



NTSR Pool Configuration Mode Commands

MME restoration is a 3GPP specification-based feature designed to gracefully handle the sessions at S-GW once S-GW detects that the MME has failed or restarted. If the S-GW detects an MME failure based on a different restart counter in the Recovery IE in any GTP Signaling message or Echo Request / Response, it will terminate sessions and not maintain any PDN connections.

As a part of this feature, if a S-GW detects that a MME or S4-SGSN has restarted, instead of removing all the resources associated with the peer node, the S-GW shall maintain the PDN connection table data and MM bearer contexts for some specific S5/S8 bearer contexts eligible for network initiated service restoration, and initiate the deletion of the resources associated with all the other S5/S8 bearers.

The S5/S8 bearers eligible for network initiated service restoration are determined by the S-GW based on operator's policy, for example, based on the QCI and/or ARP and/or APN.

The benefit of this feature is that it provides support for the geo-redundant pool feature on the S4-SGSN/MME. In order to restore session when the MME receives a DDN, the S-GW triggers restoration when the serving MME is unavailable, by selecting another MME and sending DDN. This helps in faster service restoration/continuity in case of MME/S4-SGSN failures.

Command Modes

This mode is used to configure a pool of IP addresses associated with a pool ID and pool type (either MME or S4-SGSN) for Network Triggered Service Restoration (NTSR).

Exec > Global Configuration > NTSR Pool Configuration

configure > ntsr pool pool-id *id* > pool-type *type*

Entering the above command sequence results in the following prompt:

```
[local]host_name(config-ntsr-pool)#
```



Important

The commands or keywords/variables that are available are dependent on platform type, product version, and installed license(s).

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do show

Executes all **show** commands while in Configuration mode.

Product All

Privilege Security Administrator, Administrator

Syntax Description **do show**

Usage Guidelines Use this command to run all Exec mode **show** commands while in Configuration mode. It is not necessary to exit the Config mode to run a **show** command.

The pipe character | is only available if the command is valid in the Exec mode.



Caution

There are some Exec mode **show** commands which are too resource intensive to run from Config mode. These include: **do show support collection**, **do show support details**, **do show support record** and **do show support summary**. If there is a restriction on a specific **show** command, the following error message is displayed:

```
Failure: Cannot execute 'do show support' command from Config mode.
```

end

Exits the current configuration mode and returns to the Exec mode.

Product All

Privilege Security Administrator, Administrator

Syntax Description **end**

Usage Guidelines Use this command to return to the Exec mode.

exit

Exits the current mode and returns to the parent configuration mode.

Product All

Privilege Security Administrator, Administrator

Syntax Description **exit**

Usage Guidelines Use this command to return to the parent configuration mode.

peer-ip-address

Configures a pool of IP addresses associated with a pool ID and pool type (either MME or S4-SGSN) for Network Triggered Service Restoration (NTSR).

Product S-GW

Privilege Administrator, Security Administrator

Command Modes Exec > Global Configuration > NTSR Pool Configuration

configure > ntsr pool pool-id id > pool-type type

Entering the above command sequence results in the following prompt:

```
[local]host_name(config-ntsr-pool)#
```

Syntax Description [no] **peer-ip-address** { **ipv4-address** *ipv4_address* | **ipv6-address** *ipv6_address*

no

Removes the specified IP address configuration.

ipv4 *ipv4_address*

Specifies an IPv4 address to use with an associated NTSR pool ID and pool type (either MME or S4-SGSN).

ipv6 *ipv6_address*

Specifies an IPv6 address to use with an associated NTSR pool ID and pool type (either MME or S4-SGSN).

Usage Guidelines

Use this command to configure a pool of IP addresses associated with a pool ID and pool type (either MME or S4-SGSN) for Network Triggered Service Restoration (NTSR).

Before using this command, operators must configure an NTSR pool ID and pool type by executing the **ntsr pool** command in Global Configuration Mode

Example

To configure a an IPv4 address associated with a pool ID and pool type (either MME or S4-SGSN) for Network Triggered Service Restoration (NTSR).

```
peer-ip-address ipv4-address 1.1.1.1
```

peer-ip-address