

If this is your *First-Time-Use of MAPS™ LTE eGTP (S5S8 interface) application*, then we recommend you to follow all the steps explained in *MAPS-LTE-eGTP-Quick-Install-Guide* to install MAPS™ LTE eGTP application before proceeding with the steps below.

Verification

Functional verification of MAPS-LTEeGTP application requires a system with 2 NIC cards for testing. MAPS-LTEeGTP is configured as **PDN GW** (Packet Data Network GateWay) on one NIC and as **SGW** (Serving Gateway) on the other.

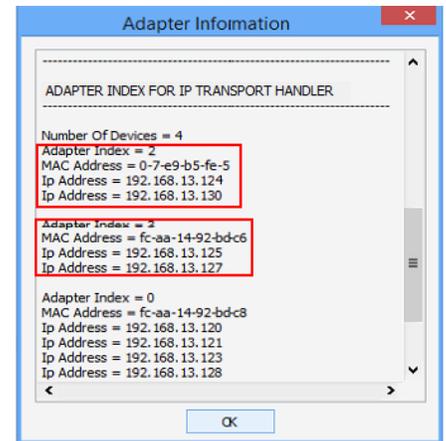
Note down the IP address of NIC1 and NIC2, in this example the IP addresses used and configured are:

- NIC1 IP address is 192.xx.xx.125, and configured as **PDN GW**
- NIC2 IP address is 192.xx.xx.124, and configured as **SGW**

***Note:** In this test scenario, we have configured MAPS™ LTEeGTP as SGW generating calls and PDN GW to receive calls.

First MAPS™ LTEeGTP (GUI) – (PGW)

- Right-click on the **MAPS-LTEeGTP** application using shortcut icon created on the desktop and select **‘Run as Administrator’**. This instance of MAPS™ is configured for **Call Reception**
- While invoking the first **MAPS-LTEeGTP** instance, verify the following in the **Protocol Selection** window -
 - Protocol Standard is set to **LTE eGTP**
 - Protocol Version to **RELEASE 9**
 - Select Node as **PDN GateWay**. Click **Ok**



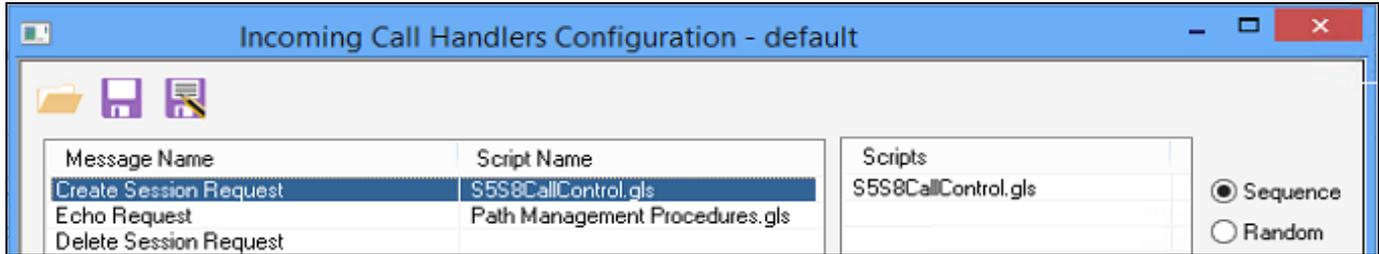
- By default, **Testbed Setup** window is displayed, loaded with **TestBedDefault** configuration. Verify and validate the following parameter settings:
 - The **Display Adapter Info** option from the **Help** menu displays all the network adapters available in the system. Choose and set the **Traffic Adapter Index** value displayed against the IP address in use.

Config	Value
PG Configuration	
Traffic Adapter Index	3
PGW	1
PGW	
PGW IP Address	192.168.13.125
PGW Port	2124
PGW IP Address for Traffic	192.168.18.34
PGW Port for Traffic	2152
SGW Configuration	
SGW IP Address	192.168.13.124
SGW Port	2124
Traffic Parameters	
Traffic	Disable
PacketLoad Traffic Type	PCAP Traffic
PacketLoad Management IP Address	192.168.12.60

- Set **PGW IP Address** to 192.xx.xx.125 (NIC1 IP address)
- Set **PGW Port** to 2124
- Set **SGW IP Address** to 192.xx.xx.124 (NIC2 IP address)
- Set **SGW Port** to 2124
- Set Traffic = Disable

