicePeerAddr, starHENBGWServicePeerPort}
    STATUS current
    DESCRIPTION
        "A HENBGW MME Overload Stop message received. This notification is only generated for the
         MME which have previously been generated overload start message, optionally this notification
         can be generated for any overload stop message received from MME."
    --#SUMMARY "[HENBGW MME %s-%s-%s-%s] received overload stop message. End pointAddr: %s Port %d"
    --#ARGUMENTS {0,1,2,3,4,5}
    --#STATE OPERATIONAL
    --#SEVERITY INFORMATIONAL
    ::= { starentTraps 1280 }

starNpudriverECCError NOTIFICATION-TYPE
    OBJECTS { starSlotNum }
    STATUS current
    DESCRIPTION
        " A double bit ECC error occurred.
         Action to be taken - RMA this card."
    --#SUMMARY "A double bit ECC error occurred on slot %d"
    --#ARGUMENTS {0}
    --#STATE DEGRADED
    --#SEVERITY MAJOR
    ::= { starentTraps 1281 }

starGTPCRLFOverThreshold NOTIFICATION-TYPE
    OBJECTS { starGTPCRLFSessMgrInst,
             starGTPCRLFVPNName,
             starGTPCRLFVPNId,
             starGTPCRLFContextName,
             starGTPCRLFCurrAppTPS }
    STATUS current
    DESCRIPTION
        " GTP RLF Status update - GTP RLF Over Threshold. "
    --#SUMMARY "GTP RLF Status update - GTP RLF Over Threshold - Sessmgr Instance: %d Context: %s Context
    ID: %d RLF template name: %s Current Applied TPS: %d"
    --#ARGUMENTS {0,1,2,3,4}
    --#STATE DEGRADED
    --#SEVERITY MAJOR
    ::= { starentTraps 1282 }

starGTPCRLFOverLimit NOTIFICATION-TYPE
    OBJECTS { starGTPCRLFSessMgrInst,
             starGTPCRLFVPNName,
             starGTPCRLFVPNId,
             starGTPCRLFContextName,

```



## STARENT-MIB DEFINITIONS ::= BEGIN

```

        starGTPCRLFCurrAppDelayTol }
STATUS current
DESCRIPTION
    " GTP RLF Status update - GTP RLF Over Limit."
    --#SUMMARY "GTP RLF Status update - GTP RLF Over Limit - Sessmgr Instance: %d Context: %s Context
ID: %d RLF template name: %s Current Applied Delay Tolerance: %d"
    --#ARGUMENTS {0,1,2,3,4}
    --#STATE DEGRADED
    --#SEVERITY MAJOR
    ::= { starentTraps 1283 }

starGTPCRLFOverThresholdClear NOTIFICATION-TYPE
OBJECTS { starGTPCRLFSessMgrInst,
          starGTPCRLFVPNName,
          starGTPCRLFVPNId,
          starGTPCRLFContextName }
STATUS current
DESCRIPTION
    " GTP RLF Status update - GTP RLF Over Threshold Cleared."
    --#SUMMARY "GTP RLF Status update - GTP RLF Over Threshold Cleared - Sessmgr Instance: %d Context: %s
Context ID: %d RLF template name: %s"
    --#ARGUMENTS {0,1,2,3}
    --#STATE DEGRADED
    --#SEVERITY MAJOR
    ::= { starentTraps 1284 }

starGTPCRLFOverLimitClear NOTIFICATION-TYPE
OBJECTS { starGTPCRLFSessMgrInst,
          starGTPCRLFVPNName,
          starGTPCRLFVPNId,
          starGTPCRLFContextName }
STATUS current
DESCRIPTION
    " GTP RLF Status update - GTP RLF Over Limit Cleared."
    --#SUMMARY "GTP RLF Status update - GTP RLF Over Limit Cleared - Sessmgr Instance: %d Context: %s
Context ID: %d RLF template name: %s"
    --#ARGUMENTS {0,1,2,3}
    --#STATE DEGRADED
    --#SEVERITY MAJOR
    ::= { starentTraps 1285 }

starS102ServiceStart NOTIFICATION-TYPE
OBJECTS { starServiceVpnName, starServiceServName }
STATUS current
DESCRIPTION
    "An S102 Service has started

    Action to be Taken: No action required"
    --#SUMMARY "[Service S102-%s-%s] CSCF service has started"
    --#ARGUMENTS {0,1}
    --#STATE OPERATIONAL
    --#SEVERITY INFORMATIONAL
    ::= { starentTraps 1286 }

starS102ServiceStop NOTIFICATION-TYPE
OBJECTS { starServiceVpnName, starServiceServName }
STATUS current
DESCRIPTION
    "An S102 Service has stopped

    Probable Cause: This is typically caused by operator invention. In
    unusual cases it can be caused by the loss of resources (PACs/PSCs) to
    support the running configuration.

    Action to be Taken: If the S102 service shutdown was not planned,
    examine the admin logs for an indication of the failure. Verify that
    all configured PACs/PSCs are present and running in the system. Check the

```

## STARENT-MIB DEFINITIONS ::= BEGIN

crash logs for an indication of a software failure.

Clear Condition: Verify that the S102 service is operational.

Condition Clear Alarm: A starS102ServiceStart notification will be generated when the service is restarted"

```
--#SUMMARY "[S102 %s-%s] S102 service has stopped"
--#ARGUMENTS {0,1}
--#STATE DEGRADED
--#SEVERITY MAJOR
::= { starentTraps 1287 }
```

## starBGPPeerSessionIPv6Up NOTIFICATION-TYPE

```
OBJECTS { starContextName, starBGPPeerIpv6Address }
STATUS current
DESCRIPTION
```

"The BGP peer session to the specified IP v6 address is operational. This may indicate the initial configuration of a new peer, the initial connectivity after a system restart, or the restoration of connectivity after a starBGNPeerSessionDown event.

Action to be Taken: No action required."

```
--#SUMMARY "[System] BGP peer session, vpn %s, address %s, is operational"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 1288 }
```

## starBGPPeerSessionIPv6Down NOTIFICATION-TYPE

```
OBJECTS { starContextName, starBGPPeerIpv6Address }
STATUS current
DESCRIPTION
```

"The BGP peer session to the specified IP v6 address is no longer operational.

Probable Cause: The BGP peer is not-operational; the network between the ST16 and the BGP peer is experiencing an outage; LC failure(s) on the ST16.

Action to be Taken: Verify the BGP peer is operational; verify network connectivity to the BGP peer.

Clear Condition Alarm: A starBGPPeerSessionUp is generated when connectivity is reestablished"

```
--#SUMMARY "[System] BGP peer session, vpn %s, address %s, is non-operational"
--#ARGUMENTS {0,1}
--#STATE DEGRADED
--#SEVERITY MAJOR
::= { starentTraps 1289 }
```

## starMMEEMBMSServiceStart NOTIFICATION-TYPE

```
OBJECTS { starServiceVpnName, starServiceServName }
STATUS current
DESCRIPTION
```

"An MME-EMBM Service has started

Action to be Taken: No action required"

```
--#SUMMARY "[Service MME-EMBMS-%s-%s] MME-EMBMS service has started"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 1290 }
```

## starMMEEMBMSServiceStop NOTIFICATION-TYPE

```
OBJECTS { starServiceVpnName, starServiceServName }
STATUS current
DESCRIPTION
```

"An MME-EMBMS Service has stopped.

Probable Cause: This is typically caused by operator intervention, when a

## STARENT-MIB DEFINITIONS ::= BEGIN

critical parameter associated with mme-embms-service is changed/removed. In unusual cases it can be caused by the loss of resources (PACs/PSCs) to support the running configuration.

Action to be Taken: If the MME-EMBMS service shutdown was not planned, examine the admin logs for any indication of the failure. Verify that all configured PACs/PSCs are present and running in the system. Check for any mme-embms-service related configuration errors by running show configuration errors section mme-embms-service. Also check the crash logs for any indication of a software failure."

```
--#SUMMARY "[Service MME-EMBMS-%s-%s] MME-EMBMS service has stopped"
--#ARGUMENTS {0,1}
--#STATE DEGRADED
--#SEVERITY MAJOR
::= { starentTraps 1291 }
```

starMCEAssocDown NOTIFICATION-TYPE

OBJECTS { starMMEEMBMSServiceVpnName, starMMEEMBMSServiceServName , starMMEEMBMSPeerId, starMMEEMBMSPeerIpAddr, starMMEEMBMSPeerPortNum }

STATUS current

DESCRIPTION

"An MCE Association is down.

Problem Cause: SCTP connection between MME and MCE has been brought down - could be for any of

the

following reasons -

- i) network connectivity between MME and MCE is broken.
- ii) MCE has gracefully terminated the SCTP association with MME.
- iii) MME has gracefully terminated the SCTP association with MCE, typically due to operation intervention that would have effected mme-embms-service.

Action to be taken - In case the SCTP association between MME and MCE is abnormally closed, check for network connectivity between MME and MCE.

Condition Clear Alarm: In case the association termination was abnormal, A starPeerAssocUp notification will be generated when the MCE association is up"

```
--#SUMMARY "[ MCE Association %s-%d] is down; End point Addr: %s Port: %d"
--#ARGUMENTS {0,1,2,3,4}
--#STATE DEGRADED
--#SEVERITY MAJOR
::= { starentTraps 1292}
```

starMCEAssocUp NOTIFICATION-TYPE

OBJECTS {starMMEEMBMSServiceVpnName, starMMEEMBMSServiceServName , starMMEEMBMSPeerId, starMMEEMBMSPeerIpAddr, starMMEEMBMSPeerPortNum }

STATUS current

DESCRIPTION

"A MCE Association is up."

```
--#SUMMARY "[ MCE Association %s-%d] is up; End point Addr: %s Port %d"
```

```
--#ARGUMENTS {0,1,2,3,4}
```

```
--#STATE OPERATIONAL
```

```
--#SEVERITY INFORMATIONAL
```

```
::= { starentTraps 1293}
```

starIuBcTcpConnDown NOTIFICATION-TYPE

OBJECTS { starCBSServiceVpnName, starIuBcSelfIpAddr, starIuBcSelfPortNum , starIuBcPeerIpAddr, starIuBcPeerPortNum, starIuBcTcpConnCauseStr}

STATUS current

DESCRIPTION

"A TCP connection at IuBc interface is down.

Problem Cause: TCP connection between HNBGW and CBC server has been brought down - could be for any of the

following reasons -

- i) network connectivity between HNBGW and CBC server is broken.
- ii) CBC Server has gracefully terminated the TCP connection with HNBGW.
- iii) HNBGW has gracefully terminated the TCP connection with CBC server, typically due to

## STARENT-MIB DEFINITIONS ::= BEGIN

operation intervention that would have effected cbs-service.

Action to be taken - In case the TCP connection between HNBGW and CBC server is abnormally closed, check for network connectivity between HNBGW and CBC server.

Condition Clear Alarm: In case the connection termination was abnormal, A IuBcTCPConnUp notification will be generated when the TCP connection is up"

```
--#SUMMARY "[ TCP Connection %s-%s-%d] is down; Peer IP Addr: %s Port: %d with cause %s"
--#ARGUMENTS {0,1,2,3,4,5}
--#STATE DEGRADED
--#SEVERITY MAJOR
::= { starentTraps 1294}
```

starIuBcTcpConnUp NOTIFICATION-TYPE

OBJECTS { starCBSServiceVpnName, starIuBcSelfIpAddr, starIuBcSelfPortNum , starIuBcPeerIpAddr, starIuBcPeerPortNum, starIuBcTcpConnCauseStr}

STATUS current

DESCRIPTION

"A TCP Connection is up."

```
--#SUMMARY "[ TCP Connection %s-%s-%d] is up; Peer IP Addr: %s Port: %d with cause %s"
--#ARGUMENTS {0,1,2,3,4,5}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 1295 }
```

starSessCapReached NOTIFICATION-TYPE

OBJECTS { starTaskInstance, starTaskCard, starTaskCPU }

STATUS current

DESCRIPTION

"Session manager will start rejecting new calls as the capacity reached."

```
--#SUMMARY "Session manager instance %d card %d cpu %d"
--#ARGUMENTS {0,1,2}
--#STATE OPERATIONAL
--#SEVERITY CRITICAL
::= { starentTraps 1298 }
```

starSerdesLanePermDown NOTIFICATION-TYPE

OBJECTS { starSlotNum, starDeviceNum, starSerdesNum }

STATUS current

DESCRIPTION

"A serdes lanes is a high speed serial link between a FAP(chip on an MIO/DPC/DPC2/MIO2) and an FE(chip on an FSC card). When a serdes lane has errors, we calibrate it to get optimized Rx parameters. If we attempt to calibrate a lane more than 5 times, it is taken offline. By taking it offline we no longer use it so we are eliminating potential traffic loss.."

```
--#SUMMARY "SERDES lane is Down on local: slot %d device %d serdes lane index %d, Remote: slot %d device %d serdes lane index %d"
--#ARGUMENTS {0,1,2}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 1303 }
```

starLAGGroupDownDueToMinlink NOTIFICATION-TYPE

OBJECTS { starPortSlot, starPortNum, starLAGGroup, starLAGMinlink }

STATUS current

DESCRIPTION

"LAG group status is Down due to links in LAG group falls below minlink . This notification is only generated

for master physical port and a previous 'starLAGGroupUp' notification was previously generated.

Action to be Taken: No action required. The cause for the LAG down should be investigated."

```
--#SUMMARY "[Port] LAG group (%d) status is down due to minlink: Slot %d Port %d minlink %d"
```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

--#ARGUMENTS {3,0,1,4}
--#STATE DEGRADED
--#SEVERITY MAJOR
 ::= { starentTraps 1299 }

starNicBondChange NOTIFICATION-TYPE
  OBJECTS { starPortSlot, starPortNum }
  STATUS current
  DESCRIPTION
    "Nic Bond change will happen whenever there is change in the leaf node connected to our ports in QvPC-
  DI.
    This notification is generated to inform that there is a change in the vNIC (mac-address).

    Action to be Taken: No action required. The cause for the leaf node down should be investigated."
  --#SUMMARY "Nic Bond changed: Slot %d Port %d Mac changed from %s to %s"
  --#ARGUMENTS {3,10, "02:23:4A:32:DA:32", "54:22:1B:8C:4D:1F"}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 1376 }

starThreshAllFramedRoutes NOTIFICATION-TYPE
  OBJECTS { starContextName, starVRFName, starThreshInt, starThreshMeasuredInt }
  STATUS current
  DESCRIPTION
    "All framed routes crosses user defined threshold."
  --#SUMMARY "facility vpnmgr context %s vrfname %s framed routes threshold %d%% measured %d%%"
  --#ARGUMENTS {0,1,2,3}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 1304 }

starThreshAllFramedRoutesClear NOTIFICATION-TYPE
  OBJECTS { starContextName, starVRFName, starThreshInt, starThreshMeasuredInt }
  STATUS current
  DESCRIPTION
    "All framed routes crosses user defined threshold cleared."
  --#SUMMARY "facility vpnmgr context %s vrfname %s framed routes threshold %d%% measured %d%%"
  --#ARGUMENTS {0,1,2,3}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 1305 }

starThreshAllTotalRoutes NOTIFICATION-TYPE
  OBJECTS { starContextName, starVRFName, starThreshInt, starThreshMeasuredInt }
  STATUS current
  DESCRIPTION
    "All total routes crosses user defined threshold."
  --#SUMMARY "facility vpnmgr context %s vrfname %s total routes threshold %d measured %d"
  --#ARGUMENTS {0,1,2,3}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 1306 }

starThreshAllTotalRoutesClear NOTIFICATION-TYPE
  OBJECTS { starContextName, starVRFName, starThreshInt, starThreshMeasuredInt }
  STATUS current
  DESCRIPTION
    "All total routes crosses user defined threshold cleared."
  --#SUMMARY "facility vpnmgr context %s vrfname %s total routes threshold %d measured %d"
  --#ARGUMENTS {0,1,2,3}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 1307 }

starThreshVRFFramedRoutes NOTIFICATION-TYPE
  OBJECTS { starContextName, starVRFName, starThreshInt, starThreshMeasuredInt }
  STATUS current

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

DESCRIPTION
    "Total number of VRF framed routes crosses user defined threshold."
--#SUMMARY "facility vpnmgr context %s vrfname %s framed routes threshold %d%% measured %d%"
--#ARGUMENTS {0,1,2,3}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 1308 }

starThreshVRFframedRoutesClear NOTIFICATION-TYPE
OBJECTS { starContextName, starVRFName, starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
    "Total number of VRF framed routes crosses user defined threshold cleared."
--#SUMMARY "facility vpnmgr context %s vrfname %s framed routes threshold %d%% measured %d%"
--#ARGUMENTS {0,1,2}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 1309 }

starThreshVRFtotalRoutes NOTIFICATION-TYPE
OBJECTS { starContextName, starVRFName, starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
    "Total number of VRF total routes crosses user defined threshold."
--#SUMMARY "facility vpnmgr context %s vrfname %s total routes threshold %d measured %d"
--#ARGUMENTS {0,1,2,3}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 1310 }

starThreshVRFtotalRoutesClear NOTIFICATION-TYPE
OBJECTS { starContextName, starVRFName, starThreshInt, starThreshMeasuredInt }
STATUS current
DESCRIPTION
    "Total number of VRF total routes crosses user defined threshold cleared."
--#SUMMARY "facility vpnmgr context %s vrfname %s total routes threshold %d measured %d"
--#ARGUMENTS {0,1,2,3}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 1311 }

starStatFilesizeExceeded NOTIFICATION-TYPE
OBJECTS { starStatFilesizeLimit, starStatFilesizeMeasured}
STATUS current
DESCRIPTION
    "Actual Bulkstat filesize crosses 80% user defined Bulkstat filesize."
--#SUMMARY "Filesize exceeded for facility bulkstat: filesize limit %d filesize measured %d"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 1312 }

starStatFilesizeClear NOTIFICATION-TYPE
OBJECTS { starStatFilesizeLimit, starStatFilesizeMeasured}
STATUS current
DESCRIPTION
    "Actual Bulkstat filesize crosses 80% user defined Bulkstat filesize condition cleared."
--#SUMMARY "Filesize condition for facility bulkstat cleared: filesize limit %d filesize measured
%d"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 1313 }

starThreshLMASetupBindingUpdateDenyRate NOTIFICATION-TYPE
OBJECTS { starThreshPct, starThreshMeasuredPct }

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

STATUS current
DESCRIPTION
"The percentage of LMA setup binding update deny rate which failed has exceeded the configured
threshold
during the current monitoring period.

    Probable Cause: This is a user configurable threshold.

    If the thresholding subsystem is configured to run in an 'alarm' model,
    a starThreshClearLMASetupBindingUpdateDenyRate notification will be generated when the measured
    value falls below the threshold."
--#SUMMARY "[System] Threshold: LMA setup binding update deny rate threshold for threshold %d%%
measured %d%%"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY WARNING
::= { starentTraps 1314 }

starThreshClearLMASetupBindingUpdateDenyRate NOTIFICATION-TYPE
OBJECTS { starThreshPct, starThreshMeasuredPct }
STATUS current
DESCRIPTION
"The threshold condition is now clear."
--#SUMMARY "[System] Threshold: LMA setup binding update deny rate threshold clear for threshold %d%%
measured %d%%"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 1315 }

starThreshMAGSetupBindingUpdateDenyRate NOTIFICATION-TYPE
OBJECTS { starThreshPct, starThreshMeasuredPct }
STATUS current
DESCRIPTION
"The percentage of MAG setup binding update deny rate which failed has exceeded the configured
threshold
during the current monitoring period.

    Probable Cause: This is a user configurable threshold.

    If the thresholding subsystem is configured to run in an 'alarm' model,
    a starThreshClearMAGSetupBindingUpdateDenyRate notification will be generated when the measured
    value falls below the threshold."
--#SUMMARY "[System] Threshold: MAG setup binding update deny rate threshold for threshold %d%%
measured %d%%"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY WARNING
::= { starentTraps 1316 }

starThreshClearMAGSetupBindingUpdateDenyRate NOTIFICATION-TYPE
OBJECTS { starThreshPct, starThreshMeasuredPct }
STATUS current
DESCRIPTION
"The threshold condition is now clear."
--#SUMMARY "[System] Threshold: MAG setup binding update deny rate threshold clear for threshold %d%%
measured %d%%"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 1317 }

starThreshEGTPCS2BSetupFailRate NOTIFICATION-TYPE
OBJECTS { starThreshPct, starThreshMeasuredPct }
STATUS current
DESCRIPTION
"The percentage of EGTPC S2B setup fail rate which failed has exceeded the configured threshold

```

## STARENT-MIB DEFINITIONS ::= BEGIN

during the current monitoring period.

Probable Cause: This is a user configurable threshold.

