



## CHAPTER 5

# Statistics APIs

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This chapter describes the Monitoring Statistics API and Streaming Statistics API, and the servlet actions they perform. This chapter contains the following sections:

- [Monitoring Statistics API Actions, page 5-1](#)
- [Streaming Statistics API Actions, page 5-5](#)

## Monitoring Statistics API Actions

This section describes the Monitoring Statistics API and the servlet actions it performs. The Monitoring Statistics API gets monitoring statistics data about a single Service Engine or all the Service Engines in a CDS network. The Monitoring Statistics API is the `MonitoringApiServlet`.

### Syntax

`https://<cdsmIpAddress>:8443/servlet/com.cisco.unicorn.ui.MonitoringApiServlet...`

This servlet performs one or more of the following actions:

- [getSeStats](#)
- [getLocationStats](#)
- [getCdnStats](#)

## getSeStats

Obtains monitoring statistics information for the specified Service Engine.

### Parameter

- Service Engine ID (required)
- Monitoring statistics type (required)

The monitoring statistics types are:

- `bytes_served`
- `bandwidth_efficiency_gain`
- `streaming_sessions`
- `cpu_utilization`

- Time frame (optional)—The time period over which monitoring statistics are obtained. The default is `last_hour`.

The options are:

- `last_hour`
- `last_day`
- `last_week`
- `last_month`
- `custom`




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**Note** If you choose `custom`, you must specify the time frame using the `End time from` and `End time to` options.

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- End time from (optional)—The date and time that collection of monitoring statistics data should start. You can specify only the date or the date and time. The date format is `mm/dd/yyyy`, and the time format is `hh:mm`. Optionally, you can specify the time in `hh:mm:ss`.
- End time to (optional)—The date and time that collection of monitoring statistics data should end. You can specify only the date or the date and time. The date format is `mm/dd/yyyy`, and the time format is `hh:mm`. Optionally, you can specify the time in `hh:mm:ss`.
- Time zone (optional)—The time zone used to generate the monitoring statistics data. The default is `utc`.

The time zones are:

- `utc`—Time in UTC (Coordinated Universal Time)
- `se_local_time`—Time zone specified on the Service Engine
- `cdsm_local_time`—Time zone specified on the CDSM

#### Return

Requested monitoring statistics data for the selected time period for the Service Engine.

#### Syntax

```
https://<cdsmIpAddress>:8443/servlet/com.cisco.unicorn.ui.MonitoringApiServlet?action=getSEstats
&id=<SE_id>&type=<bytes_served | bandwidth_efficiency_gain | streaming_sessions |
cpu_utilization>[&time_frame=<last_hour | last_day | last_week | last_month | custom>]
[&end_time_from=<mm/dd/yyyy [hh:mm[:ss]]>][&end_time_to=<mm/dd/yyyy [hh:mm[:ss]]>]
[&time_zone=<utc | se_local_time | cdsm_local_time>]
```

## getLocationStats

Obtains monitoring statistics information for all the Service Engines in the specified location.

#### Parameter

- Location ID (required)
- Monitoring statistics type (required)

The monitoring statistics types are:

- bytes\_served
- bandwidth\_efficiency\_gain
- streaming\_sessions
- Time frame (optional)—The time period over which monitoring statistics are obtained. The default is last\_hour.

The options are:

- last\_hour
- last\_day
- last\_week
- last\_month
- custom




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**Note** If you choose custom, you must specify the time frame using the End time from and End time to options.

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- End time from (optional)—The date and time that collection of monitoring statistics data should start. You can specify only the date or the date and time. The date format is mm/dd/yyyy, and the time format is hh:mm. Optionally, you can specify the time in hh:mm:ss.
- End time to (optional)—The date and time that collection of monitoring statistics data should end. You can specify only the date or the date and time. The date format is mm/dd/yyyy, and the time format is hh:mm. Optionally, you can specify the time in hh:mm:ss.
- Time zone (optional)—The time zone used to generate the monitoring statistics data. The default is utc.

The time zones are:

- utc—Time in UTC (Coordinated Universal Time)
- cdsm\_local\_time—Time zone specified on the CDSM

### Return

Requested monitoring statistics data for the selected time period for the Service Engines in the specified location.

### Syntax

```
https://<cdsmIpAddress>:8443/servlet/com.cisco.unicorn.ui.MonitoringApiServlet?action=
getLocationStats&id=<Location_ID>&type=<bytes_served | bandwidth_efficiency_gain |
streaming_sessions>[&time_frame=<last_hour | last_day | last_week | last_month | custom>]
[&end_time_from=<mm/dd/yyyy [hh:mm[:ss]]>][&end_time_to=<mm/dd/yyyy [hh:mm[:ss]]>]
[&time_zone=<utc | cdsm_local_time>]
```

## getCdnStats

Obtains monitoring statistics information for the entire CDS network.

### Parameter

- Monitoring statistics type (required)

The monitoring statistics types are:

- bytes\_served
- bandwidth\_efficiency\_gain
- streaming\_sessions

- Time frame (optional)—The time period over which monitoring statistics are obtained. The default is last\_hour.

The options are:

- last\_hour
- last\_day
- last\_week
- last\_month
- custom




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**Note** If you choose custom, you must specify the time frame using the End time from and End time to options.

