



Bulk Statistics Changes Quick Reference

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New Bulk Statistics

MME Schema

The following bulk statistics are added in the MME schema.

Bulk Statistics Variable	Description
esm-msgtx-brrmod-rej-eps-qos-not-accepted	The total number of times Bearer Modification Reject has occurred with an ESM Cause of 'EPS QoS Not Accepted'.
dcnr-nsa-ipra-count	Shows the total number of IPRA counts.
dcnr-nsa-opra-count	Shows the total number of OPRA count.
emm-msgtx-attach-rej-network-fail-hss-abort-except-subscription-withdrawn	Shows the total number of Attach Reject messages that are sent for an Attach Request, with a cause code Network Failure, when the rejection is due to HSS abort except subscription withdrawn.
emm-msgtx-attach-rej-network-fail-hss-cancel-except-sw	Shows the total number of Attach Reject messages sent for an Attach Request, with a cause code Network Failure, when the rejection is due to HSS CLR, excluding cancellation type of subscription withdrawal.

NAT Realm Schema

The NAT Realm schema provides operational statistics that can be used for monitoring and troubleshooting the NAT Port chunk hold timer feature.

Bulk Statistics Variable	Description
nat-rlm-port-chunks-on-hold	The total number of port chunks on hold, which are collected per context and for each realm

SaMOG Schema

The following bulk statistics are added in the SaMOG schema as part of the Separate Counters for All EAP Type for Success and Failure Events feature

Bulk Statistics Variables	Description
mrme-eap-rxmobile-eap-tls	Total number of EAP TLS received.
mrme-eap-rxmobile-eap-ttls	Total number of EAP TTLS received.
mrme-eap-rxmobile-eap-peap	Total number of EAP PEAP received.
mrme-eap-rxmobile-eap-aka-total-rcvd	Total number of EAP-AKA received.
mrme-eap-rxmobile-eap-aka-success	Total number of EAP-AKA connections succeeded.
mrme-eap-rxmobile-eap-aka-challenge	Total number of EAP-AKA challenges received.
mrme-eap-rxmobile-eap-aka-failure-rcvd	Total number of EAP AKA requests failed.
mrme-eap-rxmobile-eap-aka-msgs-from-svr-discarded	Total number of EAP-AKA messages from server that are discarded.
mrme-eap-rxmobile-eap-aka-prime-total-rcvd	Total number of EAP-AKA' received.
mrme-eap-rxmobile-eap-aka-prime-success	Total number of EAP-AKA' connections succeeded.
mrme-eap-rxmobile-eap-aka-prime-challenge	Total number of EAP-AKA' challenges received.
mrme-eap-rxmobile-eap-aka-prime-failure-rcvd	Total number of EAP AKA' requests failed.
mrme-eap-rxmobile-eap-aka-prime-msgs-from-svr-discarded	Total number of EAP-AKA' messages from server that are discarded.
mrme-eap-rxmobile-eap-sim-total-rcvd	Total number of EAP-SIM received.
mrme-eap-rxmobile-eap-sim-success	Total number of EAP-SIM connections succeeded.
mrme-eap-rxmobile-eap-sim-challenge	Total number of EAP-SIM challenges received.
mrme-eap-rxmobile-eap-sim-failure-rcvd	Total number of EAP SIM requests failed.
mrme-eap-rxmobile-eap-sim-msgs-from-svr-discarded	Total number of EAP-SIM messages from server that are discarded.
mrme-eap-rxmobile-eap-tls-total-rcvd	Total number of EAP-TLS received.
mrme-eap-rxmobile-eap-tls-success	Total number of EAP-TLS connections succeeded.

