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

Quick Check Out

Functional verification of MAPS-IuCS application requires a system with 2 NIC cards for testing. MAPS-IuCS is configured as **RNC (Radio Network Controller)** on one NIC and as **MSC (Mobile Switching Center)** 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.34, and configured as RNC
- NIC2 IP address is 192.xx.xx.28, and configured as MSC

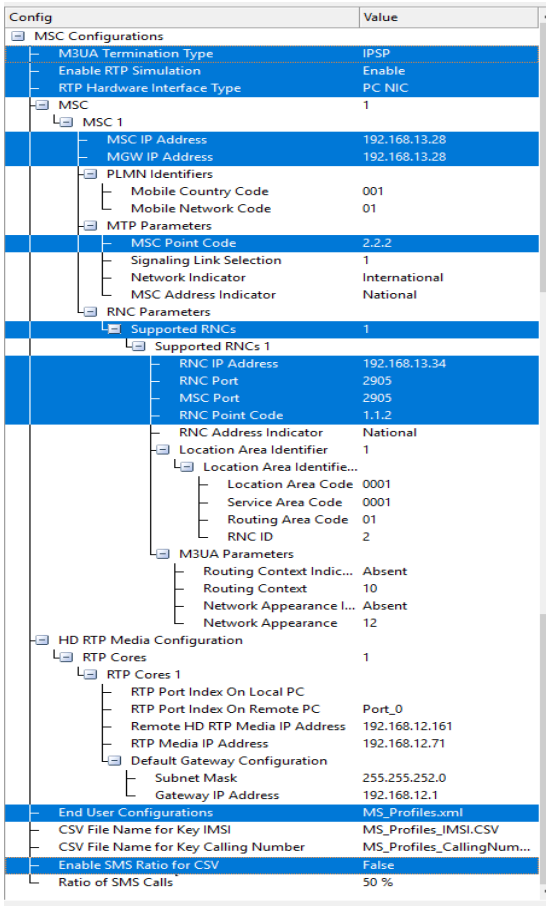
***Note:** In this test scenario, we have configured MAPS™ IuCS as RNC generating calls and MSC to receive calls.

Note: Ensure that latest warranty license (**GLSupportWarrantyLicenseInstaller.exe**) is installed and also confirm that **PKS160 (MAPS™ UMTS IuCS)** is listed in **Warranty Application List.** Refer to ***MAPS-UMTS-IuCS-Quick-Install-Guide***

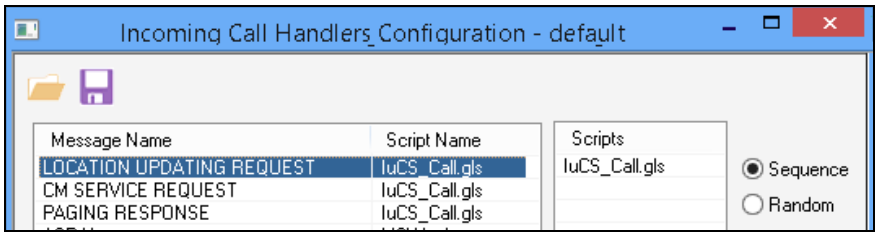
Note: The **"Warranty Error"** as shown in the figure may be prompted, when the user tries to start the testbed, then you may not have installed the **Warrenty licenses** or the license has been expired.

MAPS™ IuCS (GUI) – (MSC)

- Right-click on ***MAPS-IuCS*** 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 MAPS-IuCS instance, verify the following in the Protocol Selection window -
  - **Protocol Standard** is set to **UMTS IUCS**
  - **Protocol Version** to **3GPP**
  - Select **Node** as **MSC**
  - **Transport** to **SCTP.** Click **Ok**
- By default, **Testbed Setup** window is displayed. Click and select **TestBedDefault** and check for the parameter default values as listed below:
  - **M3UA Termination Type** is set to **IPSP**
  - Enable RTP Simulation = **Enable**
  - Set **RTP Hardware Interface Type** to **PC NIC**
  - Set **MSC IP Address** to 192.xx.xx.28 (NIC2 IP address)
  - Set **MGW IP Address** to 192.xx.xx.28 (NIC2 IP address)
  - Set **MSC Point Code** to **2.2.2**
  - Set **RNC IP address** to 192.xx.xx.34 (NIC1 IP address)
  - By default, **RNC Port** to **2905**
  - By default, **MSC Port** to **2905**
  - Set **RNC Point Code** to **1.1.2**
  - Click **Save** button and overwrite the **TestBedDefault** file.



