Cisco Wide Area Application Services API Reference

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

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CHAPTER 11

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	CIFS Statistics Service	Describes the CIFS Statistics service and the actions it performs.
Chapter 5	Video Streaming Statistics Service	Describes the Video Streaming Statistics service and the actions it performs.
Chapter 6	HTTP Statistics Service	Describes the HTTP/HTTPS Statistics service and the actions it performs.
Chapter 7	MAPI Statistics Service	Describes the MAPI Statistics service and the actions it performs.
Chapter 8	NFS Statistics Service	Describes the NFS Statistics service and the actions it performs.
Chapter 9	SSL Statistics Service	Describes the SSL Statistics service and the actions it performs.
Chapter 10	Events and Status Service	Describes the Events and Status service and the actions each performs.
Chapter 11	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:

- *Release Note for Cisco Wide Area Application Services*
- *Cisco Wide Area Application Services Command Reference*
- *Cisco Wide Area Application Services Quick Configuration Guide*
- *Cisco Wide Area Application Services Configuration Guide*
- *Cisco Wide Area Application Services API Reference* (this manual)
- *Configuring Cisco WAAS Network Modules for Cisco Access Routers*
- *Regulatory Compliance and Safety Information for the Cisco Content Networking Product Series*
- *Cisco Wide Area Application Engine 511 and 611 Hardware Installation Guide*
- *Cisco Wide Area Application Engine 512 and 612 Hardware Installation Guide*
- *Cisco Wide Area Application Engine 7326 Hardware Installation Guide*
- *Cisco Wide Area Application Engine 7341, 7371, and 674 Hardware Installation Guide*
- *Cisco Network Modules Hardware Installation Guide*
- *Installing the Cisco WAE Inline Network Adapter*
- *Cisco Wide Area Application Services Online Help*
- *Using the Print Utilities to Troubleshoot and Fix Samba Driver Installation Problems*

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.

CHAPTER 1

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 getWANInfo 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

```
<?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>
```

Response

```
<?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>
  </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

The Central Manager monitoring API is supported in WAAS version 4.1.1 and later. The API requires the following development environment:

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

The Central Manager monitoring API is supported on the following hardware models:

WAVE-274-K9	WAE-512-K9	WAE-612-K9	WAE-7341-K9
WAVE-474-K9	WAVE-574-K9	WAE-674-K9	WAE-7371-K9
WAE-511-K9	WAE-611-K9	WAE-7326-K9	

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.

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.

CHAPTER 2

Device Configuration Service

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

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

- getWANInfo
- getDeviceGroups
- getWAE
- getWAEByName
- getCM
- getCMByName
- getWAEs
- getWAEsInGroup
- getWAEsInGroupByName
- getLocations
- getWAEsPerLocation
- getAPIVersion

Syntax

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.

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

Example Request

```
  <?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>
```

Example Response

```
  <?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>
  </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>
```

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.

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.

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.

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.

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.

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.

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.

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:	

CHAPTER 3

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.

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

- retrieveTrafficStats
- getMonitoredApplications
- retrieveAppTrafficStats
- retrieveCPUUtilization
- retrieveConnection

Syntax

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.

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. The next example shows the XML response that contains the output values for this action.

Example Request

```
<?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>
```

Example Response

```
  <?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>
```

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 • 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.

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 • 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.
applicationName	A string value that includes a comma-separated list of all required application names.

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.retrieveAppTraffic Stats: ERROR:Device does not exist.DeviceName=	The device name is not found.
RemoteException	TrafficStatsService.retrieveAppTraffic Stats: ERROR:Device Group does not exist.DeviceGroup=	The device group name is not found.
RemoteException	TrafficStatsService.retrieveAppTraffic Stats: ERROR:Invalid frequency=	The frequency is invalid.
RemoteException	TrafficStatsService.retrieveAppTraffic Stats: ERROR:Invalid startTime=	The start time is invalid.
RemoteException	TrafficStatsService.retrieveAppTraffic Stats: ERROR:Invalid endTime=	The end time is invalid.
RemoteException	TrafficStatsService.retrieveAppTraffic Stats: 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.

retrieveCPUUtilization

Retrieves the CPU utilization information for a specified WAE.

Input Parameters

Parameter	Description
name	A string that describes the name of the WAE, WAE group, or system.
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.

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
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.

CHAPTER 4

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.

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

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

Syntax

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.

The following example shows an XML-formatted SOAP request to perform the retrieveRequestHitRate action. The request includes the input parameters for this particular action shown in bold. The next example shows the XML response that contains the output values for this action.

Example Request