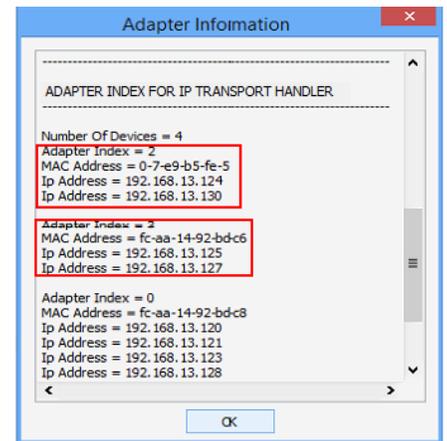
- Click  **Save** button and save the changes to the same the **TestBedDefault** configuration file.

- On the same **MAPS-LTEeGTP** main window, from **Configuration** menu → select **Incoming Call Handler Configuration** and invoke the window. Verify that **S5S8CallControl.gls** script is set against **Create Session Request** message. Exit from the window.



Second MAPS™ LTEeGTP (GUI) – (SGW)

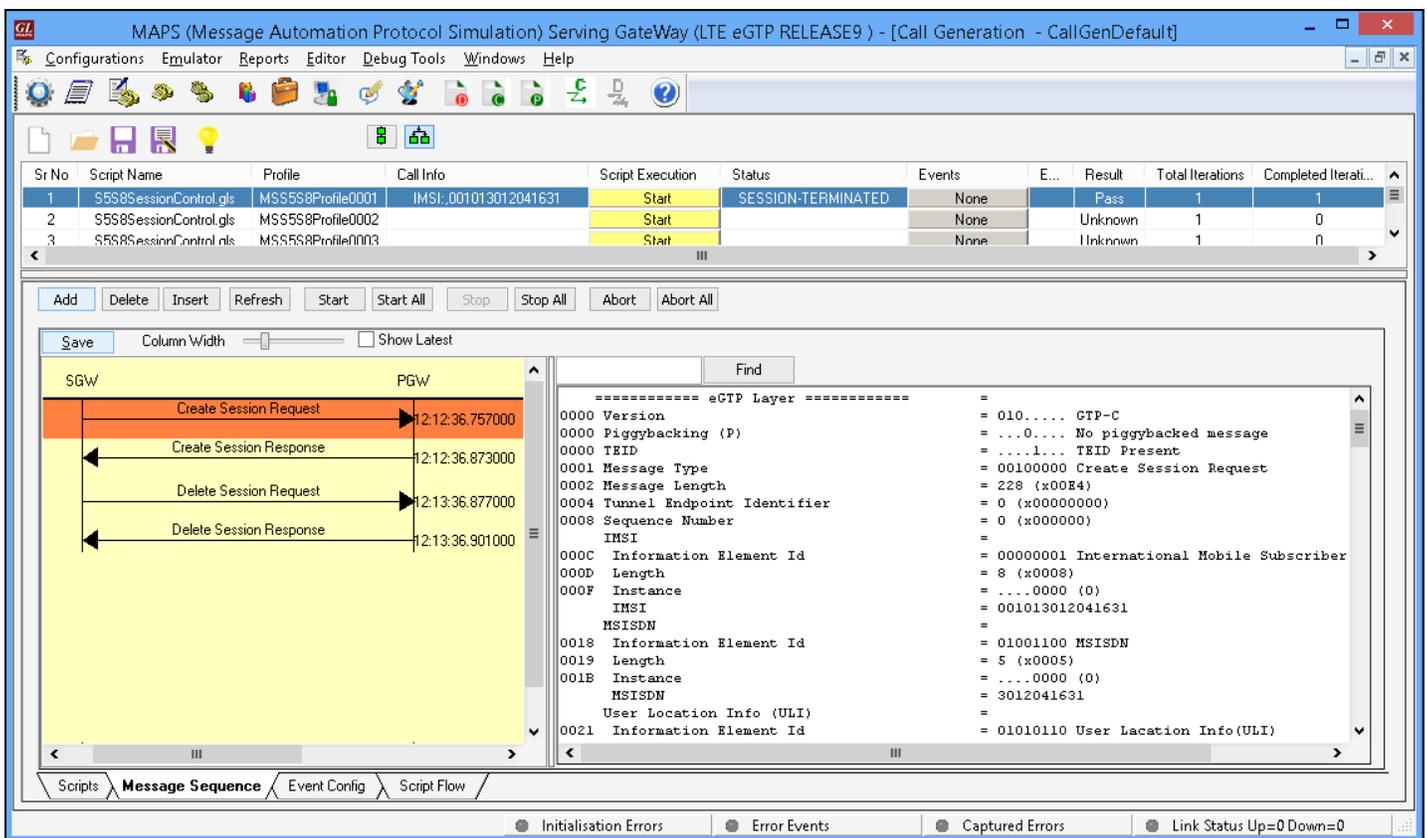
- Right-click on the **MAPS-LTEeGTP** application using shortcut icon created on the desktop and select ‘**Run as Administrator**’. This instance of MAPS™ is configured for **Call Generation**.
- While invoking the second **MAPS-LTEeGTP** instance, verify the following in the **Protocol Selection** window -
 - **Protocol Standard** is set to **LTE eGTP**
 - **Protocol Version** to **RELEASE 9**
 - Select **Node** as **Serving GateWay**. Click **Ok**
- By default, **Testbed Setup** window is displayed. Click  and select **TestBedDefault_S5S8** and check for the parameter default values as listed below:
 - The **Display Adapter Info** option from the **Help** menu displays all the network adapters available in the system. Choose and set the **Traffic Adapter Index** value displayed against the IP address in use.



