



## **Cisco Cloud Native Broadband Router Operations Hub REST API Guide, Release 21.2**

**First Published:** 2021-07-14

### **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



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.

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.

All printed copies and duplicate soft copies of this document are considered uncontrolled. See the current online version for the latest version.

Cisco has more than 200 offices worldwide. Addresses and phone numbers are listed on the Cisco website at [www.cisco.com/go/offices](http://www.cisco.com/go/offices).

Cisco and the Cisco logo are trademarks or registered trademarks of Cisco and/or its affiliates in the U.S. and other countries. To view a list of Cisco trademarks, go to this URL: <https://www.cisco.com/c/en/us/about/legal/trademarks.html>. 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. (1721R)

© 2021 Cisco Systems, Inc. All rights reserved.

# Contents

<b>Operations Hub Authentication API</b>	<b>1</b>
Version: 1.0 . . . . .	1
Security . . . . .	1
/loglevel . . . . .	1
GET . . . . .	1
PUT . . . . .	2
/v1/login/banner . . . . .	2
GET . . . . .	2
PATCH . . . . .	2
/v1/token . . . . .	3
POST . . . . .	3
DELETE . . . . .	3
/v1/token/fresh . . . . .	4
POST . . . . .	4
/v1/token/validation . . . . .	4
POST . . . . .	4
Models . . . . .	5
auth.Content . . . . .	5
auth.ErrorResponse . . . . .	5
auth.LogLevel . . . . .	5
auth.LoginBanner . . . . .	6
auth.TokenGenInfo . . . . .	6
auth.TokenRefreshReqInfo . . . . .	6
<b>Operations Hub User Management and Role Based Access Oper-</b>	
<b>ation API</b>	<b>7</b>
Version: 1.0 . . . . .	7
/v1/identitymgmt/group . . . . .	7
GET . . . . .	7
POST . . . . .	7
/v1/identitymgmt/group/{groupname} . . . . .	8
DELETE . . . . .	8
/v1/identitymgmt/loglevel . . . . .	8

POST . . . . .	8
/v1/identitymgmt/password . . . . .	9
PATCH . . . . .	9
/v1/identitymgmt/password-age . . . . .	9
PATCH . . . . .	9
/v1/identitymgmt/password-length . . . . .	10
PATCH . . . . .	10
/v1/identitymgmt/user . . . . .	10
GET . . . . .	10
POST . . . . .	11
/v1/identitymgmt/user-group . . . . .	11
POST . . . . .	11
PATCH . . . . .	12
/v1/identitymgmt/user/{username} . . . . .	12
GET . . . . .	12
DELETE . . . . .	13
Models . . . . .	13
model.AssignUserGroupRequest . . . . .	13
model.ChangePasswordLengthRequest . . . . .	13
model.ChangePasswordRequest . . . . .	13
model.CreateUserRequest . . . . .	14
model.GenericResponse . . . . .	14
model.GroupListResponse . . . . .	14
model.GroupNameRequest . . . . .	14
model.LogLevelRequest . . . . .	14
model.PasswordAgeRequest . . . . .	14
model.UnassignUserGroupRequest . . . . .	15
model.UserDetailListResponse . . . . .	15
model.UserDetailResponse . . . . .	15
<b>Operations Hub cnBR Configuration API</b>	<b>17</b>
Version: 1.0 . . . . .	17
/v1/cmts/config/{cmts-id} . . . . .	17
GET . . . . .	17
PUT . . . . .	17
/v1/cmts/{cmts-id}/config/global . . . . .	18
GET . . . . .	18
PUT . . . . .	18
/v1/cmts/{cmts-id}/config/service-groups/{service-group-id} . . . . .	19
GET . . . . .	19
/v1/cmts/{cmts-id}/service-group-ids . . . . .	19
GET . . . . .	19
/v1/templates . . . . .	20
GET . . . . .	20
POST . . . . .	20
/v1/templates/clone . . . . .	21

POST . . . . .	21
/v1/templates/ndf-ds . . . . .	21
POST . . . . .	21
/v1/templates/ndr-us . . . . .	22
POST . . . . .	22
/v1/templates/oob-ds . . . . .	23
POST . . . . .	23
/v1/templates/oob-us . . . . .	23
POST . . . . .	23
/v1/templates/rpd/{template-name} . . . . .	24
GET . . . . .	24
/v1/templates/video . . . . .	24
POST . . . . .	24
/v1/templates/{template-name} . . . . .	25
GET . . . . .	25
PUT . . . . .	25
DELETE . . . . .	25
Models . . . . .	26
model.CnBRConfig . . . . .	26
model.CnbrGlobalConfig . . . . .	26
model.CnbrSGConfig . . . . .	26
model.NewTemplate . . . . .	27
model.ServiceGroupList . . . . .	27
model.Template . . . . .	27
models.BackoffCfg . . . . .	27
models.BgpNeighbor . . . . .	27
models.Bgpagent . . . . .	28
models.Cin . . . . .	28
models.Dhcp . . . . .	28
models.DhcpRelayPolicy . . . . .	29
models.DlmCfg . . . . .	29
models.Dot1qvc . . . . .	30
models.DsCfg . . . . .	30
models.DsCfgs . . . . .	30
models.DsResilCfg . . . . .	31
models.DsgCfg . . . . .	31
models.DsgCfr . . . . .	31
models.DsgChan . . . . .	31
models.DsgChanList . . . . .	32
models.DsgClient . . . . .	32
models.DsgClientList . . . . .	32
models.DsgTg . . . . .	32
models.DsgTimer . . . . .	32
models.DsgTunnel . . . . .	33
models.DsgVendorParam . . . . .	33
models.GracefulRestart . . . . .	33

models.IcpiCfg . . . . .	33
models.IcpiPerCausePuntCfg . . . . .	33
models.IcpiPerCausePuntCfgList . . . . .	33
models.L2vpn . . . . .	34
models.L3vpn . . . . .	34
models.Layer3Cfg . . . . .	34
models.MapAdvanceCfg . . . . .	34
models.MapCtrlCfg . . . . .	34
models.McastCfg . . . . .	35
models.MdCfg . . . . .	35
models.MdCfgs . . . . .	35
models.MdDsgCfg . . . . .	36
models.ModProfCfg . . . . .	36
models.ModProfCfgEntries . . . . .	36
models.ModProfCfgs . . . . .	36
models.Mplsvc . . . . .	36
models.Mplsvlansg . . . . .	37
models.NDFDs . . . . .	37
models.NDFDsProfile . . . . .	39
models.NDFTemplate . . . . .	39
models.NDFTemplateConfig . . . . .	39
models.NDRTemplate . . . . .	39
models.NDRTemplateConfig . . . . .	40
models.NDRUs . . . . .	40
models.NDRUsProfile . . . . .	41
models.NfdDsCfg . . . . .	41
models.NfdDsCfgs . . . . .	42
models.NdrUsCfg . . . . .	42
models.NdrUsCfgs . . . . .	42
models.NetworkDelayCfg . . . . .	42
models.OOBDSProfile . . . . .	42
models.OOBDSTemplate . . . . .	44
models.OOBUSProfile . . . . .	44
models.OOBUs . . . . .	44
models.OOBUsTemplate . . . . .	46
models.OfdmDsCfg . . . . .	46
models.OfdmDsCfgs . . . . .	47
models.OfdmFreqExclBand . . . . .	47
models.OfdmModProfCfg . . . . .	47
models.OfdmModProfCfgs . . . . .	47
models.OfdmProfAssigns . . . . .	47
models.OfdmProfMgmtCfg . . . . .	48
models.OfdmProfileType . . . . .	48
models.OfdmaDataIuc . . . . .	48
models.OfdmaDataIucOverWrite . . . . .	48
models.OfdmaFreqPortBand . . . . .	49

models.OfdmaUsCfg	49
models.OfdmaUsCfgs	50
models.OfdmaUsModProfCfg	50
models.OfdmaUsModProfCfgs	51
models.OobDSTemplateConfig	51
models.OobDsCfg	51
models.OobDsCfgs	51
models.OobUSTemplateConfig	51
models.OobUsCfg	52
models.OobUsCfgs	52
models.OverlayInfo	52
models.OverlayVlanInfo	53
models.OverlayVxlanInfo	53
models.Packetcable	55
models.PfgActive	55
models.PfgGroup	55
models.PfgGrpList	56
models.PfgRuleList	56
models.PreEqualizationExcludeCfg	56
models.PreEqualizationExcludeCfgs	56
models.PrivacyCfg	56
models.PrivacyKekTimeout	57
models.PrivacyTekTimeout	57
models.Profentries	57
models.Ptp	58
models.PtpPort	58
models.RCPChan	59
models.RCPModule	59
models.RCPModuleChanBlockRange	59
models.RangeSubcarrier	60
models.RateLimitCfg	60
models.RcpCfg	60
models.RcpCfgs	60
models.RfDsPort	60
models.RfFiberNode	61
models.RfUsPort	61
models.Rip	61
models.RngSgCfg	61
models.RpdCfg	62
models.RpdLocation	62
models.RpdMultiCoreCfg	62
models.RpdMultiCoreItem	63
models.RpdPtpCfg	63
models.RpdRfTopology	63
models.RpdSsdCfg	63
models.RpdTelemetryCfg	63



models.RpdUtscCfg . . . . .	64
models.Sav . . . . .	64
models.SavGroupStruct . . . . .	64
models.SbrlCfg . . . . .	64
models.Sg . . . . .	64
models.SpRouter . . . . .	66
models.Spr . . . . .	66
models.Sprstat . . . . .	66
models.SubMacAddrSbrlList . . . . .	66
models.SvcDsCfg . . . . .	67
models.SvcDsCfgs . . . . .	68
models.SvcUsCfg . . . . .	68
models.SvcUsCfgs . . . . .	70
models.TftpProxy . . . . .	70
models.TxPowerHeadroomCfg . . . . .	70
models.TxPowerHeadroomCfgs . . . . .	70
models.UsCfg . . . . .	70
models.UsCfgs . . . . .	71
models.UsConfig . . . . .	71
models.VendorCfg . . . . .	72
models.VideoChannelProfile . . . . .	72
models.VideoDSPProfile . . . . .	72
models.VideoDsCfg . . . . .	74
models.VideoDsCfgs . . . . .	75
models.VideoRFChannelList . . . . .	75
models.VideoTemplate . . . . .	76
models.VideoTemplateConfig . . . . .	76
models.Vrf . . . . .	76
models.VrfInterface . . . . .	77
models.Wiring . . . . .	77
models.WiringL3Info . . . . .	77
<b>Operations Hub cnBR Management API</b>	<b>79</b>
Version: 1.0 . . . . .	79
/loglevel . . . . .	79
GET . . . . .	79
PUT . . . . .	79
/v1/cable-modems . . . . .	80
GET . . . . .	80
PUT . . . . .	80
/v1/cable-modems/flap . . . . .	81
GET . . . . .	81
/v1/cable-modems/phy . . . . .	81
GET . . . . .	81
/v1/cable-modems/sg/all-modems . . . . .	82
PUT . . . . .	82

/v1/cable-modems/sg/offline-modems . . . . .	82
PUT . . . . .	82
/v1/cable-modems/statistics . . . . .	83
GET . . . . .	83
/v1/cable-modems/{mac} . . . . .	83
GET . . . . .	83
/v1/cable-modems/{mac}/cpes . . . . .	84
GET . . . . .	84
DELETE . . . . .	84
/v1/cable-modems/{mac}/dbc . . . . .	85
GET . . . . .	85
/v1/cable-modems/{mac}/debug . . . . .	85
GET . . . . .	85
/v1/cable-modems/{mac}/service-flows . . . . .	86
GET . . . . .	86
/v1/cmts . . . . .	86
GET . . . . .	86
POST . . . . .	87
DELETE . . . . .	87
/v1/cmts/mdcmsg . . . . .	87
GET . . . . .	87
/v1/cmts/refresh . . . . .	88
POST . . . . .	88
/v1/cmts/refreshcmtlemetry/{cmts-id} . . . . .	88
POST . . . . .	88
/v1/cmts/version . . . . .	89
GET . . . . .	89
/v1/cmts/{cmts-id} . . . . .	89
GET . . . . .	89
PUT . . . . .	89
DELETE . . . . .	90
/v1/cmts/{cmts-id}/configs . . . . .	90
GET . . . . .	90
/v1/cmts/{cmts-id}/health . . . . .	91
POST . . . . .	91
/v1/cmts/{cmts-id}/interfaces . . . . .	91
GET . . . . .	91
/v1/cmts/{cmts-id}/modems . . . . .	92
GET . . . . .	92
/v1/cmts/{cmts-id}/refresh . . . . .	92
POST . . . . .	92
/v1/cmts/{cmts-id}/version . . . . .	93
GET . . . . .	93
/v1/collector/file/{tid} . . . . .	93
GET . . . . .	93
DELETE . . . . .	94

/v1/collector/info . . . . .	94
PUT . . . . .	94
/v1/collector/snapshot . . . . .	95
/v1/license/configure-license-server . . . . .	95
POST . . . . .	95
/v1/license/configure-license-server-all . . . . .	95
POST . . . . .	95
DELETE . . . . .	96
/v1/license/configure-license-server/{clusterId} . . . . .	96
GET . . . . .	96
DELETE . . . . .	97
/v1/license/deregister/{clusterId} . . . . .	97
POST . . . . .	97
/v1/license/entitlement/{clusterId} . . . . .	98
GET . . . . .	98
POST . . . . .	98
DELETE . . . . .	99
/v1/license/register . . . . .	99
POST . . . . .	99
/v1/license/reservation/{clusterId} . . . . .	100
GET . . . . .	100
POST . . . . .	100
DELETE . . . . .	101
/v1/license/reservation/{clusterId}/cancel . . . . .	101
POST . . . . .	101
/v1/license/reservation/{clusterId}/install . . . . .	102
POST . . . . .	102
/v1/license/reservation/{clusterId}/request . . . . .	102
POST . . . . .	102
/v1/license/reservation/{clusterId}/return . . . . .	103
POST . . . . .	103
/v1/license/status-only/{clusterId} . . . . .	103
GET . . . . .	103
/v1/license/status/{clusterId} . . . . .	104
GET . . . . .	104
/v1/service-flows . . . . .	104
GET . . . . .	104
/v1/service-flows/{sf-id} . . . . .	105
GET . . . . .	105
/v1/software/version . . . . .	105
GET . . . . .	105
Models . . . . .	106
apiresponse.ApiResponse . . . . .	106
error.ApplicationError . . . . .	106
handler.CollectorInfo . . . . .	106
handler.CollectorTypeInfo . . . . .	107

handler.Response . . . . .	107
model.CancelReservationItem . . . . .	107
model.CmSg . . . . .	107
model.CmSgInfo . . . . .	107
model.CmSgList . . . . .	108
model.CmSgStatsInfo . . . . .	108
model.CmStats . . . . .	108
model.CmStatsItem . . . . .	108
model.CmtsBasicInfo . . . . .	108
model.CmtsDetailInfo . . . . .	109
model.CmtsDetailInfoEntries . . . . .	109
model.CmtsEntry . . . . .	109
model.CmtsResponse . . . . .	109
model.ComponentsObject . . . . .	109
model.ConfigureServerUrl . . . . .	110
model.ConfigureServerUrlForAllcnBR . . . . .	110
model.DsSg . . . . .	110
model.Entitlement . . . . .	110
model.FiberNode . . . . .	110
model.InstallKeyReqObj . . . . .	110
model.IntfInfo . . . . .	111
model.IntfInfoList . . . . .	111
model.LicenseStatus . . . . .	111
model.LogLevel . . . . .	111
model.MACDomain . . . . .	111
model.MdCmSg . . . . .	111
model.ModemAction . . . . .	112
model.ModemBasicInfo . . . . .	112
model.NewCmtsCreds . . . . .	112
model.NewCmtsInfo . . . . .	113
model.Register . . . . .	113
model.RequestCodeItem . . . . .	113
model.Response . . . . .	113
model.ResponseObject . . . . .	113
model.ResponseRootObject . . . . .	113
model.ReturnCodeItem . . . . .	114
model.ReturnReqObj . . . . .	114
model.SCMInfo . . . . .	114
model.SGList . . . . .	114
model.SGOfflineModemAction . . . . .	114
model.ServiceFlowList . . . . .	115
model.ServiceGroup . . . . .	115
model.SfInfo . . . . .	115
model.SfInfoVerb . . . . .	115
model.SfPerModem . . . . .	115
model.SfPerModemList . . . . .	116

model.UsSg . . . . .	116
<b>Operations Hub RPD Management API</b>	<b>117</b>
Version: 1.0 . . . . .	117
/loglevel . . . . .	117
GET . . . . .	117
PUT . . . . .	117
/v1/hashelf/reload . . . . .	118
POST . . . . .	118
/v1/if-index . . . . .	118
GET . . . . .	118
/v1/pnm-session . . . . .	119
GET . . . . .	119
PUT . . . . .	119
/v1/rpd-all/{cluster-id} . . . . .	120
GET . . . . .	120
/v1/rpd-by-mac/{cluster-id}/{mac-id} . . . . .	120
GET . . . . .	120
/v1/rpd/cvc . . . . .	121
GET . . . . .	121
POST . . . . .	121
/v1/rpd/cvc/{cvc-name} . . . . .	121
DELETE . . . . .	121
/v1/rpd/image . . . . .	122
GET . . . . .	122
POST . . . . .	122
/v1/rpd/image/{filename} . . . . .	123
DELETE . . . . .	123
/v1/rpd/overview . . . . .	123
GET . . . . .	123
/v1/rpd/ssd . . . . .	123
GET . . . . .	123
POST . . . . .	124
/v1/rpd/ssd-state . . . . .	124
GET . . . . .	124
/v1/rpd/upgrade/{image} . . . . .	125
POST . . . . .	125
/v1/rpd/{cluster-id}/reset/{mac-id} . . . . .	125
POST . . . . .	125
/v1/sg/config/canary . . . . .	126
POST . . . . .	126
/v1/sg/config/canary/transactions . . . . .	126
GET . . . . .	126
/v1/sg/config/canary/transactions/active . . . . .	127
GET . . . . .	127
/v1/sg/config/canary/transactions/{transaction-id} . . . . .	127

GET . . . . .	127
/v1/sg/config/canary/transactions/{transaction-id}/revert-canary	127
POST . . . . .	127
/v1/sg/config/canary/transactions/{transaction-id}/upgrade-all	128
POST . . . . .	128
/v1/sg/ndfDs/{cmts-id}/{sg-id} . . . . .	128
PUT . . . . .	128
/v1/sg/ndrUs/{cmts-id}/{sg-id} . . . . .	129
PUT . . . . .	129
/v1/sg/replaceRPD/{cmts-id}/{sg-name} . . . . .	130
PUT . . . . .	130
/v1/sg/{cmts-id}/{sg-name} . . . . .	130
PUT . . . . .	130
POST . . . . .	131
DELETE . . . . .	131
/v1/sg/{cmts-id}/{sg-name}/requests . . . . .	131
GET . . . . .	131
/v1/sg/{cmts-id}/{sg-name}/status . . . . .	132
GET . . . . .	132
/v1/sg/{transaction-id}/status . . . . .	132
GET . . . . .	132
/v1/shelf/group-information . . . . .	133
GET . . . . .	133
/v1/shelf/platform-information/{parameter} . . . . .	133
GET . . . . .	133
/v1/shelf/request-output/{parameter} . . . . .	134
POST . . . . .	134
/v1/utsc . . . . .	135
GET . . . . .	135
DELETE . . . . .	135
/v1/utsc-status . . . . .	136
GET . . . . .	136
/v1/utsc/start . . . . .	136
POST . . . . .	136
/v1/utsc/stop . . . . .	137
PUT . . . . .	137
Models . . . . .	137
main.IfIndexTable . . . . .	137
main.PnmSessionForUser . . . . .	137
main.ShelfEntry . . . . .	138
main.UtscConfigForUser . . . . .	138
main.UtscStatusForUser . . . . .	140
rpd_operation.AdminStateNdfNdr . . . . .	140
rpd_operation.Error . . . . .	140
rpd_operation.ErrorResponse . . . . .	140
rpd_operation.LogLevel . . . . .	140

rpd_operation.PortAssociationInfo . . . . .	141
rpd_operation.Result . . . . .	141
rpd_operation.RpdReplaceCfg . . . . .	141
rpd_operation.SgConfig . . . . .	141
rpd_operation.Status . . . . .	141
rpd_operation.UserProvidedTemplateParameters . . . . .	141
rpd_operation.VideoServiceTemplates . . . . .	142
rpd_operation.restTransactionTable . . . . .	142
sg_cfg_canary.CanaryTransaction . . . . .	143
sg_cfg_canary.CnbrSgs . . . . .	143
sg_cfg_canary.Error . . . . .	143
sg_cfg_canary.RequestBody . . . . .	143
sg_cfg_canary.Result . . . . .	144
<b>Operations Hub KPI Alert Management API</b>	<b>145</b>
Version: 1.0 . . . . .	145
Security . . . . .	145
/v1/alerts . . . . .	145
GET . . . . .	145
/v1/alerts/groups . . . . .	146
GET . . . . .	146
/v1/alerts/groups/{name} . . . . .	146
GET . . . . .	146
PUT . . . . .	147
/v1/alerts/{id} . . . . .	147
GET . . . . .	147
/v1/alerts/{id}/ack . . . . .	148
PUT . . . . .	148
/v1/loglevel . . . . .	148
GET . . . . .	148
PUT . . . . .	148
/v1/smtp . . . . .	149
GET . . . . .	149
PUT . . . . .	149
Models . . . . .	150
model.AlertConfigGetInfo . . . . .	150
model.AlertConfigSetInfo . . . . .	150
model.AlertGetEntry . . . . .	150
model.AlertGetInfo . . . . .	150
model.AlertGroupGetInfo . . . . .	151
model.AlertGroupSetInfo . . . . .	151
model.AlertSetInfo . . . . .	151
model.LogLevel . . . . .	152
<b>Operations Hub KPI Management API</b>	<b>153</b>
Version: 1.0 . . . . .	153