```
<?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>
```

Example Response

```
  <?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>
```

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.

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.

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.

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.

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.

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.

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.

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.

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 CIFSTrafficStats 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.

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 CIFSTrafficStats 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.

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.

CHAPTER 5

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.

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

- retrieveHistoricalStats
- retrieveCurrentStats
- getActiveConnCount
- getAccelerationBypassReasons

Syntax

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.

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. The next example shows the XML response that contains the output values for this action.

Example Request

```
<?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>
```

Example Response

```
<?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>
```

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.

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.

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.

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.

CHAPTER 6

HTTP Statistics Service

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

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

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

Syntax

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.

The following example shows an XML-formatted SOAP request perform the getOptConnCount action. The request includes the input parameters for this particular action shown in bold. The next example shows the XML response that contains the output values for this action.

Example Request

```
<?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>
```

Example Response

```
<?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>
```

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 • 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 • 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.

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 • 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.

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 • 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.

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 • 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.

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 • 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.

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 • 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.

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 **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.

CHAPTER 7

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.

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

- retrieveDataReadStats
- retrieveResponseStats
- retrieveRequestTypeStats
- getSessionCount
- retrieveClientConnCount
- getOptConnCount
- getUnaccelConnCount
- getDroppedConnCount

Syntax

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.

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. The next example shows the XML response that contains the output values for this action.

Example Request

```
  <?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>
```

Example Response

```
<?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>
```

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.

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.

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.

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 MapiSessionCount 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.

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.

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 MapiOptConnCount value that provides optimized connection counts.

Exceptions

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

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.

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.

CHAPTER 8

NFS Statistics Service

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

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

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

Syntax

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.

The following example shows an XML-formatted SOAP request to perform the retrieveResponseStats action. The request includes the input parameters for this particular action shown in bold. The next example shows the XML response that contains the output values for this action.

Example Request

```
  <?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>
```

Example Response

```
<?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>
```

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.

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.

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.

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 NfsTypeStats 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.

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.

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.

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.

CHAPTER 9

SSL Statistics Service

This chapter describes the SSL 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.

The SSL service is the SslStats Web Service. This Web Service performs one or more of the following actions:

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

Syntax

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

WSDL URL: https://<host/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.

The following example shows an XML-formatted SOAP request perform the getOptConnCount action. The request includes the input parameters for this particular action shown in bold. The next example shows the XML response that contains the output values for this action.

Example Request

```
<?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>
```

Example Response

```
<?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>
```

getOptConnCount

Retrieves the number of optimized HTTPS 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 HTTPS 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 HTTPS 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 HTTPS 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 HTTPS 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 HTTPS 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.

getErrorConnCount

Retrieves the total number of dropped HTTPS 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 HTTPS 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.

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 HTTPS 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.

getActiveConnCount

Retrieves the overall video 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 HTTPS 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.

CHAPTER 10

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 4.1 Software Download website: http://www.cisco.com/cgi-bin/tablebuild.pl/waas41.

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

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

Alarm Status Syntax

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

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

Device Status Syntax

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

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

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.

The following example shows an XML-formatted SOAP request to perform the retrieveAllAlarms action. There are no input parameters for this particular action. The next example shows the XML response that contains the output values for this action.

Example Request

```
<?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>
```

Example Response

