

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

Verification

Functional verification of MAPS-INAPIP application requires a system with 2 NIC cards for testing. MAPS-INAPIP is configured as **gsmSCF** (Service Control Function) on one NIC and as **gsmSSF** (Service Switching Function) on the other.

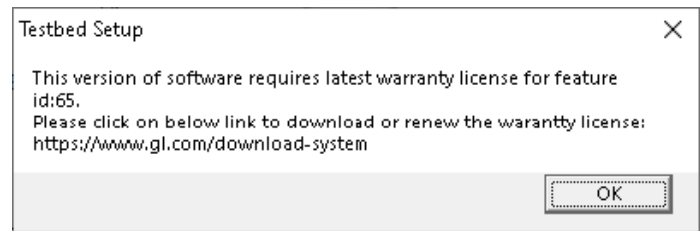
Note down the IP address of NIC1 and NIC2, in this example the IP addresses used and configured are:

- NIC1 IP address is 192.xx.xx.195, and configured as gsmSCF
- NIC2 IP address is 192.xx.xx.219, and configured as gsmSSF

***Note:** In this test scenario, we have configured MAPS™ INAPIP as gsmSSF generating calls and gsmSCF to receive calls.


Note: The "Warranty Error" as shown in the figure may be prompted, when the user tries to start the testbed, either the **Warranty licenses** are not installed or the license is expired.

Note: Ensure that the warranty license (GLSupportWarrantyLicenseInstaller.exe) is installed and also confirm that **PKS136 (MAPS™ ITU INAPIP)** is listed in **Warranty Application List**. Refer to [MAPS- ITU-INAP-IP-Quick-Install-Guide](#)



MAPS™ INAPIP (GUI) – (gsmSCF)

- Right click on **MAPS-INAPIP** application icon created on desktop and select "**Run as Administrator**". This instance of MAPS™ is configured for **Call Reception**.
- While invoking the MAPS™ INAPIP instance, verify the following in the **Protocol Selection** window -
 - **Protocol Standard** is set to **INAPIP**
 - **Protocol Version** to **ITU**
 - Select **Node** as **gsmSCF**
 - Select **Transport** as **M3UA**. Click **Ok**

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

- Set **SCF IP Address** to 192.xx.xx.195 (NIC1 IP address)


[Note: Primary and Secondary IP addresses configuration is supported for backup and redundancy]

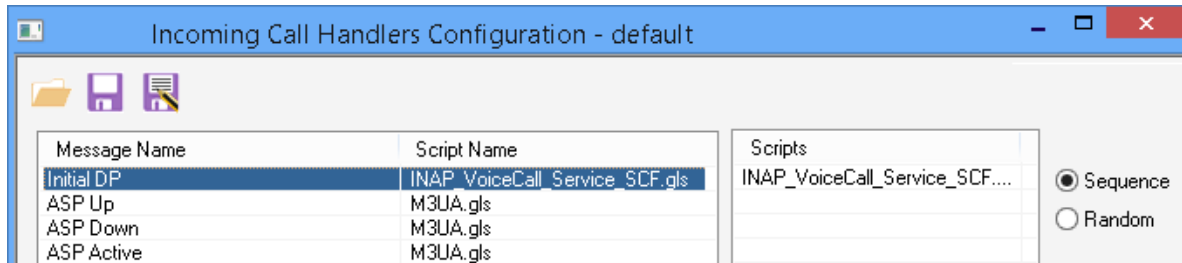
- Set **SCF Port** to **3905**
- Set **SCF Point Code** to **3.3.3**
- Set **SCF Subsystem Number** to **INAP ITU-12**
- Verify if the **Node Type** is set to **SSF**
- Set **Source SCTP Mode** to **Client**
- Set **Destination IP Address** to 192.xx.xx.219 (NIC2 IP address)


[Note: Primary and Secondary IP addresses configuration is supported for backup and redundancy]