/api/clusterkpi/health . . . . .	153
GET . . . . .	153
/api/clusterkpi/health/{folder} . . . . .	154
GET . . . . .	154
<b>Operations Hub Service Group Operations API</b>	<b>157</b>
Version: 1.0 . . . . .	157
/v1/cnbrs . . . . .	157
GET . . . . .	157
/v1/cnbrs/{cnbr-id}/nodes/{node-name}/activate . . . . .	157
POST . . . . .	157
/v1/cnbrs/{cnbr-id}/nodes/{node-name}/sg-info . . . . .	158
GET . . . . .	158
/v1/cnbrs/{cnbr-id}/sg-info . . . . .	158
GET . . . . .	158
/v1/cnbrs/{cnbr-id}/sg-move . . . . .	159
POST . . . . .	159
/v1/sg-info/tasks/{taskID} . . . . .	159
GET . . . . .	159
/v1/sg-move/history . . . . .	160
GET . . . . .	160
Models . . . . .	160
models.CmtsClusterTable . . . . .	160
models.PreCheckResponse . . . . .	160
models.SGOperation . . . . .	161
models.Task . . . . .	161





# Operations Hub Authentication API

**Version:** 1.0

**License:** [Apache 2.0](#)

## Security

### BasicAuth

---

basic	<i>Basic</i>
-------	--------------

---

## /loglevel

### GET

**Summary** Get HM Auth Current LogLevel

**Description** Get HM Auth Current LogLevel

### Responses

---

Code	Description	Schema
200	OK	<a href="#">auth.LogLevel</a>

---

## Security

---

Security Schema	Scopes
AuthBearerHeader	

---

**PUT****Summary** Set HM Auth LogLevel**Description** Set HM Auth LogLevel**Parameters**

Name	Located in	Description	Required	Schema
LogLevel	body	Log Level	Yes	<a href="#">LogLevel</a>

**Responses**

Code	Description	Schema
200	OK	<a href="#">auth.LogLevel</a>
400	Bad Request	string

**Security**

Security Schema	Scopes
AuthBearerHeader	

**/v1/login/banner****GET****Summary** Get login banner message**Description** Get login banner message default is in english**Responses**

Code	Description	Schema
200	OK	<a href="#">auth.Content</a>
500	Internal Server Error	<a href="#">auth.ErrorResponse</a>

**PATCH****Summary** Create, update login banner message**Description** Create, update loign banner message

**Parameters**

Name	Located in	Description	Required	Schema
LoginBanner	body	Login Banner	Yes	<a href="#">auth.LoginBanner</a>

**Responses**

Code	Description	Schema
200	OK	string
400	Bad Request	<a href="#">auth.ErrorResponse</a>
401	Unauthorized	<a href="#">auth.ErrorResponse</a>
500	Internal Server Error	<a href="#">auth.ErrorResponse</a>

**/v1/token****POST**

**Summary** Generate an API token if user is valid

**Description** Generate an API token

**Responses**

Code	Description	Schema
201	Created	<a href="#">auth.TokenGenInfo</a>
400	Bad Request	string

**Security**

Security Schema	Scopes
BasicAuth	

**DELETE**

**Summary** Delete access token from DB

**Description** Delete access token from DB

**Responses**

Code	Description	Schema
200	OK	string
400	Bad Request	string

**Security**

Security Schema	Scopes
AuthBearerHeader	

**/v1/token/fresh****POST**

**Summary** Refresh access and fresh token

**Description** Refresh access and fresh token

**Parameters**

Name	Located in	Description	Required	Schema
Token	body	Token	Yes	<a href="#">auth.TokenRefreshReqInfo</a>

**Responses**

Code	Description	Schema
200	OK	<a href="#">auth.TokenGenInfo</a>
400	Bad Request	string

**Security**

Security Schema	Scopes
AuthBearerHeader	

**/v1/token/validation****POST**

**Summary** Validate access token

**Description** Check if the access token is valid

### Responses

Code	Description	Schema
200	OK	string
400	Bad Request	string

### Security

Security Schema	Scopes
AuthBearerHeader	

### Models

#### auth.Content

Name	Type	Description	Required
language	string	Language will always be 2 char standered representation as per ISO 639-1 code <a href="https://www.loc.gov/standards/iso639-2/php/code_list.php">https://www.loc.gov/standards/iso639-2/php/code_list.php</a>	Yes
message	string	Message must be limited to no more than 500 characters"	No

#### auth.ErrorResponse

Name	Type	Description	Required
code	integer		No
description	string		No
status	string		No

#### auth.LogLevel

Name	Type	Description	Required
Log Level	string		No

**auth.LoginBanner**

Name	Type	Description	Required
content	[ <a href="#">auth.Content</a> ]		No

**auth.TokenGenInfo**

Name	Type	Description	Required
access_token	string		No
refresh_token	string		No
refresh_token_expire	integer		No
token_type	string		No

**auth.TokenRefreshReqInfo**

Name	Type	Description	Required
access_token	string		No
refresh_token	string		No

# Operations Hub User Management and Role Based Access Operation API

**Version:** 1.0

**License:** [Apache 2.0](#)

**/v1/identitymgmt/group**

**GET**

**Summary** List all groups

**Description** This api can be used to get list of all the groups

**Responses**

Code	Description	Schema
200	OK	<a href="#">model.GroupListResponse</a>
400	Bad Request	<a href="#">model.GenericResponse</a>
500	Processing Errors	<a href="#">model.GenericResponse</a>

**POST**

**Summary** Add a new group

**Description** This api can be used to add new group.



**Parameters**

Name	Located in	Description	Required	Schema
RBAC	body	GroupNameRequest	Yes	<a href="#">model.GroupNameRequest</a>

**Responses**

Code	Description	Schema
200	Group Added successfully	<a href="#">model.GenericResponse</a>
400	Bad Request	<a href="#">model.GenericResponse</a>
500	Processing Errors	<a href="#">model.GenericResponse</a>

**/v1/identitymgmt/group/{groupname}****DELETE**

**Summary** Delete group

**Description** This api can be used to delete group by passing the groupname

**Parameters**

Name	Located in	Description	Required	Schema
groupname	path	groupname	Yes	string

**Responses**

Code	Description	Schema
200	Group Deleted successfully	<a href="#">model.GenericResponse</a>
400	Bad Request	<a href="#">model.GenericResponse</a>
500	Processing Errors	<a href="#">model.GenericResponse</a>

**/v1/identitymgmt/loglevel****POST**

**Summary** API to change the loglevel

**Description** This Api can be used to change the log level in run time

**Parameters**

Name	Located in	Description	Required	Schema
RBAC	body	LogLevelRequest	Yes	<a href="#">model.LogLevelRequest</a>

### Responses

Code	Description	Schema
200	Assigned successfully	<a href="#">model.GenericResponse</a>
400	Bad Request	<a href="#">model.GenericResponse</a>
500	Processing Errors	<a href="#">model.GenericResponse</a>

## /v1/identitymgmt/password

### PATCH

**Summary** Change user login password.

**Description** This api can be used to change password for an existing user

### Parameters

Name	Located in	Description	Required	Schema
RBAC	body	ChangePasswordRequest	Yes	<a href="#">model.ChangePasswordRequest</a>

### Responses

Code	Description	Schema
200	Password Updated successfully	<a href="#">model.GenericResponse</a>
400	Bad Request	<a href="#">model.GenericResponse</a>
500	Processing Errors	<a href="#">model.GenericResponse</a>

## /v1/identitymgmt/password-age

### PATCH

**Summary** Change password expiry

**Description** This api can be used to change the expiry duration of a password for a existing

### Parameters

## 10 OPERATIONS HUB USER MANAGEMENT AND ROLE BASED ACCESS OPERATION API

Name	Located in	Description	Required	Schema
RBAC	body	PasswordAgeRequest	Yes	<a href="#">model.PasswordAgeRequest</a>

### Responses

Code	Description	Schema
200	Password age changed successfully	<a href="#">model.GenericResponse</a>
400	Bad Request	<a href="#">model.GenericResponse</a>
500	Processing Errors	<a href="#">model.GenericResponse</a>

### /v1/identitymgmt/password-length

#### PATCH

**Summary** This api can be used to update the password length.

**Description** New password length to update

#### Parameters

Name	Located in	Description	Required	Schema
RBAC	body	ChangePasswordLengthRequest	Yes	<a href="#">model.ChangePasswordLengthReq</a>

### Responses

Code	Description	Schema
200	Updated successfully	<a href="#">model.GenericResponse</a>
400	Bad Request	<a href="#">model.GenericResponse</a>
500	Processing Errors	<a href="#">model.GenericResponse</a>

### /v1/identitymgmt/user

#### GET

**Summary** List all the users.

**Description** This api can be used to get list of all the users and the associated details.

### Responses

Code	Description	Schema
200	OK	<a href="#">model.UserDetailListResponse</a>
400	Bad Request	<a href="#">model.GenericResponse</a>
500	Processing Errors	<a href="#">model.GenericResponse</a>

**POST**

**Summary** This api will add a new user

**Description** This api will add a new user

**Parameters**

Name	Located in	Description	Required	Schema
RBAC	body	CreateUserRequest	Yes	<a href="#">model.CreateUserRequest</a>

**Responses**

Code	Description	Schema
200	User added successfully	<a href="#">model.GenericResponse</a>
400	Bad Request	<a href="#">model.GenericResponse</a>
500	Processing Errors	<a href="#">model.GenericResponse</a>

**/v1/identitymgmt/user-group****POST**

**Summary** Map user to a group

**Description** This api can be used to assign user to a group, This is an additive operation, which will give privileges to the user to perform crud operations.

**Parameters**

Name	Located in	Description	Required	Schema
RBAC	body	AssignUserGroupRequest	Yes	<a href="#">model.AssignUserGroupRequest</a>

**Responses**

## 12 OPERATIONS HUB USER MANAGEMENT AND ROLE BASED ACCESS OPERATION API

Code	Description	Schema
200	Assigned successfully	<a href="#">model.GenericResponse</a>
400	Bad Request	<a href="#">model.GenericResponse</a>
500	Processing Errors	<a href="#">model.GenericResponse</a>

### PATCH

**Summary** Remove a user from group

**Description** This api is selective operation can be used to remove a set of privileges for a user by unassigning a group for the user.

### Parameters

Name	Located in	Description	Required	Schema
RBAC	body	UnassignUserGroupRequest	Yes	<a href="#">model.UnassignUserGroupRequest</a>

### Responses

Code	Description	Schema
200	Unassigned successfully	<a href="#">model.GenericResponse</a>
400	Bad Request	<a href="#">model.GenericResponse</a>
500	Processing Errors	<a href="#">model.GenericResponse</a>

`/v1/identitymgmt/user/{username}`

### GET

**Summary** Details of a user

**Description** This api can be used to get all the details of a user queried against a username

### Parameters

Name	Located in	Description	Required	Schema
username	path	username	Yes	string

### Responses

Code	Description	Schema
200	OK	<a href="#">model.UserDetailResponse</a>
400	Bad Request	<a href="#">model.GenericResponse</a>
500	Processing Errors	<a href="#">model.GenericResponse</a>

**DELETE**

**Summary** Delete user by username

**Description** This api can be used to delete user against a username

**Parameters**

Name	Located in	Description	Required	Schema
username	path	username	Yes	string

**Responses**

Code	Description	Schema
200	User deleted successfully	<a href="#">model.GenericResponse</a>
400	Bad Request	<a href="#">model.GenericResponse</a>
500	Processing Errors	<a href="#">model.GenericResponse</a>

**Models****model.AssignUserGroupRequest**

Name	Type	Description	Required
groupList	[ string ]		No
username	string		No

**model.ChangePasswordLengthRequest**

Name	Type	Description	Required
length	integer		No

**model.ChangePasswordRequest**

Name	Type	Description	Required
confirm_password	string		No
current_password	string		No
new_password	string		No
username	string		No

**model.CreateUserRequest**

Name	Type	Description	Required
groupList	[ string ]		No
password	string		No
username	string		No

**model.GenericResponse**

Name	Type	Description	Required
message	string		No

**model.GroupListResponse**

Name	Type	Description	Required
groupList	[ string ]		No

**model.GroupNameRequest**

Name	Type	Description	Required
groupname	string		No

**model.LogLevelRequest**

Name	Type	Description	Required
logLevel	string	“panic”, “fatal”, “error”, “warn”, “warning”, “info”, “debug”, “trace”	No

**model.PasswordAgeRequest**

Name	Type	Description	Required
password_expire_days	string	in days	No
username	string		No

**model.UnassignUserGroupRequest**

Name	Type	Description	Required
groupname	string		No
username	string		No

**model.UserDetailListResponse**

Name	Type	Description	Required
userDetailList	[ <a href="#">model.UserDetailResponse</a> ]		No

**model.UserDetailResponse**

Name	Type	Description	Required
groupList	[ string ]		No
passwordExpiryPeriod	string		No
username	string		No





# Operations Hub cnBR Configuration API

**Version:** 1.0

**License:** [Apache 2.0](#)

`/v1/cmts/config/{cmts-id}`

**GET**

**Summary** Get cnBR-Core All Configuration

**Description** Get cnBR-Core all configuration

**Parameters**

Name	Located in	Description	Required	Schema
cmts-id	path	cnBR-Core Cluster ID	Yes	string

**Responses**

Code	Description	Schema
200	OK	string
400	Bad Request	string

**PUT**

**Summary** Update cnBR-Core All Configuration

**Description** Update cnBR-Core all configuration

**Parameters**

Name	Located in	Description	Required	Schema
cmts-id	path	cnBR-Core Cluster ID	Yes	string
Configuration	body	Cluster Configuration	Yes	<a href="#">model.CnBRConfig</a>

**Responses**

Code	Description	Schema
200	OK	string
400	Bad Request	string

**/v1/cmts/{cmts-id}/config/global**

**GET**

**Summary** Get cnBR-Core Global Configuration

**Description** Get cnBR-Core Global Configuration

**Parameters**

Name	Located in	Description	Required	Schema
cmts-id	path	cnBR-Core Cluster ID	Yes	string
type	query	Global Configuration Type	Yes	string

**Responses**

Code	Description	Schema
200	OK	string
400	Bad Request	string

**PUT**

**Summary** Update cnBR-Core Global Configuration

**Description** Update cnBR-Core Global Configuration

**Parameters**

Name	Located in	Description	Required	Schema
cmts-id	path	cnBR-Core Cluster ID	Yes	string
type	query	Global Configuration Type	Yes	string
value	body	Global Configuration JSON Data	Yes	string

### Responses

Code	Description	Schema
200	OK	string
400	Bad Request	string
405	Not Allowed	string

**/v1/cmts/{cmts-id}/config/service-groups/{service-group-id}**

### GET

**Summary** Get cnBR-Core SG Configuration

**Description** Get cnBR-Core Service Group Configuration

### Parameters

Name	Located in	Description	Required	Schema
cmts-id	path	cnBR-Core Cluster ID	Yes	string
service-group-id	path	Service Group ID	Yes	integer

### Responses

Code	Description	Schema
200	OK	<a href="#">models.Sg</a>
400	Bad Request	string

**/v1/cmts/{cmts-id}/service-group-ids**

### GET

**Summary** Get cnBR-Core SG ID List

**Description** Get cnBR-Core Service Group List in cnBR-Core

**Parameters**

Name	Located in	Description	Required	Schema
cmts-id	path	cnBR-Core Cluster ID	Yes	string

**Responses**

Code	Description	Schema
200	OK	<a href="#">model.ServiceGroupList</a>
400	Bad Request	string

**/v1/templates****GET****Summary** Get All Configuration Template**Description** Get all configuration template**Parameters**

Name	Located in	Description	Required	Schema
type	query	Template Type	No	string

**Responses**

Code	Description	Schema
200	OK	string
400	Bad Request	string

**POST****Summary** Add Configuration Template**Description** Add configuration template, generic API.**Parameters**

Name	Located in	Description	Required	Schema
Template	body	Template	Yes	<a href="#">model.Template</a>

### Responses

Code	Description	Schema
200	OK	string
400	Bad Request	string

## /v1/templates/clone

### POST

**Summary** Create new template from existing configuration template

**Description** Create new template from existing configuration template

### Parameters

Name	Located in	Description	Required	Schema
existing-template-name	query	Existing Template Name	Yes	string
template	body	New Template Details	Yes	<a href="#">model.NewTemplate</a>

### Responses

Code	Description	Schema
200	OK	string
400	Bad Request	string
404	Not Found	string
500	Internal Error	string

## /v1/templates/ndf-ds

### POST

**Summary** Add NDF DS Configuration Template to Opshub through this API call.

**Description** Add NDF DS configuration template to Opshub, this API can be used in automation or standalone. Checkout the “Default NDF Template”

config in profiles and templates tab for a sample config. Checkout the NDFTemplateConfig model object in below model section to find out the valid value range for individual template params.

### Parameters

Name	Located in	Description	Required	Schema
Template	body	NDF DS Template	Yes	<a href="#">models.NDFTemplateConfig</a>

### Responses

Code	Description	Schema
200	OK	string
400	Bad Request	string

## /v1/templates/ndr-us

### POST

**Summary** Add NDR US Configuration Template to Opshub through this API call.

**Description** Add NDR US configuration template to Opshub, this API can be used in automation or standalone. Checkout the “Default NDR Template” config in profiles and templates tab for a sample config. Checkout the NDRTemplateConfig model object in below model section to find out the valid value range for individual template params.

### Parameters

Name	Located in	Description	Required	Schema
Template	body	NDR US Template	Yes	<a href="#">models.NDRTemplateConfig</a>

### Responses

Code	Description	Schema
200	OK	string
400	Bad Request	string

**/v1/templates/oob-ds****POST****Summary** Add OOB DS Configuration Template**Description** Add OOB DS configuration template**Parameters**

Name	Located in	Description	Required	Schema
Template	body	OOB DS Template	Yes	<a href="#">models.OobDSTemplateConfig</a>

**Responses**

Code	Description	Schema
200	OK	string
400	Bad Request	string

**/v1/templates/oob-us****POST****Summary** Add OOB US Configuration Template**Description** Add OOB US configuration template**Parameters**

Name	Located in	Description	Required	Schema
Template	body	OOB US Template	Yes	<a href="#">models.OobUSTemplateConfig</a>

**Responses**

Code	Description	Schema
200	OK	string
400	Bad Request	string



**/v1/templates/rpd/{template-name}****GET****Summary** Get associated rpd list**Description** Get list of rpd mac, rpd name, cnbr-id and sg name associated with a template**Parameters**

Name	Located in	Description	Required	Schema
template-name	path	Template Name	Yes	string

**Responses**

Code	Description	Schema
200	OK	string
400	Bad Request	string
404	Not Found	string
500	Internal Error	string

**/v1/templates/video****POST****Summary** Add Video QAM Configuration Template**Description** Add Video QAM configuration template**Parameters**

Name	Located in	Description	Required	Schema
Template	body	Video Template	Yes	<a href="#">models.VideoTemplateConfig</a>

**Responses**

Code	Description	Schema
200	OK	string
400	Bad Request	string

**/v1/templates/{template-name}****GET****Summary** Get Configuration Template**Description** Get configuration template**Parameters**

Name	Located in	Description	Required	Schema
template-name	path	Template Name	Yes	string
type	query	Template Type	No	string

**Responses**

Code	Description	Schema
200	OK	string
400	Bad Request	string

**PUT****Summary** Update Configuration Template**Description** Update configuration template**Parameters**

Name	Located in	Description	Required	Schema
template-name	path	Template Name	Yes	string
Template	body	Template	Yes	<a href="#">model.Template</a>

**Responses**

Code	Description	Schema
200	OK	string
400	Bad Request	string

**DELETE****Summary** Delete Configuration Template

**Description** Delete configuration template

### Parameters

Name	Located in	Description	Required	Schema
template-name	path	Template Name	Yes	string

### Responses

Code	Description	Schema
200	OK	string
400	Bad Request	string

## Models

### model.CnBRConfig

Name	Type	Description	Required
global	<a href="#">model.CnbrGlobalConfig</a>		No
sgs	[ <a href="#">model.CnbrSGConfig</a> ]		No

### model.CnbrGlobalConfig

Name	Type	Description	Required
Spr	<a href="#">models.Spr</a>		No
bgpagent	<a href="#">models.Bgpagent</a>		No
cin	<a href="#">models.Cin</a>		No
l2vpn	<a href="#">models.L2vpn</a>		No
l3vpn	<a href="#">models.L3vpn</a>		No
packetcable	<a href="#">models.Packetcable</a>		No
pfgActive	<a href="#">models.PfgActive</a>		No
pfgGroup	<a href="#">models.PfgGroup</a>		No
ptp	<a href="#">models.Ptp</a>		No
rip	<a href="#">models.Rip</a>		No
sav	<a href="#">models.Sav</a>		No
tftpProxy	<a href="#">models.TftpProxy</a>		No
wiring	<a href="#">models.Wiring</a>		No

### model.CnbrSGConfig

Name	Type	Description	Required
sg-config	<a href="#">models.Sg</a>		No
sgid	integer		No

**model.NewTemplate**

Name	Type	Description	Required
description	string		No
name	string		No

**model.ServiceGroupList**

Name	Type	Description	Required
model.ServiceGroupList	array		

**model.Template**

Name	Type	Description	Required
description	string	<i>Example: "My First Template Example"</i>	No
json-data	string (json)	<i>Example: "Template JSON Data"</i>	No
name	string	<i>Example: "MyFirstTemplate"</i>	No
type	string	<i>Example: "TEMPLATE-SG"</i>	No

**models.BackoffCfg**

Name	Type	Description	Required
end	integer	end Maximum: 15 Minimum: 0	No
start	integer	start Maximum: 15 Minimum: 0	No

**models.BgpNeighbor**

Name	Type	Description	Required
address	string	address	No
asNumber	integer	as number Maximum: 65535 Minimum: 1	No
gateway	string	gateway	No
password	string	password	No
passwordFormat	string	password format Enum: [plain encrypted]	No

Name	Type	Description	Required
weight	integer	weight Maximum: 255 Minimum: 1	No

**models.Bgpagent**

Name	Type	Description	Required
asNumber	integer	as number Required: true Maximum: 65535 Minimum: 1	No
ebgpMultihop	integer	ebgp multihop Required: true Maximum: 255 Minimum: 0	No
gracefulRestart	boolean	graceful restart Required: true	No
ifname	string	ifname Required: true Max Length: 255 Min Length: 1	No
loadaddr	[ string ]	loadaddr	No
loaddrv6	[ string ]	loaddrv6	No
neighbors	[ models.BgpNeighbor ]	neighbors Required: true	No

**models.Cin**

Name	Type	Description	Required
CinGwIp	string	cin gw Ip	No
CinGwIpv6	string	cin gw ipv6	No
CinGwWeight	integer	cin gw weight Maximum: 65535 Minimum: 1	No
SecondaryCinGwIp	string	secondary cin gw Ip	No
SecondaryCinGwIpv6	string	secondary cin gw ipv6	No
SecondaryCinGwWeight	integer	secondary cin gw weight Maximum: 65535 Minimum: 1	No

