

If this is your First-Time-Use of MAPS™ GnGp, then we recommend you follow all the steps explained in MAPS-GnGp-Quick-Install-Guide to install MAPS™ GnGp application before proceeding with the steps below

Verification

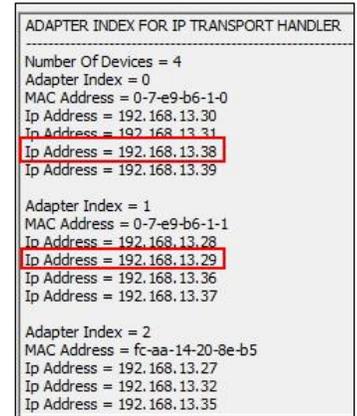
Functional verification of MAPS™ GnGp application requires a system with 2 NIC cards for loopback testing. MAPS™ GnGp is configured as **GGSN** [Gateway GPRS Support Node] on one NIC and **SGSN** [Serving GPRS Support Node] on the other.

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

- NIC1 IP address is 192.xx.xx.38, and configured as GGSN
- NIC2 IP address is 192.xx.xx.29, and configured as SGSN

Note: The "Warranty Error" as shown in the figure may be prompted, when the user tries to start the testbed, then you may not have installed the **Warranty licenses** or the license has been expired.

Note: Ensure that latest warranty license (GLSupportWarrantyLicenseInstaller.exe) is installed and confirm that PKS166 MAPS UMTS GnGp is listed in Warranty Application List. Refer to [MAPS-UMTS-GnGp-Quick-Install-Guide](#)

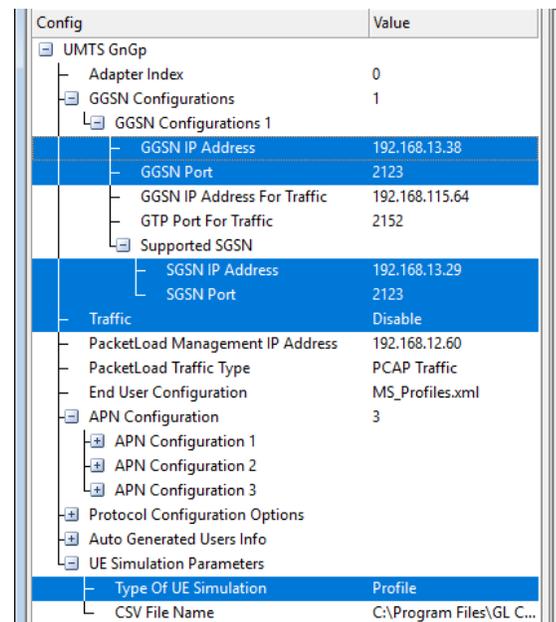


First MAPS™ GnGp (GUI) configured as GGSN

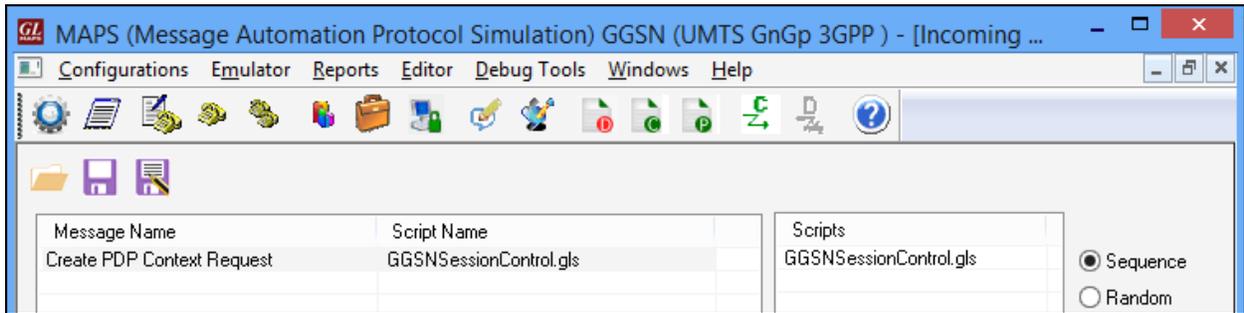
- Right-click on **MAPS-GnGp** application shortcut icon created on the desktop and select 'Run as Administrator' to invoke the application. The first instance of MAPS™ is configured for **Call Reception**.
- While invoking the first MAPS-GnGp instance, verify the following in the Protocol Selection window -
 - Protocol Standard is set to **UMTS GnGp**
 - Protocol Version to **3GPP**
 - Select **Node** as **GGSN**. Click **Ok**

- By default, **Testbed Setup** window is displayed. Click  and select **TestBedDefault** 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 Adapter Index value displayed against the IP address in use.
- Set **GGSN IP Address** to 192.xx.xx.38 (NIC1 IP address)
- Set **GGSN Port** to **2123**
- Set **SGSN IP address** to 192.xx.xx.29 (NIC2 IP address)
- By default, **SGSN Port** to **2123**
- Set **Traffic** to **Disable**.
- Click  **Save** button and overwrite the **TestBedDefault** configuration file.

