

# 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 APP 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).



Important

For information on common commands available in this configuration mode, refer to the Common Commands chapter.

• peer-ip-address, on page 2

# 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