If the thresholding subsystem is configured to run in an 'alarm' model,  
a starThreshClearEGTPC S2B SetupFailRate notification will be generated when the measured  
value falls below the threshold."

```
--#SUMMARY "[System] Threshold: EPDG setup fail rate threshold for threshold %d%% measured %d%%"
```

```
--#ARGUMENTS {0,1}
```

```
--#STATE OPERATIONAL
```

```
--#SEVERITY WARNING
```

```
::= { starentTraps 1318 }
```

```
starThreshClearEGTPCS2BSetupFailRate NOTIFICATION-TYPE
```

```
OBJECTS { starThreshPct, starThreshMeasuredPct }
```

```
STATUS current
```

```
DESCRIPTION
```

```
"The threshold condition is now clear."
```

```
--#SUMMARY "[System] Threshold: EGTPC S2B setup fail rate threshold clear for threshold %d%% measured %d%%"
```

```
--#ARGUMENTS {0,1}
```

```
--#STATE OPERATIONAL
```

```
--#SEVERITY INFORMATIONAL
```

```
::= { starentTraps 1319 }
```

```
starThreshSNXDisconnectReason NOTIFICATION-TYPE
```

```
OBJECTS { starDiscReasons, starThreshInt, starThreshMeasuredInt }
```

```
STATUS current
```

```
DESCRIPTION
```

```
"The threshold when exceeded the configured values for a given disconnect-reason, trap will be raised."
```

```
--#SUMMARY "[System] Threshold: Session Manager disconnect-reason %s threshold %d%% measured %d%%"
```

```
--#ARGUMENTS {0,1,2}
```

```
--#STATE OPERATIONAL
```

```
--#SEVERITY INFORMATIONAL
```

```
::= { starentTraps 1320 }
```

```
starThreshClearSNXDisconnectReason NOTIFICATION-TYPE
```

```
OBJECTS { starDiscReasons, starThreshInt, starThreshMeasuredInt }
```

```
STATUS current
```

```
DESCRIPTION
```

```
"The threshold condition is now clear."
```

```
--#SUMMARY "[System] Threshold: Session Manager threshold clear for disconnect-reason %s threshold %d%% measured %d%%"
```

```
--#ARGUMENTS {0,1,2}
```

```
--#STATE OPERATIONAL
```

```
--#SEVERITY INFORMATIONAL
```

```
::= { starentTraps 1321 }
```

```
starTetheringTACDatabaseUpgradeFailureStatus NOTIFICATION-TYPE
```

```
OBJECTS { starTetheringDatabasePreDBVersion, starTetheringDatabaseUpgradeDBVersion,
```

```
starTetheringDatabaseUpgradeComment }
```

```
STATUS current
```

```
DESCRIPTION
```

```
"Tethering TAC Database Upgrade Failure Status.
```

```
Condition Clear Alarm: This condition is cleared by starTetheringTACDatabaseUpgradeSuccessStatus notification."
```

```
--#SUMMARY "Pre-DB Version %s Upgrade Version %s, Comment: %s"
```

```
--#ARGUMENTS {0,1,2}
```

```
--#STATE OPERATIONAL
```

```
--#SEVERITY MAJOR
```

```
::= { starentTraps 1322 }
```

```
starTetheringTACDatabaseUpgradeSuccessStatus NOTIFICATION-TYPE
```



## STARENT-MIB DEFINITIONS ::= BEGIN

```

OBJECTS { starTetheringDatabasePreDBVersion, starTetheringDatabaseUpgradeDBVersion,
starTetheringDatabaseUpgradeComment }
STATUS current
DESCRIPTION
    "Tethering TAC Database Upgrade Failure Success.
    Action to be taken: No action required "
--#SUMMARY "Pre-DB Version %s Upgrade Version %s, Comment: %s"
--#ARGUMENTS {0,1,2}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 1323 }

starTetheringOSDatabaseUpgradeFailureStatus NOTIFICATION-TYPE
OBJECTS { starTetheringDatabasePreDBVersion, starTetheringDatabaseUpgradeDBVersion,
starTetheringDatabaseUpgradeComment }
STATUS current
DESCRIPTION
    "Tethering OS Database Upgrade Failure Status.
    Condition Clear Alarm: This condition is cleared by starTetheringOSDatabaseUpgradeSuccessStatus
notification."
--#SUMMARY "Pre-DB Version %s Upgrade Version %s, Comment: %s"
--#ARGUMENTS {0,1,2}
--#STATE OPERATIONAL
--#SEVERITY MAJOR
::= { starentTraps 1324 }

starTetheringOSDatabaseUpgradeSuccessStatus NOTIFICATION-TYPE
OBJECTS { starTetheringDatabasePreDBVersion, starTetheringDatabaseUpgradeDBVersion,
starTetheringDatabaseUpgradeComment }
STATUS current
DESCRIPTION
    "Tethering OS Database Upgrade Failure Success.
    Action to be taken: No action required "
--#SUMMARY "Pre-DB Version %s Upgrade Version %s, Comment: %s"
--#ARGUMENTS {0,1,2}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 1325 }

starTetheringV6OSDatabaseUpgradeFailureStatus NOTIFICATION-TYPE
OBJECTS { starTetheringDatabasePreDBVersion, starTetheringDatabaseUpgradeDBVersion,
starTetheringDatabaseUpgradeComment }
STATUS current
DESCRIPTION
    "Tethering V6OS Database Upgrade Failure Status.
    Condition Clear Alarm: This condition is cleared by starTetheringV6OSDatabaseUpgradeSuccessStatus
notification."
--#SUMMARY "Pre-DB Version %s Upgrade Version %s, Comment: %s"
--#ARGUMENTS {0,1,2}
--#STATE OPERATIONAL
--#SEVERITY MAJOR
::= { starentTraps 1326 }

starTetheringV6OSDatabaseUpgradeSuccessStatus NOTIFICATION-TYPE
OBJECTS { starTetheringDatabasePreDBVersion, starTetheringDatabaseUpgradeDBVersion,
starTetheringDatabaseUpgradeComment }
STATUS current
DESCRIPTION
    "Tethering V6OS Database Upgrade Failure Success.
    Action to be taken: No action required "
--#SUMMARY "Pre-DB Version %s Upgrade Version %s, Comment: %s"
--#ARGUMENTS {0,1,2}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 1327 }

starTetheringUADatabaseUpgradeFailureStatus NOTIFICATION-TYPE

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

OBJECTS { starTetheringDatabasePreDBVersion, starTetheringDatabaseUpgradedDBVersion,
starTetheringDatabaseUpgradeComment }
STATUS current
DESCRIPTION
    "Tethering V6OS Database Upgrade Failure Status.
    Condition Clear Alarm: This condition is cleared by starTetheringUADatabaseUpgradeSuccessStatus
notification."
--#SUMMARY "Pre-DB Version %s Upgrade Version %s, Comment: %s"
--#ARGUMENTS {0,1,2}
--#STATE OPERATIONAL
--#SEVERITY MAJOR
::= { starentTraps 1328 }

starTetheringUADatabaseUpgradeSuccessStatus NOTIFICATION-TYPE
OBJECTS { starTetheringDatabasePreDBVersion, starTetheringDatabaseUpgradedDBVersion,
starTetheringDatabaseUpgradeComment }
STATUS current
DESCRIPTION
    "Tethering UA Database Upgrade Failure Success.
    Action to be taken: No action required "
--#SUMMARY "Pre-DB Version %s Upgrade Version %s, Comment: %s"
--#ARGUMENTS {0,1,2}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 1329 }

starThreshEGTPCS5SetupFailRate NOTIFICATION-TYPE
OBJECTS { starThreshPct, starThreshMeasuredPct }
STATUS current
DESCRIPTION
    "The percentage of EGTPC S5 setup fail rate which failed has exceeded the configured threshold
during the current monitoring period.

    Probable Cause: This is a user configurable threshold.

    If the thresholding subsystem is configured to run in an 'alarm' model,
    a starThreshClearEGTPCS5SetupFailRate notification will be generated when the measured
    value falls below the threshold."
--#SUMMARY "[System] Threshold: EGTPC S5 setup failure rate threshold for threshold %d%% measured
%d%%"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY WARNING
::= { starentTraps 1330 }

starThreshClearEGTPCS5SetupFailRate NOTIFICATION-TYPE
OBJECTS { starThreshPct, starThreshMeasuredPct }
STATUS current
DESCRIPTION
    "The threshold condition is now clear."
--#SUMMARY "[System] Threshold: EGTPC S5 setup failure rate threshold clear for threshold %d%%
measured %d%%"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 1331 }

starDdfReload NOTIFICATION-TYPE
OBJECTS { starSlotNum, starDdfDev }
STATUS current
DESCRIPTION
    " DDF MCDMA Engine Reloaded due to CRC Error. This is not applicable to QVPC-SI and QVPC-DI."
--#SUMMARY "A DDF reload occurred on slot %d"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

--#SEVERITY MAJOR
 ::= { starentTraps 1332 }

starHdRaidMgmtCardSwitchover NOTIFICATION-TYPE
  OBJECTS { starSlotNum, starHdRaidMgmtCardSwitchoverCause }
  STATUS current
  DESCRIPTION
    " Management Card Switchover due to unrecoverable HDRaid error."
  --#SUMMARY "Management Card switchover happened from slot %d due to unrecoverable HDRaid error %s."
  --#ARGUMENTS {0, 1}
  --#STATE OPERATIONAL
  --#SEVERITY MAJOR
  ::= { starentTraps 1333 }

starThreshLSLogsVolume NOTIFICATION-TYPE
  OBJECTS { starTaskFacilityName, starTaskInstance, starThreshInt, starThreshMeasuredInt }
  STATUS current
  DESCRIPTION
    "When any facility and instance generate event-logs more than the configured amount of threshold
for a configured amount of time, will trigger a trap."
  --#SUMMARY "[System] Threshold: facility %s instance %d is generating overwhelming logs, threshold
%d%% measured %d%%"
  --#ARGUMENTS {0,1,2,3}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 1334 }

starThreshClearLSLogsVolume NOTIFICATION-TYPE
  OBJECTS { starTaskFacilityName, starTaskInstance, starThreshInt, starThreshMeasuredInt }
  STATUS current
  DESCRIPTION
    "When any facility and instance generate event-logs less than the clear threshold, will trigger
clear trap."
  --#SUMMARY "[System] Threshold: facility %s instance %d overwheming logs threshold clear for
threshold %d%% measured %d%%"
  --#ARGUMENTS {0,1,2,3}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 1335 }

starIkeV2DOSAttack NOTIFICATION-TYPE
  OBJECTS { starTaskInstance }
  STATUS current
  DESCRIPTION
    "Alarm will be triggered when a ipsecmgr facility is under DDOS attack."
  --#SUMMARY "[IPSEC] : ipsecmgr facility instance %d is under DDOS attack"
  --#ARGUMENTS {0}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 1336 }

starIkeV2ClearDOSAttack NOTIFICATION-TYPE
  OBJECTS { starTaskInstance }
  STATUS current
  DESCRIPTION
    "Alarm will be triggered when a ipsecmgr facility is out of DDOS attack."
  --#SUMMARY "[IPSEC] : ipsecmgr facility instance %d is under DDOS attack"
  --#ARGUMENTS {0}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 1337 }

starIkeV2DecryptionFailThreshold NOTIFICATION-TYPE
  OBJECTS { starTaskInstance, starSessSublNAI, starSessSublIpAddr}
  STATUS current
  DESCRIPTION

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

        "Alarm will be triggered when decryption fail count for subsequent IKEV2 messages from a UE
increases configured value ."
        --#SUMMARY "[IPSEC] : Decryption failcount exceeded for UE %s with NAI %s and IP addr %s on IPsec Mgr
instance %d"
        --#ARGUMENTS {0,1,2, 3}
        --#STATE OPERATIONAL
        --#SEVERITY INFORMATIONAL
        ::= { starentTraps 1338 }

```

```

starIkeV2ClearDecryptionFailThreshold NOTIFICATION-TYPE
    OBJECTS { starTaskInstance, starSessSublNAI, starSessSublIpAddr}
    STATUS current
    DESCRIPTION
        "Alarm will be triggered when UE sends a valid IKEv2 packet , for which the decryption passes"
        --#SUMMARY "[IPSEC] : Decryption fail alarm cleared [Reason: %s ]for UE with NAI %s and IP addr %s on
IPSec Mgr instance %d"
        --#ARGUMENTS {0 ,1, 2, 3}
        --#STATE OPERATIONAL
        --#SEVERITY INFORMATIONAL
        ::= { starentTraps 1339 }

```

```

starDiameterRlfThresholdOver NOTIFICATION-TYPE
    OBJECTS { starDiameterDiamproxyInstance, starDiameterVpnName, starDiameterRlfContext,
starDiameterPeerName, starDiameterEndpointName, starDiameterRlfECode, starDiameterRlfTps,
starDiameterRlfDelayTolerance, starDiameterRlfQueuePercent}
    STATUS current
    DESCRIPTION
        "Diameter RLF hit upper threshold"
        --#SUMMARY "[Diamproxy %d] [VPN %s] Diameter RLF context %s hit upper threshold for peer %s endpoint
%s. Cause Code: %d TPS : %d, Delay Tolerance : %d"
        --#ARGUMENTS {0,1,2,3,4,5,6,7}
        --#STATE DEGRADED
        --#SEVERITY MAJOR
        ::= { starentTraps 1340 }

```

```

starDiameterRlfOverLimit NOTIFICATION-TYPE
    OBJECTS { starDiameterDiamproxyInstance, starDiameterVpnName, starDiameterRlfContext,
starDiameterPeerName, starDiameterEndpointName, starDiameterRlfECode, starDiameterRlfTps,
starDiameterRlfDelayTolerance, starDiameterRlfQueuePercent}
    STATUS current
    DESCRIPTION
        "Diameter RLF queue full"
        --#SUMMARY "[Diamproxy %d] [VPN %s] Diameter RLF context %s hit queue limit for peer %s endpoint %s.
Cause Code: %d TPS : %d, Delay Tolerance : %d"
        --#ARGUMENTS {0,1,2,3,4,5,6,7}
        --#STATE DEGRADED
        --#SEVERITY MAJOR
        ::= { starentTraps 1341 }

```

```

starDiameterRlfThresholdGood NOTIFICATION-TYPE
    OBJECTS { starDiameterDiamproxyInstance, starDiameterVpnName, starDiameterRlfContext,
starDiameterPeerName, starDiameterEndpointName, starDiameterRlfECode, starDiameterRlfTps,
starDiameterRlfDelayTolerance, starDiameterRlfQueuePercent}
    STATUS current
    DESCRIPTION
        "Diameter RLF under stable condition"
        --#SUMMARY "[Diamproxy %d] [VPN %s] Diameter RLF context %s under stable condition for peer %s
endpoint %s. Cause Code: %d TPS : %d, Delay Tolerance : %d"
        --#ARGUMENTS {0,1,2,3,4,5,6,7}
        --#STATE OPERATIONAL
        --#SEVERITY INFORMATIONAL
        ::= { starentTraps 1342 }

```

```

starThreshHatHb5MinsLoss NOTIFICATION-TYPE
    OBJECTS { starSlotNum, starSlotNum, starThreshPct, starThreshMeasuredPct }
    STATUS current

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

DESCRIPTION
    "Heartbeat loss for past 5 mins on each card with respect to each peer card."
--#SUMMARY "Results on-card %d: to-card %d health loss for 5mins, is in Bad health, threshold %d%%
measured value %d%"
--#ARGUMENTS {0,1,2,3}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starentTraps 1343 }

starThreshClearHatHb5MinsLoss NOTIFICATION-TYPE
OBJECTS { starSlotNum, starSlotNum, starThreshPct, starThreshMeasuredPct }
STATUS current
DESCRIPTION
    "Clear heartbeat loss for past 5 mins interval on each card with respect to each peer card."
--#SUMMARY "Results on-card %d: to-card %d health loss for 5mins, is in Good health, threshold %d%%
measured value %d%"
--#ARGUMENTS {0,1,2,3}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starentTraps 1344 }

starThreshHatHb60MinsLoss NOTIFICATION-TYPE
OBJECTS { starSlotNum, starSlotNum, starThreshPct, starThreshMeasuredPct }
STATUS current
DESCRIPTION
    "Heartbeat loss for past 60 mins on each card with respect to each peer card."
--#SUMMARY "Results on-card %d: to-card %d health loss for 60mins, is in Bad health, threshold %d%%
measured value %d%"
--#ARGUMENTS {0,1,2,3}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starentTraps 1345 }

starThreshClearHatHb60MinsLoss NOTIFICATION-TYPE
OBJECTS { starSlotNum, starSlotNum, starThreshPct, starThreshMeasuredPct }
STATUS current
DESCRIPTION
    "Clear heartbeat loss for past 60 mins interval on each card with respect to each peer card."
--#SUMMARY "Results on-card %d: to-card %d health loss for 60mins, is in Good health, threshold %d%%
measured value %d%"
--#ARGUMENTS {0,1,2,3}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starentTraps 1346 }

starGlobalCLISessionsLimit NOTIFICATION-TYPE
OBJECTS {
    starCLIActiveCount,
    starCLIMaxCount
}
STATUS current
DESCRIPTION
"Glocal Concurrent CLI Sessions limit has been hit.
Total number of Active CLI Sessions have exceeded configured Maximum Limit.
If possible, please cleanup idle sessions."
--#SUMMARY "[System] Security: active CLI sessions count %d is higher than maximum CLI sessions limit
%d"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY WARNING
 ::= { starentTraps 1347 }

starUserCLISessionsLimit NOTIFICATION-TYPE
OBJECTS {
    starCLIContext,
    starCLIUsername,
    starCLITyname,

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

        starCLIRemoteIpAddrType,
        starCLIRemoteIpAddr,
        starCLIDatabaseUsername,
        starCLIPrivs,
        starCLIActiveCount,
        starCLIMaxCount
    }
STATUS current
DESCRIPTION
"Concurrent CLI Sessions limit has been hit for this user.
Total number of Active CLI Sessions have exceeded configured Maximum Limit for this use.
If possible, please cleanup idle sessions."
--#SUMMARY "[System] Security: context %s user %s ttyname %s address type %s remote ip address %s
privilege level %s active CLI sessions %d max CLI sessions %d"
--#ARGUMENTS {0,1,2,3,4,5,6,7,8}
--#STATE OPERATIONAL
--#SEVERITY WARNING
::= { starentTraps 1348 }

starSmartLicenseServiceOOC NOTIFICATION-TYPE
OBJECTS { starSmartLicenseServiceName, starSmartLicenseServiceUsage }
STATUS current
DESCRIPTION
"Smart Licence Service Usage is Out-Of-Compliance, new calls are not allowed for this license.

Action to be Taken: Please make sure surplus licenses are available to avoid service
distrupction"
--#SUMMARY "[System] Smart Licensing Service %s is out-of-compliance, currently using %d licenses"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY WARNING
::= { starentTraps 1349 }

starSmartLicenseServiceOOCclear NOTIFICATION-TYPE
OBJECTS { starSmartLicenseServiceName, starSmartLicenseServiceUsage }
STATUS current
DESCRIPTION
"Smart Licence Service Usage is In-Compliance, new calls are allowed for this license."
--#SUMMARY "[System] Smart Licensing Service %s is now in-compliance, currently using %d licenses"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY WARNING
::= { starentTraps 1350 }

starSmartLicenseEvalMode NOTIFICATION-TYPE
OBJECTS { starSmartLicenseEvalModeRemaining }
STATUS current
DESCRIPTION
"Smart Licensing device is in evaluation period, device being used without registering.

Action to be Taken: Please register the device with idtoken."
--#SUMMARY "[System] Smart Licensing device is in evaluation period, device has %d days of evaluation
period"
--#ARGUMENTS {0}
--#STATE OPERATIONAL
--#SEVERITY WARNING
::= { starentTraps 1351 }

starSmartLicenseEvalModeClear NOTIFICATION-TYPE
OBJECTS { starSmartLicenseEvalModeRemaining }
STATUS current
DESCRIPTION
"Smart Licensing device is now registered and authorized successfully."
--#SUMMARY "[System] Smart Licensing device is either registered or evaluation period has been
expired, device has %d days of evaluation period"
--#ARGUMENTS {0}

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

--#STATE OPERATIONAL
--#SEVERITY WARNING
 ::= { starentTraps 1352 }

starSmartLicenseEvalModeExpire NOTIFICATION-TYPE
STATUS current
DESCRIPTION
    "Smart Licensing device in evaluation period has expired.

    Action to be Taken: Smart Licensing device works only with valid license, no more evaluation
period allowed."
--#SUMMARY "[System] Smart Licensing device in evaluation period has been expired, no more evaluation
period allowed for the device"
--#STATE DEGRADED
--#SEVERITY CRITICAL
 ::= { starentTraps 1353 }

starSmartLicenseEvalModeExpireClear NOTIFICATION-TYPE
STATUS current
DESCRIPTION
    "Smart Licensing device evaluation period is reseted. Device can be used for 90 days in
evaluation period."
--#SUMMARY "[System] Smart Licensing device evaluation period is reseted, device now has 90 days of
evaluation period"
--#STATE OPERATIONAL
--#SEVERITY WARNING
 ::= { starentTraps 1354 }

starSmartLicenseCSSMConntectionFail NOTIFICATION-TYPE
STATUS current
DESCRIPTION
    "Smart License device unable to connect CSSM License Server.

    Action to be Taken: Make sure to connect the device to the CSSM License Server to avoid service
distrupction."
--#SUMMARY "[System] Smart Licensing device unable to connect CSSM license server"
--#STATE DEGRADED
--#SEVERITY CRITICAL
 ::= { starentTraps 1355 }

starSmartLicenseCSSMConnectionFailClear NOTIFICATION-TYPE
STATUS current
DESCRIPTION
    "Smart License device is now able to connect the CSSM License Server."
--#SUMMARY "[System] Smart Licensing device is now connected to CSSM license server"
--#STATE OPERATIONAL
--#SEVERITY WARNING
 ::= { starentTraps 1356 }

starSxServiceStart NOTIFICATION-TYPE
OBJECTS { starServiceVpnName, starServiceServName }
STATUS current
DESCRIPTION
    "A Packet Data Network Gateway Sx-Service has started.

    Action to be Taken: No action required"
--#SUMMARY "[Service Sx-%s-%s] Sx service has started"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY INFORMATION
 ::= { starentTraps 1357 }

starSxServiceStop NOTIFICATION-TYPE
OBJECTS { starServiceVpnName, starServiceServName }
STATUS current
DESCRIPTION

```

## STARENT-MIB DEFINITIONS ::= BEGIN

"A Packet Data Network Gateway Sx-Service has stopped.

Probable Cause: This is typically caused by operator intervention. In rare cases it can be caused by the loss of resources (PSCs) to support the running configuration.

Action to be Taken: If the Sx-service shutdown was not planned, examine the admin logs for an indication of the failure. Verify that all configured PSCs are present and running in the system. Check the crash logs for an indication of a software failure.

Clear Condition: Verify that the Sx service is operational.

Condition Clear Alarm: A starSxServiceStart notification will be generated when the service is restarted"

```
--#SUMMARY "[Service Sx-%s-%s] Sx service has stopped"
--#ARGUMENTS {0,1}
--#STATE DEGRADED
--#SEVERITY MAJOR
::= { starentTraps 1358 }
```

starUplaneServiceStart NOTIFICATION-TYPE

```
OBJECTS { starServiceVpnName, starServiceServName }
STATUS current
DESCRIPTION
```

"A User Plane (uplane) Service has started.

Action to be Taken: No action required"

```
--#SUMMARY "[Service uplane-%s-%s] User-Plane service has started"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY INFORMATION
::= { starentTraps 1359 }
```

starUplaneServiceStop NOTIFICATION-TYPE

```
OBJECTS { starServiceVpnName, starServiceServName }
STATUS current
DESCRIPTION
```

"A User Plane (uplane) Service has stopped.

Probable Cause: This is typically caused by operator intervention. In rare cases it can be caused by the loss of resources (PSCs) to support the running configuration.

Action to be Taken: If the User-Plane service shutdown was not planned, examine the admin logs for an indication of the failure. Verify that all configured PSCs are present and running in the system. Check the crash logs for an indication of a software failure.

Clear Condition: Verify that the User-Plane service is operational.