**models.Dhcp**

Name	Type	Description
adjCleanup	boolean	adj cleanup
arpGlean	boolean	arp glean
arpProxy	boolean	arp proxy

Name	Type	Description	Required
arpTimer	integer	arp timer Maximum: 1440 Minimum: 0	No
customDevice	string	custom device	No
dhcpIfname	string	dhcp ifname	No
dhcpServers	[ string ]	dhcp servers	No
dynamicSecret	boolean	dynamic secret	No
dynamicSecretExcModemList	[ string ]	dynamic secret exc modem list	No
dynamicSecretExcOUIList	[ string ]	dynamic secret exc o UI list	No
ipv4Giaddr	[ string ]	ipv4 giaddr	No
ipv4Lq	boolean	ipv4 lq	No
ipv4LqLeasetimer	integer	ipv4 lq leasetimer Maximum: 240 Minimum: 1	No
ipv6LinkAddr	[ string ]	ipv6 link addr	No
ipv6Lq	boolean	ipv6 lq	No
ipv6LqLeasetimer	integer	ipv6 lq leasetimer Maximum: 240 Minimum: 1	No
lqV4scope	[ string ]	lq v4scope	No
lqV6prefix	[ string ]	lq v6prefix	No
mobilityScopes	[ string ]	mobility scopes	No
ndGlean	boolean	nd glean	No
ndProxy	boolean	nd proxy	No
ndpTimer	integer	ndp timer Maximum: 1440 Minimum: 0	No
raInterval	integer	ra interval Maximum: 1800 Minimum: 4	No
relayModeV4	integer	relay mode v4 Maximum: 255 Minimum: 0	No
relayModeV6	integer	relay mode v6 Maximum: 255 Minimum: 0	No
relayPolicies	[ <a href="#">models.DhcpRelayPolicy</a> ]	relay policies	No
v4Nets	[ string ]	v4 nets	No
v6Nets	[ string ]	v6 nets	No
vrfList	[ <a href="#">models.VrfInterface</a> ]	vrf list	No
vrouterBdiLla	string	vrouter bdi lla	No
vrouterBdiMac	string	vrouter bdi mac	No

### models.DhcpRelayPolicy

Name	Type	Description	Required
deviceClass	string	device class Enum: [CM HOST MTA STB PS EROUTER DVA CUSTOM]	No
giAddr	string	gi addr	No
linkAddr	string	link addr	No
v4ServerIp	string	v4 server Ip	No
v6ServerIp	string	v6 server Ip	No

### models.DlmCfg

Name	Type	Description	Required
interval	integer	interval Maximum: 420 Minimum: 1	No
updateMap	boolean	update map	No

**models.Dot1qvc**

Name	Type	Description	Required
modemMAC	string	modem m a c	No
vlanID	integer	vlan ID Maximum: 4095 Minimum: 2	No
vpnID	string	vpn ID Max Length: 255 Min Length: 1	No

**models.DsCfg**

Name	Type	Description	Required
annex	string	annex Enum: [AnnexA AnnexB AnnexC]	No
attributeMask	integer	attribute mask Maximum: 4.294967295e+09 Minimum: 0	No
frequency	integer	frequency Maximum: 1.794e+09 Minimum: 5.4e+07	No
idInSg	integer	id in sg Required: true	No
interleaver	string	interleaver Enum: [fecI8J16 fecI12J17 fecI16J8 fecI32J4 fecI64J2 fecI128J1 fecI128J2 fecI128J3 fecI128J4 fecI128J5 fecI128J6 fecI128J7 fecI128J8]	No
modulation	string	modulation Enum: [qam256 qam64]	No
powerAdjust	integer	power adjust Maximum: 6 Minimum: -8	No
rfMute	boolean	rf mute	No

**models.DsCfgs**

Name	Type	Description	Required
models.DsCfgs	array		

**models.DsResilCfg**

Name	Type	Description	Required
chCmCount	integer	ch cm count	No
chOfdmCmCount	integer	ch ofdm cm count	No
chOfdmPercent	integer	ch ofdm percent	No
chPercent	integer	ch percent	No
chStateEn	string	ch state en Enum: [true false]	No
dampenTime	integer	dampen time Minimum: 5	No
resilEn	string	resil en Enum: [true false]	No

**models.DsgCfg**

Name	Type	Description	Required
cfr	[ <a href="#">models.DsgCfr</a> ]	cfr	No
chanList	[ <a href="#">models.DsgChanList</a> ]	chan list	No
clientList	[ <a href="#">models.DsgClientList</a> ]	client list	No
dseh	boolean	dseh	No
nameUpdateInterval	integer	name update interval	No
tg	[ <a href="#">models.DsgTg</a> ]	tg	No
timer	[ <a href="#">models.DsgTimer</a> ]	timer	No
tunnel	[ <a href="#">models.DsgTunnel</a> ]	tunnel	No
vendorParam	[ <a href="#">models.DsgVendorParam</a> ]	vendor param	No

**models.DsgCfr**

Name	Type	Description	Required
destIp	string	dest Ip	No
destPortEnd	integer	dest port end	No
destPortStart	integer	dest port start	No
enable	boolean	enable	No
id	integer	id	No
priority	integer	priority	No
srcIp	string	src Ip	No
srcIpMask	string	src Ip mask	No
srcPortEnd	integer	src port end	No
srcPortStart	integer	src port start	No

**models.DsgChan**



Name	Type	Description	Required
freq	integer	freq Maximum: 1e+09 Minimum: 1e+08	No
id	integer	id	No

**models.DsgChanList**

Name	Type	Description	Required
chans	[ <a href="#">models.DsgChan</a> ]	chans	No
id	integer	id	No

**models.DsgClient**

Name	Type	Description	Required
applicationId	string	application Id	No
broadcast	string	broadcast	No
caSystemId	string	ca system Id	No
id	integer	id	No
macAddr	[ string ]	mac addr	No
vendorParam	integer	vendor param	No

**models.DsgClientList**

Name	Type	Description	Required
clients	[ <a href="#">models.DsgClient</a> ]	clients	No
id	integer	id	No

**models.DsgTg**

Name	Type	Description	Required
id	integer	id	No
tunnel	[ integer ]	tunnel	No

**models.DsgTimer**

Name	Type	Description	Required
id	integer	id	No
timeout	[ integer ]	timeout	No

**models.DsgTunnel**

Name	Type	Description	Required
cfr	[ integer ]	cfr	No
clientList	integer	client list	No
id	integer	id	No
macAddr	string	mac addr	No

**models.DsgVendorParam**

Name	Type	Description	Required
id	integer	id	No
vendor	[ <a href="#">models.VendorCfg</a> ]	vendor	No

**models.GracefulRestart**

Name	Type	Description	Required
enable	boolean	enable	No
restartTime	integer	restart time Maximum: 3600 Minimum: 1	No
stalePathTime	integer	stale path time Maximum: 3600 Minimum: 1	No

**models.IcpiCfg**

Name	Type	Description	Required
icpiPerCausePuntCfgList	[ <a href="#">models.IcpiPerCausePuntCfgList</a> ]	icpi per cause punt cfg list	No

**models.IcpiPerCausePuntCfg**

Name	Type	Description	Required
MaxBurst	integer	max burst	No
MaxRate	integer	max rate	No

**models.IcpiPerCausePuntCfgList**

Name	Type	Description	Required
CauseId	integer	cause Id	No
icpiPerCausePuntCfg	<a href="#">models.IcpiPerCausePuntCfg</a>	icpi per cause punt cfg	No

**models.L2vpn**

Name	Type	Description	Required
dot1qVcMap	[ <a href="#">models.Dot1qvc</a> ]	dot1q vc map	No
mplsVcMap	[ <a href="#">models.Mplsvc</a> ]	mpls vc map	No
mplsVlanRangeSg	[ <a href="#">models.Mplsvlansg</a> ]	mpls vlan range sg	No
spRouterStat	[ <a href="#">models.Sprstat</a> ]	sp router stat	No

**models.L3vpn**

Name	Type	Description	Required
vrfList	[ <a href="#">models.Vrf</a> ]	vrf list	Required: true No

**models.Layer3Cfg**

Name	Type	Description	Required
sgGWMac	string	sg g w mac	No
sgIpv4	string	sg ipv4	No
sgIpv6	string	sg ipv6	No
sgMac	string	sg mac	No
sgPeerIpv4	string	sg peer ipv4	No
sgPeerIpv6	string	sg peer ipv6	No

**models.MapAdvanceCfg**

Name	Type	Description	Required
advanceTime	integer	advance time Maximum: 45000 Minimum: 100	No
mode	string	mode Enum: [static dynamic]	No
safetyFactor	integer	safety factor Maximum: 1500 Minimum: 300	No

**models.MapCtrlCfg**

Name	Type	Description	Required
mapPgiePaddingEna	boolean	map pgie padding ena	Required: true No

**models.McastCfg**

Name	Type	Description	Required
mdfDisable	[ string ]	mdf disable	No
mdfOverride	boolean	mdf override	No

**models.MdCfg**

Name	Type	Description	Required
adminState	string	admin state	No
cmInitChanTimeout	integer	cm init chan timeout Maximum: 65535 Minimum: 1	No
dataBackoff	<a href="#">models.BackoffCfg</a>	data backoff	No
disableDocsis31	boolean	disable docsis31	No
disableMrcMode	boolean	disable mrc mode	No
disableMtcMode	boolean	disable mtc mode	No
dsg	<a href="#">models.MdDsgCfg</a>	dsg	No
enableBalanceUs	boolean	enable balance us	No
idInSg	integer	id in sg Required: true	No
insertionInterval	integer	insertion interval Maximum: 2000 Minimum: 100	No
ipInit	string	ip init	No
mac	string	mac	No
mapAdvance	<a href="#">models.MapAdvanceCfg</a>	map advance	No
multiCast	<a href="#">models.McastCfg</a>	multi cast	No
primDcid	[ integer ]	prim dcid	No
rangeBackoff	<a href="#">models.BackoffCfg</a>	range backoff	No
registrationTimeout	integer	registration timeout Maximum: 60 Minimum: 2	No
reportVerboseRCP	boolean	report verbose r c p	No
rng	<a href="#">models.RngSgCfg</a>	rng	No
sharedSecret	[ string ]	shared secret	No
syncInterval	integer	sync interval	No
ucId	[ integer ]	uc Id	No
usInitTech	integer	us init tech Maximum: 4 Minimum: 1	No

**models.MdCfgs**

Name	Type	Description	Required
models.MdCfgs	array		

**models.MdDsgCfg**

Name	Type	Description	Required
channelList	integer	channel list	No
dcdDisable	[ integer ]	dcd disable	No
tg	[ integer ]	tg	No
timer	integer	timer	No
vendorParam	integer	vendor param	No

**models.ModProfCfg**

Name	Type	Description	Required
entries	<a href="#">models.ModProfCfgEntries</a>	entries	No
idInSg	integer	id in sg Required: true	No

**models.ModProfCfgEntries**

Name	Type	Description	Required
advPhyLongData	<a href="#">models.Profentries</a>	adv phy long data	No
advPhyShortData	<a href="#">models.Profentries</a>	adv phy short data	No
initialRanging	<a href="#">models.Profentries</a>	initial ranging	No
longData	<a href="#">models.Profentries</a>	long data	No
periodicRanging	<a href="#">models.Profentries</a>	periodic ranging	No
request	<a href="#">models.Profentries</a>	request	No
requestData	<a href="#">models.Profentries</a>	request data	No
shortData	<a href="#">models.Profentries</a>	short data	No
ugs	<a href="#">models.Profentries</a>	ugs	No

**models.ModProfCfgs**

Name	Type	Description	Required
models.ModProfCfgs	array		

**models.Mplsvc**

Name	Type	Description	Required
experimental	integer	experimental Maximum: 7 Minimum: 0	No
modemMAC	string	modem m a c	No
peerIp	string	peer Ip	No
vcID	integer	vc ID Minimum: 1	No
vpnID	string	vpn ID Max Length: 255 Min Length: 1	No

**models.Mplsvlansg**

Name	Type	Description	Required
maxVlan	integer	max vlan Maximum: 4094 Minimum: 2	No
minVlan	integer	min vlan Maximum: 4094 Minimum: 2	No
sgId	integer	sg Id Minimum: 0	No

**models.NDFDs**

Name	Type	Description	Required
adminState	string	Required: true Administrative state of NDF channel. Default is up; however, set to down for Viavi sweep application. Enum: [up down]	No
channel	integer	Required: true Index of NDF channel. Range: 0..2.	No
channelWidth	integer	Required: true Width of the NDF channel in Hertz. Values: 80 KHz, 160 KHz, 320 KHz, 640 KHz, 1.28 MHz, 2.56 MHz, 5.12 MHz, 25.6 MHz. Enum: [80000,160000,320000,640000,1280000,2560000,5120000,25600000]	No
frequency	integer	Required: true Center frequency of NDF channel in Hertz. Range: 50 MHz .. 1 GHz (cBR-8). Maximum: 1e+09 Minimum: 5e+07	No

Name	Type	Description	Required
groupAddress	string	Required: true For multicast forward static PW, group (destination) IPv4 or IPv6 address of multicast group that RPD needs to join to receive data on this PW. For unicast PW, not used.	No
idInSG	integer	Required: true Unique ID of downstream channel in RPD. Range: 0 .. 157, 163. Maximum: 163 Minimum: 0	No
powerAdjust	integer	Power level adjustment for NDF channel relative to base power level configured for corresponding DS RF port in steps of 0.1 dB. Range: -12.0 .. 3.0 (cBR-8: -30.0 .. -3.0; CM-SP-R-OOB: -12.0 ... 3.0) Maximum: 3 Minimum: -30	No
sessionId	string	Required: true Unique session Identifier for forward static pseudowire (PW) in hexadecimal. Full range: 0x1 .. 0xFFFFFFFF. Multicast range: 0x80000001 .. 0x8000FFFF. Recommended range for unicast: 0x01500000 .. 0x015FFFFFF (Note: 0x15 is PSP-NDF PW subtype). Maximum: 4.294967295e+09 Minimum: 0	No

Name	Type	Description	Required
sourceAdresstring		Required: true For multicast forward static PW and source specific (SSM) operation, source IPv4 or IPv6 address of multicast group that RPD needs to join to receive data on this PW. For any-source multicast operation, use NULL IP address. For unicast PW, IP address of the remote peer.	No
unicast	boolean	Indicates whether forward static PW is unicast. true is unicast; false is multicast. Default: false	No

#### models.NDFDsProfile

Name	Type	Description	Required
ndfDsList	[ <a href="#">models.NDFDs</a> ]		No

#### models.NDFTemplate

Name	Type	Description	Required
ndfDs	<a href="#">models.NDFDsProfile</a>		No

#### models.NDFTemplateConfig

Name	Type	Description	Required
description	string	<i>Example:</i> "Default NDF DS Configuration"	No
name	string	<i>Example:</i> "Default NDF Template"	No
ndfTemplate	<a href="#">models.NDFTemplate</a>		No
type	string	<i>Example:</i> "TEMPLATE-NDF-DS"	No

#### models.NDRTemplate



Name	Type	Description	Required
ndrUs	<a href="#">models.NDRUsProfile</a>		No

**models.NDRTemplateConfig**

Name	Type	Description	Required
description	string	<i>Example:</i> "Default NDR US Configuration"	No
name	string	<i>Example:</i> "Default NDR Template"	No
ndrTemplate	<a href="#">models.NDRTemplate</a>		No
type	string	<i>Example:</i> "TEMPLATE-NDR-US"	No

**models.NDRUs**

Name	Type	Description	Required
adminState	string	Required: true Administrative state of NDF channel. Default is up; however, set to down for Viavi sweep application. Enum: [up down]	No
channel	integer	Required: true Index of NDR channel. Range: 0..2. Maximum: 2 Minimum: 0	No
channelWidth	integer	Required: true Width of the NDR channel in Hertz. Values: 80 KHz, 160 KHz, 320 KHz, 640 KHz, 1.28 MHz, 2.56. MHz, 5.12 MHz. Enum: [80000,160000,320000,640000,1280000,2560000,5120000]	No
destAddress	string	Required: true Destination IPv4 or IPv6 address to which the RPD sends data on a return static PW. (cBR-8 calls this server IP)	No
frequency	integer	Required: true Center frequency of NDR channel in Hertz. Range: 5 .. 26.5 MHz (cBR-8 & CM-SP-R-OOB). Maximum: 26.5e+06 Minimum: 5e+06	No

Name	Type	Description	Required
idInSG	integer	Required: true Unique ID of upstream channel in RPD. Range: 16..39. Maximum: 39 Minimum: 16	No
sessionId	string	Required: true Unique session Identifier for return static pseudowire (PW) in hexadecimal. Range: 0x1 .. 0xFFFFFFFF. Recommended range: 0x01600000 .. 0x016FFFFFF (Note: 0x16 is PSP-NDR PW subtype). Maximum: 4.294967295e+09 Minimum: 0	No
targetRxPowerAdjust	integer	Target receive power level adjustment for upstream channel relative to base power level specified for corresponding US RF port in steps of 0.1 dBmV/1.6MHz. Default: 0.0. Range: -12.0 .. 5.0 (cBR-8: -12.0 .. 5.0; CM-SP-R-OOB: -12.0 ... 3.0) Maximum: 5 Minimum: -12	No

### models.NDRUsProfile

Name	Type	Description	Required
ndrUsList	[ <a href="#">models.NDRUs</a> ]	list of ndr us config instances Required: true	No

### models.NdfDsCfg

Name	Type	Description	Required
adminState	string	admin state Enum: [up down]	No
channel	integer	channel Maximum: 2 Minimum: 0	No
channelWidth	integer	channel width	No

Name	Type	Description	Required
frequency	integer	frequency	No
idInSg	integer	id in sg Required: true Maximum: 255 Minimum: 0	No
powerAdjust	integer	power adjust	No
pwGrpIpAddr	string	pw grp Ip addr	No
pwSrcIpAddr	string	pw src Ip addr	No
sessionId	integer	session Id Maximum: 4.294967295e+09 Minimum: 0	No
unicast	boolean	unicast	No

**models.NdfDsCfgs**

Name	Type	Description	Required
models.NdfDsCfgs	array		

**models.NdrUsCfg**

Name	Type	Description	Required
adminState	string	admin state	No
channel	integer	channel Maximum: 2 Minimum: 0	No
channelWidth	integer	channel width	No
frequency	integer	frequency	No
idInSg	integer	id in sg Required: true Maximum: 255 Minimum: 0	No
ndrPower	integer	ndr power	No
pwDestIpAddr	string	pw dest Ip addr	No
sessionId	integer	session Id Maximum: 4.294967295e+09 Minimum: 0	No

**models.NdrUsCfgs**

Name	Type	Description	Required
models.NdrUsCfgs	array		

**models.NetworkDelayCfg**

Name	Type	Description	Required
dlmCfg	<a href="#">models.DlmCfg</a>	dlm cfg	No
staticDelay	integer	static delay Maximum: 100000 Minimum: 30	No

**models.OOBDSProfile**

Name	Type	Description	Required
frequency	integer	Required: true Center frequency of the SCTE 55-1 downstream channel in Hertz. Range: 71 .. 129 MHz in steps of 50 KHz. Default: 75250000 Hz. Maximum: 1.3e+08 Minimum: 7e+07	No
groupAddress	string	Required: true For multicast forward static PW, group (destination) IPv4 or IPv6 address of multicast group that RPD needs to join to receive data on this PW.	No
idInSG	integer	Required: true Unique ID of downstream channel in RPD. Range: 0 ..157, 163. Maximum: 163 Minimum: 0	No
powerAdjust	integer	Power level adjustment for SCTE 55-1 downstream channel relative to base power level configured for corresponding DS RF port in steps of 0.1 dB. No range limit. (cBR-8 range: -7.0 .. 0.0) Maximum: 0 Minimum: -70	No
secondFrequency	integer	Center frequency of the second SCTE 55-1 downstream channel in Hertz which carries the same content as the first channel. Range: 0 or 71 .. 129 MHz in steps of 50 KHz. Default 0 Hz (for no second frequency). Maximum: 1.3e+08 Minimum: 7e+07	No
sessionId	string	Required: true Unique session Identifier for multicast forward static pseudowire (PW) in hexadecimal. Maximum: 4.294967295e+09 Minimum: 0	No

Name	Type	Description	Required
sfPowerAdjust	integer	Power level adjustment for second SCTE 55-1 downstream channel relative to base power level configured for corresponding DS RF port in steps of 0.1 dB. No range limit. (cBR-8 range: -7.0 .. 0.0) Maximum: 0 Minimum: -70	No
sourceAddress	string	Required: true For multicast forward static PW and source specific (SSM) operation, source IPv4 or IPv6 address of multicast group that RPD needs to join to receive data on this PW. For any-source multicast operation, use NULL IP address.	No

#### models.OOBDSTemplate

Name	Type	Description	Required
oobDs	<a href="#">models.OOBDSProfile</a>		No

#### models.OOBUSProfile

Name	Type	Description	Required
oobUsList	[ <a href="#">models.OOBUs</a> ]		No

#### models.OOBUs

Name	Type	Description	Required
channel	integer	Required: true Index of SCTE 55-1 OOB upstream channel. Range: 0..2. Maximum: 2 Minimum: 0	No

Name	Type	Description	Required
frequency	integer	Required: true Center frequency of the SCTE 55-1 upstream channel in Hertz. Range: 8.096 MHz .. 40.160 MHz in 192 kHz steps. (cBR-8 range: 5.216 .. 64.736 MHz in 1 KHz steps) Maximum: 4.2e+07 Minimum: 5e+06	No
idInSG	integer	Required: true Unique ID of upstream channel in RPD. Range: 16..39. Maximum: 39 Minimum: 16	No
pwDestIpAddress	string	Required: true Destination IPv4 or IPv6 address to which the RPD sends data on a return static PW.	No
sessionId	string	Required: true Unique session Identifier for return static pseudowire (PW) in hexadecimal. Range: 0x1 .. 0xFFFFFFFF. Recommended range: 0x01200000 .. 0x012FFFFFF (Note: 0x12 is MPT-55-1 PW subtype). Maximum: 4.294967295e+09 Minimum: 0	No
targetRxPowerAdjust	integer	Target receive power level adjustment for upstream channel relative to base power level specified for corresponding US RF port in step of 0.1 dBmV/1.6MHz. Default: 0.0. No range limit. (cBR-8 range: -10.0 .. 5.0) Maximum: 50 Minimum: -100	No
varpdDemodId	string	Required: true 8-bit Demodulator identifier used in virtual ARPD protocol. Range: 0 .. 23. (cBR-8 range: 0 .. 2) Maximum: 255 Minimum: 0	No

