Cisco Wide Area Application Services API Reference

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Cisco Wide Area Application Services API Reference

CONTENTS

Preface

This preface describes who should read the *Cisco Wide Area Application Services API Reference*, how it is organized, and its document conventions. It contains the following sections:

Audience

This application program interface (API) guide is written for the knowledgeable application programmer who understands the basic architecture of the Cisco WAAS software product.

This document provides detailed descriptions of Web Service interfaces supported by the WAAS Central Manager.

This document serves as a reference for developers of open source software (OSS) applications that interface with the WAAS Central Manager Web Service interface. It provides details of input parameters, output parameters and attributes.

Document Organization

This API reference includes the following chapters:

Chapter	Title	Description
Chapter 1	Introduction to the Cisco WAAS Central Manager Monitoring API	Provides an introduction to the programmable interface and the methods and schemas used to retrieve monitoring information using the API.
Chapter 2	Device Configuration Service	Describes the Device Configuration service and the actions it performs.
Chapter 3	Traffic Acceleration Service	Describes the Traffic Acceleration Service and the actions it performs.

Chapter	Title	Description
Chapter 4	Events and Status Service	Describes the Events and Status service and the actions each performs.
Chapter 5	AppNav Statistics Service	Describes the AppNav Statistics service and the actions it performs.
Chapter 6	SMB Statistics Service	Describes the SMB Statistics service and the actions it performs.
Chapter 7		Describes the ICA Statistics service and the actions it performs.
Chapter 8	HTTP and HTTPS Statistics Services	Describes the HTTP/HTTPS Statistics service and the actions it performs.
Chapter 9	MAPI Statistics Service	Describes the MAPI Statistics service and the actions it performs.
Chapter 10	NFS Statistics Service	Describes the NFS Statistics service and the actions it performs.
Chapter 11	SSL Statistics Service	Describes the SSL Statistics service and the actions it performs.
Chapter 12	Web Service Objects	Describes the data types that are defined structures or objects in the Central Manager Monitoring API.

Document Conventions

This API reference uses basic conventions to represent text and table information.

Convention	Description
boldface font	Commands, keywords, and button names are in **boldface**.
italic font	Variables for which you supply values are in *italics*. Directory names and filenames are also in italics.
`screen` font	Terminal sessions and information the system displays are printed in `screen` font.
`boldface screen` font	Information you must enter is in **`boldface screen`** font.
`italic screen` font	Variables you enter are printed in *`italic screen`* font.
plain font	Enter one of a range of options as listed in the syntax description.
^D or **Ctrl-D**	Hold the **Ctrl** key while you press the **D** key.
string	Defined as a nonquoted set of characters. For example, when setting a community string for SNMP to “public,” do not use quotation marks around the string, or the string will include the quotation marks.

Note Means *reader take note*. Notes contain helpful suggestions or references to materials not contained in the manual.

Tip Means *the following information will help you solve a problem*. The tips information might not be troubleshooting or even an action, but could be useful information, similar to a Timesaver.

Additional Documentation

For additional information on the Cisco WAAS software, see the following documentation:

- *Cisco Wide Area Application Services Upgrade Guide*
- *Cisco Wide Area Application Services Quick Configuration Guide*
- *Cisco Wide Area Application Services Configuration Guide*
- *Cisco Wide Area Application Services Command Reference*
- *Cisco Wide Area Application Services Monitoring Guide*
- *Cisco Wide Area Application Services vWAAS Installation and Configuration Guide*
- *Cisco WAAS Installation and Configuration Guide for Windows on a Virtual Blade*
- *Cisco WAAS Troubleshooting Guide for Release 4.1.3 and Later*
- *Cisco WAAS on Service Modules for Cisco Access Routers*
- *Cisco SRE Service Module Configuration and Installation Guide*
- *Configuring Cisco WAAS Network Modules for Cisco Access Routers*
- *WAAS Enhanced Network Modules*
- *Cisco Wide Area Application Services Online Help*
- *Regulatory Compliance and Safety Information for the Cisco Wide Area Virtualization Engines*
- *Cisco Wide Area Virtualization Engine 294 Hardware Installation Guide*
- *Cisco Wide Area Virtualization Engine 594 and 694 Hardware Installation Guide*
- *Cisco Wide Area Virtualization Engine 7541, 7571, and 8541 Hardware Installation Guide*
- *Cisco Wide Area Virtualization Engine 274 and 474 Hardware Installation Guide*
- *Cisco Wide Area Virtualization Engine 574 Hardware Installation Guide*
- *Regulatory Compliance and Safety Information for the Cisco Content Networking Product Series*
- *Cisco Wide Area Application Engine 7341, 7371, and 674 Hardware Installation Guide*
- *Installing the Cisco WAE Inline Network Adapter*

Obtaining Documentation and Submitting a Service Request

For information on obtaining documentation, submitting a service request, and gathering additional information, see the monthly *What's New in Cisco Product Documentation*, which also lists all new and revised Cisco technical documentation, at:

http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html

Subscribe to the *What's New in Cisco Product Documentation* as a Really Simple Syndication (RSS) feed and set content to be delivered directly to your desktop using a reader application. The RSS feeds are a free service and Cisco currently supports RSS version 2.0.

Introduction to the Cisco WAAS Central Manager Monitoring API

This chapter describes the Cisco WAAS Central Manager monitoring application programming interface (API), which provides a programmable interface for system developers to integrate with customized or third-party monitoring and management applications.

This chapter contains the following sections:

Monitoring API Overview

The Central Manager monitoring API communicates with the WAAS Central Manager to retrieve status information and monitoring statistics. This API does not allow device configuration.

The Central Manager monitoring API is a Web Service implementation. Web Service is defined by the W3C standard as a software system designed to support interoperable machine-to-machine (client and server) interaction over the network. The client and server communication follows the Simple Object Access Protocol or Service Oriented Architecture Protocol (SOAP) standard.

SOAP, which exchanges XML-based messages over the network using HTTP or HTTPS, is the foundation layer of the Web Service stack. It provides a basic messaging framework that allows more abstract layers to build on. SOAP encoding wraps XML headers and tags in a SOAP envelope.

To call a service, you connect to a particular Central Manager through a web browser by using a service URL that contains the IP address or hostname of the Central Manager and the name of the particular monitoring service (such as DeviceConf or TrafficStats). For example, https://<host/ip>:8443/ws/TrafficStats is the service URL for the Traffic Acceleration Service.

Next, you must post a SOAP request written in an XML format to retrieve the information. The request calls for a particular action (such as retrieveTrafficStats) and contains the WS-Security header (username and password) and the input parameter content when required. The Central Manager responds with a SOAP envelope that contains the answer in an XML format. The response contains the output values for this action.

SOAP message exchanges follow the WS-Security specification. The WS-Security specification provides a Username Token mechanism to authenticate SOAP message exchanges.

The following example shows an XML-formatted SOAP request to perform the getAPIVersion action. There are no input parameters for this particular action. The example then shows the SOAP response that contains the output values for this action, such as the hostname, IP address, location, MAC address, and so forth.

Request

```
POST https://10.64.62.177:8443/ws/DeviceConf HTTP/1.1
Accept-Encoding: gzip,deflate
Content-Type: text/xml;charset=UTF-8
SOAPAction: "urn:getWANInfo"
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 10.64.62.177:8443
Content-Length: 397
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/">
<soapenv:Header>
<wsse:Security
xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.
xsd">
<wsse:UsernameToken>
    <wsse:Username>admin</wsse:Username>
    <wsse:Password>default</wsse:Password>
    </wsse:UsernameToken>
    </wsse:Security>
    </soapenv:Header>
<soapenv:Body/>
</soapenv:Envelope>
```

Response

```
HTTP/1.1 200 OK
Date: Mon, 15 Nov 2010 05:57:55 GMT
Server: Apache/1.3.41 (Unix) mod_ssl/2.8.31 OpenSSL/0.9.8g mod_jk/1.2.15 mod_auth_pam/1.0a
Transfer-Encoding: chunked
Content-Type: text/xml;charset=UTF-8
<?xml version='1.0' encoding='UTF-8'?><soapenv:Envelope
xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"><soapenv:Body><ns:getWANInfoResp
onse xmlns:ns="http://config.ws.waas.cisco.com" xmlns:ax22="http://io.java/xsd"
xmlns:ax23="http://config.ws.waas.cisco.com/xsd" xmlns:ax21="http://rmi.java/xsd">
<ns:return type="com.cisco.waas.ws.config.Device">
<ax23:hostName>gowri-device-1</ax23:hostName>
<ax23:id>180</ax23:id><ax23:ipAddress>10.64.62.177</ax23:ipAddress>
<ax23:location></ax23:location><ax23:macAddress>00:21:5e:57:a7:2c</ax23:macAddress>
<ax23:model>OE674</ax23:model>
<ax23:name>gowri-device-1</ax23:name>
<ax23:role>Primary</ax23:role>
<ax23:softwareVersion>4.3.1.0.1</ax23:softwareVersion>
<ax23:status>Online</ax23:status>
<ax23:type>CM</ax23:type>
</ns:return><ns:return type="com.cisco.waas.ws.config.Device">
<ax23:hostName>datacenter-wae</ax23:hostName>
<ax23:id>345</ax23:id><ax23:ipAddress>192.168.3.2</ax23:ipAddress>
<ax23:location>datacenter-wae-location</ax23:location>
<ax23:macAddress>00:21:5e:57:a7:6a</ax23:macAddress>
<ax23:model>OE674</ax23:model>
<ax23:name>datacenter-wae</ax23:name>
<ax23:role>Application Accelerator</ax23:role>
<ax23:softwareVersion>4.3.0-npe</ax23:softwareVersion>
<ax23:status>Online</ax23:status>
<ax23:type>WAE</ax23:type>
</ns:return><ns:return type="com.cisco.waas.ws.config.Device">
<ax23:hostName>we-3900-1</ax23:hostName>
<ax23:id>323</ax23:id>
```

```
<ax23:ipAddress>10.64.62.167</ax23:ipAddress>
<ax23:location>we-3900-1-location</ax23:location>
<ax23:macAddress>88:43:e1:99:46:80</ax23:macAddress>
<ax23:model>Cisco (CISCO3945-CHASSIS) </ax23:model>
<ax23:name>we-3900-1</ax23:name>
<ax23:role>WAAS Express</ax23:role>
<ax23:softwareVersion>15.1(2)T2/1.1.0</ax23:softwareVersion>
<ax23:status>Online</ax23:status>
<ax23:type>WAE</ax23:type>
</ns:return></ns:getWANInfoResponse></soapenv:Body></soapenv:Envelope>
```

The Central Manager monitoring API consists of the following eight Web Services:

- Device Configuration
- Traffic Acceleration
- CIFS
- Video Stream
- HTTP and HTTPS
- MAPI
- NFS
- Events and Status

Administrators may control API access for a device or device group by configuring user authorization settings using the CLI or the Central Manager GUI. The authorization for a Web Service is implemented system wide as mandatory and at the service level as optional.

Web Services Description Language

In the Central Manager monitoring API, Web Services Description Language (WSDL) is used with SOAP and XML schemas to provide Web Services. WSDL is an XML-based service that describes the functionality offered by the Web Service and defines the actions, parameter names, input parameter data types, and return data types for the Web Service. When you connect to a Web Service through a web browser, you can read the WSDL file to determine which functions are available on the server. Any special data types that are used are embedded in the WSDL file in an XML schema. You can then call one of the functions listed in the WSDL file by sending a SOAP request message.

To obtain the WSDL file defined for a particular service in the Central Manager monitoring API implementation, submit a URL to the service with a **?wsdl** suffix. For example, to retrieve the WSDL for the TrafficStats service running on https://localhost:8443/ws/TrafficStats, call the WSDL file by using the URL **https://localhost:8443/ws/TrafficStats?wsdl**.

Using the Central Manager Monitoring API

This section describes how to use the Central Manager monitoring API. It contains the following topics:

- Required Software, Web Standards, and Supported Hardware
- Generating the Client Code to Invoke a Web Service

Required Software, Web Standards, and Supported Hardware

The Central Manager monitoring API is supported in WAAS version 4.1.1 and later. The API functions on the following types of development environment:

- Apache Axis2 (Version 2.1.3)
- WSDL Support: 1.1 or 2.0
- SOAP 1.1 or 1.2
- Axis Data Binding (ADB)
- WS-Security

Generating the Client Code to Invoke a Web Service

You can use the WSDL2java utility to generate the client code which calls and implements a Web Service. The WSDL2java utility takes a WSDL document and generates fully annotated Java code from which to implement the service.

To use the WSDL2java utility, follow these steps:

Step 1 Query the Central Manager for the WDSL definitions for a particular service by using the following WSDL URL format:

```
https://<host/ip>:8443/ws/<NameOfService>?wsdl
```

where the host/ip value is the hostname or IP address of the Central Manager that has the service running, and the NameOfService value is the Web Service designation.

Step 2 Save the XML response to a file, such as NameOfService.xml.

Step 3 Call the WSDL2java script for your development environment: wsdl2java.sh or wsdl2java.bat. These scripts can be found under the bin directory of the Axis2 distribution.

Step 4 Run the following command line to generate the client code:

```
wsdl2java -uri NameOfService.xml -p com.cisco.waas.wsc -d adb -s
```

The WSDL2Java command is run against the WSDL file to create deployment descriptor templates. The utility processes the WSDL file and generates JAVA code based on the WDSL definitions for a particular service.

You may then create scripts using any general-purpose, high-level programming language, such as Python, to generate SOAP requests and parse SOAP responses. A sample of the soap request and response in Perl script is provided at this location: https://supportforums.cisco.com/docs/DOC-13202

Monitoring API Version Compatibility

As the monitoring API is enhanced with new WAAS software versions, API changes will occur that may or may not be compatible with existing client code.

The following kinds of monitoring API changes should be considered backward compatible and existing API users should be able to seamlessly integrate with future versions without any changes required to clients:

- Adding a new operation—For example, adding the retrieveResponseStats operation for the HttpStats service. Existing clients continue invoking existing operations while new operations are available for new clients. Existing clients are compatible.
- Adding new optional data structures to the request message—For example, adding the direction parameter to the getStats operation, where the order of the previous parameters is maintained:
  Old API: getStats(deviceName, deviceType, timeframe)
  New API: getStats(deviceName, deviceType, timeframe, direction)

  Existing clients are compatible because they are unaware of the new request data structures.
- Changing cardinality of existing request data structures from mandatory to optional—Existing clients continue using request data structures as if they were mandatory and are compatible.
- Adding new elements to the response message—Fo example, in version 4.2.1, a new element, deviceName, is added to the HttpConnOptRate response. Existing clients continue to retrieve the previous elements, but not the new elements.

Note This type of change could cause a problem for some client code generating tools where strict binding is implemented (such as WSDL2Java). If unexpected subelement exceptions are returned, we recommend that clients either patch the code generating tool to ignore the unexpected elements or use tools that have loose binding with response messages. For more information, see the *Release Note for Cisco Wide Area Application Services*.

The following kinds of monitoring API changes are not backward compatible and existing API clients will cause errors if such API changes are made:

- Removal of an operation—The old API is no longer a proper subset of the new one. Existing clients using the removed operation will be impacted.
- Renaming an operation—This action is equivalent to removing an operation and introducing a new operation.
- Changing cardinality of existing response data structures—Changing the cardinality of fields in the response message, such as changing mandatory fields to optional fields.
- Changing the definition of the data types—Most changes to the data types in the request or response messages are not backward compatible. For example, changing an integer to a double data type will cause an error for existing clients.
- Changing the order of parameters in an operation—Any change to the parameter order will cause an error for existing clients.

The monitoring API will not change in any of these ways that are not backward compatible and instead will define new APIs as needed in new versions, to minimize version compatibility problems.

Device Configuration Service

This chapter describes the Device Configuration service, which returns device statistics for WAEs and Central Managers.

This chapter contains the following sections:

Device Configuration Service Syntax

This section contains the following topics:

Device Configuration Informational URLs

This section provides informational URLs for the Device Configuration service.

- Service URL—**`https://<host/ip>:8443/ws/DeviceConf`**
- WSDL URL—**`https://<host/ip>:8443/ws/DeviceConf?wsdl`**
- To obtain a description of all the operations and parameters for the DeviceConf service, submit a URL to the service with the suffix **?wsdl** as follows:

  `https://<host/ip>:8443/ws/DeviceConf?wsdl`
- To obtain management information using the Central Manager monitoring API, first call the service by using the service URL for this service as follows:

  `https://<host/ip>:8443/ws/DeviceConf`

  Next, send a SOAP request written in an XML format to retrieve the information. The request calls for a particular action (such as getWanInfo) and contains the WS-Security header (username and password) and the input parameter content when required.

Device Configuration Example Request

The following example shows an XML-formatted SOAP request to perform the **getWANInfo** action. There are no input parameters for this particular action. For more information on this action, see getWANInfo.

```
  <?xml version="1.0" encoding="UTF-8" ?>
- <SOAP-ENV:Envelope SOAP-ENV:encodingStyle="http://schemas.xmlsoap.org/soap/encoding/"
xmlns:SOAP-ENC="http://schemas.xmlsoap.org/soap/encoding/"
xmlns:xsi="http://www.w3.org/1999/XMLSchema-instance"
xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:xsd="http://www.w3.org/1999/XMLSchema">
- <SOAP-ENV:Header xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401
-wss-wssecurity-secext-1.0.xsd">
- <wsse:Security SOAP-ENC:root="1">
- <wsse:UsernameToken>
  <wsse:Username xsi:type="xsd:string">admin</wsse:Username>
  <wsse:Password xsi:type="xsd:string">default</wsse:Password>
  </wsse:UsernameToken>
  </wsse:Security>
  </SOAP-ENV:Header>
- <SOAP-ENV:Body>
  <ns1:getWANInfo xmlns:ns1="http://config.ws.waas.cisco.com" SOAP-ENC:root="1" />
  </SOAP-ENV:Body>
  </SOAP-ENV:Envelope>
```

Device Configuration Example Response

The following example shows the XML response that contains the output values for the **getWANInfo** action, such as the hostname, IP address, location, and MAC address. For more information on this action, see getWANInfo.

```
  <?xml version="1.0" encoding="UTF-8" ?>
- <soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/">
- <soapenv:Body>
- <ns:getWANInfoResponse xmlns:ns="http://config.ws.waas.cisco.com"
xmlns:ax22="http://io.java/xsd" xmlns:ax23="http://config.ws.waas.cisco.com/xsd"
xmlns:ax21="http://rmi.java/xsd">
- <ns:return type="com.cisco.waas.ws.config.Device">
  <ax23:hostName xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:nil="true" />
  <ax23:id>157</ax23:id>
  <ax23:ipAddress>2.43.153.39</ax23:ipAddress>
  <ax23:location />
  <ax23:macAddress>00:14:5e:84:35:59</ax23:macAddress>
  <ax23:model>OE612</ax23:model>
  <ax23:name>ce-119-39</ax23:name>
  <ax23:role>Primary</ax23:role>
  <ax23:softwareVersion>4.1.0.b.51</ax23:softwareVersion>
  <ax23:status>Online</ax23:status>
  <ax23:type>CM</ax23:type>
  <ax23:uniqueId>VMware-42 16 97 c8 a3 fa b7 14-13 64 c3 46 a6 08 de f6</ax23: uniqueId >
  <ax23:upTime>1 hour, 40 minutes, 38 seconds.</ax23:upTime>
  </ns:return>
- <ns:return type="com.cisco.waas.ws.config.Device">
  <ax23:hostName xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:nil="true" />
  <ax23:id>872</ax23:id>
  <ax23:ipAddress>2.43.153.50</ax23:ipAddress>
  <ax23:location>ce-119-40-location</ax23:location>
  <ax23:macAddress>00:14:5e:84:34:c7</ax23:macAddress>
  <ax23:model>OE612</ax23:model>
```

```
<ax23:name>ce-119-40</ax23:name>
<ax23:role xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:nil="true" />
<ax23:softwareVersion>4.1.0.b.53</ax23:softwareVersion>
<ax23:status>Online</ax23:status>
<ax23:type>WAE</ax23:type>
</ns:return>
</ns:getWANInfoResponse>
</soapenv:Body>
</soapenv:Envelope>
```

Device Configuration Service Actions

The Device Configuration service (DeviceConf Web Service) performs one or more of the following actions:

- getAPIVersion
- getCM
- getCMByName
- getDevice
- getDeviceByName
- getDeviceGroups
- getDevices
- getDevicesInGroup
- getDevicesInGroupByName
- getDevicesPerLocation
- getLocations
- getWAE
- getWAEByName
- getWAEs
- getWAEsInGroup
- getWAEsInGroupByName
- getWAEsPerLocation
- getAPIVersion

getAPIVersion

Retrieves the version of the Central Manager.

Input Parameter

None.

Return

The output parameter **String** returns a String value for the software version of the Central Manager.

Exceptions

Type	String	Description
RemoteException	DeviceConfService.getAPIVersion: ERROR:	

getCM

Retrieves information about the specified Central Manager.

Input Parameter

The keyword **id** requires a long value that contains the device name.

Return

The output parameter **Device** returns a Device value that provides device information such as the device name, IP address, status, device type, software version, model, and full DNS name.

Exceptions

Type	String	Description
RemoteException	DeviceConfService.getCM:ERROR: Invalid id=	The device ID is set to a negative integer.
RemoteException	DeviceConfService.getCM: ERROR:	Unhandled exception.
RemoteException	DeviceConfService.getCM: ERROR: Device does not exist.id=	The Central Manager ID is not found.
AxisFault	DeviceConf:The Method Name is not supported. MethodName=	The method name is not supported for a given service.
AxisFault	DeviceConf:The SOAP Envelope Body is Null	The SOAP envelope is missing for a given service.
AxisFault	DeviceConf:The Requested WebService is not available	The service requested is not supported.
AxisFault	getCM:The SOAP Body doesn't have all the required elements	The SOAP body does not have all the required elements.

getCMByName

Retrieves information about the specified Central Manager.

Input Parameter

The keyword **name** requires a string value that contains the device name.

Return

The output parameter **Device** returns a Device value that provides device information such as the device name, IP address, status, device type, software version, model, and full DNS name.

Exceptions

Type	String	Description
RemoteException	DeviceConfService.getCMByName: ERROR:Invalid id=	The device name is not set (is blank or null).
RemoteException	DeviceConfService.getCMByName: ERROR:	Unhandled exception.
RemoteException	DeviceConfService.getCMByName: ERROR:Device does not exist.id=	The Central Manager name is not found.
AxisFault	DeviceConf:The Method Name is not supported. MethodName=	The method name is not supported for a given service.
AxisFault	DeviceConf:The SOAP Envelope Body is Null	The SOAP envelope is missing for a given service.
AxisFault	DeviceConf:The Requested WebService is not available	The service requested is not supported.
AxisFault	getCM:The SOAP Body doesn't have all the required elements	The SOAP body does not have all the required elements.

getDevice

Retrieves information about the specified Device.

Input Parameter

The keyword **id** requires a long value that contains the device name.

Return

The output parameter **Device** returns a Device value that includes device information such as the device name, IP address, status, device type, software version, model, and full DNS name.

Exceptions

Type	String	Description
RemoteException	DeviceConfService.getDevice: ERROR:Invalid id=	The device ID is set to a negative integer.
RemoteException	DeviceConfService.getDevice: ERROR:	Unhandled exception.
RemoteException	DeviceConfService.getDevice: ERROR:Device does not exist.id=	The device ID is not found on the Central Manager.
AxisFault	DeviceConf:The Method Name is not supported. MethodName=	The method name is not supported for a given service.
AxisFault	DeviceConf:The SOAP Envelope Body is Null	The SOAP envelope is missing for a given service.
AxisFault	DeviceConf:The Requested WebService is not available	The service requested is not supported.
AxisFault	getDevice:The SOAP Body does not have all the required elements	The SOAP body does not have all the required elements.

getDeviceByName

Retrieves information about the specified device.

Input Parameter

The keyword **name** requires a string value that contains the device name.

Return

The output parameter **Device** returns a Device value that provides device information such as the device name, IP address, status, device type, software version, model, and full DNS name.

Exceptions

Type	String	Description
RemoteException	DeviceConfService.getDeviceByName:ERROR:Invalid id=	The device name is not set (is blank or null).
RemoteException	DeviceConfService.getDeviceByName: ERROR:	Unhandled exception.
RemoteException	DeviceConfService.getDeviceByName: ERROR:Device does not exist.id=	The Device name does not exist on the Central Manager.
AxisFault	DeviceConf:The Method Name is not supported. MethodName=	The method name is not supported for a given service.
AxisFault	DeviceConf:The SOAP Envelope Body is Null	The SOAP envelope is missing for a given service.
AxisFault	DeviceConf:The Requested WebService is not available	The service requested is not supported.
AxisFault	getDeviceByName:The SOAP Body does not have all the required elements	The SOAP body does not have all the required elements.

getDeviceGroups

Retrieves all of the device groups currently defined in the Central Manager.

Input Parameter

None.

Return

The output parameter **DeviceGroup[]** returns a DeviceGroup value that provides a list of device groups that includes the group name, group type, and description.

Exceptions

Type	String	Description
RemoteException	DeviceConfService.getDeviceGroups:ERROR:	Unhandled exception.
AxisFault	DeviceConf:The Method Name is not supported. MethodName=	The method name is not supported for a given service.
AxisFault	DeviceConf:The SOAP Envelope Body is Null	The SOAP envelope is missing for a given service.
AxisFault	DeviceConf:The Requested WebService is not available	The service requested is not supported.
AxisFault	getDeviceGroups:The SOAP Body doesn't have all the required elements	The SOAP body does not have all the required elements.

getDevices

Retrieves a list of specified devices.

Input Parameter

The keyword **ids** requires a long value that contains the device name.

Return

The output parameter **Device[]** returns a Device value that provides a list of devices and includes information such as the device name, IP address, status, device type, software version, model, and full DNS name.

Exceptions

Type	String	Description
RemoteException	DeviceConfService.getDevices: ERROR:	Unhandled exception.
AxisFault	DeviceConf:The Method Name is not supported. MethodName=	The method name is not supported for a given service.
AxisFault	DeviceConf:The SOAP Envelope Body is Null	The SOAP envelope is missing for a given service.
AxisFault	DeviceConf:The Requested WebService is not available	The service requested is not supported.
AxisFault	getDevices:The SOAP Body doesn't have all the required elements	The SOAP body does not have all the required elements.

getDevicesInGroup

Retrieves all of the devices that belong to the specified device group.

Input Parameter

The keyword **deviceGroupId** requires a long value that contains the device name.

Return

The output parameter **Device[]** returns a Device value that provides a list of devices belonging to the specified device group.

Exceptions

Type	String	Description
RemoteException	DeviceConfService.getDevicesInGroup: ERROR:	Unhandled exception.
RemoteException	DeviceConfService.getDevicesInGroup: ERROR:Device Group Id does not exist.DeviceGroupId=	The device group ID is not found on the Central Manager.
AxisFault	DeviceConf:The Method Name is not supported. MethodName=	The method name is not supported for a given service.
AxisFault	DeviceConf:The SOAP Envelope Body is Null	The SOAP envelope is missing for a given service.
AxisFault	DeviceConf:The Requested WebService is not available	The service requested is not supported.
AxisFault	getDevicesInGroup:The SOAP Body doesn't have all the required elements	The SOAP body does not have all the required elements.

getDevicesInGroupByName

Retrieves all of the devices that belong to the specified device group by name.

Input Parameter

The keyword **name** requires a string value that contains the device name.

Return

The output parameter **Device[]** returns a Device value that provides a list of devices belonging to the specified device group.

Exceptions

Type	String	Description
RemoteException	DeviceConfService.getDevicesInGroupByName: ERROR:	Unhandled exception.
RemoteException	DeviceConfService.getDevicesInGroupByName: ERROR: Group Name does not exist.DeviceGroupName=	The device group name is not found on the Central Manager.
AxisFault	DeviceConf:The Method Name is not supported. MethodName=	The method name is not supported for a given service.
AxisFault	DeviceConf:The SOAP Envelope Body is Null	The SOAP envelope is missing for a given service.
AxisFault	DeviceConf:The Requested WebService is not available	The service requested is not supported.
AxisFault	getDevicesInGroupByName:The SOAP Body does not have all the required elements	The SOAP body does not have all the required elements.

getDevicesPerLocation

Retrieves all of the device names with a location ID.

Input Parameter

The keyword **id** requires a long value that contains the location ID.

Return

The output parameter **String[]** returns a String value that provides a list of device names.

Exceptions

None.

getLocations

Retrieves all of the locations configured on the system.

Input Parameter

None.

Return

The output parameter **Location[]** returns a Location value that provides a list of locations belonging to the specified device group.

Exceptions

None.

getWANInfo

Retrieves the current Central Manager and WAE information that is available on the requested Central Manager.

Input Parameter

None.

Return

The output paramater **Device[]** returns a Device value that provides a list of device tuples, including the device name, status, and device type.

Exceptions

Type	String	Description
AxisFault	DeviceConf:The Method Name is not supported. MethodName=	The method name is not supported for a given service.
AxisFault	DeviceConf:The SOAP Envelope Body is Null	The SOAP envelope is missing for a given service.
AxisFault	DeviceConf:The Requested WebService is not available	The service requested is not supported.
AxisFault	getWanInfo:The SOAP Body doesn't have all the required elements	The SOAP body does not have all the required elements.

getWAE

Retrieves information about the specified WAE.

Input Parameter

The keyword **id** requires a long value that contains the device name.

Return

The output parameter **Device** returns a Device value that includes device information such as the device name, IP address, status, device type, software version, model, and full DNS name.

Exceptions

Type	String	Description
RemoteException	DeviceConfService.getWAE: ERROR:Invalid id=	The device ID is set to a negative integer.
RemoteException	DeviceConfService.getWAE: ERROR:	Unhandled exception.
RemoteException	DeviceConfService.getWAE: ERROR:Device does not exist.id=	The WAE ID is not found on the Central Manager.
AxisFault	DeviceConf:The Method Name is not supported. MethodName=	The method name is not supported for a given service.
AxisFault	DeviceConf:The SOAP Envelope Body is Null	The SOAP envelope is missing for a given service.
AxisFault	DeviceConf:The Requested WebService is not available	The service requested is not supported.
AxisFault	getWAE:The SOAP Body doesn't have all the required elements	The SOAP body does not have all the required elements.

getWAEByName

Retrieves information about the specified WAE.

Input Parameter

The keyword **name** requires a string value that contains the device name.

Return

The output parameter **Device** returns a Device value that provides device information such as the device name, IP address, status, device type, software version, model, and full DNS name.

Exceptions

Type	String	Description
RemoteException	DeviceConfService.getWAEByName: ERROR:Invalid id=	The device name is not set (is blank or null).
RemoteException	DeviceConfService.getWAEByName: ERROR:	Unhandled exception.
RemoteException	DeviceConfService.getWAEByName: ERROR:Device does not exist.id=	The WAE name does not exist on the Central Manager.
AxisFault	DeviceConf:The Method Name is not supported. MethodName=	The method name is not supported for a given service.
AxisFault	DeviceConf:The SOAP Envelope Body is Null	The SOAP envelope is missing for a given service.
AxisFault	DeviceConf:The Requested WebService is not available	The service requested is not supported.
AxisFault	getWAEByName:The SOAP Body doesn't have all the required elements	The SOAP body does not have all the required elements.

getWAEs

Retrieves a list of specified devices.

Input Parameter

The keyword **ids** requires a long value that contains the device name.

Return

The output parameter **Device[]** returns a Device value that provides a list of devices and includes information such as the device name, IP address, status, device type, software version, model, and full DNS name.

Exceptions

Type	String	Description
RemoteException	DeviceConfService.getWAEs: ERROR:	Unhandled exception.
AxisFault	DeviceConf:The Method Name is not supported. MethodName=	The method name is not supported for a given service.
AxisFault	DeviceConf:The SOAP Envelope Body is Null	The SOAP envelope is missing for a given service.
AxisFault	DeviceConf:The Requested WebService is not available	The service requested is not supported.
AxisFault	getWAEs:The SOAP Body doesn't have all the required elements	The SOAP body does not have all the required elements.

getWAEsInGroup

Retrieves all of the devices that belong to the specified device group.

Input Parameter

The keyword **deviceGroupId** requires a long value that contains the device name.

Return

The output parameter **Device[]** returns a Device value that provides a list of devices belonging to the specified device group.

Exceptions

Type	String	Description
RemoteException	DeviceConfService.getWAEsInGroup: ERROR:	Unhandled exception.
RemoteException	DeviceConfService.getWAEsInGroup: ERROR:Device Group Id does not exist.DeviceGroupId=	The device group ID is not found on the Central Manager.
AxisFault	DeviceConf:The Method Name is not supported. MethodName=	The method name is not supported for a given service.
AxisFault	DeviceConf:The SOAP Envelope Body is Null	The SOAP envelope is missing for a given service.
AxisFault	DeviceConf:The Requested WebService is not available	The service requested is not supported.
AxisFault	getWAEsInGroup:The SOAP Body doesn't have all the required elements	The SOAP body does not have all the required elements.

getWAEsInGroupByName

Retrieves all of the devices that belong to the specified device group by name.

Input Parameter

The keyword **name** requires a string value that contains the device name.

Return

The output parameter **Device[]** returns a Device value that provides a list of devices belonging to the specified device group.

Exceptions

Type	String	Description
RemoteException	DeviceConfService.getWAEsInGroupByName: ERROR:	Unhandled exception.
RemoteException	DeviceConfService.getWAEsInGroupByName: ERROR: Group Name does not exist.DeviceGroupName=	The device group name is not found on the Central Manager.
AxisFault	DeviceConf:The Method Name is not supported. MethodName=	The method name is not supported for a given service.
AxisFault	DeviceConf:The SOAP Envelope Body is Null	The SOAP envelope is missing for a given service.
AxisFault	DeviceConf:The Requested WebService is not available	The service requested is not supported.
AxisFault	getWAEsInGroupByName:The SOAP Body doesn't have all the required elements	The SOAP body does not have all the required elements.

getWAEsPerLocation

Retrieves all of the device names with a location ID.

Input Parameter

The keyword **id** requires a long value that contains the location ID.

Return

The output parameter **String[]** returns a String value that provides a list of device names.

Exceptions

None.

Traffic Acceleration Service

This chapter describes the Traffic Acceleration service, which returns traffic and application statistics for individual WAEs, device groups, and for the WAAS network.

This chapter contains the following sections:

Traffic Acceleration Service Syntax

This section contains the following topics:

Traffic Acceleration Informational URLs

This section provides informational URLs for the Traffic Acceleration service.

- Service URL—**`https://<host/ip>:8443/ws/TrafficStats`**
- WSDL URL—**`https://<host/ip>:8443/ws/TrafficStats?wsdl`**
- To obtain a description of all the operations and parameters for the TrafficStats service, submit a URL to the service with the suffix **?wsdl** as follows:

  `https://<host/ip>:8443/ws/TrafficStats?wsdl`
- To obtain management information using the Central Manager monitoring API, first call the service by using the service URL for this service as follows:

  `https://<host/ip>:8443/ws/TrafficStats`

  Next, submit a SOAP request written in XML format to retrieve the information.

Traffic Acceleration Example Request

The following example shows an XML-formatted SOAP request to perform the **retrieveTrafficStats** action. The request includes the input parameters for this particular action shown in bold. For more information on this action, see retrieveTrafficStats.

```
<?xml version="1.0" encoding="utf-8" ?>
- <soapenv:Envelope xmlns:soapenv="http://www.w3.org/2003/05/soap-envelope">
- <soapenv:Header>
- <wsse:Security
xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.
xsd">
- <wsse:UsernameToken>
  <wsse:Username>admin</wsse:Username>
  <wsse:Password
Type="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-username-token-profile-1.0#P
asswordText">default</wsse:Password>
  </wsse:UsernameToken>
  </wsse:Security>
  </soapenv:Header>
- <soapenv:Body>
- <ns2:retrieveTrafficStats xmlns:ns2="http://service.stats.ws.waas.cisco.com">
  <ns2:name>ce-119-40</ns2:name>
  <ns2:objType>wae</ns2:objType>
  <ns2:trafficType>ttype</ns2:trafficType>
  <ns2:direction>bidirectional</ns2:direction>
- <ns2:timeframe>
  <ns5:endTime
xmlns:ns5="http://util.ws.waas.cisco.com/xsd">2008-01-25T08:00:00.000Z</ns5:endTime>
  <ns5:frequency xmlns:ns5="http://util.ws.waas.cisco.com/xsd">lastday</ns5:frequency>
  <ns5:startTime
xmlns:ns5="http://util.ws.waas.cisco.com/xsd">2008-01-25T08:00:00.000Z</ns5:startTime>
  <ns5:timezone xmlns:ns5="http://util.ws.waas.cisco.com/xsd">UTC</ns5:timezone>
  </ns2:timeframe>
  </ns2:retrieveTrafficStats>
  </soapenv:Body>
  </soapenv:Envelope>
```

Traffic Acceleration Example Response

The following example shows the XML response that contains the output values for the **retrieveTrafficStats** action. For more information on this action, see retrieveTrafficStats.

```
<?xml version="1.0" encoding="utf-8" ?>
- <soapenv:Envelope xmlns:soapenv="http://www.w3.org/2003/05/soap-envelope">
- <soapenv:Body>
- <ns:retrieveTrafficStatsResponse xmlns:ns="http://service.stats.ws.waas.cisco.com"
xmlns:ax25="http://io.java/xsd" xmlns:ax24="http://rmi.java/xsd"
xmlns:ax26="http://util.ws.waas.cisco.com/xsd"
xmlns:ax27="http://stats.ws.waas.cisco.com/xsd">
- <ns:return type="com.cisco.waas.ws.stats.TrafficStats">
  <ax27:applicationname xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:nil="true" />
  <ax27:compressedin>278892</ax27:compressedin>
  <ax27:compressedout>167328</ax27:compressedout>
  <ax27:endtime>2008-04-15T21:00:00.000Z</ax27:endtime>
  <ax27:frequency>hour</ax27:frequency>
  <ax27:passthroughintermediatein>55773</ax27:passthroughintermediatein>
  <ax27:passthroughintermediateout>55773</ax27:passthroughintermediateout>
  <ax27:passthroughoverloadin>41823</ax27:passthroughoverloadin>
```

```
  <ax27:passthroughoverloadout>55773</ax27:passthroughoverloadout>
  <ax27:passthroughpeerin>111546</ax27:passthroughpeerin>
  <ax27:passthroughpeerout>111546</ax27:passthroughpeerout>
  <ax27:passthroughpolicyin>83655</ax27:passthroughpolicyin>
  <ax27:passthroughpolicyout>111546</ax27:passthroughpolicyout>
  <ax27:starttime>2008-04-15T20:00:00.000Z</ax27:starttime>
  <ax27:uncompressedin>1673361</ax27:uncompressedin>
  <ax27:uncompressedout>3346731</ax27:uncompressedout>
  </ns:return>
.
.
.
</ns:retrieveTrafficStatsResponse>
  </soapenv:Body>
  </soapenv:Envelope>
```

Traffic Acceleration Service Actions

The Traffic Acceleration service (TrafficStats Web Service) performs one or more of the following actions:

- getAllClassMap
- getMonitoredApplications
- retrieveAppTrafficStats
- retrieveAverageThroughPutClassStats
- retrieveAverageThroughPutStats
- retrieveClassTrafficStats
- retrieveConnection
- retrieveConnectionTrendClassStats
- retrieveConnectionTrendStats
- retrieveCPUUtilization
- retrievePeakThroughPutClassStats
- retrievePeakThroughPutStats
- retrieveTrafficStats

getAllClassMap

Retrieves all of the monitored class map names.