Condition Clear Alarm: A starUplaneServiceStart notification will be generated when the service is restarted"

```
--#SUMMARY "[Service Uplane-%s-%s] Uplane service has stopped"
--#ARGUMENTS {0,1}
--#STATE DEGRADED
--#SEVERITY MAJOR
::= { starentTraps 1360 }
```

DisabledEventIDs NOTIFICATION-TYPE

```
OBJECTS {
    starCLIEventIDStart,
    starCLIEventIDEnd,
    starCLIUsername,
    starCLIContext,
```



## STARENT-MIB DEFINITIONS ::= BEGIN

```

        starCLIPrivs,
        starCLITtynname,
        starCLIRemoteIpAddrType,
        starCLIRemoteIpAddr
    }
    STATUS current
    DESCRIPTION
    "Informs about the Logging Event ID Range that has been disabled by an user."
    --#SUMMARY "[System] Security: Event IDs from %d to %d have been disabled by user %s context %s
privilege level %s ttynname %s address type %s remote ip address %s"
    --#ARGUMENTS {0,1,2,3,4,5,6,7}
    --#STATE OPERATIONAL
    --#SEVERITY WARNING
    ::= { starentTraps 1361 }

LogLevelChanged NOTIFICATION-TYPE
    OBJECTS {
        starCLILogLevelChanged,
        starCLIUsername,
        starCLIContext,
        starCLIPrivs,
        starCLITtynname,
        starCLIRemoteIpAddrType,
        starCLIRemoteIpAddr
    }
    STATUS current
    DESCRIPTION
    "Informs about the change in logging level of a facility by an user."
    --#SUMMARY "[System] Security: 'Logging level of facility <facility> is changed to <critical>' by
user %s context %s privilege level %s ttynname %s address type %s remote ip address %s"
    --#ARGUMENTS {0,1,2,3,4,5,6}
    --#STATE OPERATIONAL
    --#SEVERITY WARNING
    ::= { starentTraps 1362 }

starThreshTotalVolume NOTIFICATION-TYPE
    OBJECTS { starRuleBaseName, starRuleDefName, starGroupOfRuledef, starThreshInt, starThreshMeasuredInt
}
    STATUS current
    DESCRIPTION
        "Total Volume for Specified RuleBase and RuleDef"
    --#SUMMARY "facility sessmgr RuleBase %s RuleDef %s GroupOfRuledefFlag %d threshold volume %d%% bytes
measured volume %d%% Kilobytes"
    --#ARGUMENTS {0,1,2,3,4}
    --#STATE OPERATIONAL
    --#SEVERITY INFORMATIONAL
    ::= { starentTraps 1363 }

starThreshTotalVolumeClear NOTIFICATION-TYPE
    OBJECTS { starRuleBaseName, starRuleDefName, starGroupOfRuledef, starThreshInt, starThreshMeasuredInt
}
    STATUS current
    DESCRIPTION
        "Total Volume for Specified RuleBase and RuleDef"
    --#SUMMARY "facility sessmgr RuleBase %s RuleDef %s GroupOfRuledefFlag %d threshold volume %d%%
bytes measured volume %d%% Kilobytes"
    --#ARGUMENTS {0,1,2,3,4}
    --#STATE OPERATIONAL
    --#SEVERITY INFORMATIONAL
    ::= { starentTraps 1364 }

starIkeV2DDOSAttackUDPFail NOTIFICATION-TYPE
    OBJECTS { starTaskInstance }
    STATUS current
    DESCRIPTION
        "Alarm will be triggered when a ipsecdemux encounters high UDP errors rate."

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

--#SUMMARY "[IPSEC] : IPsec demux instance [%d] context [%s] UDP failure rate exceeded the configured
System based threshold "
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY CRITICAL
::= { starentTraps 1365 }

```

```

starIkeV2DDOSAttackClearUDPFail NOTIFICATION-TYPE
OBJECTS { starTaskInstance }
STATUS current
DESCRIPTION
    "Alarm will be triggered when udp error rate falls below threshold or config is disabled."
--#SUMMARY "[IPSEC] : IPsec demux instance [%d] context [%s] UDP failure rate alarm cleared [%s] for
System Based Threshold"
--#ARGUMENTS {0,1,2}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 1366 }

```

```

starIkeV2DDOSAttackUDPFailPeer NOTIFICATION-TYPE
OBJECTS { starTaskInstance }
STATUS current
DESCRIPTION
    "Alarm will be triggered when a IKEv2 UDP failure rate crosses configured upper threshold for
Source-IP"
--#SUMMARY "[IPSEC] : IPsec demux instance [%d] context [%s] UDP failure rate exceeded the configured
Source-IP based threshold for Peer IP %s "
--#ARGUMENTS {0,1,2}
--#STATE OPERATIONAL
--#SEVERITY CRITICAL
::= { starentTraps 1367 }

```

```

starIkeV2ClearDDOSAttackUDPFailPeer NOTIFICATION-TYPE
OBJECTS { starTaskInstance }
STATUS current
DESCRIPTION
    "Alarm will be triggered when IKEv2 UDP failure rate comes down below configured lower threshold
for Source-IP or config is disabled."
--#SUMMARY "[IPSEC] : IPsec demux instance [%d] context [%s] UDP failure rate alarm cleared [%s] for
Source-IP based threshold for Peer IP %s "
--#ARGUMENTS {0,1,2,3}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 1368 }

```

```

starIkeV2DDOSAttackINITFlood NOTIFICATION-TYPE
OBJECTS { starTaskInstance }
STATUS current
DESCRIPTION
    "Alarm will be triggered when a ipsecdemux encounters Flood of INIT requests."
--#SUMMARY "[IPSEC] : IPsecDemux Facility instance [%d] context [%s ]Outstanding INIT exceeded the
configured threshold "
--#ARGUMENTS {0}
--#STATE OPERATIONAL
--#SEVERITY CRITICAL
::= { starentTraps 1369 }

```

```

starIkeV2DDOSAttackClearINITFlood NOTIFICATION-TYPE
OBJECTS { starTaskInstance }
STATUS current
DESCRIPTION
    "Alarm will be triggered when rate of INIT requests falls below threshold or config is
disabled."
--#SUMMARY "[IPSEC] : IPsecDemux Facility instance [%d] context [%s ]Outstanding INIT requests [below
threshold]"

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

--#ARGUMENTS {0}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starentTraps 1370 }

starIkeV2DDOSAttackINITPeerFlood NOTIFICATION-TYPE
  OBJECTS { starTaskInstance }
  STATUS current
  DESCRIPTION
    "Alarm will be triggered when a ipsecdemux encounters Flood of INIT requests."
  --#SUMMARY "[IPSEC] : IPSecDemux Facility instance [%d] context [%s ]Outstanding INIT exceeded the
configured threshold "
  --#ARGUMENTS {0}
  --#STATE OPERATIONAL
  --#SEVERITY CRITICAL
  ::= { starentTraps 1371 }

starIkeV2DDOSAttackClearINITPeerFlood NOTIFICATION-TYPE
  OBJECTS { starTaskInstance }
  STATUS current
  DESCRIPTION
    "Alarm will be triggered when rate of INIT requests falls below threshold or config is
disabled."
  --#SUMMARY "[IPSEC] : IPSecDemux Facility instance [%d] context [%s ]Outstanding INIT requests [below
threshold]"
  --#ARGUMENTS {0}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 1372 }

starIFTaskHealthFailure NOTIFICATION-TYPE
  OBJECTS { starSlotNum }
  STATUS current
  DESCRIPTION
    "A failure of an IFTASK worker thread health has been detected.
    This may lead to internal control plane network slow down.

    Action to be Taken: If this condition persists, the identified card
    needs to be rebooted. This is applicable to QvPC DI and SI platforms."
  --#SUMMARY "[Card %d] IFTASK Health Failure"
  --#ARGUMENTS {0}
  --#STATE NONOPERATIONAL
  --#SEVERITY MAJOR
  ::= { starentTraps 1373 }

starIkeV2ReqRateThreshold NOTIFICATION-TYPE
  OBJECTS { starTaskInstance }
  STATUS current
  DESCRIPTION
    "Alarm will be triggered when IKEv2 Request messages crosses the configured threshold."
  --#SUMMARY "[IPSEC] : Max Allowed IKEv2 Request Count crossed configured threshold %s for UE with NAI
%s and IP addr %s on IPsec Mgr instance %d"
  --#ARGUMENTS {0,1,2,3}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 1374 }

starIkeV2ClearReqRateThreshold NOTIFICATION-TYPE
  OBJECTS { starTaskInstance }
  STATUS current
  DESCRIPTION
    "Alarm will be triggered when either IKESA session is deleted or IKEv2 Request messages per
interval reaches lower than configured threshold."
  --#SUMMARY "[IPSEC] : Alarm for Max allowed IKEv2 request alarm cleared [Reason:%s ]for UE with NAI
%s and IP addr %s on IPsec Mgr instance %d "
  --#ARGUMENTS {0,1,2,3}
  --#STATE OPERATIONAL

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

--#SEVERITY INFORMATIONAL
 ::= { starentTraps 1375 }

starChassisStartupTimeout NOTIFICATION-TYPE
  STATUS current
  DESCRIPTION
    "Not all cards did not comeup within chassis timeout, chassis will proceed with whatever cards
are present and start applying the startup configuration"
  --#SUMMARY
  --#STATE OPERATIONAL
  --#SEVERITY WARNING
  ::= { starentTraps 1377 }

starNeedADCLicense NOTIFICATION-TYPE
  OBJECTS { starP2PPluginVersion , starADCLicenseExpiryDate }
  STATUS current
  DESCRIPTION
    "ADC license required.
    Action to be taken: Please purchase and configure ADC license"
  --#ARGUMENTS {0,1}
  --#SUMMARY "ADC Plugin Version %s needs ADC Annual license. Please purchase and configure ADC Annual
license. Upgrade to ADC Plugin Versions released after %s will not be allowed"
  --#STATE OPERATIONAL
  --#SEVERITY WARNING
  ::= { starentTraps 1378 }

starNeedADCLicenseClear NOTIFICATION-TYPE
  OBJECTS { starP2PPluginVersion }
  STATUS current
  DESCRIPTION
    "ADC license present."
  --#ARGUMENTS {0}
  --#SUMMARY "ADC Plugin Version %s either has or doesn't need ADC Annual license"
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starentTraps 1379 }

starADCLicenseAboutToExpire NOTIFICATION-TYPE
  OBJECTS { starADCLicenseExpiryDate }
  STATUS current
  DESCRIPTION
    "ADC license is about to expire.

    Action to be Taken: A new ADC license should be created and configured on the system before the
grace period is over."
  --#SUMMARY "ADC Annual License will expire on %s. Upgrade to ADC Plugin Versions released after %s
will not be allowed. Please renew the license."
  --#ARGUMENTS {0,0}
  --#STATE OPERATIONAL
  --#SEVERITY CRITICAL
  ::= { starentTraps 1380 }

starADCLicenseExpired NOTIFICATION-TYPE
  OBJECTS { starLicenseExpiryDate }
  STATUS current
  DESCRIPTION
    "ADC license has expired.

    Action to be Taken: A new license should be created and configured on the system."
  --#SUMMARY "ADC Annual License has expired. Upgrade to ADC Plugin Versions released after %s will not
be allowed. Please renew the license"
  --#ARGUMENTS {0}
  --#STATE NONOPERATIONAL
  --#SEVERITY CRITICAL
  ::= { starentTraps 1381 }

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

starSxPathFailure NOTIFICATION-TYPE
    OBJECTS { starServiceVpnName, starServiceServName, starSxSelfAddr, starSxPeerAddr,
starSxPeerOldRecTimeStamp, starSxPeerNewRecTimeStamp, starSxFailureCause }
    STATUS current
    DESCRIPTION
        "Sx Path Failure. No response received for Sx request sent to Sx Peer.

        Possibe reason: Remote Sx peer is down

        Condition Clear Alarm: A StarSxPathFailureClear notification will be generated when
        the path to the remote Sx peer becomes available"
    --#SUMMARY "[Service Sx-%s-%s] Sx path failure self address %s, peer address %s, peer old recovery
timestamp %d, peer new recovery timestamp %d, Failure cause %s"
    --#ARGUMENTS {0,1,2,3,4,5,6,7,8}
    --#STATE DEGRADED
    --#SEVERITY MAJOR
    ::= { starentTraps 1382 }

starSxPathFailureClear NOTIFICATION-TYPE
    OBJECTS { starServiceVpnName, starServiceServName, starSxSelfAddr, starSxPeerAddr,
starSxPeerNewRecTimeStamp, starSxFailureCause}
    STATUS current
    DESCRIPTION
        "Sx Path Failure condition is no longer valid."
    --#SUMMARY "[Service Sx-%s-%s] Sx path failure condition clear for self address %s, peer address %s,
peer recovery timestamp %d, Clear reason %s"
    --#ARGUMENTS {0,1,2,3,4,5,6}
    --#STATE OPERATIONAL
    --#SEVERITY INFORMATIONAL
    ::= { starentTraps 1383 }

starThreshDataPlaneMonitor5MinsLoss NOTIFICATION-TYPE
    OBJECTS { starSlotNum, starSlotNum, starThreshPct, starThreshMeasuredPct }
    STATUS current
    DESCRIPTION
        "5 minute data plane monitor packet loss between peer cards."
    --#SUMMARY "5 minute dataplane monitor loss from-card %d to-card %d, threshold %d%% measured value
%d%"
    --#ARGUMENTS {0,1,2,3}
    --#STATE OPERATIONAL
    --#SEVERITY INFORMATIONAL
    ::= { starentTraps 1384 }

starThreshClearDataPlaneMonitor5MinsLoss NOTIFICATION-TYPE
    OBJECTS { starSlotNum, starSlotNum, starThreshPct, starThreshMeasuredPct }
    STATUS current
    DESCRIPTION
        "Clear 5 minute data plane monitor packet loss between peer cards."
    --#SUMMARY "5 minute dataplane monitor loss from-card %d to-card %d, threshold %d%% measured value
%d%"
    --#ARGUMENTS {0,1,2,3}
    --#STATE OPERATIONAL
    --#SEVERITY INFORMATIONAL
    ::= { starentTraps 1385 }

starThreshDataPlaneMonitor60MinsLoss NOTIFICATION-TYPE
    OBJECTS { starSlotNum, starSlotNum, starThreshPct, starThreshMeasuredPct }
    STATUS current
    DESCRIPTION
        "60 minute data plane monitor packet loss between peer cards."
    --#SUMMARY "60 minute dataplane monitor loss from-card %d to-card %d, threshold %d%% measured value
%d%"
    --#ARGUMENTS {0,1,2,3}
    --#STATE OPERATIONAL
    --#SEVERITY INFORMATIONAL
    ::= { starentTraps 1386 }

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

starThreshClearDataPlaneMonitor60MinsLoss NOTIFICATION-TYPE
    OBJECTS { starSlotNum, starSlotNum, starThreshPct, starThreshMeasuredPct }
    STATUS current
    DESCRIPTION
        "Clear 60 minute data plane monitor packet loss between peer cards."
    --#SUMMARY "60 minute dataplane monitor loss from-card %d to-card %d, threshold %d%% measured value
%d%"
    --#ARGUMENTS {0,1,2,3}
    --#STATE OPERATIONAL
    --#SEVERITY INFORMATIONAL
    ::= { starentTraps 1387 }

starThreshControlPlaneMonitor5MinsLoss NOTIFICATION-TYPE
    OBJECTS { starSlotNum, starSlotNum, starThreshPct, starThreshMeasuredPct }
    STATUS current
    DESCRIPTION
        "5 minute control plane monitor packet loss between peer cards."
    --#SUMMARY "5 minute controlplane monitor loss from-card %d to-card %d, threshold %d%% measured value
%d%"
    --#ARGUMENTS {0,1,2,3}
    --#STATE OPERATIONAL
    --#SEVERITY INFORMATIONAL
    ::= { starentTraps 1388 }

starThreshClearControlPlaneMonitor5MinsLoss NOTIFICATION-TYPE
    OBJECTS { starSlotNum, starSlotNum, starThreshPct, starThreshMeasuredPct }
    STATUS current
    DESCRIPTION
        "Clear 5 minute control plane monitor packet loss between peer cards."
    --#SUMMARY "5 minute controlplane monitor loss from-card %d to-card %d, threshold %d%% measured value
%d%"
    --#ARGUMENTS {0,1,2,3}
    --#STATE OPERATIONAL
    --#SEVERITY INFORMATIONAL
    ::= { starentTraps 1389 }

starThreshControlPlaneMonitor60MinsLoss NOTIFICATION-TYPE
    OBJECTS { starSlotNum, starSlotNum, starThreshPct, starThreshMeasuredPct }
    STATUS current
    DESCRIPTION
        "60 minute control plane monitor packet loss between peer cards."
    --#SUMMARY "60 minute controlplane monitor loss from-card %d to-card %d, threshold %d%% measured
value %d%"
    --#ARGUMENTS {0,1,2,3}
    --#STATE OPERATIONAL
    --#SEVERITY INFORMATIONAL
    ::= { starentTraps 1390 }

starThreshClearControlPlaneMonitor60MinsLoss NOTIFICATION-TYPE
    OBJECTS { starSlotNum, starSlotNum, starThreshPct, starThreshMeasuredPct }
    STATUS current
    DESCRIPTION
        "Clear 60 minute control plane monitor packet loss between peer cards."
    --#SUMMARY "60 minute controlplane monitor loss from-card %d to-card %d, threshold %d%% measured
value %d%"
    --#ARGUMENTS {0,1,2,3}
    --#STATE OPERATIONAL
    --#SEVERITY INFORMATIONAL
    ::= { starentTraps 1391 }

starSxPeerAssociated NOTIFICATION-TYPE
    OBJECTS {starServiceVpnName, starServiceServName, starSxInterfaceType, starSxSelfAddr,
starSxPeerAddr, starSxInterfaceType, starSxCPUGroupname}
    STATUS current
    DESCRIPTION
        "Sx Peer Association sucessful with <Sx-Interface-Type Self-IP Peer-IP and Sx-Interface-Type>."

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

--#SUMMARY "[Service Sx-%s-%s] Sx Peer Association successful with self node is %d , peer address %s
and remote address is %s and its type is %d, Group name is %s"
--#ARGUMENTS {0 1 2 3 4 5 6}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 1392 }

```

```

starSxPeerAssociationRelease NOTIFICATION-TYPE
  OBJECTS {starServiceVpnName, starServiceServName, starSxInterfaceType, starSxSelfAddr,
starSxPeerAddr, starSxInterfaceType, starSxCPUGroupname}
  STATUS current
  DESCRIPTION
    "Sx Peer Association released successfully with <Sx-Interface-Type Sx-Self-IP Sx-Peer-IP and Sx-
Interface-Type>."
--#SUMMARY "[Service Sx-%s-%s] Sx Peer Association released successfully with self node is %d , peer
address %s and remote address is %s and its type is %d, Group name is %s"
--#ARGUMENTS {0 1 2 3 4 5 6}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 1393 }

```

```

starChassisThroughputOver NOTIFICATION-TYPE
  OBJECTS {starThreshInt,starThreshMeasuredInt}
  STATUS current
  DESCRIPTION
    "Chassis Throughput exceeds over-limit."
--#SUMMARY "Chassis Throughput limit %d , measured %d"
--#ARGUMENTS {0 1}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 1394 }

```

```

starChassisThroughputOverClear NOTIFICATION-TYPE
  OBJECTS {starThreshInt,starThreshMeasuredInt}
  STATUS current
  DESCRIPTION
    "Chassis Throughput Over trap cleared."
--#SUMMARY "Chassis Throughput limit %d , measured %d"
--#ARGUMENTS {0 1}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 1395 }

```

```

starChassisThroughputWarn NOTIFICATION-TYPE
  OBJECTS {starThreshInt,starThreshMeasuredInt}
  STATUS current
  DESCRIPTION
    "Chassis Throughput Exceeds Warn Threshold."
--#SUMMARY "Chassis Throughput limit %d , measured %d"
--#ARGUMENTS {0 1}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 1396 }

```

```

starChassisThroughputWarnClear NOTIFICATION-TYPE
  OBJECTS {starThreshInt,starThreshMeasuredInt}
  STATUS current
  DESCRIPTION
    "Chassis Throughput Warn Trap cleared."
--#SUMMARY "Chassis Throughput limit %d , measured %d"
--#ARGUMENTS {0 1}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 1397 }

```

```

starIFTaskBootConfigApplied NOTIFICATION-TYPE
  OBJECTS { starSlotNum,starCPUNumber}

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

STATUS current
DESCRIPTION
"IFTask Boot Configuration has been applied on identified card-cpu."
--#SUMMARY "iftask boot config applied on Card %d CPU %d"
--#ARGUMENTS {0 1}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 1398 }

starUidhURLHostDatabaseUpgradeFailureStatus NOTIFICATION-TYPE
OBJECTS { starCommonDatabasePreDBVersion, starCommonDatabaseUpgradeDBVersion,
starCommonDatabaseUpgradeComment }
STATUS current
DESCRIPTION
"UIDH URL-HOST Database Upgrade Failure Status.
Condition Clear Alarm: This condition is cleared by starUidhURLHostDatabaseUpgradeSuccessStatus
notification."
--#SUMMARY "Pre-DB Version %s Upgrade Version %s, Comment: %s"
--#ARGUMENTS {0,1,2}
--#STATE OPERATIONAL
--#SEVERITY MAJOR
::= { starentTraps 1399 }

starUidhURLHostDatabaseUpgradeSuccessStatus NOTIFICATION-TYPE
OBJECTS { starCommonDatabasePreDBVersion, starCommonDatabaseUpgradeDBVersion,
starCommonDatabaseUpgradeComment }
STATUS current
DESCRIPTION
"UIDH URL-HOST Database Upgrade Success.
Action to be taken: No action required "
--#SUMMARY "Pre-DB Version %s Upgrade Version %s, Comment: %s"
--#ARGUMENTS {0,1,2}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starentTraps 1400 }

starSmartLicenseFeatureOOC NOTIFICATION-TYPE
OBJECTS { starSmartLicenseFeatureName, starSmartLicenseFeatureUsage }
STATUS current
DESCRIPTION
"Smart Licence Feature Usage is Out-Of-Compliance, new calls are not allowed for services which
uses this feature license.

Action to be Taken: Please make sure surplus licenses are available to avoid service
distrupction"
--#SUMMARY "[System] Smart Licensing Feature %s is out-of-compliance, currently using %d licenses"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY WARNING
::= { starentTraps 1401 }

starSmartLicenseFeatureOOCclear NOTIFICATION-TYPE
OBJECTS { starSmartLicenseFeatureName, starSmartLicenseFeatureUsage }
STATUS current
DESCRIPTION
"Smart Licence Feature Usage is In-Compliance, new calls are allowed for services which uses this
feature license."
--#SUMMARY "[System] Smart Licensing Feature %s is now in-compliance, currently using %d licenses"
--#ARGUMENTS {0,1}
--#STATE OPERATIONAL
--#SEVERITY WARNING
::= { starentTraps 1402 }

-- Conformance Information