- Set **SGW IP Address** to 192.xx.xx.124 (NIC2 IP address)
- Set **SGW Port** to 2124
- Set **PGW IP Address** to 192.xx.xx.125 (NIC1 IP address)
- Set **PGW Port** to 2124
- Traffic = Disable
- Click  **Save** button and save the changes to the same **TestBedDefault_S5S8** file.

Config	Value
SGW Configuration	
Traffic Adapter Index	2
SGW	1
SGW 1	
SGW IP Address	192.168.13.124
SGW Port	2124
SGW IP Address For Traffic	192.168.11.12
GTP Port For Traffic	2152
PLMN Identities	
Mobile Country Code	001
Mobile Network Code	01
PGW Configuration	
PGW IP Address	192.168.13.125
PGW Port	2124
Traffic Parameters	
Traffic	Disable
PacketLoad Traffic Type	PCAP Traffic

- **Start** the testbed on both the MAPS instances (PGW and SGW).
- In the second **MAPS-LTEeGTP** (SGW) instance, click the **Call Generation**  icon on main window, and invoke the **Call Generation** window.
 - By default, you will observe multiple call instances loaded with **S5S8SessionControl.gls** scripts and **MSS5S8Profile00**** profiles. **Note:** If the profile is not loaded, click on the call instance in the Profile column and select the configured MSS5S8Profile0001 profile and set it for the call instance.
 - Select the call instance loaded with **S5S8SessionControl.gls** script and **MSS5S8Profile0001** profile in the Call Generation window and click **Start** button to initiate the call generation.
- Wait for the calls to terminate and verify the call flow under the **Message Sequence** tab at both generation and reception end.
- Select any message in the ladder diagram and observe the respective decode message on the right pane for the respective message.



Sr No	Script Name	Profile	Call Info	Script Execution	Status	Events	Result	Total Iterations	Completed Iterati...
1	S5S8SessionControl.gls	MSS5S8Profile0001	IMSI_001013012041631	Start	SESSION-TERMINATED	None	Pass	1	1
2	S5S8SessionControl.gls	MSS5S8Profile0002		Start		None	Unknown	1	0
3	S5S8SessionControl.gls	MSS5S8Profile0003		Start		None	Unknown	1	0


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===== eGTP Layer =====
0000 Version = 010.... GTP-C
0000 Piggybacking (P) = ...0.... No piggybacked message
0000 TRID = ...1... TRID Present
0001 Message Type = 00100000 Create Session Request
0002 Message Length = 228 (x00E4)
0004 Tunnel Endpoint Identifier = 0 (x00000000)
0008 Sequence Number = 0 (x00000000)
IMSI
000C Information Element Id = 00000001 International Mobile Subscriber
000D Length = 8 (x0008)
000F Instance = ...0000 (0)
IMSI = 001013012041631
MSISDN
0018 Information Element Id = 01001100 MSISDN
0019 Length = 5 (x0005)
001B Instance = ...0000 (0)
MSISDN = 3012041631
User Location Info (ULI)
0021 Information Element Id = 01010110 User Location Info(ULI)
  
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- Return to first instance of **MAPS-LTEeGTP** (PGW), click  icon and invoke the **Call Reception** window. Observe that the calls are automatically received running the Rx script.