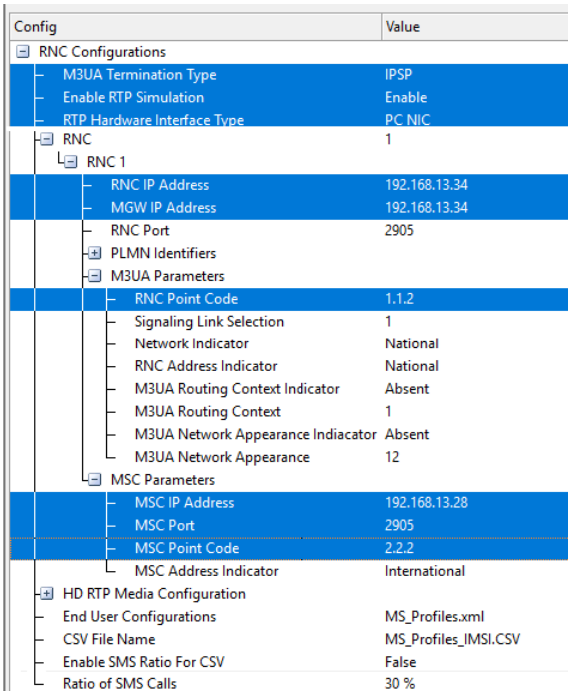
- On the same MAPS-IuCS main window, from **Configuration** menu → select **Incoming Call Handler Configuration**. Verify that **IuCS_Call.gls** script is set against LOCATION UPDATING REQUEST, CM SERVICE REQUEST, and PAGING RESPONSE messages. Exit from the window.



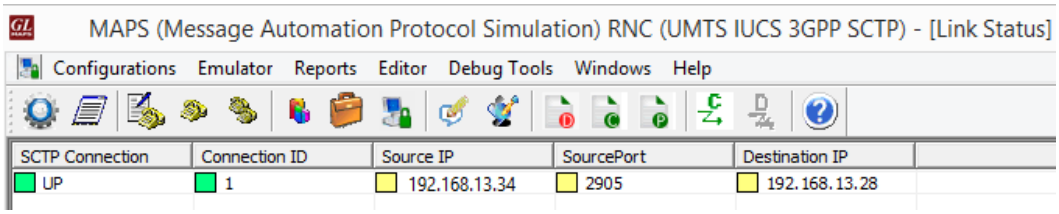
- From MAPS™ main window, select **Editor → Profile Editor.** Click and select **MS_Profiles** and from the left pane, choose **MSProfile0001** profile. Verify the following settings:
  - Set Type of Call = Terminate MO Call, Service Type for MT Call = Speech Call**,**
  - Make sure that the LAC = 0001, SAC = 0001, and RNC ID = 2 parameter values are same as configured in the testbed setup window.
  - Scroll down and Set **Codec Options** = **AMR-OA-Mode7**
  - In Traffic Config list → set **Traffic Type = Auto Traffic File** and **Traffic Direction = TxOnly**.
  - By default, the **Traffic Profile Name** is set to **Profile0001**
  - Click **Save** button and overwrite **MS_Profiles** file. Exit from the Profile Editor window.

MAPS™ IuCS (GUI) – (RNC)

