



# CHAPTER 7

## MAPI Statistics Service

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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
<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 **MapiDataReadStats[]** returns a [MapiDataReadStats](#) value that provides the minimum, maximum, and average size of the SynchronizationGetBuffer, the ReadStream, and the accumulated read ahead.

## Exceptions

Type	String	Description
RemoteException	MapiStatsService.retrieveDataReadStats: ERROR:Invalid name=	The device name is invalid.
RemoteException	MapiStatsService.retrieveDataReadStats: ERROR:Invalid objType=	The object type name is invalid.
RemoteException	MapiStatsService.retrieveDataReadStats: ERROR:Invalid TimeFrame	The timeframe is invalid.
RemoteException	MapiStatsService.retrieveDataReadStats: ERROR:Device does not exist.DeviceName=	The device name is not found.
RemoteException	MapiStatsService.retrieveDataReadStats: ERROR:Device Group does not exist.DeviceGroup=	The device group name is not found.
RemoteException	MapiStatsService.retrieveDataReadStats: ERROR:Invalid frequency=	The frequency is invalid.
RemoteException	MapiStatsService.retrieveDataReadStats: ERROR:Invalid startTime=	The start time is invalid.
RemoteException	MapiStatsService.retrieveDataReadStats: ERROR:Invalid endTime=	The end time is invalid.
RemoteException	MapiStatsService.retrieveDataReadStats: 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
<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 **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.retrieveResponseStats: ERROR:Invalid name=	The device name is invalid.
RemoteException	MapiStatsService.retrieveResponseStats: ERROR:Invalid objType=	The object type name is invalid.
RemoteException	MapiStatsService.retrieveResponseStats: ERROR:Invalid TimeFrame	The timeframe is invalid.
RemoteException	MapiStatsService.retrieveResponseStats: ERROR:Device does not exist.DeviceName=	The device name is not found.
RemoteException	MapiStatsService.retrieveResponseStats: ERROR:Device Group does not exist.DeviceGroup=	The device group name is not found.
RemoteException	MapiStatsService.retrieveResponseStats: ERROR:Invalid frequency=	The frequency is invalid.
RemoteException	MapiStatsService.retrieveResponseStats: ERROR:Invalid startTime=	The start time is invalid.
RemoteException	MapiStatsService.retrieveResponseStats: ERROR:Invalid endTime=	The end time is invalid.
RemoteException	MapiStatsService.retrieveResponseStats: 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
<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 **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
<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 **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
<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 **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
<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 **MapiOptConnCount[]** returns a [MapiOptConnCount](#) value that provides optimized connection counts.

## Exceptions

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

# 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 **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
<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 **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.