Bulk Statistics Variables	Description
mrme-eap-rxmobile-eap-tls-challenge	Total number of EAP-TLS challenges received.
mrme-eap-rxmobile-eap-tls-failure-rcvd	Total number of EAP TLS requests failed.
mrme-eap-rxmobile-eap-tls-msgs-from-svr-discarded	Total number of EAP-TLS messages from server that are discarded.
mrme-eap-rxmobile-eap-ttls-total-rcvd	Total number of EAP-TTLS received.
mrme-eap-rxmobile-eap-ttls-success	Total number of EAP-TTLS connections succeeded.
mrme-eap-rxmobile-eap-ttls-challenge	Total number of EAP-TTLS challenges received.
mrme-eap-rxmobile-eap-ttls-failure-rcvd	Total number of EAP TTLS requests failed.
mrme-eap-rxmobile-eap-ttls-msgs-from-svr-discarded	Total number of EAP-TLS messages from server that are discarded.
mrme-eap-rxmobile-eap-peap-total-rcvd	Total number of EAP-PEAP received.
mrme-eap-rxmobile-eap-peap-success	Total number of EAP-PEAP connections succeeded.
mrme-eap-rxmobile-eap-peap-challenge	Total number of EAP-PEAP challenges received.
mrme-eap-rxmobile-eap-peap-failure-rcvd	Total number of EAP PEAP requests failed.
mrme-eap-rxmobile-eap-peap-msgs-from-svr-discarded	Total number of EAP-PEAP messages from server that are discarded.

PGW Schema

The following bulk statistics are added to the PGW schema:

Bulk Statistics Variables	Description
Bulk Statistic Variables in the pgw-only data-rate	
pgw-subs-total	Displays the total number of the subscriber count.
pgw-data-active	Displays the total number of active subscribers.
pgw-data-dormant	Displays the total number of dormant subscribers.
pgw-data-fromuseravg-bps	Displays the average data rate from user in bits per second.
pgw-data-touseravg-bps	Displays the average data rate to user in bits per second.

Bulk Statistics Variables	Description
pgw-data-fromuserpeak-bps	Displays the Peak data rate from user in bits per second.
pgw-data-fromusersust-bps	Displays the mean data rate from user in bits per second.
pgw-data-tousersust-bps	Displays the Sust data rate to user in bits per second
pgw-data-fromuserpeak-pps	Displays the peak data rate from user in packets per second.
pgw-data-touserpeak-pps	Displays the peak data rate to user in packets per second. Type: Gauge
pgw-data-fromuseravg-pps	Displays the average data rate from user in packets per second.
pgw-data-touseravg-pps	Displays the average data rate to user in packets per second.
pgw-data-fromusersust-pps	Displays the Sust data rate from user in packets per second
pgw-data-tousersust-pps	Displays the Sust data rate to user in packets per second. Type: Gauge
Bulk Statistic Variables in the pgw-only data-rate with plmn-type home	
pgw-subs-total-home	Displays the total number of the home subscriber count.
pgw-data-active-home	Displays the total number of active home subscribers.
pgw-data-dormant-home	Displays the total number of dormant home subscribers.
pgw-data-fromuseravg-bps-home	Displays the average data rate from user in bits per second.
pgw-data-touseravg-bps -home	Displays the average data rate to user in bits per second.
pgw-data-fromuserpeak-bps-home	Displays the peak data rate from user in bits per second.
pgw-data-fromusersust-bps-home	Displays the mean data rate from user in bits per second.

Bulk Statistics Variables	Description
pgw-data-tousersust-bps-home	Displays the sust data rate to user in bits per second
pgw-data-fromuserpeak-pps-home	Displays the peak data rate from user in packets per second.
pgw-data-touserpeak-pps-home	Displays the peak data rate to user in packets per second.
pgw-data-fromuseravg-pps-home	Displays the average data rate from user in packets per second.
pgw-data-touseravg-pps -home	Displays the average data rate to user in packets per second.
pgw-data-fromusersust-pps-home	Displays the sust data rate from user in packets per second. Type: Gauge
pgw-data-tousersust-pps-home	Displays the sust data rate to user in packets per second.
Bulk Statistic Variables in the pgw-only data-rate with plmn-type roaming	
pgw-subs-total-roaming	Displays the total number of the roaming subscriber count.
pgw-data-active-roaming	Displays the total number of active roaming subscribers.
pgw-data-dormant-roaming	Displays the total number of dormant roaming subscribers.
pgw-data-fromuseravg-bps-roaming	Displays the average data rate from user in bits per second. Type: Gauge
pgw-data-touseravg-bps-roaming	The average data rate to user in bits per second.
pgw-data-fromuserpeak-bps-roaming	The peak data rate from user in bits per second.
pgw-data-fromusersust-bps-roaming	The mean data rate from user in bits per second.
pgw-data-tousersust-bps-roaming	The sust data rate to user in bits per second
pgw-data-fromuserpeak-pps-roaming	The peak data rate from user in packets per second.