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- End time from (optional)—The date and time that collection of monitoring statistics data should start. You can specify the date or the date and time. The date format is mm/dd/yyyy, and the time format is hh:mm. Optionally, you can specify the time in hh:mm:ss.
- End time to (optional)—The date and time that collection of monitoring statistics data should end. You can specify the date or the date and time. The date format is mm/dd/yyyy, and the time format is hh:mm. Optionally, you can specify the time in hh:mm:ss.
- Time zone (optional)—The time zone used to generate the monitoring statistics data. The default is utc.

The time zones are:

- utc—Time in UTC (Coordinated Universal Time)
- cdsm\_local\_time—Time zone specified on the CDSM

### Return

Requested monitoring statistics data for the selected time period for all the Service Engines in the CDS network.

### Syntax

```
https://<cdsmIpAddress>:8443/servlet/com.cisco.unicorn.ui.MonitoringApiServlet?action=getCdnStats&type=<bytes_served | bandwidth_efficiency_gain | streaming_sessions>[&time_frame=<last_hour | last_day | last_week | last_month | custom>][&end_time_from=<mm/dd/yyyy [hh:mm[:ss]]>][&end_time_to=<mm/dd/yyyy [hh:mm[:ss]]>][&time_zone=<utc | cdsm_local_time>]
```

# Streaming Statistics API Actions

This section describes the Streaming Statistics API and the servlet actions it performs. The streaming statistics are collected from the CDS network Service Engines and device groups and sent to the CDSM. The HTTP, Movie Streamer, and WMT streaming statistical data is monitored and displayed in the CDSM for all Service Engines, all device groups, or all the Service Engines within a selected device group.

The Streaming Statistics API is the `SprayerApiServlet`. The CDSM must be running for the servlet to function.

## Syntax

`https://<cdsmIpAddress>:8443/servlet/com.cisco.unicorn.ui.SprayerApiServlet...`

This servlet performs one or more of the following actions to collect statistics for each Service Engine (SE), device group (DG), or device group name for all the Service Engines in the specified device group:

- [getHttp](#)
- [getMovieStreamer](#)
- [getWmt](#)

## getHttp

Collects HTTP streaming statistics data from the Service Engines and device groups and sends it to the CDSM.

### Parameter

The SE keyword, DG keyword, or the name of the device group is required.

### Return

Requested HTTP streaming statistics data for the Service Engines or device groups.

### Syntax

`https://<cdsmIpAddress>:8443/servlet/com.cisco.unicorn.ui.SprayerApiServlet?action=getHttp&param=SE | DG | <DG_name>`

## getMovieStreamer

Collects Movie Streamer streaming statistics data from the Service Engines and device groups and sends it to the CDSM.

### Parameter

The SE keyword, DG keyword, or the name of the device group is required.

### Return

Requested Movie Streamer streaming statistics data for the Service Engines or device groups.

**Syntax**

https://<cdsmIpAddress>:8443/servlet/com.cisco.unicorn.ui.SprayerApiServlet?action=getMovieStreamer&param=SE | DG | <DG\_name>

## getWmt

Collects WMT streaming statistics data from the Service Engines and device groups and sends it to the CDSM.

**Parameter**

The SE keyword, DG keyword, or the name of the device group is required.

**Return**

Requested WMT streaming statistics data for the Service Engines or device groups.

**Syntax**

https://<cdsmIpAddress>:8443/servlet/com.cisco.unicorn.ui.SprayerApiServlet?action=getWmt&param=SE | DG | <DG\_name>

## XML-Formatted Output for Streaming Statistics

The following is the Document Type Definition (DTD) of the XML-formatted output for streaming statistics:

```
<?xml version="1.0" ?>
DOCTYPE <!DOCTYPE sprayerStats [

<!ELEMENT sprayerStats (message, (HttpStats* | MovieStreamerStats* | WmtStats* |
FmsStats*) )>
<!ATTLIST sprayerStats
    action (getHttp | getMovieStreamer | getWmt | getFms )#REQUIRED
    count CDATA #REQUIRED>

<!ELEMENT message EMPTY>
<!ATTLIST message
    status (success | fail) success
    message CDATA #IMPLIED>

<!ELEMENT HttpStats EMPTY>
<!ATTLIST HttpStats
    name CDATA #REQUIRED
    requestsPerSec CDATA #REQUIRED
    bytesPerSec CDATA #REQUIRED
    hitRate CDATA #REQUIRED>

<!ELEMENT MovieStreamerStats EMPTY>
<!ATTLIST MovieStreamerStats
    name CDATA #REQUIRED
    totalBytes CDATA #REQUIRED
    totalPackets CDATA #REQUIRED
    rtspConnections CDATA #REQUIRED
    allConnections CDATA #REQUIRED>

<!ELEMENT WmtStats EMPTY>
<!ATTLIST WmtStats
```

```
    name CDATA #REQUIRED
    requestsPerSec CDATA #REQUIRED
    bytesPerSec CDATA #REQUIRED
    hitRate CDATA #REQUIRED>

<!ELEMENT FmsStats EMPTY>
<!ATTLIST FmtStats
    name CDATA #REQUIRED
    allConnections CDATA #REQUIRED
    bytesPerSec CDATA #REQUIRED
    hitRate CDATA #REQUIRED>

]>
```