```
<?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>
```

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.

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 DiskEncryption 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.

CHAPTER 11

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:

- DeviceGroup
- DiskEncryption
- DeviceStatus
- DiskStatus
- DiskInformation
- Alarm
- Location
- String
- HttpOptConnCount
- HttpMaxConnReuseCount
- HttpConnOptRate
- HttpTotalConnCount
- HttpConnStats
- HttpResponseStats
- HttpConnOptType
- HttpUnaccelConnCount
- MapiSessionCount
- MapiDataReadStats
- MapiResponseStats
- MapiRequestTypeStats
- MapiClientConnCount
- MapiOptConnCount
- MapiUnaccelConnCount
- MapiDroppedConnCount
- NfsSessionCount
- NfsRespTypeStats
- NfsReqTypeStats
- NfsTypeStats
- NfsOptConnCount
- NfsUnaccelConnCount
- NfsDroppedConnCount
- SSLOptConnCount
- SSLTotalConnCount
- SSLErrorConnCount
- SSLUnAccelConnCount
- SSLBytesCount
- SSLActiveConnCount
- MonitoredAO

- MonitoredApps

TimeFrameFilter

This section lists and describes the TimeFrameFilter object attributes.

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

Attribute	Description
passthroughpolicyout	A long value that describes the outgoing pass through the policy. (bytes)
passthroughoverloadin	A long value that describes the pass through the overload statistics for the incoming traffic. (bytes)
passthroughoverloadout	A long value that describes the pass through the overload statistics for the outgoing traffic. (bytes)
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)
applicationname	A string value that describes the application name.
frequency	A string value that describes the frequency.
starttime	A dateTime value that describes the start time.
endtime	A dateTime value that describes the end time.
deviceName	A string value that describes the name of the device.

CPUUtilizationStats

This section lists and describes the CPUUtilizationStats object attributes.

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

ConnectionStats

This section lists and describes the ConnectionStats object attributes.

Attribute	Description
devicename	A string value that describes the device name.
srcip	A string value that describes the source IP address.
dstip	A string value that describes the destination IP address.
srcport	An int value that describes the source port.
dstport	An int value that describes the destination port.
peername	A string value that describes the peer name.
appliedpolicy	A string value that describes the applied policy.

Attribute	Description
duration	A string value that describes the time duration.
originalbytes	A long value that describes the original bytes.
optimizedbytes	A long value that describes the optimized bytes.
compressratio	A double value that describes the compression ratio.

HitRateStats

This section lists and describes the HitRateStats object attributes.

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

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.

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.

SessionCountStats

This section lists and describes the SessionCountStats object attributes.

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

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.

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.

RequestCountStats

This section lists and describes the RequestCountStats object attributes.

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

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.

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.

VideoStats

This section lists and describes the VideoStats object attributes.

Attribute	Description
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).
savedpercent	An int value that describes the saved percentage as a ratio of incoming and outgoing bytes served.
receivedconnections	An int value that describes the total number of received connections.
unacceleratedconnections	An int value that describes the total number of unaccelerated connections.
acceleratedconnections	An int value that describes the total number of accelerated connections.
errorconnections	An int value that describes the total number of errors or dropped connections.
frequency	A string value that describes the frequency.
timestamp	A dateTime value that describes the time stamp.
deviceName	A string value that describes the name of the device.

VideoStreamStats

This section lists and describes the VideoStreamStats object attributes.

Attribute	Description
url	A string value that describes the stream URL.
inbw	An int value that describes the incoming bandwith.
clientcount	An int value that describes the number of clients connected or using the stream.
client[]	A VideoClient value that includes a list of clients.
frequency	A string value that describes the frequency.
timestamp	A dateTime value that contains the time stamp.
bytesrcvd	A long value that describes the number of bytes receivd by the edge WAE from the server.
deviceName	A string value that describes the name of the device.

VideoClient

This section lists and describes the VideoClient object attributes.

Attribute	Description
ip	A string value that contains the IP address of the client.
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.

VideoActiveConnCount

This section lists and describes the VideoActiveConnCount object attributes.

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

VideoAccelBypassReasons

This section lists and describes the VideoAccelBypassReasons object attributes.

Attribute	Description
wm_vod_count	A long value that contains the unaccelerated windows-media VoD connections.
unsupport_transport_count	A long value that contains the unaccelerated unsupported transport 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.
max_stream_bitrate_exceeded_count	A long value that contains the unaccelerated maximum stream bitrate exceeded connections.
agg_bitrate_overload_count	A long value that contains the unaccelerated aggregate bitrate overload connections.
session_count_overload_count	A long value that contains the unaccelerated session count overload connections.
others_count	A long value that contains the unaccelerated other connections.

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

Device

This section lists and describes the Device object attributes.

Attribute	Description
id	A long value that contains the device ID.
name	A string value that contains the device name.
hostName	A string value that contains the hostname.
type	A string value that contains the device type.
role	A string value that contains the device role.
softwareVersion	A string value that contains the software version.
model	A string value that contains the device model.
ipAddress	A string value that contains the device IP address.
status	A string value that contains the device status.
location	A string value that contains the device location.
macAddress	A string value that contains the device MAC address.

DeviceGroup

This section lists and describes the DeviceGroup object attributes.

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

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.