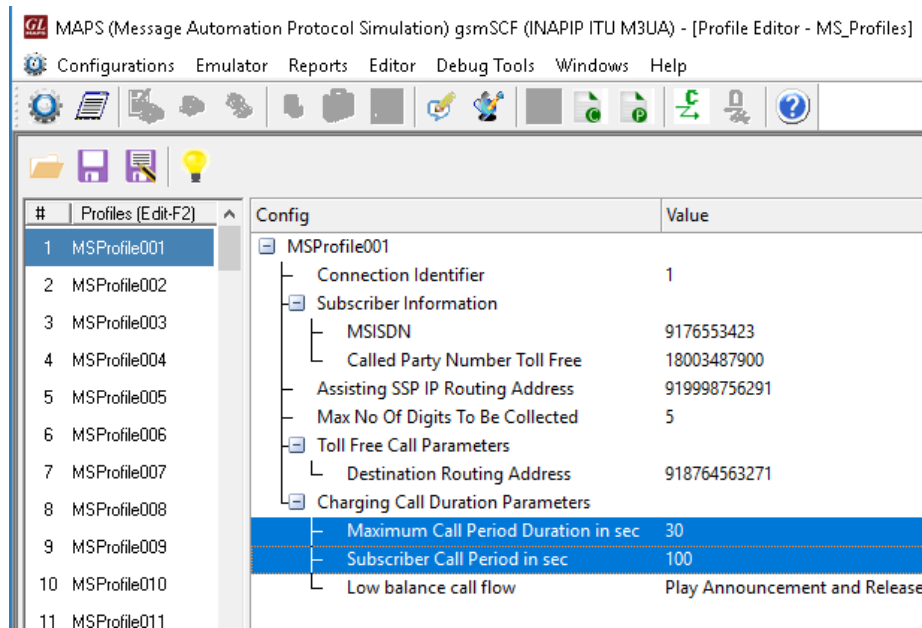
- Set **Destination Port** to **3905**
- Set **Destination Point Code** to **2.2.2**

Config	Value
SCF Interfaces	
SCF	1
SCF 1	
SCF IP Address	192.168.12.195
SCF Port	3905
SCF Point Code	3.3.3
SCCP Routing Indicator	Route on SSN
SCCP Point Code Indicator	Present
SCF Subsystem Number	INAP - 12
SCF Global Title Address	12345658578
SCF Address Indicator	National
Nature Of SCF Address Indicator	Unknown
Connected Destination Nodes	1
Connected Destination Nodes 1	
Node Type	SSF
Source SCTP Mode	Client
Destination IP Address	192.168.12.219
Destination Port	3905
Destination Point Code	2.2.2
Source M3UA Termination Type	SGP
Network Indicator	National
Signaling Link Selection	1
M3UA Routing Context Indicator	Present
M3UA Routing Context	1
Destination SCCP Routing Indicator	Route on SSN
Destination SCCP Point Code Indicator	Present
Destination Subsystem Number	INAP - 12
Destination Global Title Address	54321574578
Destination Address Indicator	National
Nature Of Destination Address Indicator	Unknown
End User Configuration	MS_Profiles.xml


- Set **M3UA Termination Type** to **IPSP**
 - Set **Destination Subsystem Number** to **INAP ITU-12**
 - Click  **Save** button and overwrite the **TestBedDefault** file.
- From MAPS™ ITU INAP main window, select **Configuration** → **Incoming Call Handler Configuration** from the main menu and verify that **INAP_VoiceCall_Service_SCF.gls** is loaded against the **Initial DP** message. Close the configuration window.



- In the MAPS (**gsmSCF** node) instance, from **Editor** → invoke **Profile Editor** window. Click  and select **MS_Profiles**, and choose **MSPprofile001** profile from the left pane and check for the following parameter values required to perform **prepaid call**:
 - Maximum Call Period Duration in sec = **30**
 - Subscriber Call Period in sec = **100** (required for prepaid call)
 - Close the **Profile Editor** window.




