

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

### **Quick Checkout Procedure**

Functional verification of MAPS-SIGTRAN application requires a system with 2 NIC cards for testing. MAPS-SIGTRAN is configured as **Client** node on one NIC and as **Server** node 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.239, and configured as Client
- ▶ NIC2 IP address is 192.xx.xx.163, and configured as Server

\*Note: In this test scenario, we have configured MAPS<sup>™</sup> SIGTRAN as Client node generating calls and Server node to receive calls.

#### MAPS™ SS7 SIGTRAN (Server)

- Double-click on the **MAPS-SS7 SIGTRAN** application shortcut icon created on the desktop and invoke the application. This instance of MAPS<sup>™</sup> is configured for **Call Reception**.
- While invoking the MAPS™ SS7 SIGTRAN (Server) instance, verify the following in the Protocol Selection window -
  - Select Protocol Standard as Isup-Sigtran
  - Protocol Version as ITU.
  - Select Transport as M3UA and click OK.
- By default, <u>Testbed Setup</u> window is displayed. Click on icon, select SelfTest\_Server and click on OK. Check for the parameter default values as listed below:
  - > Verify that the **SCTP Mode** is set to **Server**;
  - M3UA Termination Type is set to SGP (maintain Server association);
  - **Exchange Type** is set to **Non-Control**;
  - Set the **SGW IP address** to NIC2 IP address (192.xx.xx.163)
  - Set MGC IP Address to NIC1 IP address (192.xx.xx.239)
  - Verify that the SGW Port is set to 2906 and MGC Port is set to 2905.
  - SSP Point Code = 1.1.1 and Adjacent Destination Point Code = 2.2.2
  - $\blacktriangleright \quad \text{Destination Point Code} = 2.2.2$
  - $\succ \quad \text{Circuit Group 1} \rightarrow \text{Port Number} = 1$
  - Click Save to save the configuration.



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• On the same MAPS<sup>™</sup> SS7 SIGTRAN (Server) main window, select **Configuration** → **Incoming Call Handlers Configuration**. Verify that the **Isup\_Call.gls** script is loaded against the **Initial Address** message. Close the window.

	default	- 🗆 🗙	
Message Name	Script Name	Scripts	
Initial Address	Isup_Call.gls	Isup_Call.gls	Sequence
Address Complete	Rx_IdleStateMsgHandler.gls		<u> </u>
Connect	Rx_IdleStateMsgHandler.gls		ORandom
Answer	Rx_IdleStateMsgHandler.gls		

- From MAPS<sup>™</sup> main window, select Editor → Profile Editor. Click on icon, select MS\_Profiles and click on OK. From the left pane, choose Card1TS01 profile. Verify the following settings:
  - $\succ$  Card Number = 1; Timeslot = 1
  - OPC= 1.1.1; DPC = 2.2.2 [Note: Same as the settings in the Testbed Setup window]
  - Click Save button and exit from the Profile Editor window.



#### MAPS™ SS7 SIGTRAN (Client)

- To invoke second instance of MAPS<sup>TM</sup> SS7 SIGTRAN, double-click on the MAPS-SS7SIGTRAN application shortcut icon created on the desktop. This instance of MAPS<sup>TM</sup> is configured for *Call Generation*.
- While invoking the second MAPS<sup>TM</sup> Isup-Sigtran instance, verify the following in the <u>Protocol Selection</u> window -
  - Protocol Standard = Isup-Sigtran
  - $\succ$  Protocol Version = **ITU**.
  - **Transport = M3UA**and click**OK**.
- By default, <u>Testbed Setup</u> window is displayed. Click on icon and select SelfTest\_Client configuration check for the parameter default values as listed below:
  - > Verify that the **SCTP Mode** is set to **Client**;
  - M3UA Termination Type is set to ASP (maintain Client association);
  - **Exchange Type** is set to **Control**;
  - Set the SGW IP address to NIC1 IP address (192.xx.xx.239)
  - Set MGC IP Address to NIC2 IP address (192.xx.xx.163)
  - Verify that the SGW Port is set to 2905 and MGC Port is set to 2906.
  - SSP Point Code = 2.2.2 and Adjacent Destination Point Code = 1.1.1
  - $\blacktriangleright \quad \text{Destination Point Code} = 1.1.1$
  - $\blacktriangleright \quad \text{Circuit Group 1} \rightarrow \text{Port Number} = 2$
  - Click Save button.



