



*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.*

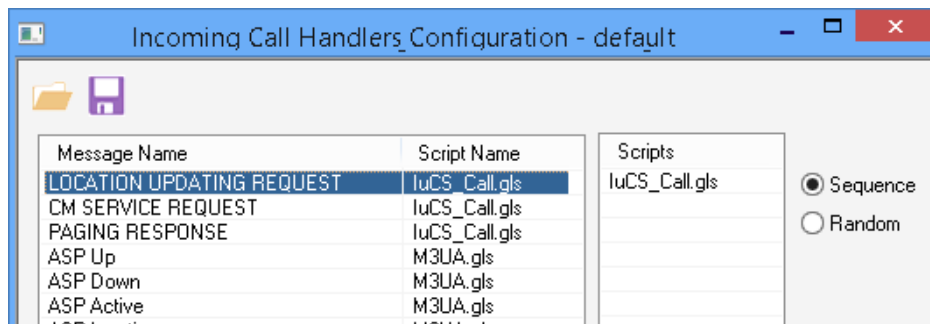
**Quick Check Out Procedure**



For functional verification of MAPS™ IuCS application, you can invoke 2 instances of MAPS™ UMTS IuCS application. It can be configured as **RNC** (Radio Network Controller) on one instance, and **MSC** (Mobile Switching Center) on another instance to simulate MOC, MTC, LUC procedures and to automatically handle RTP traffic in UMTS network.

The following explains **MAPS™ IuCS** configuration on the same PC in loopback mode.





**First 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 first MAPS-IuH 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 **SelfTestConfiguration** and check for the parameter default values as listed below:
  - **M3UA Termination Type** is set to **SGP**, to handle server association.
  - **Enable or Disable RTP** = **Enable**
  - Set **MSC IP Address** to PC IP address
  - Set **MGW IP Address** to PC IP address
  - Set **MSC Point Code** to **2.2.2**
  - Set **RNC IP address** to PC IP address
  - By default, **RNC Port** to **2905**
  - Set **RNC Point Code** to **3.3.3**
  - By default, **MSC Port** is set to **2906**
  - Click  **Save** button and overwrite the **SelfTestConfiguration** 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.

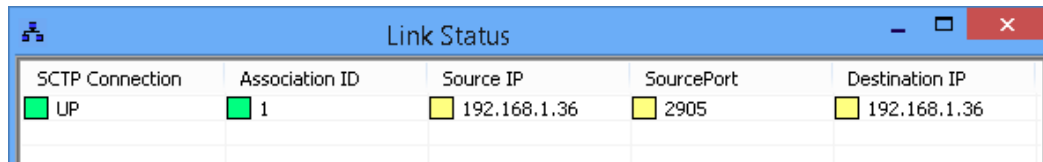


- From MAPS main window, select **Editor > Profile Editor**. Click  and select **MS\_Profiles** and from the left pane, choose **MSPProfile0001** profile. Verify the **following settings**:
  - Set Type of Call = Terminate MO Call, Service Type for MT Call = Speech Call,
  - Make sure that the LAC = 0002, SAC = 0002, and RNC ID = 2 parameter values are same as configured in the testbed setup window.
  - Set Codec Options = PCMU
  - In Traffic Config list > set **Traffic Type = Auto Traffic File** and **Traffic Direction = TxRx**.
  - Click  **Save** button and overwrite **MS\_Profiles** file. Exit from the Profile Editor window.



