

## **Bulk Statistics Changes Quick Reference**

This chapter identifies bulk statistics changes added to, modified for, or deprecated from the StarOS 21.14 software release.



Important

For more information regarding bulk statistics identified in this section, see the latest version of the *BulkstatStatistics\_document.xls* spreadsheet supplied with the release.

Bulk statistics changes for 21.14 include:

- New Bulk Statistics, on page 1
- Modified Bulk Statistics, on page 7
- Deprecated Bulk Statistics, on page 7

### **New Bulk Statistics**

This section identifies new bulk statistics and new bulk statistic schemas introduced in release 21.14.

#### ECS Schema

The following bulk statistics are added in the ECS schema to support Large and Managed flows in Cisco Ultra Traffic Optimization:

| Bulk Statistics                       | Description   |
|---------------------------------------|---|
| tcp-active-normal-flow-count          | Indicates the number of TCP active-normal-flow count for Cisco Ultra Traffic Optimization.                |
| tcp-active-large-flow-count           | Indicates the number of TCP active-large-flow count for Cisco Ultra Traffic Optimization.                 |
| tcp-active-managed-large-flow-count   | Indicates the number of TCP active-managed-large-flow count for Cisco Ultra Traffic Optimization.         |
| tcp-active-unmanaged-large-flow-count | Indicates the number of TCP<br>active-unmanaged-large-flow count for Cisco Ultra<br>Traffic Optimization. |

| Bulk Statistics                       | Description   |
|---------------------------------------|---|
| tcp-total-normal-flow-count           | Indicates the number of TCP total-normal-flow count for Cisco Ultra Traffic Optimization.                 |
| tcp-total-large-flow-count            | Indicates the number of TCP total-large-flow count for Cisco Ultra Traffic Optimization.                  |
| tcp-total-managed-large-flow-count    | Indicates the number of TCP total-managed-large-flow count for Cisco Ultra Traffic Optimization.          |
| tcp-total-unmanaged-large-flow-count  | Indicates the number of TCP<br>total-unmanaged-large-flow count for Cisco Ultra<br>Traffic Optimization.  |
| tcp-total-io-bytes                    | Indicates the number of TCP total-IO bytes for Cisco<br>Ultra Traffic Optimization.                       |
| tcp-total-large-flow-bytes            | Indicates the number of TCP total-large-flow bytes for<br>Cisco Ultra Traffic Optimization.               |
| tcp-total-recovered-capacity-bytes    | Indicates the number of TCP total-recovered capacity bytes for Cisco Ultra Traffic Optimization.          |
| tcp-total-recovered-capacity-ms       | Indicates the number of TCP total-recovered capacity ms for Cisco Ultra Traffic Optimization.             |
| udp-active-normal-flow-count          | Indicates the number of UDP active-normal-flow count for Cisco Ultra Traffic Optimization.                |
| udp-active-large-flow-count           | Indicates the number of UDP active-large-flow count for Cisco Ultra Traffic Optimization.                 |
| udp-active-managed-large-flow-count   | Indicates the number of UDP active-managed-large-flow count for Cisco Ultra Traffic Optimization.         |
| udp-active-unmanaged-large-flow-count | Indicates the number of UDP<br>active-unmanaged-large-flow count for Cisco Ultra<br>Traffic Optimization. |
| udp-total-normal-flow-count           | Indicates the number of UDP total-normal-flow count for Cisco Ultra Traffic Optimization.                 |
| udp-total-large-flow-count            | Indicates the number of UDP total-large-flow count for Cisco Ultra Traffic Optimization.                  |
| udp-total-managed-large-flow-count    | Indicates the number of UDP total-managed-large-flow count for Cisco Ultra Traffic Optimization.          |
| udp-total-unmanaged-large-flow-count  | Indicates the number of UDP<br>total-unmanaged-large-flow count for Cisco Ultra<br>Traffic Optimization.  |
| udp-total-io-bytes                    | Indicates the number of UDP total-IO bytes for Cisco Ultra Traffic Optimization.                          |

