

Engineering Rules

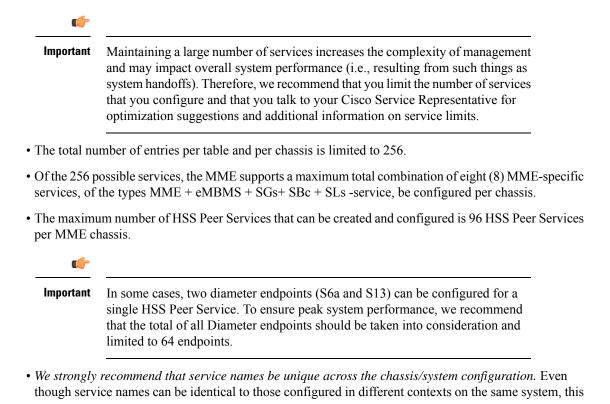
This section provides engineering rules or guidelines that must be considered prior to configuring the system for your network deployment.

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Service Engineering Rules

The engineering rules listed here apply to the services configurations for the MME system.

• A maximum combined total of 256 services (regardless of type) can be configured per system.



is not a good practice. Having services with the same name can lead to confusion, difficulty troubleshooting problems, and make it difficult to understand the outputs of show commands.

Node Engineering Rules

The following engineering rules apply regarding the number of nodes supported on the system.

eNodeBs:

- In Release 18 .0 and higher, the MME supports a maximum of 64,000 eNodeB connections on the ASR 5500 DPC platform, with a fully loaded system (chassis).
- In Release 19.2, the MME supports a maximum of 64,000 eNodeB connections on the ASR 5500 DPC2 platform with a fully loaded system (chassis).
- In Release 20.0, the MME supports a maximum of 128, 000 eNodeB connections on the ASR 5500 DPC2 platform with a fully loaded system (chassis).

Release 17.0 and higher:

• The MME supports a maximum of 64,000 eNodeB connections on the ASR 5500 platform with a fully loaded system (chassis).

MME Managers

- In Release 17.0, The maximum number of MME Managers has been increased to 16 in order to support the increase in eNodeB connections.
- In Release 18.0, the maximum number of MME Managers is increased to 24 on the ASR 5500 DPC platform in order to support the increase in eNodeB connections.
- In Release 19.2, the maximum number of MME Managers is increased to 36 on the ASR 5500 DPC2 platform in order to support the increase in eNodeB connections.
- In Release 21.1, the maximum number of MME Managers is increased to 36 on the ASR 5500 DPC1 platform in order to support the increase in eNodeB connections.

MME Task Instance Limit

This section describes the task instance limit for MME managers and IMSI managers.

Table	1:	Task	Instance	Limit for	MME	Managers
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Platform	Default number of MME Managers per Chassis			Maximum number of MME Managers per Chassis		
StarOS Release	v19.2	v20.0	v21.0	v19.2	v20.0	v21.0
ASR 5500 with DPC	24	24	24	24	24	36
ASR 5500 with DPC2	36	36	48	36	36	48

Platform	Default number of MME Managers per Chassis			Maximum number of MME Managers per Chassis		
VPC-SI MEDIUM/LARGE	2	2	2	2	2	2
VPC-SI SMALL, VPC-SI FORGE	1	1	1	1	1	1
VPC-DI MEDIUM/LARGE	24	48	48	24	48	48
ASR 5700	24	24	24	24	24	24

Table 2: Task Instance Limit for IMSI Managers

Platform	Default number of IMSI Managers per Chassis			Maximum number of IMSI Managers per Chassis		
Release	v19.2	v20.0	v21.0	v19.2	v20.0	v21.0
ASR 5500 with DPC	4	4	4	4	4	4
ASR 5500 with DPC2	4	4	8	4	4	8
VPC-SI MEDIUM/LARGE	1	1	1	1	1	1
VPC-SI SMALL, VPC-SI FORGE	1	1	1	1	1	1
VPC-DI MEDIUM/LARGE	4	4	4	4	4	4
ASR 5700	4	4	4	4	4	4

APN Engineering Rules

The following engineering rules apply to APN configuration on the MME:

- APNs must be configured within the context used for authentication.
- A maximum of 1,024 APNs can be configured per system.
- A maximum of 300 entries can be defined for an APN Remap Table.

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