Input Parameter

None.

Return

The output parameter **ClassMaps[]** returns an array of ClassMaps values, each of which lists the name of a monitored class map.

Exceptions

Type	String	Description
RemoteException	TrafficStatsService.getAllClassMap: ERROR:Invalid name=	The device name is invalid.
RemoteException	TrafficStatsService.getAllClassMap: ERROR:Invalid objType=	The object type name is invalid.
RemoteException	TrafficStatsService.getAllClassMap: ERROR:Invalid TimeFrame	The timeframe is invalid.
RemoteException	TrafficStatsService.getAllClassMap: ERROR:Device does not exist.DeviceName=	The device name is not found.
RemoteException	TrafficStatsService.getAllClassMap: ERROR:Device Group does not exist.DeviceGroup=	The device group name is not found.
RemoteException	TrafficStatsService.getAllClassMap: ERROR:Invalid frequency=	The frequency is invalid.
RemoteException	TrafficStatsService.getAllClassMap: ERROR:Invalid startTime=	The start time is invalid.
RemoteException	TrafficStatsService.getAllClassMap: ERROR:Invalid endTime=	The end time is invalid.
RemoteException	TrafficStatsService.getAllClassMap: ERROR:startTime should be less than endTime startTime=	The start time is less than the end time.
AxisFault	TrafficStats:The Method Name is not supported. MethodName=	The method name is not supported for a given service.
AxisFault	TrafficStats:The SOAP Envelope Body is Null	The SOAP envelope is missing for a given service.
AxisFault	TrafficStats:The Requested WebService is not available	The service requested is not supported.
AxisFault	getAllClassMap:The SOAP Body doesn't have all the required elements	The SOAP body does not have all the required elements.

getMonitoredApplications

Retrieves a list of all types of applications known in the scope of the system.

Input Parameter

The keyword **name** requires a string that describes the name application. Note: The input parameter **name** is optional and is not used.

Return

The output parameter **MonitoredApps[]** returns a list of all applicable application names and the monitoring status.

Exceptions

Type	String	Description
RemoteException	TrafficStatsService.getMonitoredApplications:ERROR:Invalid name=	Unhandled exception.
AxisFault	TrafficStats:The Method Name is not supported. MethodName=	The method name is not supported for a given service.
AxisFault	TrafficStats:The SOAP Envelope Body is Null	The SOAP envelope is missing for a given service.
AxisFault	TrafficStats:The Requested WebService is not available	The service requested is not supported.
AxisFault	getMonitoredApplications:The SOAP Body doesn't have all the required elements	The SOAP body does not have all the required elements.

retrieveAppTrafficStats

Retrieves overall traffic statistics collected on either a WAE device, WAEs within a device group, or all WAEs system wide. The traffic is further filtered based on the specified application names.

Input Parameters

Parameter	Description
name	A string that describes the name of the WAE, WAE group, or system. Note: name is not used for filtering the data.
objType	A string that describes the object type. Valid values include the following: • wae • waegroup • devicegroup • system
trafficType	A string that describes the type of traffic. Valid values include the following: • passthrough • optimized Note: trafficType is not used for filtering the data.
direction	A string that describes the direction of the traffic. Valid values include the following: • inbound • outbound • bidirectional Note: direction is not used for filtering the data.
timeframe	A TimeFrameFilter value that includes the time interval, time zone, and frequency. If the custom option is not selected for this filter, the start time and end time will be ignored.
applicationName	A string value that specifies an application. Each application should be specified in an <serv:appName> element.

Return

The output parameter **TrafficStats[]** returns a TrafficStats value that provides an array of traffic statistics.

Exceptions

Type	String	Description
RemoteException	TrafficStatsService.retrieveAppTrafficStats: ERROR:Invalid name=	The device name is invalid.

RemoteException	TrafficStatsService.retrieveAppTrafficStats: ERROR:Invalid objType=	The object type name is invalid.
RemoteException	TrafficStatsService.retrieveAppTrafficStats: ERROR:Invalid TimeFrame	The timeframe is invalid.
RemoteException	TrafficStatsService.retrieveAppTrafficStats: ERROR:Device does not exist.DeviceName=	The device name is not found.
RemoteException	TrafficStatsService.retrieveAppTrafficStats: ERROR:Device Group does not exist.DeviceGroup=	The device group name is not found.
RemoteException	TrafficStatsService.retrieveAppTrafficStats: ERROR:Invalid frequency=	The frequency is invalid.
RemoteException	TrafficStatsService.retrieveAppTrafficStats: ERROR:Invalid startTime=	The start time is invalid.
RemoteException	TrafficStatsService.retrieveAppTrafficStats: ERROR:Invalid endTime=	The end time is invalid.
RemoteException	TrafficStatsService.retrieveAppTrafficStats: ERROR:startTime should be less than endTime startTime=	The start time is less than the end time.
AxisFault	TrafficStats:The Method Name is not supported. MethodName=	The method name is not supported for a given service.
AxisFault	TrafficStats:The SOAP Envelope Body is Null	The SOAP envelope is missing for a given service.
AxisFault	TrafficStats:The Requested WebService is not available	The service requested is not supported.
AxisFault	retrieveAppTrafficStats:The SOAP Body doesn't have all the required elements	The SOAP body does not have all the required elements.

retrieveAverageThroughPutClassStats

Retrieves average throughput counts for a set of class map names.

Input Parameters

Parameter	Description
name	A string that describes the name of the WAE, WAE group, or system.
objType	A string that describes the object type. Valid values include the following: • wae • waegroup • device • devicegroup • system
timeframe	A TimeFrameFilter value that includes the time interval, time zone, and frequency.
classNames	A set of zero or more classNames elements, each of which is a string that describes a single class map name.

Return

The output parameter **AverageThroughputClassStats[]** returns an array of AverageThroughputClassStats values, each of which lists the average throughput counts for a specific class map name.

Exceptions

Type	String	Description
RemoteException	TrafficStatsService.retrieveAverage ThroughPutClassStats : ERROR:Invalid name=	The device name is invalid.
RemoteException	TrafficStatsService.retrieveAverage ThroughPutClassStats : ERROR:Invalid objType=	The object type name is invalid.
RemoteException	TrafficStatsService.retrieveAverage ThroughPutClassStats : ERROR:Invalid TimeFrame	The timeframe is invalid.
RemoteException	TrafficStatsService.retrieveAverage ThroughPutClassStats : ERROR:Device does not exist.DeviceName=	The device name is not found.
RemoteException	TrafficStatsService.retrieveAverage ThroughPutClassStats : ERROR:Device Group does not exist.DeviceGroup=	The device group name is not found.
RemoteException	TrafficStatsService.retrieveAverage ThroughPutClassStats : ERROR:Invalid frequency=	The frequency is invalid.

RemoteException	TrafficStatsService.retrieveAverage ThroughPutClassStats : ERROR:Invalid startTime=	The start time is invalid.
RemoteException	TrafficStatsService.retrieveAverage ThroughPutClassStats : ERROR:Invalid endTime=	The end time is invalid.
RemoteException	TrafficStatsService.retrieveAverage ThroughPutClassStats : ERROR:startTime should be less than endTime startTime=	The start time is less than the end time.
AxisFault	TrafficStats:The Method Name is not supported. MethodName=	The method name is not supported for a given service.
AxisFault	TrafficStats:The SOAP Envelope Body is Null	The SOAP envelope is missing for a given service.
AxisFault	TrafficStats:The Requested WebService is not available	The service requested is not supported.
AxisFault	retrieveAverageThroughPutClassStats :The SOAP Body doesn't have all the required elements	The SOAP body does not have all the required elements.

retrieveAverageThroughPutStats

Retrieves the average throughput values collected on a device.

Input Parameters

Parameter	Description
name	A string that describes the name of the WAE, WAE group, or system.
objType	A string that describes the object type. Valid values include the following: • wae • device • devicegroup • location
timeframe	A TimeFrameFilter value that includes the time interval, time zone, and frequency.
applicationName	A string value that includes a comma-separated list of all required application names.

Return

The output parameter **AverageThroughPutStats[]** returns an array of AverageThroughPutStats values, each of which provides information about the traffic processed for a specific application on the WAE device.

Exceptions

Type	String	Description
RemoteException	TrafficStatsService.retrieveAverageThroughPutStats: ERROR:Invalid name=	The device name is invalid.
RemoteException	TrafficStatsService.retrieveAverageThroughPutStats: ERROR:Invalid objType=	The object type name is invalid.
RemoteException	TrafficStatsService.retrieveAverageThroughPutStatss: ERROR:Device does not exist.DeviceName=	The device name is not found.
RemoteException	TrafficStatsService.retrieveAverageThroughPutStats: ERROR:Device Group does not exist.DeviceGroup=	The device group name is not found.
AxisFault	TrafficStats:The Method Name is not supported. MethodName=	The method name is not supported for a given service.
AxisFault	TrafficStats:The SOAP Envelope Body is Null	The SOAP envelope is missing for a given service.

AxisFault	TrafficStats:The Requested WebService is not available	The service requested is not supported.
AxisFault	retrieveTrafficStats:The SOAP Body doesn't have all the required elements	The SOAP body does not have all the required elements.

retrieveClassTrafficStats

Retrieves traffic byte counts for the specified class map names.

Input Parameters

Parameter	Description
name	A string that describes the name of the WAE, WAE group, or system.
objType	A string that describes the object type. Valid values include the following: • wae • waegroup • device • devicegroup • system
timeframe	A TimeFrameFilter value that includes the time interval, time zone, and frequency.
classNames	A set of zero or more classNames elements, each of which is a string that describes a single class map name.

Return

The output parameter **ClassifierStats[]** returns an array of ClassifierStats values, each of which lists the traffic bytes counts for a specific class map name.

Exceptions

Type	String	Description
RemoteException	TrafficStatsService.retrieveClassTrafficStats : ERROR:Invalid name=	The device name is invalid.
RemoteException	TrafficStatsService.retrieveClassTrafficStats : ERROR:Invalid objType=	The object type name is invalid.
RemoteException	TrafficStatsService.retrieveClassTrafficStats : ERROR:Invalid TimeFrame	The timeframe is invalid.
RemoteException	TrafficStatsService.retrieveClassTrafficStats : ERROR:Device does not exist.DeviceName=	The device name is not found.
RemoteException	TrafficStatsService.retrieveClassTrafficStats : ERROR:Device Group does not exist.DeviceGroup=	The device group name is not found.
RemoteException	TrafficStatsService.retrieveClassTrafficStats : ERROR:Invalid frequency=	The frequency is invalid.
RemoteException	TrafficStatsService.retrieveClassTrafficStats : ERROR:Invalid startTime=	The start time is invalid.
RemoteException	TrafficStatsService.retrieveClassTrafficStats : ERROR:Invalid endTime=	The end time is invalid.

RemoteException	TrafficStatsService.retrieveClassTrafficStats : ERROR:startTime should be less than endTime startTime=	The start time is less than the end time.
AxisFault	TrafficStats:The Method Name is not supported. MethodName=	The method name is not supported for a given service.
AxisFault	TrafficStats:The SOAP Envelope Body is Null	The SOAP envelope is missing for a given service.
AxisFault	TrafficStats:The Requested WebService is not available	The service requested is not supported.
AxisFault	retrieveClassTrafficStats :The SOAP Body doesn't have all the required elements	The SOAP body does not have all the required elements.

retrieveConnection

Retrieves overall connection details for the current time.

Input Parameters

Parameter	Description
name	A string that describes the name of the WAE, WAE group, or system.
objType	A string that describes the object type. Valid values include the following: • wae • device • devicegroup • location
srcip	A string that contains the source IP address, which is ignored if the string is empty.
dstip	A string that contains the destination IP address, which is ignored if the string is empty.
srcport	A string that contains the source port number, which is ignored if the string is empty.
dstport	A string that contains the destination port number, which is ignored if the string is empty.

Return

The output parameter **ConnectionStats[]** returns a ConnectionStats value that provides a list of connections.

Exceptions

Type	String	Description
RemoteException	TrafficStatsService.retrieveConnection: ERROR:Invalid name=	The device name is invalid.
RemoteException	TrafficStatsService.retrieveConnection: ERROR:Invalid objType=	The object type name is invalid.
RemoteException	TrafficStatsService.retrieveConnection: ERROR:Device does not exist.DeviceName=	The device name is not found.
RemoteException	TrafficStatsService.retrieveConnection: ERROR:Device Group does not exist.DeviceGroup=	The device group name is not found.
AxisFault	TrafficStats:The Method Name is not supported. MethodName=	The method name is not supported for a given service.
AxisFault	TrafficStats:The SOAP Envelope Body is Null	The SOAP envelope is missing for a given service.

AxisFault	TrafficStats:The Requested WebService is not available	The service requested is not supported.
AxisFault	retrieveTrafficStats:The SOAP Body doesn't have all the required elements	The SOAP body does not have all the required elements.

retrieveConnectionTrendClassStats

Retrieves connection counts for the specified set of class map names.

Input Parameters

Parameter	Description
name	A string that describes the name of the WAE, WAE group, or system.
objType	A string that describes the object type. Valid values include the following: • wae • waegroup • device • devicegroup • system
timeframe	A TimeFrameFilter value that includes the time interval, time zone, and frequency.
classNames	A set of zero or more classNames elements, each of which is a string that describes a single class map name.

Return

The output parameter **ConnectionTrendClassStats[]** returns an array of ConnectionTrendClassStats values, each of which contains connection trend details for a specific class map name.

Exceptions

Type	String	Description
RemoteException	TrafficStatsService.retrieveConnectionTrendClassStats : ERROR:Invalid name=	The device name is invalid.
RemoteException	TrafficStatsService.retrieveConnectionTrendClassStats : ERROR:Invalid objType=	The object type name is invalid.
RemoteException	TrafficStatsService.retrieveConnectionTrendClassStats : ERROR:Invalid TimeFrame	The timeframe is invalid.
RemoteException	TrafficStatsService.retrieveConnectionTrendClassStats : ERROR:Device does not exist.DeviceName=	The device name is not found.
RemoteException	TrafficStatsService.retrieveConnectionTrendClassStats : ERROR:Device Group does not exist.DeviceGroup=	The device group name is not found.
RemoteException	TrafficStatsService.retrieveConnectionTrendClassStats : ERROR:Invalid frequency=	The frequency is invalid.

RemoteException	TrafficStatsService.retrieveConnection TrendClassStats : ERROR:Invalid startTime=	The start time is invalid.
RemoteException	TrafficStatsService.retrieveConnection TrendClassStats : ERROR:Invalid endTime=	The end time is invalid.
RemoteException	TrafficStatsService.retrieveConnection TrendClassStats : ERROR:startTime should be less than endTime startTime=	The start time is less than the end time.
AxisFault	TrafficStats:The Method Name is not supported. MethodName=	The method name is not supported for a given service.
AxisFault	TrafficStats:The SOAP Envelope Body is Null	The SOAP envelope is missing for a given service.
AxisFault	TrafficStats:The Requested WebService is not available	The service requested is not supported.
AxisFault	retrieveConnectionTrendClassStats :The SOAP Body doesn't have all the required elements	The SOAP body does not have all the required elements.

retrieveConnectionTrendStats

Retrieves overall connection trend details of applications collected on a device.

Input Parameters

Parameter	Description
name	A string that describes the name of the device, device group, or system.
objType	A string that describes the object type. Valid values include the following: • wae • waegroup • device • devicegroup • location • system
timeframe	A TimeFrameFilter value that includes the time interval, time zone, and frequency.
applicationName	A string value that includes a comma-separated list of all required application names.

Return

The output parameter **ConnectionTrendStats[]** returns an array of ConnectionTrendStats values, each of which provides connection trend details for a specific application.

Exceptions

Type	String	Description
RemoteException	TrafficStatsService.retrieveConnection TrendStats: ERROR:Invalid name=	The device name is invalid.
RemoteException	TrafficStatsService.retrieveConnection TrendStats: ERROR:Invalid objType=	The object type name is invalid.
RemoteException	TrafficStatsService.retrieveConnection TrendStats: ERROR:Device does not exist.DeviceName=	The device name is not found.
RemoteException	TrafficStatsService.retrieveConnection TrendStats: ERROR:Device Group does not exist.DeviceGroup=	The device group name is not found.
AxisFault	TrafficStats:The Method Name is not supported. MethodName=	The method name is not supported for a given service.
AxisFault	TrafficStats:The SOAP Envelope Body is Null	The SOAP envelope is missing for a given service.

AxisFault	TrafficStats:The Requested WebService is not available	The service requested is not supported.
AxisFault	retrieveTrafficStats:The SOAP Body doesn't have all the required elements	The SOAP body does not have all the required elements.

retrieveCPUUtilization

Retrieves the CPU utilization information for a specified WAE.

Input Parameters

Parameter	Description
name	A string that describes the name of the WAE.
timeframe	A TimeFrameFilter value that includes the time interval, time zone, and frequency.

Return

The output parameter **CPUUtilizationStats[]** returns a CPUUtilizationStats value that provides an array of CPU utilization statistics for various time points.

Exceptions

Type	String	Description
RemoteException	TrafficStatsService. retrieveCPUUtilization:ERROR:Invalid name=	The device name is invalid.
RemoteException	TrafficStatsService. retrieveCPUUtilization: ERROR: Invalid TimeFrame	The timeframe is invalid.
RemoteException	TrafficStatsService. retrieveCPUUtilization: ERROR: Device does not exist.DeviceName=	The device name is not found.
RemoteException	TrafficStatsService. retrieveCPUUtilization: ERROR: Invalid frequency=	The frequency is invalid.
RemoteException	TrafficStatsService. retrieveCPUUtilization: ERROR: Invalid startTime=	The start time is invalid.
RemoteException	TrafficStatsService. retrieveCPUUtilization: ERROR: Invalid endTime=	The end time is invalid.
RemoteException	TrafficStatsService. retrieveCPUUtilization: ERROR: startTime should be less than endTime startTime=	The start time is less than the end time.
AxisFault	TrafficStats:The Method Name is not supported. MethodName=	The method name is not supported for a given service.
AxisFault	TrafficStats:The SOAP Envelope Body is Null	The SOAP envelope is missing for a given service.
AxisFault	TrafficStats:The Requested WebService is not available	The service requested is not supported.
AxisFault	retrieveTrafficStats:The SOAP Body doesn't have all the required elements	The SOAP body does not have all the required elements.

retrievePeakThroughPutClassStats

Retrieves peak throughput values for the specified set of class map names.

Input Parameters

Parameter	Description
name	A string that describes the name of the WAE, WAE group, or system.
objType	A string that describes the object type. Valid values include the following: • wae • waegroup • device • devicegroup • system
timeframe	A TimeFrameFilter value that includes the time interval, time zone, and frequency.
classNames	A set of zero or more classNames elements, each of which is a string that describes a single class map name.

Return

The output parameter **PeakThroughputClassStats[]** returns an array of PeakThroughPutClassStats values, each of which lists the peak throughput values for a specific class map name.

Exceptions

Type	String	Description
RemoteException	TrafficStatsService.retrievePeak ThroughPutClassStats : ERROR:Invalid name=	The device name is invalid.
RemoteException	TrafficStatsService.retrievePeak ThroughPutClassStats : ERROR:Invalid objType=	The object type name is invalid.
RemoteException	TrafficStatsService.retrievePeak ThroughPutClassStats : ERROR:Invalid TimeFrame	The timeframe is invalid.
RemoteException	TrafficStatsService.retrievePeak ThroughPutClassStats : ERROR:Device does not exist.DeviceName=	The device name is not found.
RemoteException	TrafficStatsService.retrievePeak ThroughPutClassStats : ERROR:Device Group does not exist.DeviceGroup=	The device group name is not found.
RemoteException	TrafficStatsService.retrievePeak ThroughPutClassStats : ERROR:Invalid frequency=	The frequency is invalid.

RemoteException	TrafficStatsService.retrievePeak ThroughPutClassStats : ERROR:Invalid startTime=	The start time is invalid.
RemoteException	TrafficStatsService.retrievePeak ThroughPutClassStats : ERROR:Invalid endTime=	The end time is invalid.
RemoteException	TrafficStatsService.retrievePeak ThroughPutClassStats : ERROR:startTime should be less than endTime startTime=	The start time is less than the end time.
AxisFault	TrafficStats:The Method Name is not supported. MethodName=	The method name is not supported for a given service.
AxisFault	TrafficStats:The SOAP Envelope Body is Null	The SOAP envelope is missing for a given service.
AxisFault	TrafficStats:The Requested WebService is not available	The service requested is not supported.
AxisFault	retrievePeakThroughPutClassStats :The SOAP Body doesn't have all the required elements	The SOAP body does not have all the required elements.

retrievePeakThroughPutStats

Retrieves the peak throughput values collected on a device.

Input Parameters

Parameter	Description
name	A string that describes the name of the WAE, WAE group, or system.
objType	A string that describes the object type. Valid values include the following: • wae • device • devicegroup • location
timeframe	A TimeFrameFilter value that includes the time interval, time zone, and frequency.
applicationName	A string value that includes a comma-separated list of all required application names.

Return

The output parameter **PeakThroughPutStats[]** returns an array of PeakThroughPutStats values, each of which provides information about the traffic processed for a specific application on the WAE device.

Exceptions

Type	String	Description
RemoteException	TrafficStatsService.retrievePeakThroughPutStats: ERROR:Invalid name=	The device name is invalid.
RemoteException	TrafficStatsService.retrievePeakThroughPutStats: ERROR:Invalid objType=	The object type name is invalid.
RemoteException	TrafficStatsService.retrievePeakThroughPutStats: ERROR:Device does not exist.DeviceName=	The device name is not found.
RemoteException	TrafficStatsService.retrievePeakThroughPutStats: ERROR:Device Group does not exist.DeviceGroup=	The device group name is not found.
RemoteException	TrafficStatsService.retrievePeakThroughPutStats: ERROR:UnSupported frequency=	The frequency is not supported.
AxisFault	TrafficStats:The Method Name is not supported. MethodName=	The method name is not supported for a given service.
AxisFault	TrafficStats:The SOAP Envelope Body is Null	The SOAP envelope is missing for a given service.

AxisFault	TrafficStats:The Requested WebService is not available	The service requested is not supported.
AxisFault	retrieveTrafficStats:The SOAP Body doesn't have all the required elements	The SOAP body does not have all the required elements.

retrieveTrafficStats

Retrieves the overall statistics collected on either a WAE device, WAEs within a device group, or all WAEs system wide.

Input Parameters

Parameter	Description
name	A string that describes the name of the WAE, WAE group, or system.
objType	A string that describes the object type. Valid values include the following: • wae • waegroup • device • devicegroup • system
trafficType	A string that describes the type of traffic. Valid values include the following: • passthrough • optimized Note: trafficType is not used in filtering the data.
direction	A string that describes the direction of the traffic. Valid values include the following: • inbound • outbound • bidirectional Note: direction is not used in filtering the data.
timeframe	A TimeFrameFilter value that includes the time interval, time zone, and frequency.

Return

The output parameter **TrafficStats[]** returns a TrafficStats value that provides an array of traffic statistics.

Exceptions

Type	String	Description
RemoteException	TrafficStatsService.retrieveTrafficStats: ERROR:Invalid name=	The device name is invalid.
RemoteException	TrafficStatsService.retrieveTrafficStats: ERROR:Invalid objType=	The object type name is invalid.
RemoteException	TrafficStatsService.retrieveTrafficStats: ERROR:Invalid TimeFrame	The timeframe is invalid.

RemoteException	TrafficStatsService.retrieveTrafficStats: ERROR:Device does not exist.DeviceName=	The device name is not found.
RemoteException	TrafficStatsService.retrieveTrafficStats: ERROR:Device Group does not exist.DeviceGroup=	The device group name is not found.
RemoteException	TrafficStatsService.retrieveTrafficStats: ERROR:Invalid frequency=	The frequency is invalid.
RemoteException	TrafficStatsService.retrieveTrafficStats: ERROR:Invalid startTime=	The start time is invalid.
RemoteException	TrafficStatsService.retrieveTrafficStats: ERROR:Invalid endTime=	The end time is invalid.
RemoteException	TrafficStatsService.retrieveTrafficStats: ERROR:startTime should be less than endTime startTime=	The start time is less than the end time.
AxisFault	TrafficStats:The Method Name is not supported. MethodName=	The method name is not supported for a given service.
AxisFault	TrafficStats:The SOAP Envelope Body is Null	The SOAP envelope is missing for a given service.
AxisFault	TrafficStats:The Requested WebService is not available	The service requested is not supported.
AxisFault	retrieveTrafficStats:The SOAP Body doesn't have all the required elements	The SOAP body does not have all the required elements.

retrieveDeviceStats

Retrieves the overall device statistics for the traffic details collected on either a WAE device, WAEs within a device group, or all WAEs system wide.

Input Parameters

Parameter	Description
name	A string that describes the name of the WAE, WAE group, or system.
objType	A string that describes the object type. Valid values include the following: • wae • waegroup • device • devicegroup • system

Return

The output parameter **DeviceStats[]** returns a DeviceStats value that provides an array of traffic statistics for the device.

Exceptions

Type	String	Description
RemoteException	DeviceStatsService.retrieveDeviceStats: ERROR:Invalid name=	The device name is invalid.
RemoteException	DeviceStatsService.retrieveDeviceStats: ERROR:Invalid objType=	The object type name is invalid.
RemoteException	DeviceStatsService.retrieveDeviceStats: ERROR:Invalid TimeFrame	The timeframe is invalid.
RemoteException	DeviceStatsService.retrieveDeviceStats: ERROR:Device does not exist.DeviceName=	The device name is not found.
RemoteException	DeviceStatsService.retrieveDeviceStats: ERROR:Device Group does not exist.DeviceGroup=	The device group name is not found.
RemoteException	DeviceStatsService.retrieveDeviceStats: ERROR:Invalid frequency=	The frequency is invalid.
RemoteException	DeviceStatsService.retrieveDeviceStats: ERROR:Invalid startTime=	The start time is invalid.
RemoteException	DeviceStatsService.retrieveDeviceStats: ERROR:Invalid endTime=	The end time is invalid.
RemoteException	DeviceStatsService.retrieveDeviceStats: ERROR:startTime should be less than endTime startTime=	The start time is less than the end time.

AxisFault	DeviceStats:The Method Name is not supported. MethodName=	The method name is not supported for a given service.
AxisFault	DeviceStats:The SOAP Envelope Body is Null	The SOAP envelope is missing for a given service.
AxisFault	DeviceStats:The Requested WebService is not available	The service requested is not supported.
AxisFault	retrieveDeviceStats:The SOAP Body doesn't have all the required elements	The SOAP body does not have all the required elements.

Events and Status Service

This chapter describes the Events and Status service, which returns alarm information, device status, and disk status.

For details about specific alarms, refer to the Alarm Book file that is available on the Cisco WAAS Software Download website.

This chapter contains the following sections:

Events and Status Service Syntax

This section contains the following topics:

Events and Status Informational URLs

This section provides informational URLs for the Events and Status service.

Alarm Status URLs:

- Service URL—`https://<host/ip>:8443/ws/AlarmStatus`
- WSDL URL—`https://<host/ip>:8443/ws/AlarmStatus?wsdl`

Device Status URLs:

- Service URL—`https://<host/ip>:8443/ws/DeviceStatus`
- WSDL URL—`https://<host/ip>:8443/ws/DeviceStatus?wsdl`

Events and Status URLs:

- To obtain a description of all the operations and parameters for the AlarmStatus or the DeviceStatus Web Service, submit a URL to the service with the suffix **?wsdl** as follows:

  `https://<host/ip>:8443/ws/AlarmStatus?wsdl`

  or

https://<host/ip>:8443/ws/DeviceStatus?wsdl

- To obtain management information using the Central Manager monitoring API, first call the service by using the service URL for this service as follows:

  https://<host/ip>:8443/ws/AlarmStatus

  or

  https://<host/ip>:8443/ws/DeviceStatus

  Next, submit a SOAP request written in an XML format to retrieve the information.

Events and Status Example Request

The following example shows an XML-formatted SOAP request to perform the **retrieveAllAlarms** action. There are no input parameters for this particular action. For more information on this action, see retrieveAllAlarms

```
<?xml version="1.0" encoding="utf-8" ?>
- <soapenv:Envelope xmlns:soapenv="http://www.w3.org/2003/05/soap-envelope">
- <soapenv:Header>
- <wsse:Security
xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.
xsd">
- <wsse:UsernameToken>
  <wsse:Username>admin</wsse:Username>
  <wsse:Password
Type="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-username-token-profile-1.0#P
asswordText">default</wsse:Password>
  </wsse:UsernameToken>
  </wsse:Security>
  </soapenv:Header>
  <soapenv:Body />
  </soapenv:Envelope>
```

Events and Status Example Response

The following example shows the XML response that contains the output values for the **retrieveAllAlarms** action. For more information on this action, see retrieveAllAlarms.

```
<?xml version="1.0" encoding="utf-8" ?>
- <soapenv:Envelope xmlns:soapenv="http://www.w3.org/2003/05/soap-envelope">
- <soapenv:Body>
- <ns:retrieveAllAlarmsResponse xmlns:ns="http://service.stats.ws.waas.cisco.com"
xmlns:ax233="http://stats.ws.waas.cisco.com/xsd" xmlns:ax232="http://io.java/xsd"
xmlns:ax231="http://rmi.java/xsd">
- <ns:return type="com.cisco.waas.ws.stats.Alarm">
  <ax233:acknowledgeComments xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:nil="true" />
  <ax233:alarmId>445001</ax233:alarmId>
  <ax233:alarmName>core_dump</ax233:alarmName>
  <ax233:alarmState>0</ax233:alarmState>
  <ax233:category>3</ax233:category>
  <ax233:description>Kernel Crash files and / or User Core files
detected</ax233:description>
  <ax233:deviceId>CdmConfig_157</ax233:deviceId>
  <ax233:deviceIpAddress>2.43.153.39</ax233:deviceIpAddress>
```

```
  <ax233:deviceName>ce-119-39</ax233:deviceName>
  <ax233:deviceStatus>Online</ax233:deviceStatus>
  <ax233:eventSeq>1</ax233:eventSeq>
  <ax233:instance xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:nil="true" />
  <ax233:moduleId>1000</ax233:moduleId>
  <ax233:moduleName>sysmon</ax233:moduleName>
  <ax233:severity>2</ax233:severity>
  <ax233:timestamp>1207302327034</ax233:timestamp>
  </ns:return>
.
.
.
</ns:retrieveAllAlarmsResponse>
  </soapenv:Body>
  </soapenv:Envelope>
```

Events and Status Service Actions

The Events and Status service (AlarmStatus Web Service) performs one or more of the following actions:

- getDeviceStatus
- getDiskStatus
- getDiskInformation
- getDiskEncryptStatus
- getMonitoredAOs
- getMonitoredAOsByWaeIDs
- retrieveAllAlarms
- retrieveAlarmByName
- retrieveAlarmBySeverity

getDeviceStatus

Retrieves the device status.

Input Parameters

The keyword **name** requires a string that describes the name of the device.

Return

The output parameter **DeviceStatus[]** returns a DeviceStatus value that provides the status of the device.

Exceptions

Type	String	Description
RemoteException	DeviceStatusService.getDeviceStatus: ERROR:Invalid name=	The device name is invalid.
RemoteException	DeviceStatusService.getDeviceStatus: ERROR:Device does not exist.DeviceName=	The device name does not exist.
AxisFault	DeviceStatus:The Method Name is not supported. MethodName=	The method name is not supported for a given service.
AxisFault	DeviceStatus:The SOAP Envelope Body is Null	The SOAP envelope is missing for a given service.
AxisFault	DeviceStatus:The Requested WebService is not available	The service requested is not supported.
AxisFault	getDeviceStatus:The SOAP Body doesn't have all the required elements	The SOAP body does not have all the required elements.

getDiskStatus

Retrieves the physical disk status.

Input Parameters

The keyword **name** requires a string that describes the name of the device.

Return

The output parameter **DiskStatus[]** returns a DiskStatus value that provides the status of the disk.

Exceptions

Type	String	Description
RemoteException	DeviceStatusService.getDiskStatus: ERROR:Invalid name=	The device name is invalid.
RemoteException	DeviceStatusService.getDiskStatus: ERROR:Device does not exist.DeviceName=	The device name does not exist.
AxisFault	DeviceStatus:The Method Name is not supported. MethodName=	The method name is not supported for a given service.
AxisFault	DeviceStatus:The SOAP Envelope Body is Null	The SOAP envelope is missing for a given service.
AxisFault	DeviceStatus:The Requested WebService is not available	The service requested is not supported.
AxisFault	getDiskeStatus:The SOAP Body doesn't have all the required elements	The SOAP body does not have all the required elements.

getDiskInformation

Retrieves information about the disk.

Input Parameters

The keyword **name** requires a string that describes the name of the device.

Return

The output parameter **DiskInformation[]** returns a DiskInformation value that provides information about the disk.

Exceptions

Type	String	Description
RemoteException	DeviceStatusService.getDiskInformation: ERROR:Invalid name=	The device name is invalid.
RemoteException	DeviceStatusService.getDiskInformation: ERROR:Device does not exist.DeviceName=	The device name does not exist.
AxisFault	DeviceStatus:The Method Name is not supported. MethodName=	The method name is not supported for a given service.
AxisFault	DeviceStatus:The SOAP Envelope Body is Null	The SOAP envelope is missing for a given service.
AxisFault	DeviceStatus:The Requested WebService is not available	The service requested is not supported.
AxisFault	getDiskInformation:The SOAP Body doesn't have all the required elements	The SOAP body does not have all the required elements.

getDiskEncryptStatus

Retrieves the disk encryption status.

Input Parameters

The keyword **name** requires a string that describes the name of the device.

Return

The output parameter **DiskEncryption[]** returns a DiskInformation value that provides the status of disk encryption.

Exceptions

Type	String	Description
RemoteException	DeviceStatusService.getDiskEncryptStatus: ERROR:Invalid name=	The device name is invalid.
RemoteException	DeviceStatusService.getDiskEncryptStatus: ERROR:Device does not exist.DeviceName=	The device name does not exist.
AxisFault	DeviceStatus:The Method Name is not supported. MethodName=	The method name is not supported for a given service.
AxisFault	DeviceStatus:The SOAP Envelope Body is Null	The SOAP envelope is missing for a given service.
AxisFault	DeviceStatus:The Requested WebService is not available	The service requested is not supported.
AxisFault	getDiskEncryptStatus:The SOAP Body doesn't have all the required elements	The SOAP body does not have all the required elements.

getMonitoredAOs

Retrieves the operational status of application accelerators for either a WAE device, WAEs within a device group, or all WAEs system wide.

Input Parameters

Parameter	Description
name	A string that describes the name of the WAE, WAE group, or system.
objType	A string that describes the object type. Valid values include the following: • wae • waegroup • system

Return

The output parameter **MonitoredAO[]** returns a MonitoredAO value that provides the AO operational status for a WAE.

Exceptions

Type	String	Description
RemoteException	DeviceStatusService.getMonitoredAOs: ERROR:Invalid name=	The device name is invalid.
RemoteException	DeviceStatusService.getMonitoredAOs: ERROR:Invalid objType=	The object type is invalid.
RemoteException	DeviceStatusService.getMonitoredAOs: ERROR:Device does not exist.DeviceName=	The device name does not exist.
RemoteException	DeviceStatusService.getMonitoredAOs: ERROR:Device Group does not exist.DeviceGroup=	The device group name does not exist.
AxisFault	DeviceStatus:The Method Name is not supported. MethodName=	The method name is not supported for a given service.
AxisFault	DeviceStatus:The SOAP Envelope Body is Null	The SOAP envelope is missing for a given service.
AxisFault	DeviceStatus:The Requested WebService is not available	The service requested is not supported.
AxisFault	getMonitoredAOs:The SOAP Body doesn't have all the required elements	The SOAP body does not have all the required elements.

getMonitoredAOsByWaeIDs

Retrieves the operational status of application accelerators for a list of device IDs.

Input Parameters

Parameter	Description
ids	A data type of long that describes the ID of the WAE.

Return

The output parameter **MonitoredAO[]** returns a MonitoredAO value that provides the AO operational status for a WAE.

Exceptions

Type	String	Description
RemoteException	DeviceStatusService.getMonitoredAOs ByWaeIds: ERROR:Invalid name=	The device name is invalid.
RemoteException	DeviceStatusService.getMonitoredAOs ByWaeIds: ERROR:Invalid objType=	The object type is invalid.
RemoteException	DeviceStatusService.getMonitoredAOs ByWaeIds: ERROR:Device does not exist.DeviceName=	The device name does not exist.
RemoteException	DeviceStatusService.getMonitoredAOs ByWaeIds: ERROR:Device Group does not exist.DeviceGroup=	The device group name does not exist.
AxisFault	DeviceStatus:The Method Name is not supported. MethodName=	The method name is not supported for a given service.
AxisFault	DeviceStatus:The SOAP Envelope Body is Null	The SOAP envelope is missing for a given service.
AxisFault	DeviceStatus:The Requested WebService is not available	The service requested is not supported.
AxisFault	getMonitoredAOsByWaeIds:The SOAP Body doesn't have all the required elements	The SOAP body does not have all the required elements.

retrieveAllAlarms

Retrieves all alarms.

Input Parameters

None.

Return

The output parameter **Alarm[]** returns an Alarm value that provides a list of all alarms.

Exceptions

Type	String	Description
AxisFault	AlarmStatus:The Method Name is not supported. MethodName=	The method name is not supported for a given service.
AxisFault	AlarmStatus:The SOAP Envelope Body is Null	The SOAP envelope is missing for a given service.
AxisFault	AlarmStatus:The Requested WebService is not available	The service requested is not supported.
AxisFault	retrieveAllAlarms:The SOAP Body doesn't have all the required elements	The SOAP body does not have all the required elements.

retrieveAlarmByName

Retrieves a list of all alarms filtered by the name of the WAE or WAE group, the object type, or the alarm name. If the alarm name is specified, all alarms matching the alarm name string are returned. If an empty string is specified, all alarms applicable to the WAE or WAE group will be returned.

