

How to enable Subscriber aware session termination in NetScaler?

In today's environment, subscribers who go to internet through Large Scale NAT (LSN, also called Carrier Grade NAT—CGNAT) terminate connections and create new connections frequently. In such a dynamic environment, it is important for the CGNAT device to identify if the subscriber session is closed and free the resources allocated for the specific subscriber session. In CGNAT context, the NAT resources like IP address, port block (if Port Block Allocation is enabled) should be de-allocated so that they can be used by other subscribers. Considering the scale at which subscribers go through the service provider network, this plays a vital role in optimally using NAT resources and has significant impact in CGNAT device performance.

How to configure subscriber aware session termination in NetScaler?

In earlier implementation, when a subscriber is using a CGNAT session, on receiving Radius-Accounting-Stop message, portblock of the public IP is kept open even after the subscriber is disconnected. It uses LSN session idle time out to deallocate the NAT resources which lead to non-utilization of these resources till the idle timer expires. NetScaler enables service providers to optimally use CGNAT resources by supporting subscriber based session termination. NetScaler will now be able to close LSN session when Radius-Accounting-Stop message is received for the Framed-IP.

Subscriber Aware Session Removal is an LSN global setting for controlling subscriber aware session removal. With this enabled, whenever the subscriber information is deleted from subscriber database, sessions corresponding to that subscriber will be removed. If this setting is disabled, subscriber sessions will be timed out as per the idle time out settings.

Subscriber aware session termination using Configuration utility

In order to enable subscriber aware session termination in NetScaler,
Navigate to System > Large Scale NAT > Click on "Set LSN Parameter"

System / Large Scale NAT

Large Scale NAT

Get started

- Set LSN Parameter
- Change Extended Memory Parameters

Configuration Summary

- 1 LSN Client
- 1 LSN Pool
- No LSN Transport Profile
- No LSN Application Profile
- No LSN SIPALG Profile
- No LSN RTSPALG Profile
- No LSN HTTP Logging Profile
- 1 LSN IP6 Profile
- No LSN Logging Profile
- 1 LSN Group
- No LSN Static
- No LSN Session

Enable Subscriber Aware Session removal by selecting “Enabled” in the drop down box. Click “OK” to confirm the changes.

LSN Parameter

Active Memory Limit

2000

Maximum Memory Limit

3740

Session Synchronization*

ENABLED

Subscriber Aware Session Removal*

ENABLED

OK Close

Subscriber aware session termination using Command Prompt
Step1: Check if Subscriber aware session removal is enabled.

> show lsn parameter

LSN Global Configuration:

Active Memory Usage: 2000 MBytes

Configured Memory Limit: 2000 MBytes

Maximum Memory Usage Limit: 3738 MBytes
Session synchronization: ENABLED
Subscriber aware session removal: **DISABLED**

Done

Step2: If Subscriber aware session removal is not enabled, it should be enabled using the below command

```
> set lsn parameter subscrSessionRemoval ENABLED  
Done
```

```
show lsn parameter
```

```
LSN Global Configuration:  
Active Memory Usage: 2000 MBytes  
Configured Memory Limit: 2000 MBytes  
Maximum Memory Usage Limit: 3738 MBytes  
Session synchronization: ENABLED  
Subscriber aware session removal: ENABLED
```

Done

Thus when subscriber information is available to NetScaler through RADIUS accounting message, subscriber aware session removal option adds a lot of value to service providers by enabling them to efficiently utilize CGNAT resources(IP and port).