Name	Type	Description	Required
varpdDeviceId	string	Required: true 32-bit identifier used in virtual ARPD protocol. Maximum: 4.294967295e+09 Minimum: 0	No
varpdRfPortId	string	Required: true 8-bit RF Port identifier used in virtual ARPD protocol. Range: 0..255 (cBR-8 range: 1 .. 6) Maximum: 255 Minimum: 0	No

#### models.OOBUsTemplate

Name	Type	Description	Required
oobUs	<a href="#">models.OOBUSProfile</a>		No

#### models.OfdmDsCfg

Name	Type	Description	Required
attributeMask	integer	attribute mask	No
cyclicPrefix	integer	cyclic prefix Enum: [192 256 512 768 1024]	No
guardbandOverride	integer	guardband override Maximum: 4e+06 Minimum: 0	No
idInSg	integer	id in sg Required: true Maximum: 162 Minimum: 158	No
interleaverDepth	integer	interleaver depth Maximum: 32 Minimum: 1	No
pilotScaling	integer	pilot scaling Maximum: 120 Minimum: 48	No
plc	integer	plc Maximum: 1.218e+09 Minimum: 1.08e+08	No
profileControl	string	profile control	No
profileData	[ <a href="#">models.OfdmProfileType</a> ]	profile data	No
profileNcp	string	profile ncp	No
rfMute	boolean	rf mute	No

Name	Type	Description	Required
rollOff	integer	roll off Enum: [64 128 192 256]	No
startFrequency	integer	start frequency Maximum: 1.218e+09 Minimum: 1.08e+08	No
subcarrierSpacing	integer	subcarrier spacing Enum: [50KHZ 25KHZ]	No
width	integer	width Maximum: 1.92e+08 Minimum: 2.4e+07	No

### models.OfdmDsCfgs

Name	Type	Description	Required
models.OfdmDsCfgs	array		

### models.OfdmFreqExclBand

Name	Type	Description	Required
startFreq	integer	start freq Maximum: 1.217e+09 Minimum: 1.08e+08	No
width	integer	width Maximum: 1.11e+09 Minimum: 1e+06	No

### models.OfdmModProfCfg

Name	Type	Description	Required
assigns	[ <a href="#">models.OfdmProfAssigns</a> ]	assigns	No
description	string	description	No
idInSg	integer	id in sg Required: true	No
modulationDefault	string	modulation default	No

### models.OfdmModProfCfgs

Name	Type	Description	Required
models.OfdmModProfCfgs	array		

### models.OfdmProfAssigns



Name	Type	Description	Required
modulation	string	modulation	No
rangeSubcarriers	<a href="#">models.RangeSubcarrier</a>	range subcarriers	No

**models.OfdmProfMgmtCfg**

Name	Type	Description	Required
exempt-sc-pct	integer	exempt sc pct Maximum: 100 Minimum: 0	No
mer-margin-qdb	integer	mer margin qdb Maximum: 40 Minimum: 0	No
recm-prof-age	integer	recm prof age Maximum: 1440 Minimum: 1	No
rxmer-poll-interval	integer	rxmer poll interval Maximum: 1440 Minimum: 1	No
unfit-prof-age	integer	unfit prof age Maximum: 1440 Minimum: 1	No

**models.OfdmProfileType**

Name	Type	Description	Required
id	integer	id Required: true Maximum: 5 Minimum: 1	No
modulationDefault	string	modulation default	No
modulationProfile	integer	modulation profile	No

**models.OfdmaDataIuc**

Name	Type	Description	Required
idIuc	integer	id iuc Required: true Enum: [5 6 9 10 11 12 13]	No
modulation	string	modulation Enum: [none bpsk qpsk qam8 qam16 qam32 qam64 qam128 qam256 qam512 qam1024]	No
pilotPattern	integer	pilot pattern Maximum: 14 Minimum: 1	No

**models.OfdmaDataIucOverWrite**

Name	Type	Description	Required
idIuc	integer	id iuc Required: true Enum: [5 6 9 10 11 12 13]	No

Name	Type	Description	Required
modulation	string	modulation Enum: [none bpsk qpsk qam8 qam16 qam32 qam64 qam128 qam256 qam512 qam1024]	No
pilotPattern	integer	pilot pattern Maximum: 14 Minimum: 1	No
startFreq	integer	start freq Required: true Maximum: 2.04e+08 Minimum: 5e+06 Multiple Of: 50000	No
width	integer	width Required: true Maximum: 9.5e+07 Minimum: 50000 Multiple Of: 50000	No

#### models.OfdmaFreqPortBand

Name	Type	Description	Required
startFreq	integer	start freq Maximum: 2.04e+08 Minimum: 5e+06 Multiple Of: 50000	No
width	integer	width Maximum: 1.99e+08 Minimum: 50000 Multiple Of: 50000	No

#### models.OfdmaUsCfg

Name	Type	Description	Required
adminState	string	admin state	No
attributeMask	integer	attribute mask Maximum: 4.294967295e+09 Minimum: 0	No
cyclicPrefix	integer	cyclic prefix Enum: [96 128 160 192 224 256 288 320 384 512 640]	No
dataIucOverWrite	boolean	data iuc over write	No
docsisMode	string	docsis mode Enum: [ofdma]	No
equalizationCoeffEnable	boolean	equalization coeff enable	No

Name	Type	Description	Required
idInSg	integer	id in sg Required: true Maximum: 13 Minimum: 12	No
initRngFreqStart	integer	init rng freq start Maximum: 1.971e+09 Minimum: 5e+06	No
modulation	integer	modulation Maximum: 500 Minimum: 401	No
powerLevel	integer	power level Maximum: 23 Minimum: -13	No
rollOffPeriod	integer	roll off period Enum: [0 32 64 96 128 160 192 224]	No
startFrequency	integer	start frequency Maximum: 1.971e+08 Minimum: 4.5e+06 Multiple Of: 50000	No
subcarrierSpacing	integer	subcarrier spacing Enum: [50KHZ 25KHZ]	No
symbolsPerFrame	integer	symbols per frame Maximum: 36 Minimum: 6	No
width	integer	width Maximum: 9.6e+07 Minimum: 7.4e+06 Multiple Of: 50000	No

#### models.OfdmaUsCfgs

Name	Type	Description	Required
models.OfdmaUsCfgs	array		

#### models.OfdmaUsModProfCfg

Name	Type	Description	Required
dataIucs	[ <a href="#">models.OfdmaDataIuc</a> ]	data iucs	No
fineRngSubcarriers	integer	fine rng subcarriers Maximum: 512 Minimum: 64 Multiple Of: 2	No
idInSg	integer	id in sg Required: true	No
initialRngPreamble	integer	initial rng preamble Maximum: 8 Minimum: 1	No
initialRngSubcarriers	integer	initial rng subcarriers Maximum: 128 Minimum: 16 Multiple Of: 2	No

Name	Type	Description	Required
subcarrierSpacing	string	subcarrier spacing Enum: [50KHZ 25KHZ]	No

**models.OfdmaUsModProfCfgs**

Name	Type	Description	Required
models.OfdmaUsModProfCfgs	array		

**models.OobDsTemplateConfig**

Name	Type	Description	Required
description	string	<i>Example:</i> "Default OOB DS Configuration"	No
name	string	<i>Example:</i> "Default DS-00B-55-1 Template"	No
oobDsTemplate	<a href="#">models.OOBdsTemplate</a>		No
type	string	<i>Example:</i> "TEMPLATE-00B-DS"	No

**models.OobDsCfg**

Name	Type	Description	Required
frequency	integer	frequency Maximum: 1.3e+08 Minimum: 7e+07	No
idInSg	integer	id in sg Required: true Maximum: 255 Minimum: 0	No
powerAdjust	integer	power adjust Maximum: 0 Minimum: -70	No
pwGrpIpAddr	string	pw grp Ip addr	No
pwSrcIpAddr	string	pw src Ip addr	No
secondFrequency	integer	second frequency Maximum: 1.3e+08 Minimum: 7e+07	No
sessionId	integer	session Id Maximum: 4.294967295e+09 Minimum: 0	No
sfPowerAdjust	integer	sf power adjust Maximum: 0 Minimum: -70	No

**models.OobDsCfgs**

Name	Type	Description	Required
models.OobDsCfgs	array		

**models.OobUSTemplateConfig**

Name	Type	Description	Required
description	string	<i>Example:</i> "Default OOB US Configuration"	No
name	string	<i>Example:</i> "Default US-OOB-55-1 Template"	No
oobUsTemplate	<a href="#">models.OOBUsTemplate</a>		No
type	string	<i>Example:</i> "TEMPLATE-OOB-US"	No

**models.OobUsCfg**

Name	Type	Description	Required
channel	integer	channel Maximum: 2 Minimum: 0	No
frequency	integer	frequency Maximum: 4.2e+07 Minimum: 5e+06	No
idInSg	integer	id in sg Required: true Maximum: 47 Minimum: 0	No
pwDstIpAddr	string	pw dst Ip addr	No
sessionId	integer	sessionId Maximum: 4.294967295e+09 Minimum: 0	No
targetRxPowerInAdjust	integer	target rx power adjust Maximum: 50 Minimum: -100	No
varpdDemodId	integer	varpd demod Id Maximum: 255 Minimum: 0	No
varpdDeviceId	integer	varpd device Id Maximum: 4.294967295e+09 Minimum: 0	No
varpdRfPortId	integer	varpd rf port Id Maximum: 255 Minimum: 0	No

**models.OobUsCfgs**

Name	Type	Description	Required
models.OobUsCfgs	array		

**models.OverlayInfo**

Name	Type	Description	Required
overlay-type	string	overlay type Required: true Enum: [vxlan vlan]	No
vlan-info	<a href="#">models.OverlayVlanInfo</a>	vlan info	No

Name	Type	Description	Required
vxlan-info	<a href="#">models.OverlayVxlanInfo</a>	vxlan info	No

**models.OverlayVlanInfo**

Name	Type	Description	Required
cnbr-wan-bond-loadbalance	string	cnbr wan bond loadbalance Enum: [L2 L34 L23 RR BC AB]	No
cnbr-wan-bond-mode	string	cnbr wan bond mode Enum: [lacp roundrobin activebackup xor broadcast]	No
cnbr-wan-bonded-interface1	string	cnbr wan bonded interface1	No
cnbr-wan-bonded-interface2	string	cnbr wan bonded interface2	No
cnbr-wan-ifname	string	cnbr wan ifname Required: true	No
overlay-cin-vlan	integer	overlay cin vlan Required: true Maximum: 4095 Minimum: 1	No
overlay-l2vpn-mpls-vlan	integer	overlay l2vpn mpls vlan Maximum: 4095 Minimum: 1	No
overlay-l2vpn-vlan-vlan	integer	overlay l2vpn vlan vlan Maximum: 4095 Minimum: 1	No
overlay-wan-vlan	integer	overlay wan vlan Required: true Maximum: 4095 Minimum: 1	No
secondary-overlay-l2vpn-mpls-vlan	integer	secondary overlay l2vpn mpls vlan Maximum: 4095 Minimum: 1	No
secondary-overlay-l2vpn-vlan-vlan	integer	secondary overlay l2vpn vlan vlan Maximum: 4095 Minimum: 1	No

**models.OverlayVxlanInfo**

Name	Type	Description	Required
cnbr-loopback-ip	string	cnbr loopback ip Required: true	No
cnbr-wan-bond-loadbalance	string	cnbr wan bond loadbalance Enum: [L2 L34 L23 RR BC AB]	No
cnbr-wan-bond-mode	string	cnbr wan bond mode Enum: [lacp roundrobin activebackup xor broadcast]	No
cnbr-wan-bonded-interface1	string	cnbr wan bonded interface1	No
cnbr-wan-bonded-interface2	string	cnbr wan bonded interface2	No
cnbr-wan-ifname	string	cnbr wan ifname Required: true	No
cnbr-wan-ip	string	cnbr wan ip Required: true	No
cnbr-wan-prefix	integer	cnbr wan prefix Required: true Maximum: 32 Minimum: 1	No
overlay-cin-vni	integer	overlay cin vni Maximum: 1.6777215e+07 Minimum: 1	No
overlay-l2vpn-mpls-vni	integer	overlay l2vpn mpls vni Maximum: 1.6777215e+07 Minimum: 1	No
overlay-l2vpn-vlan-vni	integer	overlay l2vpn vlan vni Maximum: 1.6777215e+07 Minimum: 1	No
overlay-wan-vni	integer	overlay wan vni Maximum: 1.6777215e+07 Minimum: 1	No
secondary-overlay-l2vpn-mpls-vni	integer	secondary overlay l2vpn mpls vni Maximum: 1.6777215e+07 Minimum: 1	No
secondary-overlay-l2vpn-vlan-vni	integer	secondary overlay l2vpn vlan vni Maximum: 1.6777215e+07 Minimum: 1	No
secondary-sp-router-loopback-ip	string	secondary sp router loopback ip	No

Name	Type	Description	Required
secondary-sp-router-wan-ip	string	secondary sp router wan ip	No
sp-router-loopback-ip	string	sp router loopback ip Required: true	No
sp-router-wan-ip	string	sp router wan ip Required: true	No

**models.Packetcable**

Name	Type	Description	Required
copsAddrIp	string	cops addr Ip	No
copsGwIp	string	cops gw Ip	No
pcEnable	boolean	pc enable	No
pcMaxGate	integer	pc max gate Maximum: 51200 Minimum: 1	No
sendSubscriberEnable	boolean	send subscriber enable	No
t0Timer	integer	t0 timer Maximum: 1e+09 Minimum: 1	No
t1Timer	integer	t1 timer Maximum: 1e+09 Minimum: 1	No

**models.PfgActive**

Name	Type	Description	Required
cm_ds	integer	cm ds Minimum: -1	No
cm_us	integer	cm us Minimum: -1	No
host_ds	integer	host ds Minimum: -1	No
host_us	integer	host us Minimum: -1	No
mta_ds	integer	mta ds Minimum: -1	No
mta_us	integer	mta us Minimum: -1	No
ps_ds	integer	ps ds Minimum: -1	No
ps_us	integer	ps us Minimum: -1	No
stb_ds	integer	stb ds Minimum: -1	No
stb_us	integer	stb us Minimum: -1	No

**models.PfgGroup**

Name	Type	Description	Required
grpList	[ <a href="#">models.PfgGrpList</a> ]	grp list	No





Name	Type	Description	Required
AcceptSelfSignCert	boolean	accept self sign cert	No
BpiPlusPolicy	string	bpi plus policy Enum: [capable-enforcement d11-enabled-enforcement d11-enforcement total-enforcement]	No
DsxSupport	boolean	dsx support	No
EaePolicy	string	eae policy Enum: [capability-enforcement disable-enforcement ranging-enforcement total-enforcement]	No
Kek	<a href="#">models.PrivacyKekTimeout</a>	kek	No
Mandatory	boolean	mandatory	No
OaepSupport	boolean	oaep support	No
RetainFailedCert	boolean	retain failed cert	No
SkipValidityPeriod	boolean	skip validity period	No
Tek	<a href="#">models.PrivacyTekTimeout</a>	tek	No

#### models.PrivacyKekTimeout

Name	Type	Description	Required
GraceTime	integer	grace time Maximum: 302400 Minimum: 300	No
LifeTime	integer	life time Maximum: 6.048e+06 Minimum: 86400	No

#### models.PrivacyTekTimeout

Name	Type	Description	Required
GraceTime	integer	grace time Maximum: 302399 Minimum: 300	No
LifeTime	integer	life time Maximum: 604800 Minimum: 1800	No

#### models.Profentries

Name	Type	Description	Required
byteInterleaverBlockSize	integer	byte interleaver block size	No
byteInterleaverDepth	integer	byte interleaver depth	No
channelType	string	channel type	No
differentialEncoding	boolean	differential encoding	No
fecCodewordLength	integer	fec codeword length	No
fecErrorCorrection	integer	fec error correction	No

Name	Type	Description	F
guardTimeSize	integer	guard time size Maximum: 255 Minimum: 0	N
lastCodewardShortened	boolean	last codeward shortened	N
maxBurstSize	integer	max burst size	N
modulation	string	modulation Enum: [qpsk qam8 qam16 qam32 qam64 qam128]	N
preamble	string	preamble	N
preambleLength	integer	preamble length	N
scrambler	boolean	scrambler	N
scramblerSeed	integer	scrambler seed	N
tcmErrorCorrectionOn	boolean	tcm error correction on	N

**models.Ptp**

Name	Type	Description	Required
PtpDomain	integer	ptp domain Maximum: 127 Minimum: 0	No
PtpDscp	integer	ptp dscp Maximum: 63 Minimum: 0	No
PtpGwIp	string	ptp gw Ip Required: true	No
PtpGwIpAlt	string	ptp gw Ip alt	No
PtpMasterIp	string	ptp master Ip Required: true	No
PtpMasterIpAlt	string	ptp master Ip alt	No

**models.PtpPort**

Name	Type	Description	Required
adminState	string	admin state	No
anncReceiptTimeout	integer	annc receipt timeout	No
cos	integer	cos	No
dscp	integer	dscp	No
enetPortIndex	integer	enet port index	No
gateway	string	gateway	No
gatewayAlt	string	gateway alt	No
localPriority	integer	local priority Maximum: 255 Minimum: 0	No
logAnncInterval	integer	log annc interval	No
logDelayReqInterval	integer	log delay req interval	No
logSyncInterval	integer	log sync interval	No
masterAddr	string	master addr	No
masterAddrAlt	string	master addr alt	No
masterAdminState	string	master admin state	No
preferAlternate	boolean	prefer alternate	No
ptpPortIndex	integer	ptp port index	No
unicastDuration	integer	unicast duration	No

**models.RCPChan**

Name	Type	Description	Required
CenterFreqAssign	integer	center freq assign Maximum: 4.294967295e+09 Minimum: 0 Multiple Of: 62500	No
ConnectedOffset	integer	connected offset Maximum: 255 Minimum: 0	No
Connectivity	string	connectivity Pattern: ^([0-1]*)\$	No
Index	integer	index Maximum: 255 Minimum: 0	No
PrimDSChanIndicator	indicator	prim d s chan indicator	No

**models.RCPModule**

Name	Type	Description	Required
AdjChannels	integer	adj channels	No
ChanBlockRange	models.RCPModuleChanBlockRange	chan block range	No
CommonPhyLayerPara	string	common phy layer para Pattern: ^([0-1]*)\$	No
Connectivity	string	connectivity Pattern: ^([0-1]*)\$	No
FirstChanCenterFreqAssign	integer	first chan center freq assign Maximum: 4.294967295e+09 Minimum: 0 Multiple Of: 62500	No
Index	integer	index Maximum: 255 Minimum: 1	No
ResequChanSubCap	string	resequ chan sub capability Pattern: ^([0]{1}[0-1]*)\$	No

**models.RCPModuleChanBlockRange**

Name	Type	Description	Required
MaxCenterFrequency	integer	max center frequency Maximum: 1002 Minimum: 999	No
MinCenterFrequency	integer	min center frequency Maximum: 112 Minimum: 111	No

**models.RangeSubcarrier**

Name	Type	Description	Required
freqAbs	integer	freq abs Maximum: 1.218e+09 Minimum: 1.08e+08	No
freqOffset	integer	freq offset Maximum: 1.91975e+08 Minimum: 0	No
width	integer	width Maximum: 1.92e+08 Minimum: 25000	No

**models.RateLimitCfg**

Name	Type	Description	Required
BurstTimeMs	integer	burst time ms Maximum: 8000 Minimum: 1000	No
RatePer4Sec	integer	rate per4 sec Required: true Maximum: 255 Minimum: 1	No

**models.RcpCfg**

Name	Type	Description	Required
CenterFrequencySpacingMHz	integer	center frequency spacing mhz Enum: [6 8]	No
RCP-ID	string	r c p ID Required: true Pattern: ^([0]{1}[x]{1}[a-fA-F0-9]{10})\$	No
RCPName	string	r c p name Required: true Max Length: 15 Min Length: 1	No
ReceiveChannels	boolean	receive channels Required: true	No
ReceiveModEncoding	string	receive mod encoding	No

**models.RcpCfgs**

Name	Type	Description	Required
models.RcpCfgs	array		

**models.RfDsPort**

Name	Type	Description	Required
adminState	string	admin state	No
basePower	integer	base power Maximum: 61 Minimum: 20	No
channel	[ integer ]	channel	No
maxOfdmSpectrum	integer	max ofdm spectrum	No
ofdmFreqExclBand	[ <a href="#">models.OfdmFreqExclBand</a> ]	ofdm freq excl band	No
portId	integer	port Id	No
rfMute	boolean	rf mute	No

**models.RfFiberNode**

Name	Type	Description	Required
dsPort	[ integer ]	ds port	No
fnId	integer	fn Id	No
usPort	[ integer ]	us port	No

**models.RfUsPort**

Name	Type	Description	Required
channel	[ integer ]	channel	No
ofdmaFreqExclBand	[ <a href="#">models.OfdmaFreqPortBand</a> ]	ofdma freq excl band	No
ofdmaFreqUnusedBand	[ <a href="#">models.OfdmaFreqPortBand</a> ]	ofdma freq unused band	No
portId	integer	port Id	No

**models.Rip**

Name	Type	Description	Required
flushTimer	integer	flush timer	No
holddownTimer	integer	holddown timer	No
invalidTimer	integer	invalid timer	No
ripAuthMode	integer	rip auth mode	No
ripAuthPswd	string	rip auth pswd	No
ripEnable	boolean	rip enable	No
ripPassiveMode	boolean	rip passive mode	No
updateTimer	integer	update timer	No

**models.RngSgCfg**

Name	Type	Description	Required
extPower	boolean	ext power	No
maxChannelPowerOffset	integer	max channel power offset Maximum: 12 Minimum: 0	No
powerAdjust	integer	power adjust Maximum: 6 Minimum: -3	No
rangingInitTechnique	string	ranging init technique Enum: [reInitMAC broadcast unicast ranging directUse]	No
rangingInterval	integer	ranging interval Maximum: 30000 Minimum: 20000	No
reduceTransmitChannelSet	boolean	reduce transmit channel set	No
t4Multiplier	integer	t4 multiplier Maximum: 10 Minimum: 0	No

