



Bulk Statistics Changes Quick Reference

This chapter identifies bulk statistics changes added to, modified for, or deprecated from the StarOS 21.24 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 21.24 include:

- [New Bulk Statistics, on page 1](#)
- [Modified Bulk Statistics, on page 4](#)
- [Deprecated Bulk Statistics, on page 4](#)

New Bulk Statistics

APN Schema

The following bulk statistics are added in the APN schema to support the LTE-M RAT type feature:

Bulk Statistics	Description
active-lte-m-sessions	The total number of active LTE-M sessions per APN with RAT type LTE-M.
initiated-lte-m-sessions	The total number of initiated LTE-M sessions.

ECS Schema

The following bulk statistics are added in the ECS schema to support the VPP metric feature:

Variables	Description
vpp-tot-flows	Indicates total number of flows through VPP.
vpp-cur-flows	Indicates total number of active current flows through VPP.

Variables	Description
IPv4	
vpp-IPv4-uplk-pkts	Indicates total number of IP packets detected in uplink direction in IPv4 traffic through VPP.
vpp-IPv4-dwnlk-pkts	Indicates total number of IP packets detected in downlink direction in IPv4 traffic through VPP.
vpp-IPv4-uplk-bytes	Indicates total number of IP bytes detected in uplink direction in IPv4 traffic through VPP.
vpp-IPv4-dwnlk-bytes	Indicates total number of IP bytes detected in downlink direction in IPv4 traffic through VPP.
vpp-IPv4-uplk-drop-pkts	Indicates the total number of dropped IP packets detected in uplink direction in IPv4 traffic through VPP.
vpp-IPv4-dwnlk-drop-pkts	Indicates the total number of dropped IP packets detected in downlink direction in IPv4 traffic through VPP.
vpp-IPv4-uplk-drop-bytes	Indicates the total number of dropped IP bytes detected in uplink direction in IPv4 traffic through VPP.
vpp-IPv4-dwnlk-drop-bytes	Indicates the total number of dropped IP bytes detected in downlink direction in IPv4 traffic through VPP.
IPv6	
vpp-IPv6-uplk-pkts	Indicates total number of IP packets detected in uplink direction in IPv6 traffic through VPP.
vpp-IPv6-dwnlk-pkts	Indicates total number of IP packets detected in downlink direction in IPv6 traffic through VPP.
vpp-IPv6-uplk-bytes	Indicates total number of IP bytes detected in uplink direction in IPv6 traffic through VPP.
vpp-IPv6-dwnlk-bytes	Indicates total number of IP bytes detected in downlink direction in IPv6 traffic through VPP.
vpp-IPv6-uplk-drop-pkts	Indicates the total number of dropped IP packets detected in uplink direction in IPv6 traffic through VPP.
vpp-IPv6-dwnlk-drop-pkts	Indicates the total number of dropped IP packets detected in downlink direction in IPv6 traffic through VPP.

Variables	Description
vpp-IPv6-uplk-drop-bytes	Indicates the total number of dropped IP bytes detected in uplink direction in IPv6 traffic through VPP.
vpp-IPv6-dwnlk-drop-bytes	Indicates the total number of dropped IP bytes detected in downlink direction in IPv6 traffic through VPP.

MME-SMS Schema

The following bulk statistic is added in the MME-SMS schema to support the SMS over SGd for EPS only feature.

Counters	Description
eps-attach-nbiot-with-sms	Indicates the total number of EPS Attach requests received for NB-IoT subscribers with SMS option.

P-GW Schema

The following bulk statistics are added in the P-GW schema to support the LTE-M RAT type feature:

Bulk Statistics	Description
sesstat-pdn-rat-lte-m	The total number of active PDN Type Statistics – LTE-M.
sesstat-rat-init-lte-m	The total number of initiated LTE-M PDNs (with RAT Type LTE-M).

S-GW Schema

The following bulk statistics are added in the S-GW schema to support the LTE-M RAT type feature:

Bulk Statistics	Description
sesstat-totcur-ue-lte-m	The total number of active UEs with LTE-M RAT type.
sesstat-totcur-pdn-lte-m	The total number of active PDNs with LTE-M RAT type.

SAEGW Schema

The following bulk statistics are added in the SAEGW schema to support the LTE-M RAT type feature:

Bulk Statistics	Description
sgw-sesstat-totcur-ue-lte-m	The total number of active UEs with LTE-M RAT type.

Bulk Statistics	Description
sgw-sesstat-totcur-pdn-lte-m	The total number of LTE-M PDNs (PGW anchored/Collapsed PDN) with RAT Type LTE-M.
pgw-sesstat-pdn-rat-lte-m	The total number of LTE-M PDNs (PGW anchored/Collapsed PDN) with RAT Type LTE-M.
pgw-sesstat-pdn-rat-init-lte-m	The total number of initiated LTE-M PDNs.
saegw-sgw-anchor-pdn-rat-lte-m	The total number of LTE-M PDNs (SGW anchored) with RAT Type LTE-M.
saegw-pgw-anchor-pdn-rat-lte-sm	The total number of LTE-M PDNs (PGW anchored) with RAT Type LTE-M.
saegw-collapsed-pdn-rat-lte-m	The total number of LTE-M PDNs (PGW anchored/Collapsed PDN) with RAT Type LTE-M.

Modified Bulk Statistics

None in this release.

Deprecated Bulk Statistics

None in this release.