

If this is your First-Time-Use of MAPS™ LTE eGTP (S11 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 **MME (Mobility Management Entity)** on one NIC and as **SGW (Serving Gateway)** on the other.

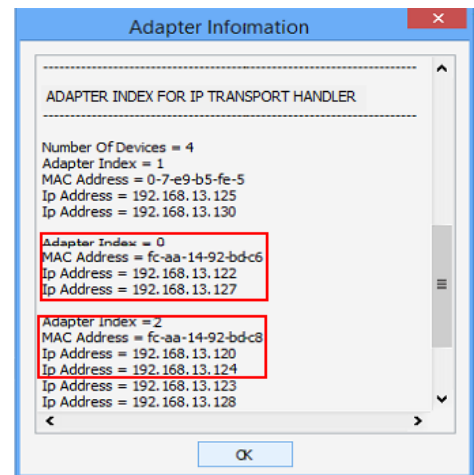
Note down the IP address of NIC1 and NIC2, in this example the IP addresses used and configured are:


- NIC1 IP address is 192.xx.xx.124, and configured as SGW
- NIC2 IP address is 192.xx.xx.122, and configured as MME


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

First MAPS™ LTE eGTP (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 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 **Serving Gateway**. Click **Ok**

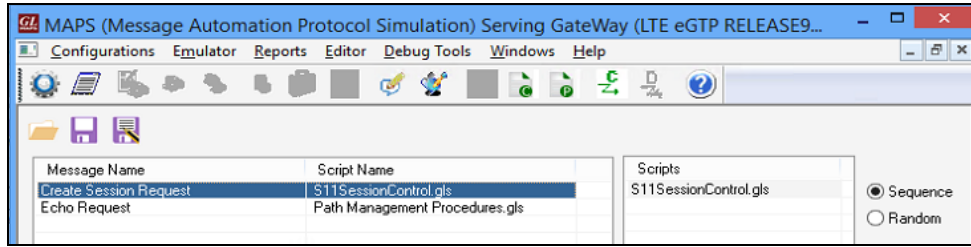


- By default, **Testbed Setup** window is displayed. Click  and select **TestBedDefault_S11** and check for the parameter default values as listed below:

- 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 (NIC1 IP address)
- Set **SGW Port** to 2123
- Set **MME IP Address** to 192.xx.xx.122 (NIC2 IP address)
- Set **MME Port** to 2123
- Traffic = Disable
- Click  **Save** button and save the changes to the same the **TestBedDefault_S11** configuration file.

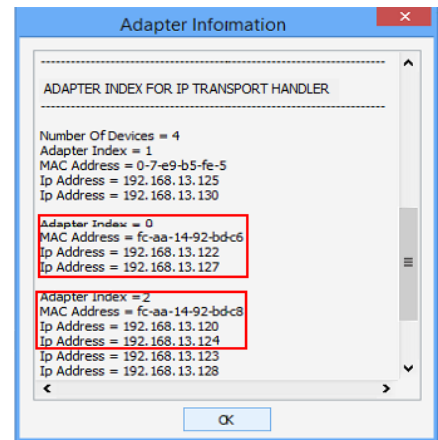
Config	Value
SGW Configuration	
Traffic Adapter Index	2
SGW	1
SGW 1	
SGW IP Address	192.168.13.124
SGW Port	2123
SGW IP Address For Traffic	192.168.100.62
GTP Port For Traffic	2152
MME Configuration	
MME IP Address	192.168.13.122
MME Port	2123
Traffic Parameters	
Traffic	Disable
PacketLoad Traffic Type	PCAP Traffic
PacketLoad Management IP Address	192.168.12.60

- On the same **MAPS-LTEeGTP** main window, from **Configuration** menu → select **Incoming Call Handler Configuration** and invoke the window. Verify that **S11SessionControl.gls** script is set against **Create Session Request** message. Exit from the window.




Second MAPS™ LTEeGTP (GUI) – (MME)


- 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 **MME**. Click **Ok**
- By default, **Testbed Setup** window is displayed loaded with **TestBedDefault** configuration. Verify and validate the following parameter settings:

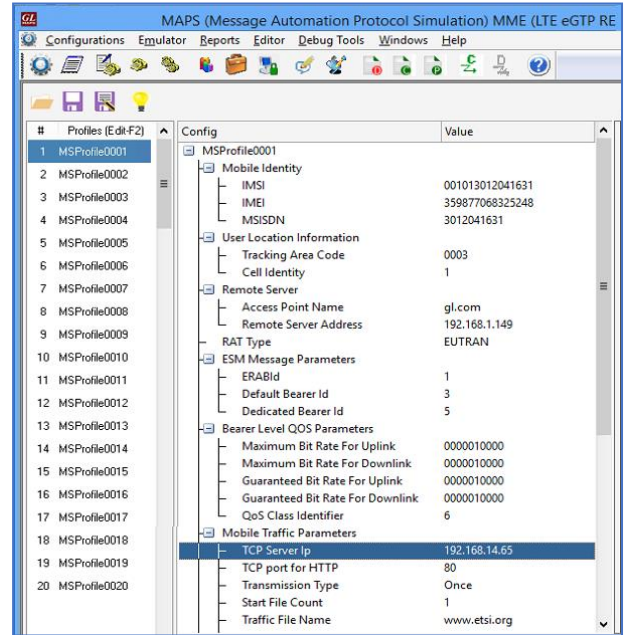



- The **Display Adapter Info** option from the **Help** menu displays all the network adapters available in the system. Choose and set the **Traffic Adapter Index** value displayed against the IP address in use.

