SMB Statistics Service

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

This chapter contains the following sections:

- SMB Statistics Syntax
- SMB Statistics Service Actions

SMB Statistics Syntax

This section contains the following topics:

- SMB Statistics Informational URLs
- SMB Statistics Example Request
- SMB Statistics Example Response

SMB Statistics Informational URLs

This section provides informational URLs for the SMB Statistics service.

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

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

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

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

SMB Statistics Example Request

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

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

SMB Statistics Example Response

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

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

SMB Statistics Service Actions

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

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

getConnOptCount

Retrieves a count of the number of SMB optimized connections.

Input Parameters

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

Return

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

Exceptions

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

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

getConnOptRate

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

Input Parameters

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

Return

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

Exceptions

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

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

getConnOptSavingsByType

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

Input Parameters

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

Return

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

Exceptions

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

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

getRequestOptStats

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

Input Parameters

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

Return

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

Exceptions

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

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

getTotalConnCount

Retrieves a count of the number of SMB LAN connections.

Input Parameters

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

Return

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

Exceptions

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

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

retrieveStats

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

Input Parameters

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

Return

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

Exceptions

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

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