```



## STARENT-MIB DEFINITIONS ::= BEGIN

```

starentMIBConformance OBJECT IDENTIFIER ::= { starentMIB 3 }

starentMIBGroups      OBJECT IDENTIFIER ::= { starentMIBConformance 1 }

starentMIBCompliances OBJECT IDENTIFIER ::= { starentMIBConformance 2 }

-- Compliance Statements

starentMIBCompliance2 MODULE-COMPLIANCE
    STATUS current
    DESCRIPTION
        "The compliance statement for ..."

    MODULE
        MANDATORY-GROUPS { starChassisGroup,
            starAlertGroup,
            starAlertTrapGroup,
            starTrapGroup }
    ::= { starentMIBCompliances 2 }

starChassisGroup OBJECT-GROUP
    OBJECTS { starChassisCriticalCO,
        starChassisMajorCO,
        starChassisMinorCO,
        starChassisAudibleAlarm,
        starChassisUTCTime,
        starChassisLocalTime,
        starChassisType,
            starChassisAction,
        starTimeTicks,
            starChassisDescription,
            starChassisSWRevision,
            starChassisPeakCpuUsage,
            starChassisPeakMemoryUsage,
        -- slot table
            starSlotType,
            starCardType,
        starCardOperState,
        starCardAdminState,
        starCardRevision,
        starCardLastStateChange,
        starCardMode,
        starCardPacStandbyPriority,
        starCardLock,
        starCardHaltIssued,
        starCardRebootPending,
        starCardUsable,
        starCardSinglePOF,
        starCardAttachment,
        starCardTemperature,
        starSlotNumPorts,
        starSlotAction,
        starSlotVoltageState,
        starSlotNumCPU,
        starSlotPartNumber,
        starSlotPartRevision,
        starSlotSerialNumber,
        starSlotCLEICode,
        starSlotCiscoModelName,
        starSlotCiscoHardwareRev,
        starSlotCiscoSerialNumber,
        starDeviceNum,
        starSerdesNum,
        starSlotMappingType,
        starSlotMappingRCCNum,
        starSlotMappingToSlot,
        -- NPU table
    }

```

```

starNPUSlot,
    -- fan table
    starFanNum,
    starFanLocation,
    starFanStatus,
    starFanSpeed,
-- log table
starLogCurSize,
starLogMaxSize,
starLogText,
-- power table
    starPowerState,
-- cpu table
starCPUUser,
starCPUSystem,
starCPUIidle,
starCPUIO,
starCPUIRQ,
starCPULoad1Min,
starCPULoad5Min,
starCPULoad15Min,
starCPUMemTotal,
starCPUMemUsed,
starCPUNumProcesses,
starCPUMemCached,
-- Session In Progress
starSessInProgCalls,
starSessInProgActiveCalls,
starSessInProgDormantCalls,
starSessInProgArrived,
starSessInProgLCPNeg,
starSessInProgLCPUp,
starSessInProgAuthenticating,
starSessInProgAuthenticated,
starSessInProgIPCPUp,
starSessInProgSIPConn,
starSessInProgMIPConn,
starSessInProgDisc,
-- Session
    starSessMgrCount,
    starSessTtlArrived,
    starSessTtlRejected,
    starSessTtlConnected,
    starSessTtlAuthSucc,
    starSessTtlAuthFail,
    starSessTtlLCPUp,
    starSessTtlIPCPUp,
    starSessTtlSrcViol,
    starSessTtlKeepFail,
starSessTtlOctForwarded,
starSessTtlRPRRegAccept,
starSessTtlRPRRegAcceptInterPDSN,
starSessCurrPPPSessions,
starSessTtlTxBytes,
starSessTtlRxBytes,
starSessTtlSIPTxBytes,
starSessTtlSIPRxBytes,
starSessTtlMIPTxBytes,
starSessTtlMIPRxBytes,
starSessTtlOctForwardedGB,
starSessTtlOctForwardedRev1,
starSessTtlTxBytesRev1,
starSessTtlRxBytesRev1,
starSessTtlSIPTxBytesRev1,
starSessTtlSIPRxBytesRev1,
starSessTtlMIPTxBytesRev1,

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

starSessTtlMIPRxBytesRev1,
starSessTtlOctForwardedGBRev1,
-- AAA
starAAAMgrCount,
starAAATtlRequests,
starAAATtlAuthRequests,
starAAATtlAcctRequests,
starAAACurRequests,
starAAACurAuthRequests,
starAAACurAcctRequests,
starAAATtlAcctSess,
starAAACurAcctSess,
starAAATtlAuthSuccess,
starAAATtlAuthFailure,
-- All
starAllMgrCount,
starAllTtlArrived,
starAllTtlRejected,
starAllTtlDemultiplexed,
starAllTtlDereg,
starAllCurActive,
-- HA
starHAMgrCount,
starHATtlArrived,
starHATtlRejected,
starHATtlDemultiplexed,
starHATtlDereg,
starHACurActive,
-- FA
starFAMgrCount,
starFATtlArrived,
starFATtlRejected,
starFATtlDemultiplexed,
starFATtlDereg,
starFACurActive,
-- Service Managers
starServiceVpnName,
starServiceServName,
starServiceSubLimit,
starServiceSubCurrent,
starServiceType,
starServiceFAIpAddr,
starServiceHAIpAddr,
starSmartLicenseServiceName,
starSmartLicenseServiceUsage,
starSmartLicenseFeatureName,
starSmartLicenseFeatureUsage,
starSmartLicenseEvalModeRemaining,
starP2PPluginVersion,
starADCLicenseExpiryDate,
starSxInterfaceType,
starSxSelfAddr,
starSxPeerAddr,
starSxPeerNewRecTimeStamp,
starSxPeerOldRecTimeStamp,
starSxFailureCause,
starSxCPUPGroupName,
-- CLI
starCLITtyname,
starCLIPrivs,
starCLIType,
starCLIRemoteIpAddrType,
starCLIRemoteIpAddr,
starCLIContext,
-- Tasks
starTaskFacilityName,
starTaskCard,

```

```
    starTaskCPU,
-- PPP Stats
    starPPPStatVpnName,
    starPPPStatServName,
    starPPPStatInit,
    starPPPStatReneg,
    starPPPStatSuccess,
    starPPPStatFailed,
    starPPPStatReleased,
    starPPPStatReleasedLocal,
    starPPPStatReleasedRemote,
    starPPPStatLcpFailMaxRetry,
    starPPPStatLcpFailOption,
    starPPPStatIpcpFailMaxRetry,
    starPPPStatIpcpFailOption,
    starPPPStatCcpFail,
    starPPPStatAuthFail,
    starPPPStatLcpEntered,
    starPPPStatAuthEntered,
    starPPPStatIpcpEntered,
    starPPPStatRenegPdsn,
    starPPPStatRenegMobil,
    starPPPStatRenegAddrMismatch,
    starPPPStatRenegOther,
    starPPPStatChapAuthAttempt,
    starPPPStatPapAuthAttempt,
    starPPPStatMSChapAuthAttempt,
    starPPPStatChapAuthFail,
    starPPPStatPapAuthFail,
    starPPPStatMSChapAuthFail,
    starPPPStatStacComp,
    starPPPStatMppcComp,
    starPPPStatDeflComp,
    starPPPStatFscErrs,
    starPPPStatUnknProto,
    starPPPStatBadAddr,
    starPPPStatBadCtrl,
    starPPPStatVjComp,
    starPPPStatDiscLcpRemote,
    starPPPStatDiscRpRemote,
    starPPPStatDiscAdmin,
    starPPPStatDiscIdleTimeout,
    starPPPStatDiscAbsTimeout,
    starPPPStatDiscPPPKeepalive,
    starPPPStatDiscNoResource,
    starPPPStatDiscMisc,
    starPPPStatFailedReneg,
    starPPPStatLcpFailUnknown,
    starPPPStatIpcpFailUnknown,
    starPPPStatAuthAbort,
    starPPPStatLowerLayerDisc,
    starPPPStatLcpSuccess,
    starPPPStatAuthSuccess,
    starPPPStatRenegLowerLayerHandoff,
    starPPPStatRenegParamUpdate,
    starPPPStatChapAuthSuccess,
    starPPPStatPapAuthSuccess,
    starPPPStatMSChapAuthSuccess,
    starPPPStatChapAuthAbort,
    starPPPStatPapAuthAbort,
    starPPPStatMSChapAuthAbort,
    starPPPStatSessSkipAuth,
    starPPPStatNegComp,
    starPPPStatCCPNegFailComp,
    starPPPStatDiscLocalLowerLayer,
    starPPPStatDiscAddFlowFail,
```

```

    starPPPStatDiscMaxRetriesLCP,
    starPPPStatDiscMaxRetriesIPCP,
    starPPPStatDiscMaxSetupTimer,
    starPPPStatDiscInvalidDestVpn,
    starPPPStatDiscOptNegFailLCP,
    starPPPStatDiscOptNegFailIPCP,
    starPPPStatDiscNoRemoteIpAddr,
    starPPPStatDiscCallTypeDetectFail,
    starPPPStatDiscRemoteDiscUpLayer,
    starPPPStatDiscLongDuraTimeout,
    starPPPStatDiscAuthFail,
    starPPPStatLCPEchoTotalReq,
    starPPPStatLCPEchoReqResent,
    starPPPStatLCPEchoRepRecved,
    starPPPStatLCPEchoReqTimeout,
    starPPPStatRecvErrBadCtrlField,
    starPPPStatRecvErrBadPacketLen,
    starPPPStatRemoteTerm,
    starPPPStatMiscFail,
-- MIPHA Stats
    starMIPHASStatVpnID,
    starMIPHASStatVpnName,
    starMIPHASStatServName,
    starMIPHASStatDisconnects,
    starMIPHASStatExpiry,
    starMIPHASStatDereg,
    starMIPHASStatAdminDrop,
    starMIPHASStatRegRecvTotal,
    starMIPHASStatRegRecvInitial,
    starMIPHASStatRegRecvRenew,
    starMIPHASStatRegRecvDereg,
    starMIPHASStatRegAcceptTotal,
    starMIPHASStatRegAcceptReg,
    starMIPHASStatRegAcceptRenew,
    starMIPHASStatRegAcceptDereg,
    starMIPHASStatRegDeniedTotal,
    starMIPHASStatRegDeniedInitial,
    starMIPHASStatRegDeniedRenew,
    starMIPHASStatRegDeniedDereg,
    starMIPHASStatRegReplyTotal,
    starMIPHASStatRegReplyAcceptReg,
    starMIPHASStatRegReplyAcceptDereg,
    starMIPHASStatRegReplyDenied,
    starMIPHASStatRegReplyBadReq,
    starMIPHASStatRegReplyMismatchID,
    starMIPHASStatRegReplyAdminProhib,
    starMIPHASStatRegReplyUnspecErr,
    starMIPHASStatRegReplyNoResource,
    starMIPHASStatRegReplyMnAuthFail,
    starMIPHASStatRegReplyFAAuthFail,
    starMIPHASStatRegReplySimulBind,
    starMIPHASStatRegReplyUnknownHA,
    starMIPHASStatRegReplyRevTunUnav,
    starMIPHASStatRegReplyRevTunMand,
    starMIPHASStatRegReplyEncapUnav,
    starMIPHASStatRegReplySendError,
starMIPHASStatFARevocations,
starMIPHASStatRegAcceptHO,
starMIPHASStatRegDeniedHO,
starMIPHASStatRegDiscardTotal,
-- MIPFA Stats
starMIPFASStatVpnID,
    starMIPFASStatVpnName,
    starMIPFASStatServName,
    starMIPFASStatAdvertSend,
    starMIPFASStatDiscExpiry,
    starMIPFASStatDiscDereg,

```

```
starMIPFASStatDiscAdmin,  
starMIPFASStatAuthAttempt,  
starMIPFASStatAuthSuccess,  
starMIPFASStatAuthFailure,  
starMIPFASStatRegRcvTotal,  
starMIPFASStatRegRcvInitial,  
starMIPFASStatRegRcvRenewal,  
starMIPFASStatRegRcvDereg,  
starMIPFASStatRegAcceptTotal,  
starMIPFASStatRegAcceptInitial,  
starMIPFASStatRegAcceptRenewal,  
starMIPFASStatRegAcceptDereg,  
starMIPFASStatRegDenTotal,  
starMIPFASStatRegDenInitial,  
starMIPFASStatRegDenRenewal,  
starMIPFASStatRegDenDereg,  
starMIPFASStatRegDiscardTotal,  
starMIPFASStatRegDiscardInitial,  
starMIPFASStatRegDiscardRenewal,  
starMIPFASStatRegDiscardDereg,  
starMIPFASStatRegRelayedTotal,  
starMIPFASStatRegRelayedInitial,  
starMIPFASStatRegRelayedRenewal,  
starMIPFASStatRegRelayedDereg,  
starMIPFASStatRegAuthFailTotal,  
starMIPFASStatRegAuthFailInitial,  
starMIPFASStatRegAuthFailRenewal,  
starMIPFASStatRegAuthFailDereg,  
starMIPFASStatRegDenPDSNTotal,  
starMIPFASStatRegDenPDSNInitial,  
starMIPFASStatRegDenPDSNRenewal,  
starMIPFASStatRegDenPDSNDereg,  
starMIPFASStatRegDenHATotal,  
starMIPFASStatRegDenHAInitial,  
starMIPFASStatRegDenHARenewal,  
starMIPFASStatRegDenHADereg,  
starMIPFASStatRegDenPDSNUnspec,  
starMIPFASStatRegDenPDSNTimeout,  
starMIPFASStatRegDenPDSNAdmin,  
starMIPFASStatRegDenPDSNResources,  
starMIPFASStatRegDenPDSNMnAuth,  
starMIPFASStatRegDenPDSNHAAuth,  
starMIPFASStatRegDenPDSNTooLong,  
starMIPFASStatRegDenPDSNBadReq,  
starMIPFASStatRegDenPDSNEncapUnav,  
starMIPFASStatRegDenPDSNRevTunUnav,  
starMIPFASStatRegDenPDSNRevTunMand,  
starMIPFASStatRegDenHAFAuth,  
starMIPFASStatRegDenHABadReq,  
starMIPFASStatRegDenHAMismatchID,  
starMIPFASStatRegDenHASimulBind,  
starMIPFASStatRegDenHAUnknownHA,  
starMIPFASStatRegDenHARevRunUnavail,  
starMIPFASStatRegRplRcvTotal,  
starMIPFASStatRegRplRcvTotalRly,  
starMIPFASStatRegRplRcvErrors,  
starMIPFASStatRegRplRcvInitial,  
starMIPFASStatRegRplRcvInitialRly,  
starMIPFASStatRegRplRcvRenewal,  
starMIPFASStatRegRplRcvRenewalRly,  
starMIPFASStatRegRplRcvDereg,  
starMIPFASStatRegRplRcvDeregRly,  
starMIPFASStatRegRplSentTotal,  
starMIPFASStatRegRplSentAcceptReg,  
starMIPFASStatRegRplSentAcceptDereg,  
starMIPFASStatRegRplSentBadReq,
```

```

    starMIPFASatRegRplSentTooLong,
    starMIPFASatRegRplSentMnAuthFail,
    starMIPFASatRegRplSentHAAuthFail,
    starMIPFASatRegRplSentAdminProhib,
    starMIPFASatRegRplSentNoResources,
    starMIPFASatRegRplSentRevTunUnav,
    starMIPFASatRegRplSentRevTunMand,
    starMIPFASatRegRplSentSendErrors,
starMIPFASatRegDenPDSNBadReply,
starMIPFASatRegDenPDSNMissNAI,
starMIPFASatRegDenPDSNMissHomeAgent,
starMIPFASatRegDenPDSNMissHomeAddr,
starMIPFASatRegDenPDSNUnknChallenge,
starMIPFASatRegDenPDSNMissChallenge,
starMIPFASatRegDenPDSNStaleChallenge,
starMIPFASatRegDenPDSNMNTTooDistant,
starMIPFASatRegDenPDSNStyleUnavail,
starMIPFASatRegDenPDSNHANetUnreach,
starMIPFASatRegDenPDSNHANetUnreach,
starMIPFASatRegDenPDSNHANetUnreach,
starMIPFASatRegDenPDSNHANetUnreach,
starMIPFASatRegDenPDSNHANetUnreach,
starMIPFASatRegDenPDSNHANetUnreach,
starMIPFASatRegDenPDSNInvCOA,
starMIPFASatRegReqSentInitTotal,
starMIPFASatRegReqSentInitResend,
starMIPFASatRegReqSentRenewTotal,
starMIPFASatRegReqSentRenewResend,
starMIPFASatRegReqSentDeregTotal,
starMIPFASatRegReqSentDeregResend,
starMIPFASatRegRplSentMNTTooDistant,
starMIPFASatRegRplSentInvCOA,
starMIPFASatRegRplSentHANetUnreach,
starMIPFASatRegRplSentHAHostUnreach,
starMIPFASatRegRplSentHAPortUnreach,
starMIPFASatRegRplSentHAUnreach,
starMIPFASatRegRplSentRegTimeout,
starMIPFASatRegRplSentMissNAI,
starMIPFASatRegRplSentMissHomeAgent,
starMIPFASatRegRplSentMissHomeAddr,
starMIPFASatRegRplSentUnknChallenge,
starMIPFASatRegRplSentMissChallenge,
starMIPFASatRegRplSentStaleChallenge,
starMIPFASatRegRplSentBadReply,
-- RP stats
starRPStatVpnID,
    starRPStatVpnName,
    starRPStatServName,
    starRPRegRecvTotal,
    starRPRegAcceptTotal,
    starRPRegDeniedTotal,
    starRPRegDiscardTotal,
    starRPRegAcceptInitial,
    starRPRegAcceptInterPDSN,
    starRPRegDeniedInitial,
    starRPRegAcceptRenew,
    starRPRegDeniedRenew,
    starRPRegAcceptDereg,
    starRPRegDeniedDereg,
    starRPRegSendError,
    starRPRegHashError,
    starRPRegDecodeError,
    starRPRegUnhandled,
    starRPRegAirlinkSeqError,
    starRPRegDenyUnspec,
    starRPRegDenyAdminProhib,
    starRPRegDenyNoResource,
    starRPRegDenyAuth,
    starRPRegDenyMismatchID,

```

```

    starRPreDenyBadRequest,
    starRPreDenyUnknownPDSN,
    starRPreDenyRevTunUnav,
    starRPreDenyRevTunReq,
    starRPreDenyUnrecogVend,
    starRPreUpdTotal,
    starRPreUpdAccept,
    starRPreUpdDenied,
    starRPreUpdUnack,
    starRPreUpdTrans,
    starRPreUpdRetrans,
    starRPreUpdReceived,
    starRPreUpdDiscard,
    starRPreUpdSendError,
    starRPreUpdUplyrInit,
    starRPreUpdOther,
    starRPreUpdHandoff,
    starRPreUpdDenyUnspec,
    starRPreUpdDenyAdminProhib,
    starRPreUpdDenyAuth,
    starRPreUpdDenyMismatchID,
    starRPreUpdDenyBadRequest,
    starRPreSecViolations,
    starRPreSecBadAuth,
    starRPreSecBadID,
    starRPreSecBadSpi,
    starRPreSecMissingMnHAAuth,
    starRPreSecMissingRegUpdate,
    starRPreRegRecvInitial,
    starRPreRegAcceptActvStartIntraPDSN,
    starRPreRegAcceptActvStopIntraPDSN,
    starRPreRegRecvRenew,
    starRPreRegActvStartRenew,
    starRPreRegActvStopRenew,
    starRPreRegRecvDereg,
    starRPreRegAcceptActvStopDereg,
    starRPDiscSessAbsent,
    starRPDiscNoMemory,
    starRPDiscMalformed,
    starRPDiscAuthFail,
    starRPDiscInternalBounce,
    starRPDiscInpuQueueExceeded,
    starRPDiscMismatchedId,
    starRPDiscInvPacketLen,
    starRPDiscMisc,
        starRPlxTxBytes,
        starRPlxRxBytes,
        starRPlxTxPackets,
        starRPlxRxPackets,
        starRPDoTxBytes,
        starRPDoRxBytes,
        starRPDoTxPackets,
        starRPDoRxPackets,

    --
    starSubContext,
    starSubTimerDuration,
        starSubLongDurTimeoutAction,
    starSubSetupTime,
    starSubHomeAddr,
    starSubHomeAddrv6,
    --
    starEISServerVPNName,
    --
    starThreshMeasuredPct,
    starThreshPct,

```



## STARENT-MIB DEFINITIONS ::= BEGIN

```

        starThreshMeasuredInt,
        starThreshInt,
        starThreshMeasuredMB,
        starThreshMB,
        starThreshMeasuredGB,
        starThreshGB,
        -- Port
        starPortType,
        starPortTypeDescr,
        starPortAdminState,
        starPortOperState,
        starPortOperMode,
        starPortLinkState,
        starRedundantPortSlot,
        starRedundantPortNum,
        starPortRxBytes,
        starPortTxBytes,
        starPortRxFrames,
        starPortTxFrames,
        starPortRxDiscards,
        starPortTxDiscards,
        starPortRxEErrors,
        starPortTxErrors,
        -- IPPool
        starIPPoolVpnID,
        starIPPoolContext,
        starIPPoolGroup,
        starIPPoolName,
        starIPPoolType,
        starIPPoolState,
        starIPPoolStartAddr,
        starIPPoolMaskorEndAddr,
        starIPPoolPriority,
        starIPPoolUsed,
        starIPPoolHold,
        starIPPoolRelease,
        starIPPoolFree,
        -- IP Pool group
        starIPPoolGroupName,
        starIPPoolGroupVpnName,
        starIPPoolGroupUsed,
        starIPPoolGroupHold,
        starIPPoolGroupRelease,
        starIPPoolGroupFree,
        starIPPoolGroupPctUsed,
        starIPPoolGroupAvail,
        starLicensedSessions,
        starCurrentSessions,
        starDiameterVpnName,
        starDiameterPeerAddr,
        starDiameterEndpointName,
        starDiameterPeerName,
        starDiameterRlfContext,
        starDiameterPeerAddrIpv6,
        starInterfaceIPAddress,
        starOSPFFNeighborRouterID,
        starOSPFFFromState,
        starOSPFFToState,
        starDiameterECode,
        starDiameterRlfECode,
        starDiameterRlfTps,
        starDiameterRlfDelayTolerance,
        starDiameterRlfQueuePercent,
        starDiameterDiamproxyInstance,
        starGSSCDRLossConfigured,
        starGSSCDRLossMeasured,
        -- GGSN

