



## Traffic Acceleration Service

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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](#)
- [retrieveConnectionTrendStats](#)
- [retrievePeakThroughPutStats](#)
- [retrieveAverageThroughPutStats](#)

### 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.

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```

<?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>

```

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```
.  
. .  
</ns:retrieveTrafficStatsResponse>  
  </soapenv:Body>  
</soapenv:Envelope>
```

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# 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
<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>• device</li> <li>• devicegroup</li> <li>• system</li> </ul>
<b>trafficType</b>	A string that describes the type of traffic. Valid values include the following: <ul style="list-style-type: none"> <li>• passthrough</li> <li>• optimized</li> </ul> Note: trafficType is not used in filtering the data.
<b>direction</b>	A string that describes the direction of the traffic. Valid values include the following: <ul style="list-style-type: none"> <li>• inbound</li> <li>• outbound</li> <li>• bidirectional</li> </ul> Note: direction is not used in filtering the data.
<b>timeframe</b>	A <a href="#">TimeFrameFilter</a> 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.

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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.

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# 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.

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# 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
<b>name</b>	A string that describes the name of the WAE, WAE group, or system. Note: name is not used for filtering the data.
<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>• device</li> <li>• devicegroup</li> <li>• system</li> </ul>
<b>trafficType</b>	A string that describes the type of traffic. Valid values include the following: <ul style="list-style-type: none"> <li>• passthrough</li> <li>• optimized</li> </ul> Note: trafficType is not used for filtering the data.
<b>direction</b>	A string that describes the direction of the traffic. Valid values include the following: <ul style="list-style-type: none"> <li>• inbound</li> <li>• outbound</li> <li>• bidirectional</li> </ul> Note: direction is not used for filtering the data.
<b>timeframe</b>	A <a href="#">TimeFrameFilter</a> value that includes the time interval, time zone, and frequency.
<b>applicationName</b>	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.

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



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# retrieveCPUUtilization

Retrieves the CPU utilization information for a specified WAE.

**Input Parameters**

Parameter	Description
<b>name</b>	A string that describes the name of the WAE, WAE group, or system.
<b>timeframe</b>	A <a href="#">TimeFrameFilter</a> 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.

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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.

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Retrieves overall connection details for the current time.

**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>• device</li> <li>• devicegroup</li> <li>• location</li> </ul>
<b>srcip</b>	A string that contains the source IP address, which is ignored if the string is empty.
<b>dstip</b>	A string that contains the destination IP address, which is ignored if the string is empty.
<b>srcport</b>	A string that contains the source port number, which is ignored if the string is empty.
<b>dstport</b>	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.

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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.

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# retrieveConnectionTrendStats

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

Input Parameters	Parameter	Description
	<b>name</b>	A string that describes the name of the device, device 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>• device</li> <li>• devicegroup</li> <li>• location</li> <li>• system</li> </ul>
	<b>timeframe</b>	A <a href="#">TimeFrameFilter</a> value that includes the time interval, time zone, and frequency.
	<b>applicationName</b>	A string value that includes a comma-separated list of all required application names.

**Return** The output parameter **ConnectionTrendStats[]** returns a [ConnectionTrendStats](#) value that provides connection trend details.

Exceptions	Type	String	Description
	RemoteException	TrafficStatsService.retrieveConnectionTrendStats: ERROR:Invalid name=	The device name is invalid.
	RemoteException	TrafficStatsService.retrieveConnectionTrendStats: ERROR:Invalid objType=	The object type name is invalid.
	RemoteException	TrafficStatsService.retrieveConnectionTrendStats: ERROR:Device does not exist.DeviceName=	The device name is not found.
	RemoteException	TrafficStatsService.retrieveConnectionTrendStats: 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.

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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.

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# retrievePeakThroughPutStats

Retrieves the peak throughput values collected on a device.

**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>device</li> <li>devicegroup</li> <li>location</li> </ul>
<b>timeframe</b>	A <a href="#">TimeFrameFilter</a> value that includes the time interval, time zone, and frequency.
<b>applicationName</b>	A string value that includes a comma-separated list of all required application names.

**Return**

The output parameter **PeakThroughPutStats[]** returns a PeakThroughPutStats value for the traffic processed on the WAE device.

**Exceptions**

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

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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.



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# retrieveAverageThroughPutStats

Retrieves the average throughput values collected on a device.

**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>device</li> <li>devicegroup</li> <li>location</li> </ul>
<b>timeframe</b>	A <a href="#">TimeFrameFilter</a> value that includes the time interval, time zone, and frequency.
<b>applicationName</b>	A string value that includes a comma-separated list of all required application names.

**Return**

The output parameter **AverageThroughPutStats[]** returns the AverageThroughPutStats value for the traffic processed on the WAE device.

**Exceptions**

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

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