| Bulk Statistics                    | Description  |
|------------------------------------|--|
| udp-total-large-flow-bytes         | Indicates the number of UDP total-large-flow bytes for Cisco Ultra Traffic Optimization.         |
| udp-total-recovered-capacity-bytes | Indicates the number of UDP total-recovered capacity bytes for Cisco Ultra Traffic Optimization. |
| udp-total-recovered-capacity-ms    | Indicates the number of UDP total-recovered capacity ms for Cisco Ultra Traffic Optimization.    |
| tcp-uplink-drop                    | Indicates the number of TCP uplink-drop for Cisco Ultra<br>Traffic Optimization.                 |
| tcp-uplink-hold                    | Indicates the number of TCP uplink-hold for Cisco Ultra<br>Traffic Optimization.                 |
| tcp-uplink-forward                 | Indicates the number of TCP uplink-forward for Cisco Ultra Traffic Optimization.                 |
| tcp-uplink-forward-and-hold        | Indicates the number of TCP uplink-forward and hold for Cisco Ultra Traffic Optimization.        |
| tcp-uplink-hold-failed             | Indicates the number of TCP uplink-hold-failed for Cisco Ultra Traffic Optimization.             |
| tcp-uplink-bw-limit-flow-sent      | Indicates the number of TCP uplink-bw limit-flow sent for Cisco Ultra Traffic Optimization.      |
| tcp-dnlink-drop                    | Indicates the number of TCP downlink-drop for Cisco Ultra Traffic Optimization.                  |
| tcp-dnlink-hold                    | Indicates the number of TCP downlink-hold for Cisco<br>Ultra Traffic Optimization.               |
| tcp-dnlink-forward                 | Indicates the number of TCP downlink-forward for Cisco Ultra Traffic Optimization.               |
| tcp-dnlink-forward-and-hold        | Indicates the number of TCP downlink-forward and hold for Cisco Ultra Traffic Optimization.      |
| tcp-dnlink-hold-failed             | Indicates the number of TCP downlink-hold-failed for Cisco Ultra Traffic Optimization.           |
| tcp-dnlink-bw-limit-flow-sent      | Indicates the number of TCP downlink-bw limit-flow sent for Cisco Ultra Traffic Optimization.    |
| tcp-dnlink-async-drop              | Indicates the number of TCP downlink-async-drop for Cisco Ultra Traffic Optimization.            |
| tcp-dnlink-async-hold              | Indicates the number of TCP downlink-async-hold for Cisco Ultra Traffic Optimization.            |
| tcp-dnlink-async-forward           | Indicates the number of TCP downlink-async-forward for Cisco Ultra Traffic Optimization.         |

| Bulk Statistics                                  | Description   |
|--|---|
| tcp-dnlink-async-forward-and-hold                | Indicates the number of TCP downlink-async-forward and hold for Cisco Ultra Traffic Optimization.                           |
| tcp-dnlink-async-hold-failed                     | Indicates the number of TCP downlink-async-hold-failed for Cisco Ultra Traffic Optimization.                                |
| tcp-process-packet-drop                          | Indicates the number of TCP process-packet-drop for Cisco Ultra Traffic Optimization.                                       |
| tcp-process-packet-hold                          | Indicates the number of TCP process-packet-hold for Cisco Ultra Traffic Optimization.                                       |
| tcp-process-packet-forward                       | Indicates the number of TCP process-packet-forward for Cisco Ultra Traffic Optimization.                                    |
| tcp-process-packet-forward-failed                | Indicates the number of TCP<br>process-packet-forward-failed for Cisco Ultra Traffic<br>Optimization.                       |
| tcp-process-packet-forward-and-hold              | Indicates the number of TCP process-packet-forward and hold for Cisco Ultra Traffic Optimization.                           |
| tcp-process-packet-forward-and-hold-failed       | Indicates the number of TCP process-packet-forward<br>and hold-failed for Cisco Ultra Traffic Optimization.                 |
| tcp-pkt-copy                                     | Indicates the number of TCP packet-copy for Cisco<br>Ultra Traffic Optimization.  |
| tcp-pkt-Copy-failed                              | Indicates the number of TCP packet-copy-failed for<br>Cisco Ultra Traffic Optimization.                                     |
| tcp-process-pkt-copy                             | Indicates the number of TCP process-packet-copy for Cisco Ultra Traffic Optimization.                                       |
| tcp-process-pkt-copy-failed                      | Indicates the number of TCP process-packet-copy-failed for Cisco Ultra Traffic Optimization.                                |
| tcp-process-pkt-no-packet-found-action-forward   | Indicates the number of TCP process packet, no packet<br>found, and action forward for Cisco Ultra Traffic<br>Optimization. |
| tcp-process-pkt-no-packet-found-forward-and-hold | Indicates the number of TCP process packet, no packet found, action forward and hold for Cisco Ultra Traffic Optimization.  |
| tcp-process-pkt-no-packet-found-action-drop      | Indicates the number of TCP process packet, no packet found, action drop for Cisco Ultra Traffic Optimization.              |
| tcp-todrs-generated                              | Indicates the number of TCP TODRs generated for Cisco Ultra Traffic Optimization.   |
| udp-uplink-drop                                  | Indicates the number of UDP uplink-drop for Cisco<br>Ultra Traffic Optimization.  |