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🔐 MAPS (Message Automation Protocol Simulation) (Isup-Sigtran ITU M3UA) - [Profile Editor - MS\_Profiles

- From MAPS<sup>TM</sup> main window, select Editor  $\rightarrow$  Profile Editor. Click on *icon*, select **MS Profiles** and click on **OK**. Scrolldown the left pane and choose Card2TS01 profile. Verify the following settings:
  - $\blacktriangleright$  Card Number = 2; Timeslot = 1
  - OPC = 2.2.2; DPC = 1.1.1 [Note: Same as the settings in the  $\geq$ Testbed Setup window]
  - > Click 🔚 Save button. Exit from the Profile Editor window.
- **Start** the testbed on both the MAPS<sup>TM</sup> instances.
- 🏟 Configurations Emulator Reports Editor Debug Tools Windows Help 🎱 🗐 🎼 🗣 🦠 🗉 🗊 📰 🍼 🔮 📰 🔓 🔓 😤 🐥 🥑 🚔 🔒 🛃 🧣 # Profiles (Edit-F2) 🔺 Config Value Card2TS01 - CIC Assignment 35 Card2TS02 Card Numb 36 Card2TS03 Timeslot 37 Card2TS04 38 Card2TS05 User Provided CIC 33 39 Card2TS06 ISUP Parameters 40 Card2TS07 Initial Address Message Parameters Called Nmbe 41 Card2TS08 42 Card2TS09 IAM Message Indicators
- Note: The "Warranty Error" as shown in the figure may be prompted, while starting the testbed, if the Warranty licenses are not installed or the license is expired.
- Note: Ensure that latest warranty license (GLSupportWarrantyLicenseInstaller.exe) is installed and confirm that PKS130 (MAPS<sup>™</sup> SIGTRAN) is listed in Warranty Application List. Refer to MAPS-SIGTRAN -Quick-Install-Guide



On both the MAPS<sup>TM</sup> instances main window, from *Reports* menu  $\rightarrow$  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 explained in MAPS<sup>™</sup> ISUP Sigtran Quick Install Guide.

🔁 Link Status 📃 💷 🖻						
SCTP Connection	Association ID	Source IP	SourcePort	Destination IP		
UP	1	192.168.1.239	2905	192.168.1.163		

- On both instances of MAPS- SS7SIGTRAN (Server and Client) main window, click *Call Reception* <sup>39</sup> icon and check the option Show Records to see the records on the Call Reception window. Observe that the Check SCTP Status.gls script is activated.
- On the MAPS- SS7SIGTRAN (Client) instance, select Configurations  $\rightarrow$  Performance Options and ensure that Message Sequence option is checked.
- icon on main window, and invoke the *Call* In the MAPS- SS7SIGTRAN (Client) instance, click the Call Generation Generation window.
- By default, a call instance loaded with Isup\_Call.gls script is displayed in the window. Double-click the area in the Profile column and select the **Card2TS01** profile from the drop-down list. Click <u>Start</u> button to start 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.

🕮 MAPS (Message Automation Protocol Simulation) (Isup-Sigtran ITU M3UA) - [Call Generation - CallGenDefault] – 🗖 💌										
🖗 Configurations Emulator Reports Editor Debug Tools Windows Help 🗕 🗗										
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Sr No Script Name Profile Call I	Info	Script Execution	Status	Events	Ev Re	esult Total Iterations	Completed Iteratic			
1 Isup_Call.gls Card2TS01	1.1.1,2.2.2,1	Start	ISUP Call Released	None		Pass 1	1			
Add Delete Insert Refresh Start S	tart All Stop	Stop All Abort	Abort All							
Save Column Width St	how Latest									
	іт		=== MTP3 User Adaptat:	ion Layer =====			^			
	0000 Version = 00000001 Release 1.0									
	12:50:09.819000	0003 Transfer	Message Type	=	00000001	Payload Data				
Address Complete	10,50,10,100000	0004 Message Protocol	Length Data	-	52 (x0000	00034)				
	12.50.10.102000	0008 Tag	2000	=	x0210 Tra	ansfer Protocol Data				
Answer	12:50:10.102000	000A Length	tine Drive Code	=	44 (x0020	C)				
Release	10 50 10 100000	000E Point	Code	=	1.1.1(0	001000 00001001)				
	12:50:10.102000	Destina	tion Point Code	=						
Release Complete	12:50:10.121000	0012 Point Code = 2.2.2(010000 00010010 0014 Service Indicator =0101 ISDN User Part			UIUUUU UUUIUUIU) ISDN User Part					
1		0015 Network Indicator =00 International netwo			۲ III					
		0016 Message Priority =00 Priority Code 0								
0017		0017 Signall	<pre>J017 Signalling Link Selection = 1 (x01) </pre>				6720520			
		- x0100010000000000000000000000000000000			0730320					
		0018 Circuit	Identification Code	=	00000001	0000 (1)	~ I I			
< III	>	<					>			
Scripts Message Sequence Kevent Config Script Flow Capture Events										
<ul> <li>Initialisation Errors</li> <li>Error Events</li> <li>Captured Errors</li> <li>Link Status Up=1 Down=0</li> </ul>										

• On the *Call Reception* window, check the **Auto Trash** option to clear the window and to verify the active calls automatically being received running the Rx script.