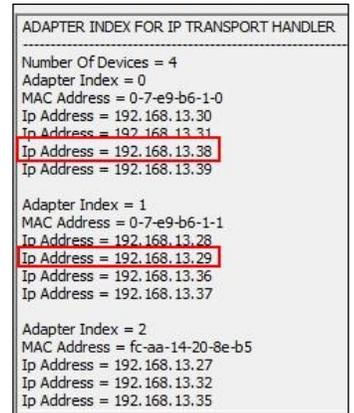


- On the same MAPS-GnGp main window, from **Configuration** menu → select **Incoming Call Handler Configuration** and invoke the window. Verify that **GGSNSessionControl.gls** script is set against **Create PDP Context Request** message. Exit from the window.

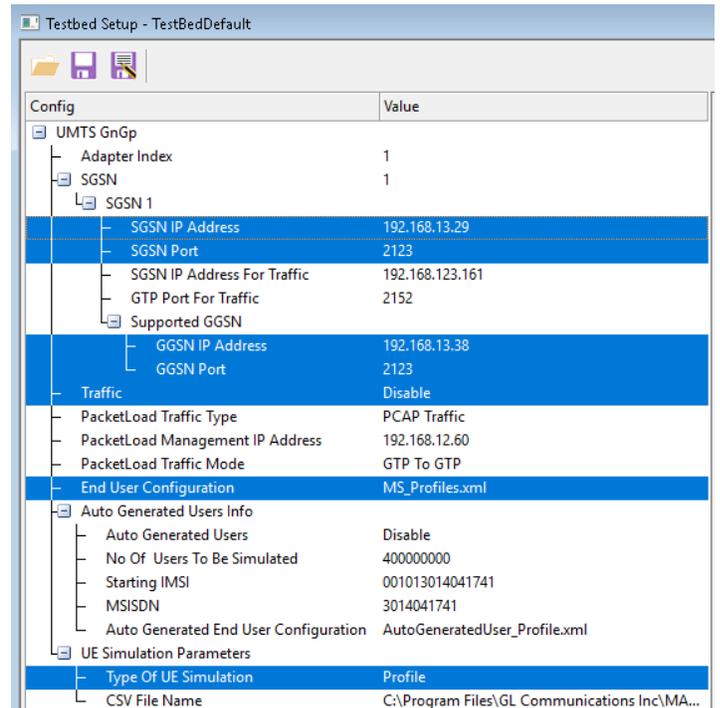


Second MAPS™ GnGp (GUI) configured as SGSN

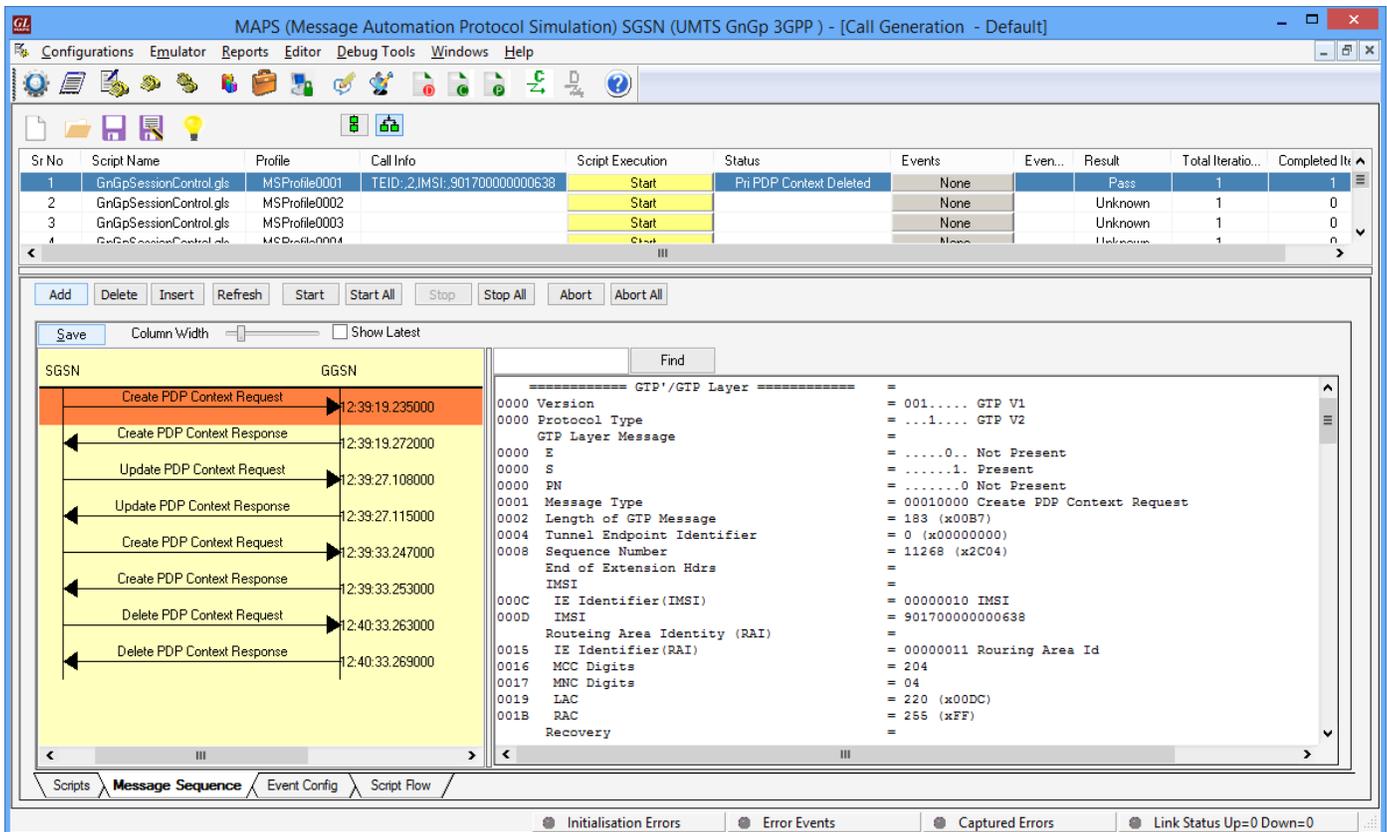
- Right-click on **MAPS-GnGp** application shortcut icon created on the desktop and select 'Run as Administrator' to invoke the application. The Second instance of MAPS™ is configured for **Call Generation**.
- While invoking the second MAPS-GnGp instance, verify the following in the Protocol Selection window
 - **Protocol Standard** is set to **UMTS GnGp**
 - **Protocol Version** to **3GPP**
 - Select **Node** as **SGSN**
 - Click **Ok**