**models.RpdCfg**

Name	Type	Description	Required
idInSg	integer	id in sg	No
netDelayCfg	<a href="#">models.NetworkDelayCfg</a>	net delay cfg	No
rfTopology	<a href="#">models.RpdRfTopology</a>	rf topology	No
rpdIp	string	rpd Ip	No
rpdLocation	<a href="#">models.RpdLocation</a>	rpd location	No
rpdMac	string	rpd mac	No
rpdName	string	rpd name Max Length: 256	No

**models.RpdLocation**

Name	Type	Description	Required
address	string	address	No
city	string	city	No
latitude	number	latitude	No
longitude	number	longitude	No
neighborhood	string	neighborhood	No
region	string	region	No

**models.RpdMultiCoreCfg**

Name	Type	Description	Required
models.RpdMultiCoreCfg	array		

**models.RpdMultiCoreItem**

Name	Type	Description	Required
coreip	string	coreip	No
description	string	description	No

**models.RpdPtpCfg**

Name	Type	Description	Required
domain	integer	domain	No
dtiMode	string	dti mode Enum: [SlaveDtiMode MasterDtiMode]	No
priority1	integer	priority1 Maximum: 255 Minimum: 0	No
priority2	integer	priority2 Maximum: 255 Minimum: 0	No
ptpClkProfileId	string	ptp clk profile Id	No
ptpPortCfg	[ <a href="#">models.PtpPort</a> ]	ptp port cfg	No

**models.RpdRfTopology**

Name	Type	Description	Required
dsPort	[ <a href="#">models.RfDsPort</a> ]	ds port	No
fiberNode	[ <a href="#">models.RfFiberNode</a> ]	fiber node	No
usPort	[ <a href="#">models.RfUsPort</a> ]	us port	No

**models.RpdSsdCfg**

Name	Type	Description	Required
ccvc	string	ccvc Max Length: 5000 Min Length: 1	No
filename	string	filename Max Length: 128 Min Length: 1	No
ip	string	ip	No
mvc	string	mvc Max Length: 5000 Min Length: 1	No
proto	integer	proto Enum: [1 2]	No

**models.RpdTelemetryCfg**



Name	Type	Description	Required
interval	integer	interval Maximum: 60 Minimum: 0	No
transport	string	transport Enum: [gRPC]	No

**models.RpdUtscCfg**

Name	Type	Description	Required
UscCommand	integer	usc command Enum: [1 2]	No
UscConfig	<a href="#">models.UscConfig</a>	usc config	No
UscSacIndex	integer	usc sac index Required: true Maximum: 255 Minimum: 0	No
UscStatus	integer	usc status	No

**models.Sav**

Name	Type	Description	Required
savEnable	boolean	sav enable	No
savEntries	[ <a href="#">models.SavGroupStruct</a> ]	sav entries	No

**models.SavGroupStruct**

Name	Type	Description	Required
grpName	string	grp name Max Length: 16 Min Length: 1	No
prefixes	[ string ]	prefixes Max Length: 4	No

**models.SbriCfg**

Name	Type	Description	Required
subMacAddrSbriList	<a href="#">models.SubMacAddrSbriList</a>	sub mac addr sbri list	No
		Required: true	

**models.Sg**

Name	Type	Description	Required
cnBRName	string	cn b r name	No
depiFragment	boolean	depi fragment	No
description	string	description Required: true	No

Name	Type	Description	Required
dhcp	models.Dhcp	dhcp	No
ds	models.DsCfgs	ds Required: true	No
dsResilCfg	models.DsResilCfg	ds Resil cfg	No
dsg	models.DsgCfgs	dsg	No
dsmtu	integer	dsmtu Required: true	No
layer3Cfg	models.Layer3Cfg	layer3 cfg	No
mapCtrl	models.MapCtrl	mapCtrl	No
md	models.MdCfgs	md Required: true	No
modProfs	models.ModProfCfgs	modProfs Required: true	No
ndfDs	models.NdfDsCfgs	ndfDs	No
ndrUs	models.NdrUsCfgs	ndrUs	No
ofdmDs	models.OfdmDsCfgs	ofdmDs	No
ofdmModProfs	models.OfdmModProfCfgs	ofdmModProfs	No
ofdmProfMgmt	models.OfdmProfMgmt	ofdmProfMgmt	No
ofdmaUs	models.OfdmaUsCfgs	ofdmaUs	No
ofdmaUsModProfs	models.OfdmaUsModProfCfgs	ofdmaUsModProfs	No
oobDs	models.OobDsCfgs	oobDs	No
oobUs	models.OobUsCfgs	oobUs	No
preEqualizationExclude	models.PreEqualizationExcludeCfg	preEqualizationExclude	No
privacy	models.Privacy	privacy	No
punt	models.IcpiCfg	punt	No
rcp	models.RcpCfgs	rcp	No
rpdcfg	models.RpdCfg	rpdcfg Required: true	No
rpdcfgMultiCore	models.RpdCfgMultiCore	rpdcfgMultiCore	No
rpdcfgPtp	models.RpdCfgPtp	rpdcfgPtp Required: true	No
rpdcfgSsd	models.RpdCfgSsd	rpdcfgSsd	No
rpdcfgTelemetry	models.RpdCfgTelemetry	rpdcfgTelemetry	No
rpdcfgUtsc	models.RpdCfgUtsc	rpdcfgUtsc	No
sgName	string	sg name Required: true Max Length: 128 Pattern: <code>^([A-Za-z0-9] [A-Za-z0-9- _]{0,61}[A-Za-z0-9])?(\.A- Za-z?)*\$</code>	No
sgWeight	number	sg weight	No
specsvl	boolean	specsvl	No
subMacAddrSbrl	models.SbrlCfg	sub mac addr sbrl	No
svcds	models.SvcDsCfgs	svcds	No
svcus	models.SvcUsCfgs	svcus	No
txPowerHeadroom	models.TxPowerHeadroom	txPowerHeadroom	No
us	models.UsCfgs	us Required: true	No
usmtu	integer	usmtu Required: true	No
videoDs	models.VideoDsCfgs	videoDs	No

**models.SpRouter**

Name	Type	Description	Required
bgp-peer	string	bgp peer	Required: true No
cin-gateway	string	cin gateway	No
cin-gateway-ipv4	string	cin gateway ipv4	No
cin-gateway-ipv6	string	cin gateway ipv6	No
ptp-gateway	string	ptp gateway	No
ptp-gateway-alt	string	ptp gateway alt	No
router-id	string	router id	No
rpd-ptp-gateway	string	rpd ptp gateway	No
rpd-ptp-gateway-alt	string	rpd ptp gateway alt	No
sg-peer	string	sg peer	No
sg-peer-ipv4	string	sg peer ipv4	No
sg-peer-ipv6	string	sg peer ipv6	No
tftp-proxy-gateway-ipv4	string	tftp proxy gateway ipv4	No
tftp-proxy-gateway-ipv6	string	tftp proxy gateway ipv6	No

**models.Spr**

Name	Type	Description	Required
sp-router-redundancy-mode	string	sp router redundancy mode Enum: [active-standby active-active]	No
sp-routers	[ <a href="#">models.SpRouter</a> ]	sp routers	Required: true No

**models.Sprstat**

Name	Type	Description	Required
bgpAsn	integer	bgp asn	No
routerId	string	router Id Max Length: 255 Min Length: 1	No
state	string	state Enum: [Up Down]	No

**models.SubMacAddrSbrlList**


---

<sup>1</sup>A-Za-z

Name	Type	Description	Required
PuntCause	string	punt cause Required: true Enum: [dhcpxv4_us dhcpxv6_us cable_arp_req cable_arp_reply ndp svfy_v4 svfy_v6 ds_lq_v4 ds_lq_v6 mobility_v4 mobility_v6 tftp_req ds_no_adj_v4 ds_no_adj_v6]	No
RateLimitCfg	<a href="#">models.RateLimitCfg</a>	rate limit cfg Required: true	No

**models.SvcDsCfg**

Name	Type	Description	Required
attrAggreRuleMask	integer	attr aggre rule mask Maximum: 4.294967295e+09 Minimum: 0	No
forbAttrMask	integer	forb attr mask Maximum: 4.294967295e+09 Minimum: 0	No
iPTypServOvr	integer	i p typ serv ovwri Maximum: 63 Minimum: -1	No
maxDsLatcy	integer	max ds latcy Maximum: 4.294967295e+09 Minimum: 0	No
maxSustTrafRate	integer	max sust traf rate Maximum: 4.294967295e+09 Minimum: 0	No
maxTrafBurst	integer	max traf burst Maximum: 4.294967295e+09 Minimum: 1522	No
minRsvdRatePktSize	integer	min rsvd rate pkt size Maximum: 65535 Minimum: 0	No
minRsvdTrafRate	integer	min rsvd traf rate Maximum: 4.294967295e+09 Minimum: 0	No
peakTrafRate	integer	peak traf rate Maximum: 4.294967295e+09 Minimum: 0	No
qoSParaSetType	integer	qo s para set type Enum: [1 2 3 4 5 6 7]	No

Name	Type	Description	Required
requAttrMask	integer	requ attr mask Maximum: 4.294967295e+09 Minimum: 0	No
reseqDisab	boolean	reseq disab	No
servClassName	string	serv class name Required: true Max Length: 15 Min Length: 1	No
tmoutActQoSParam	integer	tmout act qo s param Maximum: 65535 Minimum: 0	No
tmoutAdmQoSParam	integer	tmout adm qo s param Maximum: 65535 Minimum: 0	No
trafPrio	integer	traf prio Maximum: 7 Minimum: 0	No

**models.SvcDsCfgs**

Name	Type	Description	Required
models.SvcDsCfgs	array		

**models.SvcUsCfgr**

Name	Type	Description	Required
attrAggreRuleMask	integer	attr aggre rule mask Maximum: 4.294967295e+09 Minimum: 0	No
forbAttrMask	integer	forb attr mask Maximum: 4.294967295e+09 Minimum: 0	No
graPerIntvl	integer	gra per intvl Maximum: 127 Minimum: 0	No
iPTypeOfServOvwr	integer	i p type of serv ovwri Maximum: 63 Minimum: -1	No
maxConcaBurst	integer	max conca burst Maximum: 65535 Minimum: 0	No
maxSustTrafRate	integer	max sust traf rate Maximum: 4.294967295e+09 Minimum: 0	No

Name	Type	Description	Required
maxTrafBurst	integer	max traf burst Maximum: 4.294967295e+09 Minimum: 1522	No
minRsvdRate	Pkt Size	min rsvd rate pkt size Maximum: 65535 Minimum: 0	No
minRsvdTrafRate	integer	min rsvd traf rate Maximum: 4.294967295e+09 Minimum: 0	No
multiConteReqBacWin	integer	multi conte req bac win Maximum: 12 Minimum: 4	No
multiNumBytesRequ	Enum	multi num bytes requ Enum: [1 2 4 8 16]	No
nomGrantIntvl	integer	nom grant intvl Maximum: 4.294967295e+09 Minimum: 0	No
nomPolIntvl	integer	nom pol intvl Maximum: 4.294967295e+09 Minimum: 0	No
peakTrafRate	integer	peak traf rate Maximum: 4.294967295e+09 Minimum: 0	No
qoSParaSetType	integer	qo s para set type Enum: [1 2 3 4 5 6 7]	No
reqTxPolicy	integer	req tx policy	No
requAttrMask	integer	requ attr mask Maximum: 4.294967295e+09 Minimum: 0	No
servClassName	string	serv class name Required: true Max Length: 15 Min Length: 1	No
servFlowSchedType	integer	serv flow sched type Required: true Maximum: 6 Minimum: 0	No
tmoutActQoSParam	integer	tmout act qo s param Maximum: 65535 Minimum: 0	No
tmoutAdmQoSParam	integer	tmout adm qo s param Maximum: 65535 Minimum: 0	No
toleGrantJit	integer	tole grant jit Maximum: 4.294967295e+09 Minimum: 0	No

Name	Type	Description	Required
tolePollJit	integer	tole poll jit Maximum: 4.294967295e+09 Minimum: 0	No
trafPrio	integer	traf prio Maximum: 7 Minimum: 0	No
ugsGrantSize	integer	ugs grant size Maximum: 65535 Minimum: 0	No
ugsGrantTimeRef	integer	ugs grant time ref Enum: [0 1 2 3 4 294 967 295]	No

**models.SvcUsCfgs**

Name	Type	Description	Required
models.SvcUsCfgs	array		

**models.TftpProxy**

Name	Type	Description	Required
secondaryv4Gw	string	secondaryv4 gw	No
secondaryv6Gw	string	secondaryv6 gw	No
v4Gw	string	v4 gw	No
v6Gw	string	v6 gw	No

**models.TxPowerHeadroomCfg**

Name	Type	Description	Required
oui	string	oui Pattern: ^([0-9a-fA-F]{2}[:-]){2}[0-9a-fA-F]{2}\$	No
power	integer	power Maximum: 6 Minimum: 1	No

**models.TxPowerHeadroomCfgs**

Name	Type	Description	Required
models.TxPowerHeadroomCfgs	array		

**models.UsCfg**

Name	Type	Description	Required
adminState	string	admin state	No
attributeMask	integer	attribute mask Maximum: 4.294967295e+09 Minimum: 0	No
channelWidth	integer	channel width	No
docsisMode	string	docsis mode Enum: [tdma atdma tdma_atdma]	No
equalizationCoeffEnable	boolean	equalization coeff enable	No
equalizationErrorRecovery	boolean	equalization error recovery	No
freqAdjustAveraging	integer	freq adjust averaging Maximum: 100 Minimum: 10	No
frequency	integer	frequency Maximum: 8.5e+07 Minimum: 5e+06	No
idInSg	integer	id in sg Required: true	No
ingressNoiseCancelEnable	boolean	ingress noise cancel enable	No
modulation	integer	modulation	No
powerAdjustContinue	integer	power adjust continue Maximum: 15 Minimum: 2	No
powerAdjustNoise	integer	power adjust noise Maximum: 100 Minimum: 10	No
powerAdjustThreshold	integer	power adjust threshold Maximum: 10 Minimum: 0	No
powerLevel	integer	power level Maximum: 23 Minimum: -7	No
powerLevelAdjust	integer	power level adjust	No
slotSize	integer	slot size	No

### models.UsCfgs

Name	Type	Description	Required
models.UsCfgs	array		

### models.UsConfig

Name	Type	Description	Required
ScCfgAggregationMode	integer	sc cfg aggregation mode	No
ScCfgAggregationPeriod	integer	sc cfg aggregation period	No
ScCfgAveraging	integer	sc cfg averaging	No
ScCfgCenterFreq	integer	sc cfg center freq	No



Name	Type	Description	Required
ScCfgNumBins	integer	sc cfg num bins	No
ScCfgOutputFormat	integer	sc cfg output format	No
ScCfgPortEnd	integer	sc cfg port end	No
ScCfgPortStart	integer	sc cfg port start	No
ScCfgQualifyBw	integer	sc cfg qualify bw	No
ScCfgQualifyCenterFreq	integer	sc cfg qualify center freq	No
ScCfgQualifyThreshold	integer	sc cfg qualify threshold	No
ScCfgRepeatPeriod	integer	sc cfg repeat period	No
ScCfgRunDuration	integer	sc cfg run duration	No
ScCfgSpan	integer	sc cfg span	No
ScCfgTrigChannelIndex	integer	sc cfg trig channel index Maximum: 255 Minimum: 0	No
ScCfgTrigChannelType	integer	sc cfg trig channel type Enum: [1 2]	No
ScCfgTrigIuc	integer	sc cfg trig iuc	No
ScCfgTrigMinislotCount	integer	sc cfg trig minislot count	No
ScCfgTrigMode	integer	sc cfg trig mode Enum: [1 2 3 4 5 6 7 8 9]	No
ScCfgTrigSid	integer	sc cfg trig sid	No
ScCfgTrigTimestamp	string	sc cfg trig timestamp Max Length: 8 Min Length: 1	No
ScCfgTriggerCount	integer	sc cfg trigger count	No
ScCfgWindow	integer	sc cfg window	No

### models.VendorCfg

Name	Type	Description	Required
id	integer	id	No
oui	string	oui	No
value	string	value	No

### models.VideoChannelProfile

Name	Type	Description	Required
broadCastChanGroup	boolean		No
rfChans	[ <a href="#">models.VideoRFChannelList</a> ]		No

### models.VideoDSProfile

Name	Type	Description	Required
annex	string	RF Channel Annex Type Enum: [AnnexA AnnexB AnnexC]	No
channelWidth	integer	RF Channel Width in Hz. Mandatory field for 'annex' value AnnexA. Values: 6000000, 7000000, 8000000. Optional field for 'annex' values AnnexB and AnnexC. AnnexB and AnnexC only support and default to 6000000 Enum: [6000000,7000000,8000000]	No
interleaver	string	Interleaver depth of a channel Enum: [fecI8J16 fecI12J17 fecI16J8 fecI32J4 fecI64J2 fecI128J1 fecI128J2 fecI128J3 fecI128J4 fecI128J5 fecI128J6 fecI128J7 fecI128J8]	No
modulation	string	QAM modulation for the channel Enum: [qam256 qam64]	No
powerAdjust	integer	Power level adjustment for the channel from base power of the RF downstream port. Value range: -8 to 6 in dB in 1 dB steps.	No
rfChanType	string	Mode in which a QAM channel is operating. Values: sync, async. sync indicates channel operates as a synchronous MPEG video channel. async indicates channel operates as an asynchronous MPEG video channel. Configure channel for asynchronous video if cnBR and video Traffic Engine are in different timing domains. Enum: [sync, async]	No

Name	Type	Description	Required
rfMute	boolean	Added for future use. Will be used to set channel as mute. Not supported today.	No
spectrumInversion	boolean	RF signal spectrum inversion. True: Channel Spectrum is inverted. False: Channel Spectrum is not inverted	No
symbolRate	integer	Number of symbol changes per unit of time in kilo-symbols/second. Range: 3500–7000. Mandatory for ‘annex’ AnnexA and AnnexC. Optional and ignored for AnnexB. AnnexB symbol rate is fixed based on QAM modulation	No

**models.VideoDsCfg**

Name	Type	Description	Required
annex	string	annex Enum: [AnnexA AnnexB AnnexC]	No
broadcastChannelGroup	string	broadcast chan group	No
frequency	integer	frequency Maximum: 1.794e+09 Minimum: 5.4e+07	No
idInSg	integer	id in sg Required: true Maximum: 255 Minimum: 0	No
interleaver	string	interleaver Enum: [fecI12J17 fecI128J1 fecI128J2 fecI128J3 fecI128J4 fecI128J5 fecI128J6 fecI128J7 fecI128J8 fecI16J8 fecI32J4 fecI64J2 fecI8J16]	No
modulation	string	modulation Enum: [qam256 qam64]	No
powerAdjust	integer	power adjust Maximum: 6 Minimum: -8	No
pwGrpIpAddr	string	pw grp Ip addr	No
pwSrcIpAddr	string	pw src Ip addr	No
rfChanType	string	rf chan type Enum: [async sync]	No

Name	Type	Description	Required
rfMute	boolean	rf mute	No
sessionId	integer	session Id Maximum: 4.294967295e+09 Minimum: 0	No
spectrumInversion	boolean	spectrum inversion	No
symbolRate	integer	symbol rate Maximum: 7000 Minimum: 3500	No

**models.VideoDsCfgs**

Name	Type	Description	Required
models.VideoDsCfgs	array		

**models.VideoRFChannelList**

Name	Type	Description	Required
groupAddress	string	Required: true Group IPv4 or IPv6 Address of Video Traffic Engine. Group (Destination) IP address of multicast group that RPD needs to join to receive data on the static pseudowire.	No
idInSGR	string	Required: true IDs of channels specified as a Range. For example: 30-40. Range: 0-157	No
sourceAddress	string	Required: true Source IPv4 or IPv6 Address of Video Traffic Engine. Source IP address of multicast group that RPD needs to join to receive data on a static pseudowire. Use for source specific (SSM) operation. For any-source multicast operation, use NULL IP address.	No

Name	Type	Description	Required
startFrequency	integer	Required: true 'startFrequency' is center frequency of first channel in 'idInSGRange'. For subsequent channels, frequency is incremented based on 'channelWidth'.	No
startSessionId	string	Required: true Unique PW Session Identifier represented in Hexadecimal or decimal. 'startSessionId' value is SessionId of first channel in 'idInSGRange'. For subsequent channels, SessionId is incremented by 1. Full range: 0x1 ... 0xFFFFFFFF. Multicast range: 0x80000001 .. 0x8000FFFF	No

### models.VideoTemplate

Name	Type	Description	Required
videoChannel	<a href="#">models.VideoChannelProfile</a>		No
videoDs	[ <a href="#">models.VideoDSPProfile</a> ]		No

### models.VideoTemplateConfig

Name	Type	Description	Required
description	string	<i>Example:</i> "Default Video Configuration"	No
name	string	<i>Example:</i> "Default Video Template"	No
type	string	<i>Example:</i> "TEMPLATE-VIDEO"	No
videoTemplate	<a href="#">models.VideoTemplate</a>		No

### models.Vrf

Name	Type	Description	Required
name	string	name Required: true	No
vlan	integer	vlan Required: true Maximum: 4094 Minimum: 1	No

Name	Type	Description	Required
vpnRd	string	vpn rd Required: true	No

### models.VrfInterface

Name	Type	Description	Required
dhcpServers	[ string ]	dhcp servers	No
mobilityScopes	[ string ]	mobility scopes	No
name	string	name	No
relayPolicies	[ <a href="#">models.DhcpRelayPolicy</a> ]	relay policies	No
v4Nets	[ string ]	v4 nets	No
v6Nets	[ string ]	v6 nets	No

### models.Wiring

Name	Type	Description	Required
cluster-type	string	cluster type Required: true Enum: [SNSI_NORM AIO_RM MUL_NODES]	No
l3-info	<a href="#">models.WiringL3Info</a>	l3-info Required: true	No
mtu	integer	mtu	No
number-of-docsis-node	integer	number of docsis node	No
overlay-info	<a href="#">models.OverlayInfo</a>	overlay info Required: true	No