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.

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.

DiskInformation

This section lists and describes the DiskInformation object attributes.

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

Alarm

This section lists and describes the Alarm object attributes.

Attribute	Description
alarmId	A long value that contains the alarm ID.
deviceId	A string value that contains the device ID.
severity	An int value that describes the severity of the alarm.

Attribute	Description
description	A string value that contains the alarm description.
alarmName	A string value that contains the alarm name.
deviceName	A string value that contains the device name.
deviceStatus	A string value that describes the device status.
deviceIpAddress	A string value that contains the device IP address.

Location

This section lists and describes the Location object attributes.

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

String

This section lists and describes the String object attributes.

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

HttpOptConnCount

This section lists and describes the HttpOptConnCount object attributes.

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

HttpMaxConnReuseCount

This section lists and describes the HttpMaxConnReuseCount object attributes.

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

HttpConnOptRate

This section lists and describes the HttpConnOptRate object attributes.

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

HttpTotalConnCount

This section lists and describes the HttpTotalConnCount object attributes.

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

HttpConnStats

This section lists and describes the HttpConnStats object attributes.

Attribute	Description
idle	A long value that contains the number of active connections currently idle.
reused	A long value that contains the number of times that the connections were reused.
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.
frequency	A string value that describes the frequency.
endtime	A dateTime value that contains the end time.
total_handoff	A long value that contains the number of connection handoffs.
resused_peer	A long value that contains the number of connections reinitiated by the peer.
deviceName	A string value that describes the name of the device.

HttpResponseStats

This section lists and describes the HttpResponseStats object attributes.

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

HttpConnOptType

This section lists and describes the HttpConnOptType object attributes.

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

HttpUnacceIConnCount

This section lists and describes the HttpUnaccelConnCount object attributes.

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

MapiSessionCount

This section lists and describes the MapiSessionCount object attributes.

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

MapiDataReadStats

This section lists and describes the MapiDataReadStats object attributes.

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

MapiResponseStats

This section lists and describes the MapiResponseStats object attributes.

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

MapiRequestTypeStats

This section lists and describes the MapiRsequestTypeStats object attributes.

Attribute	Description
frequency	A string value that describes the frequency.
endtime	A dateTime value that contains the end time.
securedConnections	A long value of the secured connection count.
lowerthan2kConnections	A long value of the number of connections lower than 2k connections.
higherthan2kConnections	A long value of the number of connections higher than 2K connections.
deviceName	A string value that describes the name of the device.

MapiClientConnCount

This section lists and describes the MapiClientConnCount object attributes.

Attribute	Description
client2k	A long value that contains the number of past connections from client 2K.
client2k3	A long value that contains the number of past connections from client 2K3.
client2k7	A long value that contains the number of past connections from client 2K7.
frequency	A string value that describes the frequency.
endtime	A dateTime value that contains the end time.
deviceName	A string value that describes the name of the device.

MapiOptConnCount

This section lists and describes the MapiOptConnCount object attributes.

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

MapiUnaccelConnCount

This section lists and describes the MapiUnaccelConnCount object attributes.

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

MapiDroppedConnCount

This section lists and describes the MapiDroppedConnCount object attributes.

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

NfsSessionCount

This section lists and describes the NfsSessionCount object attributes.

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

NfsRespTypeStats

This section lists and describes the NfsRespTypeStats object attributes.

Attribute	Description
localResp	A long value that contains the number of local responses.
remoteResp	A long value that contains the number of remote responses.

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

NfsReqTypeStats

This section lists and describes the NfsReqTypeStats object attributes.

Attribute	Description
frequency	A string value that describes the frequency.
endtime	A dateTime value that contains the end time.
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.

NfsTypeStats

This section lists and describes the NFSTypeStats object attributes.

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

NfsOptConnCount

This section lists and describes the NFSOptConnCount object attributes.

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

NfsUnaccelConnCount

This section lists and describes the NFSUnaccelConnCount object attributes.

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

NfsDroppedConnCount

This section lists and describes the NFSDroppedConnCount object attributes.

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

SSLOptConnCount

This section lists and describes the SSLOptConnCount object attributes.

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

SSLTotalConnCount

This section lists and describes the SSLTotalConnCount object attributes.

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

SSLErrorConnCount

This section lists and describes the SSLErrorConnCount object attributes.

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

SSLUnAccelConnCount

This section lists and describes the SSLUnAccelConnCount object attributes.

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

SSLBytesCount

This section lists and describes the SSLBytesCount object attributes.

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

SSLActiveConnCount

This section lists and describes the SSLActiveConnCount object attributes.

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

MonitoredAO

This section lists and describes the Monitored AO object attributes.

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

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.

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