- By default, **Testbed Setup** window is displayed. Click  and select **TestBedDefault** 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 **Adapter Index** value displayed against the IP address in use.
 - Set **SGSN IP address** to 192.xx.xx.29 (NIC2 IP address)
 - By default, **SGSN Port** is set to **2123**
 - Set **GGSN IP Address** to 192.xx.xx.38 (NIC1 IP address)
 - By default, **GGSN Port** is set to **2123**
 - Set Traffic to disable.
 - Click  **Save** button and overwrite the **TestBedDefault** configuration file.



- **Start** the testbed on both the MAPS™ instances (GGSN and SGSN)
- In the second MAPS-GnGp (SGSN) instance, click the **Call Generation**  icon on main window, and invoke the **Call Generation** window.
- By default, multiple call instances loaded with **GnGpSessionControl.gls** script and **MSProfile00**** profiles are displayed. Select the instance loaded with **GnGpSessionControl.gls** script with **MSProfile0001** profile and click **Start** button and initiate call generation.
- Return to first instance of MAPS-GnGp (GGSN), in the **Call Reception**  window, observe that the calls are automatically received running the Rx script.
- Wait for the calls to terminate and verify the call flow under the Message Sequence tab at both generation (SGSN) and reception (GGSN) end.
- Uncheck 'Show Latest' option and select any message in the ladder diagram to observe the respective decode message on the right pane for the message.



Sr No	Script Name	Profile	Call Info	Script Execution	Status	Events	Even...	Result	Total Iteratio...	Completed It...
1	GnGpSessionControl.gls	MSProfile0001	TEID: 2,IMSI: 901700000000638	Start	Prn PDP Context Deleted	None		Pass	1	1
2	GnGpSessionControl.gls	MSProfile0002		Start		None		Unknown	1	0
3	GnGpSessionControl.gls	MSProfile0003		Start		None		Unknown	1	0
4	GnGpSessionControl.gls	MSProfile0004		Start		None		Unknown	1	0

Time	SGSN	GGSN
12:39:19.235000	→ Create PDP Context Request	
12:39:19.272000		← Create PDP Context Response
12:39:27.108000	→ Update PDP Context Request	
12:39:27.115000		← Update PDP Context Response
12:39:33.247000	→ Create PDP Context Request	
12:39:33.253000		← Create PDP Context Response
12:40:33.263000	→ Delete PDP Context Request	
12:40:33.269000		← Delete PDP Context Response


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===== GTP'/GTP Layer =====
0000 Version = 001..... GTP V1
0000 Protocol Type = ...1..... GTP V2
0000 GTP Layer Message
0000 E = .....0.. Not Present
0000 S = .....1. Present
0000 PN = .....0 Not Present
0001 Message Type = 00010000 Create PDP Context Request
0002 Length of GTP Message = 183 (x00B7)
0004 Tunnel Endpoint Identifier = 0 (x00000000)
0008 Sequence Number = 11268 (x2C04)
End of Extension Hdrs =
IMSI =
000C IE Identifier (IMSI) = 00000010 IMSI
000D IMSI = 901700000000638
Routing Area Identity (RAI) =
0015 IE Identifier (RAI) = 00000011 Routing Area Id
0016 MCC Digits = 204
0017 MNC Digits = 04
0019 LAC = 220 (x00DC)
001B RAC = 255 (xFF)
Recovery =
    
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