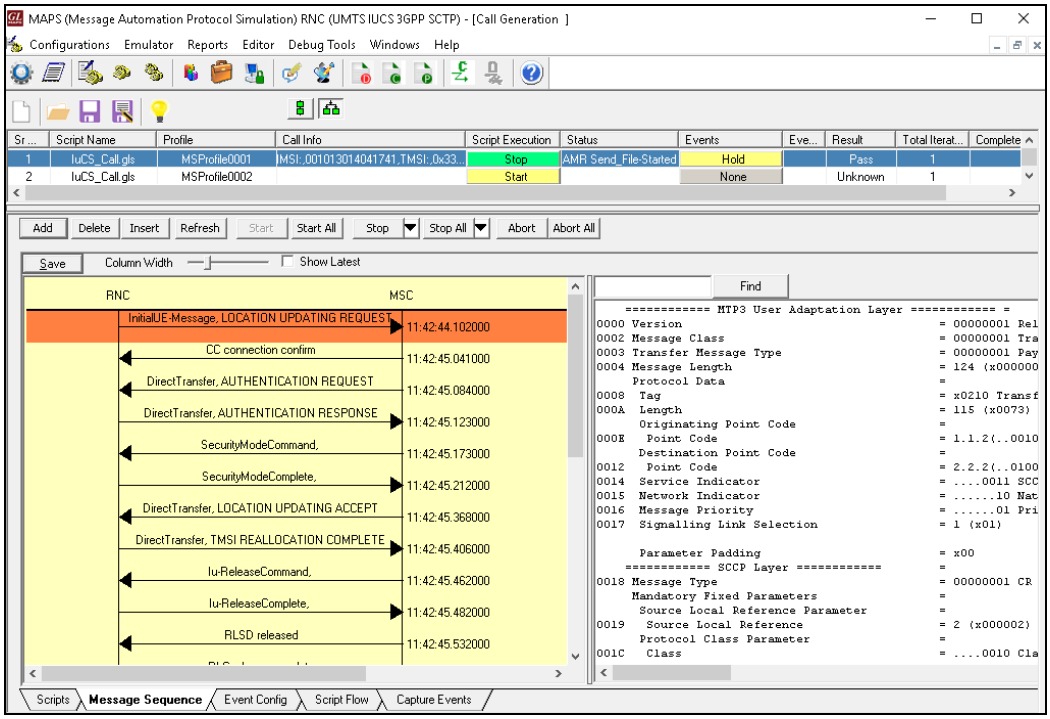
- Right-click on ***MAPS-IuCS*** application shortcut icon created on the desktop and select **'Run as Administrator'** to invoke the application. This instance of MAPS™ is configured for ***Call Generation***.
- While invoking another MAPS-IuCS instance, verify the following in the Protocol Selection window-
  - **Protocol Standard** is set to **IuCS**
  - **Protocol Version** to **3GPP**
  - Select **Node** as **RNC.**
  - **Transport** to **SCTP.** Click **Ok**
- By default, **Testbed Setup** window is displayed. Click and select **TestBedSetup** and check for the parameter default values as listed below:
  - **M3UA Termination Type** is set to **IPSP**
  - Enable RTP Simulation = Enable
  - Set **RTP Hardware Interface Type** to **PC NIC**
  - Set **RNC IP Address** to 192.xx.xx.34 (NIC1 IP Address)
  - Set **MGW IP Address** to 192.xx.xx.34 (NIC1 IP Address)
  - By default, **RNC Port** is set to **2905**
  - Set **RNC Point Code** to **1.1.2**
  - Set **MSC IP address** to 192.xx.xx.28 (NIC2 IP Address)
  - By default, **MSC Port** to **2905**
  - Set **MSC Point Code** to **2.2.2**
  - Click **Save** button and overwrite the **TestBedSetup** file.



- From MAPS™ main window, select **Editor → Profile Editor.** Click and select **MS_Profiles** and from the left pane, choose **MSProfile0001** profile. Verify the following settings:
  - Set CM Service Type = Mobile Originating Call Establishment; Location Update Type = Normal location updating
  - Make sure that the Location Area Code = 0001, Service Area Code = 0001, and RNC ID = 2 parameter values are same as configured in the testbed setup window.
  - Scroll down and Set **Codec Options** = **AMR-OA-Mode7**
  - In Traffic Config list → set **Traffic Type = Auto Traffic File** and **Traffic Direction = TxOnly**.
  - By default, **Traffic Profile Name** is set to **Profile0001**
  - Click **Save** button and overwrite **MS_Profiles** file. Exit from the Profile Editor window.
- **Start** the testbed on both the MAPS instances (RNC and MSC)
- On both the MAPS™ instances main window, from ***Reports*** menu → select ***Link Status*** option to verify the link status. Verify that the ***SCTP Link*** Status is ***UP*** (indicated in Green color) before placing the call.



- ***Note: Fails to start SCTP Services and associated SCTP Link status is Down***, then **Turn OFF Windows Firewall** (navigate to Control Panel → Systems & Security → Windows Firewall, click Turn Off Windows Firewall for all networks).
- In the MAPS-IuCS RNC instance, click the ***Call Generation*** icon on main window, and invoke the ***Call Generation*** window.
- In the first row of the "**Call Generation**" table, double-click the "Scripts" cell and select **IuCS_Call.gls**. Similarly, double-click the "**Profile**" cell and select **MSProfile0001** and click Start button to initiate 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 the MAPS-IuCS (MSC) instance, click on  icon and invoke ***Call Reception*** window, observe that the calls are automatically received running the Rx script.