Input Parameters

Parameter	Description
name	A string that describes the name of the WAE, WAE group, or system.
objType	A string that describes the object type. Valid values include the following: • wae • waegroup
alarmName	A string that contains the alarm name.

Return

The output parameter **Alarm[]** returns an Alarm value that provides a list of all alarms filtered by the input criteria.

Exceptions

Type	String	Description
RemoteException	AlarmStatusService.retrieveAlarmsBy Name: ERROR:Invalid name=	The device name is invalid.
RemoteException	AlarmStatusService.retrieveAlarmsBy Name: ERROR:Invalid objType=	The object type name is invalid.
RemoteException	AlarmStatusService.retrieveAlarmsBy Name: ERROR:Invalid alarmName=	The alarm name is not found.
AxisFault	AlarmStatus:The Method Name is not supported. MethodName=	The method name is not supported for a given service.
AxisFault	AlarmStatus:The SOAP Envelope Body is Null	The SOAP envelope is missing for a given service.
AxisFault	AlarmStatus:The Requested WebService is not available	The service requested is not supported.
AxisFault	retrieveAlarmsByName:The SOAP Body doesn't have all the required elements	The SOAP body does not have all the required elements.

retrieveAlarmBySeverity

Retrieves a list of all active alarms for the specified WAE or WAE group, further filtered on alarm severity. If the severity is specified as all, alarms of all severities will be returned.

Input Parameters

Parameter	Description
name	A string that describes the name of the WAE, WAE group, or system.
objType	A string that describes the object type. Valid values include the following: • wae • waegroup
severity	A String value that describes the alarm severity: • minor • major • critical • all

Return

The output parameter **Alarm[]** returns an Alarm value that provides a list of all alarms filtered by the input criteria.

Exceptions

Type	String	Description
RemoteException	AlarmStatusService.retrieveAlarmsBySeverity: ERROR:Invalid name=	The device name is invalid.
RemoteException	AlarmStatusService.retrieveAlarmsBySeverity: ERROR:Invalid objType=	The object type name is invalid.
RemoteException	AlarmStatusService.retrieveAlarmsBySeverity: ERROR:Invalid severity=	The alarm severity is invalid.
AxisFault	AlarmStatus:The Method Name is not supported. MethodName=	The method name is not supported for a given service.
AxisFault	AlarmStatus:The SOAP Envelope Body is Null	The SOAP envelope is missing for a given service.
AxisFault	AlarmStatus:The Requested WebService is not available	The service requested is not supported.
AxisFault	retrieveAlarmsBySeverity:The SOAP Body doesn't have all the required elements	The SOAP body does not have all the required elements.

AppNav Statistics Service

This chapter describes the AppNav Statistics service, which returns AppNav data and statistics for AppNav and AppNav- XE controllers and clusters.

This chapter contains the following sections:

AppNav Statistics Service Syntax

This section contains the following topics:

AppNav Statistics Informational URLs

This section provides informational URLs for the AppNav Statistics service.

- Service URL—**`https://<host/ip>:8443/ws/AppNavStats`**
- WSDL URL—**`https://<host/ip>:8443/ws/AppNavStats?wsdl`**
- To obtain a description of all the operations and parameters for the AppNavStats Service, submit a URL to the service with the suffix **?wsdl** as follows:

  `https://<host/ip>:8443/ws/AppNavStats?wsdl`
- To obtain management information using the Central Manager monitoring API, first call the service by using the service URL for this service as follows:

  `https://<host/ip>:8443/ws/AppNavStats`

  Next, submit a SOAP request written in an XML format to retrieve the information.

AppNav Statistics Example Request

The following example shows an XML-formatted SOAP request to perform the **retrieveOverallAppNavPolicyStats** action. The request includes the input parameters for this particular action shown in bold. For more information on this action, see retrieveOverallAppNavPolicyStats.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:ser="http://service.stats.ws.waas.cisco.com"
xmlns:xsd="http://util.ws.waas.cisco.com/xsd">
<soapenv:Header>
<wsse:Security
xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.
xsd">
<wsse:UsernameToken>
<wsse:Username>admin</wsse:Username>
<wsse:Password>default</wsse:Password>
</wsse:UsernameToken>
</wsse:Security>
</soapenv:Header>
   <soapenv:Body>
      <ser:retrieveOverallAppNavPolicyStats>
         <!--Zero or more repetitions:-->
         <ser:name>one</ser:name>
         <!--Optional:-->
         <ser:objType>cluster</ser:objType>
         <!--Optional:-->
         <ser:timeframe>
            <!--Optional:-->
            <xsd:endTime>2012-05-23T09:40:00.000Z</xsd:endTime>
            <!--Optional:-->
            <xsd:frequency>lasthour</xsd:frequency>
            <!--Optional:-->
            <xsd:startTime>2012-05-23T08:45:00.000Z</xsd:startTime>
            <!--Optional:-->
            <xsd:timezone>UTC</xsd:timezone>
         </ser:timeframe>
      </ser:retrieveOverallAppNavPolicyStats>
   </soapenv:Body>
</soapenv:Envelope>
```

AppNav Statistics Example Response

The following example shows the XML response that contains the output values for the **retrieveOverallAppNavPolicyStats** action. For more information on this action, see retrieveOverallAppNavPolicyStats.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/">
   <soapenv:Body>
      <ns:retrieveOverallAppNavPolicyStatsResponse
xmlns:ns="http://service.stats.ws.waas.cisco.com" xmlns:ax246="http://rmi.java/xsd"
xmlns:ax248="http://util.ws.waas.cisco.com/xsd" xmlns:ax247="http://io.java/xsd"
xmlns:ax249="http://stats.ws.waas.cisco.com/xsd">
         <ns:return type="com.cisco.waas.ws.stats.AppNavOverallStats">
            <ax249:endtime>2012-05-23T08:55:00.000Z</ax249:endtime>
            <ax249:frequency>min</ax249:frequency>
            <ax249:interceptedTraffic>143510</ax249:interceptedTraffic>
            <ax249:name>one</ax249:name>
            <ax249:passthroughTraffic>56653</ax249:passthroughTraffic>
```

```
   <ax249:redirectedTraffic>86857</ax249:redirectedTraffic>
   <ax249:starttime>2012-05-23T08:50:00.000Z</ax249:starttime>
</ns:return>
<ns:return type="com.cisco.waas.ws.stats.AppNavOverallStats">
   <ax249:endtime>2012-05-23T09:00:00.000Z</ax249:endtime>
   <ax249:frequency>min</ax249:frequency>
   <ax249:interceptedTraffic>136555</ax249:interceptedTraffic>
   <ax249:name>one</ax249:name>
   <ax249:passthroughTraffic>56524</ax249:passthroughTraffic>
   <ax249:redirectedTraffic>80031</ax249:redirectedTraffic>
   <ax249:starttime>2012-05-23T08:55:00.000Z</ax249:starttime>
</ns:return>
<ns:return type="com.cisco.waas.ws.stats.AppNavOverallStats">
   <ax249:endtime>2012-05-23T09:05:00.000Z</ax249:endtime>
   <ax249:frequency>min</ax249:frequency>
   <ax249:interceptedTraffic>164320</ax249:interceptedTraffic>
   <ax249:name>one</ax249:name>
   <ax249:passthroughTraffic>67784</ax249:passthroughTraffic>
   <ax249:redirectedTraffic>96536</ax249:redirectedTraffic>
   <ax249:starttime>2012-05-23T09:00:00.000Z</ax249:starttime>
</ns:return>
<ns:return type="com.cisco.waas.ws.stats.AppNavOverallStats">
   <ax249:endtime>2012-05-23T09:10:00.000Z</ax249:endtime>
   <ax249:frequency>min</ax249:frequency>
   <ax249:interceptedTraffic>151656</ax249:interceptedTraffic>
   <ax249:name>one</ax249:name>
   <ax249:passthroughTraffic>50856</ax249:passthroughTraffic>
   <ax249:redirectedTraffic>100800</ax249:redirectedTraffic>
   <ax249:starttime>2012-05-23T09:05:00.000Z</ax249:starttime>
</ns:return>
<ns:return type="com.cisco.waas.ws.stats.AppNavOverallStats">
   <ax249:endtime>2012-05-23T09:15:00.000Z</ax249:endtime>
   <ax249:frequency>min</ax249:frequency>
   <ax249:interceptedTraffic>169249</ax249:interceptedTraffic>
   <ax249:name>one</ax249:name>
   <ax249:passthroughTraffic>70901</ax249:passthroughTraffic>
   <ax249:redirectedTraffic>98348</ax249:redirectedTraffic>
   <ax249:starttime>2012-05-23T09:10:00.000Z</ax249:starttime>
</ns:return>
<ns:return type="com.cisco.waas.ws.stats.AppNavOverallStats">
   <ax249:endtime>2012-05-23T09:20:00.000Z</ax249:endtime>
   <ax249:frequency>min</ax249:frequency>
   <ax249:interceptedTraffic>160204</ax249:interceptedTraffic>
   <ax249:name>one</ax249:name>
   <ax249:passthroughTraffic>67593</ax249:passthroughTraffic>
   <ax249:redirectedTraffic>92611</ax249:redirectedTraffic>
   <ax249:starttime>2012-05-23T09:15:00.000Z</ax249:starttime>
</ns:return>
<ns:return type="com.cisco.waas.ws.stats.AppNavOverallStats">
   <ax249:endtime>2012-05-23T09:25:00.000Z</ax249:endtime>
   <ax249:frequency>min</ax249:frequency>
   <ax249:interceptedTraffic>161264</ax249:interceptedTraffic>
   <ax249:name>one</ax249:name>
   <ax249:passthroughTraffic>71680</ax249:passthroughTraffic>
   <ax249:redirectedTraffic>89584</ax249:redirectedTraffic>
   <ax249:starttime>2012-05-23T09:20:00.000Z</ax249:starttime>
</ns:return>
<ns:return type="com.cisco.waas.ws.stats.AppNavOverallStats">
   <ax249:endtime>2012-05-23T09:30:00.000Z</ax249:endtime>
   <ax249:frequency>min</ax249:frequency>
   <ax249:interceptedTraffic>100226</ax249:interceptedTraffic>
   <ax249:name>one</ax249:name>
   <ax249:passthroughTraffic>39049</ax249:passthroughTraffic>
   <ax249:redirectedTraffic>61177</ax249:redirectedTraffic>
```

```
            <ax249:starttime>2012-05-23T09:25:00.000Z</ax249:starttime>
         </ns:return>
         <ns:return type="com.cisco.waas.ws.stats.AppNavOverallStats">
            <ax249:endtime>2012-05-23T09:35:00.000Z</ax249:endtime>
            <ax249:frequency>min</ax249:frequency>
            <ax249:interceptedTraffic>143822</ax249:interceptedTraffic>
            <ax249:name>one</ax249:name>
            <ax249:passthroughTraffic>56865</ax249:passthroughTraffic>
            <ax249:redirectedTraffic>86957</ax249:redirectedTraffic>
            <ax249:starttime>2012-05-23T09:30:00.000Z</ax249:starttime>
         </ns:return>
         <ns:return type="com.cisco.waas.ws.stats.AppNavOverallStats">
            <ax249:endtime>2012-05-23T09:40:00.000Z</ax249:endtime>
            <ax249:frequency>min</ax249:frequency>
            <ax249:interceptedTraffic>109224</ax249:interceptedTraffic>
            <ax249:name>one</ax249:name>
            <ax249:passthroughTraffic>49786</ax249:passthroughTraffic>
            <ax249:redirectedTraffic>59438</ax249:redirectedTraffic>
            <ax249:starttime>2012-05-23T09:35:00.000Z</ax249:starttime>
         </ns:return>
      </ns:retrieveOverallAppNavPolicyStatsResponse>
   </soapenv:Body>
</soapenv:Envelope>
```

AppNav Statistics Service Actions

The AppNav Statistics service (AppNavStats Web Service) performs one or more of the following actions:

- retrieveAppNavPassthroughStats
- retrieveAppNavPolicyStats
- retrieveOverallAppNavPolicyStats
- retrieveWNGDistributionStats
- retrieveWNGDistributionStatsXe
- retrieveAppNavPassthroughStatsXe

Note that you can request statistics for multiple clusters/controller in any of the above requests.

retrieveAppNavPassthroughStats

Retrieves the pass-through statistics collected on an AppNav controller or cluster.

This API is supported for AppNav-XE device/cluster.

Input Parameters

Parameter	Description
name	An array of **ser:name** elements, each of which is a string that describes the name of the AppNav controller or cluster.
objType	An array of **ser:objType** elements, each of which is a string that describes the object type. Valid values include the following: • controller • cluster
timeframe	A TimeFrameFilter value that includes the time interval, time zone, and frequency.

Return

The output parameter **appNavPTStats[]** returns a AppNavPTStats value that provides pass-through statistics.

Exceptions

Type	String	Description
RemoteException	AppNavStatsService.retrieveAppNavPassthroughStats: ERROR:Invalid name=	The controller or cluster name is invalid.
RemoteException	AppNavStatsService.retrieveAppNavPassthroughStats: ERROR:Invalid objType=	The object type name is invalid.
RemoteException	AppNavStatsService.retrieveAppNavPassthroughStats: ERROR:Invalid TimeFrame	The timeframe is invalid.
RemoteException	AppNavStatsService.retrieveAppNavPassthroughStats: ERROR:Device does not exist.DeviceName=	The controller name is not found.
RemoteException	AppNavStatsService.retrieveAppNavPassthroughStats: ERROR:Cluster does not exist.Cluster=	The cluster name is not found.
RemoteException	AppNavStatsService.retrieveAppNavPassthroughStats: ERROR:Invalid frequency=	The frequency is invalid.
RemoteException	AppNavStatsService.retrieveAppNavPassthroughStats: ERROR:Invalid startTime=	The start time is invalid.

RemoteException	AppNavStatsService.retrieveAppNav PassthroughStats: ERROR:Invalid endTime=	The end time is invalid.
RemoteException	AppNavStatsService.retrieveAppNav PassthroughStats: ERROR:startTime should be less than endTime startTime=	The start time is less than the end time.
AxisFault	AppNavStats:The Method Name is not supported. MethodName=	The method name is not supported for a given service.
AxisFault	AppNavStats:The SOAP Envelope Body is Null	The SOAP envelope is missing for a given service.
AxisFault	AppNavStats:The Requested WebService is not available	The service requested is not supported.
AxisFault	retrieveAppNavPassthroughStats:The SOAP Body doesn't have all the required elements	The SOAP body does not have all the required elements.

retrieveAppNavPolicyStats

Retrieves the AppNav controller or cluster statistics for a specified policy map/class map pair, including the intercepted, distributed, and pass-through traffic for the default policy for that pair.

Note The parameter classMapName is not supported for IOS-XE devices/Cluster. Please use API without classMapName for IOS-XE devices/Cluster : " + deviceName.

Input Parameters

Parameter	Description
name	An array of **ser:name** elements, each of which is a string that describes the name of the AppNav controller or cluster.
objType	An array of **ser:objType** elements, each of which is a string that describes the object type. Valid values include the following: • controller • cluster
timeframe	A TimeFrameFilter value that includes the time interval, time zone, and frequency.
policyMapName	A string that describes the name of the policy map.
classMapName	A string that describes the name of the class map.

Return

The output parameter **AppNavPolicyStats[]** returns a AppNavStats value that provides information about the intercepted traffic, pass-through traffic, and redirected traffic for the specified policy map/class map pair.

Exceptions

Type	String	Description
RemoteException	AppNavStatsService.retrieveAppNav PolicyStats: ERROR:Invalid name=	The controller or cluster name is invalid.
RemoteException	AppNavStatsService.retrieveAppNav PolicyStats: ERROR:Invalid objType=	The object type name is invalid.
RemoteException	AppNavStatsService.retrieveAppNav PolicyStats: ERROR:Invalid TimeFrame	The timeframe is invalid.
RemoteException	AppNavStatsService.retrieveAppNav PolicyStats: ERROR:Device does not exist.DeviceName=	The controller name is not found.
RemoteException	AppNavStatsService.retrieveAppNav PolicyStats: ERROR:Cluster does not exist.Cluster=	The cluster name is not found.

RemoteException	AppNavStatsService.retrieveAppNav PolicyStats: ERROR:Invalid frequency=	The frequency is invalid.
RemoteException	AppNavStatsService.retrieveAppNav PolicyStats: ERROR:Invalid startTime=	The start time is invalid.
RemoteException	AppNavStatsService.retrieveAppNav PolicyStats: ERROR:Invalid endTime=	The end time is invalid.
RemoteException	AppNavStatsService.retrieveAppNav PolicyStats: ERROR:startTime should be less than endTime startTime=	The start time is less than the end time.
RemoteException	AppNavStatsService.retrieveAppNavPo licyStats:ERROR:PolicyMapName does not exist. PolicyMapName :	The Policy Map Name is not valid.
RemoteException	AppNavStatsService.retrieveAppNavPo licyStats:ERROR:The parameter classMapName is not supported for IOS-XE devices/Cluster. Please use API without classMapName for IOS-XE devices/Cluster :	The Policy Map Name is not supported for IOS-XE devices/Cluster.
AxisFault	AppNavStats:The Method Name is not supported. MethodName=	The method name is not supported for a given service.
AxisFault	AppNavStats:The SOAP Envelope Body is Null	The SOAP envelope is missing for a given service.
AxisFault	AppNavStats:The Requested WebService is not available	The service requested is not supported.
AxisFault	retrieveAppNavPolicyStats:The SOAP Body doesn't have all the required elements	The SOAP body does not have all the required elements.

retrieveOverallAppNavPolicyStats

Retrieves the overall AppNav controller or cluster statistics, including the intercepted, distributed, and pass-through traffic for the default policy.

This API is supported for AppNav-XE device/cluster.

Input Parameters

Parameter	Description
name	An array of **ser:name** elements, each of which is a string that describes the name of the AppNav controller or cluster.
objType	An array of **ser:objType** elements, each of which is a string that describes the object type. Valid values include the following: • controller • cluster
timeframe	A TimeFrameFilter value that includes the time interval, time zone, and frequency.

Return

The output parameter **AppNavOverallPolicyStats[]** returns a AppNavOverallStats value that provides overall traffic information for the controller or cluster.

Type	String	Description
RemoteException	AppNavStatsService.retrieveOverall AppNavPolicyStats: ERROR:Invalid name=	The controller or cluster name is invalid.
RemoteException	AppNavStatsService.retrieveOverall AppNavPolicyStats: ERROR:Invalid objType=	The object type name is invalid.
RemoteException	AppNavStatsService.retrieveOverall AppNavPolicyStats: ERROR:Invalid TimeFrame	The timeframe is invalid.
RemoteException	AppNavStatsService.retrieveOverall AppNavPolicyStats: ERROR:Device does not exist.DeviceName=	The controller name is not found.
RemoteException	AppNavStatsService.retrieveOverall AppNavPolicyStats: ERROR:Cluster does not exist.Cluster=	The cluster name is not found.
RemoteException	AppNavStatsService.retrieveOverall AppNavPolicyStats: ERROR:Invalid frequency=	The frequency is invalid.
RemoteException	AppNavStatsService.retrieveOverall AppNavPolicyStats: ERROR:Invalid startTime=	The start time is invalid.

RemoteException	AppNavStatsService.retrieveOverall AppNavPolicyStats: ERROR:Invalid endTime=	The end time is invalid.
RemoteException	AppNavStatsService.retrieveOverall AppNavPolicyStats: ERROR:startTime should be less than endTime startTime=	The start time is less than the end time.
AxisFault	AppNavStats:The Method Name is not supported. MethodName=	The method name is not supported for a given service.
AxisFault	AppNavStats:The SOAP Envelope Body is Null	The SOAP envelope is missing for a given service.
AxisFault	AppNavStats:The Requested WebService is not available	The service requested is not supported.
AxisFault	retrieveOverallAppNavPolicyStats:The SOAP Body doesn't have all the required elements	The SOAP body does not have all the required elements.

retrieveWNGDistributionStats

Retrieves AppNav controller received and redirected data statistics for a specified WAAS Node Group.

This API is supported for AppNav-XE device/cluster.

Input Parameters

Parameter	Description
name	An array of **ser:name** elements, each of which is a string that describes the name of the AppNav controller or cluster.
objType	An array of **ser:objType** elements, each of which is a string that describes the object type. Valid values include the following: • controller • cluster
timeframe	A TimeFrameFilter value that includes the time interval, time zone, and frequency.
wngName	A string that describes the name of the WAAS Node Group.

Return

The output parameter **AppnavWNGDistributionstats[]** returns a AppNavRedStats value that provides information about the number of received and redirected bytes for the specified WAAS Node Group. The XML output values will include the WN names only if the WNG name is passed as a parameter.

Exceptions

Type	String	Description
RemoteException	AppNavStatsService.retrieveWNG DistributionStats: ERROR:Invalid name=	The controller, cluster, or WNG name is invalid.
RemoteException	AppNavStatsService.retrieveWNG DistributionStats: ERROR:Invalid objType=	The object type name is invalid.
RemoteException	AppNavStatsService.retrieveWNG DistributionStats: ERROR:Invalid TimeFrame	The timeframe is invalid.
RemoteException	AppNavStatsService.retrieveWNG DistributionStats: ERROR:Device does not exist.DeviceName=	The controller name is not found.
RemoteException	AppNavStatsService.retrieveWNG DistributionStats: ERROR:Cluster does not exist.Cluster=	The cluster name is not found.

RemoteException	AppNavStatsService.retrieveWNG DistributionStats: ERROR:Invalid frequency=	The frequency is invalid.
RemoteException	AppNavStatsService.retrieveWNG DistributionStats: ERROR:Invalid startTime=	The start time is invalid.
RemoteException	AppNavStatsService.retrieveWNG DistributionStats: ERROR:Invalid endTime=	The end time is invalid.
RemoteException	AppNavStatsService.retrieveWNG DistributionStats: ERROR:startTime should be less than endTime startTime=	The start time is less than the end time.
AxisFault	AppNavStats:The Method Name is not supported. MethodName=	The method name is not supported for a given service.
AxisFault	AppNavStats:The SOAP Envelope Body is Null	The SOAP envelope is missing for a given service.
AxisFault	AppNavStats:The Requested WebService is not available	The service requested is not supported.
AxisFault	retrieveWNGDistributionStats:The SOAP Body doesn't have all the required elements	The SOAP body does not have all the required elements.

retrieveWNGDistributionStatsXe

Retrieves AppNav-XE controller received and redirected data statistics for a specified WAAS Node Group.

Note This API is supported only for IOS-XE devices/Cluster. Please use API without context for non IOS-XE devices/Cluster : " + deviceName.

Input Parameters

Parameter	Description
name	An array of **ser:name** elements, each of which is a string that describes the name of the AppNav-XE controller or cluster.
objType	An array of **ser:objType** elements, each of which is a string that describes the object type. Valid values include the following: • controller • cluster
timeframe	A TimeFrameFilter value that includes the time interval, time zone, and frequency.
wngName	A string that describes the name of the WAAS Node Group.
context	A string that describes the name of the Service Context.

Result

The output parameter **AppnavWNGDistributionstats[]** returns a AppNavRedStats value that provides information about the number of received and redirected bytes for the specified WAAS Node Group.

Exception

Type	String	Description
RemoteException	AppNavStatsService.retrieveWNGDistributionStatsXe:ERROR:WNG does not exist for the given context. WNGName :	Wrong WNG Name has been given for the context.
RemoteException	AppNavStatsService.retrieveWNGDistributionStatsXe:ERROR:Service Context does not exist. Service Context :	The Service context name is not valid.
RemoteException	AppNavStatsService.retrieveWNGDistributionStatsXe:ERROR:WNG does not exist. WNGName :	The WNG Name is not valid.
RemoteException	AppNavStatsService.retrieveWNGDistributionStatsXe: ERROR:Invalid name=	The controller, cluster, or WNG name is invalid.

RemoteException	AppNavStatsService.retrieveWNG DistributionStatsXe: ERROR:Invalid objType=	The object type name is invalid.
RemoteException	AppNavStatsService.retrieveWNG DistributionStatsXe: ERROR:Invalid TimeFrame	The timeframe is invalid.
RemoteException	AppNavStatsService.retrieveWNG DistributionStatsXe: ERROR:Device does not exist.DeviceName=	The controller name is not found.
RemoteException	AppNavStatsService.retrieveWNG DistributionStatsXe: ERROR:Cluster does not exist.Cluster=	The cluster name is not found.
RemoteException	AppNavStatsService.retrieveWNG DistributionStatsXe: ERROR:Invalid frequency=	The frequency is invalid.
RemoteException	AppNavStatsService.retrieveWNG DistributionStatsXe: ERROR:Invalid startTime=	The start time is invalid.
RemoteException	AppNavStatsService.retrieveWNG DistributionStatsXe: ERROR:Invalid endTime=	The end time is invalid.
RemoteException	AppNavStatsService.retrieveWNG DistributionStatsXe: ERROR:startTime should be less than endTime startTime=	The start time is less than the end time.
AxisFault	AppNavStats:The Method Name is not supported. MethodName=	The method name is not supported for a given service.
AxisFault	AppNavStats:The SOAP Envelope Body is Null	The SOAP envelope is missing for a given service.
AxisFault	AppNavStats:The Requested WebService is not available	The service requested is not supported.
AxisFault	retrieveWNGDistributionStatsXe:The SOAP Body doesn’t have all the required elements	The SOAP body does not have all the required elements.

retrieveAppNavPassthroughStatsXe

Retrieves the pass-through statistics collected on an AppNav-XE controller or cluster.

Note This API is supported only for IOS-XE devices/Cluster. Please use API without context for non IOS-XE devices/Cluster : " + deviceName.

Input Parameters

Parameter	Description
name	An array of **ser:name** elements, each of which is a string that describes the name of the AppNav-XE controller or cluster.
objType	An array of **ser:objType** elements, each of which is a string that describes the object type. Valid values include the following: • controller • cluster
timeframe	A TimeFrameFilter value that includes the time interval, time zone, and frequency.
context	A string that describes the name of the Service Context.

Result

The output parameter **appNavPTStats[]** returns a AppNavPTStats value that provides pass-through statistics.

Exceptions

Type	String	Description
RemoteException	AppNavStatsService.retrieveAppNavPassthroughStatsXe:ERROR:Service Context does not exist. Service Context :	The Service context name is not valid
RemoteException	AppNavStatsService.retrieveAppNavPassthroughStatsXe: ERROR:Invalid name=	The controller or cluster name is invalid.
RemoteException	AppNavStatsService.retrieveAppNavPassthroughStatsXe: ERROR:Invalid objType=	The object type name is invalid.
RemoteException	AppNavStatsService.retrieveAppNavPassthroughStatsXe: ERROR:Invalid TimeFrame	The timeframe is invalid.
RemoteException	AppNavStatsService.retrieveAppNavPassthroughStatsXe: ERROR:Device does not exist.DeviceName=	The controller name is not found.

RemoteException	AppNavStatsService.retrieveAppNavPassthroughStatsXe: ERROR:Cluster does not exist.Cluster=	The cluster name is not found.
RemoteException	AppNavStatsService.retrieveAppNavPassthroughStatsXe: ERROR:Invalid frequency=	The frequency is invalid.
RemoteException	AppNavStatsService.retrieveAppNavPassthroughStatsXe: ERROR:Invalid startTime=	The start time is invalid.
RemoteException	AppNavStatsService.retrieveAppNavPassthroughStatsXe: ERROR:Invalid endTime=	The end time is invalid.
RemoteException	AppNavStatsService.retrieveAppNavPassthroughStatsXe: ERROR:startTime should be less than endTime startTime=	The start time is less than the end time.
AxisFault	AppNavStats:The Method Name is not supported. MethodName=	The method name is not supported for a given service.
AxisFault	AppNavStats:The SOAP Envelope Body is Null	The SOAP envelope is missing for a given service.
AxisFault	AppNavStats:The Requested WebService is not available	The service requested is not supported.
AxisFault	retrieveAppNavPassthroughStatsXe: The SOAP Body doesn't have all the required elements	The SOAP body does not have all the required elements.

CIFS Statistics Service

This chapter describes the CIFS Statistics service, which returns the overall CIFS statistics collected on either a WAE device, WAEs within a device group, or all WAEs system wide. This service returns statistics for devices running in CIFS accelerator or CIFS legacy mode.

Note The CIFS application accelerator is used only for WAAS Versions 5.5.1 and earlier.

This chapter contains the following sections:

CIFS Statistics Service Syntax

This section contains the following topics:

CIFS Statistics Informational URLs

This section provides informational URLs for the CIFS Statistics service.

- Service URL—**`https://<host/ip>:8443/ws/CIFSStats`**
- WSDL URL—**`https://<host/ip>:8443/ws/CIFSStats?wsdl`**
- To obtain a description of all the operations and parameters for the CIFSStats Web Service, submit a URL to the service with the suffix **?wsdl** as follows:

  `https://<host/ip>:8443/ws/CIFSStats?wsdl`
- To obtain management information using the Central Manager monitoring API, first call the service by using the service URL for this service as follows:

  `https://<host/ip>:8443/ws/CIFSStats`

  Next, submit a SOAP request written in XML format to retrieve the information.

CIFS Statistics Example Request

The following example shows an XML-formatted SOAP request to perform the **retrieveRequestHitRate** action. The request includes the input parameters shown in bold. For more information on this action, see retrieveRequestHitRate.

```
<?xml version="1.0" encoding="utf-8" ?>
- <soapenv:Envelope xmlns:soapenv="http://www.w3.org/2003/05/soap-envelope">
- <soapenv:Header>
- <wsse:Security
xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.
xsd">
- <wsse:UsernameToken>
  <wsse:Username>admin</wsse:Username>
  <wsse:Password
Type="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-username-token-profile-1.0#P
asswordText">default</wsse:Password>
  </wsse:UsernameToken>
  </wsse:Security>
  </soapenv:Header>
- <soapenv:Body>
- <ns1:retrieveRequestHitRate xmlns:ns1="http://service.stats.ws.waas.cisco.com">
  <ns1:name>ce-119-40</ns1:name>
  <ns1:objType>wae</ns1:objType>
  <ns1:trafficType>not used</ns1:trafficType>
  <ns1:direction>bidirectional</ns1:direction>
- <ns1:timeframe>
  <ns4:endTime
xmlns:ns4="http://util.ws.waas.cisco.com/xsd">2008-01-25T08:00:00.000Z</ns4:endTime>
  <ns4:frequency xmlns:ns4="http://util.ws.waas.cisco.com/xsd">lasthour</ns4:frequency>
  <ns4:startTime
xmlns:ns4="http://util.ws.waas.cisco.com/xsd">2008-01-25T08:00:00.000Z</ns4:startTime>
  <ns4:timezone xmlns:ns4="http://util.ws.waas.cisco.com/xsd">UTC</ns4:timezone>
  </ns1:timeframe>
  </ns1:retrieveRequestHitRate>
  </soapenv:Body>
  </soapenv:Envelope>
```

CIFS Statistics Example Response

The following example shows the XML response that contains the output values for the **retrieveRequestHitRate** action. For more information on this action, see retrieveRequestHitRate.

```
<?xml version="1.0" encoding="utf-8" ?>
- <soapenv:Envelope xmlns:soapenv="http://www.w3.org/2003/05/soap-envelope">
- <soapenv:Body>
- <ns:retrieveRequestHitRateResponse xmlns:ns="http://service.stats.ws.waas.cisco.com"
xmlns:ax29="http://io.java/xsd" xmlns:ax28="http://rmi.java/xsd"
xmlns:ax210="http://util.ws.waas.cisco.com/xsd"
xmlns:ax211="http://stats.ws.waas.cisco.com/xsd">
- <ns:return type="com.cisco.waas.ws.stats.CIFSHitRateStats">
  <ax211:frequency>min</ax211:frequency>
  <ax211:inHitrate>0</ax211:inHitrate>
  <ax211:outHitrate>-1</ax211:outHitrate>
  <ax211:timestamp>1970-01-14T23:39:47.100Z</ax211:timestamp>
  </ns:return>
  </ns:retrieveRequestHitRateResponse>
  </soapenv:Body>
```

```
</soapenv:Envelope>
```

CIFS Statistics Service Actions

The CIFS Statistics service (CIFSStats Web Service) performs one or more of the following actions:

- getCIFSClientAvgThroughput
- getCIFSCoreCount
- getCIFSCoreEdgeTraffic
- getCIFSEdgeCoreTraffic
- getCIFSEdgeCount
- getDiskCapacity
- getOpenFileCount
- getOptCIFSSessionCount
- getRequestCount
- retrieveCacheObjectCount
- retrieveCacheUtilization
- retrieveRequestHitRate

getCIFSClientAvgThroughput

Retrieves the average throughput between the Edge device and its clients, measured over the Edge device up time (including idle time). Supported for CIFS Legacy Edge and CIFS AO mode.

Input Parameters

Parameter	Description
name	A string that describes the name of the WAE.
objType	A string that describes the object type. Valid values include the following: • wae
trafficType	A string that describes the type of traffic. Valid values include the following: • passthrough • optimized Note: trafficType is not used in filtering the data.
direction	A string that describes the direction of the traffic. Valid values include the following: • inbound • outbound • bidirectional Note: direction is not used in filtering the data.
timeframe	A TimeFrameFilter value that includes the time interval, time zone, and frequency.

Return

The output parameter **ClientAvgThroughputStats[]** returns an ClientAvgThroughputStats value that provides a list of client average throughput history.

Exceptions

Type	String	Description
RemoteException	CIFSStatsService.getCIFSClientAvgThroughput: ERROR:Invalid name=	The device name is invalid.
RemoteException	CIFSStatsService.getCIFSClientAvgThroughput: ERROR:Invalid objType=	The object type name is invalid.
RemoteException	CIFSStatsService.getCIFSClientAvgThroughput: ERROR:Invalid objType=wae Only wae supported.	The object type is other than wae.
RemoteException	CIFSStatsService.getCIFSClientAvgThroughput: ERROR:Invalid TimeFrame	The timeframe is invalid.
RemoteException	CIFSStatsService.getCIFSClientAvgThroughput: ERROR:Device does not exist.DeviceName=	The device name is not found.

RemoteException	CIFSStatsService.getCIFSClientAvgThroughput: ERROR:Unsupported frequency=	The frequency is not supported.
RemoteException	CIFSStatsService.getCIFSClientAvgThroughput: ERROR:Invalid frequency=	The frequency is invalid.
RemoteException	CIFSStatsService.getCIFSClientAvgThroughput: ERROR:Invalid startTime=	The start time is invalid.
RemoteException	CIFSStatsService.getCIFSClientAvgThroughput: ERROR:Invalid endTime=	The end time is invalid.
RemoteException	CIFSStatsService.getCIFSClientAvgThroughput: ERROR:startTime should be less than endTime startTime=	The start time is less than the end time.
AxisFault	CIFSStats:The Method Name is not supported. MethodName=	The method name is not supported for a given service.
AxisFault	CIFSStats:The SOAP Envelope Body is Null	The SOAP envelope is missing for a given service.
AxisFault	CIFSStats:The Requested WebService is not available	The service requested is not supported.
AxisFault	getCIFSClientAvgThroughput:The SOAP Body doesn't have all the required elements	The SOAP body does not have all the required elements.
RemoteException	CIFSStatsService.getCIFSClientAvgThroughput: ERROR:API is not supported. cifsDevType=core	The device is running Legacy Core Mode.

getCIFSCoreCount

Retrieves the overall CIFS core count statistics collected on a WAE device. Supported for CIFS Legacy and CIFS AO mode.

Input Parameters

Parameter	Description
name	A string that describes the name of the WAE.
objType	A string that describes the object type. Valid values include the following: • wae
trafficType	A string that describes the type of traffic. Valid values include the following: • passthrough • optimized Note: trafficType is not used in filtering the data.
direction	A string that describes the direction of the traffic. Valid values include the following: • inbound • outbound • bidirectional Note: direction is not used in filtering the data.
timeframe	A TimeFrameFilter value that includes the time interval, time zone, and frequency.

Return

The output parameter **coreCountStats[]** returns a CoreCountStats value that provides a list of the core device count history.

Exceptions

Type	String	Description
RemoteException	CIFSStatsService.getCIFSCoreCount: ERROR:Invalid name=	The device name is invalid.
RemoteException	CIFSStatsService.getCIFSCoreCount: ERROR:Invalid objType=	The object type name is invalid.
RemoteException	CIFSStatsService.getCIFSCoreCount: ERROR:Invalid objType=wae Only wae supported.	The object type is other than wae.
RemoteException	CIFSStatsService.getCIFSCoreCount: ERROR:Invalid TimeFrame	The timeframe is invalid.
RemoteException	CIFSStatsService.getCIFSCoreCount: ERROR:Device does not exist.DeviceName=	The device name is not found.

RemoteException	CIFSStatsService.getCIFSCoreCount: ERROR:Unsupported frequency=	The frequency is not supported.
RemoteException	CIFSStatsService.getCIFSCoreCount: ERROR:Invalid frequency=	The frequency is invalid.
RemoteException	CIFSStatsService.getCIFSCoreCount: ERROR:Invalid startTime=	The start time is invalid.
RemoteException	CIFSStatsService.getCIFSCoreCount: ERROR:Invalid endTime=	The end time is invalid.
RemoteException	CIFSStatsService.getCIFSCoreCount: ERROR:startTime should be less than endTime startTime=	The start time is less than the end time.
AxisFault	CIFSStats:The Method Name is not supported. MethodName=	The method name is not supported for a given service.
AxisFault	CIFSStats:The SOAP Envelope Body is Null	The SOAP envelope is missing for a given service.
AxisFault	CIFSStats:The Requested WebService is not available	The service requested is not supported.
AxisFault	getCIFSCoreCount:The SOAP Body doesn't have all the required elements	The SOAP body does not have all the required elements.
RemoteException	CIFSStatsService.getCIFSCoreCount: ERROR:API is not supported. cifsDevType=	The device is running on CIFS AO mode or Legacy Core Mode.

getCIFSCoreEdgeTraffic

Retrieves the total traffic between CIFS Core and the CIFS Edges connected to it. Supported for CIFS Legacy Core mode only.

Input Parameters

Parameter	Description
name	A string that describes the name of the WAE.
objType	A string that describes the object type. Valid values include the following: • wae
trafficType	A string that describes the type of traffic. Valid values include the following: • passthrough • optimized Note: trafficType is not used in filtering the data.
direction	A string that describes the direction of the traffic. Valid values include the following: • inbound • outbound • bidirectional Note: direction is not used in filtering the data.
timeframe	A TimeFrameFilter value that includes the time interval, time zone, and frequency.

Return

The output parameter **CIFSTrafficStats[]** returns an CacheCountStats value that provides a list of traffic between Core and Edges connected to it.