```

```

        starSessGGSNVpnName,
        starSessGGSNServName,
        starSessGGSNPeerPort,
        starSessGGSNPeerAddr,
        starSessGGSNImsi,
        starSessGGSNSubsName,
        starSessGGSNAPNName,
starSessGTPPGroupName,
-- L2TP
        starL2TPContextName,
starL2TPServiceName,
starL2TPServiceTypeName,
starL2TPLocalAddress,
starL2TPPeerAddress,
-- SUB1
        starSessSub1Context,
        starSessSub1NAI,
        starSessSub1MSID,
        starSessSub1IpAddr,
starSessSub1LastResult,
        starSessSub1ServiceName,
        starSessSub1HAIPAddr,
        starSessSub1PeerIpAddr,
        starSessSub1InPackets,
        starSessSub1InPacketsDropped,
        starSessSub1InBytes,
        starSessSub1OutPackets,
        starSessSub1OutPacketsDropped,
        starSessSub1OutBytes,
        starSessSub1Activity,
        starSessSub1State,
        starSessSub1CallID,
        starSessSub1ConnectTime,
        starSessSub1CallDuration,
        starSessSub1TimeIdle,
starSessSub1AccessType,
starSessSub1AccessTech,
starSessSub1LinkStatus,
starSessSub1NetworkType,
starSessSub1CarrierID,
starSessSub1ESN,
starSessSub1GMTTimezoneOffset,
starSessSub1SessMgr,
starSessSub1RemoteIPAddr,
starSessSub1Card,
starSessSub1CPU,
starSessSub1TimeIdleLeft,
starSessSub1TimeLeft,
starSessSub1TimeLongDurLeft,
starSessSub1LongDurAction,
starSessSub1AlwaysOn,
starSessSub1IPPoolName,
starSessSub1VLANID,
starSessSub1LNSIPAddr,
starSessSub1ProxyMIP,
starSessSub1GGSNMIP,
starSessSub1HomeAgentIpAddr,
starSessSub1LocalIPAddr,
starSessSub1FAServiceName,
starSessSub1FAVPNName,
starSessSub1SourceVPN,
starSessSub1DestVPN,
starSessSub1AAAVPN,
starSessSub1AAADomain,
starSessSub1AAASStart,
starSessSub1AAASStop,

```

```
starSessSublAAAIInterim,
starSessSublAcctSessionID,
starSessSublAAARadiusGroup,
starSessSublAAARadiusAuthServerIPAddr,
starSessSublAAARadiusAcctServerIPAddr,
starSessSublNASIPAddr,
starSessSublNexthopIPAddr,
starSessSublActiveInACL,
starSessSublActiveOutACL,
starSessSublECSRulebase,
starSessSublInPlcyGrp,
starSessSublOutPlcyGrp,
starSessSublDownTrafPolState,
starSessSublDownCommDataRate,
starSessSublDownPeakDataRate,
starSessSublDownBurstSize,
starSessSublDownExceedAction,
starSessSublDownViolateAction,
starSessSublDownExceed,
starSessSublDownViolate,
starSessSublUpTrafPolState,
starSessSublUpCommDataRate,
starSessSublUpPeakDataRate,
starSessSublUpBurstSize,
starSessSublUpExceedAction,
starSessSublUpViolateAction,
starSessSublUpExceed,
starSessSublUpViolate,
starSessSublL3TunnelingState,
starSessSublL3TunLocalIPAddr,
starSessSublL3TunRemoteIPAddr,
starSessSublAddrViaDHCP,
starSessSublDHCPServName,
starSessSublDHCPServIPAddr,
starSessSublAccessLinkIPFrag,
starSessSublIgnoreDFBit,
starSessSublMIPGratARPMODE,
starSessSublExtInlSrvrProc,
starSessSublExtInlSrvrIngrIPAddr,
starSessSublExtInlSrvrIngrVLANTag,
starSessSublExtInlSrvrEgrIPAddr,
starSessSublExtInlSrvrEgrVLANTag,
starSessSublExtInlSrvrVPNName,
starSessSublRadAcctMode,
starSessSublInBytesDropped,
starSessSublOutBytesDropped,
starSessSublPeakBPSTx,
starSessSublPeakBPSRx,
starSessSublAveBPSTx,
starSessSublAveBPSRx,
starSessSublSustBPSTx,
starSessSublSustBPSRx,
starSessSublPeakPPSTx,
starSessSublPeakPPSRx,
starSessSublAvePPSTx,
starSessSublAvePPSRx,
starSessSublSustPPSTx,
starSessSublSustPPSRx,
starSessSublActivePct,
starSessSublIPv4BadHdr,
starSessSublIPv4TtlExceeded,
starSessSublIPv4FragSent,
starSessSublIPv4FragFail,
starSessSublIPv4InACLDrop,
starSessSublIPv4OutACLDrop,
starSessSublIPv4InCSSDownDrop,
starSessSublIPv4OutCSSDownDrop,
```

```

starSessSub1IPv4OutXOFFDropPkt,
starSessSub1IPv4OutXOFFDropByte,
starSessSub1IPv4SrcViol,
starSessSub1IPv4ProxyDNSRedir,
starSessSub1IPv4SrcProxyDNSPThru,
starSessSub1IPv4ProxyDNSDrop,
starSessSub1IPv4SrcViolNoAcct,
starSessSub1IPv4SrcViolIgnored,
starSessSub1ExtInlSrvrTxPkt,
starSessSub1ExtInlSrvrRxPkt,
starSessSub1IPv4ICMPDropPkt,
starSessSub1TunnelType,
starSessSub1IPSECTunDownDropPkt,
starSessSub1IPSECFlowID,
starSessSub1DormancyTotal,
starSessSub1HandoffTotal,
starSessSub1AccessFlows,
starSessSub1TFT,
starSessSub1NASPort,
starSessSub1AcctSessionID,
starSessSub1CorrID,
starSessSub1L2TPPeerIPAddr,
starSessSub1IPv4EarlyPDUREcv,
--
starIPSECContextName,
    starIPSECGroupName,
    starIPSECTunLocalIpAddr,
    starIPSECTunRemoteIpAddr,
starIPSECPolicyName,
starIPSECDynPolicyType,
starIPSECDynPolicyPayloadType,
starIPSECLocalGateway,
starIPSECRemoteGateway,
-- SIPRoute
    starSIPRouteVpnName,
    starSIPRouteVmgName,
    starSIPRouteAsName,
    starSIPRouteDestPartyNum,
    starSIPRouteReqNum,
-- SIPRouteServer
    starSIPRouteServerVpnName,
    starSIPRouteServerVmgName,
    starSIPRouteServerAsName,
    starSIPRouteServerIpAddr,
-- VIMService
    starVIMServiceVpnName,
    starVIMServiceFMDMaxCallRate,
starVIMServiceFMDContinuousLoadCount,
-- GSS
starGSSClusterName,
starGSSClusterNodeName,
starGSSClusterRgName,
starGSSClusterRsName,
starGSSClusterNodeState,
starGSSClusterPrevOnlineNode,
starGSSClusterFromNode,
starGSSClusterToNode,
starGSSDiskPath,
starGSSTransportPath,
starGSSIPMPGroupName,
starGSSInterfaceName,
    -- RP Service Option
starRPServiceOptionCalls,
-- PCF Status
starPCFStatVpnName,
starPCFStatRxPkts,

```

```

starPCFStatTxPkts,
starPCFStatRxBytes,
starPCFStatTxBytes,
starPCFStatTotalSessions,
starPCFStatCurrentSessions,
starPCFStatCurrentActiveSessions,
starPCFStatCurrentDormantSessions,
starPCFStatCurrentSIPConnected,
starPCFStatCurrentMIPConnected,
starPCFStatCurrentPMIPConnected,
starPCFStatCurrentL2TPLACConnected,
starPCFStatCurrentOtherConnected,
-- PCF Service Stats
starPCFVpnID,
    starPCFVpnName,
starPCFServName,
    starPCFRrqRcvd,
    starPCFRrqAccepted,
    starPCFRrqDenied,
    starPCFRrqDiscarded,
    starPCFInitialRrqRcvd,
    starPCFInitialRrqAccepted,
    starPCFIntraPDSNActiveHORrqAccepted,
    starPCFIntraPDSNDormantHORrqAccepted,
    starPCFInterPDSNHORrqAccepted,
    starPCFInitialRrqDenied,
    starPCFInitialRrqDiscarded,
    starPCFRenewRrqRcvd,
    starPCFRenewRrqAccepted,
    starPCFRenewActiveRrqAccepted,
    starPCFRenewDormantRrqAccepted,
    starPCFRenewRrqDenied,
    starPCFRenewRrqDiscarded,
    starPCFDeregRrqRcvd,
    starPCFDeregRrqAccepted,
    starPCFDeregDormantRrqAccepted,
    starPCFDeregRrqDenied,
    starPCFDeregRrqDiscarded,
    starPCFIntraPDSNActiveAnidHORrqAccepted,
    starPCFIntraPDSNDormantAnidHORrqAccepted,
starPCFDeniedUnSpeReason,
    starPCFDeniedAdmProh,
    starPCFDeniedInsufResource,
    starPCFDeniedMobNodeAuthFail,
    starPCFDeniedIdentMismatch,
    starPCFDeniedPoorFormedReq,
    starPCFDeniedUnknownPDSNAddr,
    starPCFDeniedRevTunnelUnavail,
    starPCFDeniedRevTunnelRequire,
    starPCFDeniedUnrecogVendorId,
    starPCFDeniedSessionClosed,
    starPCFDeniedBsnSessionInfoUnavail,
    starPCFRegUpdTransmitted,
    starPCFRegUpdAccepted,
    starPCFRegUpdateRpLifetimeExpiry,
    starPCFRegUpdateUpperLayerIntiated,
    starPCFRegUpdateOtherReason,
    starPCFRegUpdateHORelease,
    starPCFRegUpdateSessmgrDied,
    starPCFAuxA10ConnectionsSetup,
    starPCFSessionsDenied,
    starPCFSessionsInit,
    starPCFSessionsReneg,
    starPCFDiscLcpRemote,
    starPCFDiscRpRemote,
    starPCFDiscRpLocal,
    starPCFDiscMaxIpcpRetr,

```

```

    starPCFDiscMaxIpv6cpRetr,
    starPCFDiscMaxLcpRetr,
    starPCFDiscAuthFail,
    starPCFDiscSessSetupTimeout,
    starPCFDiscFlowAddFail,
    starPCFDiscInvDestContext,
    starPCFDiscLcpOptFail,
    starPCFDiscIpcpOptFail,
    starPCFDiscIpv6cpOptFail,
    starPCFDiscNoRemIpAddr,
    starPCFDiscDetectionFail,
    starPCFDiscMisc,
    starPCFCurrentSessions,
    starPCFSessionsSetup,
    starPCFSessionsRelse,
    starPCFCurrentRevaSessions,
    starPCFRevaSessionsSetup,
    starPCFRevaSessionsRelse,
-- PDIF System
starPDIFSysStatus,
starPDIFSysNumService,
starPDIFSysSessCurrent,
starPDIFSysSessCurrActive,
starPDIFSysSessCurrDormant,
starPDIFSysSessTtlSetup,
starPDIFSysChildSACurrent,
-- PDIF Service
starPDIFVpnID,
starPDIFVpnName,
starPDIFServName,
starPDIFStatus,
starPDIFSessCurrent,
starPDIFSessRemain,
starPDIFSessCurrentActive ,
starPDIFSessCurrentDormant ,
starPDIFSessCurrentIpv6Active,
starPDIFSessCurrentIpv6Dormant,
starPDIFSessCurrentIpv4Active,
starPDIFSessCurrentIpv4Dormant,
starPDIFBindIpAddress,
starPDIFBindIpPort,
starPDIFBindSlot,
starPDIFBindPort,
-- SGSN Service
starSessSGSNVpnName,
starSessSGSNServName,
starSessSGSNMcc,
starSessSGSNMnc,
starSessSGSNRncId,
starSessSGSNHlrNum,
-- SS7Rd
starSS7Pc,
starSS7M3UAPsId,
starSS7M3UAPspId,
starSS7MTP3LinkSetId,
starSS7MTP3LinkId,
starSS7SCTPSelfAddr,
starSS7SCTPPeerAddr,
starSS7SCTPSelfPort,
starSS7SCTPPeerPort,
--SCCPNw
starSccpSsn,
--SGTPServ
starSGTPVpnName,
starSGTPServName,
starSGTPSelfAddr,

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

starSGTTPeerAddr,
starSGTPSelfPort,
starSGTTPeerPort,
--IPMS
starIPMSServerVpnName,
--Certs
starCertExpiryTime,
starCertIssuer,
--Files
starFileApplication,
--FTP Servers
starFTPServVpnName,
    ---CSCF Peer Server
    starCSCFPeerServerVpnName,
    starCSCFPeerServerSvcName,
    starCSCFPeerServerListName,
    starCSCFPeerServerName,
starCSCFPeerServerState,
-- SDH/E1
starSDHOperState,
starSDHPathOperState,
starE1TribOperStateLOP,
starE1TribOperState,
starFractE1TribTimeslots,
    --GPRSServ
    starGPRSNsvci,
    starGPRSBvci,
--Storage
starStorageDeviceType,
-- PDG System
starPDGSysStatus,
starPDGSysNumService,
starPDGSysSessCurrent,
starPDGSysSessCurrActive,
starPDGSysSessCurrDormant,
starPDGSysSessTtlSetup,
starPDGSysChildSACurrent,
-- PDG Service
starPDGVpnID,
starPDGVpnName,
starPDGServName,
starPDGStatus,
starPDGSessCurrent,
starPDGSessRemain,
starPDGSessCurrentActive ,
starPDGSessCurrentDormant ,
starPDGSessCurrentIpv6Active,
starPDGSessCurrentIpv6Dormant,
starPDGSessCurrentIpv4Active,
starPDGSessCurrentIpv4Dormant,
starPDGBindIpAddress,
starPDGBindIpPort,
starPDGBindSlot,
starPDGBindPort,
    --EGTPServ
-- PDG System
starPDGSysStatus,
starPDGSysNumService,
starPDGSysSessCurrent,
starPDGSysSessCurrActive,
starPDGSysSessCurrDormant,
starPDGSysSessTtlSetup,
starPDGSysChildSACurrent,
-- PDG Service
starPDGVpnID,
starPDGVpnName,
starPDGServName,

```

```

starPDGStatus,
starPDGSessCurrent,
starPDGSessRemain,
starPDGSessCurrentActive ,
starPDGSessCurrentDormant ,
starPDGSessCurrentIpv6Active,
starPDGSessCurrentIpv6Dormant,
starPDGSessCurrentIpv4Active,
starPDGSessCurrentIpv4Dormant,
starPDGBindIpAddress,
starPDGBindIpPort,
starPDGBindSlot,
starPDGBindPort,
    --EGTPServ
starEGTPVpnName,
starEGTPServName,
starEGTPInterfaceType,
starEGTPSelfPort,
starEGTPSelfAddr,
starEGTPPeerPort,
starEGTPPeerAddr,
starEGTPPeerOldRstCnt,
starEGTPPeerNewRstCnt,
starEGTPPeerSessCnt,
starEGTPPeerOldRstCnt,
starEGTPFailureReason,
    starLicenseKey,
    starLicenseExpiryDate,
    starLicenseDaysRemaining,
    starLicenseDaysAfterExpiry,
-- FNG System
starFNGSysStatus,
starFNGSysNumService,
starFNGSysSessCurrent,
starFNGSysSessCurrActive,
starFNGSysSessCurrDormant,
starFNGSysSessTtlSetup,
starFNGSysChildSACurrent,
-- FNG Service
starFNGVpnID,
starFNGVpnName,
starFNGServName,
starFNGStatus,
starFNGSessCurrent,
starFNGSessRemain,
starFNGSessCurrentActive ,
starFNGSessCurrentDormant ,
starFNGSessCurrentIpv6Active,
starFNGSessCurrentIpv6Dormant,
starFNGSessCurrentIpv4Active,
starFNGSessCurrentIpv4Dormant,
starFNGBindIpAddress,
starFNGBindIpPort,
starFNGBindSlot,
starFNGBindPort,
-- MME S1 Assoc
starMMES1AssocVpnName,
starMMES1AssocServName,
-- MME S1 Path
starMMES1PathVpnName,
starMMES1PathServName,
starMMES1PathSelfAddr,
starMMES1PathSelfPort,
starMMES1PathPeerAddr,
starMMES1PathPeerPort,
--SPR Server

```



## STARENT-MIB DEFINITIONS ::= BEGIN

```

    starSPRServerIpAddr,
    -- HNBGW Service
    starSessHNBGWVpnName,
    starSessHNBGWServName,
    starSessHNBGWCsNwName,
    starSessHNBGWPsNwName,
    starSessHNBGWSgsnPtCd,
    starSessHNBGWMscPtCd,
    -- HENBGW Service
    starHENBGWServiceVpnName,
    starHENBGWServiceServName,
    starHENBGWServiceLogicalENBId,
    starHENBGWServiceMMEServName,
    starHENBGWServicePeerAddr,
    starHENBGWServicePeerPort,
    starHENBGWServiceTLRI,
    -- ALCAP Service
    starSessALCAPVpnName,
    starSessALCAPServName,
    starSessALCAPAAL2NodeName,
    starSessALCAPPathId,
    -- MVG Service
    starMVGEndpointName,
        starMVGCauseCode,
        starMVGProtocolType,
        starPCCntfyIntfPeerName,
        -- PMIP --
        starPMIPVpnName,
        starPMIPServName,
        starPMIPSelfAddrType,
        starPMIPSelfAddr,
        starPMIPPeerAddrType,
        starPMIPPeerAddr,
        starPMIPPeerOldRstCnt,
        starPMIPPeerNewRstCnt,
        starPMIPPeerSessCnt,
        starPMIPFailureReason,
    -- CBS Service
    starCBSServiceVpnName,
    starIuBcSelfPortNum,
    starIuBcSelfIpAddr,
    starIuBcPeerPortNum,
    starIuBcPeerIpAddr,
    starIuBcTcpConnCauseStr,
    -- RLF --
    starGTPCRLFSessMgrInst,
    starGTPCRLFVPNName,
    starGTPCRLFVPNId,
    starGTPCRLFContextName,
    starGTPCRLFCurrAppTPS,
    starGTPCRLFCurrAppDelayTol
}
STATUS current
DESCRIPTION
    "A collection of objects providing information about a chassis"
::= { starentMIBGroups 1 }

starAlertGroup OBJECT-GROUP
    OBJECTS { starMaxAlertsPerTime,
        starWindowTime,
        starAlertSendingEnabled }
STATUS current
DESCRIPTION
    "A collection of objects to control the rate at which traps can be generated"
::= { starentMIBGroups 3 }

starAlertTrapGroup NOTIFICATION-GROUP

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

NOTIFICATIONS { starAlertsDisabled,
                 starAlertsEnabled }
STATUS current
DESCRIPTION
    "A collection of traps related to trap thresholding"
::= { starentMIBGroups 4 }

```

```

starTrapGroup NOTIFICATION-GROUP
    NOTIFICATIONS { starCardTempOverheat,
                   starCardTempOK,
                   starCardRebootRequest,
                   starCardUp,
                   starCardVoltageFailure,
                   starCardRemoved,
                   starCardInserted,
                   starCardBootFailed,
                   starCardMismatch,
                   starCardPACMigrateStart,
                   starCardPACMigrateComplete,
                   starCardPACMigrateFailed,
                   starCardSPCSwitchoverStart,
                   starCardSPCSwitchoverComplete,
                   starCardSPCSwitchoverFailed,
                   starFanFailed,
                   starFanRemoved,
                   starFanInserted,
                   starCPUBusy,
                   starCPUMemoryLow,
                   starCPUMemoryFailed,
                   starCPUFailed,
                   starCPUWatchDogExpired,
                   starNPUARPPoolExhausted,
                   starPowerFilterUnitFailed,
                   starPowerFilterUnitUnavail,
                   starPowerFilterUnitAvail,
                   starAlertsDisabled,
                   starAlertsEnabled,
                   starAAAAuthServerUnreachable,
                   starAAAAuthServerReachable,
                   starAAAAuthServerMisconfigured,
                   starAAAAccServerUnreachable,
                   starAAAAccServerReachable,
                   starAAAAccServerMisconfigured,
                   starLogMsg,
                   starPDSNServiceStart,
                   starPDSNServiceStop,
                   starHAServiceStart,
                   starHAServiceStop,
                   starFAServiceStart,
                   starFAServiceStop,
                   starCLISessionStart,
                   starCLISessionEnd,
                   starCritTaskFailed,
                   starCardActive,
                   starLACServiceStart,
                   starLACServiceStop,
                   starLNSServiceStart,
                   starLNSServiceStop,
                   starCardDown,
                   starGGSNServiceStart,
                   starGGSNServiceStop,
                   starLicenseExceeded,
                   starSubscriberLimit,
                   starSessionRejectNoResource,
                   starSIPServiceStart,
                   starSIPServiceStop,

```

```

        starVIMServiceStart,
        starVIMServiceStop,
        starCHATCONFSERVICEStart,
        starCHATCONFSERVICEStop,
starSIPRouteNomatch,
starL3AddrUnreachable,
starSWUpgradeStart,
starSWUpgradeComplete,
starSWUpgradeAborted,
starBGPPEerSessionUp,
starBGPPEerSessionDown,
starSRPActive,
starSRPStandby,
starBGPPEerReachable,
starBGPPEerUnreachable,
starSRPAAAReachable,
starSRPAAAUreachable,
starSRPSwitchoverInitiated,
starSRPCheckpointFailure,
starSRPConfigOutOfSync,
starSRPConfigInSync,
starGESwitchFailure,
starSIPRouteServerAvailable,
starSIPRouteServerUnavailable,
starFMDMaxCallRateReached,
starFMDCallRateUnderControl,
starStorageServerCPUBusy,
starStorageServerCPUNormal,
starStorageServerDiskSpaceLow,
starStorageServerDiskSpaceOK,
starCardSPOFAlarm,
starCardSPOFClear,
starStorageServerOldGcdrPending,
starStorageServerOldGcdrCleared,
starLoginFailure,
starIPSGSERVICEStart,
starIPSGSERVICEStop,
starHAUnreachable,
starHAReachable,
starASNGWSERVICEStart,
starASNGWSERVICEStop,
starTaskFailed,
starTaskRestart,
starCSCFSERVICEStart,
starCSCFSERVICEStop,
        starPHSGWSERVICEStart,
        starPHSGWSERVICEStop,
        starPHSPCSERVICEStart,
        starPHSPCSERVICEStop,
starIPSECDynTunUp,
starIPSECDynTunDown,
starHeartbeat,
starOverloadSystem,
starOverloadSystemClear,
starOverloadService,
starOverloadServiceClear,
starStorageServerClusterStateChange,
starStorageServerClusSwitchOver,
starStorageServerClusPathFail,
starStorageServerClusPathOK,
starStorageServerClusInterCFail,
starStorageServerClusInterCOK,
starStorageServerClusIntfFail,
starStorageServerClusIntfOK,
starStorageServerMemLow,
starStorageServerMemNormal,
        starLongDurTimerExpiry,