MAPS™ INAPIP (GUI) – (gsmSSF)

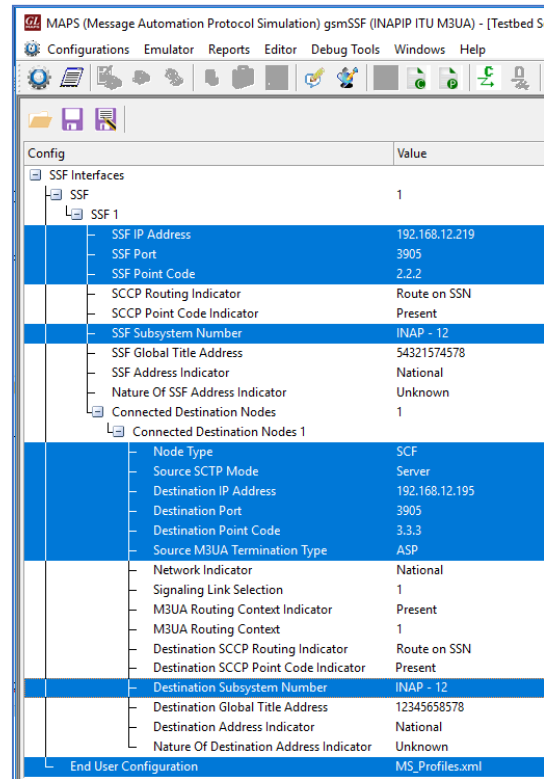
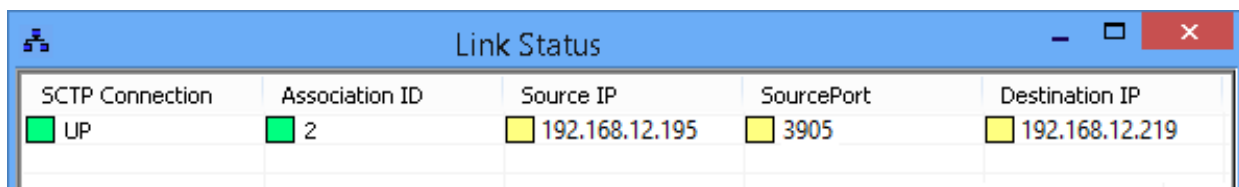
- To invoke another MAPS INAPIP instance, right click on **MAPS INAPIP** application icon created on desktop and select "**Run as administrator**". This instance of MAPS™ is configured for **Call Generation**.
- While invoking the second **MAPS™** instance, verify the following in the **Protocol Selection** window -
 - **Protocol Standard** is set to **INAPIP**
 - **Protocol Version** to **ITU**
 - Select **Node** as **gsmSSF**
 - Select **Transport** as **M3UA**. Click **Ok**
- By default, **Testbed Setup** window is displayed. Click  and select **TestBedDefault** configuration and check for the default parameter values as listed below:
 - Set **SSF IP Address** to 192.xx.xx.219 (NIC2 IP address)

[Note: Primary and Secondary IP addresses configuration is supported for backup and redundancy]



 - Set **SSF Port** to **3905**
 - Set **SSF Point Code** to **2.2.2**
 - Set **SSF Subsystem Number** to **INAP ITU-12**
 - Verify that the **Node Type** is set to **SCF**
 - Set **Source SCTP Mode** to **Server**
 - Set **Destination IP Address** to 192.xx.xx.195 (NIC1 IP address)

[Note: Primary and Secondary IP addresses configuration is supported for backup and redundancy]