## **Second MAPS™ IuCS (GUI) – (RNC)**

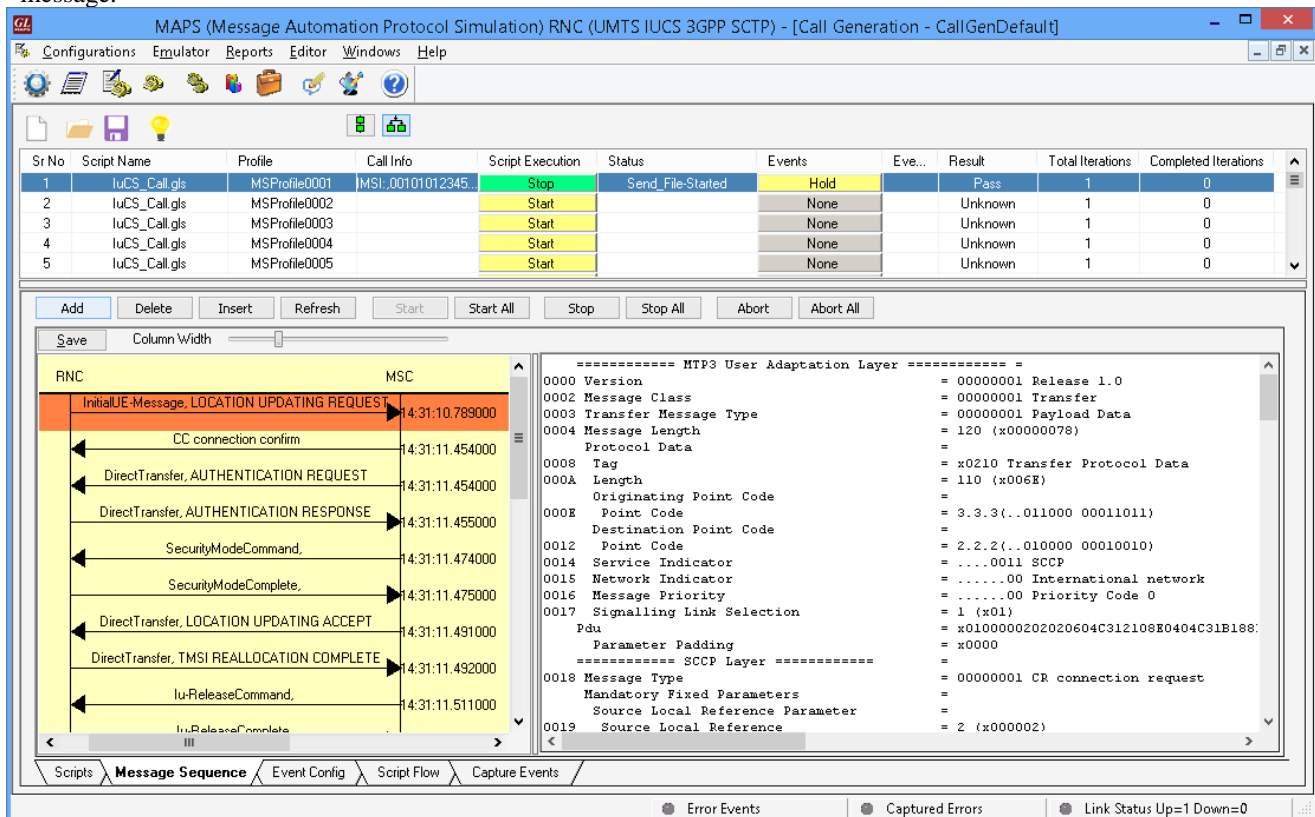
- Right-click on **MAPS-IuCS** application shortcut icon created on the desktop and select ‘Run as Administrator’ to invoke the application. The first instance of MAPS™ is configured for **Call Generation**.
- While invoking the second MAPS-IuCS instance, verify the following in the Protocol Selection 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 **SelfTestConfiguration** and check for the parameter default values as listed below:
  - **M3UA Termination Type** is set to **ASP**, to handle client association.
  - Enable or Disable RTP = Enable
  - Set **RNC IP Address** to PC IP address
  - Set **MGW IP Address** to PC IP address
  - By default, **RNC Port** is set to **2905**
  - Set **RNC Point Code** to **3.3.3**
  - Set **MSC IP address** to PC IP address
  - By default, **MSC Port** to **2906**
  - Set **MSC Point Code** to **2.2.2**
  - Click  **Save** button and overwrite the **SelfTestConfiguration** file.
- From MAPS main window, select **Editor > Profile Editor**. Click  and select **MS\_Profiles** and from the left pane, choose **MSPProfile0001** profile. Verify the **following settings**:
  - Set CM Service Type = Mobile Originating Call Establishment; Location Update Type = Normal location updating
  - Make sure that the LAC = 0002, SAC = 0002, and RNC ID = 2 parameter values are same as configured in the testbed setup window.
  - Set Codec Options = PCMU
  - In Traffic Config list > set **Traffic Type = Auto Traffic File** and **Traffic Direction = TxRx**.
  - 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. Refer to [troubleshoot](#) section for any issues.