Exceptions

Type	String	Description
RemoteException	CIFSStatsService.getCIFSCoreEdgeTraffic: ERROR:Invalid name=	The device name is invalid.
RemoteException	CIFSStatsService.getCIFSCoreEdgeTraffic: ERROR:Invalid objType=	The object type name is invalid.
RemoteException	CIFSStatsService.getCIFSCoreEdgeTraffic: ERROR:Invalid objType=wae Only wae supported.	The object type is other than wae.
RemoteException	CIFSStatsService.getCIFSCoreEdgeTraffic: ERROR:Invalid TimeFrame	The timeframe is invalid.
RemoteException	CIFSStatsService.getCIFSCoreEdgeTraffic: ERROR:Device does not exist.DeviceName=	The device name is not found.

RemoteException	CIFSStatsService.getCIFSCoreEdgeTraffic: ERROR:Unsupported frequency=	The frequency is not supported.
RemoteException	CIFSStatsService.getCIFSCoreEdgeTraffic: ERROR:Invalid frequency=	The frequency is invalid.
RemoteException	CIFSStatsService.getCIFSCoreEdgeTraffic: ERROR:Invalid startTime=	The start time is invalid.
RemoteException	CIFSStatsService.getCIFSCoreEdgeTraffic: ERROR:Invalid endTime=	The end time is invalid.
RemoteException	CIFSStatsService.getCIFSCoreEdgeTraffic: ERROR:startTime should be less than endTime startTime=	The start time is less than the end time.
AxisFault	CIFSStats:The Method Name is not supported. MethodName=	The method name is not supported for a given service.
AxisFault	CIFSStats:The SOAP Envelope Body is Null	The SOAP envelope is missing for a given service.
AxisFault	CIFSStats:The Requested WebService is not available	The service requested is not supported.
AxisFault	getCIFSCoreEdgeTraffic:The SOAP Body doesn't have all the required elements	The SOAP body does not have all the required elements.
RemoteException	CIFSStatsService.getCIFSCoreEdgeTraffic: ERROR:API is not supported. cifsDevType=edge	The device is running Legacy Edge Mode.
RemoteException	CIFSStatsService.getCIFSCoreEdgeTraffic: ERROR:API is not supported. cifsDevType=cifsao	The device is running CIFSAO Mode.

getCIFSEdgeCoreTraffic

Retrieves the total traffic between CIFS Edge and CIFS Cores connected to it. Supported for CIFS Legacy Edge mode only.

Input Parameters

Parameter	Description
name	A string that describes the name of the WAE.
objType	A string that describes the object type. Valid values include the following: • wae
trafficType	A string that describes the type of traffic. Valid values include the following: • passthrough • optimized Note: trafficType is not used in filtering the data.
direction	A string that describes the direction of the traffic. Valid values include the following: • inbound • outbound • bidirectional Note: direction is not used in filtering the data.
timeframe	A TimeFrameFilter value that includes the time interval, time zone, and frequency.

Return

The output parameter **CIFSTrafficStats[]** returns an CacheCountStats value that provides a list of traffic between Edge and Cores connected to it.

Exceptions

Type	String	Description
RemoteException	CIFSStatsService.getCIFSEdgeCoreTraffic: ERROR:Invalid name=	The device name is invalid.
RemoteException	CIFSStatsService.getCIFSEdgeCoreTraffic: ERROR:Invalid objType=	The object type name is invalid.
RemoteException	CIFSStatsService.getCIFSEdgeCoreTraffic: ERROR:Invalid objType=wae Only wae supported.	The object type is other than wae.
RemoteException	CIFSStatsService.getCIFSEdgeCoreTraffic: ERROR:Invalid TimeFrame	The timeframe is invalid.
RemoteException	CIFSStatsService.getCIFSEdgeCoreTraffic: ERROR:Device does not exist.DeviceName=	The device name is not found.

RemoteException	CIFSStatsService.getCIFSEdgeCoreTraffic: ERROR:Unsupported frequency=	The frequency is not supported.
RemoteException	CIFSStatsService.getCIFSEdgeCoreTraffic: ERROR:Invalid frequency=	The frequency is invalid.
RemoteException	CIFSStatsService.getCIFSEdgeCoreTraffic: ERROR:Invalid startTime=	The start time is invalid.
RemoteException	CIFSStatsService.getCIFSEdgeCoreTraffic: ERROR:Invalid endTime=	The end time is invalid.
RemoteException	CIFSStatsService.getCIFSEdgeCoreTraffic: ERROR:startTime should be less than endTime startTime=	The start time is less than the end time.
AxisFault	CIFSStats:The Method Name is not supported. MethodName=	The method name is not supported for a given service.
AxisFault	CIFSStats:The SOAP Envelope Body is Null	The SOAP envelope is missing for a given service.
AxisFault	CIFSStatsService:The Requested WebService is not available	The service requested is not supported.
AxisFault	getCIFSEdgeCoreTraffic:The SOAP Body doesn't have all the required elements	The SOAP body does not have all the required elements.
RemoteException	CIFSStatsService.getCIFSEdgeCoreTraffic: ERROR:API is not supported. cifsDevType=core	The device is running Legacy Mode.
RemoteException	CIFSStatsService.getCIFSEdgeCoreTraffic: ERROR:API is not supported. cifsDevType=cifsao	The device is running CIFSAO Mode.

getCIFSEdgeCount

Retrieves the total number of CIFS Edges connected to the CIFS Core. Supported for CIFS Legacy Core mode only.

Input Parameters

Parameter	Description
name	A string that describes the name of the WAE.
objType	A string that describes the object type. Valid values include the following: • wae
trafficType	A string that describes the type of traffic. Valid values include the following: • passthrough • optimized Note: trafficType is not used in filtering the data.
direction	A string that describes the direction of the traffic. Valid values include the following: • inbound • outbound • bidirectional Note: direction is not used in filtering the data.
timeframe	A TimeFrameFilter value that includes the time interval, time zone, and frequency.

Return

The output parameter **EdgeCountStats[]** returns an EdgeCountStats value that provides a list of edges connected to the Core.

Exceptions

Type	String	Description
RemoteException	CIFSStatsService.getCIFSEdgeCount: ERROR:Invalid name=	The device name is invalid.
RemoteException	CIFSStatsService.getCIFSEdgeCount: ERROR:Invalid objType=	The object type name is invalid.
RemoteException	CIFSStatsService.getCIFSEdgeCount: ERROR:Invalid objType=wae Only wae supported.	The object type is other than wae.
RemoteException	CIFSStatsService.getCIFSEdgeCount: ERROR:Invalid TimeFrame	The timeframe is invalid.
RemoteException	CIFSStatsService.getCIFSEdgeCount: ERROR:Device does not exist.DeviceName=	The device name is not found.

RemoteException	CIFSStatsService.getCIFSEdgeCount: ERROR:Unsupported frequency=	The frequency is not supported.
RemoteException	CIFSStatsService.getCIFSEdgeCount: ERROR:Invalid frequency=	The frequency is invalid.
RemoteException	CIFSStatsService.getCIFSEdgeCount: ERROR:Invalid startTime=	The start time is invalid.
RemoteException	CIFSStatsService.getCIFSEdgeCount: ERROR:Invalid endTime=	The end time is invalid.
RemoteException	CIFSStatsService.getCIFSEdgeCount: ERROR:startTime should be less than endTime startTime=	The start time is less than the end time.
AxisFault	CIFSStats:The Method Name is not supported. MethodName=	The method name is not supported for a given service.
AxisFault	CIFSStats:The SOAP Envelope Body is Null	The SOAP envelope is missing for a given service.
AxisFault	CIFSStatsService:The Requested WebService is not available	The service requested is not supported.
AxisFault	getCIFSEdgeCount:The SOAP Body doesn't have all the required elements	The SOAP body does not have all the required elements.
RemoteException	CIFSStatsService.getCIFSEdgeCount: ERROR:API is not supported. cifsDevType=edge	The device is running Legacy Edge Mode.
RemoteException	CIFSStatsService.getCIFSEdgeCount: ERROR:API is not supported. cifsDevType=cifsao	The device is running Legacy CIFSAO Mode.

getDiskCapacity

Retrieves the overall disk capacity statistics collected on a WAE device. Supported for CIFS Legacy and CIFS AO mode.

Input Parameters

Parameter	Description
name	A string that describes the name of the WAE.
objType	A string that describes the object type. Valid values include the following: • wae
trafficType	A string that describes the type of traffic. Valid values include the following: • passthrough • optimized Note: trafficType is not used in filtering the data.
direction	A string that describes the direction of the traffic. Valid values include the following: • inbound • outbound • bidirectional Note: trafficType is not used in filtering the data.
timeframe	A TimeFrameFilter value that includes the time interval, time zone, and frequency.

Return

The output parameter **diskCapacityStats[]** returns a DiskCapacityStats value that provides a list of the disk capacity history.

Exceptions

Type	String	Description
RemoteException	CIFSStatsService.getDiskCapacity: ERROR:Invalid name=	The device name is invalid.
RemoteException	CIFSStatsService.getDiskCapacity: ERROR:Invalid objType=	The object type name is invalid.
RemoteException	CIFSStatsService.getDiskCapacity: ERROR:Invalid objType=wae Only wae supported.	The object type is other than wae.
RemoteException	CIFSStatsService.getDiskCapacity: ERROR:Invalid TimeFrame	The timeframe is invalid.
RemoteException	CIFSStatsService.getDiskCapacity: ERROR:Device does not exist.DeviceName=	The device name is not found.

RemoteException	CIFSStatsService.getDiskCapacity: ERROR:Unsupported frequency=	The frequency is not supported.
RemoteException	CIFSStatsService.getDiskCapacity: ERROR:Invalid frequency=	The frequency is invalid.
RemoteException	CIFSStatsService.getDiskCapacity: ERROR:Invalid startTime=	The start time is invalid.
RemoteException	CIFSStatsService.getDiskCapacity: ERROR:Invalid endTime=	The end time is invalid.
RemoteException	CIFSStatsService.getDiskCapacity: ERROR:startTime should be less than endTime startTime=	The start time is less than the end time.
AxisFault	CIFSStats:The Method Name is not supported. MethodName=	The method name is not supported for a given service.
AxisFault	CIFSStats:The SOAP Envelope Body is Null	The SOAP envelope is missing for a given service.
AxisFault	CIFSStats:The Requested WebService is not available	The service requested is not supported.
AxisFault	getDiskCapacity:The SOAP Body doesn't have all the required elements	The SOAP body does not have all the required elements.
RemoteException	CIFSStatsService.getDiskCapacity: ERROR:API is not supported. cifsDevType=core	The device is running Legacy Core Mode.

getOpenFileCount

Retrieves the overall open file count statistics statistics collected on a WAE device. Supported for CIFS Legacy and CIFS AO mode.

Input Parameters

Parameter	Description
name	A string that describes the name of the WAE.
objType	A string that describes the object type. Valid values include the following: • wae
trafficType	A string that describes the type of traffic. Valid values include the following: • passthrough • optimized Note: trafficType is not used in filtering the data.
direction	A string that describes the direction of the traffic. Valid values include the following: • inbound • outbound • bidirectional Note: direction is not used in filtering the data.
timeframe	A TimeFrameFilter value that includes the time interval, time zone, and frequency.

Return

The output parameter **fileCountStats[]** returns a FileCountStats value that provides a list of the open files history.

Exceptions

Type	String	Description
RemoteException	CIFSStatsService.getOpenFileCount: ERROR:Invalid name=	The device name is invalid.
RemoteException	CIFSStatsService.getOpenFileCount: ERROR:Invalid objType=	The object type name is invalid.
RemoteException	CIFSStatsService.getOpenFileCount: ERROR:Invalid objType=wae Only wae supported.	The object type is other than wae.
RemoteException	CIFSStatsService.getOpenFileCount: ERROR:Invalid TimeFrame	The timeframe is invalid.
RemoteException	CIFSStatsService.getOpenFileCount: ERROR:Device does not exist.DeviceName=	The device name is not found.

RemoteException	CIFSStatsService.getOpenFileCount: ERROR:Unsupported frequency=	The frequency is not supported.
RemoteException	CIFSStatsService.getOpenFileCount: ERROR:Invalid frequency=	The frequency is invalid.
RemoteException	CIFSStatsService.getOpenFileCount: ERROR:Invalid startTime=	The start time is invalid.
RemoteException	CIFSStatsService.getOpenFileCount: ERROR:Invalid endTime=	The end time is invalid.
RemoteException	CIFSStatsService.getOpenFileCount: ERROR:startTime should be less than endTime startTime=	The start time is less than the end time.
AxisFault	CIFSStats:The Method Name is not supported. MethodName=	The method name is not supported for a given service.
AxisFault	CIFSStats:The SOAP Envelope Body is Null	The SOAP envelope is missing for a given service.
AxisFault	CIFSStats:The Requested WebService is not available	The service requested is not supported.
AxisFault	getOpenFileCount:The SOAP Body doesn't have all the required elements	The SOAP body does not have all the required elements.
RemoteException	CIFSStatsService.getOpenFileCount: ERROR:API is not supported. cifsDevType=core	The device is running Legacy Core Mode.

getOptCIFSSessionCount

Retrieves the overall open CIFS session count statistics collected on a WAE device. Supported for CIFS Legacy and CIFS AO mode.

Input Parameters

Parameter	Description
name	A string that describes the name of the WAE.
objType	A string that describes the object type. Valid values include the following: • wae
trafficType	A string that describes the type of traffic. Valid values include the following: • passthrough • optimized Note: trafficType is not used in filtering the data.
direction	A string that describes the direction of the traffic. Valid values include the following: • inbound • outbound • bidirectional Note: direction is not used in filtering the data.
timeframe	A TimeFrameFilter value that includes the time interval, time zone, and frequency.

Return

The output parameter **sessionCountStats[]** returns a SessionCountStats value that provides a list of the session history.

Exceptions

Type	String	Description
RemoteException	CIFSStatsService.getOptCIFSSession Count: ERROR:Invalid name=	The device name is invalid.
RemoteException	CIFSStatsService.getOptCIFSSession Count: ERROR:Invalid objType=	The object type name is invalid.
RemoteException	CIFSStatsService.getOptCIFSSession Count: ERROR:Invalid objType=wae Only wae supported.	The object type is other than wae.
RemoteException	CIFSStatsService.getOptCIFSSession Count: ERROR:Invalid TimeFrame	The timeframe is invalid.
RemoteException	CIFSStatsService.getOptCIFSSession Count: ERROR:Device does not exist.DeviceName=	The device name is not found.

RemoteException	CIFSStatsService.getOptCIFSSession Count: ERROR:Unsupported frequency=	The frequency is not supported.
RemoteException	CIFSStatsService.getOptCIFSSession Count: ERROR:Invalid frequency=	The frequency is invalid.
RemoteException	CIFSStatsService.getOptCIFSSession Count: ERROR:Invalid startTime=	The start time is invalid.
RemoteException	CIFSStatsService.getOptCIFSSession Count: ERROR:Invalid endTime=	The end time is invalid.
RemoteException	CIFSStatsService.getOptCIFSSession Count: ERROR:startTime should be less than endTime startTime=	The start time is less than the end time.
AxisFault	CIFSStats:The Method Name is not supported. MethodName=	The method name is not supported for a given service.
AxisFault	CIFSStats:The SOAP Envelope Body is Null	The SOAP envelope is missing for a given service.
AxisFault	CIFSStats:The Requested WebService is not available	The service requested is not supported.
AxisFault	getOptCIFSSessionCount:The SOAP Body doesn't have all the required elements	The SOAP body does not have all the required elements.
RemoteException	CIFSStatsService.getDiskCapacityCou nt: ERROR:API is not supported. cifsDevType=core	The device is running Legacy Core Mode.

getRequestCount

Retrieves the overall request count statistics statistics collected on a WAE device. Supported for CIFS Legacy and CIFS AO mode.

Input Parameters

Parameter	Description
name	A string that describes the name of the WAE.
objType	A string that describes the object type. Valid values include the following: • wae
trafficType	A string that describes the type of traffic. Valid values include the following: • passthrough • optimized Note: trafficType is not used in filtering the data.
direction	A string that describes the direction of the traffic. Valid values include the following: • inbound • outbound • bidirectional Note: direction is not used in filtering the data.
timeframe	A TimeFrameFilter value that includes the time interval, time zone, and frequency.

Return

The output parameter **requestCountStats[]** returns a RequestCountStats value that provides a list of the request count history.

Exceptions

Type	String	Description
RemoteException	CIFSStatsService.getRequestCount: ERROR:Invalid name=	The device name is invalid.
RemoteException	CIFSStatsService.getRequestCount: ERROR:Invalid objType=	The object type name is invalid.
RemoteException	CIFSStatsService.getRequestCount: ERROR:Invalid objType=wae Only wae supported.	The object type is other than wae.
RemoteException	CIFSStatsService.getRequestCount: ERROR:Invalid TimeFrame	The timeframe is invalid.
RemoteException	CIFSStatsService.getRequestCount: ERROR:Device does not exist.DeviceName=	The device name is not found.

RemoteException	CIFSStatsService.getRequestCount: ERROR:Unsupported frequency=	The frequency is not supported.
RemoteException	CIFSStatsService.getRequestCount: ERROR:Invalid frequency=	The frequency is invalid.
RemoteException	CIFSStatsService.getRequestCount: ERROR:Invalid startTime=	The start time is invalid.
RemoteException	CIFSStatsService.getRequestCount: ERROR:Invalid endTime=	The end time is invalid.
RemoteException	CIFSStatsService.getRequestCount: ERROR:startTime should be less than endTime startTime=	The start time is less than the end time.
AxisFault	CIFSStats:The Method Name is not supported. MethodName=	The method name is not supported for a given service.
AxisFault	CIFSStats:The SOAP Envelope Body is Null	The SOAP envelope is missing for a given service.
AxisFault	CIFSStats:The Requested WebService is not available	The service requested is not supported.
AxisFault	getRequestCount:The SOAP Body doesn't have all the required elements	The SOAP body does not have all the required elements.
RemoteException	CIFSStatsService.getRequestCount: ERROR:API is not supported. cifsDevType=core	The device is running Legacy Core Mode.

retrieveCacheObjectCount

Retrieves the overall cache object count statistics collected on a WAE device. Supported for CIFS Legacy and CIFS AO mode.

Input Parameters

Parameter	Description
name	A string that describes the name of the WAE.
objType	A string that describes the object type. Valid values include the following: • wae
trafficType	A string that describes the type of traffic. Valid values include the following: • passthrough • optimized Note: trafficType is not used in filtering the data.
direction	A string that describes the direction of the traffic. Valid values include the following: • inbound • outbound • bidirectional Note: direction is not used in filtering the data.
timeframe	A TimeFrameFilter value that includes the time interval, time zone, and frequency.

Return

The output parameter **cacheCountStats[]** returns a CacheCountStats value that provides a list of the cache count history.

Exceptions

Type	String	Description
RemoteException	CIFSStatsService.retrieveCacheObject Count: ERROR:Invalid name=	The device name is invalid.
RemoteException	CIFSStatsService.retrieveCacheObject Count: ERROR:Invalid objType=	The object type name is invalid.
RemoteException	CIFSStatsService.retrieveCacheObject Count: ERROR:Invalid objType=wae Only wae supported.	The object type is other than wae.
RemoteException	CIFSStatsService.retrieveCacheObject Count: ERROR:Invalid TimeFrame	The timeframe is invalid.
RemoteException	CIFSStatsService.retrieveCacheObject Count: ERROR:Device does not exist.DeviceName=	The device name is not found.

RemoteException	CIFSStatsService.retrieveCacheObject Count: ERROR:Unsupported frequency=	The frequency is not supported.
RemoteException	CIFSStatsService.retrieveCacheObject Count: ERROR:Invalid frequency=	The frequency is invalid.
RemoteException	CIFSStatsService.retrieveCacheObject Count: ERROR:Invalid startTime=	The start time is invalid.
RemoteException	CIFSStatsService.retrieveCacheObject Count: ERROR:Invalid endTime=	The end time is invalid.
RemoteException	CIFSStatsService.retrieveCacheObject Count: ERROR:startTime should be less than endTime startTime=	The start time is less than the end time.
AxisFault	CIFSStats:The Method Name is not supported. MethodName=	The method name is not supported for a given service.
AxisFault	CIFSStats:The SOAP Envelope Body is Null	The SOAP envelope is missing for a given service.
AxisFault	CIFSStats:The Requested WebService is not available	The service requested is not supported.
AxisFault	retrieveCacheObjectCount:The SOAP Body doesn't have all the required elements	The SOAP body does not have all the required elements.
RemoteException	CIFSStatsService.retrieveCacheObject Count: ERROR:API is not supported. cifsDevType=core	The device is running Legacy Core Mode.

retrieveCacheUtilization

Retrieves the overall cache utilization statistics collected on a WAE device.

Input Parameters

Parameter	Description
name	A string that describes the name of the WAE.
objType	A string that describes the object type. Valid values include the following: • wae
trafficType	A string that describes the type of traffic. Valid values include the following: • passthrough • optimized Note: trafficType is not used in filtering the data.
direction	A string that describes the direction of the traffic. Valid values include the following: • inbound • outbound • bidirectional Note: direction is not used in filtering the data.
timeframe	A TimeFrameFilter value that includes the time interval, time zone, and frequency.

Return

The output parameter **cacheUtilizationStats[]** returns a CacheUtilizationStats value that provides a list of the utilization history.

Exceptions

Type	String	Description
RemoteException	CIFSStatsService.retrieveCache Utilization: ERROR:Invalid name=	The device name is invalid.
RemoteException	CIFSStatsService.retrieveCache Utilization: ERROR:Invalid objType=	The object type name is invalid.
RemoteException	CIFSStatsService.retrieveCache Utilization: ERROR:Invalid objType=wae Only wae supported.	The object type is other than wae.
RemoteException	CIFSStatsService.retrieveCache Utilization: ERROR:Invalid TimeFrame	The timeframe is invalid.
RemoteException	CIFSStatsService.retrieveCache Utilization: ERROR:Device does not exist.DeviceName=	The device name is not found.

RemoteException	CIFSStatsService.retrieveCache Utilization: ERROR:Unsupported frequency=	The frequency is not supported.
RemoteException	CIFSStatsService.retrieveCache Utilization: ERROR:Invalid frequency=	The frequency is invalid.
RemoteException	CIFSStatsService.retrieveCache Utilization: ERROR:Invalid startTime=	The start time is invalid.
RemoteException	CIFSStatsService.retrieveCache Utilization: ERROR:Invalid endTime=	The end time is invalid.
RemoteException	CIFSStatsService.retrieveCache Utilization: ERROR:startTime should be less than endTime startTime=	The start time is less than the end time.
AxisFault	CIFSStats:The Method Name is not supported. MethodName=	The method name is not supported for a given service.
AxisFault	CIFSStats:The SOAP Envelope Body is Null	The SOAP envelope is missing for a given service.
AxisFault	CIFSStats:The Requested WebService is not available	The service requested is not supported.
AxisFault	retrieveCacheUtilization:The SOAP Body doesn't have all the required elements	The SOAP body does not have all the required elements.
RemoteException	CIFSStatsService.retrieveCacheUtilization: ERROR:API is not supported. cifsDevType=core	The device is running Legacy Core Mode.

retrieveRequestHitRate

Retrieves the overall hit rate statistics collected on a WAE device. Supported for CIFS Legacy and CIFS AO mode.

Input Parameters

Parameter	Description
name	A string that describes the name of the WAE.
objType	A string that describes the object type. Valid values include the following: • wae
trafficType	A string that describes the type of traffic. Valid values include the following: • passthrough • optimized Note: trafficType is not used in filtering the data.
direction	A string that describes the direction of the traffic. Valid values include the following: • inbound • outbound • bidirectional Note: direction is not used in filtering the data.
timeframe	A TimeFrameFilter value that includes the time interval, time zone, and frequency.

Return

The output parameter **HitRateStats[]** returns a HitRateStats value that provides a list of the hit rate history.

Exceptions

Type	String	Description
RemoteException	CIFSStatsService.retrieveRequest HitRate: ERROR:Invalid name=	The device name is invalid.
RemoteException	CIFSStatsService.retrieveRequest HitRate: ERROR:Invalid objType=	The object type name is invalid.
RemoteException	CIFSStatsService.retrieveRequest HitRate: ERROR:Invalid objType=wae Only wae supported.	The object type is other than wae.
RemoteException	CIFSStatsService.retrieveRequest HitRate: ERROR:Invalid TimeFrame	The timeframe is invalid.
RemoteException	CIFSStatsService.retrieveRequest HitRate: ERROR:Device does not exist.DeviceName=	The device name is not found.

RemoteException	CIFSStatsService.retrieveRequest HitRate: ERROR:Unsupported frequency=	The frequency is not supported.
RemoteException	CIFSStatsService.retrieveRequest HitRate: ERROR:Invalid frequency=	The frequency is invalid.
RemoteException	CIFSStatsService.retrieveRequest HitRate: ERROR:Invalid startTime=	The start time is invalid.
RemoteException	CIFSStatsService.retrieveRequest HitRate: ERROR:Invalid endTime=	The end time is invalid.
RemoteException	CIFSStatsService.retrieveRequest HitRate: ERROR:startTime should be less than endTime startTime=	The start time is less than the end time.
AxisFault	CIFSStats:The Method Name is not supported. MethodName=	The method name is not supported for a given service.
AxisFault	CIFSStats:The SOAP Envelope Body is Null	The SOAP envelope is missing for a given service.
AxisFault	CIFSStats:The Requested WebService is not available	The service requested is not supported.
AxisFault	retrieveCIFSStats:The SOAP Body doesn't have all the required elements	The SOAP body does not have all the required elements.
RemoteException	CIFSStatsService.retrieveRequest HitRate: ERROR:API is not supported. cifsDevType=core	The device is running Legacy Core Mode.

SMB Statistics Service

This chapter describes the SMB Statistics service, which returns SMB accelerator data and statistics for individual WAEs, device groups, and for the WAAS network.

This chapter contains the following sections:

SMB Statistics Syntax

This section contains the following topics:

SMB Statistics Informational URLs

This section provides informational URLs for the SMB Statistics service.

- Service URL—**`https://<host/ip>:8443/ws/SmbStats`**
- WSDL URL—**`https://<host/ip>:8443/ws/SmbStats?wsdl`**
- To obtain a description of all the operations and parameters for the SMBNavStats Service, submit a URL to the service with the suffix **?wsdl** as follows:

  `https://<host/ip>:8443/ws/SmbStats?wsdl`
- To obtain management information using the Central Manager monitoring API, first call the service by using the service URL for this service as follows:

  `https://<host/ip>:8443/ws/SmbStats`

  Next, submit a SOAP request written in an XML format to retrieve the information.

SMB Statistics Example Request

The following example shows an XML-formatted SOAP request to perform the **getConnOptRate** action. The request includes the input parameters for this particular action shown in bold. For more information on this action, see getConnOptRate.

```
<?xml version="1.0" encoding="utf-8" ?>
- <soapenv:Envelope xmlns:soapenv="http://www.w3.org/2003/05/soap-envelope">
- <soapenv:Header>
- <wsse:Security
xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.
xsd">
- <wsse:UsernameToken>
  <wsse:Username>admin</wsse:Username>
  <wsse:Password
Type="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-username-token-profile-1.0#P
asswordText">default</wsse:Password>
  </wsse:UsernameToken>
  </wsse:Security>
  </soapenv:Header>
- <soapenv:Body>
- <ns2:getConnOptRate xmlns:ns2="http://service.stats.ws.waas.cisco.com">
  <ns2:name>ce-119-40</ns2:name>
  <ns2:objType>wae</ns2:objType>
- <ns2:timeframe>
  <ns1:endTime
xmlns:ns1="http://util.ws.waas.cisco.com/xsd">2008-01-30T08:00:00.000Z</ns1:endTime>
  <ns1:frequency xmlns:ns1="http://util.ws.waas.cisco.com/xsd">lasthour</ns1:frequency>
  <ns1:startTime
xmlns:ns1="http://util.ws.waas.cisco.com/xsd">2012-04-16T17:59:24.000Z</ns1:startTime>
  <ns1:timezone xmlns:ns1="http://util.ws.waas.cisco.com/xsd">UTC</ns1:timezone>
  </ns2:timeframe>
  </ns2:getConnOptRate>
  </soapenv:Body>
  </soapenv:Envelope>
```

SMB Statistics Example Response

The following example shows the XML response that contains the output values for the **getConnOptRate** action. For more information on this action, see getConnOptRate.

```
<?xml version="1.0" encoding="utf-8" ?>
- <soapenv:Envelope xmlns:soapenv="http://www.w3.org/2003/05/soap-envelope">
- <soapenv:Body>
- <ns:getConnOptRateResponse xmlns:ns="http://service.stats.ws.waas.cisco.com"
xmlns:ax225="http://io.java/xsd" xmlns:ax227="http://stats.ws.waas.cisco.com/xsd"
xmlns:ax226="http://util.ws.waas.cisco.com/xsd" xmlns:ax224="http://rmi.java/xsd">
- <ns:return type="com.cisco.waas.ws.stats.SmbConnOptRate">
  <ax227:averageTimeSaved>69</ax227:averageTimeSaved>
   <ax227:deviceName>someName</ax227:deviceName>
  <ax227:endtime>2012-04-16T17:59:26.628Z</ax227:endtime>
  <ax227:frequency>min</ax227:frequency>
  </ns:return>
   </ns:getConnOptRateResponse>
   </soapenv:Body>
   </soapenv:Envelope>
```

SMB Statistics Service Actions

The SMB Statistics (SMB Web Service) performs one or more of the following actions:

- getConnOptCount
- getConnOptRate
- getConnOptSavingsByType
- getRequestOptStats
- getTotalConnCount
- retrieveStats

getConnOptCount

Retrieves a count of the number of SMB optimized connections.

Input Parameters

Parameter	Description
name	A string that describes the name of the WAE, WAE group, or system.
objType	A string that describes the object type. Valid values include the following: • wae • waegroup • device • devicegroup • system
timeframe	A TimeFrameFilter value that includes the time interval, time zone, and frequency.

Return

The output parameter **SmbOptConnCount[]** returns a SmbOptConnCount value that provides the total number of optimized connections.

Exceptions

Type	String	Description
RemoteException	SmbStatsService.getConnOptCount: ERROR:Invalid name=	The device name is invalid.
RemoteException	SmbStatsService.getConnOptCount: ERROR:Invalid objType=	The object type name is invalid.
RemoteException	SmbStatsService.getConnOptCount: ERROR:Invalid TimeFrame	The timeframe is invalid.
RemoteException	SmbStatsService.getConnOptCount: ERROR:Device does not exist.DeviceName=	The device name is not found.
RemoteException	SmbStatsService.getConnOptCount: ERROR:Device Group does not exist.DeviceGroup=	The device group name is not found.
RemoteException	SmbStatsService.getConnOptCount: ERROR:Invalid frequency=	The frequency is invalid.
RemoteException	SmbStatsService.getConnOptCount: ERROR:Invalid startTime=	The start time is invalid.
RemoteException	SmbStatsService.getConnOptCount: ERROR:Invalid endTime=	The end time is invalid.

RemoteException	SmbStatsService.getConnOptCount: ERROR:startTime should be less than endTime startTime=	The start time is less than the end time.
AxisFault	SmbStats:The Method Name is not supported. MethodName=	The method name is not supported for a given service.
AxisFault	SmbStats:The SOAP Envelope Body is Null	The SOAP envelope is missing for a given service.
AxisFault	SmbStats:The Requested WebService is not available	The service requested is not supported.
AxisFault	getConnOptCount:The SOAP Body doesn't have all the required elements	The SOAP body does not have all the required elements.

getConnOptRate

Retrieves the average amount of time saved due to SMB AO optimizations.

Input Parameters

Parameter	Description
name	A string that describes the name of the WAE, WAE group, or system.
objType	A string that describes the object type. Valid values include the following: • wae • waegroup • device • devicegroup • system
timeframe	A TimeFrameFilter value that includes the time interval, time zone, and frequency.

Return

The output parameter **SmbConnOptRate[]** returns a SmbConnOptRate value that provides the average amount of time saved.

Exceptions

Type	String	Description
RemoteException	SmbStatsService.getConnOptRate: ERROR:Invalid name=	The device name is invalid.
RemoteException	SmbStatsService.getConnOptRate: ERROR:Invalid objType=	The object type name is invalid.
RemoteException	SmbStatsService.getConnOptRate: ERROR:Invalid TimeFrame	The timeframe is invalid.
RemoteException	SmbStatsService.getConnOptRate: ERROR:Device does not exist.DeviceName=	The device name is not found.
RemoteException	SmbStatsService.getConnOptRate: ERROR:Device Group does not exist.DeviceGroup=	The device group name is not found.
RemoteException	SmbStatsService.getConnOptRate: ERROR:Invalid frequency=	The frequency is invalid.
RemoteException	SmbStatsService.getConnOptRate: ERROR:Invalid startTime=	The start time is invalid.
RemoteException	SmbStatsService.getConnOptRate: ERROR:Invalid endTime=	The end time is invalid.

RemoteException	SmbStatsService.getConnOptRate: ERROR:startTime should be less than endTime startTime=	The start time is less than the end time.
AxisFault	SmbStats:The Method Name is not supported. MethodName=	The method name is not supported for a given service.
AxisFault	SmbStats:The SOAP Envelope Body is Null	The SOAP envelope is missing for a given service.
AxisFault	SmbStats:The Requested WebService is not available	The service requested is not supported.
AxisFault	getConnOptRate:The SOAP Body doesn't have all the required elements	The SOAP body does not have all the required elements.

getConnOptSavingsByType

Retrieves information about how much time was saved for different types of data optimizations.

Input Parameters

Parameter	Description
name	A string that describes the name of the WAE, WAE group, or system.
objType	A string that describes the object type. Valid values include the following: • wae • waegroup • device • devicegroup • system
timeframe	A TimeFrameFilter value that includes the time interval, time zone, and frequency.

Return

The output parameter **SmbConnOptSavings[]** returns a SmbConnOptSavings value that provides information about the amount of time saved for different operation types, including meta data, named pipe, MS Office, and read-ahead traffic.

Exceptions

Type	String	Description
RemoteException	SmbStatsService.getConnOptSavingsByType: ERROR:Invalid name=	The device name is invalid.
RemoteException	SmbStatsService.getConnOptSavingsByType: ERROR:Invalid objType=	The object type name is invalid.
RemoteException	SmbStatsService.getConnOptSavingsByType: ERROR:Invalid TimeFrame	The timeframe is invalid.
RemoteException	SmbStatsService.getConnOptSavingsByType: ERROR:Device does not exist.DeviceName=	The device name is not found.
RemoteException	SmbStatsService.getConnOptSavingsByType: ERROR:Device Group does not exist.DeviceGroup=	The device group name is not found.
RemoteException	SmbStatsService.getConnOptSavingsByType: ERROR:Invalid frequency=	The frequency is invalid.
RemoteException	SmbStatsService.getConnOptSavingsByType: ERROR:Invalid startTime=	The start time is invalid.
RemoteException	SmbStatsService.getConnOptSavingsByType: ERROR:Invalid endTime=	The end time is invalid.

RemoteException	SmbStatsService.getConnOptSavingsByType: ERROR:startTime should be less than endTime startTime=	The start time is less than the end time.
AxisFault	SmbStats:The Method Name is not supported. MethodName=	The method name is not supported for a given service.
AxisFault	SmbStats:The SOAP Envelope Body is Null	The SOAP envelope is missing for a given service.
AxisFault	SmbStats:The Requested WebService is not available	The service requested is not supported.
AxisFault	getConnOptSavingsByType:The SOAP Body doesn't have all the required elements	The SOAP body does not have all the required elements.

getRequestOptStats

Retrieves statistics about the SMB optimization rates for various SMB optimization techniques.

Input Parameters

Parameter	Description
name	A string that describes the name of the WAE, WAE group, or system.
objType	A string that describes the object type. Valid values include the following: • wae • waegroup • device • devicegroup • system
timeframe	A TimeFrameFilter value that includes the time interval, time zone, and frequency.

Return

The output parameter **SmbRequestOptStats[]** returns a SmbRequestOptStats value that provides optimization rates for metadata, read-ahead, write, and other requests.

Exceptions

Type	String	Description
RemoteException	SmbStatsService.getRequestOptStats: ERROR:Invalid name=	The device name is invalid.
RemoteException	SmbStatsService.getRequestOptStats: ERROR:Invalid objType=	The object type name is invalid.
RemoteException	SmbStatsService.getRequestOptStats: ERROR:Invalid TimeFrame	The timeframe is invalid.
RemoteException	SmbStatsService.getRequestOptStats: ERROR:Device does not exist.DeviceName=	The device name is not found.
RemoteException	SmbStatsService.getRequestOptStats: ERROR:Device Group does not exist.DeviceGroup=	The device group name is not found.
RemoteException	SmbStatsService.getRequestOptStats: ERROR:Invalid frequency=	The frequency is invalid.
RemoteException	SmbStatsService.getRequestOptStats: ERROR:Invalid startTime=	The start time is invalid.
RemoteException	SmbStatsService.getRequestOptStats: ERROR:Invalid endTime=	The end time is invalid.

RemoteException	SmbStatsService.getRequestOptStats: ERROR:startTime should be less than endTime startTime=	The start time is less than the end time.
AxisFault	SmbStats:The Method Name is not supported. MethodName=	The method name is not supported for a given service.
AxisFault	SmbStats:The SOAP Envelope Body is Null	The SOAP envelope is missing for a given service.
AxisFault	SmbStats:The Requested WebService is not available	The service requested is not supported.
AxisFault	getRequestOptStats:The SOAP Body doesn't have all the required elements	The SOAP body does not have all the required elements.

getTotalConnCount

Retrieves a count of the number of SMB LAN connections.

Input Parameters

Parameter	Description
name	A string that describes the name of the WAE, WAE group, or system.
objType	A string that describes the object type. Valid values include the following: • wae • waegroup • device • devicegroup • system
timeframe	A TimeFrameFilter value that includes the time interval, time zone, and frequency.

Return

The output parameter **SmbTotalConnCount[]** returns a SmbTotalConnCount value that provides the total number of LAN connections.

Exceptions

Type	String	Description
RemoteException	SmbStatsService.getTotalConnCount: ERROR:Invalid name=	The device name is invalid.
RemoteException	SmbStatsService.getTotalConnCount: ERROR:Invalid objType=	The object type name is invalid.
RemoteException	SmbStatsService.getTotalConnCount: ERROR:Invalid TimeFrame	The timeframe is invalid.
RemoteException	SmbStatsService.getTotalConnCount: ERROR:Device does not exist.DeviceName=	The device name is not found.
RemoteException	SmbStatsService.getTotalConnCount: ERROR:Device Group does not exist.DeviceGroup=	The device group name is not found.
RemoteException	SmbStatsService.getTotalConnCount: ERROR:Invalid frequency=	The frequency is invalid.
RemoteException	SmbStatsService.getTotalConnCount: ERROR:Invalid startTime=	The start time is invalid.
RemoteException	SmbStatsService.getTotalConnCount: ERROR:Invalid endTime=	The end time is invalid.