| Bulk Statistics                   | Description   |
|-----------------------------------|---|
| udp-uplink-hold                   | Indicates the number of UDP uplink-hold for Cisco<br>Ultra Traffic Optimization.                  |
| udp-uplink-forward                | Indicates the number of UDP uplink-forward for Cisco<br>Ultra Traffic Optimization.               |
| udp-uplink-forward-and-hold       | Indicates the number of UDP uplink-forward and hold for Cisco Ultra Traffic Optimization.         |
| udp-uplink-hold-failed            | Indicates the number of UDP uplink-hold failed for Cisco Ultra Traffic Optimization.              |
| udp-uplink-bw-limit-flow-sent     | Indicates the number of UDP uplink-bw limit-flow sent for Cisco Ultra Traffic Optimization.       |
| udp-dnlink-drop                   | Indicates the number of UDP downlink-drop for Cisco<br>Ultra Traffic Optimization.                |
| udp-dnlink-hold                   | Indicates the number of UDP downlink-hold for Cisco<br>Ultra Traffic Optimization.                |
| udp-dnlink-forward                | Indicates the number of UDP downlink-forward for Cisco Ultra Traffic Optimization.                |
| udp-dnlink-forward-and-hold       | Indicates the number of UDP downlink-forward and hold for Cisco Ultra Traffic Optimization.       |
| udp-dnlink-hold-failed            | Indicates the number of UDP downlink-hold failed for Cisco Ultra Traffic Optimization.            |
| udp-dnlink-bw-limit-flow-sent     | Indicates the number of UDP downlink-bw limit-flow sent for Cisco Ultra Traffic Optimization.     |
| udp-dnlink-async-drop             | Indicates the number of UDP downlink-async-drop for Cisco Ultra Traffic Optimization.             |
| udp-dnlink-async-hold             | Indicates the number of UDP downlink-async-hold for Cisco Ultra Traffic Optimization.             |
| udp-dnlink-async-forward          | Indicates the number of UDP downlink-async-forward for Cisco Ultra Traffic Optimization.          |
| udp-dnlink-async-forward-and-hold | Indicates the number of UDP downlink-async-forward and hold for Cisco Ultra Traffic Optimization. |
| udp-dnlink-async-hold-failed      | Indicates the number of UDP downlink-async-hold failed for Cisco Ultra Traffic Optimization.      |
| udp-process-packet-drop           | Indicates the number of UDP process-packet-drop for Cisco Ultra Traffic Optimization.             |
| udp-process-packet-hold           | Indicates the number of UDP process-packet-hold for Cisco Ultra Traffic Optimization.             |

| Bulk Statistics                                  | Description  |
|--|--|
| udp-process-packet-forward                       | Indicates the number of UDP process-packet-forward for Cisco Ultra Traffic Optimization.                                   |
| udp-process-packet-forward-failed                | Indicates the number of UDP process-packet-forward failed for Cisco Ultra Traffic Optimization.                            |
| udp-process-packet-forward-and-hold              | Indicates the number of UDP process-packet-forward<br>and hold for Cisco Ultra Traffic Optimization.                       |
| udp-process-packet-forward-and-hold-failed       | Indicates the number of UDP process-packet-forward<br>and hold failed for Cisco Ultra Traffic Optimization.                |
| udp-pkt-copy                                     | Indicates the number of UDP packet-copy for Cisco<br>Ultra Traffic Optimization.   |
| udp-pkt-Copy-failed                              | Indicates the number of UDP packet-copy-failed for<br>Cisco Ultra Traffic Optimization.                                    |
| udp-process-pkt-copy                             | Indicates the number of UDP process-packet-copy for Cisco Ultra Traffic Optimization.                                      |
| udp-process-pkt-copy-failed                      | Indicates the number of UDP process-packet-copy failed for Cisco Ultra Traffic Optimization.                               |
| udp-process-pkt-no-packet-found-action-forward   | Indicates the number of UDP process packet, no packet<br>found, action forward for Cisco Ultra Traffic<br>Optimization.    |
| udp-process-pkt-no-packet-found-forward-and-hold | Indicates the number of UDP process packet, no packet found, action forward and hold for Cisco Ultra Traffic Optimization. |
| udp-process-pkt-no-packet-found-action-drop      | Indicates the number of UDP process packet, no packet found, action drop for Cisco Ultra Traffic Optimization.             |
| udp-todrs-generated                              | Indicates the number of UDP TODRs generated for<br>Cisco Ultra Traffic Optimization.                                       |

#### **MME TAI Schema**

| Statistics              | Description   |
|-------------------------|---|
| tai-sess-call-attached  | Indicates the current total number of calls in attached per TAI.        |
| tai-sess-call-connected | Indicates the current total number of calls in connected state per TAI. |
| tai-sess-call-idle      | Indicates the current total number of calls in idle state.              |

### **Modified Bulk Statistics**

None in this release.

# **Deprecated Bulk Statistics**

None in this release.