```

```

        starClosedRPServiceStart,
        starClosedRPServiceStop,
        starGtpcPathFailure,
        starGtpuPathFailure,
        starManagerFailure,
        starEISServerAlive,
        starEISServerDead,
        starCgfAlive,
        starCgfDead,
starCdrPurged,
        starAAAArchiveStarted,
starIPSecNodeIpv6PeerDown,
starIPSecNodeIpv6PeerUp,
        starVLRAssocDown,
        starVLRAssocUp,
        starVLRAllAssocDown,
        starVLRAllAssocDownClear,
        starVLRDown,
        starVLRUp,
        starStorageServerAlive,
        starStorageServerDead,
        starGgsnInitiatedUpdtFailed,
starCongestion,
starCongestionClear,
starCscfSessResourceCongestion,
starCscfSessResourceCongestionClear,
starServiceLossPTACs,
starServiceLossLC,
starServiceLossSPIO,
starIPSPAllAdrsFree,
starPCFUnreachable,
starPCFReachable,
starLIRcvryError,
starLIRcvryComplete,
starCGWServiceStart,
starCGWServiceStop,
starDhcpAlive,
starDhcpDead,
starDhcpServiceStarted,
starDhcpServiceStopped,
        starNTPPeerUnreachable,
        starNTPSyncLost,
        starL2TPTunnelDownPeerUnreachable,
        starCardStandby,
        starLicenseUnderLimit,
        starIPSECPriTunDown,
        starIPSECPriTunUp,
        starIPSECSecTunDown,
        starIPSECSecTunUp,
        starIPSECTunSwitchFail,
        starIPSECTunSwitchComplete,
        starNwReachServerAlive,
        starNwReachServerDead,
        starStorageServerUnackedGcdrVolPurge,
        starStorageServerUnackedGcdrFileGen,
starNTPPeerReachable,
starNTPSyncEstablished,
        starContFiltDBError,
        starContFiltDBErrorClear,
        starBLDBError,
        starBLDBErrorClear,
        starContFiltDBUpgradeError,
        starContFiltDBUpgradeErrorClear,
        starBLDBUpgradeError,
        starBLDBUpgradeErrorClear,
        starDynPkgLoadError,

```

```

        starDynPkgLoadErrorClear,
        starDynPkgUpgradeError,
        starDynPkgUpgradeErrorClear,
starPDIFServiceStart,
        starPDIFServiceStop,
        starSessMgrRecoveryComplete,
        starSessMgrFlowCount,
        starSessMgrFlowCountClear,
        starDiameterPeerDown,
        starDiameterPeerUp,
        starDiameterServerUnreachable,
        starDiameterServerReachable,
starDiameterCapabilitiesExchangeSuccess,
starDiameterCapabilitiesExchangeFailure,
starDiameterRlfThresholdOver,
starDiameterRlfThresholdGood,
starDiameterRlfOverLimit,
        starCDRFileRemoved,
        starCSCFPeerServerReachable,
        starCSCFPeerServerUnreachable,
        starCSCFPeerServerUnavailable,
        starCSCFPeerServerOutOfService,
        starCSCFPeerServerInService,
        starCLIConfigMode,
        starSGSNServiceStart,
        starSGSNServiceStop,
        starM3UAPCUnavailable,
        starM3UAPCAvailable,
        starECSTotalDNSLearntIPv4Threshold,
        starECSTotalDNSLearntIPv4ThresholdClear,
        starECSTotalDNSLearntIPv6Threshold,
        starECSTotalDNSLearntIPv6ThresholdClear,
        starM3UAPSDown,
        starM3UAPSAvailable,
        starM3UAPSPDown,
        starM3UAPSPUp,
        starSCCPSspRcvd,
        starSCCPSspClear,
        starSGSNRNCReset,
        starSGSNHLRReset,
        starSGSNGtpcPathFailure,
        starSGSNGtpcPathFailureClear,
        starSGSNGtpuPathFailure,
        starSGSNGtpuPathFailureClear,
        starMTP3LinkOutOfService,
        starMTP3LinkInService,
        starMTP3LinkSetUnAvailable,
        starMTP3LinkSetAvailable,
        starSCTPAssociationFail,
        starSCTPAssociationEstablished,
        starSCTPPathDown,
        starSCTPPathUp,
        starMTP3PCUnavailable,
        starMTP3PCAvailable,
        starSS7PCUnavailable,
        starSS7PCAvailable,
        starSS7PCCongested,
        starSS7PCCongestionCleared,
        starM3UAPSPCongested,
        starM3UAPSPCongestionCleared,
starStorageFailed,
starRaidFailed,
starRaidStarted,
starRaidDegraded,
starRaidRecovered,
        starHENBGWMMESCTPAssocDown,
starHENBGWMMESCTPAssocUp,

```

```
starHENBGWMMESCTPAllAssocDown,
starHENBGWMMESCTPAllAssocDownClear,
starECSreaddressServerDown,
starECSreaddressServerUp,
starStorageFound,
starStorageNotFound,
    starThreshCPUUtilization,
    starThreshClearCPUUtilization,
    starThreshCPUMemory,
    starThreshClearCPUMemory,
    starThreshCPUCryptoCoresUtilization,
    starThreshClearCPUCryptoCoresUtilization,
    starThreshLicense,
    starThreshClearLicense,
    starThreshSubscriberTotal,
    starThreshClearSubscriberTotal,
    starThreshSubscriberActive,
    starThreshClearSubscriberActive,
    starThreshPortRxUtil,
    starThreshClearPortRxUtil,
    starThreshPortTxUtil,
    starThreshClearPortTxUtil,
    starThreshPortHighActivity,
    starThreshClearPortHighActivity,
    starThreshAAAAAuthFail,
    starThreshClearAAAAAuthFail,
    starThreshAAAAAuthFailRate,
    starThreshClearAAAAAuthFailRate,
    starThreshAAAAacctFail,
    starThreshClearAAAAacctFail,
    starThreshAAAAacctFailRate,
    starThreshClearAAAAacctFailRate,
    starThreshAAARetryRate,
    starThreshClearAAARetryRate,
    starThreshCallSetup,
    starThreshClearCallSetup,
    starThreshCallSetupFailure,
    starThreshClearCallSetupFailure,
    starThreshCallRejectNoResource,
    starThreshClearCallRejectNoResource,
    starThreshPacketsFilteredDropped,
    starThreshClearPacketsFilteredDropped,
    starThreshPacketsForwarded,
    starThreshClearPacketsForwarded,
    starThreshSessCPUThroughput,
    starThreshClearSessCPUThroughput,
    starThreshIPPoolAvail,
    starThreshClearIPPoolAvail,
    starThreshCPUUtilization10Sec,
    starThreshClearCPUUtilization10Sec,
    starThreshCPULoad,
    starThreshClearCPULoad,
    starThreshCPUMemUsage,
    starThreshClearCPUMemUsage,
    starThreshPDSNSessions,
    starThreshClearPDSNSessions,
    starThreshGGSNSessions,
    starThreshClearGGSNSessions,
    starThreshHASessions,
    starThreshClearHASessions,
    starThreshLNSSessions,
    starThreshClearLNSSessions,
    starThreshPerServicePDSNSessions,
    starThreshClearPerServicePDSNSessions,
    starThreshPerServicePDGSessions,
    starThreshClearPerServicePDGSessions,
```

```

        starThreshPerServiceGGSNSessions,
        starThreshClearPerServiceGGSNSessions,
        starThreshPerServiceHASessions,
        starThreshClearPerServiceHASessions,
        starThreshPerServiceLNSSessions,
        starThreshClearPerServiceLNSSessions,
        starThreshIPPoolHold,
        starThreshClearIPPoolHold,
        starThreshIPPoolUsed,
        starThreshClearIPPoolUsed,
        starThreshIPPoolRelease,
        starThreshClearIPPoolRelease,
        starThreshIPPoolFree,
        starThreshClearIPPoolFree,
        starThreshAAAacctArchive,
        starThreshClearAAAacctArchive,
starThreshPortSpecRxUtil,
starThreshClearPortSpecRxUtil,
starThreshPortSpecTxUtil,
starThreshClearPortSpecTxUtil,
        starThreshHACallSetupRate,
        starThreshClearHACallSetupRate,
        starThreshHASvcCallSetupRate,
        starThreshClearHASvcCallSetupRate,
        starThreshHASvcRegReplyError,
        starThreshClearHASvcRegReplyError,
        starThreshHASvcReregReplyError,
        starThreshClearHASvcReregReplyError,
        starThreshHASvcDeregReplyError,
        starThreshClearHASvcDeregReplyError,
        starThreshFASvcRegReplyError,
        starThreshClearFASvcRegReplyError,
        starThreshPDSNCallSetupRate,
        starThreshClearPDSNCallSetupRate,
        starThreshPDSNSvcCallSetupRate,
        starThreshClearPDSNSvcCallSetupRate,
        starThreshPDSNSvcAllRRPFailure,
        starThreshClearPDSNSvcAllRRPFailure,
        starThreshPDSNSvcAllRRQMsgDiscard,
        starThreshClearPDSNSvcAllRRQMsgDiscard,
        starThreshPDSNSvcAllRACMsgDiscard,
        starThreshClearPDSNSvcAllRACMsgDiscard,
        starThreshPDSNSvcAllPPPSendDiscard,
        starThreshClearPDSNSvcAllPPPSendDiscard,
starThreshAAAMgrQueue,
starThreshClearAAAMgrQueue,
        starThreshAAAacctArchiveQueue1,
        starThreshClearAAAacctArchiveQueue1,
        starThreshAAAacctArchiveQueue2,
        starThreshClearAAAacctArchiveQueue2,
        starThreshAAAacctArchiveQueue3,
        starThreshClearAAAacctArchiveQueue3,
        starThreshDnsLookupSrvFailure,
        starThreshClearDnsLookupSrvFailure,
starThreshCPUOrbsWarn,
starThreshClearCPUOrbsWarn,
starThreshCPUOrbsCritical,
starThreshClearCPUOrbsCritical,
starThreshRPSetupFailRate,
starThreshClearRPSetupFailRate,
starThreshPPPSetupFailRate,
starThreshClearPPPSetupFailRate,
starThreshStorageUtilization,
starThreshClearStorageUtilization,
starThreshDCCAProtocolErrors,
starThreshClearDCCAProtocolErrors,
starThreshDCCABadAnswers,

```

```

starThreshClearDCCABadAnswers,
starThreshDCCAUnknownRatingGroup,
starThreshClearDCCAUnknownRatingGroup,
starThreshDCCARatingFailed,
starThreshClearDCCARatingFailed,
starThreshIPSECIKERequests,
starThreshClearIPSECIKERequests,
starThreshIPSECIKEFailures,
starThreshClearIPSECIKEFailures,
starThreshIPSECIKEFailRate,
starThreshClearIPSECIKEFailRate,
starThreshIPSECTunSetup,
starThreshClearIPSECTunSetup,
starThreshIPSECTunEstabl,
starThreshClearIPSECTunEstabl,
starThreshIPSECCallReqRej,
starThreshClearIPSECCallReqRej,
    starThreshEPDGIKEV2SetupAttempts,
    starThreshClearEPDGIKEV2SetupAttempts,
    starThreshEPDGIKEV2AuthFailures,
    starThreshClearEPDGIKEV2AuthFailures,
    starThreshEPDGIKEV2SetupSuccess,
    starThreshClearEPDGIKEV2SetupSuccess,
    starThreshEPDGIKEV2SetupFailure,
    starThreshClearEPDGIKEV2SetupFailure,
    starThreshEPDGIKEV2SetupFailureRate,
    starThreshClearEPDGIKEV2SetupFailureRate,
starThreshCSCFSvcRouteFailure,
starThreshClearCSCFSvcRouteFailure,
starThreshCSCFSvcRegRcvdRate,
starThreshClearCSCFSvcRegRcvdRate,
starThreshCSCFSvcTotalActiveReg,
starThreshClearCSCFSvcTotalActiveReg,
starThreshCSCFSvcInviteRcvdRate,
starThreshClearCSCFSvcInviteRcvdRate,
starThreshCSCFSvcTotalActiveCalls,
starThreshClearCSCFSvcTotalActiveCalls,
starThreshCSCFSvcTotalCallFailure,
starThreshClearCSCFSvcTotalCallFailure,
starThreshCSCFSvcErrorNoResource,
starThreshClearCSCFSvcErrorNoResource,
starThreshCSCFSvcErrorTcp,
starThreshClearCSCFSvcErrorTcp,
starThreshCSCFSvcErrorPresence,
starThreshClearCSCFSvcErrorPresence,
starThreshCSCFSvcErrorRegAuth,
starThreshClearCSCFSvcErrorRegAuth,
    starThreshContFiltRating,
    starThreshClearContFiltRating,
    starThreshContFiltBlock,
    starThreshClearContFiltBlock,
        starThreshCDRFileSpace,
        starThreshClearCDRFileSpace,
        starThreshEDRFileSpace,
        starThreshClearEDRFileSpace,
starThreshPDIFCurrSess,
starThreshClearPDIFCurrSess,
starThreshPDIFCurrActSess,
starThreshClearPDIFCurrActSess,
starThreshCDRFlowControl,
starThreshSGSNSsessions,
starThreshClearSGSNSsessions,
starThreshPerServiceSGSNSsessions,
    starThreshClearPerServiceSGSNSsessions,
    starThreshSGSNPdpSessions,
    starThreshClearSGSNPdpSessions,

```



```

    starThreshPerServiceSGSNPdpSessions,
    starThreshClearPerServiceSGSNPdpSessions,
starThreshClearCDRFlowControl,
    starThreshASNGWSessTimeout,
    starThreshClearASNGWSessTimeout,
    starThreshASNGWSessSetupTimeout,
    starThreshClearASNGWSessSetupTimeout,
    starThreshASNGWAuthFail,
    starThreshClearASNGWAuthFail,
    starThreshASNGWMaxEAPRetry,
    starThreshClearASNGWMaxEAPRetry,
    starThreshASNGWNWEntryDenial,
    starThreshClearASNGWNWEntryDenial,
    starThreshASNGWHandoffDenial,
    starThreshClearASNGWHandoffDenial,
    starThreshPHSGWSessTimeout,
    starThreshClearPHSGWSessTimeout,
    starThreshPHSGWSessSetupTimeout,
    starThreshClearPHSGWSessSetupTimeout,
    starThreshPHSGWAuthFail,
    starThreshClearPHSGWAuthFail,
    starThreshPHSGWMaxEAPRetry,
    starThreshClearPHSGWMaxEAPRetry,
    starThreshPHSGWNWEntryDenial,
    starThreshClearPHSGWNWEntryDenial,
    starThreshPHSGWHandoffDenial,
    starThreshClearPHSGWHandoffDenial,
    starThreshASNGWSessions,
    starThreshClearASNGWSessions,
    starThreshPerServiceASNGWSessions,
    starThreshClearPerServiceASNGWSessions,
    starThreshPHSPCSessSetupTimeout,
    starThreshClearPHSPCSessSetupTimeout,
    starThreshPHSPCSleepModeTimeout,
    starThreshClearPHSPCSleepModeTimeout,
    starThreshPHSPCSmEntryDenial,
    starThreshClearPHSPCSmEntryDenial,
    starThreshSGWSessions,
starThreshClearSGWSessions,
    starThreshPGWSessions,
starThreshClearPGWSessions,
starThreshLMASessions,
    starThreshClearLMASessions,
starThreshMAGSessions,
starThreshClearMAGSessions,
starThreshHSGWSessions,
starThreshClearHSGWSessions,
    starThreshHENBGWWhenbSessions,
starThreshClearHENBGWWhenbSessions,
    starThreshHENBGWUeSessions,
starThreshClearHENBGWUeSessions,
starThreshHENBGWPagingMessages,
starThreshClearHENBGWPagingMessages,
    starThreshPHSGWEAPOLAuthFailure,
    starThreshClearPHSGWEAPOLAuthFailure,
    starThreshPHSGWMaxEAPOLRetry,
    starThreshClearPHSGWMaxEAPOLRetry,
starThreshFWDosAttack,
starThreshClearFWDosAttack,
starThreshFWDropPacket,
starThreshClearFWDropPacket,
starThreshFWDenyRule,
starThreshClearFWDenyRule,
starThreshFWNoRule,
starThreshClearFWNoRule,
starSRPConnDown,
starSRPConnUp,

```

```

starThreshNATPortChunks,
    starThreshClearNATPortChunks,
starThreshClearFWDosAttack,
starThreshFWDropPacket,
starThreshClearFWDropPacket,
starThreshGPRSSessions,
starThreshClearGPRSSessions,
starThreshPerServiceGPRSSessions,
starThreshClearPerServiceGPRSSessions,
starThreshGPRSPdpSessions,
starThreshClearGPRSPdpSessions,
starThreshPerServiceGPRSPdpSessions,
starThreshClearPerServiceGPRSPdpSessions,
starThreshFWDenyRule,
starThreshClearFWDenyRule,
starThreshFWNoRule,
starThreshClearFWNoRule,
    starThreshBGPRoutes,
    starThreshClearBGPRoutes,
    starThreshNPUUtilization,
    starThreshClearNPUUtilization,
    starThreshEPDGCurrSess,
    starThreshClearEPDGCurrSess,
starSRPConnDown,
starSRPConnUp,
starPortDown,
starPortUp,
starOSPFNeighborDown,
starOSPFNeighborFull,
    starBSReachable,
    starBSUnreachable,
starSystemStartup,
starASNPCServiceStart,
starASNPCServiceStop,
starDiameterIpv6PeerDown,
starDiameterIpv6PeerUp,
starIPMServerUnreachable,
starIPMServerReachable,
starCertShortLifetime,
starCertExpired,
starCertValid,
starFTPPushFail,
starFTPServSwitch,
starSDHSectionDown,
starSDHSectionUp,
starSDHPathHopDown,
starSDHPathHopUp,
starSDHLopDown,
starSDHLopUp,
starSDHE1TribDown,
starSDHE1TribUp,
starSDHFractE1LMIDown,
starSDHFractE1LMIUp,
starGPRSServiceStart,
starGPRSServiceStop,
starGPRSNseDown,
starGPRSNseUp,
starGPRSNsvcDown,
starGPRSNsvcUp,
starGPRSBvcDown,
starGPRSBvcUp,
starPDGServiceStart,
starPDGServiceStop,
starThreshPDGCurrSess,
starThreshClearPDGCurrSess,
starThreshPDGCurrActSess,

```

```

starThreshClearPDGCurrActSess,
starPGWServiceStart,
starPGWServiceStop,
starSGWServiceStart,
starSGWServiceStop,
starEGTPServiceStart,
starEGTPServiceStop,
starLMAServiceStart,
starLMAServiceStop,
starMAGServiceStart,
starMAGServiceStop,
starMMEServiceStart,
starMMEServiceStop,
starHSGWServiceStart,
starHSGWServiceStop,
    starCPUBusyClear,
    starCPUMemoryLowClear,
    starManagerRestart,
    starConfigurationUpdate,
    starFNGServiceStart,
    starFNGServiceStop,
    starThreshFNGCurrSess,
    starThreshClearFNGCurrSess,
starThreshFNGCurrActSess,
starThreshClearFNGCurrActSess,
starEgtpcPathFailure,
starEgtpcPathFailureClear,
starEgtpuPathFailure,
starEgtpuPathFailureClear,
starServiceLossSPIOClear,
    starHNBGWServiceStart,
    starHNBGWServiceStop,
    starSystemReboot,
    starServiceLossPTACsClear,
    starServiceLossLCClear,
    starOSPFv3NeighborDown,
    starOSPFv3NeighborFull,
    starLicenseAboutToExpire,
    starLicenseExpired,
    starStorageServerCDRLoss,
    starPCCPolicyServiceStart,
    starPCCPolicyServiceStop,
    starPCCQuotaServiceStart,
    starPCCQuotaServiceStop,
    starPCCAFServiceStart,
    starPCCAFServiceStop,
    starThreshPCCPolicySessions,
    starThreshClearPCCPolicySessions,
    starThreshPerServicePCCPolicySessions,
    starThreshClearPerServicePCCPolicySessions,
    starThreshPCCQuotaSessions,
    starThreshClearPCCQuotaSessions,
    starThreshPerServicePCCQuotaSessions,
    starThreshClearPerServicePCCQuotaSessions,
    starThreshPCCAFSessions,
    starThreshClearPCCAFSessions,
    starThreshPerServicePCCAFSessions,
    starThreshClearPerServicePCCAFSessions,
    starSPRServerUnreachable,
    starSPRServerReachable,
    starGSServiceStart,
    starGSServiceStop,
    starMAPServiceStart,
    starMAPServiceStop,
    starIUPSServiceStart,
    starIUPSServiceStop,
    starSGTPServiceStart,

```

```

        starSGTPServiceStop,
starEPDGServiceStart,
starEPDGServiceStop,
starSxServiceStart,
starSxServiceStop,
starUplaneServiceStart,
starUplaneServiceStop,
        starApsCommandSuccess,
        starApsCommandFailure,
        starApsSwitchSuccess,
        starApsSwitchFailure,
        starApsModeMismatch,
        starApsChannelMismatch,
        starApsByteMismatch,
        starApsFeProtLineFailure,
        starApsLossOfRedundancy,
        starApsLossOfRedundancyClear,
starSGSServiceStart,
starSGSServiceStop,
        starSgsnGnMsgDelay,
        starSgsnGnMsgDelayClear,
starBNGServiceStart,
starBNGServiceStop,
starHenbgwAccessServiceStart,
starHenbgwAccessServiceStop,
starHenbgwNetworkServiceStart,
starHenbgwNetworkServiceStop,
starThreshDnsLookupFailure,
starThreshClearDnsLookupFailure,
starThreshDiameterRetryRate,
starThreshClearDiameterRetryRate,
starMMES1AssocFail,
starMMES1AssocSetup,
starMMES1PathFail,
starMMES1PathSetup,
starHNBGWSGSNRanapReset,
starHNBGWMSCRanapReset,
starALCAPNodeReset,
starALCAPPPathReset,
starALCAPPPathBlock,
starALCAPPPathUnBlock,
starThreshHNBGWHnbSess,
starThreshClearHNBGWHnbSess,
starThreshHNBGWUeSess,
starThreshClearHNBGWUeSess,
starThreshHNBGWLuSess,
starThreshClearHNBGWLuSess,
starMVGPeerDown,
starMVGPeerUp,
starThreshSystemCapacity,
starThreshClearSystemCapacity,
        starThreshClearHNBGWLuSess,
        starThreshTpoRtoTimeout,
        starThreshClearTpoRtoTimeout,
        starThreshTpoDnsFailure,
        starThreshClearTpoDnsFailure,
        starThreshTpoLowCompressionGain,
        starThreshClearTpoLowCompressionGain,
        starSGSNRNCNoResetAck,
        starThreshSAEGWSessions,
        starThreshClearSAEGWSessions,
        starPCCNtfyIntfPeerUnreachable,
        starPCCNtfyIntfPeerReachable,
        starIPSecNodePeerDown,
        starIPSecNodePeerUp,
        starThreshCardTemperatureNearPowerOffLimit,