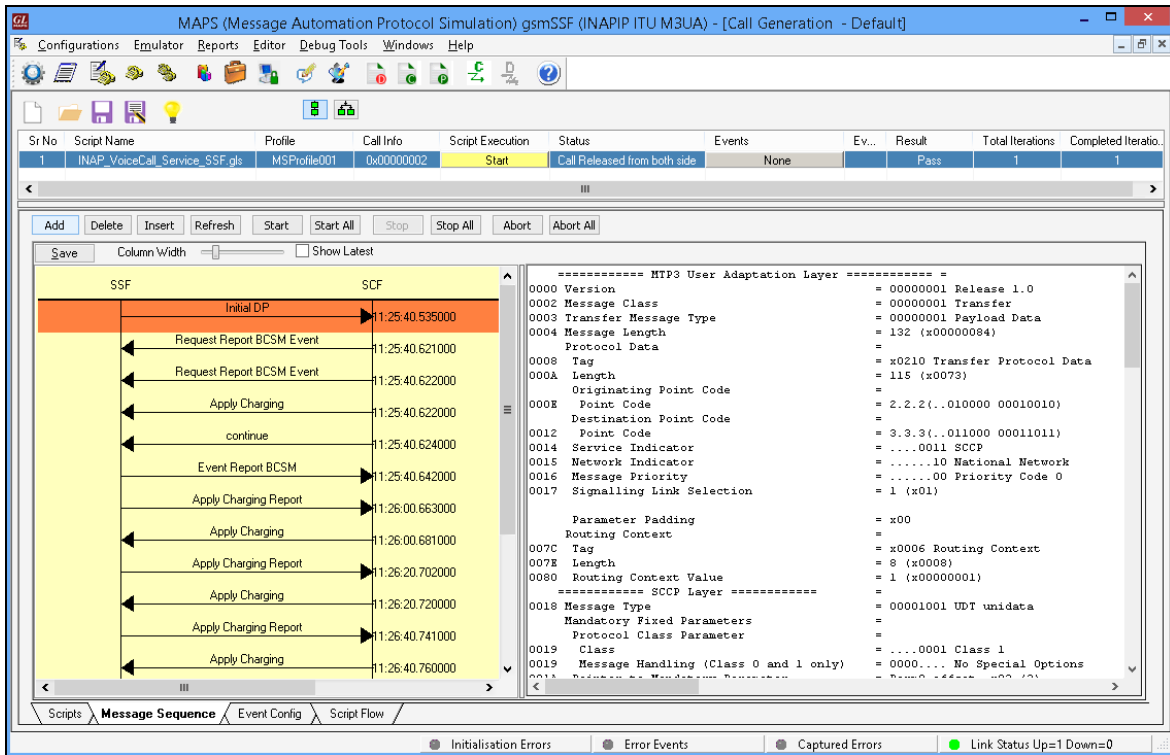
 - Set **Destination Port** to **3905**
 - Set **Destination Point Code** to **3.3.3**
 - Set **M3UA Termination Type** to **IPSP**
 - Set **Destination Subsystem Number** to **INAP ITU-12**
 - Click  **Save** button and overwrite the **TestBedDefault** file.
- Start** the test bed on both the MAPS™ instances
- On both the MAPS instances main window, from **Reports** menu → invoke **Link Status** window. Verify that the **Link Status** is **UP** (indicated in Green color) before placing the call.

SCTP Connection	Association ID	Source IP	SourcePort	Destination IP
UP	2	192.168.12.195	3905	192.168.12.219

