



# NB-IoT and Low Power Session Counters

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## Feature Summary and Revision History

### Summary Data

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

### Revision History

Revision Details	Release
First introduced.	21.6

## Feature Description

On MME and C-SGN, new counters are added to count the number of low power subscribers when RAT type is E-UTRAN or NB-IoT. The counters will increment by 1 for each subscriber if eDRX or PSM or both are received in Attach or TAU Request.

The **show mme-service statistics** command and MME schema are enhanced to support the new counters and and new bulk statistics respectively.

## Monitoring and Troubleshooting

This section provides information on the bulk statistics and show commands available to support NB-IoT and Low Power Session RAT type.

### Show Commands and/or Outputs

This section provides information regarding show commands and/or their outputs.

#### show mme-service statistics

The following new fields are added to the output of this command to display the number of low power subscribers attached when RAT type is NBIOT and E-UTRAN.

- Low power Subscribers:
  - NB-IoT Attached Calls — The current total number of attached low power subscribers which are operating in NB-IoT.
  - EUTRAN Attached Calls — The current total number of attached low power subscribers which are operating in E-UTRAN.

### Bulk Statistics

The following bulk statistics are added in the MME schema to display the number of low power subscribers attached when RAT type is NB-IOT and E-UTRAN.

Bulk Statistics	Description
attached-lp-nbiot-subscriber	The current total number of attached low power subscribers which are operating in NB-IoT.
attached-lp-eutran-subscriber	The current total number of attached low power subscribers which are operating in E-UTRAN.