



## 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.

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).

### 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)#
```



### Important

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

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# 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

### Examples

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
```