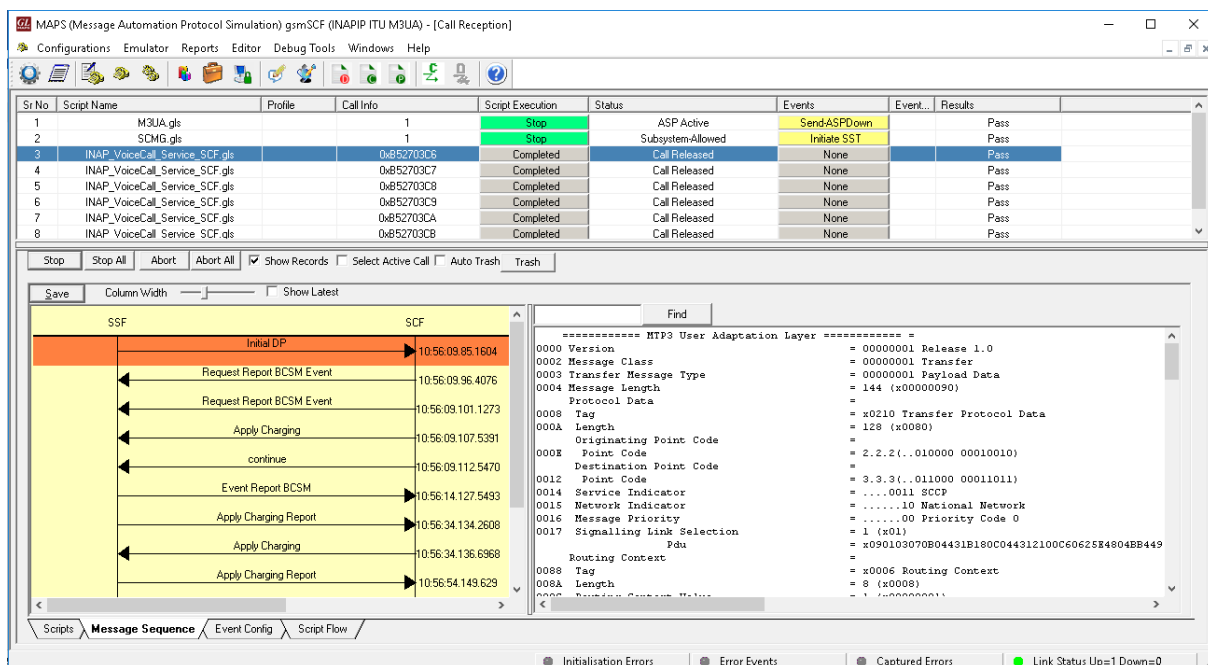
- On both the MAPS™ instances main window, click  icon and invoke **Call Reception** window. Verify that M3UA script is activated.
- In the second MAPS™ instance (**gsmSSF**) window, click  icon and invoke **Call Generation** window.
- By default, you will observe a single call instance loaded with **INAP_VoiceCall_Service_SSF.gls** script and select **MSProfile001** profile and click **Start** button to execute the script.
 - Double-click under **Profile** against **INAP_VoiceCall_Service_SSF.gls** script and select **Profile0001** profile and click button to execute the script.

- Wait for the calls to terminate and verify the **Message Sequence** flow at both generation and reception end. Uncheck the **Show Latest** option.
- 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	Event...	Result	Total Iterations	Completed Iteratio...
1	INAP_VoiceCall_Service_SSF.gls	MSProfile001	0x00000002	Start	Call Released from both side	None		Pass	1	1

- Return to MAPS™ INAPIP (gsmSCF) instance, in the **Call Reception** window, observe that the calls are automatically received running the Rx script.



Sr No	Script Name	Profile	Call Info	Script Execution	Status	Events	Event...	Results
1	M3UA.gls		1	Stop	ASP Active	Send-ASPDown		Pass
2	SCMG.gls		1	Stop	Subsystem-Allowed	Initiate SST		Pass
3	INAP_VoiceCall_Service_SCF.gls		0x852703C6	Completed	Call Released	None		Pass
4	INAP_VoiceCall_Service_SCF.gls		0x852703C7	Completed	Call Released	None		Pass
5	INAP_VoiceCall_Service_SCF.gls		0x852703C8	Completed	Call Released	None		Pass
6	INAP_VoiceCall_Service_SCF.gls		0x852703C9	Completed	Call Released	None		Pass
7	INAP_VoiceCall_Service_SCF.gls		0x852703CA	Completed	Call Released	None		Pass
8	INAP_VoiceCall_Service_SCF.gls		0x852703CB	Completed	Call Released	None		Pass