



NFS Statistics Service

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

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NFS Statistics Service Syntax

This section contains the following topics:

- [NFS Statistics Informational URLs](#)
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NFS Statistics Informational URLs

This section provides informational URLs for the NFS Statistics service.

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

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

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

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

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

NFS Statistics Example Request

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

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

NFS Statistics Example Response

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

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

NFS Statistics Service Actions

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

- [getDroppedConnCount](#)
- [getOptConnCount](#)
- [getSessionCount](#)
- [getUnaccelConnCount](#)
- [retrieveNfsTypeStats](#)
- [retrieveRequestTypeStats](#)
- [retrieveResponseStats](#)

getDroppedConnCount

Retrieves a list of dropped connection counts.

Input Parameters

Parameter	Description
name	A string that describes the name of the WAE, WAE group, or system.
objType	A string that describes the object type. Valid values include the following: <ul style="list-style-type: none"> • wae • waegroup • system
timeframe	A TimeFrameFilter value that includes the time interval, time zone, and frequency.

Return

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

Exceptions

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

getOptConnCount

Retrieves a list of optimized connection counts.

Input Parameters	
Parameter	Description
name	A string that describes the name of the WAE, WAE group, or system.
objType	A string that describes the object type. Valid values include the following: <ul style="list-style-type: none"> • wae • waegroup • system
timeframe	A TimeFrameFilter value that includes the time interval, time zone, and frequency.

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

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

getSessionCount

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

Input Parameters

Parameter	Description
name	A string that describes the name of the WAE, WAE group, or system.
objType	A string that describes the object type. Valid values include the following: <ul style="list-style-type: none"> • 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.

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: <ul style="list-style-type: none"> • wae • waegroup • system
timeframe	A TimeFrameFilter value that includes the time interval, time zone, and frequency.

Return

The output parameter **NfsUnaccelConnCount[]** returns a [NfsUnaccelConnCount](#) value that provides the number of unaccelerated connections.

Exceptions

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

retrieveNfsTypeStats

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

Input Parameters

Parameter	Description
name	A string that describes the name of the WAE, WAE group, or system.
objType	A string that describes the object type. Valid values include the following: <ul style="list-style-type: none"> • wae • waegroup • system
timeframe	A TimeFrameFilter value that includes the time interval, time zone, and frequency.

Return

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

Exceptions

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

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

retrieveRequestTypeStats

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

Input Parameters

Parameter	Description
name	A string that describes the name of the WAE, WAE group, or system.
objType	A string that describes the object type. Valid values include the following: <ul style="list-style-type: none"> • wae • waegroup • system
timeframe	A TimeFrameFilter value that includes the time interval, time zone, and frequency.

Return

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

Exceptions

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

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

retrieveResponseStats

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

Input Parameters

Parameter	Description
name	A string that describes the name of the WAE, WAE group, or system.
objType	A string that describes the object type. Valid values include the following: <ul style="list-style-type: none"> • 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.retrieveResponseStats: ERROR:Invalid name=	The device name is invalid.
RemoteException	NfsStatsService.retrieveResponseStats: ERROR:Invalid objType=	The object type name is invalid.
RemoteException	NfsStatsService.retrieveResponseStats: ERROR:Invalid TimeFrame	The timeframe is invalid.
RemoteException	NfsStatsService.retrieveResponseStats: ERROR:Device does not exist.DeviceName=	The device name is not found.
RemoteException	NfsStatsService.retrieveResponseStats: ERROR:Device Group does not exist.DeviceGroup=	The device group name is not found.
RemoteException	NfsStatsService.retrieveResponseStats: ERROR:Invalid frequency=	The frequency is invalid.
RemoteException	NfsStatsService.retrieveResponseStats: ERROR:Invalid startTime=	The start time is invalid.
RemoteException	NfsStatsService.retrieveResponseStats: ERROR:Invalid endTime=	The end time is invalid.
RemoteException	NfsStatsService.retrieveResponseStats: 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.