### models.WiringL3Info

Name	Type	Description	Required
bgp-agent-if-ipv4	[ string ]	bgp agent if ipv4 true Required:	No
bgp-agent-if-ipv6	[ string ]	bgp agent if ipv6 true Required:	No
cin-ipv4-prefix	integer	cin ipv4 prefix Maximum: 32 Minimum: 1	No
cin-ipv6-prefix	integer	cin ipv6 prefix Maximum: 128 Minimum: 1	No
cmts-cops-if-ipv4	[ string ]	cmts cops if ipv4	No

Name	Type	Description	Required
cmts-cops-if-ipv6	[ string ]	cmts cops if ipv6	No
dc-link-ipv4-prefix	integer	dc link ipv4 prefix true Maximum: 32 Minimum: 1	Required: No
dc-link-ipv6-prefix	integer	dc link ipv6 prefix true Maximum: 128 Minimum: 1	Required: No
dmic-if-ipv4	[ string ]	dmic if ipv4	Required: true No
dmic-if-ipv6	[ string ]	dmic if ipv6	Required: true No
ptp-if-ipv4	[ string ]	ptp if ipv4	No
ptp-if-ipv6	[ string ]	ptp if ipv6	No
ptp-mac-addr	[ string ]	ptp mac addr	Required: true No
relayproxy-if-ipv4	[ string ]	relayproxy if ipv4	Required: true No
relayproxy-if-ipv6	[ string ]	relayproxy if ipv6	Required: true No
rphmgr-if-ipv4	[ string ]	rphmgr if ipv4	No
rphmgr-if-ipv6	[ string ]	rphmgr if ipv6	No
vpp-dp-rpd-if-ipv4	[ string ]	vpp dp rpd if ipv4	No
vpp-dp-rpd-if-ipv6	[ string ]	vpp dp rpd if ipv6	No

# Operations Hub cnBR Management API

**Version:** 1.0

**License:** [Apache 2.0](#)

**/loglevel**

**GET**

**Summary** Get HM Manager Current LogLevel

**Description** Get HM Manager Current LogLevel

**Responses**

Code	Description	Schema
200	OK	<a href="#">model.LogLevel</a>

**PUT**

**Summary** Set HM Manager LogLevel

**Description** Set HM Manager LogLevel

**Parameters**

Name	Located in	Description	Required	Schema
LogLevel	body	Log Level	Yes	<a href="#">model.LogLevel</a>



**Responses**

Code	Description	Schema
200	OK	<a href="#">model.LogLevel</a>
400	Bad Request	string

**/v1/cable-modems****GET**

**Summary** Get all Cable Modems information

**Description** Get all Cable Modems information

**Parameters**

Name	Located in	Description	Required	Schema
cmts-id	query	CMTS	Yes	string
state	query	filter modems state	No	string
format	query	output format	Yes	string

**Responses**

Code	Description	Schema
200	OK	<a href="#">model.SCMInfo</a>
400	Bad Request	string
404	Not Found	string

**PUT**

**Summary** Reset or Delete selected Cable Modems from HM

**Description** Reset or Delete selected Cable Modems from HM

**Parameters**

Name	Located in	Description	Required	Schema
ModemAction	body	Modem Action	Yes	<a href="#">model.ModemAction</a>

**Responses**

Code	Description	Schema
200	OK	<a href="#">apiresponse.ApiResponse</a>
400	Bad Request	<a href="#">error.ApplicationError</a>
404	Not Found	<a href="#">error.ApplicationError</a>
500	Internal Server Error	<a href="#">error.ApplicationError</a>

## /v1/cable-modems/flap

### GET

**Summary** ShowCableModem Flap List from HM

**Description** Show Cable Modem Flap List from HM

### Parameters

Name	Located in	Description	Required	Schema
cmts-id	query	CMTS	Yes	string
format	query	output format	Yes	string

### Responses

Code	Description	Schema
200	ok	string
400	Bad Request	string

## /v1/cable-modems/phy

### GET

**Summary** ShowCableModem PHY from HM

**Description** Show Cable Modem Phy from HM

### Parameters

Name	Located in	Description	Required	Schema
cmts-id	query	CMTS	Yes	string
format	query	output format	Yes	string

### Responses

Code	Description	Schema
200	ok	string
400	Bad Request	string

### **/v1/cable-modems/sg/all-modems**

#### **PUT**

**Summary** Reset or Delete all Modems of Service Group's from HM

**Description** Reset or Delete all Modems of Service Group's from HM

#### **Parameters**

Name	Located in	Description	Required	Schema
SGOfflineModemAction	body	SG Modem Action	Yes	<a href="#">model.SGOfflineModemAction</a>

#### **Responses**

Code	Description	Schema
200	OK	<a href="#">apiresponse.ApiResponse</a>
400	Bad Request	<a href="#">error.ApplicationError</a>
404	Not Found	<a href="#">error.ApplicationError</a>

### **/v1/cable-modems/sg/offline-modems**

#### **PUT**

**Summary** Reset or Delete Offline Modems of Service Group's from HM

**Description** Reset or Delete Offline Modems of Service Group's from HM

#### **Parameters**

Name	Located in	Description	Required	Schema
SGOfflineModemAction	body	SG Offline Modem Action	Yes	<a href="#">model.SGOfflineModemAction</a>

#### **Responses**

Code	Description	Schema
200	ok	string
400	Bad Request	string

## /v1/cable-modems/statistics

### GET

**Summary** Get Modem Statistics from HM

**Description** Get all the monitored CMTSs' Modem statistics from HM

### Responses

Code	Description	Schema
200	OK	<a href="#">model.CmStats</a>
400	Bad Request	string

## /v1/cable-modems/{mac}

### GET

**Summary** Get one Cable Modem information

**Description** Get one Cable Modem information

### Parameters

Name	Located in	Description	Required	Schema
mac	path	ModemMac	Yes	string
kind	query	output type	No	string

### Responses

Code	Description	Schema
200	OK	<a href="#">model.ModemBasicInfo</a>
400	Bad Request	string
404	Not Found	string

**/v1/cable-modems/{mac}/cpes**

### GET

**Summary** GetModemCpeInfo from HM

**Description** Get Modem CPE Info from HM

### Parameters

Name	Located in	Description	Required	Schema
mac	path	Modem Mac	Yes	string

### Responses

Code	Description	Schema
200	ok	string
400	Bad Request	string

### DELETE

**Summary** HttpDeleteModemCpes from HM

**Description** Delete Modem CPE Info from HM

### Parameters

Name	Located in	Description	Required	Schema
mac	path	Modem Mac	Yes	string
cpe-mac	query	CPE Mac List, split with ,	No	string

### Responses

Code	Description	Schema
200	ok	string
400	Bad Request	string

**/v1/cable-modems/{mac}/dbc****GET****Summary** Get Modem Dbc Info from HM**Description** Get Modem Dbc Info from HM**Parameters**

Name	Located in	Description	Required	Schema
mac	path	ModemMac	Yes	string
kind	query	output type	Yes	string
limit	query	limit number for events	No	integer

**Responses**

Code	Description	Schema
200	ok	string
400	Bad Request	string

**/v1/cable-modems/{mac}/debug****GET****Summary** Get Debug Information for any given Cable Modem using macidc**Description** Get cable modem's debug information from cnBr by invoking ida api's**Parameters**

Name	Located in	Description	Required	Schema
mac	path	ModemMac	Yes	string

**Responses**

Code	Description	Schema
200	OK	<a href="#">responseSlice</a>
400	Bad Request	string
404	Not Found	string
500	CM Debug request failed	string

**/v1/cable-modems/{mac}/service-flows****GET****Summary** Get cable modem's Service Flows information**Description** Get cable modem's Service Flows information**Parameters**

Name	Located in	Description	Required	Schema
mac	path	ModemMac	Yes	string

**Responses**

Code	Description	Schema
200	OK	<a href="#">model.SfPerModemList</a>
400	Bad Request	string
404	Not Found	string

**/v1/cmts****GET****Summary** Get all CMTS Information**Description** Get all CMTS Information**Parameters**

Name	Located in	Description	Required	Schema
fields	query	give information based on the fields	No	string

**Responses**

Code	Description	Schema
200	OK	<a href="#">model.CmtsDetailInfoEntries</a>
400	Bad Request	string
404	Not Found	string

**POST****Summary** Add new CMTSs to the HM**Description** Add new CMTSs to the HM**Parameters**

Name	Located in	Description	Required	Schema
Cmts	body	CMTS	Yes	<a href="#">model.NewCmtsInfo</a>

**Responses**

Code	Description	Schema
200	OK	<a href="#">model.CmtsBasicInfo</a>
400	Bad Request	<a href="#">model.Response</a>
403	Forbidden	<a href="#">model.Response</a>
500	Internal error	<a href="#">model.Response</a>

**DELETE****Summary** Delete All CMTSs from the HM**Description** Delete All CMTSs from the HM**Responses**

Code	Description	Schema
200	OK	<a href="#">model.CmtsEntry</a>
400	Bad Request	string

**/v1/cmts/mdcmsg****GET****Summary** Get all CMTS details**Description** Fetch the CMTS list as a DAG that contains all SG , with MD/CmSG/FN details, associated to each CMTS**Responses**



Code	Description	Schema
200	OK	<a href="#">model.CmtsResponse</a>
400	Bad Request	<a href="#">model.Response</a>

### **/v1/cmts/refresh**

#### **POST**

**Summary** Refresh All CMTS

**Description** Trigger CMTS(s) to send the telemetry

#### **Responses**

Code	Description	Schema
200	OK	string
500	Internal Server Error	string

### **/v1/cmts/refreshcmstelemetry/{cmts-id}**

#### **POST**

**Summary** refresh telemetry data

**Description** Edit CMTS credentials to the HM

#### **Parameters**

Name	Located in	Description	Required	Schema
cmts-id	path	CMTS	Yes	string
Cmts	body	CMTS sg list	Yes	<a href="#">model.SGList</a>

#### **Responses**

Code	Description	Schema
200	OK	<a href="#">model.Response</a>
400	Bad Request	<a href="#">model.Response</a>
500	Internal error	<a href="#">model.Response</a>

**/v1/cmts/version****GET****Summary** Get All cnBR Version**Description** HttpGetcnBRVersion api fetches the versions of the cnBR related components using restconf.ccmts-infra-ops-center for all cnBRs**Responses**

Code	Description	Schema
200	OK	<a href="#">model.ResponseRootObject</a>

**/v1/cmts/{cmts-id}****GET****Summary** Get one CMTS information**Description** Get one CMTS information**Parameters**

Name	Located in	Description	Required	Schema
cmts-id	path	CMTS	Yes	string
fields	query	give information on the fields	No	string

**Responses**

Code	Description	Schema
200	OK	<a href="#">model.CmtsBasicInfo</a>
400	Bad Request	string
404	Not Found	string

**PUT****Summary** Edit CMTS credentials to the HM**Description** Edit CMTS credentials to the HM**Parameters**

Name	Located in	Description	Required	Schema
cmts-id	path	CMTS	Yes	string
Cmts	body	CMTS credentials	Yes	<a href="#">model.NewCmtsCreds</a>

**Responses**

Code	Description	Schema
200	OK	<a href="#">model.Response</a>
400	Bad Request	<a href="#">model.Response</a>
500	Internal error	<a href="#">model.Response</a>

**DELETE**

**Summary** Delete one CMTS from the HM

**Description** Delete one CMTS from the HM

**Parameters**

Name	Located in	Description	Required	Schema
cmts-id	path	CMTS	Yes	string

**Responses**

Code	Description	Schema
200	OK	<a href="#">model.CmtsEntry</a>
404	Not found	string

**/v1/cmts/{cmts-id}/configs**

**GET**

**Summary** Get CMTS Config

**Description** Get CMTS Config

**Parameters**

Name	Located in	Description	Required	Schema
cmts-id	path	CMTS	Yes	string
type	query	config type	No	string

**Responses**

Code	Description	Schema
200	configuration	string
500	Internal Server Error	string

**/v1/cmts/{cmts-id}/health****POST****Summary** Update CMTS Health**Description** Update CMTS healthy status**Parameters**

Name	Located in	Description	Required	Schema
cmts-id	path	CMTS	Yes	string

**Responses**

Code	Description	Schema
200	OK	string
500	Internal Server Error	string

**/v1/cmts/{cmts-id}/interfaces****GET****Summary** Get CMTS's Interfaces information**Description** Get CMTS's Interfaces information**Parameters**

Name	Located in	Description	Required	Schema
cmts-id	path	CMTS	Yes	string

**Responses**

Code	Description	Schema
200	OK	<a href="#">model.IntfInfoList</a>
400	Bad Request	string
404	Not Found	string

**/v1/cmts/{cmts-id}/modems****GET****Summary** Get CMTS's Cable Modem List**Description** Get CMTS's Cable Modem List**Parameters**

Name	Located in	Description	Required	Schema
cmts-id	path	CMTS	Yes	string

**Responses**

Code	Description	Schema
200	OK	<a href="#">model.CmSgList</a>
400	Bad Request	string
404	Not Found	string

**/v1/cmts/{cmts-id}/refresh****POST****Summary** Refresh CMTS**Description** Trigger CMTS to send the telemetry**Parameters**

Name	Located in	Description	Required	Schema
cmts-id	path	CMTS	Yes	string

**Responses**

Code	Description	Schema
200	OK	string
500	Internal Server Error	string

**/v1/cmts/{cmts-id}/version****GET**

**Summary** Get cnBR Version

**Description** HttpGetcnBRVersion api fetches the versions of the cnBR related components using restconf.ccmts-infra-ops-center for one cnBR

**Parameters**

Name	Located in	Description	Required	Schema
cmts-id	path	CMTS	Yes	string

**Responses**

Code	Description	Schema
200	OK	<a href="#">model.ResponseRootObject</a>

**/v1/collector/file/{tid}****GET**

**Summary** Get the tar.gz file which includes collected information

**Description** Get the tar.gz file which includes collected information

**Parameters**

Name	Located in	Description	Required	Schema
tid	path	tid of the collection	Yes	string

**Responses**

Code	Description	Schema
200	OK	string
500	Internal Server Error	string

**DELETE**

**Summary** Delete the tar.gz file which includes collected information as well as its record in database

**Description** Get the tar.gz file which includes collected information as well as its record in database

**Parameters**

Name	Located in	Description	Required	Schema
tid	path	tid of the collection	Yes	string

**Responses**

Code	Description	Schema
200	OK	string
500	Internal Server Error	string

**/v1/collector/info****PUT**

**Summary** Collector Debug Info

**Description** Collector Debug Info

**Parameters**

Name	Located in	Description	Required	Schema
CollectorInfo	body	Collector Info	Yes	<a href="#">handler.CollectorInfo</a>

### Responses

Code	Description	Schema
200	ok	string
400	Bad Request	string

### /v1/collector/snapshot

### /v1/license/configure-license-server

#### POST

**Summary** This api shall be used to configure license server url of a single cnBR

**Description** Configure License Server URL

#### Parameters

Name	Located in	Description	Required	Schema
License	body	ConfigureServerUrl	Yes	<a href="#">model.ConfigureServerUrl</a>

### Responses

Code	Description	Schema
200	OK	<a href="#">model.Response</a>
400	Bad Request	<a href="#">model.Response</a>
500	Processing Errors	<a href="#">model.Response</a>

### /v1/license/configure-license-server-all

#### POST

**Summary** This api shall be used to configure cicense server url for all cnBRs

**Description** Configure License Server URL for all cnBR

#### Parameters



Name	Located in	Description	Required	Schema
License	body	ConfigureServerUrlForAllCnBR	Yes	<a href="#">model.ConfigureServerUrlForAllCnBR</a>

**Responses**

Code	Description	Schema
200	OK	<a href="#">handler.Response</a>
400	Bad Request	<a href="#">handler.Response</a>
500	Processing Errors	<a href="#">handler.Response</a>

**DELETE**

**Summary** This api shall be used to delete license server url of all cnBRs

**Description** Delete License Server URL for all cnBRs

**Responses**

Code	Description	Schema
200	OK	<a href="#">handler.Response</a>
400	Bad Request	<a href="#">handler.Response</a>
500	Processing Errors	<a href="#">handler.Response</a>

**/v1/license/configure-license-server/{clusterId}**

**GET**

**Summary** This api shall be used to fetch the configured license server url

**Description** Get Configure License Server URL

**Parameters**

Name	Located in	Description	Required	Schema
clusterId	path	CMTS	Yes	string

**Responses**

Code	Description	Schema
200	OK	<a href="#">model.Response</a>
400	Bad Request	<a href="#">model.Response</a>
500	Processing Errors	<a href="#">model.Response</a>

**DELETE**

**Summary** This api shall be used to delete license server url of a cnBR

**Description** Delete License Server URL

**Parameters**

Name	Located in	Description	Required	Schema
clusterId	path	CMTS	Yes	string

**Responses**

Code	Description	Schema
200	OK	<a href="#">model.Response</a>
400	Bad Request	<a href="#">model.Response</a>
500	Processing Errors	<a href="#">model.Response</a>

**/v1/license/deregister/{clusterId}**

**POST**

**Summary** This api shall be used to deregister a license

**Description** Product License Deregister URL

**Parameters**

Name	Located in	Description	Required	Schema
clusterId	path	CMTS	Yes	string

**Responses**

Code	Description	Schema
200	OK	<a href="#">model.Response</a>
400	Bad Request	<a href="#">model.Response</a>
500	Processing Errors	<a href="#">model.Response</a>

### **/v1/license/entitlement/{clusterId}**

#### **GET**

**Summary** This api shall be used to fetch the entitlement for a license

**Description** Product License Get All Entitlement

#### **Parameters**

Name	Located in	Description	Required	Schema
clusterId	path	CMTS	Yes	string

#### **Responses**

Code	Description	Schema
200	OK	<a href="#">model.Entitlement</a>
400	Bad Request	<a href="#">model.Response</a>
500	Processing Errors	<a href="#">model.Response</a>

#### **POST**

**Summary** This api shall be used to add an entitlement for a license

**Description** Product License Add Entitlement URL

#### **Parameters**

Name	Located in	Description	Required	Schema
clusterId	path	CMTS	Yes	string
License	body	Entitlement	Yes	<a href="#">model.Entitlement</a>

#### **Responses**

Code	Description	Schema
201	Added	<a href="#">model.Response</a>
400	Bad Request	<a href="#">model.Response</a>
409	Already Exists	<a href="#">model.Response</a>
500	Processing Errors	<a href="#">model.Response</a>

**DELETE**

**Summary** This api shall be used to delete an entitlement for a license

**Description** Product License Delete Entitlement URL

**Parameters**

Name	Located in	Description	Required	Schema
clusterId	path	CMTS	Yes	string

**Responses**

Code	Description	Schema
200	Deleted	<a href="#">model.Response</a>
400	Bad Request	<a href="#">model.Response</a>
500	Processing Errors	<a href="#">model.Response</a>

**/v1/license/register****POST**

**Summary** This api shall be used to register a license

**Description** Product License Register URL

**Parameters**

Name	Located in	Description	Required	Schema
License	body	Register	Yes	<a href="#">model.Register</a>

**Responses**

Code	Description	Schema
200	OK	<a href="#">model.Response</a>
400	Bad Request	<a href="#">model.Response</a>
500	Processing Errors	<a href="#">model.Response</a>

### **/v1/license/reservation/{clusterId}**

#### **GET**

**Summary** This api shall be used to know the status of license reservation

**Description** Product License Reservation Status URL

#### **Parameters**

Name	Located in	Description	Required	Schema
clusterId	path	CMTS	Yes	string

#### **Responses**

Code	Description	Schema
200	Reservation is enabled	<a href="#">model.Response</a>
400	Bad Request	<a href="#">model.Response</a>
422	Reservation is disabled	<a href="#">model.Response</a>
500	Processing Errors	<a href="#">model.Response</a>

#### **POST**

**Summary** This api shall be used to enable the reservation of a license

**Description** Product License Reservation Enable URL

#### **Parameters**

Name	Located in	Description	Required	Schema
clusterId	path	CMTS	Yes	string

#### **Responses**

Code	Description	Schema
200	OK	<a href="#">model.Response</a>
400	Bad Request	<a href="#">model.Response</a>
409	Already enabled	<a href="#">model.Response</a>
500	Processing Errors	<a href="#">model.Response</a>

**DELETE**

**Summary** This api shall be used to disable the reservation of a license

**Description** Product License Reservation Disable URL

**Parameters**

Name	Located in	Description	Required	Schema
clusterId	path	CMTS	Yes	string

**Responses**

Code	Description	Schema
200	OK	<a href="#">model.Response</a>
400	Bad Request	<a href="#">model.Response</a>
500	Processing Errors	<a href="#">model.Response</a>

**/v1/license/reservation/{clusterId}/cancel**

**POST**

**Summary** This api shall be used to void the reservation request code generated

**Description** Product License Reservation Cancel URL

**Parameters**

Name	Located in	Description	Required	Schema
clusterId	path	CMTS	Yes	string

**Responses**

Code	Description	Schema
200	OK	<a href="#">model.CancelReservationItem</a>
400	Bad Request	<a href="#">model.Response</a>
422	Reservation is disabled	<a href="#">model.Response</a>
500	Processing Errors	<a href="#">model.Response</a>

### **/v1/license/reservation/{clusterId}/install**

#### **POST**

**Summary** This api shall be used to fetch the install the license reservation key.

**Description** Product License Reservation Install URL

#### **Parameters**

Name	Located in	Description	Required	Schema
clusterId	path	CMTS	Yes	string
License	body	InstallKey	Yes	<a href="#">model.InstallKeyReqObj</a>

#### **Responses**

Code	Description	Schema
204	OK	<a href="#">model.Response</a>
400	Bad Request	<a href="#">model.Response</a>
422	Reservation is disabled	<a href="#">model.Response</a>
500	Processing Errors	<a href="#">model.Response</a>

### **/v1/license/reservation/{clusterId}/request**

#### **POST**

**Summary** This api shall be used to fetch the reservation request code, needed to get the installation key from CSSM server

**Description** Product License Reservation Request URL

#### **Parameters**

Name	Located in	Description	Required	Schema
clusterId	path	CMTS	Yes	string

**Responses**

Code	Description	Schema
200	OK	<a href="#">model.RequestCodeItem</a>
400	Bad Request	<a href="#">model.Response</a>
422	Reservation is disabled	<a href="#">model.Response</a>
500	Processing Errors	<a href="#">model.Response</a>

**/v1/license/reservation/{clusterId}/return**

**POST**

**Summary** This api shall be used to return the license reservation.

**Description** Product License Reservation Return URL

**Parameters**

Name	Located in	Description	Required	Schema
clusterId	path	CMTS	Yes	string
License	body	Return Authorization	Yes	<a href="#">model.ReturnReqObj</a>

**Responses**

Code	Description	Schema
200	OK	<a href="#">model.ReturnCodeItem</a>
400	Bad Request	<a href="#">model.Response</a>
422	Reservation is disabled	<a href="#">model.Response</a>
500	Processing Errors	<a href="#">model.Response</a>

**/v1/license/status-only/{clusterId}**

**GET**

**Summary** This api shall be used to fetch the only license status details.

**Description** Get Product License Status Only



**Parameters**

Name	Located in	Description	Required	Schema
clusterId	path	CMTS	Yes	string

**Responses**

Code	Description	Schema
200	OK	<a href="#">model.LicenseStatus</a>
400	Bad Request	<a href="#">model.Response</a>
500	Processing Errors	<a href="#">model.Response</a>

**/v1/license/status/{clusterId}****GET**

**Summary** This api shall be used to fetch the complete status (License status, Reservation status) details of the license.