Bulk Statistics Variables	Description
pgw-data-touserpeak-pps-roaming	The peak data rate to user in packets per second.
pgw-data-fromuseravg-pps-roaming	The average data rate from user in packets per second.
pgw-data-touseravg-pps -roaming	The average data rate to user in packets per second.
pgw-data-fromusersust-pps-roaming	The sust data rate from user in packets per second.
pgw-data-tousersust-pps-roaming	The sust data rate to user in packets per second.
Bulk Statistic Variables in the pgw-only data-rate with plmn-type visiting	
pgw-subs-total-visiting	Displays the total number of the visiting subscriber count.
pgw-subs-total-visiting	Displays the total number of the visiting subscriber count.
pgw-data-dormant-visiting	Displays the total number of dormant visiting subscribers.
pgw-data-fromuseravg-bps-visiting	Displays the average data rate from user in bits per second.
pgw-data-touseravg-bps -visiting	The average data rate to user in bits per second.
pgw-data-fromuserpeak-bps-visiting	Displays the peak data rate from user in bits per second.
pgw-data-fromusersust-bps-visiting	Displays the mean data rate from user in bits per second.
pgw-data-tousersust-bps-visiting	Displays the sust data rate to user in bits per second
pgw-data-fromuserpeak-pps-visiting	Displays the peak data rate from user in packets per second.
pgw-data-touserpeak-pps-visiting	Displays the peak data rate to user in packets per second.
pgw-data-fromuseravg-pps-visiting	Displays the average data rate from user in packets per second.
pgw-data-touseravg-pps -visiting	Displays the average data rate to user in packets per second.

Bulk Statistics Variables	Description
pgw-data-fromusersust-pps-visiting	Displays the sust data rate from user in packets per second.
pgw-data-tousersust-pps-visiting	Displays the sust data rate to user in packets per second.

RADIUS Schema

The following bulk statistics are added to the RADIUS schema:

Bulk Statistics Variable	Description
acc-rsp-drop-sgw-context-replacement	Total accounting response messages dropped due to SGW context replacement.
acc-req-timeout-sgw-context-replacement	Total accounting request messages timed out due to SGW context replacement.

System Schema

The following bulk statistics are added to the system schema:

Bulk Statistics Variable	Description
ikev2-notifpaysent-pdntype-ipv4	Total number of sessions with IPv4 PDN type.
ikev2-notifpaysent-pdntype-ipv6	Total number of sessions with IPv6 PDN type.

Modified Bulk Statistics

MME Schema

The following bulk statistics are modified in the MME schema.

Bulk Statistics Variable	Description
emm-msgtx-attach-rej-network-fail-smgr-resource-unavailable	Shows the total number of Attach Reject messages sent for an Attach Request with a cause code Network Failure, when the rejection is due to Session Manager resources is unavailable.
emm-msgtx-attach-rej-nw-fail-hssabort-ex-sub-withdrawn	Shows total number of Attach procedure not completing due to HSS CLR, excluding cancellation type of subscription withdrawal. This includes scenario of attach reject with network failure and also attach abort, where CLR abort happens after attach accept is sent and before attach complete is received.

Deprecated Bulk Statistics

None in this release.