SCTP Connection	Association ID	Source IP	SourcePort	Destination IP
UP	1	192.168.1.36	2905	192.168.1.36

- On both instances of MAPS-IuCS (RNC and MSC) main window, click **Call Reception**  icon and observe that the **Check\_SCTP\_Status.gls** script is activated.
- In the MAPS-IuCS RNC instance, click the **Call Generation**  icon on main window, and invoke the **Call Generation** window.
- By default, multiple call instances loaded with **IuCS\_Call.gls** script with **MSPProfile00\*\*** profiles are displayed. Select the instance loaded with **IuCS\_Call.gls** script with **MSPProfile0001** profile and click **Start** button to initiate call generation.
- Return to first instance of MAPS-IuCS (MSC), 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 and reception end.
- Select any message in the ladder diagram and observe the respective decode message on the right pane for the respective message.



MAPS (Message Automation Protocol Simulation) RNC (UMTS IuCS 3GPP SCTP) - [Call Generation - CallGenDefault]

Sr No	Script Name	Profile	Call Info	Script Execution	Status	Events	Eve...	Result	Total Iterations	Completed Iterations
1	IuCS_Call.gls	MSPProfile0001	MSI:.00101012345...	Stop	Send_File-Started	Hold		Pass	1	0
2	IuCS_Call.gls	MSPProfile0002		Start		None		Unknown	1	0
3	IuCS_Call.gls	MSPProfile0003		Start		None		Unknown	1	0
4	IuCS_Call.gls	MSPProfile0004		Start		None		Unknown	1	0
5	IuCS_Call.gls	MSPProfile0005		Start		None		Unknown	1	0

=====  
 0000 Version = 00000001 Release 1.0  
 0002 Message Class = 00000001 Transfer  
 0003 Transfer Message Type = 00000001 Payload Data  
 0004 Message Length = 120 (x00000078)  
 Protocol Data =  
 0008 Tag = x0210 Transfer Protocol Data  
 000A Length = 110 (x006E)  
 000E Originating Point Code = 3.3.3(..011000 00011011)  
 Destination Point Code =  
 0012 Point Code = 2.2.2(..010000 00010010)  
 0014 Service Indicator = ..0011 SCCP  
 0015 Network Indicator = ..0000 International network  
 0016 Message Priority = ..0000 Priority Code 0  
 0017 Signalling Link Selection = 1 (x01)  
 Pdu = x0100000202020604C312108E0404C31B188:  
 Parameter Padding = x0000  
 ===== SCCP Layer =====  
 0018 Message Type = 00000001 CR connection request  
 Mandatory Fixed Parameters =  
 Source Local Reference Parameter =  
 0019 Source Local Reference = 2 (x000002)

## Troubleshoot

- **“Unknown device” error while installing USB Dongle.** If you see this error, ensure you have installed the GL Dongle License Installer software first and then plugged the USB Dongle to the PC. The USB Dongle will then be recognized as “SafeNetInc. USB Key” and appropriate drivers will get installed automatically. If problem still persists, plug the USB Dongle to a different USB2.0 port and try again.
- **“Security Error: Application is not licensed”,** if you see this error when you run MAPS™ IuCS it indicates a problem with either your dongle or license file.
  - First verify that the dongle is plugged in and the red light is on
  - To use MAPS™ 64-bit version – use *GLDongleLicenseInstaller\_x64.exe* utility to install licenses
  - Navigate to *C:\Program Files\GL Communications Inc\GLDONGLE*
  - Run *haspinfohl.exe*. Verify that Status is **OK** and make a note of the Serial #.
  - Run *appl\_list.exe*. Verify that there is a line in the table reading **PKS160 UMTS-Iu-CS and Iuh Interface Emulation** and **PKS102 PacketGen RTP Soft Core** with the serial number you noted above.
  - If the dongle does not appear in *haspinfohl.exe*, verify that it appears as a USB device in the **Windows Device Manager**. If it does not appear even in the device manager, remove the dongle and plug it into a different USB port, preferably one directly on the motherboard.
- **Error: Fails to start SCTP Services and associated SCTP Link status is Down,** follow the steps below -
  - Run **MAPS™ IuCS application as administrator** – right-click and select Run as Administrator option.
  - **Turn OFF Windows Firewall** - navigate to Control Panel > Systems & Security > Windows Firewall, click Turn Off Windows Firewall for all networks.
- If you cannot resolve the issues, please contact GL Communications at [info@gl.com](mailto:info@gl.com) for technical support.