RemoteException	SmbStatsService.getTotalConnCount: ERROR:startTime should be less than endTime startTime=	The start time is less than the end time.
AxisFault	SmbStats:The Method Name is not supported. MethodName=	The method name is not supported for a given service.
AxisFault	SmbStats:The SOAP Envelope Body is Null	The SOAP envelope is missing for a given service.
AxisFault	SmbStats:The Requested WebService is not available	The service requested is not supported.
AxisFault	getTotalConnCount:The SOAP Body doesn't have all the required elements	The SOAP body does not have all the required elements.

retrieveStats

Retrieves SMB connection statistics collected on either a WAE device, WAEs within a device group, or all WAEs system wide.

Input Parameters

Parameter	Description
name	A string that describes the name of the WAE, WAE group, or system.
objType	A string that describes the object type. Valid values include the following: • wae • waegroup • device • devicegroup • system
timeframe	A TimeFrameFilter value that includes the time interval, time zone, and frequency.

Return

The output parameter **SmbConnStats[]** returns a SmbConnStats value that provides statistics including the number of currently active connections, and the total number of dropped, handled, and optimized connections.

Exceptions

Type	String	Description
RemoteException	SmbStatsService.retrieveStats: ERROR:Invalid name=	The device name is invalid.
RemoteException	SmbStatsService.retrieveStats: ERROR:Invalid objType=	The object type name is invalid.
RemoteException	SmbStatsService.retrieveStats: ERROR:Invalid TimeFrame	The timeframe is invalid.
RemoteException	SmbStatsService.retrieveStats: ERROR:Device does not exist.DeviceName=	The device name is not found.
RemoteException	SmbStatsService.retrieveStats: ERROR:Device Group does not exist.DeviceGroup=	The device group name is not found.
RemoteException	SmbStatsService.retrieveStats: ERROR:Invalid frequency=	The frequency is invalid.
RemoteException	SmbStatsService.retrieveStats: ERROR:Invalid startTime=	The start time is invalid.
RemoteException	SmbStatsService.retrieveStats: ERROR:Invalid endTime=	The end time is invalid.

RemoteException	SmbStatsService.retrieveStats: ERROR:startTime should be less than endTime startTime=	The start time is less than the end time.
AxisFault	SmbStats:The Method Name is not supported. MethodName=	The method name is not supported for a given service.
AxisFault	SmbStats:The SOAP Envelope Body is Null	The SOAP envelope is missing for a given service.
AxisFault	SmbStats:The Requested WebService is not available	The service requested is not supported.
AxisFault	retrieveStats:The SOAP Body doesn't have all the required elements	The SOAP body does not have all the required elements.

ICA Statistics Service

This chapter describes the ICA Statistics service, which returns ICA accelerator data and statistics for individual WAEs, device groups, and for the WAAS network.

This chapter contains the following sections:

ICA Statistics Service Syntax

This section contains the following topics:

ICA Statistics Informational URLs

This section provides informational URLs for the ICA Statistics service.

- Service URL—**`https://<host/ip>:8443/ws/ICAStats`**
- WSDL URL—**`https://<host/ip>:8443/ws/ICAStats?wsdl`**
- To obtain a description of all the operations and parameters for the ICAStats Service, submit a URL to the service with the suffix **?wsdl** as follows:

  `https://<host/ip>:8443/ws/ICAStats?wsdl`
- To obtain management information using the Central Manager monitoring API, first call the service by using the service URL for this service as follows:

  `https://<host/ip>:8443/ws/ICAStats`

  Next, submit a SOAP request written in an XML format to retrieve the information.

ICA Statistics Example Request

The following example shows an XML-formatted SOAP request to perform the **getConnStats** action. The request includes the input parameters for this particular action shown in bold. For more information on this action, see getConnStats.

```
<?xml version="1.0" encoding="utf-8" ?>
- <soapenv:Envelope xmlns:soapenv="http://www.w3.org/2003/05/soap-envelope">
- <soapenv:Header>
- <wsse:Security
xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.
xsd">
- <wsse:UsernameToken>
  <wsse:Username>admin</wsse:Username>
  <wsse:Password
Type="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-username-token-profile-1.0#P
asswordText">default</wsse:Password>
  </wsse:UsernameToken>
  </wsse:Security>
  </soapenv:Header>
- <soapenv:Body>
- <ns2:getConnStats xmlns:ns2="http://service.stats.ws.waas.cisco.com">
  <ns2:name>ce-119-40</ns2:name>
  <ns2:objType>wae</ns2:objType>
- <ns2:timeframe>
  <ns1:endTime
xmlns:ns1="http://util.ws.waas.cisco.com/xsd">2008-01-30T08:00:00.000Z</ns1:endTime>
  <ns1:frequency xmlns:ns1="http://util.ws.waas.cisco.com/xsd">lasthour</ns1:frequency>
  <ns1:startTime
xmlns:ns1="http://util.ws.waas.cisco.com/xsd">2012-04-16T17:59:24.000Z</ns1:startTime>
  <ns1:timezone xmlns:ns1="http://util.ws.waas.cisco.com/xsd">UTC</ns1:timezone>
  </ns2:timeframe>
  </ns2:getConnStats>
  </soapenv:Body>
  </soapenv:Envelope>
```

ICA Statistics Example Response

The following example shows the XML response that contains the output values for the **getConnStats** action. For more information on this action, see getConnStats.

```
<?xml version="1.0" encoding="utf-8" ?>
- <soapenv:Envelope xmlns:soapenv="http://www.w3.org/2003/05/soap-envelope">
- <soapenv:Body>
- <ns:getConnStatsResponse xmlns:ns="http://service.stats.ws.waas.cisco.com"
xmlns:ax225="http://io.java/xsd" xmlns:ax227="http://stats.ws.waas.cisco.com/xsd"
xmlns:ax226="http://util.ws.waas.cisco.com/xsd" xmlns:ax224="http://rmi.java/xsd">
- <ns:return type="com.cisco.waas.ws.stats.ICAConnectionStats">
  <ax227:cgpConnections>66</ax227:cgpConnections>
  <ax227:cgpreconnections>24</ax227:cgpreconnections>
  <ax227:currentActiveConnections>100</ax227:currentActiveConnections>
  <ax227:deviceName>someName</ax227:deviceName>
  <ax227:endtime>2012-04-16T17:59:26.628Z</ax227:endtime>
  <ax227:frequency>min</ax227:frequency>
  <ax227:icaConnections>44</ax227:icaConnections>
  <ax227:maxActiveConnections>123</ax227:maxActiveConnections>
  <ax227:pendingConnections>18</ax227:pendingConnections>
  <ax227:totalDroppedConnections>7</ax227:totalDroppedConnections>
  <ax227:totalHandedOffConnections>21</ax227:totalHandedOffConnections>
```

```
<ax227:totalHandledConnections>88</ax227:totalHandledConnections>
<ax227:totalOptimizedConnections>66</ax227:totalOptimizedConnections>
</ns:return>
 </ns:getConnStatsResponse>
 </soapenv:Body>
 </soapenv:Envelope>
```

ICA Statistics Service Actions

The ICA Statistics (ICA Web Service) performs one or more of the following actions:

- getBypassedReasons
- getConnStats
- getDroppedReasons
- getEncryptionStats
- getVersionStats

getBypassedReasons

Retrieves statistics about why connections were bypassed for ICA optimization.

Input Parameters

Parameter	Description
name	A string that describes the name of the WAE, WAE group, or system.
objType	A string that describes the object type. Valid values include the following: • wae • waegroup • device • devicegroup • system
timeframe	A TimeFrameFilter value that includes the time interval, time zone, and frequency.

Return

The output parameter **ICABypassedReasons[]** returns a ICABypassedReasons value that provides the statistics about why connections were bypassed, including a client being on the denied list, resource limitations, unrecognized protocols, and other reasons.

Exceptions

Type	String	Description
RemoteException	IcaStatsService.getBypassedReasons: ERROR:Invalid name=	The device name is invalid.
RemoteException	IcaStatsService.getBypassedReasons: ERROR:Invalid objType=	The object type name is invalid.
RemoteException	IcaStatsService.getBypassedReasons: ERROR:Invalid TimeFrame	The timeframe is invalid.
RemoteException	IcaStatsService.getBypassedReasons: ERROR:Device does not exist.DeviceName=	The device name is not found.
RemoteException	IcaStatsService.getBypassedReasons: ERROR:Device Group does not exist.DeviceGroup=	The device group name is not found.
RemoteException	IcaStatsService.getBypassedReasons: ERROR:Invalid frequency=	The frequency is invalid.
RemoteException	IcaStatsService.getBypassedReasons: ERROR:Invalid startTime=	The start time is invalid.
RemoteException	IcaStatsService.getBypassedReasons: ERROR:Invalid endTime=	The end time is invalid.

RemoteException	IcaStatsService.getBypassedReasons: ERROR:startTime should be less than endTime startTime=	The start time is less than the end time.
AxisFault	IcaStats:The Method Name is not supported. MethodName=	The method name is not supported for a given service.
AxisFault	IcaStats:The SOAP Envelope Body is Null	The SOAP envelope is missing for a given service.
AxisFault	IcaStats:The Requested WebService is not available	The service requested is not supported.
AxisFault	getBypassedReasons:The SOAP Body doesn't have all the required elements	The SOAP body does not have all the required elements.

getConnStats

Retrieves statistics about the numbers of connections handled by the ICA AO.

Input Parameters

Parameter	Description
name	A string that describes the name of the WAE, WAE group, or system.
objType	A string that describes the object type. Valid values include the following: • wae • waegroup • device • devicegroup • system
timeframe	A TimeFrameFilter value that includes the time interval, time zone, and frequency.

Return

The output parameter **ICAConnectionsStats[]** returns a ICAConnectionStats value that provides statistical information about various connection values, including the number of ICA connections, the number of acdtive connections, the number of dropped connections, and others.

Exceptions

Type	String	Description
RemoteException	IcaStatsService.getConnStats: ERROR:Invalid name=	The device name is invalid.
RemoteException	IcaStatsService.getConnStats: ERROR:Invalid objType=	The object type name is invalid.
RemoteException	IcaStatsService.getConnStats: ERROR:Invalid TimeFrame	The timeframe is invalid.
RemoteException	IcaStatsService.getConnStats: ERROR:Device does not exist.DeviceName=	The device name is not found.
RemoteException	IcaStatsService.getConnStats: ERROR:Device Group does not exist.DeviceGroup=	The device group name is not found.
RemoteException	IcaStatsService.getConnStats: ERROR:Invalid frequency=	The frequency is invalid.
RemoteException	IcaStatsService.getConnStats: ERROR:Invalid startTime=	The start time is invalid.
RemoteException	IcaStatsService.getConnStats: ERROR:Invalid endTime=	The end time is invalid.

RemoteException	IcaStatsService.getConnStats: ERROR:startTime should be less than endTime startTime=	The start time is less than the end time.
AxisFault	IcaStats:The Method Name is not supported. MethodName=	The method name is not supported for a given service.
AxisFault	IcaStats:The SOAP Envelope Body is Null	The SOAP envelope is missing for a given service.
AxisFault	IcaStats:The Requested WebService is not available	The service requested is not supported.
AxisFault	getConnStats:The SOAP Body doesn't have all the required elements	The SOAP body does not have all the required elements.

getDroppedReasons

Retrieves information about how many connections were dropped for each of a variety of reasons.

Input Parameters

Parameter	Description
name	A string that describes the name of the WAE, WAE group, or system.
objType	A string that describes the object type. Valid values include the following: • wae • waegroup • device • devicegroup • system
timeframe	A TimeFrameFilter value that includes the time interval, time zone, and frequency.

Return

The output parameter **ICADroppedReasons[]** returns a ICADroppedReasons value that provides information about how many connections were dropped for various reasons.

Exceptions

Type	String	Description
RemoteException	IcaStatsService.getDroppedReasons: ERROR:Invalid name=	The device name is invalid.
RemoteException	IcaStatsService.getDroppedReasons: ERROR:Invalid objType=	The object type name is invalid.
RemoteException	IcaStatsService.getDroppedReasons: ERROR:Invalid TimeFrame	The timeframe is invalid.
RemoteException	IcaStatsService.getDroppedReasons: ERROR:Device does not exist.DeviceName=	The device name is not found.
RemoteException	IcaStatsService.getDroppedReasons: ERROR:Device Group does not exist.DeviceGroup=	The device group name is not found.
RemoteException	IcaStatsService.getDroppedReasons: ERROR:Invalid frequency=	The frequency is invalid.
RemoteException	IcaStatsService.getDroppedReasons: ERROR:Invalid startTime=	The start time is invalid.
RemoteException	IcaStatsService.getDroppedReasons: ERROR:Invalid endTime=	The end time is invalid.

RemoteException	IcaStatsService.getDroppedReasons: ERROR:startTime should be less than endTime startTime=	The start time is less than the end time.
AxisFault	IcaStats:The Method Name is not supported. MethodName=	The method name is not supported for a given service.
AxisFault	IcaStats:The SOAP Envelope Body is Null	The SOAP envelope is missing for a given service.
AxisFault	IcaStats:The Requested WebService is not available	The service requested is not supported.
AxisFault	getDroppedReasons:The SOAP Body doesn't have all the required elements	The SOAP body does not have all the required elements.

getEncryptionStats

Retrieves statistics about the number of ICA sessions using different encryption protocols.

Input Parameters

Parameter	Description
name	A string that describes the name of the WAE, WAE group, or system.
objType	A string that describes the object type. Valid values include the following: • wae • waegroup • device • devicegroup • system
timeframe	A TimeFrameFilter value that includes the time interval, time zone, and frequency.

Return

The output parameter **ICAEncyptStats[]** returns a ICAEncryptStats value that provides information about how many sessions were encrypted using different encryption protocols, including RC5128, RC540, and RC556.

Exceptions

Type	String	Description
RemoteException	IcaStatsService.getEncryptionStats: ERROR:Invalid name=	The device name is invalid.
RemoteException	IcaStatsService.getEncryptionStats: ERROR:Invalid objType=	The object type name is invalid.
RemoteException	IcaStatsService.getEncryptionStats: ERROR:Invalid TimeFrame	The timeframe is invalid.
RemoteException	IcaStatsService.getEncryptionStats: ERROR:Device does not exist.DeviceName=	The device name is not found.
RemoteException	IcaStatsService.getEncryptionStats: ERROR:Device Group does not exist.DeviceGroup=	The device group name is not found.
RemoteException	IcaStatsService.getEncryptionStats: ERROR:Invalid frequency=	The frequency is invalid.
RemoteException	IcaStatsService.getEncryptionStats: ERROR:Invalid startTime=	The start time is invalid.
RemoteException	IcaStatsService.getEncryptionStats: ERROR:Invalid endTime=	The end time is invalid.

RemoteException	IcaStatsService.getEncryptionStats: ERROR:startTime should be less than endTime startTime=	The start time is less than the end time.
AxisFault	IcaStats:The Method Name is not supported. MethodName=	The method name is not supported for a given service.
AxisFault	IcaStats:The SOAP Envelope Body is Null	The SOAP envelope is missing for a given service.
AxisFault	IcaStats:The Requested WebService is not available	The service requested is not supported.
AxisFault	getEncryptionStats:The SOAP Body doesn't have all the required elements	The SOAP body does not have all the required elements.

getVersionStats

Retrieves information about how many sessions are using different virtualization software versions.

Input Parameters

Parameter	Description
name	A string that describes the name of the WAE, WAE group, or system.
objType	A string that describes the object type. Valid values include the following: • wae • waegroup • device • devicegroup • system
timeframe	A TimeFrameFilter value that includes the time interval, time zone, and frequency.

Return

The output parameter **ICAVersionStats[]** returns a ICAVersionStats value that provides details of how many sessions are using each of several different session management software, including Citrix Receiver 13.0 and four different versions (11.0, 11.2, 12.0, and 12.2) of the Citrix online plug-in.

Exceptions

Type	String	Description
RemoteException	IcaStatsService.getVersionStats: ERROR:Invalid name=	The device name is invalid.
RemoteException	IcaStatsService.getVersionStats: ERROR:Invalid objType=	The object type name is invalid.
RemoteException	IcaStatsService.getVersionStats: ERROR:Invalid TimeFrame	The timeframe is invalid.
RemoteException	IcaStatsService.getVersionStats: ERROR:Device does not exist.DeviceName=	The device name is not found.
RemoteException	IcaStatsService.getVersionStats: ERROR:Device Group does not exist.DeviceGroup=	The device group name is not found.
RemoteException	IcaStatsService.getVersionStats: ERROR:Invalid frequency=	The frequency is invalid.
RemoteException	IcaStatsService.getVersionStats: ERROR:Invalid startTime=	The start time is invalid.
RemoteException	IcaStatsService.getVersionStats: ERROR:Invalid endTime=	The end time is invalid.

RemoteException	IcaStatsService.getVersionStats: ERROR:startTime should be less than endTime startTime=	The start time is less than the end time.
AxisFault	IcaStats:The Method Name is not supported. MethodName=	The method name is not supported for a given service.
AxisFault	IcaStats:The SOAP Envelope Body is Null	The SOAP envelope is missing for a given service.
AxisFault	IcaStats:The Requested WebService is not available	The service requested is not supported.
AxisFault	getVersionStats:The SOAP Body doesn't have all the required elements	The SOAP body does not have all the required elements.

HTTP and HTTPS Statistics Services

This chapter describes the HTTP and HTTPS Statistics service, which returns HTTP and HTTPS connection information and statistics for individual WAEs, device groups, and for the WAAS network.

This chapter contains the following sections:

HTTP Statistics Service

This section contains the following topics:

HTTP Statistics Service Syntax

This section contains the following topics:

HTTP Informational URLs

This section provides informational URLs for the HTTP Statistics service.

- Service URL—**`https://<host/ip>:8443/ws/HttpStats`**
- WSDL URL—**`https://<host/ip>:8443/ws/HttpStats?wsdl`**
- To obtain a description of all the operations and parameters for the HttpStats Web Service, submit a URL to the service with the suffix **?wsdl** as follows:

  `https://<host/ip>:8443/ws/HttpStats?wsdl`
- To obtain management information using the Central Manager monitoring API, first call the service by using the service URL for this service as follows:

  `https://<host/ip>:8443/ws/HttpStats`

Next, submit a SOAP request written in an XML format to retrieve the information.

HTTP Example Request

The following example shows an XML-formatted SOAP request perform the getOptConnCount action. he request includes the input parameters for this particular action shown in bold. For more information on this action, see getOptConnCount.

```
<?xml version="1.0" encoding="utf-8" ?>
- <soapenv:Envelope xmlns:soapenv="http://www.w3.org/2003/05/soap-envelope">
- <soapenv:Header>
- <wsse:Security
xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.
xsd">
- <wsse:UsernameToken>
  <wsse:Username>admin</wsse:Username>
  <wsse:Password
Type="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-username-token-profile-1.0#P
asswordText">default</wsse:Password>
  </wsse:UsernameToken>
  </wsse:Security>
  </soapenv:Header>
- <soapenv:Body>
- <ns3:getOptConnCount xmlns:ns3="http://service.stats.ws.waas.cisco.com">
  <ns3:name>ce-119-40</ns3:name>
  <ns3:objType>wae</ns3:objType>
- <ns3:timeframe>
  <ns2:endTime
xmlns:ns2="http://util.ws.waas.cisco.com/xsd">2008-01-30T08:00:00.000Z</ns2:endTime>
  <ns2:frequency xmlns:ns2="http://util.ws.waas.cisco.com/xsd">lasthour</ns2:frequency>
  <ns2:startTime
xmlns:ns2="http://util.ws.waas.cisco.com/xsd">2008-01-01T08:00:00.000Z</ns2:startTime>
  <ns2:timezone xmlns:ns2="http://util.ws.waas.cisco.com/xsd">UTC</ns2:timezone>
  </ns3:timeframe>
  </ns3:getOptConnCount>
  </soapenv:Body>
  </soapenv:Envelope>
```

HTTP Example Response

The following example shows the XML response that contains the output values for the **getOptConnCount** action. For more information on this action, see getOptConnCount.

```
<?xml version="1.0" encoding="utf-8" ?>
- <soapenv:Envelope xmlns:soapenv="http://www.w3.org/2003/05/soap-envelope">
- <soapenv:Body>
- <ns:getOptConnCountResponse xmlns:ns="http://service.stats.ws.waas.cisco.com"
xmlns:ax218="http://util.ws.waas.cisco.com/xsd" xmlns:ax216="http://rmi.java/xsd"
xmlns:ax219="http://stats.ws.waas.cisco.com/xsd" xmlns:ax217="http://io.java/xsd">
- <ns:return type="com.cisco.waas.ws.stats.HttpOptConnCount">
  <ax219:endtime>2008-04-16T17:39:17.818Z</ax219:endtime>
  <ax219:fastConnectionSetupsCount>31</ax219:fastConnectionSetupsCount>
  <ax219:frequency>min</ax219:frequency>
  </ns:return>
- <ns:return type="com.cisco.waas.ws.stats.HttpOptConnCount">
  <ax219:endtime>2008-04-16T17:44:18.703Z</ax219:endtime>
  <ax219:fastConnectionSetupsCount>23</ax219:fastConnectionSetupsCount>
  <ax219:frequency>min</ax219:frequency>
  </ns:return>
```

```
</ns:getOptConnCountResponse>
</soapenv:Body>
</soapenv:Envelope>
```

HTTP Statistics Service Actions

The HTTP Statistics service (HttpStats Web Service) performs one or more of the following actions:

- getConnOptRate
- getConnOptType
- getMaxConnReuseCount
- getOptConnCount
- getTotalConnCount
- getUnaccelConnCount
- retrieveResponseStats
- retrieveStats

getConnOptRate

Retrieves an estimate of the connection setup time saved by HTTP AO as a function of the connection reuse and round-trip time (RTT) for establishing the original connection.

Input Parameters

Parameter	Description
name	A string that describes the name of the WAE, WAE group, or system.
objType	A string that describes the object type. Valid values include the following: • wae • waegroup • device • devicegroup • system
timeframe	A TimeFrameFilter value that includes the time interval, time zone, and frequency.

Return

The output parameter **HttpConnOptRate[]** returns a HttpConnOptRate value that provides the percentage that the optimized connection time saved.

Exceptions

Type	String	Description
RemoteException	HttpStatsService.getConnOptRate: ERROR:Invalid name=	The device name is invalid.
RemoteException	HttpStatsService.getConnOptRate: ERROR:Invalid objType=	The object type name is invalid.
RemoteException	HttpStatsService.getConnOptRate: ERROR:Invalid TimeFrame	The timeframe is invalid.
RemoteException	HttpStatsService.getConnOptRate: ERROR:Device does not exist.DeviceName=	The device name is not found.
RemoteException	HttpStatsService.getConnOptRate: ERROR:Device Group does not exist.DeviceGroup=	The device group name is not found.
RemoteException	HttpStatsService.getConnOptRate: ERROR:Invalid frequency=	The frequency is invalid.
RemoteException	HttpStatsService.getConnOptRate: ERROR:Invalid startTime=	The start time is invalid.
RemoteException	HttpStatsService.getConnOptRate: ERROR:Invalid endTime=	The end time is invalid.

RemoteException	HttpStatsService.getMaxConnReuseCount: ERROR:startTime should be less than endTime startTime=	The start time is less than the end time.
AxisFault	HttpStats:The Method Name is not supported. MethodName=	The method name is not supported for a given service.
AxisFault	HttpStats:The SOAP Envelope Body is Null	The SOAP envelope is missing for a given service.
AxisFault	HttpStats:The Requested WebService is not available	The service requested is not supported.
AxisFault	getConnOptRate:The SOAP Body doesn't have all the required elements	The SOAP body does not have all the required elements.

getConnOptType

Retrieves the HTTP optimization connection statistics.

Input Parameters

Parameter	Description
name	A string that describes the name of the WAE, WAE group, or system.
objType	A string that describes the object type. Valid values include the following: • wae • waegroup • device • devicegroup • system
timeframe	A TimeFrameFilter value that includes the time interval, time zone, and frequency.

Return

The output parameter **HttpConnOptType[]** returns a HttpConnOptType value that provides the connection optimization type distribution statistics.

Exceptions

Type	String	Description
RemoteException	HttpStatsService.getConnOptType: ERROR:Unable to get HttpConnOptType=	Unknown exception. See the logs to view the error.

getMaxConnReuseCount

Retrieves the maximum reuse count of a single connection.

Input Parameters

Parameter	Description
name	A string that describes the name of the WAE, WAE group, or system.
objType	A string that describes the object type. Valid values include the following: • wae • waegroup • device • devicegroup • system
timeframe	A TimeFrameFilter value that includes the time interval, time zone, and frequency.

Return

The output parameter **HttpMaxConnReuseCount[]** returns a HttpMaxConnReuseCount value that provides the maximum reuse count of a single connection.

Exceptions

Type	String	Description
RemoteException	HttpStatsService.getMaxConnReuse Count: ERROR:Invalid name=	The device name is invalid.
RemoteException	HttpStatsService.getMaxConnReuse Count: ERROR:Invalid objType=	The object type name is invalid.
RemoteException	HttpStatsService.getMaxConnReuse Count: ERROR:Invalid TimeFrame	The timeframe is invalid.
RemoteException	HttpStatsService.getMaxConnReuse Count: ERROR:Device does not exist.DeviceName=	The device name is not found.
RemoteException	HttpStatsService.getMaxConnReuse Count: ERROR:Device Group does not exist.DeviceGroup=	The device group name is not found.
RemoteException	HttpStatsService.getMaxConnReuse Count: ERROR:Invalid frequency=	The frequency is invalid.
RemoteException	HttpStatsService.getMaxConnReuse Count: ERROR:Invalid startTime=	The start time is invalid.
RemoteException	HttpStatsService.getMaxConnReuse Count: ERROR:Invalid endTime=	The end time is invalid.

RemoteException	HttpStatsService.getMaxConnReuse Count: ERROR:startTime should be less than endTime startTime=	The start time is less than the end time.
AxisFault	HttpStats:The Method Name is not supported. MethodName=	The method name is not supported for a given service.
AxisFault	HttpStats:The SOAP Envelope Body is Null	The SOAP envelope is missing for a given service.
AxisFault	HttpStats:The Requested WebService is not available	The service requested is not supported.
AxisFault	getMaxConnReuseCount:The SOAP Body doesn't have all the required elements	The SOAP body does not have all the required elements.

getOptConnCount

Retrieves the number of optimized HTTP connections for a WAE, WAE group, or all WAEs system wide. If you specify a time interval, the timeframe is divided into time segments. The connection count is calculated for each segment of time.

Input Parameters

Parameter	Description
name	A string that describes the name of the WAE, WAE group, or system.
objType	A string that describes the object type. Valid values include the following: • wae • waegroup • device • devicegroup • system
timeframe	A TimeFrameFilter value that includes the time interval, time zone, and frequency.

Return

The output parameter **HttpOptConnCount[]** returns a HttpOptConnCount value that provides an array of HTTP traffic optimized connection statistics.

Exceptions

Type	String	Description
RemoteException	HttpStatsService.getOptConnCount: ERROR:Invalid name=	The device name is invalid.
RemoteException	HttpStatsService.getOptConnCount: ERROR:Invalid objType=	The object type name is invalid.
RemoteException	HttpStatsService.getOptConnCount: ERROR:Invalid TimeFrame	The timeframe is invalid.
RemoteException	HttpStatsService.getOptConnCount: ERROR:Device does not exist.DeviceName=	The device name is not found.
RemoteException	HttpStatsService.getOptConnCount: ERROR:Device Group does not exist.DeviceGroup=	The device group name is not found.
RemoteException	HttpStatsService.getOptConnCount: ERROR:Invalid frequency=	The frequency is invalid.
RemoteException	HttpStatsService.getOptConnCount: ERROR:Invalid startTime=	The start time is invalid.
RemoteException	HttpStatsService.getOptConnCount: ERROR:Invalid endTime=	The end time is invalid.

RemoteException	HttpStatsService.getOptConnCount: ERROR:startTime should be less than endTime startTime=	The start time is less than the end time.
AxisFault	HttpStats:The Method Name is not supported. MethodName=	The method name is not supported for a given service.
AxisFault	HttpStats:The SOAP Envelope Body is Null	The SOAP envelope is missing for a given service.
AxisFault	HttpStats:The Requested WebService is not available	The service requested is not supported.
AxisFault	getOptConnCount:The SOAP Body doesn't have all the required elements	The SOAP body does not have all the required elements.

getTotalConnCount

Retrieves the total number of HTTP connections for a WAE, WAE group, or all WAEs system wide. If you specify a time interval, the timeframe is divided into time segments. The connection count is calculated for each segment of time.

Input Parameters

Parameter	Description
name	A string that describes the name of the WAE, WAE group, or system.
objType	A string that describes the object type. Valid values include the following: • wae • waegroup • device • devicegroup • system
timeframe	A TimeFrameFilter value that includes the time interval, time zone, and frequency.

Return

The output parameter **HttpTotalConnCount[]** returns a HttpTotalConnCount value that provides an array of HTTP traffic total connection statistics.

Exceptions

Type	String	Description
RemoteException	HttpStatsService.getTotalConnCount: ERROR:Invalid name=	The device name is invalid.
RemoteException	HttpStatsService.getTotalConnCount: ERROR:Invalid objType=	The object type name is invalid.
RemoteException	HttpStatsService.getTotalConnCount: ERROR:Invalid TimeFrame	The timeframe is invalid.
RemoteException	HttpStatsService.getTotalConnCount: ERROR:Device does not exist.DeviceName=	The device name is not found.
RemoteException	HttpStatsService.getTotalConnCount: ERROR:Device Group does not exist.DeviceGroup=	The device group name is not found.
RemoteException	HttpStatsService.getTotalConnCount: ERROR:Invalid frequency=	The frequency is invalid.
RemoteException	HttpStatsService.getTotalConnCount: ERROR:Invalid startTime=	The start time is invalid.
RemoteException	HttpStatsService.getTotalConnCount: ERROR:Invalid endTime=	The end time is invalid.

RemoteException	HttpStatsService.getTotalConnCount: ERROR:startTime should be less than endTime startTime=	The start time is less than the end time.
AxisFault	HttpStats:The Method Name is not supported. MethodName=	The method name is not supported for a given service.
AxisFault	HttpStats:The SOAP Envelope Body is Null	The SOAP envelope is missing for a given service.
AxisFault	HttpStats:The Requested WebService is not available	The service requested is not supported.
AxisFault	getTotalConnCount:The SOAP Body doesn't have all the required elements	The SOAP body does not have all the required elements.

getUnaccelConnCount

Retrieves a list of unaccelerated connection counts.

Input Parameters

Parameter	Description
name	A string that describes the name of the WAE, WAE group, or system.
objType	A string that describes the object type. Valid values include the following: • wae • waegroup • device • devicegroup • system
timeframe	A TimeFrameFilter value that includes the time interval, time zone, and frequency.

Return

The output parameter **HttpUnaccelConnCount[]** returns a HttpUnaccelConnCount value that provides the number of past connections from each client type.

Exceptions

Type	String	Description
RemoteException	HttpStatsService.getUnaccelConnCount: ERROR:Unable to get HttpUnaccelConnCount=	Unknown exception. See the logs to view the error.

retrieveResponseStats

Retrieves the HTTP connection response RTT savings statistics.

Input Parameters

Parameter	Description
name	A string that describes the name of the WAE, WAE group, or system.
objType	A string that describes the object type. Valid values include the following: • wae • waegroup • device • devicegroup • system
timeframe	A TimeFrameFilter value that includes the time interval, time zone, and frequency.

Return

The output parameter **HttpResponseStats[]** returns a HttpResponseStats value that provides the response time savings statistics.

Exceptions

Type	String	Description
RemoteException	HttpStatsService.retrieveResponseStats: ERROR:Unable to get HttpResponseStats=	Unknown exception. See the logs to view the error.

retrieveStats

Retrieves the HTTP connection statistics, such as response times and counts per operation.

Input Parameters

Parameter	Description
name	A string that describes the name of the WAE, WAE group, or system.
objType	A string that describes the object type. Valid values include the following: • wae • waegroup • device • devicegroup • system
timeframe	A TimeFrameFilter value that includes the time interval, time zone, and frequency.

Return

The output parameter **HttpConnStats[]** returns a HttpConnStats value that provides the response time, counter per operation, and other statistics.

Exceptions

Type	String	Description
RemoteException	HttpStatsService.retrieveStats: ERROR:Invalid name=	The device name is invalid.
RemoteException	HttpStatsService.retrieveStats: ERROR:Invalid objType=	The object type name is invalid.
RemoteException	HttpStatsService.retrieveStats: ERROR:Invalid TimeFrame	The timeframe is invalid.
RemoteException	HttpStatsService.retrieveStats: ERROR:Device does not exist.DeviceName=	The device name is not found.
RemoteException	HttpStatsService.retrieveStats: ERROR:Device Group does not exist.DeviceGroup=	The device group name is not found.
RemoteException	HttpStatsService.retrieveStats: ERROR:Invalid frequency=	The frequency is invalid.
RemoteException	HttpStatsService.retrieveStats: ERROR:Invalid startTime=	The start time is invalid.
RemoteException	HttpStatsService.retrieveStats: ERROR:Invalid endTime=	The end time is invalid.

RemoteException	HttpStatsService.retrieveStats: ERROR:startTime should be less than endTime startTime=	The start time is less than the end time.
AxisFault	HttpStats:The Method Name is not supported. MethodName=	The method name is not supported for a given service.
AxisFault	HttpStats:The SOAP Envelope Body is Null	The SOAP envelope is missing for a given service.
AxisFault	HttpStats:The Requested WebService is not available	The service requested is not supported.
AxisFault	retrieveStats:The SOAP Body doesn't have all the required elements	The SOAP body does not have all the required elements.

HTTPS Statistics Service

This section contains the following topics:

HTTPS Statistics Service Syntax

- Service URL—**https://<host/ip>:8443/ws/HttpsStats**
- WSDL URL—**https://<host/ip>:8443/ws/HttpsStats?wsdl**

To obtain a description of all the operations and parameters for the HttpsStats Web Service, submit a URL to the service with the suffix **?wsdl** as follows:

https://<host/ip>:8443/ws/HttpsStats?wsdl

To obtain management information using the Central Manager monitoring API, first call the service by using the service URL for this service as follows:

https://<host/ip>:8443/ws/HttpsStats

Next, submit a SOAP request written in an XML format to retrieve the information.

Example Request

The following example shows an XML-formatted SOAP request to perform the **getConnOptType** action. The request includes the input parameters for this particular action shown in bold. For more information on this action, see getConnOptType.

```
<?xml version="1.0" encoding="utf-8" ?>
- <soapenv:Envelope xmlns:soapenv="http://www.w3.org/2003/05/soap-envelope">
- <soapenv:Header>
- <wsse:Security
xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.
xsd">
- <wsse:UsernameToken>
  <wsse:Username>admin</wsse:Username>
```

```
  <wsse:Password
Type="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-username-token-profile-1.0#P
asswordText">default</wsse:Password>
  </wsse:UsernameToken>
  </wsse:Security>
  </soapenv:Header>
- <soapenv:Body>
- <ns3:getConnOptType xmlns:ns3="http://service.stats.ws.waas.cisco.com">
  <ns3:name>ce-119-40</ns3:name>
  <ns3:objType>wae</ns3:objType>
- <ns3:timeframe>
  <ns2:endTime
xmlns:ns2="http://util.ws.waas.cisco.com/xsd">2008-01-30T08:00:00.000Z</ns2:endTime>
  <ns2:frequency xmlns:ns2="http://util.ws.waas.cisco.com/xsd">lasthour</ns2:frequency>
  <ns2:startTime
xmlns:ns2="http://util.ws.waas.cisco.com/xsd">2008-01-01T08:00:00.000Z</ns2:startTime>
  <ns2:timezone xmlns:ns2="http://util.ws.waas.cisco.com/xsd">UTC</ns2:timezone>
  </ns3:timeframe>
  </ns3:getConnOptType>
  </soapenv:Body>
  </soapenv:Envelope>
```

Example Response

The following example shows the XML response that contains the output values for the **getConnOptType** action. For more information on this action, see getConnOptType.

```
<?xml version="1.0" encoding="utf-8" ?>
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/">
- <soapenv:Body>
- <ns:getConnOptTypeResponse xmlns:ns="http://service.stats.ws.waas.cisco.com"
xmlns:ax238="http://rmi.java/xsd" xmlns:ax241="http://stats.ws.waas.cisco.com/xsd"
xmlns:ax240="http://util.ws.waas.cisco.com/xsd" xmlns:ax239="http://io.java/xsd">
- <ns:return type="com.cisco.waas.ws.stats.HttpsConnOptType">
  <ax241:deviceName>gowri-wae-2</ax241:deviceName>
  <ax241:dreHintsFlush>0</ax241:dreHintsFlush>
  <ax241:dreHintsSkipAllHeaders>0</ax241:dreHintsSkipAllHeaders>
  <ax241:dreHintsSkipLz>0</ax241:dreHintsSkipLz>
  <ax241:endTime>2010-10-07T04:59:57.671Z</ax241:endTime>
  <ax241:frequency>min</ax241:frequency>
  <ax241:locallyServedIfNotModified>0</ax241:locallyServedIfNotModified>
  <ax241:locallyServedRedirect>0</ax241:locallyServedRedirect>
  <ax241:locallyServedUnauthorized>0</ax241:locallyServedUnauthorized>
  </ns:return>
  </ns:getConnOptTypeResponse>
  </soapenv:Body>
  </soapenv:Envelope>
```

HTTPS Statistics Service Actions

The HTTPS service (HttpsStats Web Service) performs one or more of the following actions:

- getConnOptType
- retrieveResponseStats
- retrieveStats

getConnOptType

Retrieves the HTTPS optimization connection statistics.

Input Parameters

Parameter	Description
name	A string that describes the name of the WAE, WAE group, or system.
objType	A string that describes the object type. Valid values include the following: • wae • waegroup • device • devicegroup • location • system
timeframe	A TimeFrameFilter value that includes the time interval, time zone, and frequency.

Return

The output parameter **HttpsConnOptType[]** returns a HttpsConnOptType value that provides the connection optimization type distribution statistics.