**Description** Get Product License Status Details

**Parameters**

Name	Located in	Description	Required	Schema
clusterId	path	CMTS	Yes	string

**Responses**

Code	Description	Schema
200	OK	<a href="#">model.LicenseStatus</a>
400	Bad Request	<a href="#">model.Response</a>
500	Processing Errors	<a href="#">model.Response</a>

**/v1/service-flows****GET**

**Summary** Get CMTS's Service Flows list

**Description** Get CMTS's Service Flows list

**Parameters**

Name	Located in	Description	Required	Schema
cmts-id	query	CMTS	Yes	string

**Responses**

Code	Description	Schema
200	OK	<a href="#">model.ServiceFlowList</a>
400	Bad Request	string
404	Not Found	string

**/v1/service-flows/{sf-id}****GET****Summary** Get one Service Flow**Description** Get one Service Flow**Parameters**

Name	Located in	Description	Required	Schema
cmts-id	query	CMTS	Yes	string
sg-id	query	Service Group	Yes	integer
md-id	query	MAC Domain	Yes	integer
sf-id	path	Service Flow	Yes	integer

**Responses**

Code	Description	Schema
200	OK	<a href="#">model.SfInfoVerb</a>
400	Bad Request	string
404	Not Found	string

**/v1/software/version****GET****Summary** Get Opshub Version

**Description** `HttpGetOpshubersion` api fetches the version of the Opshub related components

### Responses

Code	Description	Schema
200	OK	<a href="#">model.ResponseRootObject</a>

### Models

#### `apiresponse.ApiResponse`

Name	Type	Description	Required
<code>code</code>	integer	add response status code e.g. <code>http.StatusOK // 200</code>	No
<code>response</code>	object	add response body e.g { "action:"delete", "description":"delete operation success" }	No
<code>status</code>	string	add response status code text e.g. Success, Partial Success using <code>http.StatusText(http.StatusOK)</code>	No

#### `error.ApplicationError`

Name	Type	Description	Required
<code>code</code>	integer	add response status code e.g. <code>http.StatusBadRequest // 400</code>	No
<code>description</code>	string	add user friendly error description to send as part of api response	No
<code>meta</code>	string	add some more meta info for the operation	No
<code>status</code>	string	add response status code text e.g. Bad Request using <code>http.StatusText(http.StatusBadRequest)</code>	No
<code>trace</code>	string	add stack trace if any	No

#### `handler.CollectorInfo`

Name	Type	Description	Required
from	string		No
info_source	[ <a href="#">handler.CollectorTypeInfo</a> ]		No
to	string		No
user	string		No

**handler.CollectorTypeInfo**

Name	Type	Description	Required
id	string		No
source	string		No
type	string		No

**handler.Response**

Name	Type	Description	Required
failure	[ string ]		No
success	[ string ]		No

**model.CancelReservationItem**

Name	Type	Description	Required
cancel-info	string		No

**model.CmSg**

Name	Type	Description	Required
mdCmSgId	integer		No
mdDsSg	<a href="#">model.DsSg</a>		No
mdUsSg	<a href="#">model.UsSg</a>		No

**model.CmSgInfo**

Name	Type	Description	Required
modems-list	[ string ]		No
sg-id	integer		No

**model.CmSgList**

Name	Type	Description	Required
cmts-id	string		No
sg-id-list	[ <a href="#">model.CmSgInfo</a> ]		No

**model.CmSgStatsInfo**

Name	Type	Description	Required
init	integer		No
offline	integer		No
online	integer		No
sg-id	integer		No

**model.CmStats**

Name	Type	Description	Required
cmts-modems-stats	[ <a href="#">model.CmStatsItem</a> ]		No

**model.CmStatsItem**

Name	Type	Description	Required
cmts-id	string		No
sg-stats	[ <a href="#">model.CmSgStatsInfo</a> ]		No

**model.CmtsBasicInfo**

Name	Type	Description	Required
access-token	string	CmtsToken string json:"cmts-token"	No
cluster-numeric-id	integer		No
cmts-id	string		No
cmts-name	string		No
ingress-host-name	string		No
namespace	string		No
password	string		No
refresh-token	string		No
refresh-token-expire	integer		No
status	string		No
token-refresh-status	string		No

Name	Type	Description	Required
username	string		No

**model.CmtsDetailInfo**

Name	Type	Description	Required
access-token	string		No
cmts-id	string		No
cmts-name	string		No
description	string	CmtsToken string json:"cmts-token"	No
docsis-base-cap	string		No
ingress-host-name	string		No
namespace	string		No
password	string		No
refresh-token	string		No
refresh-token-expire	integer		No
status	string		No
token-refresh-status	string		No
username	string		No

**model.CmtsDetailInfoEntries**

Name	Type	Description	Required
cmts-list	[ <a href="#">model.CmtsDetailInfo</a> ]		No

**model.CmtsEntry**

Name	Type	Description	Required
cmts-id	[ string ]		No

**model.CmtsResponse**

Name	Type	Description	Required
cmts	[ <a href="#">model.MdCmSg</a> ]		No

**model.ComponentsObject**

Name	Type	Description	Required
name	string		No
version	string		No

**model.ConfigureServerUrl**

Name	Type	Description	Required
productHostName	string		No
url	string		No

**model.ConfigureServerUrlForAllcnBR**

Name	Type	Description	Required
url	string		No

**model.DsSg**

Name	Type	Description	Required
dsChanSet	[ integer ]		No
mdDsSgId	integer		No

**model.Entitlement**

Name	Type	Description	Required
count	integer		No
name	string		No

**model.FiberNode**

Name	Type	Description	Required
fnId	integer		No
mdCmSgs	[ <a href="#">model.CmSg</a> ]		No

**model.InstallKeyReqObj**

Name	Type	Description	Required
key	string		No

**model.IntfInfo**

Name	Type	Description	Required
if-in-octets	integer		No
if-mac	string		No
if-name	string		No
if-out-octets	integer		No
if-stack-status	string		No
if-type	string		No

**model.IntfInfoList**

Name	Type	Description	Required
cluster-id	string		No
interface-list	[ <a href="#">model.IntfInfo</a> ]		No

**model.LicenseStatus**

Name	Type	Description	Required
status	string		No

**model.LogLevel**

Name	Type	Description	Required
Log Level	string		No

**model.MACDomain**

Name	Type	Description	Required
fiber-nodes	[ <a href="#">model.FiberNode</a> ]		No
mdId	integer		No

**model.MdCmSg**



Name	Type	Description	Required
cmts-id	string		No
service-groups	[ <a href="#">model.ServiceGroup</a> ]		No

**model.ModemAction**

Name	Type	Description	Required
action	string		No
cmts-id	string		Yes
modems	[ string ]		No

**model.ModemBasicInfo**

Name	Type	Description	Required
cpe-count	integer		No
errors-correctable(s)	integer		No
errors-uncorrectable(s)	integer		No
flap-count	integer		No
flap-time	string		No
good-codeword	integer		No
interface	string		No
ip-address	[ string ]		No
mac-address	string		No
mac-tate	string		No
mac-version	string		No
operation-version	string		No
primary-ds-sfid	integer		No
primary-sID	integer		No
primary-us-sfid	integer		No
provisioned-version	string		No
rcp-id	string		No
rcs-dcid	[ integer ]		No
reinit-reason	string		No
tcs-ucid	[ integer ]		No
timing-offset	integer		No

**model.NewCmtsCreds**

Name	Type	Description	Required
password	string		No
username	string		No

**model.NewCmtsInfo**

Name	Type	Description	Required
cmts-name	string		No
ingress-host-name	string		No
namespace	string		No
password	string		No
username	string		No

**model.Register**

Name	Type	Description	Required
productHostName	string		No
tokenId	string		No

**model.RequestCodeItem**

Name	Type	Description	Required
reservation-request-code	string		No

**model.Response**

Name	Type	Description	Required
message	string	<i>Example: "message"</i>	No

**model.ResponseObject**

Name	Type	Description	Required
cmtsid	string		No
components	[ <a href="#">model.ComponentsObject</a> ]		No
name	string		No
version	string		No

**model.ResponseRootObject**

Name	Type	Description	Required
deployments	[ <a href="#">model.ResponseObject</a> ]		No

**model.ReturnCodeItem**

Name	Type	Description	Required
reservation-return-code	string		No

**model.ReturnReqObj**

Name	Type	Description	Required
authorization	string		No

**model.SCMInfo**

Name	Type	Description	Required
cpe-num	string		No
dual-stack	string		No
interface	string		No
ip-addr	string		No
mac-state	string		No
modem-mac	string		No
prim-sid	string		No
rx-pwr(dBmV)	string		No
timing-offset	string		No

**model.SGList**

Name	Type	Description	Required
sg-list	[ integer ]		No

**model.SGOfflineModemAction**

Name	Type	Description	Required
action	string		No
cmts-id	string		Yes
sg	[ string ]		No

**model.ServiceFlowList**

Name	Type	Description	Required
cmts-id	string		No
service-flow-list	[ <a href="#">model.SfInfo</a> ]		No

**model.ServiceGroup**

Name	Type	Description	Required
mac-domains	[ <a href="#">model.MACDomain</a> ]		No
sgId	integer		No

**model.SfInfo**

Name	Type	Description	Required
dir	string		No
id	integer		No
mac	string		No
mac-domain-id	integer		No
service-group-id	integer		No
state	string		No
type	string		No

**model.SfInfoVerb**

Name	Type	Description	Required
byte-cnt	integer		No
clusterId	string		No
dir	string		No
id	integer		No
mac	string		No
mdId	integer		No
pkt-cnt	integer		No
sgId	integer		No
state	string		No
type	string		No

**model.SfPerModem**

Name	Type	Description	Required
byte-cnt	integer		No
dir	string		No
id	integer		No
pkt-cnt	integer		No
state	string		No
type	string		No

**model.SfPerModemList**

Name	Type	Description	Required
mac	string		No
service-flow-list	[ <a href="#">model.SfPerModem</a> ]		No

**model.UsSg**

Name	Type	Description	Required
mdUsSgId	integer		No
usChanSet	[ integer ]		No

# Operations Hub RPD Management API

**Version:** 1.0

**License:** [Apache 2.0](#)

**/loglevel**

**GET**

**Summary** Get Current LogLevel

**Description** Get Current LogLevel

**Responses**

Code	Description	Schema
200	OK	<a href="#">rpd_operation.LogLevel</a>

**PUT**

**Summary** Set LogLevel

**Description** Set LogLevel

**Parameters**

Name	Located in	Description	Required	Schema
LogLevel	body	Log Level	Yes	<a href="#">rpd_operation.LogLevel</a>

**Responses**

Code	Description	Schema
200	OK	<a href="#">rpd_operation.LogLevel</a>

**/v1/hashelf/reload****POST**

**Summary** Reboot HA Shelf's line card or whole chassis

**Description** reboot HA Shelf's line card or HAShelf chassis

**Parameters**

Name	Located in	Description	Required	Schema
rpd-id	query	This rpd id is the primary RPD in the shelf	Yes	string
slot-number	query	slot number is the HAShelf's Line card number, from 0 to 12. If slot-number is set as -1, it means to reboot the whole chassis	Yes	string
cluster-id	query	id designating a cnBR cluster	Yes	string

**Responses**

Code	Description	Schema
202	Accepted UTSC start request	string
400	Could be malformed or incorrect query parameters	string
500	Internal Server Error	string

**/v1/if-index****GET**

**Summary** Get ifindex for all US ports

**Description** Get ifindex for all US ports, it is for snmp

### Responses

Code	Description	Schema
200	OK	<a href="#">main.IffIndexTable</a>
400	Bad Request	string
500	Internal Server Error	string

## /v1/pnm-session

### GET

**Summary** Get PNM Session configuration

**Description** Get Proactive Network Maintenance(PNM) Session Configuration

### Parameters

Name	Located in	Description	Required	Schema
cluster-id	query	id designating a cnBR cluster	Yes	string

### Responses

Code	Description	Schema
200	OK	<a href="#">main.PnmSessionForUser</a>
400	Bad Request	string
500	Internal Server Error	string

### PUT

**Summary** Config PNM session

**Description** Configure Proactive Network Maintenance(PNM) Session

### Parameters

Name	Located in	Description	Required	Schema
cluster-id	query	id designating a cnBR cluster	Yes	string
Configuration	body	PNM Session Configuration	Yes	<a href="#">main.PnmSessionForUser</a>



**Responses**

Code	Description	Schema
202	Accepted configuring pnm session request	string
400	Could be malformed or incorrect query parameters	string
500	Internal Server Error	string

**/v1/rpd-all/{cluster-id}****GET****Summary** GET All RPDs**Description** GET All RPDs**Parameters**

Name	Located in	Description	Required	Schema
cluster-id	path	cluster id	Yes	string

**Responses**

Code	Description	Schema
200	OK	string

**/v1/rpd-by-mac/{cluster-id}/{mac-id}****GET****Summary** GET RPD**Description** GET RPD**Parameters**

Name	Located in	Description	Required	Schema
cluster-id	path	cluster id	Yes	string
mac-id	path	mac id	Yes	string

**Responses**

Code	Description	Schema
200	OK	string

**/v1/rpd/cvc****GET****Summary** Get RPD CVC page**Description** Get RPD CVC page**Responses**

Code	Description	Schema
200	OK	string

**POST****Summary** Upload RPD CVC**Description** Upload RPD CVC**Parameters**

Name	Located in	Description	Required	Schema
cvc-name	formData	cvc name	Yes	string
cvc-txt	formData	cvc txt	Yes	string

**Responses**

Code	Description	Schema
200	OK	string

**/v1/rpd/cvc/{cvc-name}****DELETE****Summary** Delete RPD CVC**Description** Delete RPD CVC

**Parameters**

Name	Located in	Description	Required	Schema
cvc-name	path	RPD CVC name	Yes	string

**Responses**

Code	Description	Schema
200	OK	string

**/v1/rpd/image****GET****Summary** Get RPD image page**Description** Get RPD image page**Responses**

Code	Description	Schema
200	OK	string

**POST****Summary** Upload RPD image**Description** Upload RPD image**Parameters**

Name	Located in	Description	Required	Schema
file	formData	RPD image file	Yes	file

**Responses**

Code	Description	Schema
200	OK	string

**/v1/rpd/image/{filename}****DELETE****Summary** Delete RPD image**Description** Delete RPD image**Parameters**

Name	Located in	Description	Required	Schema
filename	path	RPD image file name	Yes	string

**Responses**

Code	Description	Schema
200	OK	string

**/v1/rpd/overview****GET****Summary** Get RPD overview page**Description** Get RPD overview page**Responses**

Code	Description	Schema
200	OK	string

**/v1/rpd/ssd****GET****Summary** Get RPD SSD page**Description** Get RPD SSD page**Responses**

Code	Description	Schema
200	OK	string

**POST****Summary** Trigger RPD SSD**Description** Trigger RPD SSD**Parameters**

Name	Located in	Description	Required	Schema
rpd-id	query	rpd id	Yes	string
cluster-id	query	cluster id	Yes	string
ssd_payload	formData	{'address':'ip address', 'ip': 'ip address', 'proto':1 , 'filename':'rpd file name', 'ccvc':'', 'mcvc':''}	Yes	string
sg_id	formData	sg id	Yes	string
next_boot	formData	true or false	Yes	string

**Responses**

Code	Description	Schema
200	OK	string

**/v1/rpd/ssd-state****GET****Summary** Get RPD SSD state**Description** Get RPD SSD state**Responses**

Code	Description	Schema
200	OK	string

### /v1/rpd/upgrade/{image}

#### POST

**Summary** Trigger RPD SSD

**Description** Trigger RPD SSD

#### Parameters

Name	Located in	Description	Required	Schema
image	path	image name	Yes	string
rpd	formData	rpd id	Yes	string
next_boot	formData	true or false	Yes	string

#### Responses

Code	Description	Schema
200	OK	string

### /v1/rpd/{cluster-id}/reset/{mac-id}

#### POST

**Summary** Reset RPD

**Description** Reset RPD

#### Parameters

Name	Located in	Description	Required	Schema
cluster-id	path	cluster id	Yes	string
mac-id	path	mac id	Yes	string

#### Responses

Code	Description	Schema
200	OK	string
400	Bad Request	string
500	Internal Server Error	string

### **/v1/sg/config/canary**

#### **POST**

**Summary** SG config canary upgrade

**Description** SG config canary upgrade

#### **Parameters**

Name	Located in	Description	Required	Schema
CanaryParams	body	Canary params	Yes	<a href="#">sg_cfg_canary.RequestBody</a>

#### **Responses**

Code	Description	Schema
202	Accepted	<a href="#">sg_cfg_canary.Result</a>
400	Bad Request	<a href="#">sg_cfg_canary.Error</a>

### **/v1/sg/config/canary/transactions**

#### **GET**

**Summary** Get all transactions

**Description** Get all transaction ids

#### **Responses**

Code	Description	Schema
200	OK	[ string ]
404	Not Found	<a href="#">sg_cfg_canary.Error</a>

**/v1/sg/config/canary/transactions/active****GET****Summary** Get active canary transactions**Description** Get active canary transactions**Responses**

Code	Description	Schema
200	OK	[ <a href="#">sg_cfg_canary.CanaryTransaction</a> ]
404	Not Found	<a href="#">sg_cfg_canary.Error</a>

**/v1/sg/config/canary/transactions/{transaction-id}****GET****Summary** Get specific canary transaction status**Description** Get the status of specific canary transaction**Parameters**

Name	Located in	Description	Required	Schema
transaction-id	path	transaction-id	Yes	string

**Responses**

Code	Description	Schema
200	OK	<a href="#">sg_cfg_canary.CanaryTransaction</a>
404	Not Found	<a href="#">sg_cfg_canary.Error</a>

**/v1/sg/config/canary/transactions/{transaction-id}/revert-canary****POST****Summary** Revertback canary SGs' config**Description** Revertback configuration of canary service groups**Parameters**



Name	Located in	Description	Required	Schema
transaction-id	path	transaction-id	Yes	string

**Responses**

Code	Description	Schema
202	Accepted	<a href="#">sg_cfg_canary.Result</a>
400	Bad Request	<a href="#">sg_cfg_canary.Error</a>

**/v1/sg/config/canary/transactions/{transaction-id}/upgrade-all**

**POST**

**Summary** Upgrade all SGs of previous canary transactions

**Description** Upgrade all service groups of previous canary transactions

**Parameters**

Name	Located in	Description	Required	Schema
transaction-id	path	transaction-id	Yes	string

**Responses**

Code	Description	Schema
202	Accepted	<a href="#">sg_cfg_canary.Result</a>
400	Bad Request	<a href="#">sg_cfg_canary.Error</a>

**/v1/sg/ndfDs/{cmts-id}/{sg-id}**

**PUT**

**Summary** Update admin state for NDF

**Description** Update admin state for the existing NDF channel. Only “up” or “down” states are supported.

**Parameters**

Name	Located in	Description	Required	Schema
cmts-id	path	cmts-id	Yes	string
sg-id	path	sg-id	Yes	integer
ndfAdminState	body	Admin state for the NDF channel	Yes	<a href="#">rpd_operation.AdminStateNdfNdr</a>

### Responses

Code	Description	Schema
200	OK	string
400	Bad Request	<a href="#">rpd_operation.ErrorResponse</a>
404	Not Found	<a href="#">rpd_operation.ErrorResponse</a>
500	Internal Server Error	<a href="#">rpd_operation.ErrorResponse</a>

**/v1/sg/ndrUs/{cmts-id}/{sg-id}**

### PUT

**Summary** Update admin state for NDR

**Description** Update admin state for the existing NDR channel. Only “up” or “down” states are supported.

### Parameters

Name	Located in	Description	Required	Schema
cmts-id	path	cmts-id	Yes	string
sg-id	path	sg-id	Yes	integer
ndrAdminState	body	Admin state for the NDR channel	Yes	<a href="#">rpd_operation.AdminStateNdfNdr</a>

### Responses

Code	Description	Schema
200	OK	string
400	Bad Request	<a href="#">rpd_operation.ErrorResponse</a>
404	Not Found	<a href="#">rpd_operation.ErrorResponse</a>
500	Internal Server Error	<a href="#">rpd_operation.ErrorResponse</a>

**/v1/sg/replaceRPD/{cmts-id}/{sg-name}**

**PUT**

**Summary** Replace RPD in SG

**Description** replace a RPD in an existing SG

**Parameters**

Name	Located in	Description	Required	Schema
cmts-id	path	cmts-id	Yes	string
sg-name	path	sg-name	Yes	string
sg-config	body	RPD Configuration	Yes	<a href="#">rpd_operation.RpdReplaceCfg</a>

**Responses**

Code	Description	Schema
202	Accepted	<a href="#">rpd_operation.Result</a>
400	Bad Request	<a href="#">rpd_operation.Error</a>

**/v1/sg/{cmts-id}/{sg-name}**

**PUT**

**Summary** Update/RMA SG

**Description** Trigger Update,RMA existing SG

**Parameters**

Name	Located in	Description	Required	Schema
cmts-id	path	cmts-id	Yes	string
sg-name	path	sg-name	Yes	string
sg-config	body	SG Configuration	Yes	<a href="#">rpd_operation.SgConfig</a>

**Responses**

Code	Description	Schema
202	Accepted	<a href="#">rpd_operation.Result</a>
400	Bad Request	<a href="#">rpd_operation.Error</a>