```

```

        starThreshClearCardTemperaturePowerOffLimit,
        starEnhancedCongestion,
        starEnhancedCongestionClear,
        starChassisCrashListFull,
        starChassisStartupTimeout,
        starSessMgrCSCFServiceRecoveryComplete,
        starNPDBConnectionDown,
        starNPDBConnectionUp,
        starCdrHDDStart,
        starCdrStreamingStart,
        starCdrStreamingComplete,
        starMMENewConnectionsDisallowed,
        starMMENewConnectionsAllowed,
        starSAMOGServiceStart,
        starSAMOGServiceStop,
        starCardSwitchoverStart,
        starCardSwitchoverComplete,
        starCardSwitchoverFailed,
        starCardMigrateStart,
        starCardMigrateComplete,
        starCardMigrateFailed,
        starPMIPPathFailure,
        starPMIPPathFailureClear,
starHENBGWMMESCTPassocDestAddrDown,
        starHENBGWMMESCTPassocDestAddrUp,
starMRMEServiceStart,
starMRMEServiceStop,
starThreshPerServiceSAMOGSessions,
starThreshClearPerServiceSAMOGSessions,
starSLSServiceStart,
starSLSServiceStop,
        starESMLCAssocDown,
        starESMLCAssocUp,
        starESMLCAllAssocDown,
starESMLCAllAssocDownClear,
starSBCServiceStart,
starSBCServiceStop,
        starCBCAssocDown,
        starCBCAssocUp,
        starCBCBufSizeExceeded,
        starBFDSessUp,
        starBFDSessDown,
        starThreshFabricEGQDiscards,
starThreshNATPktDrop,
starThreshClearNATPktDrop,
        starThreshClearFabricEGQDiscards,
        starHENBGWMMEOverloadStart,
starHENBGWMMEOverloadStop,
starBGPPeerSessionIPv6Up,
starBGPPeerSessionIPv6Down,
        starMMEEMBMSServiceStart,
starMMEEMBMSServiceStop,
        starMCEAssocDown,
starMCEAssocUp,
        starIuBcTcpConnDown,
        starIuBcTcpConnUp,
        starGILANServiceStart,
        starGILANServiceStop,
starGTPCRLFOverThreshold,
starGTPCRLFOverLimit,
starGTPCRLFOverThresholdClear,
starGTPCRLFOverLimitClear,
        starIFTaskHealthFailure,
        starNeedADCLicense,
        starNeedADCLicenseClear,
        starADCLicenseAboutToExpire,
        starADCLicenseExpired,

```

## STARENT-MIB DEFINITIONS ::= BEGIN

```

        starSxPathFailure,
        starSxPathFailureClear,
        starChassisThroughputOver,
        starChassisThroughputOverClear,
        starChassisThroughputWarn,
        starChassisThroughputWarnClear,
        starIFTaskBootConfigApplied
    }
STATUS current
DESCRIPTION
    "A collection of objects which represent required notifications."
::= { starentMIBGroups 5 }

starTrapObsoleteGroup NOTIFICATION-GROUP
NOTIFICATIONS { starCardReset,
    starCardFailed,
        starCardRCCFailed,
        starCardSWFailed,
        starCardFailureLEDOn,
        starCardFailureLEDOff,
        starLogThreshold,
        starThreshASNGWR6InvNai,
        starThreshClearASNGWR6InvNai
    }
STATUS obsolete
DESCRIPTION
    "A collection of objects which represent obsolete notifications."
::= { starentMIBGroups 6 }

starChassisObsoleteGroup OBJECT-GROUP
OBJECTS { starRPRegAcceptIntraPDSN,
    starSlotVoltage1dot5,
    starSlotVoltage1dot5LowThresh,
    starSlotVoltage1dot5HighThresh,
    starSlotVoltage1dot8,
    starSlotVoltage1dot8LowThresh,
    starSlotVoltage1dot8HighThresh,
    starSlotVoltage2dot5,
    starSlotVoltage2dot5LowThresh,
    starSlotVoltage2dot5HighThresh,
    starSlotVoltage3dot3,
    starSlotVoltage3dot3LowThresh,
    starSlotVoltage3dot3HighThresh,
    starSlotVoltage5dot0,
    starSlotVoltage5dot0LowThresh,
    starSlotVoltage5dot0HighThresh
    }
STATUS obsolete
DESCRIPTION
    "A collection of objects which are obsolete."
::= { starentMIBGroups 7 }
END

```

**STARENT-LESS-MIB DEFINITIONS ::= BEGIN**

```

STARENT-LESS-MIB DEFINITIONS ::= BEGIN

IMPORTS
    MODULE-IDENTITY,
    NOTIFICATION-TYPE,
    OBJECT-TYPE,
    Integer32
        FROM SNMPv2-SMI
    DisplayString
        FROM SNMPv2-TC
    MODULE-COMPLIANCE,
    OBJECT-GROUP,
    NOTIFICATION-GROUP
        FROM SNMPv2-CONF
    starentMIB
        FROM STARENT-MIB;

-- Assume
-- starLESSMIB is the main subtree for new mib development.

starLESSMIB MODULE-IDENTITY
    LAST-UPDATED      "200909160000Z"
    ORGANIZATION      "Starent Networks Corporation"
    CONTACT-INFO
        "
        Email:        support@starentnetworks.com
        Web:          www.starentnetworks.com
        Postal:       Starent Networks Corporation
                    30 International Place
                    Tewksbury, MA 01876
        Tel:          (978) 646-9090"

    DESCRIPTION
        "This MIB module manages starent LESS devices.

        Acronyms and terms:
        LESS    Local External Storage Server"

    REVISION          "200909160000Z"
    DESCRIPTION
        "Initial version of this MIB module"
    ::= {starentMIB 101}

--
-- starLESSMIB
--

starLESSMIBObjects      OBJECT IDENTIFIER ::= { starLESSMIB 1 }
starLESSMIBTraps        OBJECT IDENTIFIER ::= { starLESSMIB 2 }

starLESSMIBConformances OBJECT IDENTIFIER ::= { starLESSMIB 3 }
starLESSMIBGroups       OBJECT IDENTIFIER ::= { starLESSMIBConformances 1 }
starLESSMIBCompliances  OBJECT IDENTIFIER ::= { starLESSMIBConformances 2 }

--
-- starLESSMIBObjects Information
--

starLESSNotifRaisedTime OBJECT-TYPE
    SYNTAX                 Integer32
    MAX-ACCESS              accessible-for-notify
    STATUS                  current

```

## STARENT-LESS-MIB DEFINITIONS ::= BEGIN

```

DESCRIPTION
    "This object indicates the time when this notification was generated. This will be current
system's time in seconds."
 ::= { starLESSMIBObjects 1 }

starLESSNotifInfo OBJECT-TYPE
    SYNTAX      DisplayString (SIZE (1..64))
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "A textual description of Less notification, which contains additional information (more than the
type of alarm).
        If the text of the message exceeds 64 bytes, the message be truncated to 63 bytes and a '*'
character will be appended to indicate th         e message has been truncated."
 ::= { starLESSMIBObjects 2 }

--
-- object starLESSInstance will not be used in Generic LESS
--

starLESSInstance OBJECT-TYPE
    SYNTAX      Integer32
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "L-ESS Application Instance no."
 ::= { starLESSMIBObjects 3}

starLESSNodeName OBJECT-TYPE
    SYNTAX      DisplayString (SIZE (1..64))
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "L-ESS Application node name."
 ::= { starLESSMIBObjects 4}

--
-- object starLESSApplicationType will not be used in Generic LESS
--

starLESSApplicationType OBJECT-TYPE
    SYNTAX      INTEGER {
                unknown(0),
                pull(1),
                push(2),
                transfer(3)
                }
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "L-ESS Application Type (pull / push / transfer).
        Pull (1) is L-ESS Pull application
        Push (2) is L-ESS Push application
        Transfer (3) is L-ESS Transfer application"
 ::= { starLESSMIBObjects 5 }

starLESSThreshInt OBJECT-TYPE
    SYNTAX      Integer32
    MAX-ACCESS  accessible-for-notify
    STATUS      current
    DESCRIPTION
        "This object indicates configured value of a thresholded parameter."
 ::= { starLESSMIBObjects 6}

starLESSThreshMeasuredInt OBJECT-TYPE
    SYNTAX      Integer32
    MAX-ACCESS  accessible-for-notify

```



## STARENT-LESS-MIB DEFINITIONS ::= BEGIN

```

STATUS      current
DESCRIPTION
    "This object indicates measured value of a thresholded parameter."
 ::= { starLESSMIBObjects 7}

starLESSRuleBaseName OBJECT-TYPE
SYNTAX      DisplayString (SIZE (1..64))
MAX-ACCESS  accessible-for-notify
STATUS      current
DESCRIPTION
    "The object indicates the name of the rulebase present in filename."
 ::= { starLESSMIBObjects 8}

starLESSSTXName OBJECT-TYPE
SYNTAX      DisplayString (SIZE (1..64))
MAX-ACCESS  accessible-for-notify
STATUS      current
DESCRIPTION
    "The object indicates the name of the STX."
 ::= { starLESSMIBObjects 9}

starLESSStartofMissedRange OBJECT-TYPE
SYNTAX      DisplayString (SIZE (1..15))
MAX-ACCESS  accessible-for-notify
STATUS      current
DESCRIPTION
    "Beginning of the range within which L-ESS has missed files."
 ::= { starLESSMIBObjects 10}

starLESSEndofMissedRange OBJECT-TYPE
SYNTAX      DisplayString (SIZE (1..15))
MAX-ACCESS  accessible-for-notify
STATUS      current
DESCRIPTION
    "End of the range within which L-ESS has missed files."
 ::= { starLESSMIBObjects 11}

--
-- object starLESSFileType will not be used in Generic LESS
--

starLESSFileType OBJECT-TYPE
SYNTAX      DisplayString (SIZE (1..3))
MAX-ACCESS  accessible-for-notify
STATUS      current
DESCRIPTION
    "The object indicates the name of the rulebase present in filename."
 ::= { starLESSMIBObjects 12}

starLESSRemoteHostName OBJECT-TYPE
SYNTAX      DisplayString (SIZE (1..64))
MAX-ACCESS  accessible-for-notify
STATUS      current
DESCRIPTION
    "The object indicates the name of the STX."
 ::= { starLESSMIBObjects 13}

starLESSMountPoint OBJECT-TYPE
SYNTAX      DisplayString (SIZE (1..64))
MAX-ACCESS  accessible-for-notify
STATUS      current
DESCRIPTION
    "Mount point where disk is mounted."
 ::= { starLESSMIBObjects 14}

starLESSHostName OBJECT-TYPE
SYNTAX      DisplayString (SIZE (1..64))

```

## STARENT-LESS-MIB DEFINITIONS ::= BEGIN

```

MAX-ACCESS    accessible-for-notify
STATUS        current
DESCRIPTION
    "L-ESS Application source/destination name."
 ::= { starLESSMIBObjects 15}

starLESSPath   OBJECT-TYPE
SYNTAX        DisplayString (SIZE (1..255))
MAX-ACCESS    accessible-for-notify
STATUS        current
DESCRIPTION
    "L-ESS Application source/destination path."
 ::= { starLESSMIBObjects 16}

starLESSTerminationTime   OBJECT-TYPE
SYNTAX                    DisplayString (SIZE (1..32))
MAX-ACCESS                accessible-for-notify
STATUS                    current
DESCRIPTION
    "This object indicates the time when this notification was generated. This will be current
system's time in seconds."
 ::= { starLESSMIBObjects 17 }

starLESSPscNo   OBJECT-TYPE
SYNTAX          DisplayString (SIZE (1..32))
MAX-ACCESS      accessible-for-notify
STATUS          current
DESCRIPTION
    "PSC instance No."
 ::= { starLESSMIBObjects 18}

-- *****
--                               Notifications
-- *****
-- Notifications 1-16 will not be used in generic LESS
-- *****

starLESSApplicationStart NOTIFICATION-TYPE
OBJECTS {
    starLESSNotifRaisedTime,
    starLESSNodeName,
    starLESSInstance,
    starLESSApplicationType
}
STATUS        current
DESCRIPTION
    "L-ESS application has started."
--#SUMMARY "[L-ESS] %s Application on node %s with instance no %d, has started"
--#ARGUMENTS {3,1,2}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starLESSMIBTraps 1 }

starLESSApplicationReStart NOTIFICATION-TYPE
OBJECTS {
    starLESSNotifRaisedTime,
    starLESSNodeName,
    starLESSInstance,
    starLESSApplicationType
}
STATUS        current
DESCRIPTION
    "L-ESS application has restarted."
--#SUMMARY "[L-ESS] %s Application on node %s with instance no %d, has restarted"
--#ARGUMENTS {3,1,2}
--#STATE OPERATIONAL

```

## STARENT-LESS-MIB DEFINITIONS ::= BEGIN

```

--#SEVERITY INFORMATIONAL
 ::= { starLESSMIBTraps 2 }

starLESSApplicationStop NOTIFICATION-TYPE
OBJECTS {
    starLESSNotifRaisedTime,
    starLESSNodeName,
    starLESSInstance,
    starLESSApplicationType,
    starLESSNotifInfo
}
STATUS current
DESCRIPTION
    "L-ESS application has stopped."
--#SUMMARY "[L-ESS] %s Application on node %s with instance no %d, has stopped. %s"
--#ARGUMENTS {3,1,2,4}
--#STATE NONOPERATIONAL
--#SEVERITY WARNING
 ::= { starLESSMIBTraps 3 }

starLESSApplicationTerminated NOTIFICATION-TYPE
OBJECTS {
    starLESSNotifRaisedTime,
    starLESSNodeName,
    starLESSInstance,
    starLESSApplicationType
}
STATUS current
DESCRIPTION
    "L-ESS application has been terminated."
--#SUMMARY "[L-ESS] %s Application on node %s with instance no %d, has been terminated."
--#ARGUMENTS {3,1,2}
--#STATE NONOPERATIONAL
--#SEVERITY CRITICAL
 ::= { starLESSMIBTraps 4 }

starLESSPullIntervalMissed NOTIFICATION-TYPE
OBJECTS {
    starLESSNotifRaisedTime,
    starLESSNodeName,
    starLESSInstance
}
STATUS current
DESCRIPTION
    "L-ESS application has missed pull interval."
--#SUMMARY "[L-ESS] Pull Application on node %s with instance no %d, has missed pull interval"
--#ARGUMENTS {1,2}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starLESSMIBTraps 5 }

starLESSThreshDiskUsage NOTIFICATION-TYPE
OBJECTS {
    starLESSNotifRaisedTime,
    starLESSNodeName,
    starLESSThreshMeasuredInt,
    starLESSThreshInt,
    starLESSMountPoint
}
STATUS current
DESCRIPTION
    "Total Disk space used is beyond configured threshold.
    Probable Cause: This is a user configurable threshold.
    starLESSThreshClearDiskUsage notification will be generated when the
    measured value falls below the configured threshold."
--#SUMMARY "[L-ESS] Pull Application Threshold : Node %s, Total Disk space usage threshold ; measured
%d threshold %d. Disk is critically low. Disk is mounted at %s "

```

## STARENT-LESS-MIB DEFINITIONS ::= BEGIN

```

--#ARGUMENTS {1,2,3,4}
--#STATE OPERATIONAL
--#SEVERITY CRITICAL
::= { starLESSMIBTraps 6 }

starLESSThreshClearDiskUsage NOTIFICATION-TYPE
OBJECTS {
    starLESSNotifRaisedTime,
    starLESSNodeName,
    starLESSThreshMeasuredInt,
    starLESSThreshInt,
    starLESSMountPoint
}
STATUS current
DESCRIPTION
    "Total disk used is now below configured threshold.Threshold condition is now clear"

--#SUMMARY "[L-ESS] Pull Application Threshold : Node %s, Total Disk space usage threshold CLEAR;
measured %d threshold %d. Disk is mounted at %s "
--#ARGUMENTS {1,2,3,4}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starLESSMIBTraps 7 }

starLESSFileMissed NOTIFICATION-TYPE
OBJECTS {
    starLESSNotifRaisedTime,
    starLESSNodeName,
    starLESSInstance,
    starLESSRuleBaseName,
    starLESSFileType,
    starLESSSTXName,
    starLESSStartofMissedRange,
    starLESSEndofMissedRange,
    starLESSNotifInfo
}
STATUS current
DESCRIPTION
    "L-ESS application has missed pulling files from STX.
    Probable Cause: File at STX side has been deleted before L-ESS fetching it.
    Clear Condition: There is no clear condition for this notification.
    Condition Clear Alarm: There is no clear alarm for this notification."

--#SUMMARY "[L-ESS] Pull Application instance %d on node %s has missed %s file from range %s to %s of
Rulebase %s from STX %s. %s"
--#ARGUMENTS {2,1,4,6,7,3,5,8}
--#STATE OPERATIONAL
--#SEVERITY WARNING
::= { starLESSMIBTraps 8 }

starLESSRemoteConnectionFail NOTIFICATION-TYPE
OBJECTS {
    starLESSNotifRaisedTime,
    starLESSNodeName,
    starLESSInstance,
    starLESSApplicationType,
    starLESSRemoteHostName,
    starLESSNotifInfo
}
STATUS current
DESCRIPTION
    "L-ESS application is unable to set up the connection with remote host.
    Probable Cause: No route to host, Authentication failure,HostUnreachable etc.
    Clear Condition: When LESS is able to setup the connection with remote host.
    Condition Clear Alarm: Clear alarm for this notification is starRemoteConnectionEstablished."

```

## STARENT-LESS-MIB DEFINITIONS ::= BEGIN

```

--#SUMMARY "[L-ESS] %s Application on node %s with instance no %d, is unable to setup connection with
host %s. Reason for failure is : %s"
--#ARGUMENTS {3,1,2,4,5}
--#STATE OPERATIONAL
--#SEVERITY CRITICAL
::= { starLESSMIBTraps 9 }

```

```
starLESSRemoteConnectionEstablished NOTIFICATION-TYPE
```

```

OBJECTS {
    starLESSNotifRaisedTime,
    starLESSNodeName,
    starLESSInstance,
    starLESSApplicationType,
    starLESSRemoteHostName
}

```

```
STATUS current
```

```
DESCRIPTION
```

```

"L-ESS application is now able to set up the connection with remote host.
Probable Cause: Connection established with remote host ."

```

```

--#SUMMARY "[L-ESS] %s Application on node %s with instance no %d, has established the connection
with host %s."

```

```

--#ARGUMENTS {3,1,2,4}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starLESSMIBTraps 10 }

```

```
starLESSFileTransferFail NOTIFICATION-TYPE
```

```

OBJECTS {
    starLESSNotifRaisedTime,
    starLESSNodeName,
    starLESSInstance,
    starLESSApplicationType,
    starLESSRemoteHostName,
    starLESSFileType,
    starLESSNotifInfo
}

```

```
STATUS current
```

```
DESCRIPTION
```

```

"L-ESS application is failing to transfer file.
Probable Cause: This trap could be raised if pull or push process when it fails to
transfer files continuously. Reasons of this failure could be network
erros,Disk space unavailable at destination, Destination directory
unavaialble.etc.