Exceptions

Type	String	Description
RemoteException	HttpsStatsService.getConnOptType: ERROR:Invalid name=	The device name is invalid.
RemoteException	HttpsStatsService.getConnOptType: ERROR:Unable to get HttpsConnOptType=	Unknown exception. See the logs to view the error.
RemoteException	HttpsStatsService.getConnOptType: ERROR:Invalid objType=	The object type name is invalid.
RemoteException	HttpsStatsService.getConnOptType: ERROR:Invalid TimeFrame	The timeframe is invalid.
RemoteException	HttpsStatsService.getConnOptType: ERROR:Device does not exist.DeviceName=	The device name is not found.
RemoteException	HttpsStatsService.getConnOptType: ERROR:Device Group does not exist.DeviceGroup=	The device group name is not found.
RemoteException	HttpsStatsService.getConnOptType: ERROR:Invalid frequency=	The frequency is invalid.
RemoteException	HttpsStatsService.getConnOptType: ERROR:Invalid startTime=	The start time is invalid.

RemoteException	HttpsStatsService.getConnOptType: ERROR:Invalid endTime=	The end time is invalid.
RemoteException	HttpsStatsService.getConnOptType: ERROR:startTime should be less than endTime startTime=	The start time is less than the end time.
AxisFault	HttpsStats:The Method Name is not supported. MethodName=	The method name is not supported for a given service.
AxisFault	HttpsStats:The SOAP Envelope Body is Null	The SOAP envelope is missing for a given service.
AxisFault	HttpsStats:The Requested WebService is not available	The service requested is not supported.
AxisFault	getConnOptType:The SOAP Body doesn't have all the required elements	The SOAP body does not have all the required elements.

retrieveResponseStats

Retrieves the HTTPS connection response RTT savings statistics.

Input Parameters

Parameter	Description
name	A string that describes the name of the WAE, WAE group, or system.
objType	A string that describes the object type. Valid values include the following: • wae • waegroup • device • devicegroup • location • system
timeframe	A TimeFrameFilter value that includes the time interval, time zone, and frequency.

Return

The output parameter **HttpsResponseStats[]** returns a HttpsResponseStats value that provides the response time savings statistics.

Exceptions

Type	String	Description
RemoteException	HttpsStatsService.retrieveResponseStats: ERROR:Invalid name=	The device name is invalid.
RemoteException	HttpsStatsService.retrieveResponseStats:ERROR:Unable to get HttpsResponseStats=	Unknown exception. See the logs to view the error.
RemoteException	HttpsStatsService.retrieveResponseStats: ERROR:Invalid objType=	The object type name is invalid.
RemoteException	HttpsStatsService.retrieveResponseStats: ERROR:Invalid TimeFrame	The timeframe is invalid.
RemoteException	HttpsStatsService.retrieveResponseStats: ERROR:Device does not exist.DeviceName=	The device name is not found.
RemoteException	HttpsStatsService.retrieveResponseStats: ERROR:Device Group does not exist.DeviceGroup=	The device group name is not found.
RemoteException	HttpsStatsService.retrieveResponseStats: ERROR:Invalid frequency=	The frequency is invalid.
RemoteException	HttpsStatsService.retrieveResponseStats: ERROR:Invalid startTime=	The start time is invalid.

RemoteException	HttpsStatsService.retrieveResponseStats: ERROR:Invalid endTime=	The end time is invalid.
RemoteException	HttpsStatsService.retrieveResponseStats: ERROR:startTime should be less than endTime startTime=	The start time is less than the end time.
AxisFault	HttpsStats:The Method Name is not supported. MethodName=	The method name is not supported for a given service.
AxisFault	HttpsStats:The SOAP Envelope Body is Null	The SOAP envelope is missing for a given service.
AxisFault	HttpsStats:The Requested WebService is not available	The service requested is not supported.
AxisFault	retrieveResponseStats:The SOAP Body doesn't have all the required elements	The SOAP body does not have all the required elements.

retrieveStats

Retrieves the HTTPS connection statistics, such as response times and counts per operation.

Input Parameters

Parameter	Description
name	A string that describes the name of the WAE, WAE group, or system.
objType	A string that describes the object type. Valid values include the following: • wae • waegroup • device • devicegroup • location • system
timeframe	A TimeFrameFilter value that includes the time interval, time zone, and frequency.

Return

The output parameter **HttpsStats[]** returns a HttpsStats value that provides the response time, counter per operation, and other statistics.

Exceptions

Type	String	Description
RemoteException	HttpsStatsService.retrieveStats: ERROR:Invalid name=	The device name is invalid.
RemoteException	HttpsStatsService.retrieveStats: ERROR:Invalid objType=	The object type name is invalid.
RemoteException	HttpsStatsService.retrieveStats: ERROR:Invalid TimeFrame	The timeframe is invalid.
RemoteException	HttpsStatsService.retrieveStats: ERROR:Device does not exist.DeviceName=	The device name is not found.
RemoteException	HttpsStatsService.retrieveStats: ERROR:Device Group does not exist.DeviceGroup=	The device group name is not found.
RemoteException	HttpsStatsService.retrieveStats: ERROR:Invalid frequency=	The frequency is invalid.
RemoteException	HttpsStatsService.retrieveStats: ERROR:Invalid startTime=	The start time is invalid.
RemoteException	HttpsStatsService.retrieveStats: ERROR:Invalid endTime=	The end time is invalid.

RemoteException	HttpsStatsService.retrieveStats: ERROR:startTime should be less than endTime startTime=	The start time is less than the end time.
AxisFault	HttpsStats:The Method Name is not supported. MethodName=	The method name is not supported for a given service.
AxisFault	HttpsStats:The SOAP Envelope Body is Null	The SOAP envelope is missing for a given service.
AxisFault	HttpsStats:The Requested WebService is not available	The service requested is not supported.
AxisFault	retrieveStats:The SOAP Body doesn't have all the required elements	The SOAP body does not have all the required elements.

MAPI Statistics Service

This chapter describes the MAPI Statistics service, which returns MAPI data and statistics for individual WAEs, device groups, and for the WAAS network.

This chapter contains the following sections:

MAPI Statistics Service Syntax

This section contains the following topics:

MAPI Statistics Informational URLs

This section provides informational URLs for the MAPI Statistics service.

- Service URL—https://<host/ip>:8443/ws/MapiStats
- WSDL URL—https://<host/ip>:8443/ws/MapiStats?wsdl
- To obtain a description of all the operations and parameters for the MapiStats Service, submit a URL to the service with the suffix **?wsdl** as follows:

  `https://<host/ip>:8443/ws/MapiStats?wsdl`
- To obtain management information using the Central Manager monitoring API, first call the service by using the service URL for this service as follows:

  `https://<host/ip>:8443/ws/MapiStats`

  Next, submit a SOAP request written in an XML format to retrieve the information.

MAPI Statistics Example Request

The following example shows an XML-formatted SOAP request to perform the **retrieveDataReadStats** action. The request includes the input parameters for this particular action shown in bold. For more information on this action, see retrieveDataReadStats.

```
<?xml version="1.0" encoding="utf-8" ?>
- <soapenv:Envelope xmlns:soapenv="http://www.w3.org/2003/05/soap-envelope">
- <soapenv:Header>
- <wsse:Security
xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.
xsd">
- <wsse:UsernameToken>
  <wsse:Username>admin</wsse:Username>
  <wsse:Password
Type="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-username-token-profile-1.0#P
asswordText">default</wsse:Password>
  </wsse:UsernameToken>
  </wsse:Security>
  </soapenv:Header>
- <soapenv:Body>
- <ns2:retrieveDataReadStats xmlns:ns2="http://service.stats.ws.waas.cisco.com">
  <ns2:name>ce-119-40</ns2:name>
  <ns2:objType>wae</ns2:objType>
- <ns2:timeframe>
  <ns1:endTime
xmlns:ns1="http://util.ws.waas.cisco.com/xsd">2008-01-30T08:00:00.000Z</ns1:endTime>
  <ns1:frequency xmlns:ns1="http://util.ws.waas.cisco.com/xsd">lasthour</ns1:frequency>
  <ns1:startTime
xmlns:ns1="http://util.ws.waas.cisco.com/xsd">2008-01-31T08:00:00.000Z</ns1:startTime>
  <ns1:timezone xmlns:ns1="http://util.ws.waas.cisco.com/xsd">UTC</ns1:timezone>
  </ns2:timeframe>
  </ns2:retrieveDataReadStats>
  </soapenv:Body>
  </soapenv:Envelope>
```

MAPI Statistics Example Response

The following example shows the XML response that contains the output values for the **retrieveDataReadStats** action. For more information on this action, see retrieveDataReadStats.

```
<?xml version="1.0" encoding="utf-8" ?>
- <soapenv:Envelope xmlns:soapenv="http://www.w3.org/2003/05/soap-envelope">
- <soapenv:Body>
- <ns:retrieveDataReadStatsResponse xmlns:ns="http://service.stats.ws.waas.cisco.com"
xmlns:ax225="http://io.java/xsd" xmlns:ax227="http://stats.ws.waas.cisco.com/xsd"
xmlns:ax226="http://util.ws.waas.cisco.com/xsd" xmlns:ax224="http://rmi.java/xsd">
- <ns:return type="com.cisco.waas.ws.stats.MapiDataReadStats">
  <ax227:avgReadAhead>39</ax227:avgReadAhead>
  <ax227:avgReadStream>97</ax227:avgReadStream>
  <ax227:avgSyncGetBuffer>29</ax227:avgSyncGetBuffer>
  <ax227:endtime>2008-04-16T17:59:26.628Z</ax227:endtime>
  <ax227:frequency>min</ax227:frequency>
  <ax227:maxReadAhead>69</ax227:maxReadAhead>
  <ax227:maxReadStream>21</ax227:maxReadStream>
  <ax227:maxSyncGetBuffer>31</ax227:maxSyncGetBuffer>
  <ax227:minReadAhead>67</ax227:minReadAhead>
  <ax227:minReadStream>36</ax227:minReadStream>
```

```
<ax227:minSyncGetBuffer>92</ax227:minSyncGetBuffer>
</ns:return>
</ns:retrieveDataReadStatsResponse>
</soapenv:Body>
</soapenv:Envelope>
```

MAPI Statistics Service Actions

The MAPI Statistics (MapiStats Web Service) performs one or more of the following actions:

- getDroppedConnCount
- getOptConnCount
- getSessionCount
- getUnaccelConnCount
- retrieveClientConnCount
- retrieveClientSecuredConnCount
- retrieveDataReadStats
- retrieveEncAndNonEncResponseStats
- retrieveEncryptedAndNonEncryptedOptimizedConnCount
- retrieveRequestTypeStats
- retrieveResponseStats

getDroppedConnCount

Retrieves a list of dropped connection counts.

Input Parameters

Parameter	Description
name	A string that describes the name of the WAE, WAE group, or system.
objType	A string that describes the object type. Valid values include the following: • wae • waegroup • system
timeframe	A TimeFrameFilter value that includes the time interval, time zone, and frequency.

Return

The output parameter **MapiDroppedConnCount[]** returns a MapiDroppedConnCount value that provides dropped connection counts.

Exceptions

Type	String	Description
RemoteException	MapiStatsService.getDroppedConnCount: ERROR:Unable to get MapiDroppedConnCount=	Unknown exception. See the logs to view the error.

getOptConnCount

Retrieves a list of optimized connection counts.

Input Parameters

Parameter	Description
name	A string that describes the name of the WAE, WAE group, or system.
objType	A string that describes the object type. Valid values include the following: • wae • waegroup • system
timeframe	A TimeFrameFilter value that includes the time interval, time zone, and frequency.

Return

The output parameter **MapiOptConnCount[]** returns a MapiClientSecuredConnCount value that provides optimized connection counts.

Exceptions

Type	String	Description
RemoteException	MapiStatsService.getClientConn Count: ERROR:Invalid name=	Unknown exception. See the logs to view the error.

getSessionCount

Retrieves the number of MAPI sessions completed on either a WAE device, WAEs within a device group, or all WAEs system wide.

Input Parameters

Parameter	Description
name	A string that describes the name of the WAE, WAE group, or system.
objType	A string that describes the object type. Valid values include the following: • wae • waegroup • system
timeframe	A TimeFrameFilter value that includes the time interval, time zone, and frequency.

Return

The output parameter **MapiSessionCount[]** returns a HttpsStats value that provides the number of sessions completed.

Exceptions

Type	String	Description
RemoteException	MapiStatsService.getSessionCount: ERROR:Invalid name=	The device name is invalid.
RemoteException	MapiStatsService.getSessionCount: ERROR:Invalid objType=	The object type name is invalid.
RemoteException	MapiStatsService.getSessionCount: ERROR:Invalid TimeFrame	The timeframe is invalid.
RemoteException	MapiStatsService.getSessionCount: ERROR:Device does not exist.DeviceName=	The device name is not found.
RemoteException	MapiStatsService.getSessionCount: ERROR:Device Group does not exist.DeviceGroup=	The device group name is not found.
RemoteException	MapiStatsService.getSessionCount: ERROR:Invalid frequency=	The frequency is invalid.
RemoteException	MapiStatsService.getSessionCount: ERROR:Invalid startTime=	The start time is invalid.
RemoteException	MapiStatsService.getSessionCount: ERROR:Invalid endTime=	The end time is invalid.
RemoteException	MapiStatsService.getSessionCount: ERROR:startTime should be less than endTime startTime=	The start time is less than the end time.

AxisFault	MapiStats:The Method Name is not supported. MethodName=	The method name is not supported for a given service.
AxisFault	MapiStats:The SOAP Envelope Body is Null	The SOAP envelope is missing for a given service.
AxisFault	MapiStats:The Requested WebService is not available	The service requested is not supported.
AxisFault	getSessionCount:The SOAP Body doesn't have all the required elements	The SOAP body does not have all the required elements.

getUnaccelConnCount

Retrieves a list of unaccelerated connection counts.

Input Parameters

Parameter	Description
name	A string that describes the name of the WAE, WAE group, or system.
objType	A string that describes the object type. Valid values include the following: • wae • waegroup • system
timeframe	A TimeFrameFilter value that includes the time interval, time zone, and frequency.

Return

The output parameter **MapiUnaccelConnCount[]** returns a MapiUnaccelConnCount value that provides unaccelerated connection counts.

Exceptions

Type	String	Description
RemoteException	MapiStatsService.getUnaccelConnCount: ERROR:Unable to get MapiUnaccelConnCount=	Unknown exception. See the logs to view the error.

retrieveClientConnCount

Retrieves the number of past connections from each client type on either a WAE device, WAEs within a device group, or all WAEs system wide.

Input Parameters

Parameter	Description
name	A string that describes the name of the WAE, WAE group, or system.
objType	A string that describes the object type. Valid values include the following: • wae • waegroup • system
timeframe	A TimeFrameFilter value that includes the time interval, time zone, and frequency.

Return

The output parameter **MapiClientConnCount[]** returns a MapiClientConnCount value that provides the number of past connections from each client type.

Exceptions

Type	String	Description
RemoteException	MapiStatsService.retrieveClientConnCount: ERROR:Invalid name=	The device name is invalid.
RemoteException	MapiStatsService.retrieveClientConnCount: ERROR:Invalid objType=	The object type name is invalid.
RemoteException	MapiStatsService.retrieveClientConnCount: ERROR:Invalid TimeFrame	The timeframe is invalid.
RemoteException	MapiStatsService.retrieveClientConnCount: ERROR:Device does not exist.DeviceName=	The device name is not found.
RemoteException	MapiStatsService.retrieveClientConnCount: ERROR:Device Group does not exist.DeviceGroup=	The device group name is not found.
RemoteException	MapiStatsService.retrieveClientConnCount: ERROR:Invalid frequency=	The frequency is invalid.
RemoteException	MapiStatsService.retrieveClientConnCount: ERROR:Invalid startTime=	The start time is invalid.
RemoteException	MapiStatsService.retrieveClientConnCount: ERROR:Invalid endTime=	The end time is invalid.
RemoteException	MapiStatsService.retrieveClientConnCount: ERROR:startTime should be less than endTime startTime=	The start time is less than the end time.

AxisFault	MapiStats:The Method Name is not supported. MethodName=	The method name is not supported for a given service.
AxisFault	MapiStats:The SOAP Envelope Body is Null	The SOAP envelope is missing for a given service.
AxisFault	MapiStats:The Requested WebService is not available	The service requested is not supported.
AxisFault	retrieveClientConnCount:The SOAP Body doesn't have all the required elements	The SOAP body does not have all the required elements.

retrieveClientSecuredConnCount

Retrieves the number of secured client connections from each Outlook version on either a WAE device, WAEs within a device group, or all WAEs system wide.

Input Parameters

Parameter	Description
name	A string that describes the name of the WAE, WAE group, or system.
objType	A string that describes the object type. Valid values include the following: • wae • waegroup • system
timeframe	A TimeFrameFilter value that includes the time interval, time zone, and frequency.

Return

The output parameter **MapiClientSecuredConnCount[]** returns MapiClientSecuredConnCount value that provides the count of encrypted client connections for each version of Outlook.

Exceptions

Type	String	Description
RemoteException	MapiStatsService.retrieveClientSecuredConnCount: ERROR:Invalid name=	The device name is invalid.
RemoteException	MapiStatsService.retrieveClientSecuredConnCount: ERROR:Invalid objType=	The object type name is invalid.
RemoteException	MapiStatsService.retrieveClientSecuredConnCount: ERROR:Invalid TimeFrame	The timeframe is invalid.
RemoteException	MapiStatsService.retrieveClientSecuredConnCount: ERROR:Device does not exist.DeviceName=	The device name is not found.
RemoteException	MapiStatsService.retrieveClientSecuredConnCount: ERROR:Device Group does not exist.DeviceGroup=	The device group name is not found.
RemoteException	MapiStatsService.retrieveClientSecuredConnCount: ERROR:Invalid frequency=	The frequency is invalid.
RemoteException	MapiStatsService.retrieveClientSecuredConnCount: ERROR:Invalid startTime=	The start time is invalid.
RemoteException	MapiStatsService.retrieveClientSecuredConnCount: ERROR:Invalid endTime=	The end time is invalid.

RemoteException	MapiStatsService.retrieveClientSecuredConnCount: ERROR:startTime should be less than endTime startTime=	The start time is less than the end time.
AxisFault	MapiStats:The Method Name is not supported. MethodName=	The method name is not supported for a given service.
AxisFault	MapiStats:The SOAP Envelope Body is Null	The SOAP envelope is missing for a given service.
AxisFault	MapiStats:The Requested WebService is not available	The service requested is not supported.
AxisFault	retrieveClientSecuredConnCount:The SOAP Body doesn't have all the required elements	The SOAP body does not have all the required elements.

retrieveDataReadStats

Retrieves the MAPI date read statistics collected on either a WAE device, WAEs within a device group, or all WAEs system wide.

Input Parameters

Parameter	Description
name	A string that describes the name of the WAE, WAE group, or system.
objType	A string that describes the object type. Valid values include the following: • wae • waegroup • system
timeframe	A TimeFrameFilter value that includes the time interval, time zone, and frequency.

Return

The output parameter **MapiDataReadStats[]** returns a MapiDataReadStats value that provides the minimum, maximum, and average size of the SychronizationGetBuffer, the ReadStream, and the accumulated read ahead.

Exceptions

Type	String	Description
RemoteException	MapiStatsService.retrieveDataRead Stats: ERROR:Invalid name=	The device name is invalid.
RemoteException	MapiStatsService.retrieveDataRead Stats: ERROR:Invalid objType=	The object type name is invalid.
RemoteException	MapiStatsService.retrieveDataRead Stats: ERROR:Invalid TimeFrame	The timeframe is invalid.
RemoteException	MapiStatsService.retrieveDataRead Stats: ERROR:Device does not exist.DeviceName=	The device name is not found.
RemoteException	MapiStatsService.retrieveDataRead Stats: ERROR:Device Group does not exist.DeviceGroup=	The device group name is not found.
RemoteException	MapiStatsService.retrieveDataRead Stats: ERROR:Invalid frequency=	The frequency is invalid.
RemoteException	MapiStatsService.retrieveDataRead Stats: ERROR:Invalid startTime=	The start time is invalid.
RemoteException	MapiStatsService.retrieveDataRead Stats: ERROR:Invalid endTime=	The end time is invalid.
RemoteException	MapiStatsService.retrieveDataRead Stats: ERROR:startTime should be less than endTime startTime=	The start time is less than the end time.

AxisFault	MapiStats:The Method Name is not supported. MethodName=	The method name is not supported for a given service.
AxisFault	MapiStats:The SOAP Envelope Body is Null	The SOAP envelope is missing for a given service.
AxisFault	MapiStats:The Requested WebService is not available	The service requested is not supported.
AxisFault	retrieveDataReadStats:The SOAP Body doesn't have all the required elements	The SOAP body does not have all the required elements.

retrieveEncAndNonEncResponseStats

Retrieves encrypted and unencrypted connection count and response time information.

Input Parameters

Parameter	Description
name	A string that describes the name of the WAE, WAE group, or system.
objType	A string that describes the object type. Valid values include the following: • wae • waegroup • system
timeframe	A TimeFrameFilter value that includes the time interval, time zone, and frequency.

Return

The output parameter **MAPIEncAndNonEncResponseStats[]** returns a MapiEncAndNonEncResponseStats value that specifies the number of encrypted and unencrypted connections, along with the average local and response times for encrypted and unencrypted connections.

Exceptions

Type	String	Description
RemoteException	MapiStatsService.retrieveEncAndNonEncResponseStats: ERROR:Invalid name=	The device name is invalid.
RemoteException	MapiStatsService.retrieveEncAndNonEncResponseStats: ERROR:Invalid objType=	The object type name is invalid.
RemoteException	MapiStatsService.retrieveEncAndNonEncResponseStats: ERROR:Invalid TimeFrame	The timeframe is invalid.
RemoteException	MapiStatsService.retrieveEncAndNonEncResponseStats: ERROR:Device does not exist.DeviceName=	The device name is not found.
RemoteException	MapiStatsService.retrieveEncAndNonEncResponseStats: ERROR:Device Group does not exist.DeviceGroup=	The device group name is not found.
RemoteException	MapiStatsService.retrieveEncAndNonEncResponseStats: ERROR:Invalid frequency=	The frequency is invalid.
RemoteException	MapiStatsService.retrieveEncAndNonEncResponseStats: ERROR:Invalid startTime=	The start time is invalid.

RemoteException	MapiStatsService.retrieveEncAndNonEncResponseStats: ERROR:Invalid endTime=	The end time is invalid.
RemoteException	MapiStatsService.retrieveEncAndNonEncResponseStats: ERROR:startTime should be less than endTime startTime=	The start time is less than the end time.
AxisFault	MapiStats:The Method Name is not supported. MethodName=	The method name is not supported for a given service.
AxisFault	MapiStats:The SOAP Envelope Body is Null	The SOAP envelope is missing for a given service.
AxisFault	MapiStats:The Requested WebService is not available	The service requested is not supported.
AxisFault	retrieveEncAndNonEncResponseStats: The SOAP Body doesn't have all the required elements	The SOAP body does not have all the required elements.

retrieveEncryptedAndNonEncryptedOptimizedConnCount

Retrieves counts of the encrypted and unencrypted connections optimized by the MAPI Application Optimizer.

Input Parameters

Parameter	Description
name	A string that describes the name of the WAE, WAE group, or system.
objType	A string that describes the object type. Valid values include the following: • wae • waegroup • system
timeframe	A TimeFrameFilter value that includes the time interval, time zone, and frequency.

Return

The output parameter **MAPIEncAndNonEncOptimizedConnCount[]** returns a MapiEncAndNonEncOptimizedConnCount value that provides the number of encrypted and unencrypted connections that have been optimized by the MAPI AO.

Exceptions

Type	String	Description
RemoteException	MapiStatsService.retrieveEncryptedAndNonEncryptedOptimizedConnCount: ERROR:Invalid name=	The device name is invalid.
RemoteException	MapiStatsService.retrieveEncryptedAndNonEncryptedOptimizedConnCount: ERROR:Invalid objType=	The object type name is invalid.
RemoteException	MapiStatsService.retrieveEncryptedAndNonEncryptedOptimizedConnCount: ERROR:Invalid TimeFrame	The timeframe is invalid.
RemoteException	MapiStatsService.retrieveEncryptedAndNonEncryptedOptimizedConnCount: ERROR:Device does not exist.DeviceName=	The device name is not found.
RemoteException	MapiStatsService.retrieveEncryptedAndNonEncryptedOptimizedConnCount: ERROR:Device Group does not exist.DeviceGroup=	The device group name is not found.
RemoteException	MapiStatsService.retrieveEncryptedAndNonEncryptedOptimizedConnCount: ERROR:Invalid frequency=	The frequency is invalid.

RemoteException	MapiStatsService.retrieveEncryptedAndNonEncryptedOptimizedConnCount: ERROR:Invalid startTime=	The start time is invalid.
RemoteException	MapiStatsService.retrieveEncryptedAndNonEncryptedOptimizedConnCount: ERROR:Invalid endTime=	The end time is invalid.
RemoteException	MapiStatsService.retrieveEncryptedAndNonEncryptedOptimizedConnCount: ERROR:startTime should be less than endTime startTime=	The start time is less than the end time.
AxisFault	MapiStats:The Method Name is not supported. MethodName=	The method name is not supported for a given service.
AxisFault	MapiStats:The SOAP Envelope Body is Null	The SOAP envelope is missing for a given service.
AxisFault	MapiStats:The Requested WebService is not available	The service requested is not supported.
AxisFault	retrieveEncryptedAndNonEncryptedOptimizedConnCount:The SOAP Body doesn't have all the required elements	The SOAP body does not have all the required elements.

retrieveRequestTypeStats

Retrieves the MAPI request type statistics collected on either a WAE device, WAEs within a device group, or all WAEs system wide.

Input Parameters

Parameter	Description
name	A string that describes the name of the WAE, WAE group, or system.
objType	A string that describes the object type. Valid values include the following: • wae • waegroup • system
timeframe	A TimeFrameFilter value that includes the time interval, time zone, and frequency.

Return

The output parameter **MapiRequestTypeStats[]** returns a MapiRequestTypeStats value that provides the request type statistics.

Exceptions

Type	String	Description
RemoteException	MapiStatsService.retrieveRequestTypeStats: ERROR:Invalid name=	The device name is invalid.
RemoteException	MapiStatsService.retrieveRequestTypeStats: ERROR:Invalid objType=	The object type name is invalid.
RemoteException	MapiStatsService.retrieveRequestTypeStats: ERROR:Invalid TimeFrame	The timeframe is invalid.
RemoteException	MapiStatsService.retrieveRequestTypeStats: ERROR:Device does not exist.DeviceName=	The device name is not found.
RemoteException	MapiStatsService.retrieveRequestTypeStats: ERROR:Device Group does not exist.DeviceGroup=	The device group name is not found.
RemoteException	MapiStatsService.retrieveRequestTypeStats: ERROR:Invalid frequency=	The frequency is invalid.
RemoteException	MapiStatsService.retrieveRequestTypeStats: ERROR:Invalid startTime=	The start time is invalid.
RemoteException	MapiStatsService.retrieveRequestTypeStats: ERROR:Invalid endTime=	The end time is invalid.
RemoteException	MapiStatsService.retrieveRequestTypeStats: ERROR:startTime should be less than endTime startTime=	The start time is less than the end time.

AxisFault	MapiStats:The Method Name is not supported. MethodName=	The method name is not supported for a given service.
AxisFault	MapiStats:The SOAP Envelope Body is Null	The SOAP envelope is missing for a given service.
AxisFault	MapiStats:The Requested WebService is not available	The service requested is not supported.
AxisFault	retrieveRequestTypeStats:The SOAP Body doesn't have all the required elements	The SOAP body does not have all the required elements.

retrieveResponseStats

Retrieves the MAPI response statistics collected on either a WAE device, WAEs within a device group, or all WAEs system wide.

Input Parameters

Parameter	Description
name	A string that describes the name of the WAE, WAE group, or system.
objType	A string that describes the object type. Valid values include the following: • wae • waegroup • system
timeframe	A TimeFrameFilter value that includes the time interval, time zone, and frequency.

Return

The output parameter **MapiResponseStats[]** returns a MapiResponseStats value that provides the number of local and remote responses, the average local response time, and the average remote response time.

Exceptions

Type	String	Description
RemoteException	MapiStatsService.retrieveResponse Stats: ERROR:Invalid name=	The device name is invalid.
RemoteException	MapiStatsService.retrieveResponse Stats: ERROR:Invalid objType=	The object type name is invalid.
RemoteException	MapiStatsService.retrieveResponse Stats: ERROR:Invalid TimeFrame	The timeframe is invalid.
RemoteException	MapiStatsService.retrieveResponse Stats: ERROR:Device does not exist.DeviceName=	The device name is not found.
RemoteException	MapiStatsService.retrieveResponse Stats: ERROR:Device Group does not exist.DeviceGroup=	The device group name is not found.
RemoteException	MapiStatsService.retrieveResponse Stats: ERROR:Invalid frequency=	The frequency is invalid.
RemoteException	MapiStatsService.retrieveResponse Stats: ERROR:Invalid startTime=	The start time is invalid.
RemoteException	MapiStatsService.retrieveResponse Stats: ERROR:Invalid endTime=	The end time is invalid.
RemoteException	MapiStatsService.retrieveResponse Stats: ERROR:startTime should be less than endTime startTime=	The start time is less than the end time.

AxisFault	MapiStats:The Method Name is not supported. MethodName=	The method name is not supported for a given service.
AxisFault	MapiStats:The SOAP Envelope Body is Null	The SOAP envelope is missing for a given service.
AxisFault	MapiStats:The Requested WebService is not available	The service requested is not supported.
AxisFault	retrieveResponseStats:The SOAP Body doesn't have all the required elements	The SOAP body does not have all the required elements.

NFS Statistics Service

This chapter describes the Network File System (NFS) service, which returns NFS data and statistics for individual WAEs, device groups, and for the WAAS network.

This chapter contains the following sections:

NFS Statistics Service Syntax

This section contains the following topics:

NFS Statistics Informational URLs

This section provides informational URLs for the NFS Statistics service.

- Service URL—https://<host/ip>:8443/ws/NfsStats
- WSDL URL—https://<host/ip>:8443/ws/NfsStats?wsdl
- To obtain a description of all the operations and parameters for the NfsStats Web Service, submit a URL to the service with the suffix **?wsdl** as follows:

  https://<host/ip>:8443/ws/NfsStats?wsdl
- To obtain management information using the Central Manager monitoring API, first call the service by using the service URL for this serviceas follows:

  https://<host/ip>:8443/ws/NfsStats

  Next, submit a SOAP request written in an XML format to retrieve the information.

NFS Statistics Example Request

The following example shows an XML-formatted SOAP request to perform the **retrieveResponseStats** action. The request includes the input parameters for this action shown in bold. For more information, see retrieveResponseStats.

```
<?xml version="1.0" encoding="utf-8" ?>
- <soapenv:Envelope xmlns:soapenv="http://www.w3.org/2003/05/soap-envelope">
- <soapenv:Header>
- <wsse:Security
xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.
xsd">
- <wsse:UsernameToken>
  <wsse:Username>admin</wsse:Username>
  <wsse:Password
Type="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-username-token-profile-1.0#P
asswordText">default</wsse:Password>
  </wsse:UsernameToken>
  </wsse:Security>
  </soapenv:Header>
- <soapenv:Body>
- <ns3:retrieveResponseStats xmlns:ns3="http://service.stats.ws.waas.cisco.com">
  <ns3:name>ce-119-40</ns3:name>
  <ns3:objType>wae</ns3:objType>
- <ns3:timeframe>
  <ns2:endTime
xmlns:ns2="http://util.ws.waas.cisco.com/xsd">2008-01-30T08:00:00.000Z</ns2:endTime>
  <ns2:frequency xmlns:ns2="http://util.ws.waas.cisco.com/xsd">lasthour</ns2:frequency>
  <ns2:startTime
xmlns:ns2="http://util.ws.waas.cisco.com/xsd">2008-01-01T08:00:00.000Z</ns2:startTime>
  <ns2:timezone xmlns:ns2="http://util.ws.waas.cisco.com/xsd">UTC</ns2:timezone>
  </ns3:timeframe>
  </ns3:retrieveResponseStats>
  </soapenv:Body>
  </soapenv:Envelope>
```

NFS Statistics Example Response

The following example shows the XML response that contains the output values for the **retrieveResponseStats** action. For more information, see retrieveResponseStats.

```
<?xml version="1.0" encoding="utf-8" ?>
- <soapenv:Envelope xmlns:soapenv="http://www.w3.org/2003/05/soap-envelope">
- <soapenv:Body>
- <ns:retrieveResponseStatsResponse xmlns:ns="http://service.stats.ws.waas.cisco.com"
xmlns:ax220="http://rmi.java/xsd" xmlns:ax223="http://stats.ws.waas.cisco.com/xsd"
xmlns:ax221="http://io.java/xsd" xmlns:ax222="http://util.ws.waas.cisco.com/xsd">
- <ns:return type="com.cisco.waas.ws.stats.NfsRespTypeStats">
  <ax223:avgLocalResp>52</ax223:avgLocalResp>
  <ax223:avgRemoteResp>98</ax223:avgRemoteResp>
  <ax223:endtime>2008-04-16T18:09:28.449Z</ax223:endtime>
  <ax223:frequency>min</ax223:frequency>
  <ax223:localResp>36</ax223:localResp>
  <ax223:remoteResp>77</ax223:remoteResp>
  </ns:return>
  </ns:retrieveResponseStatsResponse>
  </soapenv:Body>
  </soapenv:Envelope>
```

NFS Statistics Service Actions

The NFS service (NfsStats Web Service) performs one or more of the following actions:

- getDroppedConnCount
- getOptConnCount
- getSessionCount
- getUnaccelConnCount
- retrieveNfsTypeStats
- retrieveRequestTypeStats
- retrieveResponseStats

getDroppedConnCount

Retrieves a list of dropped connection counts.

Input Parameters

Parameter	Description
name	A string that describes the name of the WAE, WAE group, or system.
objType	A string that describes the object type. Valid values include the following: • wae • waegroup • system
timeframe	A TimeFrameFilter value that includes the time interval, time zone, and frequency.

Return

The output parameter **NfsDroppedConnCount[]** returns a NfsDroppedConnCount value that provides the number of dropped connections.

Exceptions

Type	String	Description
RemoteException	NfsStatsService.getDroppedConnCount: ERROR:Unable to get NfsDroppedConnCount=	Unknown exception. See the logs to view the error.

getOptConnCount

Retrieves a list of optimized connection counts.

Input Parameters

Parameter	Description
name	A string that describes the name of the WAE, WAE group, or system.
objType	A string that describes the object type. Valid values include the following: • wae • waegroup • system
timeframe	A TimeFrameFilter value that includes the time interval, time zone, and frequency.

Return

The output parameter **NfsOptConnCount[]** returns a NfsOptConnCount value that provides the number of connections optimized.

Exceptions

Type	String	Description
RemoteException	NfsStatsService.getOptConnCount: ERROR:Unable to get NfsOptConnCount=	Unknown exception. See the logs to view the error.

getSessionCount

Retrieves the number of NFS sessions completed on either a WAE device, WAEs within a device group, or all WAEs system wide.

Input Parameters

Parameter	Description
name	A string that describes the name of the WAE, WAE group, or system.
objType	A string that describes the object type. Valid values include the following: • wae • waegroup • system
timeframe	A TimeFrameFilter value that includes the time interval, time zone, and frequency.

Return

The output parameter **NfsSessionCount[]** returns a NfsSessionCount value that provides the number of sessions completed.

Exceptions

Type	String	Description
RemoteException	NfsStatsService.getSessionCount: ERROR:Invalid name=	The device name is invalid.
RemoteException	NfsStatsService.getSessionCount: ERROR:Invalid objType=	The object type name is invalid.
RemoteException	NfsStatsService.getSessionCount: ERROR:Invalid TimeFrame	The timeframe is invalid.
RemoteException	NfsStatsService.getSessionCount: ERROR:Device does not exist.DeviceName=	The device name is not found.
RemoteException	NfsStatsService.getSessionCount: ERROR:Device Group does not exist.DeviceGroup=	The device group name is not found.
RemoteException	NfsStatsService.getSessionCount: ERROR:Invalid frequency=	The frequency is invalid.
RemoteException	NfsStatsService.getSessionCount: ERROR:Invalid startTime=	The start time is invalid.
RemoteException	NfsStatsService.getSessionCount: ERROR:Invalid endTime=	The end time is invalid.
RemoteException	NfsStatsService.getSessionCount: ERROR:startTime should be less than endTime startTime=	The start time is less than the end time.

AxisFault	NfsStats:The Method Name is not supported. MethodName=	The method name is not supported for a given service.
AxisFault	NfsStats:The SOAP Envelope Body is Null	The SOAP envelope is missing for a given service.
AxisFault	NfsStats:The Requested WebService is not available	The service requested is not supported.
AxisFault	getSessionCount:The SOAP Body doesn't have all the required elements	The SOAP body does not have all the required elements.

getUnacceIConnCount

Retrieves a list of unaccelerated connection counts.

Input Parameters

Parameter	Description
name	A string that describes the name of the WAE, WAE group, or system.
objType	A string that describes the object type. Valid values include the following: • wae • waegroup • system
timeframe	A TimeFrameFilter value that includes the time interval, time zone, and frequency.

Return

The output parameter **NfsUnacceIConnCount[]** returns a NfsUnacceIConnCount value that provides the number of unaccelerated connections.

Exceptions

Type	String	Description
RemoteException	NfsStatsService.getUnacceIConnCount: ERROR:Unable to get NfsUnacceIConnCount=	Unknown exception. See the logs to view the error.

retrieveNfsTypeStats

Retrieves the number of packets per NFS version on either a WAE device, WAEs within a device group, or all WAEs system wide.

Input Parameters

Parameter	Description
name	A string that describes the name of the WAE, WAE group, or system.
objType	A string that describes the object type. Valid values include the following: • wae • waegroup • system
timeframe	A TimeFrameFilter value that includes the time interval, time zone, and frequency.

Return

The output parameter **NfsTypeStats[]** returns a NfsSessionCount value that provides the number of packets of the NFS version.

Exceptions

Type	String	Description
RemoteException	NfsStatsService.retrieveNfsTypeStats: ERROR:Invalid name=	The device name is invalid.
RemoteException	NfsStatsService.retrieveNfsTypeStats: ERROR:Invalid objType=	The object type name is invalid.
RemoteException	NfsStatsService.retrieveNfsTypeStats: ERROR:Invalid TimeFrame	The timeframe is invalid.
RemoteException	NfsStatsService.retrieveNfsTypeStats: ERROR:Device does not exist.DeviceName=	The device name is not found.
RemoteException	NfsStatsService.retrieveNfsTypeStats: ERROR:Device Group does not exist.DeviceGroup=	The device group name is not found.
RemoteException	NfsStatsService.retrieveNfsTypeStats: ERROR:Invalid frequency=	The frequency is invalid.
RemoteException	NfsStatsService.retrieveNfsTypeStats: ERROR:Invalid startTime=	The start time is invalid.
RemoteException	NfsStatsService.retrieveNfsTypeStats: ERROR:Invalid endTime=	The end time is invalid.
RemoteException	NfsStatsService.retrieveNfsTypeStats: ERROR:startTime should be less than endTime startTime=	The start time is less than the end time.

