



Counter Enhancements on TAC and LAC Levels

- [Feature Summary and Revision History, on page 1](#)
- [Feature Description, on page 2](#)
- [Monitoring and Troubleshooting, on page 2](#)

Feature Summary and Revision History

Summary Data

Applicable Product(s) or Functional Area	MME
Applicable Platform(s)	<ul style="list-style-type: none"> • ASR 5500 • VPC-DI • VPC-SI
Feature Default	Enabled - Always On
Related Changes in This Release	Not applicable
Related Documentation	<ul style="list-style-type: none"> • <i>MME Administration Guide</i> • <i>Statistics and Counters Reference</i>

Revision History

Revision Details	Release
New counters are added in the TAI. schema	21.17.9

Feature Description

In StarOS 21.17 and later releases, counters on TAC and LAC level are enhanced to add them on TAI schema and LAC object. This is required to monitor basic KPI on TAL/LAC level. These counters calculates KPI pertaining to attach success ratio, quantity of attached idle or connect users, and Dedicated bearers success rate on TAC level.

Monitoring and Troubleshooting

Show Commands and Output

show mme-service statistics tai

This section provides information on the show commands available to support this feature.

Table 1: show mme-service statistics tai Output Descriptions

Field	Description
ESM Statistics	
NW Initiated Dedicated Bearer Activations	
Attempted	This sub-group displays the total number of attempted ESM network initiated dedicated bearer activations for each TAI.
Success	This sub-group displays the total number of successful ESM network initiated dedicated bearer activations for each TAI.
Failures	This sub-group displays the total number of failed ESM network initiated dedicated bearer activations for each TAI.
Session Statistics	
Total Subscribers	
Attached Calls	The total number of EPS Mobility Management call-line statistics on attached current calls for each TAI.
Connected Calls	The total number of EPS Mobility Management call-line statistics on connected current calls for each TAI.
Idle Calls	The total number of EPS Mobility Management call-line statistics for each TAI indicating idle current calls.
EMM Control Messages	
Received	

Field	Description
Attach Complete	Displays total number of EMM Attach Complete message received from UE indicating increments for each Attach Complete message received from UE.
Attach Request	Displays total number of EMM Attach Requests received from UE indicating increments for each Attach Request message received from UE.
PDN Connectivity Reject:	
Other Reasons	Displays total number of ESM messages sent for each TAI by the MME. This indicates that the PDN connection has been rejected for a cause other than one of those listed in the output generated by the show mme-service statistics esm-only command.

Bulk Statistics

TAI Schema

The following counters are available in the TAI schema.

Bulk Statistics	Description
tai-esm-msgtx-pdncon-rej-other-reasons	Shows the total number of ESM messages sent for each TAI by the MME. This indicates that the PDN connection is rejected for a cause other than one of those listed in the output generated by the show mme-service statistics esm-only command
tai-emm-msgrx-attach-req	Shows the total number of EMM Attach Requests received from UE. This is incremented for each Attach Request message received from UE.
tai-emm-msgrx-attach-complete	Shows the total number of EMM Attach Complete message received from UE. This is incremented for each Attach Complete message received from UE.
tai-emmcall-attach-currall	Shows the total number of EPS Mobility Management call-line statistics on attached current calls for each TAI.
tai-emmcall-connect-currall	Shows the total number of EPS Mobility Management call-line statistics on connected calls for each TAI.
tai-emmcall-idle-curcall	Show the total number of EPS Mobility Management call-line statistics on idle current calls for each TAI.
tai-dedi-brr-activation-nw-attempted	Shows the total number of ESM Network initiated dedicated bearer activations attempted for each TAI.

Bulk Statistics	Description
tai-dedi-brr-activation-nw-success	Shows the total number of successful ESM Network-initiated dedicated bearer activations for each TAI.
tai-dedi-brr-activation-nw-failures	Shows the total number of failed ESM Network-initiated dedicated bearer activations for each TAI.