



# NFS Statistics Service

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

This chapter contains the following sections:

- [NFS Statistics Service Syntax](#)
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## NFS Statistics Service Syntax

This section contains the following topics:

- [NFS Statistics Informational URLs](#)
- [NFS Statistics Example Request](#)
- [NFS Statistics Example Response](#)

## 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
<b>name</b>	A string that describes the name of the WAE, WAE group, or system.
<b>objType</b>	A string that describes the object type. Valid values include the following: <ul style="list-style-type: none"> <li>• wae</li> <li>• waegroup</li> <li>• system</li> </ul>
<b>timeframe</b>	A <a href="#">TimeFrameFilter</a> 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
<b>name</b>	A string that describes the name of the WAE, WAE group, or system.
<b>objType</b>	A string that describes the object type. Valid values include the following: <ul style="list-style-type: none"> <li>• wae</li> <li>• waegroup</li> <li>• system</li> </ul>
<b>timeframe</b>	A <a href="#">TimeFrameFilter</a> 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
<b>name</b>	A string that describes the name of the WAE, WAE group, or system.
<b>objType</b>	A string that describes the object type. Valid values include the following: <ul style="list-style-type: none"> <li>• wae</li> <li>• waegroup</li> <li>• system</li> </ul>
<b>timeframe</b>	A <a href="#">TimeFrameFilter</a> 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
<b>name</b>	A string that describes the name of the WAE, WAE group, or system.
<b>objType</b>	A string that describes the object type. Valid values include the following: <ul style="list-style-type: none"> <li>• wae</li> <li>• waegroup</li> <li>• system</li> </ul>
<b>timeframe</b>	A <a href="#">TimeFrameFilter</a> 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
<b>name</b>	A string that describes the name of the WAE, WAE group, or system.
<b>objType</b>	A string that describes the object type. Valid values include the following: <ul style="list-style-type: none"> <li>• wae</li> <li>• waegroup</li> <li>• system</li> </ul>
<b>timeframe</b>	A <a href="#">TimeFrameFilter</a> 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
<b>name</b>	A string that describes the name of the WAE, WAE group, or system.
<b>objType</b>	A string that describes the object type. Valid values include the following: <ul style="list-style-type: none"> <li>• wae</li> <li>• waegroup</li> <li>• system</li> </ul>
<b>timeframe</b>	A <a href="#">TimeFrameFilter</a> 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
<b>name</b>	A string that describes the name of the WAE, WAE group, or system.
<b>objType</b>	A string that describes the object type. Valid values include the following: <ul style="list-style-type: none"> <li>• wae</li> <li>• waegroup</li> <li>• system</li> </ul>
<b>timeframe</b>	A <a href="#">TimeFrameFilter</a> 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.