**POST****Summary** SG Adding**Description** Trigger Adding new SG**Parameters**

Name	Located in	Description	Required	Schema
cmts-id	path	cmt-id	Yes	string
sg-name	path	sg-name	Yes	string
sg-config	body	SG Configuration	Yes	<a href="#">rpd_operation.SgConfig</a>

**Responses**

Code	Description	Schema
202	Accepted	<a href="#">rpd_operation.Result</a>
400	Bad Request	<a href="#">rpd_operation.Error</a>

**DELETE****Summary** Delete SG**Description** Trigger Deleting existing SG**Parameters**

Name	Located in	Description	Required	Schema
cmts-id	path	cmts-id	Yes	string
sg-name	path	sg-name	Yes	string

**Responses**

Code	Description	Schema
202	Accepted	<a href="#">rpd_operation.Result</a>

**/v1/sg/{cmts-id}/{sg-name}/requests****GET****Summary** SG Operation history

**Description** Trigger SG Operation query

### Parameters

Name	Located in	Description	Required	Schema
cmts-id	path	cmts-id	Yes	string
sg-name	path	sg-name	Yes	string

### Responses

Code	Description	Schema
200	OK	[ <a href="#">rpd_operation.restTransactionTable</a> ]
400	Bad Request	<a href="#">rpd_operation.Error</a>

**/v1/sg/{cmts-id}/{sg-name}/status**

### GET

**Summary** SG and Operation status

**Description** Trigger SG status query

### Parameters

Name	Located in	Description	Required	Schema
cmts-id	path	cmts-id	Yes	string
sg-name	path	sg-name	Yes	string

### Responses

Code	Description	Schema
200	OK	<a href="#">rpd_operation.Status</a>

**/v1/sg/{transaction-id}/status**

### GET

**Summary** SG Operation Trans status

**Description** Get the status of SG Operation

**Parameters**

Name	Located in	Description	Required	Schema
transaction-id	path	transaction-id	Yes	string

**Responses**

Code	Description	Schema
200	OK	<a href="#">rpd_operation.restTransactionTable</a>
400	Bad Request	<a href="#">rpd_operation.Error</a>

**/v1/shelf/group-information****GET**

**Summary** Get Shelf group info

**Description** Get 1RU/HA Shelf group information for all RPDs

**Parameters**

Name	Located in	Description	Required	Schema
cluster-id	query	id designating a cnBR cluster	Yes	string

**Responses**

Code	Description	Schema
200	OK	[ <a href="#">main.ShelfEntry</a> ]

**/v1/shelf/platform-information/{parameter}****GET**

**Summary** Get Shelf Platform Information details

**Description** Get detailed information about the 1RU/HA shelf including alarm, fan, power, eeprom

**Parameters**

Name	Located in	Description	Required	Schema
parameterpath		Choose between: [alarm,fan,power,sensors,eprom-fanio,eprom-psio,eprom-psu]	Yes	string
rpd-id	query	rpd id	Yes	string
cluster-id	query	id designating a cnBR cluster	Yes	string

### Responses

Code	Description	Schema
200	OK	<a href="#">main.UtscConfigForUser</a>
500	Internal Server Error	string

## /v1/shelf/request-output/{parameter}

### POST

**Summary** Post Shelf Platform Information details

**Description** request the platform information output of 1RU/HA shelf for type like alarm, fan, power, eeprom

### Parameters

Name	Located in	Description	Required	Schema
parameterpath		Choose between: [alarm,fan,power,sensors,eprom-fanio,eprom-psio,eprom-psu]	Yes	string
rpd-id	query	rpd id	Yes	string
cluster-id	query	id designating a cnBR cluster	Yes	string

### Responses

Code	Description	Schema
202	Accepted UTSC start request	string
400	Could be malformed or incorrect query parameters	string
500	Internal Server Error	string

**/v1/utsc****GET****Summary** Get UTSC configuration**Description** Get UTSC(Upstream Triggered Spectrum Capture) configuration**Parameters**

Name	Located in	Description	Required	Schema
cluster-id	query	id designating a cnBR cluster	Yes	string
sg-id	query	id designating a Service Group	Yes	string

**Responses**

Code	Description	Schema
200	OK	<a href="#">main.UtscConfigForUser</a>
400	Could be malformed or incorrect query parameters	string
404	Not found UTSC entry	string
500	Internal Server Error	string

**DELETE****Summary** Remove UTSC Configuration**Description** Remove UTSC(Upstream Triggered Spectrum Capture) Configuration**Parameters**

Name	Located in	Description	Required	Schema
cluster-id	query	id designating a cnBR cluster	Yes	string
sg-id	query	id designating a service group	Yes	string

**Responses**

Code	Description	Schema
202	Accepted removing UTSC configuration request	string
400	Could be malformed or incorrect query parameters	string
404	Not found UTSC entry	string



Code	Description	Schema
500	Internal Server Error	string

**/v1/utsc-status****GET****Summary** Get UTSC Status**Description** Get UTSC(Upstream Triggered Spectrum Capture) Status**Parameters**

Name	Located in	Description	Required	Schema
cluster-id	query	id designating a cnBR cluster	Yes	string
sg-id	query	id designating a service group	Yes	string

**Responses**

Code	Description	Schema
200	OK	<a href="#">main.UtscStatusForUser</a>
404	Not found UTSC status	string
500	Internal Server Error	string

**/v1/utsc/start****POST****Summary** Start UTSC with configuration**Description** Start Upstream Triggered Spectrum Capture(UTSC) for wide-band spectrum analysis.**Parameters**

Name	Located in	Description	Required	Schema
cluster-id	query	id designating a cnBR cluster	Yes	string
sg-id	query	id designating a service group	Yes	string
Configuration	body	UTSC Configuration	Yes	<a href="#">main.UtscConfigForUser</a>

**Responses**

Code	Description	Schema
202	Accepted UTSC start request	string
400	Could be malformed or incorrect query parameters	string
500	Internal Server Error	string

## /v1/utsc/stop

### PUT

**Summary** Stop UTSC

**Description** Stop UTSC(Upstream Triggered Spectrum Capture)

### Parameters

Name	Located in	Description	Required	Schema
cluster-id	query	id designating a cnBR cluster	Yes	string
sg-id	query	id designating a service group	Yes	string

### Responses

Code	Description	Schema
202	Accepted UTSC stop request	string
400	Could be malformed or incorrect query parameters	string
404	Not found UTSC entry	string
500	Internal Server Error	string

## Models

### main.IfIndexTable

Name	Type	Description	Required
cluster-id	string		No
if-index	integer		No
sg-id	integer		No
us-port	integer		No

### main.PnmSessionForUser

Name	Type	Description	Required
pnm-dest-addr	string		No
pnm-dest-path	string		No
pnm-hi-bin-session-id	integer		No
pnm-lo-bin-session-id	integer		No
pnm-upload-control	integer		No

**main.ShelfEntry**

Name	Type	Description	Required
clusterId	string		No
hostname	string		No
isMaster	boolean		No
rpId	string		No
shelfId	string		No
shelfPid	string		No
shelfSn	string		No
slotId	integer		No

**main.UtscConfigForUser**

Name	Type	Description	Required
sc-cfg-aggregation-mode	integer		No
sc-cfg-aggregation-period	integer		No
sc-cfg-averaging	integer		No
sc-cfg-center-freq	integer		No
sc-cfg-num-bins	integer		No
sc-cfg-output-format	integer		No
sc-cfg-port-end	integer		No

Name	Type	Description	Required
sc-cfg-port-start	integer	Currently, we don't support cross US ports, we will specify the same value by URL parameter	No
sc-cfg-qualify-bw	integer		No
sc-cfg-qualify-center-freq	integer		No
sc-cfg-qualify-threshold	integer		No
sc-cfg-repeat-period	integer		No
sc-cfg-run-duration	integer		No
sc-cfg-span	integer		No
sc-cfg-trig-channel-index	integer		No
sc-cfg-trig-channel-type	integer		No
sc-cfg-trig-iuc	integer		No
sc-cfg-trig-minislot-count	integer		No
sc-cfg-trig-mode	integer		No
sc-cfg-trig-sid	integer		No
sc-cfg-trig-timestamp	integer		No
sc-cfg-trigger-count	integer		No
sc-cfg-window	integer		No

Name	Type	Description	Required
usc-command	integer		No
usc-sac-index	integer	Currently, we only support 0	No

**main.UtscStatusForUser**

Name	Type	Description	Required
sc-cfg-port-end	integer		No
sc-cfg-port-start	integer		No
usc-sac-index	integer		No
usc-status	integer		No

**rpd\_operation.AdminStateNdfNdr**

Name	Type	Description	Required
admin-state	string		No
id-in-sg	integer		No

**rpd\_operation.Error**

Name	Type	Description	Required
error	string		No

**rpd\_operation.ErrorResponse**

Name	Type	Description	Required
code	integer		No
description	string		No
status	string		No

**rpd\_operation.LogLevel**

Name	Type	Description	Required
Log Level	string		No

**rpdc\_operation.PortAssociationInfo**

Name	Type	Description	Required
template-name	string		No
template-parameters	<a href="#">rpdc_operation.UserProvidedTemplateParameters</a>		No

**rpdc\_operation.Result**

Name	Type	Description	Required
transaction-id	string		No

**rpdc\_operation.RpdReplaceCfg**

Name	Type	Description	Required
rpdc-mac	string		No

**rpdc\_operation.SgConfig**

Name	Type	Description	Required
l3-template	string		No
rpdc-ip	string		No
rpdc-location	object		No
rpdc-mac	string		No
rpdc-name	string		No
sg-template	string		No
video-service-templates	[ <a href="#">rpdc_operation.VideoServiceTemplates</a> ]		No

**rpdc\_operation.Status**

Name	Type	Description	Required
status	string		No

**rpdc\_operation.UserProvidedTemplateParameters**

Name	Type	Description	Required
group-address	string		No
id-in-sg-range	string		No

Name	Type	Description	Required
source-address	string		No
start-frequency	integer		No
start-session-id	string		No

### rpdcoperation.VideoServiceTemplates

Name	Type	Description	Required
port	string		No
port-association	[ <a href="#">rpdcoperation.PortAssociationInfo</a> ]		No

### rpdcoperation.restTransactionTable

Name	Type	Description	Required
cmts-id	string		No
cmts-name	string		No
created-at	string		No
error-info	string		No
l3-template	string		No
last-state-change	string		No
operation	integer		No
rm-task-id	string	SgConfig string json: "SgConfig"	No
rpdcmac	string		No
rpdcmac-new	string		No
sg-id	integer	HostcnBR string json: "HostcnBR" TokencnBR string json: "TokencnBR"	No
sg-info	string		No
sg-name	string		No
sg-template	string		No
state	string		No
transaction-id	string		No

Name	Type	Description	Required
video-service-templates	string		No

**sg\_cfg\_canary.CanaryTransaction**

Name	Type	Description	Required
canary-sg-list	string		No
canary-sg-pre-config	string		No
canary-sg-pre-status	string		No
created-at	string		No
error	string		No
l3-template	string		No
last-state-change	string		No
operation	string		No
pre-transaction	string		No
revert-canary-on-failure	boolean		No
sg-list	string		No
sg-template	string		No
sg-transactions	string		No
state	string		No
transaction	string		No
transaction-name	string		No
upgrade-all-on-success	boolean		No

**sg\_cfg\_canary.CnbrSgs**

Name	Type	Description	Required
cmts-id	string		No
sgs	[ string ]		No

**sg\_cfg\_canary.Error**

Name	Type	Description	Required
error	string		No

**sg\_cfg\_canary.RequestBody**



Name	Type	Description	Required
canary-sg-list	[ <a href="#">sg_cfg_canary.CnbrSgs</a> ]		No
l3-template	string		No
revert-canary-on-failure	boolean		No
sg-list	[ <a href="#">sg_cfg_canary.CnbrSgs</a> ]		No
sg-template	string		No
transaction-name	string		No
upgrade-all-on-success	boolean		No

### **sg\_cfg\_canary.Result**

Name	Type	Description	Required
transaction	string		No

# Operations Hub KPI Alert Management API

**Version:** 1.0

**License:** [Apache 2.0](#)

## Security

### AuthHeader

apiKey	<i>API Key</i>
Name	Authorization
In	header

## /v1/alerts

### GET

**Summary** Get the Alertmanager Alert List

**Description** Get the list of alerts(“firing” and/or “resolved” status) from the Alertmanager.

### Parameters

Name	Located in	Description	Required	Schema
status	query	Filter alerts by status, and if status is empty will return all alerts.	No	string
limit	query	Query limit from DB.	No	integer

Name	Located in	Description	Required	Schema
offset	query	Query offset from DB.	No	integer
sort-by	query	Query sory by the parameter from DB.	No	string
order-by	query	Query order from DB.	No	string

**Responses**

Code	Description	Schema
200	OK	<a href="#">model.AlertGetEntry</a>

**/v1/alerts/groups****GET**

**Summary** Get the Alertmanager Alert Group List

**Description** Get the list of alert groups from the Alertmanager

**Responses**

Code	Description	Schema
200	OK	<a href="#">model.AlertGroupGetInfo</a>

**/v1/alerts/groups/{name}****GET**

**Summary** Get the Alertmanager Alert Group

**Description** Get one alert group by group name from the Alertmanager

**Parameters**

Name	Located in	Description	Required	Schema
name	path	Alert Group Name	Yes	string

**Responses**

Code	Description	Schema
200	OK	<a href="#">model.AlertGroupGetInfo</a>

**PUT**

**Summary** Set the Alertmanager Alert Group

**Description** Set one alert group by group name to the Alertmanager.

**Parameters**

Name	Located in	Description	Required	Schema
name	path	Alert Group Name	Yes	string
AlertGroup	body	Alert Group Setting	Yes	<a href="#">model.AlertGroupSetInfo</a>

**Responses**

Code	Description	Schema
200	OK	<a href="#">model.AlertGroupGetInfo</a>
400	Bad Request	string

**/v1/alerts/{id}****GET**

**Summary** Get the Alertmanager Alert

**Description** Get one alert by alert ID from the Alertmanager.

**Parameters**

Name	Located in	Description	Required	Schema
id	path	Alert ID	Yes	string

**Responses**

Code	Description	Schema
200	OK	<a href="#">model.AlertGetInfo</a>

**/v1/alerts/{id}/ack****PUT****Summary** Ack the Alertmanager Alert**Description** Ack one alert by alert ID to the Alertmanager.**Parameters**

Name	Located in	Description	Required	Schema
id	path	Alert ID	Yes	string
Alert	body	Alert Ack Information	Yes	<a href="#">model.AlertSetInfo</a>

**Responses**

Code	Description	Schema
200	OK	<a href="#">model.AlertGetInfo</a>
400	Bad Request	string

**/v1/loglevel****GET****Summary** Get OpsHub KPI Alertmanagement Log Level**Description** Get Get OpsHub KPI Alertmanagement Log Level**Responses**

Code	Description	Schema
200	OK	<a href="#">model.LogLevel</a>

**PUT****Summary** Set OpsHub KPI Alertmanagement Log Level**Description** Set OpsHub KPI Alertmanagement Log Level**Parameters**

Name	Located in	Description	Required	Schema
LogLevel	body	Log Level	Yes	<a href="#">model.LogLevel</a>

**Responses**

Code	Description	Schema
200	OK	<a href="#">model.LogLevel</a>
400	Bad Request	string

**/v1/smtp****GET**

**Summary** Get the Alertmanager SMTP Configuration

**Description** Get the configuration for SMTP that is used to forward alerts for notifications.

**Responses**

Code	Description	Schema
200	OK	<a href="#">model.AlertConfigGetInfo</a>

**PUT**

**Summary** Set the Alertmanager SMTP Configuration

**Description** Set the configuration for SMTP so that alertmanager can forward alerts for notifications through the configured SMTP server.

**Parameters**

Name	Located in	Description	Required	Schema
Config	body	Alertmanager SMTP Configuration	Yes	<a href="#">model.AlertConfigSetInfo</a>

**Responses**

Code	Description	Schema
200	OK	<a href="#">model.AlertConfigGetInfo</a>

Code	Description	Schema
400	Bad Request	string

## Models

### **model.AlertConfigGetInfo**

Name	Type	Description	Required
auth-identity	string		No
auth-password	string		No
auth-secret	string		No
auth-username	string		No
create-time	string		No
from	string		No
hello	string		No
host	string		No
require-tls	boolean		No
update-time	string		No

### **model.AlertConfigSetInfo**

Name	Type	Description	Required
auth-identity	string		No
auth-password	string		No
auth-secret	string		No
auth-username	string		No
from	string		No
hello	string		No
host	string		No
require-tls	boolean		No

### **model.AlertGetEntry**

Name	Type	Description	Required
alerts	[ <a href="#">model.AlertGetInfo</a> ]		No
limit	integer		No
offset	integer		No
total	integer		No

### **model.AlertGetInfo**

Name	Type	Description	Required
acked	boolean		No
acked-time	string		No
alert-group	string		No
alert-name	string		No
cnBR	string		No
comment	string		No
create-time	string		No
creator	string		No
description	string		No
end-time	string		No
expire-time	string		No
id	string		No
severity	string		No
start-time	string		No
status	string		No
summary	string		No
update-time	string		No

**model.AlertGroupGetInfo**

Name	Type	Description	Required
alert	[ string ]		No
create-time	string		No
enabled	boolean		No
name	string		No
sendto	[ string ]		No
update-time	string		No

**model.AlertGroupSetInfo**

Name	Type	Description	Required
enabled	boolean		No
sendto	[ string ]		No

**model.AlertSetInfo**

Name	Type	Description	Required
acked-time	string		No
comment	string		No
creator	string		No



Name	Type	Description	Required
expire-time	string		No

**model.LogLevel**

Name	Type	Description	Required
Log Level	string		No

# Operations Hub KPI Management API

**Version:** 1.0

**License:** [Apache 2.0](#)

**/api/clusterkpi/health**

**GET**

**Summary** Top level health kpi query

## Parameters

Name	Located in	Description	Required	Schema
verbose	query	A flag to show detail response for debug	No	boolean
time	query	Timestamp in rfc3339 or unix_timestamp format, only for instant query	No	string
start	query	Start timestamp in rfc3339 or unix_timestamp format	No	string
end	query	End timestamp in rfc3339 or unix_timestamp format	No	string

Name	Located in	Description	Required	Schema
step	query	Query resolution step width in duration format (e.g. 5s) or float number of seconds.	No	string
params	query	additional query condition	No	object

### Responses

Code	Description
200	1 is healthy, 0 is unhealthy, -1 is no data available
400	User input error
500	Internal error

### /api/clusterkpi/health/{folder}

#### GET

**Summary** Detail health kpi query

#### Parameters

Name	Located in	Description	Required	Schema
folder	path	kpi metric path	Yes	string
verbose	query	A flag to show detail response for debug	No	boolean
time	query	Timestamp in rfc3339 or unix_timestamp format, only for instant query	No	string
start	query	Start timestamp in rfc3339 or unix_timestamp format	No	string
end	query	End timestamp in rfc3339 or unix_timestamp format	No	string

Name	Located in	Description	Required	Schema
step	query	Query resolution step width in duration format (e.g. 5s) or float number of seconds.	No	string

### Responses

Code	Description
200	1 is healthy, 0 is unhealthy, -1 is no data available
400	User input error
500	Internal error



# Operations Hub Service

## Group Operations API

**Version:** 1.0

**License:** [Apache 2.0](#)

**/v1/cnbrs**

**GET**

**Summary** Get cluster list

**Description** Returns the cnbr list

**Responses**

Code	Description	Schema
200	OK	<a href="#">models.CmtsClusterTable</a>
400	Bad Request	string
404	Not Found	string

**/v1/cnbrs/{cnbr-id}/nodes/{node-name}/activate**

**POST**

**Summary** Activate node

**Description** activate the node which is in inactive state

**Parameters**

Name	Located in	Description	Required	Schema
cluster-id	path	cluster id	Yes	string
node-name	path	node name	Yes	string

**Responses**

Code	Description	Schema
200		
400	Bad Request	string
404	Not Found	string

**/v1/cnbrs/{cnbr-id}/nodes/{node-name}/sg-info**

**GET**

**Summary** preCheckClusterStatus

**Description** preCheckClusterStatus

**Parameters**

Name	Located in	Description	Required	Schema
cnbr-id	path	cnbr id	Yes	string
node-name	path	node name	Yes	string

**Responses**

Code	Description	Schema
200	OK	<a href="#">models.PreCheckResponse</a>
400	Bad Request	string
404	Not Found	string

**/v1/cnbrs/{cnbr-id}/sg-info**

**GET**

**Summary** getNodeList

**Description** getNodeList

**Parameters**

Name	Located in	Description	Required	Schema
cnbr-id	path	cnbr id	Yes	string

**Responses**

Code	Description	Schema
200		
400	Bad Request	string
404	Not Found	string

**/v1/cnbrs/{cnbr-id}/sg-move****POST****Summary** Service group Operations**Description** Move service groups to specified destination or drain the node**Parameters**

Name	Located in	Description	Required	Schema
cnbr-id	path	cnbr id	Yes	string
action	body	action	Yes	<a href="#">models.SGOperation</a>

**Responses**

Code	Description	Schema
200		
400	Bad Request	string
404	Not Found	string

**/v1/sg-info/tasks/{taskID}****GET****Summary** getTaskStatus**Description** getTaskStatus**Parameters**



Name	Located in	Description	Required	Schema
task-id	path	task id	Yes	string

**Responses**

Code	Description	Schema
200		
400	Bad Request	string
404	Not Found	string

**/v1/sg-move/history****GET****Summary** Get Task history**Description** Get Task History**Responses**

Code	Description	Schema
200	OK	<a href="#">models.Task</a>
400	Bad Request	string
404	Not Found	string

**Models****models.CmtsClusterTable**

Name	Type	Description	Required
cnbr-id	string		No
cnbr-name	string		No
healthyStatus	string		No
ingressHostName	string		No
lastUpdate	string		No
nameSpace	string		No
tableName	object		No

**models.PreCheckResponse**

Name	Type	Description	Required
message	string		No
node-name	string		No
status	string		No

**models.SGOperation**

Name	Type	Description	Required
action	string		No
destination	string		No
service-groups	[ integer ]		No
source	string		No

**models.Task**

Name	Type	Description	Required
action	string		No
cnbr-id	string		No
create-time	string		No
destination	string		No
dryrun-errors	[ string ]		No
failure-reason	string		No
sg-failed	[ integer ]		No
sg-finished	[ integer ]		No
source	string		No
status	string		No
subtask_id	object		No
tableName	object		No
task-id	string		No
update-time	string		No