AxisFault	NfsStats:The Method Name is not supported. MethodName=	The method name is not supported for a given service.
AxisFault	NfsStats:The SOAP Envelope Body is Null	The SOAP envelope is missing for a given service.
AxisFault	NfsStats:The Requested WebService is not available	The service requested is not supported.
AxisFault	retrieveNfsTypeStats:The SOAP Body doesn't have all the required elements	The SOAP body does not have all the required elements.

retrieveRequestTypeStats

Retrieves the NFS request type statistics collected on either a WAE device, WAEs within a device group, or all WAEs system wide.

Input Parameters

Parameter	Description
name	A string that describes the name of the WAE, WAE group, or system.
objType	A string that describes the object type. Valid values include the following: • wae • waegroup • system
timeframe	A TimeFrameFilter value that includes the time interval, time zone, and frequency.

Return

The output parameter **NfsRequestTypeStats[]** returns a NfsReqTypeStats value that provides the request type statistics.

Exceptions

Type	String	Description
RemoteException	NfsStatsService.retrieveRequestTypeStats: ERROR:Invalid name=	The device name is invalid.
RemoteException	NfsStatsService.retrieveRequestTypeStats: ERROR:Invalid objType=	The object type name is invalid.
RemoteException	NfsStatsService.retrieveRequestTypeStats: ERROR:Invalid TimeFrame	The timeframe is invalid.
RemoteException	NfsStatsService.retrieveRequestTypeStats: ERROR:Device does not exist.DeviceName=	The device name is not found.
RemoteException	NfsStatsService.retrieveRequestTypeStats: ERROR:Device Group does not exist.DeviceGroup=	The device group name is not found.
RemoteException	NfsStatsService.retrieveRequestTypeStats: ERROR:Invalid frequency=	The frequency is invalid.
RemoteException	NfsStatsService.retrieveRequestTypeStats: ERROR:Invalid startTime=	The start time is invalid.
RemoteException	NfsStatsService.retrieveRequestTypeStats: ERROR:Invalid endTime=	The end time is invalid.
RemoteException	NfsStatsService.retrieveRequestTypeStats: ERROR:startTime should be less than endTime startTime=	The start time is less than the end time.

AxisFault	NfsStats:The Method Name is not supported. MethodName=	The method name is not supported for a given service.
AxisFault	NfsStats:The SOAP Envelope Body is Null	The SOAP envelope is missing for a given service.
AxisFault	NfsStats:The Requested WebService is not available	The service requested is not supported.
AxisFault	retrieveRequestTypeStats:The SOAP Body doesn't have all the required elements	The SOAP body does not have all the required elements.

retrieveResponseStats

Retrieves the NFS response statistics collected on either a WAE device, WAEs within a device group, or all WAEs system wide.

Input Parameters

Parameter	Description
name	A string that describes the name of the WAE, WAE group, or system.
objType	A string that describes the object type. Valid values include the following: • wae • waegroup • system
timeframe	A TimeFrameFilter value that includes the time interval, time zone, and frequency.

Return

The output parameter **NfsRespTypeStats[]** returns a NfsRespTypeStats value that provides the number of local and remote responses, the average local response time, and the average remote response time.

Exceptions

Type	String	Description
RemoteException	NfsStatsService.retrieveResponse Stats: ERROR:Invalid name=	The device name is invalid.
RemoteException	NfsStatsService.retrieveResponse Stats: ERROR:Invalid objType=	The object type name is invalid.
RemoteException	NfsStatsService.retrieveResponse Stats: ERROR:Invalid TimeFrame	The timeframe is invalid.
RemoteException	NfsStatsService.retrieveResponse Stats: ERROR:Device does not exist.DeviceName=	The device name is not found.
RemoteException	NfsStatsService.retrieveResponse Stats: ERROR:Device Group does not exist.DeviceGroup=	The device group name is not found.
RemoteException	NfsStatsService.retrieveResponse Stats: ERROR:Invalid frequency=	The frequency is invalid.
RemoteException	NfsStatsService.retrieveResponse Stats: ERROR:Invalid startTime=	The start time is invalid.
RemoteException	NfsStatsService.retrieveResponse Stats: ERROR:Invalid endTime=	The end time is invalid.
RemoteException	NfsStatsService.retrieveResponse Stats: ERROR:startTime should be less than endTime startTime=	The start time is less than the end time.

AxisFault	NfsStats:The Method Name is not supported. MethodName=	The method name is not supported for a given service.
AxisFault	NfsStats:The SOAP Envelope Body is Null	The SOAP envelope is missing for a given service.
AxisFault	NfsStats:The Requested WebService is not available	The service requested is not supported.
AxisFault	retrieveResponseStats:The SOAP Body doesn't have all the required elements	The SOAP body does not have all the required elements.

SSL Statistics Service

This chapter describes the SSL service (SslStats Web Service) and the actions it performs. The SSL service returns SSL connection information and statistics for individual WAEs, device groups, and for the WAAS network as a whole.

This chapter contains the following sections:

SSL Statistics Service Syntax

This section contains the following topics:

SSL Statistics Informational URLs

This section provides informational URLs for the SSL Statistics service.

- Service URL—https://<host/ip>:8443/ws/SslStats
- WSDL URL—https://<Central Manager IP>:8443/ws/SSLStats?wsdl
- To obtain a description all of the operations and parameters for the SslStats service, submit a URL to the service with the suffix “?wsdl”. For example:

  https://<host/ip>:8443/ws/SslStats?wsdl
- To obtain management information using the WAAS Central Manager Monitoring API, first call the service by using the service URL for this service. For example:

  https://<host/ip>:8443/ws/SslStats

  Next, submit a SOAP request written in XML format to retrieve the information.

SSL Statistics Example Request

The following example shows an XML-formatted SOAP request to perform the **getOptConnCount** action. The request includes the input parameters for this particular action shown in bold. For more information, see getOptConnCount.

```
<?xml version="1.0" encoding="utf-8" ?>
- <soapenv:Envelope xmlns:soapenv="http://www.w3.org/2003/05/soap-envelope">
- <soapenv:Header>
- <wsse:Security
xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.
xsd">
- <wsse:UsernameToken>
  <wsse:Username>admin</wsse:Username>
  <wsse:Password
Type="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-username-token-profile-1.0#P
asswordText">default</wsse:Password>
  </wsse:UsernameToken>
  </wsse:Security>
  </soapenv:Header>
- <soapenv:Body>
- <ns3:getOptConnCount xmlns:ns3="http://service.stats.ws.waas.cisco.com">
  <ns3:name>ce-119-40</ns3:name>
  <ns3:objType>wae</ns3:objType>
- <ns3:timeframe>
  <ns2:endTime
xmlns:ns2="http://util.ws.waas.cisco.com/xsd">2008-01-30T08:00:00.000Z</ns2:endTime>
  <ns2:frequency xmlns:ns2="http://util.ws.waas.cisco.com/xsd">lasthour</ns2:frequency>
  <ns2:startTime
xmlns:ns2="http://util.ws.waas.cisco.com/xsd">2008-01-01T08:00:00.000Z</ns2:startTime>
  <ns2:timezone xmlns:ns2="http://util.ws.waas.cisco.com/xsd">UTC</ns2:timezone>
  </ns3:timeframe>
  </ns3:getOptConnCount>
  </soapenv:Body>
  </soapenv:Envelope>
```

SSL Statistics Example Response

The following example shows the XML response that contains the output values for this action. For more information, see getOptConnCount.

```
<?xml version="1.0" encoding="utf-8" ?>
- <soapenv:Envelope xmlns:soapenv="http://www.w3.org/2003/05/soap-envelope">
- <soapenv:Body>
- <ns:getOptConnCountResponse xmlns:ns="http://service.stats.ws.waas.cisco.com"
xmlns:ax218="http://util.ws.waas.cisco.com/xsd" xmlns:ax216="http://rmi.java/xsd"
xmlns:ax219="http://stats.ws.waas.cisco.com/xsd" xmlns:ax217="http://io.java/xsd">
- <ns:return type="com.cisco.waas.ws.stats.SSLOptConnCount">
  <ax219:endtime>2008-04-16T17:39:17.818Z</ax219:endtime>
  <ax219:optimized_connections>31</ax219:optimized_connections >
  <ax219:frequency>min</ax219:frequency>
  </ns:return>
- <ns:return type="com.cisco.waas.ws.stats.SSLOptConnCount">
  <ax219:endtime>2008-04-16T17:44:18.703Z</ax219:endtime>
  <ax219:optimized_connections >23</ax219:optimized_connections >
  <ax219:frequency>min</ax219:frequency>
  </ns:return>
  </ns:getOptConnCountResponse>
  </soapenv:Body>
```

```
</soapenv:Envelope>
```

SSL Statistics Service Actions

The SSL Statistics service (SslStats Web Service) performs one or more of the following actions:

- getActiveConnCount
- getBytesCount
- getErrorConnCount
- getOptConnCount
- getTotalConnCount
- getUnAccelConnCount

getActiveConnCount

Retrieves the overall SSL active connection statistics.

Input Parameters

Parameter	Description
name	A string that describes the name of the WAE, WAE group, or system.
objType	A string that describes the object type. Valid values include the following: • wae • waegroup • system
timeframe	A TimeFrameFilter value that includes the time interval, time zone, and frequency.

Return

The output parameter **SSLActiveConnCount []** returns an SSLActiveConnCount value that provides an array of SSL traffic dropped connection statistics.

Exceptions

Type	String	Description
RemoteException	SSLStatsService.getActiveConnCount: ERROR:Unable to get SSLActiveConnCount=	Unknown exception. See the logs to view the error.

getBytesCount

Retrieves the total number of bytes read/written out on LAN and WAN. If a time interval is specified, the time frame will be divided into time slices. In each of the time slices, the connection count is calculated.

Input Parameters

Parameter	Description
name	A string that describes the name of the WAE, WAE group, or system.
objType	A string that describes the object type. Valid values include the following: • wae • waegroup • system
timeframe	A TimeFrameFilter value that includes the time interval, time zone, and frequency.

Return

The output parameter **SSLBytesCount []** returns an SSLBytesCount value that provides an array of SSL traffic dropped connection statistics.

Exceptions

Type	String	Description
RemoteException	SSLStatsService.getBytesCount: ERROR:Invalid name=	The device name is invalid.
RemoteException	SSLStatsService.getBytesCount: ERROR:Invalid objType=	The object type name is invalid.
RemoteException	SSLStatsService.getBytesCount: ERROR:Invalid TimeFrame	The timeframe is invalid.
RemoteException	SSLStatsService.getBytesCount: ERROR:Device does not exist.DeviceName=	The device name is not found.
RemoteException	SSLStatsService.getBytesCount: ERROR:Device Group does not exist.DeviceGroup=	The device group name is not found.
RemoteException	SSLStatsService.getBytesCount: ERROR:Invalid frequency=	The frequency is invalid.
RemoteException	SSLStatsService.getBytesCount: ERROR:Invalid startTime=	The start time is invalid.
RemoteException	SSLStatsService.getBytesCount: ERROR:Invalid endTime=	The end time is invalid.
RemoteException	SSLStatsService.getBytesCount: ERROR:startTime should be less than endTime startTime=	The start time is less than the end time.

AxisFault	SSLStats:The Method Name is not supported. MethodName=	The method name is not supported for a given service.
AxisFault	SSLStats:The SOAP Envelope Body is Null	The SOAP envelope is missing for a given service.
AxisFault	SSLStats:The Requested WebService is not available	The service requested is not supported.
AxisFault	getBytesCount:The SOAP Body doesn't have all the required elements	The SOAP body does not have all the required elements.

getErrorConnCount

Retrieves the total number of dropped SSL connections. If a time interval is specified, the time frame will be divided into time slices. In each of the time slices, the connection count is calculated.

Input Parameters

Parameter	Description
name	A string that describes the name of the WAE, WAE group, or system.
objType	A string that describes the object type. Valid values include the following: • wae • waegroup • system
timeframe	A TimeFrameFilter value that includes the time interval, time zone, and frequency.

Return

The output parameter **SSLErrorConnCount []** returns an SSLErrorConnCount value that provides an array of SSL traffic dropped connection statistics.

Exceptions

Type	String	Description
RemoteException	SSLStatsService.getErrorConnCount: ERROR:Invalid name=	The device name is invalid.
RemoteException	SSLStatsService.getErrorConnCount: ERROR:Invalid objType=	The object type name is invalid.
RemoteException	SSLStatsService.getErrorConnCount: ERROR:Invalid TimeFrame	The timeframe is invalid.
RemoteException	SSLStatsService.getErrorConnCount: ERROR:Device does not exist.DeviceName=	The device name is not found.
RemoteException	SSLStatsService.getErrorConnCount: ERROR:Device Group does not exist.DeviceGroup=	The device group name is not found.
RemoteException	SSLStatsService.getErrorConnCount: ERROR:Invalid frequency=	The frequency is invalid.
RemoteException	SSLStatsService.getErrorConnCount: ERROR:Invalid startTime=	The start time is invalid.
RemoteException	SSLStatsService.getErrorConnCount: ERROR:Invalid endTime=	The end time is invalid.
RemoteException	SSLStatsService.getErrorConnCount: ERROR:startTime should be less than endTime startTime=	The start time is less than the end time.

AxisFault	SSLStats:The Method Name is not supported. MethodName=	The method name is not supported for a given service.
AxisFault	SSLStats:The SOAP Envelope Body is Null	The SOAP envelope is missing for a given service.
AxisFault	SSLStats:The Requested WebService is not available	The service requested is not supported.
AxisFault	getErrorConnCount:The SOAP Body doesn't have all the required elements	The SOAP body does not have all the required elements.

getOptConnCount

Retrieves the number of optimized SSL connections. If a time interval is specified, the time frame will be divided into time slices. In each time slice, the connection count is calculated.

Input Parameters

Parameter	Description
name	A string that describes the name of the WAE, WAE group, or system.
objType	A string that describes the object type. Valid values include the following: • wae • waegroup • system
timeframe	A TimeFrameFilter value that includes the time interval, time zone, and frequency.

Return

The output parameter **SSLOptConnCount []** returns an SSLOptConnCount value that provides an array of SSL traffic optimized connection statistics.

Exceptions

Type	String	Description
RemoteException	SSLStatsService.getOptConnCount: ERROR:Invalid name=	The device name is invalid.
RemoteException	SSLStatsService.getOptConnCount: ERROR:Invalid objType=	The object type name is invalid.
RemoteException	SSLStatsService.getOptConnCount: ERROR:Invalid TimeFrame	The timeframe is invalid.
RemoteException	SSLStatsService.getOptConnCount: ERROR:Device does not exist.DeviceName=	The device name is not found.
RemoteException	SSLStatsService.getOptConnCount: ERROR:Device Group does not exist.DeviceGroup=	The device group name is not found.
RemoteException	SSLStatsService.getOptConnCount: ERROR:Invalid frequency=	The frequency is invalid.
RemoteException	SSLStatsService.getOptConnCount: ERROR:Invalid startTime=	The start time is invalid.
RemoteException	SSLStatsService.getOptConnCount: ERROR:Invalid endTime=	The end time is invalid.
RemoteException	SSLStatsService.getOptConnCount: ERROR:startTime should be less than endTime startTime=	The start time is less than the end time.

AxisFault	SSLStats:The Method Name is not supported. MethodName=	The method name is not supported for a given service.
AxisFault	SSLStats:The SOAP Envelope Body is Null	The SOAP envelope is missing for a given service.
AxisFault	SSLStats:The Requested WebService is not available	The service requested is not supported.
AxisFault	getOptConnCount:The SOAP Body doesn't have all the required elements	The SOAP body does not have all the required elements.

getTotalConnCount

Retrieves the total number of SSL connections. If a time interval is specified, the time frame will be divided into time slices. In each of the time slices, the connection count is calculated.

Input Parameters

Parameter	Description
name	A string that describes the name of the WAE, WAE group, or system.
objType	A string that describes the object type. Valid values include the following: • wae • waegroup • system
timeframe	A TimeFrameFilter value that includes the time interval, time zone, and frequency.

Return

The output parameter **SSLTotalConnCount []** returns an SSLTotalConnCount value that provides an array of SSL traffic total connection statistics.

Exceptions

Type	String	Description
RemoteException	SSLStatsService.getTotalConnCount: ERROR:Invalid name=	The device name is invalid.
RemoteException	SSLStatsService.getTotalConnCount: ERROR:Invalid objType=	The object type name is invalid.
RemoteException	SSLStatsService.getTotalConnCount: ERROR:Invalid TimeFrame	The timeframe is invalid.
RemoteException	SSLStatsService.getTotalConnCount: ERROR:Device does not exist.DeviceName=	The device name is not found.
RemoteException	SSLStatsService.getTotalConnCount: ERROR:Device Group does not exist.DeviceGroup=	The device group name is not found.
RemoteException	SSLStatsService.getTotalConnCount: ERROR:Invalid frequency=	The frequency is invalid.
RemoteException	SSLStatsService.getTotalConnCount: ERROR:Invalid startTime=	The start time is invalid.
RemoteException	SSLStatsService.getTotalConnCount: ERROR:Invalid endTime=	The end time is invalid.
RemoteException	SSLStatsService.getTotalConnCount: ERROR:startTime should be less than endTime startTime=	The start time is less than the end time.

AxisFault	SSLStats:The Method Name is not supported. MethodName=	The method name is not supported for a given service.
AxisFault	SSLStats:The SOAP Envelope Body is Null	The SOAP envelope is missing for a given service.
AxisFault	SSLStats:The Requested WebService is not available	The service requested is not supported.
AxisFault	getTotalConnCount:The SOAP Body doesn't have all the required elements	The SOAP body does not have all the required elements.

getUnAccelConnCount

Retrieves the number of unaccelerated SSL connections. If a time interval is specified, the time frame will be divided into time slices. In each of the time slices, the connection count is calculated.

Input Parameters

Parameter	Description
name	A string that describes the name of the WAE, WAE group, or system.
objType	A string that describes the object type. Valid values include the following: • wae • waegroup • system
timeframe	A TimeFrameFilter value that includes the time interval, time zone, and frequency.

Return

The output parameter **SSLUnAccelConnCount []** returns an SSLUnAccelConnCount value that provides an array of SSL traffic unaccelerated connection statistics.

Exceptions

Type	String	Description
RemoteException	SSLStatsService.getUnAccelConnCount: ERROR:Invalid name=	The device name is invalid.
RemoteException	SSLStatsService.getUnAccelConnCount: ERROR:Invalid objType=	The object type name is invalid.
RemoteException	SSLStatsService.getUnAccelConnCount: ERROR:Invalid TimeFrame	The timeframe is invalid.
RemoteException	SSLStatsService.getUnAccelConnCount: ERROR:Device does not exist.DeviceName=	The device name is not found.
RemoteException	SSLStatsService.getUnAccelConnCount: ERROR:Device Group does not exist.DeviceGroup=	The device group name is not found.
RemoteException	SSLStatsService.getUnAccelConnCount: ERROR:Invalid frequency=	The frequency is invalid.
RemoteException	SSLStatsService.getUnAccelConnCount: ERROR:Invalid startTime=	The start time is invalid.
RemoteException	SSLStatsService.getUnAccelConnCount: ERROR:Invalid endTime=	The end time is invalid.
RemoteException	SSLStatsService.getUnAccelConnCount: ERROR:startTime should be less than endTime startTime=	The start time is less than the end time.

AxisFault	SSLStats:The Method Name is not supported. MethodName=	The method name is not supported for a given service.
AxisFault	SSLStats:The SOAP Envelope Body is Null	The SOAP envelope is missing for a given service.
AxisFault	SSLStats:The Requested WebService is not available	The service requested is not supported.
AxisFault	getUnAccelConnCount:The SOAP Body doesn't have all the required elements	The SOAP body does not have all the required elements.

Video Streaming Statistics Service

This chapter describes the Video Streaming Statistics service, which returns video streaming statistics for individual WAEs, device groups, and for the WAAS network.

Note The video application accelerator is used only for WAAS Versions 5.5.1 and earlier.

This chapter contains the following sections:

Video Streaming Statistics Service Syntax

This section contains the following topics:

Video Streaming Statistics Informational URLs

This section provides informational URLs for the Video Streaming Statistics service.

- Service URL—https://<host/ip>:8443/ws/VideoStats
- WSDL URL—https://<host/ip>:8443/ws/VideoStats?wsdl
- To obtain a description of all the operations and parameters for the VideoStats Web Service, submit a URL to the service with the suffix **?wsdl** as follows:

  https://<host/ip>:8443/ws/VideoStats?wsdl
- To obtain management information using the Central Manager monitoring API, first call the service by using the service URL for this service as follows:

  https://<host/ip>:8443/ws/VideoStats

  Next, submit a SOAP request written in an XML format to retrieve the information.

Video Streaming Statistics Example Request

The following example shows an XML-formatted SOAP request to perform the **retrieveHistoricalStats** action. The request includes the input parameters for this particular action shown in bold. For more information, see retrieveHistoricalStats.

```
<?xml version="1.0" encoding="utf-8" ?>
- <soapenv:Envelope xmlns:soapenv="http://www.w3.org/2003/05/soap-envelope">
- <soapenv:Header>
- <wsse:Security
xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.
xsd">
- <wsse:UsernameToken>
  <wsse:Username>admin</wsse:Username>
  <wsse:Password
Type="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-username-token-profile-1.0#P
asswordText">default</wsse:Password>
  </wsse:UsernameToken>
  </wsse:Security>
  </soapenv:Header>
- <soapenv:Body>
- <ns1:retrieveHistoricalStats xmlns:ns1="http://service.stats.ws.waas.cisco.com">
  <ns1:name>ce-119-40</ns1:name>
  <ns1:objType>wae</ns1:objType>
- <ns1:timeframe>
  <ns5:endTime
xmlns:ns5="http://util.ws.waas.cisco.com/xsd">2008-01-25T08:00:00.000Z</ns5:endTime>
  <ns5:frequency xmlns:ns5="http://util.ws.waas.cisco.com/xsd">lasthour</ns5:frequency>
  <ns5:startTime
xmlns:ns5="http://util.ws.waas.cisco.com/xsd">2008-01-24T08:00:00.000Z</ns5:startTime>
  <ns5:timezone xmlns:ns5="http://util.ws.waas.cisco.com/xsd">UTC</ns5:timezone>
  </ns1:timeframe>
  </ns1:retrieveHistoricalStats>
  </soapenv:Body>
  </soapenv:Envelope>
```

Video Streaming Statistics Example Response

The following example shows the XML response that contains the output values for the **retrieveHistoricalStats** action. For more information, see retrieveHistoricalStats.

```
<?xml version="1.0" encoding="utf-8" ?>
- <soapenv:Envelope xmlns:soapenv="http://www.w3.org/2003/05/soap-envelope">
- <soapenv:Body>
- <ns:retrieveHistoricalStatsResponse xmlns:ns="http://service.stats.ws.waas.cisco.com"
xmlns:ax212="http://rmi.java/xsd" xmlns:ax213="http://io.java/xsd"
xmlns:ax215="http://stats.ws.waas.cisco.com/xsd"
xmlns:ax214="http://util.ws.waas.cisco.com/xsd">
- <ns:return type="com.cisco.waas.ws.stats.VideoStats">
  <ax215:acceleratedconnections>30</ax215:acceleratedconnections>
  <ax215:errorconnections>19</ax215:errorconnections>
  <ax215:frequency>min</ax215:frequency>
  <ax215:incomingbytesttotal>44</ax215:incomingbytesttotal>
  <ax215:outgoingbytestotal>29</ax215:outgoingbytestotal>
  <ax215:receivedconnections>84</ax215:receivedconnections>
  <ax215:savedpercent>51.0</ax215:savedpercent>
  <ax215:timestamp>2008-04-16T21:15:35.284Z</ax215:timestamp>
  <ax215:unacceleratedconnections>9</ax215:unacceleratedconnections>
```

```
</ns:return>
</ns:retrieveHistoricalStatsResponse>
</soapenv:Body>
</soapenv:Envelope>
```

VIdeo Streaming Statistics Service Actions

The Video Streaming Statistics service (VideoStats Web Service) performs one or more of the following actions:

- getAccelerationBypassReasons
- getActiveConnCount
- retrieveCurrentStats
- retrieveHistoricalStats

getAccelerationBypassReasons

Retrieves the overall acceleration bypass reason statistics.

Input Parameters

Parameter	Description
name	A string that describes the name of the WAE, WAE group, or system.
objType	A string that describes the object type. Valid values include the following: • wae • waegroup • system
timeframe	A TimeFrameFilter value that includes the time interval, time zone, and frequency.

Return

The output parameter **VideoAccelBypassReasons[]** returns a VideoAccelBypassReasons value that provides a list of video statistics.

Exceptions

Type	String	Description
RemoteException	VideoStatsService.getAccelerationBypassReasons: ERROR:Invalid name=	Unknown exception. See the logs to view the error.

getActiveConnCount

Retrieves the overall video active connection statistics collected.

Input Parameters

Parameter	Description
name	A string that describes the name of the WAE, WAE group, or system.
objType	A string that describes the object type. Valid values include the following: • wae • waegroup • system
timeframe	A TimeFrameFilter value that includes the time interval, time zone, and frequency.

Return

The output parameter VideoActiveConnCount[] returns a VideoActiveConnCount value that provides a list of video active connection statistics.

Exceptions

Type	String	Description
RemoteException	VideoStatsService.getActiveConnCount: ERROR:Invalid name=	Unknown exception. See the logs to view the error.

retrieveCurrentStats

Retrieves the current video statistics collected for a stream which is specified by the URL on a WAE.

Input Parameters

Parameter	Description
name	A string that describes the name of the WAE.
objType	A string that describes the object type. Valid values include the following: • wae
url	A string that contains the URL of the stream for which statistics are requested. Wild cards are applicable.

Return

The output parameter **videostreamstats[]** returns a VideoStreamStats value that provides a list of URL stream statistics.

Exceptions

Type	String	Description
RemoteException	VideoStatsService.retrieveCurrentStats: ERROR:Invalid name=	The device name is invalid.
RemoteException	VideoStatsService.retrieveCurrentStats: ERROR:Invalid objType=	The object type name is invalid.
RemoteException	VideoStatsService.retrieveCurrentStats: ERROR:Invalid URL	The URL is invalid.
AxisFault	VideoStats:The Method Name is not supported. MethodName=	The method name is not supported for a given service.
AxisFault	VideoStats:The SOAP Envelope Body is Null	The SOAP envelope is missing for a given service.
AxisFault	VideoStats:The Requested WebService is not available	The service requested is not supported.
AxisFault	retrieveCurrentStats:The SOAP Body doesn't have all the required elements	The SOAP body does not have all the required elements.
RemoteException	VideoStatsService.retrieveCurrentStats: ERROR:Invalid url=	The UFL is blank or not specified in the filter.

retrieveHistoricalStats

Retrieves the overall video statistics collected on either a WAE device, WAEs within a device group, or all WAEs system wide.

Input Parameters

Parameter	Description
name	A string that describes the name of the WAE, WAE group, or system.
objType	A string that describes the object type. Valid values include the following: • wae • waegroup • system
timeframe	A TimeFrameFilter value that includes the time interval, time zone, and frequency.

Return

The output parameter **videostats[]** returns a VideoStats value that provides a list of video statistics.

Exceptions

Type	String	Description
RemoteException	VideoStatsService.retrieveHistorical Stats: ERROR:Invalid name=	The device name is invalid.
RemoteException	VideoStatsService.retrieveHistorical Stats: ERROR:Invalid objType=	The object type name is invalid.
RemoteException	VideoStatsService.retrieveHistorical Stats: ERROR:Invalid TimeFrame	The timeframe is invalid.
RemoteException	VideoStatsService.retrieveHistorical Stats: ERROR:Invalid frequency=	The frequency is invalid.
RemoteException	VideoStatsService.retrieveHistorical Stats: ERROR:Invalid startTime=	The start time is invalid.
RemoteException	VideoStatsService.retrieveHistoricalSta ts: ERROR:Invalid endTime=	The end time is invalid.
RemoteException	VideoStatsService.retrieveHistorical Stats: ERROR:startTime should be less than endTime startTime=	The start time is less than the end time.
AxisFault	VideoStats:The Method Name is not supported. MethodName=	The method name is not supported for a given service.
AxisFault	VideoStats:The SOAP Envelope Body is Null	The SOAP envelope is missing for a given service.

AxisFault	VideoStats:The Requested WebService is not available	The service requested is not supported.
AxisFault	retrieveHistoricalStats:The SOAP Body doesn't have all the required elements	The SOAP body does not have all the required elements.

Web Service Objects

This chapter describes the data types that are defined structures or objects in the Central Manager monitoring API. Web Service objects perform the following functions:

- Parse input parameters and validate their values
- Invoke the appropriate Central Manager function
- Assemble the returned result and pass it to the SOAP endpoint
- Handle exceptions from the Central Manager by reporting the error to the client

This chapter describes the following Web Service objects:

- DiskCapacityStats
- DiskInformation
- DiskInformation
- DiskStatus
- EdgeCountStats
- FileCountStats
- HitRateStats
- HttpConnOptRate
- HttpConnOptType
- HttpConnStats
- HttpMaxConnReuseCount
- HttpOptConnCount
- HttpResponseStats
- HttpTotalConnCount
- HttpUnaccelConnCount
- HttpsConnOptType
- HttpsResponseStats
- HttpsStats
- ICABypassedReasons
- ICAConnectionStats
- ICAEncryptStats
- ICAVersionStats
- Location
- MapiClientConnCount
- MapiClientSecuredConnCount
- MapiDataReadStats
- MapiDroppedConnCount
- MapiEncAndNonEncOptimizedConnCount
- MapiEncAndNonEncResponseStats
- MapiOptConnCount
- MapiRequestTypeStats
- MapiResponseStats
- MapiSessionCount
- MapiUnaccelConnCount
- MonitoredAO
- MonitoredApps
- NfsDroppedConnCount
- NfsOptConnCount

- NfsReqTypeStats
- NfsRespTypeStats
- NfsSessionCount
- NfsSessionCount
- NfsUnaccelConnCount
- PeakThroughPutStats
- PeakThroughPutClassStats
- RequestCountStats
- SessionCountStats
- SmbConnOptRate
- SmbConnOptSavings
- SmbConnStats
- SmbOptConnCount
- SmbRequestOptStats
- SmbTotalConnCount
- SSLActiveConnCount
- SSLBytesCount
- SSLErrorConnCount
- SSLOptConnCount
- SSLTotalConnCount
- SSLUnAccelConnCount
- String
- TimeFrameFilter
- TrafficStats
- VideoAccelBypassReasons
- VideoActiveConnCount
- VideoClient
- VideoStats
- VideoStreamStats

Alarm

This section lists and describes the Alarm object attributes.

Attribute	Description
alarmId	A long value that contains the alarm ID.
alarmName	A string value that contains the alarm name.
description	A string value that contains the alarm description.
deviceId	A string value that contains the device ID.
deviceIpAddress	A string value that contains the device IP address.
deviceName	A string value that contains the device name.
deviceStatus	A string value that describes the device status.
severity	An int value that describes the severity of the alarm.

AppNavOverallStats

This section lists and describes the AppNavOverallStats object attributes.

Attribute	Description
endtime	A dateTime value that contains the end time.
frequency	A string value that describes the frequency.
interceptedTraffic	A long value that contains the intercepted traffic count.
name	The name of the AppNav controller or cluster.
passthroughTraffic	A long value that contains the passed through traffic count.
redirectedTraffic	A long value that contains the redirected traffic count.
starttime	A dateTime value that contains the start time.

AppNavPTStats

This section lists and describes the AppNavPTStats object attributes.

Attribute	Description
elPTADAOIMProgress	A long value that contains the number of bytes of traffic that were passed through while auto discovery of application optimizers was in progress.
elPTADAOIncompatible	A long value that contains the number of bytes of traffic that were passed through because of auto discovery of application optimizers revealed an incompatibility.
elPTADVersionMismatch	A long value that contains the number of bytes of traffic that were passed through due to an auto discovery version mismatch.

Attribute	Description
elPTAppConfig	A long value that contains the number of bytes of traffic that were passed through because the application is configured as pass-through.
elPTAppNavInProgress	A long value that contains the aggregrate number of ANC traffic, in bytes, that was passed through because the controller did not see the connection during setup (syn/syn-ack). This typically occurs if the controller is inserted into the network while connections are active.
elPTAppNavInterceptACL	A long value that contains the number of bytes of traffic that were passed through because an intercept ACL was configured with deny statements matched by these connections.
elPTAppNavPolicy	A long value that contains the number of bytes of traffic that were passed through due to policy settings.
elPTAppOverride	A long value that contains the number of bytes of traffic that were passed through because the internal application explicitly requested that the connection not be optimized. This value only includes connections that would have otherwise been optimized.
elPTAsymmetric	A long value that contains the number of bytes of traffic that were passed through due to the WAE only seeing one side of the TCP connection (where the src is the client and the dst is the server).
elPTBadADOptions	A long value that contains the number of bytes of traffic that were passed through due to incorrect auto discovery options.
elPTDegraded	A long value that contains the number of bytes of traffic that were passed through because the cluster has degraded.
elPTDMVersionMismatch	A long value that contains the number of bytes of traffic that were passed through due a version mismatch.
elPTFlowLearnFail	A long value that contains the number of bytes of traffic that were passed through due to a query failure because the owner could not be determined. This indicates an interception problem; ANCs may not be positioned at all entry/exit points in the network.
elPTFlowQueryFail	A long value that contains the number of bytes of traffic that were passed through because the ANC sees the synack but does not see the syn packet, which is possibly tdue to assymetric setup. This indicates an interception problem; ANCs may not be positioned at all entry and exit points in the network.
elPTGlobalConfig	A long value that contains the global aggregate number of of bytes of traffic that were passed through because the application is configured as pass-through.

Attribute	Description
elPTInProgress	A long value that contains the number of bytes of traffic that were passed through because the controller did not see the connection during setup (syn/syn-ack). This typically occurs if the controller is inserted into the network while connections are active.
elPTIntermediate	A long value that contains the number of bytes of traffic that were passed through due to the WAE being in the middle of the best local and remote WAE's (relative to the client and server).
elPTInternalError	A long value that contains the number of bytes of traffic that were passed through due to an internal error during processing in the policy engine.
elPTIPFragUnSuppoPeer	A long value that contains the number of bytes of traffic that were passed through because the peer device is running older software that does not support optimization of fragmented data packets.
elPTNon_optimizingPeer	A long value that contains the number of bytes of traffic that were passed through because the only peer found is a serially clustered peer and optimization is disabled to the peer.
elPTNoPeer	A long value that contains the number of bytes of traffic that were passed through due to no peer WAE being found during TFO auto-discovery.
elPTOverload	A long value that contains the number of bytes of traffic that were passed through because the application is overloaded. New connections not handled by an application accelerator are configured as pass-through.
elPTPeerOverride	A long value that contains the number of bytes of traffic that were passed through because the peer.
elPTRjctCapabilities	A long value that contains the number of bytes of traffic that were passed through due to auto discovery finding that the peer WAE does not have the required capabilities
elPTRjctNoLicense	A long value that contains the number of bytes of traffic that were passed through because the WN is not licensed.
elPTRjctResources	A long value that contains the number of bytes of traffic that were passed through due to due to auto discovery finding that the peer WAE does not have the required resources
elPTServerBlackList	A long value that contains the number of bytes of traffic that were passed through because the server is on the TFO blacklist as not supporting TCP Option (0x21) being present in the SYN packet.
elPTTCPTotal	A long value that contains the aggregate number of bytes of traffic that were passed through for any reason.
elPTWNAppNavMember	A long value that contains the number of bytes of traffic that were passed through because the originating and terminating connections are in the same AppNav cluster.

Attribute	Description
elPTWNGOverload	A long value that contains the number of bytes of traffic that were passed through because all WNs in the WNG were unavailable to service new connections.
elPTWNInterceptionACL	A long value that contains the number of bytes of traffic that were passed through because an intercept ACL was configured for a WN with deny statements matched by these connections.
elPTWNOffload	A long value that contains the number of bytes of traffic that were passed through as a result of the following scenario: the WN decided to pass the connection through and to offload the pass through to the ANC.
elUnknown	A long value that contains the number of bytes of traffic that were passed through due for unknown reasons. This typically happens if the WN decides to pass the connection through for a reason that cannot be determined by the controller.
endtime	A dateTime value that contains the end time.
frequency	A string value that describes the frequency.
name	The name of the ANC.
starttime	A dateTime value that contains the start time.

AppNavRedStats

This section lists and describes the AppNavRedStats object attributes.

Attribute	Description
endtime	A dateTime value that contains the end time.
frequency	A string value that describes the frequency.
id	A string value that contains one of two values: • The ID of the WAAS Node Group (WNG) if the request did not contain a WNG. • The individual WAAS Node IDs, if the request explicitly included a WNG ID.
name	The name of the AppNav controller or cluster.
nReceivedBytes	A long value that contains the number of received bytes.
nRedirectedBytes	A long value that contains the number of redirected bytes.
starttime	A dateTime value that contains the start time.
wngName	A string value that describes the name of the WAAS node group.
wnName	A string value that describes the name of the WAAS node.

AppNavStats

This section lists and describes the AppNavStats object attributes.

Attribute	Description
classMapName	A string that describes the name of the class map.
endtime	A dateTime value that contains the end time.
frequency	A string value that describes the frequency.
interceptedTraffic	A long value that contains the intercepted traffic count.
name	The name of the AppNav controller or cluster.
passthroughTraffic	A long value that contains the passed through traffic count.
policyMapName	A string that describes the name of the policy map.
redirectedTraffic	A long value that contains the redirected traffic count.
starttime	A dateTime value that contains the start time.

AverageThroughPutStats

This section lists and describes the AverageThroughPutStats object attributes.

Attribute	Description
applicationname	A string value that describes the application name.
devicename	A string value that describes the device name.
endtime	A dateTime value that describes the end time.
frequency	A string value that describes the frequency.
optimizedInThroughPut	A double value that describes the optimized throughput of inbound traffic.
optimizedOutThroughPut	A double value that describes the optimized throughput of outbound traffic.
originalInThroughPut	A double value that describes the original throughput of inbound traffic.
originalOutThroughPut	A double value that describes the original throughput of outbound traffic.
starttime	A dateTime value that describes the start time.

AverageThroughputClassStats

This section lists and describes the AverageThroughPutStats object attributes.