- Set **MME IP Address** to 192.xx.xx.122 (NIC2 IP address)
- Set **MME Port** to 2123
- Set **SGW IP Address** to 192.xx.xx.124 (NIC1 IP address)
- Set **SGW Port** to 2123
- Traffic = Disable
- Click  **Save** button and save the changes to the same the **TestBedDefault** file.

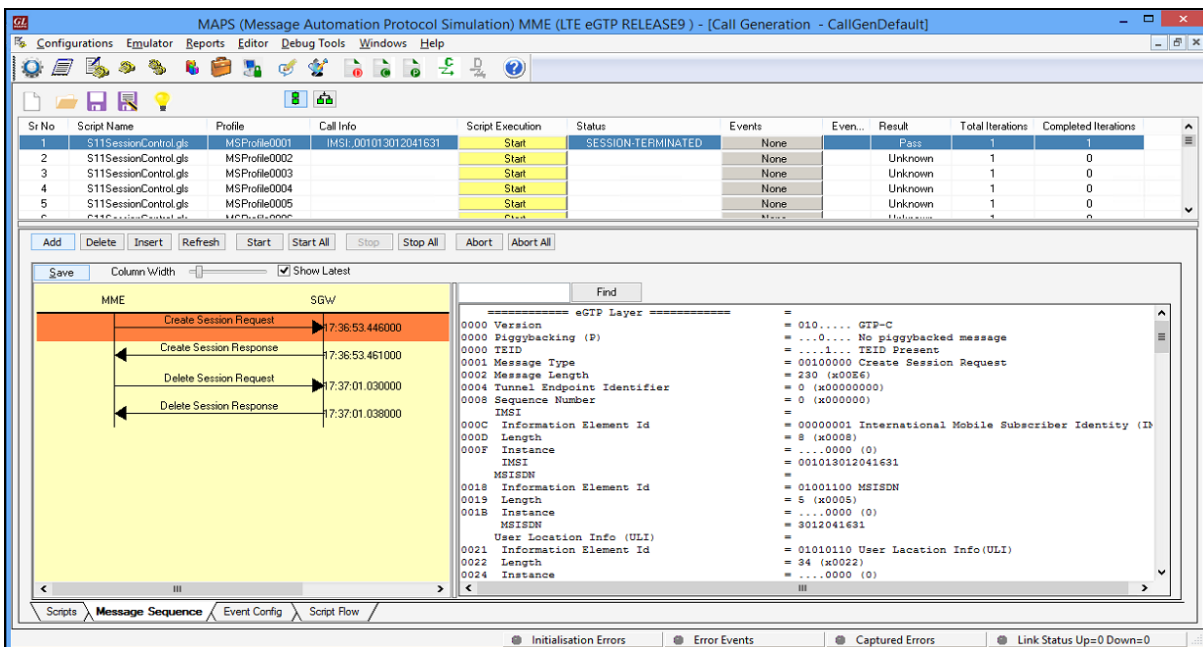
Config	Value
MME Configuration	
Traffic Adapter Index	0
MME	1
MME 1	
MME IP Address	192.168.13.122
MME Port	2123
PLMN Identities	
Mobile Country Code	001
Mobile Network Code	01
SGW Configuration	
SGW IP Address	192.168.13.124
SGW Port	2123
eNB IP Address for Traffic	192.168.200.65
GTP Port For Traffic	2152
Traffic Parameters	
Traffic	Disable
PacketLoad Traffic Type	PCAP Traffic

- From MAPS™ main GUI, select **Editors** → **Profile Editor**, invoke the window as shown in the figure.
- Click  and select **MS_Profile** configuration file.
- Verify and validate the parameter settings required to get started with the call simulation.
- Close the window or exit the profile editor.
- Start the testbed on both the MAPS instances (SGW and MME).
- In the second **MAPS-LTEeGTP (MME)** 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 **S11SessionControl.gls** scripts and **MSProfile00**** profiles. **Note:** If the profile is not loaded, click on the call instance in the Profile column and select the configured **MSProfile0001** profile and set it for the call instance.
- Select the call instance loaded with **S11SessionControl.gls** script and **MSProfile0001** 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.



- Return to first instance of **MAPS-LTEeGTP (SGW)**, click  icon and invoke **Call Reception** window, observe that the calls are automatically received running the Rx script.