```

```
Clear Condition: When succesfull file transfer begins.
```

```
Condition Clear Alarm: Clear alarm for this notification is starLESSFileTransferComplete."
```

```

--#SUMMARY "[L-ESS] %s Application on node %s with instance no %d, is unable to transfer %s files to
the host %s. Reason for the failure is %s "

```

```

--#ARGUMENTS {3,1,2,5,4,6}
--#STATE OPERATIONAL
--#SEVERITY CRITICAL
::= { starLESSMIBTraps 11 }

```

```
starLESSFileTransferComplete NOTIFICATION-TYPE
```

```

OBJECTS {
    starLESSNotifRaisedTime,
    starLESSNodeName,
    starLESSInstance,
    starLESSApplicationType,
    starLESSRemoteHostName,
    starLESSFileType
}

```

```
STATUS current
```

```
DESCRIPTION
```

```
"L-ESS application is now able to transfer file.
```

## STARENT-LESS-MIB DEFINITIONS ::= BEGIN

```

        Probable Cause: The problems due to which LESS was unable to transfer file
        have resolved and pull or push process has now restarted file transfer."

--#SUMMARY "[L-ESS] %s Application on node %s with instance no %d, is now able to transfer %s files
to the host %s"
--#ARGUMENTS {3,1,2,5,4}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starLESSMIBTraps 12 }

starLESSThreshPendingFiles NOTIFICATION-TYPE
OBJECTS {
    starLESSNotifRaisedTime,
    starLESSNodeName,
    starLESSInstance,
    starLESSApplicationType,
    starLESSSTXName,
    starLESSFileType,
    starLESSThreshMeasuredInt,
    starLESSThreshInt
}
STATUS current
DESCRIPTION
    "Total pending files for this host are beyond configured threshold.
    Probable Cause: This is a user configurable threshold.
    The starLESSThreshPendingFiles notification will be generated by pull or
    push process when the total number of files pending for transfer in source
    directory are beyond configured threshold.

    Clear Condition: When number of pending files at source directory falls
    below configured threshold.
    Condition Clear Alarm: Clear alarm for this notification is starLESSThreshClearPendingFiles."

--#SUMMARY "[L-ESS] %d Application Threshold : Node %s, Instance %d, HostName %s, Filetype %s, Total
pending files ; measured %d threshold %d "
--#ARGUMENTS {3,1,2,4,5,6,7}
--#STATE OPERATIONAL
--#SEVERITY WARNING
::= { starLESSMIBTraps 13 }

starLESSThreshClearPendingFiles NOTIFICATION-TYPE
OBJECTS {
    starLESSNotifRaisedTime,
    starLESSNodeName,
    starLESSInstance,
    starLESSApplicationType,
    starLESSSTXName,
    starLESSFileType,
    starLESSThreshMeasuredInt,
    starLESSThreshInt
}
STATUS current
DESCRIPTION
    "Total pending files for this host are now below configured threshold.
    Probable Cause: This is a user configurable threshold.
    The starLESSThreshPendingFiles notification will be generated by pull or
    push process when the total number of files pending for transfer in source
    directory falls below configured threshold."
--#SUMMARY "[L-ESS] %d Application Threshold : Node %s, Instance %d, HostName %s, Filetype %s, Total
pending files ; measured %d threshold %d "
--#ARGUMENTS {3,1,2,4,5,6,7}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starLESSMIBTraps 14 }

```

## STARENT-LESS-MIB DEFINITIONS ::= BEGIN

```

starLESSNewHostFound NOTIFICATION-TYPE
  OBJECTS {
    starLESSNotifRaisedTime,
    starLESSNodeName,
    starLESSInstance,
    starLESSApplicationType,
    starLESSSTXName
  }
  STATUS          current
  DESCRIPTION
    "L-ESS Transfer process has detected addition of host.
     Probable Cause: Operator has added host in L-ESS from which files
     should be transferred to destination. "
  --#SUMMARY "[L-ESS] %d Application instance %d on node %s has detected addition of host %s "
  --#ARGUMENTS {3,2,1,4}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starLESSMIBTraps 15 }

starLESSHostRemoved NOTIFICATION-TYPE
  OBJECTS {
    starLESSNotifRaisedTime,
    starLESSNodeName,
    starLESSInstance,
    starLESSApplicationType,
    starLESSSTXName
  }
  STATUS          current
  DESCRIPTION
    "L-ESS Transfer process has detected removal of existing host.
     Probable Cause: Operator has removed existing host in L-ESS from which L-ESS
     was already transferring files to destination. "
  --#SUMMARY "[L-ESS] %d Application instance %d on node %s has detected removal of host %s "
  --#ARGUMENTS {3,2,1,4}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starLESSMIBTraps 16 }

-- *****
-- Traps for Generic LESS
-- *****

starGenericLESSApplicationStart NOTIFICATION-TYPE
  OBJECTS {
    starLESSNotifRaisedTime,
    starLESSNodeName
  }
  STATUS          current
  DESCRIPTION
    "L-ESS application has started."
  --#SUMMARY "L-ESS application on node %s has started."
  --#ARGUMENTS {1}
  --#STATE OPERATIONAL
  --#SEVERITY INFORMATIONAL
  ::= { starLESSMIBTraps 17 }

starGenericLESSApplicationReStart NOTIFICATION-TYPE
  OBJECTS {
    starLESSNotifRaisedTime,
    starLESSNodeName
  }
  STATUS          current
  DESCRIPTION
    "L-ESS application has restarted."
  --#SUMMARY "L-ESS application on node %s has restarted."
  --#ARGUMENTS {1}

```

## STARENT-LESS-MIB DEFINITIONS ::= BEGIN

```

--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starLESSMIBTraps 18 }

starGenericLESSApplicationStop NOTIFICATION-TYPE
OBJECTS {
    starLESSNotifRaisedTime,
    starLESSNodeName,
    starLESSNotifInfo
}
STATUS current
DESCRIPTION
    "L-ESS application has stopped."
--#SUMMARY "L-ESS application on node %s has stopped.%s"
--#ARGUMENTS {1,2}
--#STATE NONOPERATIONAL
--#SEVERITY WARNING
 ::= { starLESSMIBTraps 19 }

starGenericLESSApplicationTerminated NOTIFICATION-TYPE
OBJECTS {
    starLESSNotifRaisedTime,
    starLESSNodeName,
    starLESTerminationTime
}
STATUS current
DESCRIPTION
    "L-ESS application has been terminated."
--#SUMMARY "L-ESS application on node %s has has been terminated at %s ."
--#ARGUMENTS {1,2}
--#STATE NONOPERATIONAL
--#SEVERITY CRITICAL
 ::= { starLESSMIBTraps 20 }

starGenericLESSPullIntervalMissed NOTIFICATION-TYPE
OBJECTS {
    starLESSNotifRaisedTime,
    starLESSNodeName,
    starLESSHostName,
    starLESSPath
}
STATUS current
DESCRIPTION
    "L-ESS application has missed pull interval."
--#SUMMARY "L-ESS application on node %s has missed polling Interval for source : %s path : %s"
--#ARGUMENTS {1,2,3}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starLESSMIBTraps 21 }

starGenericLESSThreshDiskUsage NOTIFICATION-TYPE
OBJECTS {
    starLESSNotifRaisedTime,
    starLESSNodeName,
    starLESSThreshMeasuredInt,
    starLESThreshInt,
    starLESSMountPoint
}
STATUS current
DESCRIPTION
    "Total Disk space used is beyond configured threshold.
    Probable Cause: This is a user configurable threshold.
    starLESSGenericThreshClearDiskUsage notification will be generated when the
    measured value falls below the configured threshold."
--#SUMMARY "[L-ESS] Disk is above configured threshold on Node %s. Measured disk space usage
percentage %d. Configured threshold percentage %d. Disk mount point is :%s "

```



## STARENT-LESS-MIB DEFINITIONS ::= BEGIN

```

--#ARGUMENTS {1,2,3,4}
--#STATE OPERATIONAL
--#SEVERITY CRITICAL
::= { starLESSMIBTraps 22 }

starGenericLESSThreshClearDiskUsage NOTIFICATION-TYPE
OBJECTS {
    starLESSNotifRaisedTime,
    starLESSNodeName,
    starLESSThreshMeasuredInt,
    starLESSThreshInt,
    starLESSMountPoint
}
STATUS current
DESCRIPTION
    "Total disk used is now below configured threshold.Threshold condition is now clear"

--#SUMMARY "[L-ESS] Disk is now below configured threshold on Node %s. Measured disk space usage
percentage %d. Configured threshold percentage %d. Disk mount point is :%s"
--#ARGUMENTS {1,2,3,4}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starLESSMIBTraps 23 }

starGenericLESSFileMissed NOTIFICATION-TYPE
OBJECTS {
    starLESSNotifRaisedTime,
    starLESSNodeName,
    starLESSStartofMissedRange,
    starLESSEndofMissedRange,
    starLESSRuleBaseName,
    starLESSPscNo,
    starLESSHostName,
    starLESSSTXName,
    starLESSPath,
    starLESSNotifInfo
}
STATUS current
DESCRIPTION
    "L-ESS application has missed pulling files from STX.
    Probable Cause: File at STX side has been deleted before L-ESS fetching it.
    Clear Condition: There is no clear condition for this notification.
    Condition Clear Alarm: There is no clear alarm for this notification."

--#SUMMARY "L-ESS application on Node : %s has missed file in range %s to %s of Rulebase : %s iPSC no
: %s from source : %s remothost %s path : %s . %s"
--#ARGUMENTS {1,2,3,4,5,6,7,8,9}
--#STATE OPERATIONAL
--#SEVERITY WARNING
::= { starLESSMIBTraps 24 }

starGenericLESSRemoteConnectionFail NOTIFICATION-TYPE
OBJECTS {
    starLESSNotifRaisedTime,
    starLESSNodeName,
    starLESSHostName,
    starLESSRemoteHostName,
    starLESSNotifInfo
}
STATUS current
DESCRIPTION
    "L-ESS application is unable to set up the connection with remote host.
    Probable Cause: No route to host, Authentication failure,HostUnrechable etc.
    Clear Condition: When LESS is able to setup the connection with remote host.
    Condition Clear Alarm: Clear alarm for this notification is starRemoteConnectionEstablished."

```

## STARENT-LESS-MIB DEFINITIONS ::= BEGIN

```

--#SUMMARY "L-ESS application on Node : %s is failed to setup connection with hostID %s remote host
%s. Reason for failure is : %s"
--#ARGUMENTS {1,2,3,4}
--#STATE OPERATIONAL
--#SEVERITY CRITICAL
::= { starLESSMIBTraps 25 }

starGenericLESSRemoteConnectionEstablished NOTIFICATION-TYPE
OBJECTS {
    starLESSNotifRaisedTime,
    starLESSNodeName,
    starLESSHostName,
    starLESSRemoteHostName
}
STATUS current
DESCRIPTION
    "L-ESS application is now able to set up the connection with remote host.
    Probable Cause: Connection established with remote host ."

--#SUMMARY "L-ESS application on node %s has setup the connection with hostID %s remote host %s."
--#ARGUMENTS {1,2}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
::= { starLESSMIBTraps 26 }

starGenericLESSFileTransferFail NOTIFICATION-TYPE
OBJECTS {
    starLESSNotifRaisedTime,
    starLESSNodeName,
    starLESSHostName,
    starLESSPath,
    starLESSNotifInfo
}
STATUS current
DESCRIPTION
    "L-ESS application is failing to transfer file.
    Probable Cause: This trap could be raised if pull or push process fails to
    transfer files continuously. Reasons of this failure could be network
    erros, Disk space unavailable at destination, Destination directory
    unavaialble.etc.

    Clear Condition: When succesfull file transfer begins.
    Condition Clear Alarm: Clear alarm for this notification is starLESSGenericFileTransferComplete."

--#SUMMARY "L-ESS application on node : %s failed to transfer file for host : %s path : %s . Reason:
%s"
--#ARGUMENTS {1,2,3,4}
--#STATE OPERATIONAL
--#SEVERITY CRITICAL
::= { starLESSMIBTraps 27 }

starGenericLESSFileTransferComplete NOTIFICATION-TYPE
OBJECTS {
    starLESSNotifRaisedTime,
    starLESSNodeName,
    starLESSHostName,
    starLESSPath
}
STATUS current
DESCRIPTION
    "L-ESS application is now able to transfer file.
    Probable Cause: The probl ems due to which LESS was unable to transfer file
    have resolved and pull or push process has now restarted file transfer."

--#SUMMARY "L-ESS application on node %s is now able to transfer files for host : %s path : %s "
--#ARGUMENTS {1,2,3}

```

## STARENT-LESS-MIB DEFINITIONS ::= BEGIN

```

--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starLESSMIBTraps 28 }

starGenericLESSThreshPendingFiles NOTIFICATION-TYPE
OBJECTS {
    starLESSNotifRaisedTime,
    starLESSNodeName,
    starLESSSTXName,
    starLESSPath,
    starLESSThreshMeasuredInt,
    starLESSThreshInt
}
STATUS current
DESCRIPTION
    "Total pending files for this host are beyond configured threshold.
    Probable Cause: This is a user configurable threshold.
    The starLESSGenericThreshPendingFiles notification will be generated by pull or
    push process when the total number of files pending for transfer in source
    directory are beyond configured threshold.

    Clear Condition: When number of pending files at source directory falls
    below configured threshold.
    Condition Clear Alarm: Clear alarm for this notification is
    starLESSGenericThreshClearPendingFiles."

--#SUMMARY "L-ESS application on node %s has pending files to be pulled from host: %s path: %s
.Measured pending files : %d, Configured pending file threshold : %d "
--#ARGUMENTS {1,2,3,4,5}
--#STATE OPERATIONAL
--#SEVERITY WARNING
 ::= { starLESSMIBTraps 29 }

starGenericLESSThreshClearPendingFiles NOTIFICATION-TYPE
OBJECTS {
    starLESSNotifRaisedTime,
    starLESSNodeName,
    starLESSSTXName,
    starLESSPath,
    starLESSThreshMeasuredInt,
    starLESSThreshInt
}
STATUS current
DESCRIPTION
    "Total pending files for this host are now below configured threshold.
    Probable Cause: This is a user configurable threshold.
    The starLESSGenericThreshPendingFiles notification will be generated by pull or
    push process when the total number of files pending for transfer in source
    directory falls below configured threshold."
--#SUMMARY "L-ESS application on node : %s has now pending files below configured threshold from host
: %s , path : %s . Measured pending files : %d, Configured pending file threshold : %d "
--#ARGUMENTS {1,2,3,4,5}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starLESSMIBTraps 30 }

starGenericLESSNewHostFound NOTIFICATION-TYPE
OBJECTS {
    starLESSNotifRaisedTime,
    starLESSNodeName,
    starLESSHostName,
    starLESSPath
}
STATUS current
DESCRIPTION

```

## STARENT-LESS-MIB DEFINITIONS ::= BEGIN

```

        "L-ESS has detected addition of host.
        Probable Cause: Operator has added host in L-ESS from which files
        should be pulled.Or added new destination to which files should be
        transferred "
--#SUMMARY "L-ESS application on node %s has detected addition of new host : %s path : %s "
--#ARGUMENTS {1,2,3}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starLESSMIBTraps 31 }

starGenericLESSHostRemoved NOTIFICATION-TYPE
OBJECTS {
    starLESSNotifRaisedTime,
    starLESSNodeName,
    starLESSHostName,
    starLESSPath
}
STATUS current
DESCRIPTION
    "L-ESS has detected removal of existing host.
    Probable Cause: Operator has removed existing host in L-ESS from which L-ESS
    was already pulling files. Or removed destination to which LESS was
    transferring files "
--#SUMMARY "L-ESS application on node %s has detected removal of host %s path %s "
--#ARGUMENTS {1,2,3}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starLESSMIBTraps 32 }

starGenericLESSHostEnabled NOTIFICATION-TYPE
OBJECTS {
    starLESSNotifRaisedTime,
    starLESSNodeName,
    starLESSHostName,
    starLESSPath
}
STATUS current
DESCRIPTION
    "L-ESS has detected that host is enabled.
    Probable Cause: Operator has enabled host in L-ESS from which files
    should be pulled.Or enabled destination to which files should be
    transferred "
--#SUMMARY "L-ESS application on node %s has enabled host : %s path : %s "
--#ARGUMENTS {1,2,3}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starLESSMIBTraps 33 }

starGenericLESSHostDisabled NOTIFICATION-TYPE
OBJECTS {
    starLESSNotifRaisedTime,
    starLESSNodeName,
    starLESSHostName,
    starLESSPath
}
STATUS current
DESCRIPTION
    "L-ESS has disabled existing host.
    Probable Cause: Operator has disabled existing host in L-ESS from which L-ESS
    was already pulling files. Or disabled destination to which LESS was
    transferring files "
--#SUMMARY "L-ESS application on node %s has disabled host : %s path : %s "
--#ARGUMENTS {1,2,3}
--#STATE OPERATIONAL
--#SEVERITY INFORMATIONAL
 ::= { starLESSMIBTraps 34 }

```

## STARENT-LESS-MIB DEFINITIONS ::= BEGIN

```

starGenericLESSProcessFailure NOTIFICATION-TYPE
    OBJECTS {
        starLESSNotifRaisedTime,
        starLESSNodeName,
        starLESSHostName,
        starLESSPath,
        starLESSNotifInfo
    }
    STATUS current
    DESCRIPTION
        "L-ESS has detected process failure."
    --#SUMMARY "L-ESS application on node %s has detected process failure for host : %s path : %s. Note :
%s "
    --#ARGUMENTS {1,2,3,4}
    --#STATE OPERATIONAL
    --#SEVERITY INFORMATIONAL
    ::= { starLESSMIBTraps 35 }

starGenericLESSProcessStarted NOTIFICATION-TYPE
    OBJECTS {
        starLESSNotifRaisedTime,
        starLESSNodeName,
        starLESSHostName,
        starLESSPath
    }
    STATUS current
    DESCRIPTION
        "L-ESS has detected that process has started."
    --#SUMMARY "L-ESS application on node %s has detected that process pool restarted for host : %s path
: %s"
    --#ARGUMENTS {1,2,3}
    --#STATE OPERATIONAL
    --#SEVERITY INFORMATIONAL
    ::= { starLESSMIBTraps 36 }

--
-- Compliances statements
--
starLESSMIBCompliance MODULE-COMPLIANCE
    STATUS current
    DESCRIPTION
        "The compliance statements for entities which
        implement the STARNET LESS MIB."
    MODULE -- this module
    MANDATORY-GROUPS {
        starLESSNotifMgmtGroup,
        starLESSNotifGroup
    }
    ::= { starLESSMIBCompliances 1 }

-- units of conformance
starLESSNotifMgmtGroup OBJECT-GROUP
    OBJECTS {
        starLESSNotifRaisedTime,
        starLESSNotifInfo,
        starLESSInstance,
        starLESSNodeName,
        starLESSApplicationType,
        starLESSThreshMeasuredInt,
        starLESSThreshInt,
        starLESSRuleBaseName,
        starLESSSTXName,
        starLESSStartofMissedRange,
        starLESSEndofMissedRange,
        starLESSFileType,

```

## STARENT-LESS-MIB DEFINITIONS ::= BEGIN

```

        starLESSRemoteHostName,
        starLESSMountPoint,
        starLESSHostName,
        starLESSPath,
        starLESSTerminationTime
    }
STATUS          current
DESCRIPTION
    " A collection of objects related with notification
    management on LESS."
 ::= { starLESSMIBGroups 1 }

starLESSNotifGroup      NOTIFICATION-GROUP
NOTIFICATIONS          {
    starLESSApplicationStart,
    starLESSApplicationReStart,
    starLESSApplicationStop,
    starLESSApplicationTerminated,
    starLESSPullIntervalMissed,
    starLESSThreshDiskUsage,
    starLESSThreshClearDiskUsage,
    starLESSFileMissed,
    starLESSRemoteConnectionFail,
    starLESSRemoteConnectionEstablished,
    starLESSFileTransferFail,
    starLESSFileTransferComplete,
    starLESSThreshPendingFiles,
    starLESSThreshClearPendingFiles,
    starLESSNewHostFound,
    starLESSHostRemoved,
    starGenericLESSApplicationStart,
    starGenericLESSApplicationReStart,
    starGenericLESSApplicationStop,
    starGenericLESSApplicationTerminated,
    starGenericLESSPullIntervalMissed,
    starGenericLESSThreshDiskUsage,
    starGenericLESSThreshClearDiskUsage,
    starGenericLESSFileMissed,
    starGenericLESSRemoteConnectionFail,
    starGenericLESSRemoteConnectionEstablished,
    starGenericLESSFileTransferFail,
    starGenericLESSFileTransferComplete,
    starGenericLESSThreshPendingFiles,
    starGenericLESSThreshClearPendingFiles,
    starGenericLESSNewHostFound,
    starGenericLESSHostRemoved,
    starGenericLESSHostEnabled,
    starGenericLESSHostDisabled,
    starGenericLESSProcessFailure,
    starGenericLESSProcessStarted
    }
STATUS          current
DESCRIPTION
    "A collection of notifications."
 ::= { starLESSMIBGroups 2 }

END
```

## IETF and Cisco MIBs

This section is for Administrators working with integrating the Starent MIB and the Cisco MIB so Cisco management applications can manage the ASR 5x00 chassis. It provides some new configuration options; there is also a list of supported Cisco MIBs.

## New CLI Options

The following are new CLI options:

### sysOld Options

The default Old string is 1.3.6.1.4.1.8164.

The new-style Cisco Old string is 1.3.6.1.4.1.9.

Using the following CLI, ASR 5000 users can choose which string they prefer:

```
[local]asr5000(config)# system sysoid-style new|default
```



**Important:** ASR 5500 users do not have this option as the Cisco Old String is the default.



**Important:** This command can be combined with `sysdesc` as follows: `system sysdesc-sysoid-style new|default`. However, this combination affects BOTH `sysDesc` AND `sysOld` equally: that is, they can both be old-style or they can both be new-style. The System CLI offers an option to configure `sysDesc` independently, but `SysOld` is not a user-configurable parameter.

### sysDesc Options

For ASR 5000 users, the default system description is:

```
Linux asr5000 2.6.18-staros-v2-private-deb #1 SMP (date/time) i686
```

The Cisco default system description is:

```
Cisco StarOS Software, ASR5000 Intelligent Mobile Gateway, Version 12.2. Copyright (c) 2011 by Cisco Systems, Inc.
```

Users can opt for either description using the following CLI command: `[local]asr5000(config)# system sysdesc-style new|default`



**Important:** This CLI will not be available to ASR 5500 users; it will default to the Cisco description only.



**Important:** This command can be combined with `sysOld` as follows: `system sysdesc-sysoid-style new|default`. However, this combination affects BOTH `sysDesc` AND `sysOld` equally: that is, they can both be old-style or they can both be new-style. The System CLI offers an option to configure `sysDesc` independently, but `SysOld` is not a user-configurable parameter.

## Serial Number Configuration

ASR 5000 users can configure the chassis serial number with the following CLI:

```
[local]asr5000(config)# system chassis-serial-number <string>
```



**Important:** This CLI is not available for ASR 5500 users as the chassis serial number is hard-coded.



## Standards-Based MIBs

The following are standards-based, read-only, and available from the Cisco MIB ftp site.

IF-MIB and ENTITY-MIB are disabled by default.

## Configuration

MIBs can be configured using the following CLI:

```
[local]asr5000(config)# snmp mib <mib-name, auto complete> | no snmp mib <mib-name, auto complete>
```

## Entity MIB

The Entity MIB is implemented as described in RFC4133. The following are not supported for this release:

- entPhysicalAlias
- entPhysicalAssetID
- entPhysicalMfgDate
- entPhysicalUris
- entLogicalTable
- entLPMappingTable
- entPhysicalContainsTable

## IF MIB

The IF MIB is implemented per RFC1213, RFC1573, and RFC2863. The following are not supported for this release:

- ifStackTable
- ifStackLastChange
- ifRcvAddressTable
- ifTestTable

# Cisco MIBS

The following is a list of supported Cisco MIBs for this release. These are available from the Cisco ftp site.

## Configuration

MIBs can be configured using the following CLI:

```
[local]asr5000(config)# snmp mib <mib-name, auto complete> | no snmp mib <mib-name, auto complete>
```

## Cisco MIBs

The following MIBs are supported in this release. They can be enabled/disabled as required.

- CISCO-ENHANCED-IPSEC-FLOW-MIB
- CISCO-ENTITY-DISPLAY-MIB
- CISCO-ENTITY-EXT-MIB
- CISCO-ENTITY-FRU-CONTROL-MIB
- CISCO-ENTITY-REDUNDANCY-MIB
- CISCO-ENTITY-SENSOR-MIB
- CISCO-ENTITY-STATE-MIB
- CISCO-FLASH-MIB
- CISCO-HOST-RESOURCE-MIB



**Important:** CISCO-HOST-RESOURCE-MIB is per the appropriate RFC, but limited to hrSystem and hrStorage tables.

- CISCO-IF-EXTENSION-MIB
- CISCO-IP-LOCAL-POOL-MIB
- CISCO-IPSEC-FLOW-MONITOR-MIB
- CISCO-MOBILE-WIRELESS-SERVICE-MIB
- CISCO-PROCESS\_MIB