Attribute	Description
className	A string value that describes the class map name.
devicename	A string value that describes the device name.
endtime	A dateTime value that describes the end time.
frequency	A string value that describes the frequency.
optimizedInThroughPut	A double value that describes the optimized throughput of inbound traffic.
optimizedOutThroughPut	A double value that describes the optimized throughput of outbound traffic.
originalInThroughPut	A double value that describes the original throughput of inbound traffic.
originalOutThroughPut	A double value that describes the original throughput of outbound traffic.
starttime	A dateTime value that describes the start time.

CacheCountStats

This section lists and describes the CacheCountStats object attributes.

Attribute	Description
cachecount	An int value that describes the cache count statistics.
frequency	A string value that describes the frequency.
timestamp	A dateTime value that describes the time stamp.

CacheUtilizationStats

This section lists and describes the CacheUtilizationStats object attributes.

Attribute	Description
cacheutilization	An int value that describes the cache utilization statistics.
frequency	A string value that describes the frequency.
timestamp	A dateTime value that describes the time stamp.

CIFSTrafficStats

This section lists and describes the CIFSTrafficStats object attributes.

Attribute	Description
frequency	A string value that describes the frequency.
timestamp	A dateTime value that describes the time stamp.
trafficreceived	An int value that describes the received traffic.
trafficsent	An int value that describes the sent traffic.

ClassifierStats

This section lists and describes the ClassifierStats object attributes.

Attribute	Description
classname	A string value that describes the class map name.
compressedin	A long value that describes the incoming compressed traffic. (bytes)
compressedout	A long value that describes the outgoing compressed traffic. (bytes)
deviceName	A string value that describes the name of the device.
endtime	A dateTime value that describes the end time.
frequency	A string value that describes the frequency.
passthroughintermediatein	A long value that describes the incoming intermediate pass through the traffic. (bytes)
passthroughintermediateout	A long value that describes the outgoing intermediate pass through the traffic. (bytes)
passthroughotherin	A long value that describes the incoming pass through due to other reasons.
passthroughotherout	A long value that describes the outgoing pass through due to other reasons.
passthroughoverloadin	A long value that describes the pass through the overload statistics for the incoming traffic. (bytes). This attribute is deprecated.
passthroughoverloadout	A long value that describes the pass through the overload statistics for the outgoing traffic. (bytes). This attribute is deprecated.
passthroughpeerin	A long value that describes the incoming pass through peer traffic. (bytes)
passthroughpeerout	A long value that describes the outgoing pass through peer traffic. (bytes)
passthroughpolicyin	A long value that describes the incoming pass through the policy. (bytes)
passthroughpolicyout	A long value that describes the outgoing pass through the policy. (bytes)

Attribute	Description
starttime	A dateTime value that describes the start time.
uncompressedin	A long value that describes the incoming uncompressed traffic. (bytes)
uncompressedout	A long value that describes the outgoing uncompressed traffic. (bytes)

ClassMaps

This section lists and describes the ClassMaps object attributes.

Attribute	Description
className	A string value that describes the class map name.
monitored	A boolean value that specifies whether or not the class map is monitored.

ClientAvgThroughputStats

This section lists and describes the ClientAvgThroughputStats object attributes.

Attribute	Description
clientavgthroughput	An int value that describes the average throughput between edge and its clients.
frequency	A string value that describes the frequency.
timestamp	A dateTime value that describes the time stamp.

ConnectionStats

This section lists and describes the ConnectionStats object attributes.

Attribute	Description
appliedpolicy	A string value that describes the applied policy.
classifier	A string value that describes the classifier.
compressratio	A double value that describes the compression ratio.
devicename	A string value that describes the device name.
dstip	A string value that describes the destination IP address.
dstport	An int value that describes the destination port.
duration	A string value that describes the time duration.
optimizedbytes	A long value that describes the optimized bytes.

Attribute	Description
originalbytes	A long value that describes the original bytes.
peername	A string value that describes the peer name.
srcip	A string value that describes the source IP address.
srcport	An int value that describes the source port.
starttime	A dateTime value that describes the start time.

ConnectionTrendClassStats

This section lists and describes the ConnectionTrendStats object attributes.

Attribute	Description
classname	A string value that describes the class map name.
devicename	A string value that describes the device name.
endtime	A dateTime value that describes the end time.
frequency	A string value that describes the frequency.
optimizedPrepositionConnections	A long value that describes the optimized proposition connections.
optimizedTcpOnlyConnections	A long value that describes the optimized TCP only connections.
optimizedTcpPlusConnections	A long value that describes the optimized TCP plus connections.
ptIntermediateConnections	A double value that describes the pt intermediate connections.
ptOtherConnections	A double value that describes the pt other connections.
ptPeerConnections	A long value that describes the pt peer connections.
ptPolicyConnections	A long value that describes the pt policy connections.
starttime	A dateTime value that describes the start time.

ConnectionTrendStats

This section lists and describes the ConnectionTrendStats object attributes.

Attribute	Description
applicationname	A string value that describes the application name.
devicename	A string value that describes the device name.
endtime	A dateTime value that describes the end time.
frequency	A string value that describes the frequency.
optimizedPrepositionConnections	A long value that describes the optimized proposition connections.

Attribute	Description
optimizedTcpOnlyConnections	A long value that describes the optimized TCP only connections.
optimizedTcpPlusConnections	A long value that describes the optimized TCP plus connections.
ptIntermediateConnections	A double value that describes the pt intermediate connections.
ptOtherConnections	A double value that describes the pt other connections.
ptPeerConnections	A long value that describes the pt peer connections.
ptPolicyConnections	A long value that describes the pt policy connections.
starttime	A dateTime value that describes the start time.

CoreCountStats

This section lists and describes the CoreCountStats object attributes.

Attribute	Description
corecount	An int value that describes the core count statistics.
frequency	A string value that describes the frequency.
timestamp	A dateTime value that describes the time stamp.

CPUUtilizationStats

This section lists and describes the CPUUtilizationStats object attributes.

Attribute	Description
cpuutilization	A long value that describes the CPU utilization statistics.
endtime	A dateTime value that describes the end time.
frequency	A string value that describes the frequency.
starttime	A dateTime value that describes the start time.

Device

This section lists and describes the Device object attributes.

Attribute	Description
hostName	A string value that contains the hostname.
id	A long value that contains the device ID.
ipAddress	A string value that contains the device IP address.

Attribute	Description
location	A string value that contains the device location.
macAddress	A string value that contains the device MAC address.
model	A string value that contains the device model.
name	A string value that contains the device name.
role	A string value that contains the device role.
softwareVersion	A string value that contains the software version.
status	A string value that contains the device status.
type	A string value that contains the device type.

DeviceGroup

This section lists and describes the DeviceGroup object attributes.

Attribute	Description
description	A string value that contains the device description.
groupType	A string value that contains the device group type.
Id	A long value that contains the device ID.
name	A string value that contains the device name.

DeviceStatus

This DeviceStatus object contains the **Status** attribute. The **Status** attribute is a string value that describes the device status as either Online, Offline, Pending, or Unknown.

DeviceStats

This section lists and describes the DeviceStats attributes.

Attribute	Description
Deviceconnectionlimit	Maximum connection limit for the device.
devicename	Name of the device.
OptTraffic	The amount of optimized traffic, in bytes, passing through the device.
OrgTrafficExtPT	The amount of original traffic, in bytes, passing through the device.
peakConnStats	Peak optimized connections for the device.

DiskCapacityStats

This section lists and describes the DiskCapacityStats object attributes.

Attribute	Description
diskcapacity	An int value that describes the disk capacity statistics.
frequency	A string value that describes the frequency.
timestamp	A dateTime value that describes the time stamp.

DiskEncryption

This section lists and describes the DiskEncryption object attributes.

Attribute	Description
currentDiskEncryptionStatus	A string value that contains the current disk encryption status.
futureDiskEncryptionStatus	A string value that contains the future disk encryption status.

DiskInformation

This section lists and describes the DiskInformation object attributes.

Attribute	Description
config	A string value that describes the disk configuration.
name	A string value that contains the disk name.
presence	A string value that describes the disk availability.
serialNumber	A string value that contains the disk serial number.
size	A string value that contains the disk size.
status	A string value that describes the disk status.

DiskStatus

This section lists and describes the DiskStatus object attributes.

Attribute	Description
presentDisks	An int value that contains the number of disks present.
raidLevel	A string value that contains the RAID level.

EdgeCountStats

This section lists and describes the EdgeCountStats object attributes.

Attribute	Description
edgecount	An int value that describes the number of Edge connected to Core.
frequency	A string value that describes the frequency.
timestamp	A dateTime value that describes the time stamp.

FileCountStats

This section lists and describes the FileCountStats object attributes.

Attribute	Description
filecount	An int value that describes the file count statistics.
frequency	A string value that describes the frequency.
timestamp	A dateTime value that describes the time stamp.

HitRateStats

This section lists and describes the HitRateStats object attributes.

Attribute	Description
frequency	A string value that describes the frequency.
hitrate	An int value that describes the hit rate statistics.
timestamp	A dateTime value that describes the time stamp.

HttpConnOptRate

This section lists and describes the HttpConnOptRate object attributes.

Attribute	Description
deviceName	A string value that describes the name of the device.
endtime	A dateTime value that contains the end time.
frequency	A string value that describes the frequency.
percentConnectionTimeSaved	A long value that contains the percentage of time saved for the connection setup.

HttpConnOptType

This section lists and describes the HttpConnOptType object attributes.

Attribute	Description
deviceName	A string value that describes the name of the device.
dreHintsFlush	Total number of hints sent to DRE layer with m_dre_flush set to true.
dreHintsSkipAllHeaders	Total number of hints sent to DRE layer with m_skip_bytes set to skip all headers.
dreHintsSkipLz	Total number of hints sent to DRE layer with ch_comp_off set to skip LZ.
endtime	A dateTime value that contains the end time.
frequency	A string value that describes the frequency.
locallyServedIfNotModified	A long value that contains the number of locally served 304 messages.
locallyServedRedirect	A long value that contains the number of locally served 301 responses.
locallyServedUnauthorized	A long value that contains the number of locally served 401 messages.

HttpConnStats

This section lists and describes the HttpConnStats object attributes.

Attribute	Description
deviceName	A string value that describes the name of the device.
endtime	A dateTime value that contains the end time.
frequency	A string value that describes the frequency.
idle	A long value that contains the number of active connections currently idle.
max_reused	A long value that contains the high water mark for the reused count.
pct_rtt_saved	A long value that contains the percentage of time saved expressed as (reused_rtt / set_rtt) * 100.
resused_peer	A long value that contains the number of connections reinitiated by the peer.
reused	A long value that contains the number of times that the connections were reused.
total_handoff	A long value that contains the number of connection handoffs.

HttpMaxConnReuseCount

This section lists and describes the HttpMaxConnReuseCount object attributes.

Attribute	Description
deviceName	A string value that describes the name of the device.
endtime	A dateTime value that contains the end time.
frequency	A string value that describes the frequency.
maxReuseCount	A long value that contains the high water mark for the reused connections count.

HttpOptConnCount

This section lists and describes the HttpOptConnCount object attributes.

Attribute	Description
deviceName	A string value that describes the name of the device.
endtime	A dateTime value that contains the end time.
fastConnectionSetupsCount	A long value that contains the number of accelerated connections.
frequency	A string value that describes the frequency.

HttpResponseStats

This section lists and describes the HttpResponseStats object attributes.

Attribute	Description
deviceName	A string value that describes the name of the device.
endtime	A dateTime value that contains the end time.
fastConnReuse	A long value that contains the total time saved by fast connection use (ms).
frequency	A string value that describes the frequency.
ifNotModifiedCache	A long value that contains the RTT saved by content refresh check metadata cache (ms).
redirectMetadataCache	A long value that contains the RTT saved by redirect metadata cache (ms).
unauthorizedMetadataCache	A long value that contains the RTT saved by authorization redirect metadata cache (ms).

HttpTotalConnCount

This section lists and describes the HttpTotalConnCount object attributes.

Attribute	Description
deviceName	A string value that describes the name of the device.
endtime	A dateTime value that contains the end time.
frequency	A string value that describes the frequency.
totalLanConnectionCount	A long value that contains the number of connections currently established.

HttpUnacceIConnCount

This section lists and describes the HttpUnaccelConnCount object attributes.

Attribute	Description
deviceName	A string value that describes the name of the device.
endtime	A dateTime value that contains the end time.
frequency	A string value that describes the frequency.
pipe_through_connections	A long value that contains the number of connections that are unaccelerated.

HttpsConnOptType

This section lists and describes the HttpsConnOptType object attributes.

Attribute	Description
deviceName	A string value that describes the name of the device.
dreHintsFlush	Total number of hints sent to DRE layer with m_dre_flush set to true.
dreHintsSkipAllHeaders	Total number of hints sent to DRE layer with m_skip_bytes set to skip all headers.
dreHintsSkipLz	Total number of hints sent to DRE layer with ch_comp_off set to skip LZ.
endtime	A dateTime value that contains the end time.
frequency	A string value that describes the frequency.
locallyServedIfNotModified	A long value that contains the number of locally served 304 messages.

Attribute	Description
locallyServedRedirect	A long value that contains the number of locally served 301 responses.
locallyServedUnauthorized	A long value that contains the number of locally served 401 messages.

HttpsResponseStats

This section lists and describes the HttpsResponseStats object attributes.

Attribute	Description
acceptEncodingRemoved	A long value that contains the RTT saved by total server compression suppression.
deviceName	A string value that describes the name of the device.
endtime	A dateTime value that contains the end time.
frequency	A string value that describes the frequency.
ifNotModifiedCache	A long value that contains the RTT saved by content refresh check metadata cache (ms).
redirectMetadataCache	A long value that contains the RTT saved by redirect metadata cache (ms).
totalSaved	A long value that contains the total time saved by fast connection use (ms).
unauthorizedMetadataCache	A long value that contains the RTT saved by authorization redirect metadata cache (ms).

HttpsStats

This section lists and describes the HttpsStats object attributes.

Attribute	Description
activeHttpsConnections	A long value that contains the number of connections that are active.
deviceName	A string value that describes the name of the device.
endtime	A dateTime value that contains the end time.
frequency	A string value that describes the frequency.
handledHttpsConnections	A long value that contains the total number of connections that are handled.
totalOptimizedHttpsConnections	A long value that contains the total number of connections that are optimized.

ICABypassedReasons

This section lists and describes the ICABypassedReasons object attributes.

Attribute	Description
clientOnDeniedList	A long value that contains the count of connections that were bypassed because the client is on the denied list.
deviceName	A string value that describes the name of the device.
endtime	A dateTime value that contains the end time.
frequency	A string value that describes the frequency.
otherReasons	A long value that contains the number of connections that were bypassed for other reasons.
resourceLimit	A long value that contains the number of connections that were bypassed due to resource limitations.
unKnownCGPId	A long value that contains the number of connections that were bypassed due to having an unknown CGP id.
unRecognizedProtocol	A long value that contains the number of connections that were bypassed due to using an unrecognized protocol.
unSupportedClientVersion	A long value that contains the number of connections that were bypassed due to the client using an unsupported version.

ICAConnectionStats

This section lists and describes the ICAConnectionStats object attributes.

Attribute	Description
cgpConnections	A long value that contains the number of CGP connections.
cgpreconnections	A long value that contains the number of CGP reconnections.
currentActiveConnections	A long value that contains the number of currently active connections.
deviceName	A string value that describes the name of the device.
endtime	A dateTime value that contains the end time.
frequency	A string value that describes the frequency.
icaConnections	A long value that contains the number of ICA connections.
maxActiveConnections	A long value that contains the maximum number of active connections.
pendingConnections	A long value that contains the number of pending connections.
totalDroppedConnections	A long value that contains the total number of dropped connections.
totalHandedOffConnections	A long value that contains the total number of connections that were handed off.

Attribute	Description
totalHandledConnections	A long value that contains the total number of handled connections.
totalOptimizedConnections	A long value that contains the total number of optimizied connections.

ICADroppedReasons

This section lists and describes the ICADroppedReasons object attributes.

Attribute	Description
deviceName	A string value that describes the name of the device.
endtime	A dateTime value that contains the end time.
frequency	A string value that describes the frequency.
ioError	A long value that contains the number of connections that were dropped due to I/O errors.
maxSessionsInUse	A long value that contains the number of connections that were dropped because too many sessions were in use.
otherReasons	A long value that contains the number of connections that were dropped for other reasons.
parsingError	A long value that contains the number of connections that were dropped due to parsing errors.
resourceLimit	A long value that contains the number of connections that were dropped due to resource limitations.
unsupportedClientVersions	A long value that contains the number of connections that were bypassed due to the client using an unsupported version.

ICAEncryptStats

This section lists and describes the ICAEncryptStats object attributes.

Attribute	Description
basicEncryptSessions	A long value that contains the number of basic encryption sessions.
deviceName	A string value that describes the name of the device.
endtime	A dateTime value that contains the end time.
frequency	A string value that describes the frequency.
rc5128EncryptSessions	A long value that contains the number of RC5128 encryption sessions.

Attribute	Description
rc540EncryptSessions	A long value that contains the number of RC540 encryption sessions.
rc556EncryptSessions	A long value that contains the number of RC556 encryption sessions.

ICAVersionStats

This section lists and describes the ICAVersionStats object attributes.

Attribute	Description
citrixReceiver13_0_Sessions	A long value that contains the number of sessions using Citrix receiver version 13.0.
deviceName	A string value that describes the name of the device.
endtime	A dateTime value that contains the end time.
frequency	A string value that describes the frequency.
online_Plugin_11_0_Sessions	A long value that contains the number of sessions using version 11.0 of the Citrix online plug-in.
online_Plugin_11_2_Sessions	A long value that contains the number of sessions using version 11.2 of the Citrix online plug-in.
online_Plugin_12_0_Sessions	A long value that contains the number of sessions using version 12.0 of the Citrix online plug-in.
online_Plugin_12_1_Sessions	A long value that contains the number of sessions using version 12.1 of the Citrix online plug-in.

Location

This section lists and describes the Location object attributes.

Attribute	Description
description	A string value that describes the description of the location
id	A long value that contains the ID of the location.
level	An int value that contains the level of the location in the hierarchy.
name	A string value that describes the name of the location.
parentId	A long value that contains the ID of the parent location.

MapiClientConnCount

This section lists and describes the MapiClientConnCount object attributes.

Attribute	Description
client2k	A long value that contains the number of past connections from Outlook 2000 clients.
client2k3	A long value that contains the number of past connections from Outlook 2003 clients.
client2k7	A long value that contains the number of past connections from Outlook 2007 clients.
deviceName	A string value that describes the name of the device.
endtime	A dateTime value that contains the end time.
frequency	A string value that describes the frequency.

MapiClientSecuredConnCount

This section lists and describes the MapiClientSecuredConnCount object attributes.

Attribute	Description
client2k10	A long value that contains the number of Outlook 2010 encrypted client connections handled by the MAPI Application Optimizer.
client2k3	A long value that contains the number of Outlook 2003 encrypted client connections handled by the MAPI Application Optimizer.
client2k7	A long value that contains the number of Outlook 2007 encrypted client connections handled by the MAPI Application Optimizer.
deviceName	A string value that describes the name of the device.
endtime	A dateTime value that contains the end time.
frequency	A string value that describes the frequency.

MapiDataReadStats

This section lists and describes the MapiDataReadStats object attributes.

Attribute	Description
avgReadAhead	A long value that contains the average accumulated ReadAhead value.
avgReadStream	A long value that contains the average ReadStream value.

Attribute	Description
avgSyncGetBuffer	A long value that contains the average SynchronizationGetBuffer size.
deviceName	A string value that describes the name of the device.
endtime	A dateTime value that contains the end time.
frequency	A string value that describes the frequency.
maxReadAhead	A long value that contains the maximum accumulated ReadAhead value.
maxReadStream	A long value that contains the maximum ReadStream value.
maxSyncGetBuffer	A long value that contains the maximum SynchronizationGetBuffer size.
minReadAhead	A long value that contains the minimum accumulated ReadAhead value.
minReadStream	A long value that contains the minimum ReadStream value.
minSyncGetBuffer	A long value that contains the minimum SynchronizationGetBuffer size.

MapiDroppedConnCount

This section lists and describes the MapiDroppedConnCount object attributes.

Attribute	Description
deviceName	A string value that describes the name of the device.
dropped_connections	A long value that contains the number of dropped connections.
endtime	A dateTime value that contains the end time.
frequency	A string value that describes the frequency.

MapiEncAndNonEncOptimizedConnCount

This section lists and describes the MapiEncAndNonEncOptimizedConnCount object attributes.

Attribute	Description
deviceName	A string value that describes the name of the device.
endtime	A dateTime value that contains the end time.
frequency	A string value that describes the frequency.
optEncConn	A long that contains the number of encrypted connections that have been optimized.
optNonEncConn	A long that contains the number of unencrypted connections that have been optimized.

MapiEncAndNonEncResponseStats

This section lists and describes the MapiEncAndNonEncResponseStats object attributes.

Attribute	Description
deviceName	A string value that describes the name of the device.
endtime	A dateTime value that contains the end time.
frequency	A string value that describes the frequency.
secAvgLocalResponseTime	A long value that contains the average local response time for encrypted connections.
secAvgRemoteResponseTime	A long value that contains the average remote response time for encrypted connections.
secLocalResp	A long value that contains the number of local responses for encrypted connections.
secRemoteResp	A long value that contains the number of local responses for encrypted connections.
unsecAvgLocalResponseTime	A long value that contains the average local response time for unencrypted connections.
unsecAvgRemoteResponseTime	A long value that contains the average remote response time for unencrypted connections.
unsecLocalResp	A long value that contains the number of local responses for unencrypted connections.
unsecRemoteResp	A long value that contains the number of local responses for unencrypted connections.

MapiOptConnCount

This section lists and describes the MapiOptConnCount object attributes.

Attribute	Description
deviceName	A string value that describes the name of the device.
endtime	A dateTime value that contains the end time.
frequency	A string value that describes the frequency.
optimized_connections	A long value that contains the number of connections accelerated/optimized.

MapiRequestTypeStats

This section lists and describes the MapiRequestTypeStats object attributes.

Attribute	Description
deviceName	A string value that describes the name of the device.
endtime	A dateTime value that contains the end time.
frequency	A string value that describes the frequency.
higherthan2kConnections	A long value of the number of connections from clients using a version of Outlook later than Outlook 2000.
lowerthan2kConnections	A long value of the number of connections from clients using a version of Outlook previous to Outlook 2000.
securedConnections	A long value of the secured connection count.

MapiResponseStats

This section lists and describes the MapiResponseStats object attributes.

Attribute	Description
avgLocalResp	A long value that contains the average local response time.
avgRemoteResp	A long value that contains the average remote response time.
deviceName	A string value that describes the name of the device.
endtime	A dateTime value that contains the end time.
frequency	A string value that describes the frequency.
localResp	A long value that contains the number of local responses.
remoteResp	A long value that contains the number of remote responses.

MapiSessionCount

This section lists and describes the MapiSessionCount object attributes.

Attribute	Description
deviceName	A string value that describes the name of the device.
endtime	A dateTime value that contains the end time.
frequency	A string value that describes the frequency.
sessionCount	A long value that contains the number of sessions completed.

MapiUnaccelConnCount

This section lists and describes the MapiUnaccelConnCount object attributes.

Attribute	Description
deviceName	A string value that describes the name of the device.
endtime	A dateTime value that contains the end time.
frequency	A string value that describes the frequency.
pipe_through_connections	A long value that contains the number of connections unaccelerated.

MonitoredAO

This section lists and describes the Monitored AO object attributes.

Attribute	Description
deviceName	A string value that describes the device name.
isCifsEnabled	A boolean value that describes the CIFS accelerator status.
isEpmEnabled	A boolean value that describes the EPM accelerator status.
isHttpEnabled	A boolean value that describes the HTTP accelerator status.
isIcaEnabled	A boolean value that describes the ICA accelerator status.
isMapiEnabled	A boolean value that describes the MAPI accelerator status.
isNfsEnabled	A boolean value that describes the NFS accelerator status.
isSmbEnabled	A boolean value that describes the SMB accelerator status.
isSSLEnabled	A boolean value that describes the SSL accelerator status.
isVideoEnabled	A boolean value that describes the Video accelerator status.
isWafsCoreEnabled	A boolean value that describes the WAFS core status.
isWafsEdgeEnabled	A boolean value that describes the WAFS edge status.

MonitoredApps

This section lists and describes the MonitoredApps object attributes.

Attribute	Description
applicationName	A string value that describes the application name.
monitored	A boolean value that describes the status of the application that is monitored. Set to true if monitored and set to false if not monitored.

NfsDroppedConnCount

This section lists and describes the NFSDroppedConnCount object attributes.

Attribute	Description
deviceName	A string value that describes the name of the device.
dropped_connections	A long value that contains the number of connections dropped.
endtime	A dateTime value that contains the end time.
frequency	A string value that describes the frequency.

NfsOptConnCount

This section lists and describes the NFSOptConnCount object attributes.

Attribute	Description
deviceName	A string value that describes the name of the device.
endtime	A dateTime value that contains the end time.
frequency	A string value that describes the frequency.
optimized_connections	A long value that contains the number of connections accelerated/optimized.

NfsReqTypeStats

This section lists and describes the NfsReqTypeStats object attributes.

Attribute	Description
authflavor0Count	The number of RPC calls for authentication flavor 0.
authflavor1Count	The number of RPC calls for authentication flavor 1.
authflavor2Count	The number of RPC calls for authentication flavor 2.
authflavor3Count	The number of RPC calls for authentication flavor 3.
authflavorUnknown	The number of RPC calls for unknown authentication flavor.
deviceName	A string value that describes the name of the device.
endtime	A dateTime value that contains the end time.
frequency	A string value that describes the frequency.

NfsRespTypeStats

This section lists and describes the NfsRespTypeStats object attributes.

Attribute	Description
avgLocalResp	A long value that contains the average local response time.
avgRemoteResp	A long value that contains the average remote response time.
deviceName	A string value that describes the name of the device.
endtime	A dateTime value that contains the end time.
frequency	A string value that describes the frequency.
localResp	A long value that contains the number of local responses.
remoteResp	A long value that contains the number of remote responses.

NfsSessionCount

This section lists and describes the NfsSessionCount object attributes.

Attribute	Description
deviceName	A string value that describes the name of the device.
endtime	A dateTime value that contains the end time.
frequency	A string value that describes the frequency.
sessionCount	A long value that contains the number of sessions completed.

NfsTypeStats

This section lists and describes the NFSTypeStats object attributes.

Attribute	Description
deviceName	A string value that describes the name of the device.
endtime	A dateTime value that contains the end time.
frequency	A string value that describes the frequency.
nfsUnknownCount	A long value that contains the number of packets of NFS version unknown.
nfsv0Count	A long value that contains the number of packets of NFS version NFSv0.
nfsv2Count	A long value that contains the number of packets of NFS version NFSv2.

Attribute	Description
nfsv3Count	A long value that contains the number of packets of NFS version NFSv3.
nfsv4Count	A long value that contains the number of packets of NFS version NFSv4.

NfsUnacceIConnCount

This section lists and describes the NFSUnaccelConnCount object attributes.

Attribute	Description
deviceName	A string value that describes the name of the device.
endtime	A dateTime value that contains the end time.
frequency	A string value that describes the frequency.
pipe_through_connections	A long value that contains the number of connections unaccelerated.

PeakThroughPutClassStats

This section lists and describes the PeakThroughPutClassStats object attributes.

Attribute	Description
classname	A string value that describes the class map name.
devicename	A string value that describes the device name.
endtime	A dateTime value that describes the end time.
frequency	A string value that describes the frequency.
optimizedInThroughPut	A double value that describes the peak optimized throughput of inbound traffic.
optimizedOutThroughPut	A double value that describes the peak optimized throughput of outbound traffic.
originalInThroughPut	A double value that describes the peak original throughput of inbound traffic.
originalOutThroughPut	A double value that describes the peak original throughput of outbound traffic.
starttime	A dateTime value that describes the start time.

PeakThroughPutStats

This section lists and describes the PeakThroughPutStats object attributes.

Attribute	Description
applicationname	A string value that describes the application name.
devicename	A string value that describes the device name.
endtime	A dateTime value that describes the end time.
frequency	A string value that describes the frequency.
optimizedInThroughPut	A double value that describes the optimized throughput of inbound traffic.
optimizedOutThroughPut	A double value that describes the optimized throughput of outbound traffic.
originalInThroughPut	A double value that describes the original throughput of inbound traffic.
originalOutThroughPut	A double value that describes the original throughput of outbound traffic.
starttime	A dateTime value that describes the start time.

RequestCountStats

This section lists and describes the RequestCountStats object attributes.

Attribute	Description
frequency	A string value that describes the frequency.
requestcount	An int value that describes the request count statistics.
timestamp	A dateTime value that describes the time stamp.

SessionCountStats

This section lists and describes the SessionCountStats object attributes.

Attribute	Description
frequency	A string value that describes the frequency.
sessioncount	An int value that describes the session count statistics.
timestamp	A dateTime value that describes the time stamp.

SmbConnOptRate

This section lists and describes the SmbConnOptRate object attributes.

Attribute	Description
averageTimeSaved	A long value that contains an estimate of time saved by SMB AO optimizations
deviceName	A string value that describes the name of the device.
endtime	A dateTime value that contains the end time.
frequency	A string value that describes the frequency.

SmbConnOptSavings

This section lists and describes the SmbConnOptSavings object attributes.

Attribute	Description
assyncWriteOptTimeSaving	A long value that contains the average amount of time (in milliseconds) saved by SMB AO optimizations.
deviceName	A string value that describes the name of the device.
endtime	A dateTime value that contains the end time.
frequency	A string value that describes the frequency.
metaDataOptTimeSaving	A long value that contains the amount of time saved due by optimizing handling of asynchronous requests.
namedPipeOptTimeSaving	A long value that contains the amount of time saved by optimization of named pipes.
officeOptTimeSaving	A long value that contains the amount of time saved by optimization of MS Office.
otherOptTimeSaving	A long value that contains the amount of time saved by other optimizations.
readAheadOptTimeSaving	A long value that contains the amount of time saved by read-ahead optimizations.

SmbConnStats

This section lists and describes the SmbConnStats object attributes.

Attribute	Description
currentActiveConnections	A long value that contains the number of active connections.
deviceName	A string value that describes the name of the device.
endtime	A dateTime value that contains the end time.
frequency	A string value that describes the frequency.
totalDroppedConnections	A long value that contains the total number of dropped connections.

Attribute	Description
totalHandledConnections	A long value that contains the total number of handled connections.
totalOptimizedConnections	A long value that contains the total number of optimized connections.

SmbOptConnCount

This section lists and describes the SmbOptConnCount object attributes.

Attribute	Description
deviceName	A string value that describes the name of the device.
endtime	A dateTime value that contains the end time.
frequency	A string value that describes the frequency.
totalOptimizedConnections	A long value that contains the total number of optimized connections.

SmbRequestOptStats

This section lists and describes the SmbRequestOptStats object attributes.

Attribute	Description
deviceName	A string value that describes the name of the device.
endtime	A dateTime value that contains the end time.
frequency	A string value that describes the frequency.
metaDataOptimizationRate	A double value that contains the rate of meta data optimization.
otherOptimizationRate	A double value that contains the rate of other kinds of optimization.
readAheadOptimizationRate	A double value that contains the rate of read-ahead optimization.
writeOptimizationRate	A double value that contains the rate of data write optimization.

SmbTotalConnCount

This section lists and describes the SmbTotalConnCount object attributes.

Attribute	Description
deviceName	A string value that describes the name of the device.
endtime	A dateTime value that contains the end time.

Attribute	Description
frequency	A string value that describes the frequency.
totalLanConnectionCount	A long value that contains the total number of LAN connections.

SSLActiveConnCount

This section lists and describes the SSLActiveConnCount object attributes.

Attribute	Description
active_connections	A long value that contains the number of active connections.
deviceName	A string value that describes the name of the device.
endtime	A dateTime value that contains the end time.
frequency	A string value that describes the frequency.

SSLBytesCount

This section lists and describes the SSLBytesCount object attributes.

Attribute	Description
deviceName	A string value that describes the name of the device.
endtime	A dateTime value that contains the end time.
frequency	A string value that describes the frequency.
lan_bytes_read_ins	A long value that describes the number of LAN bytes read.
lan_bytes_written_out	A long value that describes the number of LAN bytes written out.
wan_bytes_read_in	A long value that describes the number of WAN bytes read.
wan_bytes_written_out	A long value that describes the number of WAN bytes written out.

SSLErrorConnCount

This section lists and describes the SSLErrorConnCount object attributes.

Attribute	Description
deviceName	A string value that describes the name of the device.
drop_other_count	A long value that describes the flows dropped due to other reasons.

Attribute	Description
drop_revocation_count	A long value that describes the flows dropped due to revocation check.
drop_verification_count	A long value that describes the flows dropped due to verification check.
dropped_connections	A long value that describes the number of dropped connections.
endtime	A dateTime value that contains the end time.
frequency	A string value that describes the frequency.

SSLOptConnCount

This section lists and describes the SSLOptConnCount object attributes.

Attribute	Description
deviceName	A string value that describes the name of the device.
endtime	A dateTime value that contains the end time.
frequency	A string value that describes the frequency.
optimized_connections	A long value that contains the number of accelerated connections.

SSLTotalConnCount

This section lists and describes the SSLTotalConnCount object attributes.

Attribute	Description
deviceName	A string value that describes the name of the device.
endtime	A dateTime value that contains the end time.
frequency	A string value that describes the frequency.
handled_connections	A long value that contains the number of connections currently established.

SSLUnAccelConnCount

This section lists and describes the SSLUnAccelConnCount object attributes.

Attribute	Description
cipher_mismatch_count	A long value that describes the number of pipe-throughs due to cipher mismatch.
deviceName	A string value that describes the name of the device.

Attribute	Description
endtime	A dateTime value that contains the end time.
frequency	A string value that describes the frequency.
nossl_count	A long value that describes the number of non-SSL flows piped through.
num_pipethru_rdnst	A long value that describes the number of pipe-throughs due to domain mismatch.
num_pipethru_unknown	A long value that describes the number of pipe-throughs due to unknown reasons.
pipe_through_connections	A long value that describes the number of connections that are unaccelerated.
version_mismatch_count	A long value that describes the number of pipe-throughs due to version mismatch.

String

This section lists and describes the String object attributes.

Attribute	Description
string	A string value that describes a list of the device names.

TimeFrameFilter

This section lists and describes the TimeFrameFilter object attributes.

Attribute	Description
endtime	A dateTime value that describes the end time.
frequency	A string that describes the frequency. Valid values include the following: • last5min • lasthour • lastweek • lastday • lastmonth • lastyear • custom
starttime	A dateTime value that describes the start time.
timezone	A string that describes the time zone. The valid value for this string is utc.

TrafficStats

This section lists and describes the TrafficStats object attributes.

Attribute	Description
applicationname	A string value that describes the application name.
compressedin	A long value that describes the incoming compressed traffic. (bytes)
compressedout	A long value that describes the outgoing compressed traffic. (bytes)
deviceName	A string value that describes the name of the device.
endtime	A dateTime value that describes the end time.
frequency	A string value that describes the frequency.
passthroughintermediatein	A long value that describes the incoming intermediate pass through the traffic. (bytes)
passthroughintermediateout	A long value that describes the outgoing intermediate pass through the traffic. (bytes)
passthroughotherin	A long value that describes the incoming pass through due to other reasons.
passthroughotherout	A long value that describes the outgoing pass through due to other reasons.
passthroughoverloadin	A long value that describes the pass through the overload statistics for the incoming traffic. (bytes). This attribute is deprecated.
passthroughoverloadout	A long value that describes the pass through the overload statistics for the outgoing traffic. (bytes). This attribute is deprecated.
passthroughpeerin	A long value that describes the incoming pass through peer traffic. (bytes)
passthroughpeerout	A long value that describes the outgoing pass through peer traffic. (bytes)
passthroughpolicyin	A long value that describes the incoming pass through the policy. (bytes)
passthroughpolicyout	A long value that describes the outgoing pass through the policy. (bytes)
starttime	A dateTime value that describes the start time.
uncompressedin	A long value that describes the incoming uncompressed traffic. (bytes)
uncompressedout	A long value that describes the outgoing uncompressed traffic. (bytes)

VideoAccelBypassReasons

This section lists and describes the VideoAccelBypassReasons object attributes.

Attribute	Description
agg_bitrate_overload_count	A long value that contains the unaccelerated aggregate bitrate overload connections.
deviceName	A string value that describes the name of the device.
endtime	A dateTime value that describes the end time.
frequency	A string value that describes the frequency.
max_stream_bitrate_exceeded_count	A long value that contains the unaccelerated maximum stream bitrate exceeded connections.
others_count	A long value that contains the unaccelerated other connections.
session_count_overload_count	A long value that contains the unaccelerated session count overload connections.
unsupport_player_count	A long value that contains the unaccelerated unsupported player connections.
unsupport_protocol_count	A long value that contains the unaccelerated unsupported protocol connections.
unsupport_transport_count	A long value that contains the unaccelerated unsupported transport connections.
wm_vod_count	A long value that contains the unaccelerated windows-media VoD connections.

VideoActiveConnCount

This section lists and describes the VideoActiveConnCount object attributes.

Attribute	Description
active_connections	A long value that contains the number of active connections.
deviceName	A string value that describes the name of the device.
endtime	A dateTime value that describes the end time.
frequency	A string value that describes the frequency.

VideoClient

This section lists and describes the VideoClient object attributes.

Attribute	Description
bw	An int value that describes the bandwith usage.
bytessent	A long value that describes the number of bytes sent by the edge WAE to the client.
ip	A string value that contains the IP address of the client.

VideoStats

This section lists and describes the VideoStats object attributes.

Attribute	Description
acceleratedconnections	An int value that describes the total number of accelerated connections.
deviceName	A string value that describes the name of the device.
errorconnections	An int value that describes the total number of errors or dropped connections.
frequency	A string value that describes the frequency.
incomingbytesttotal	An int value that describes the total incoming bandwith server in kilobits per second (kbps).
outgoingbytesttotal	An int value that describes the total outgoing bandwith for the client (in kbps).
receivedconnections	An int value that describes the total number of received connections.
savedpercent	An int value that describes the saved percentage as a ratio of incoming and outgoing bytes served.
timestamp	A dateTime value that describes the time stamp.
unacceleratedconnections	An int value that describes the total number of unaccelerated connections.

VideoStreamStats

This section lists and describes the VideoStreamStats object attributes.

Attribute	Description
bytesrcvd	A long value that describes the number of bytes received by the edge WAE from the server.
client[]	A VideoClient value that includes a list of clients.
clientcount	An int value that describes the number of clients connected or using the stream.
deviceName	A string value that describes the name of the device.

Attribute	Description
frequency	A string value that describes the frequency.
inbw	An int value that describes the incoming bandwith.
timestamp	A dateTime value that contains the time stamp.
url	A string value that describes the stream URL.

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