

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

Quick Checkout Procedure

Functional verification requires 2 Regular NIC cards and 1 GL's HD card installed in the MAPS[™] HD network appliance.

The 2 regular PC NIC are connected to a managed switch using Ethernet cables as shown in the figure here.

The four ports on GL's HD NIC card are connected in loopback as shown in the figure –

P0 is connected to P2 P1 is connected to P3 ports.

Regular NIC is used for SIP Signaling and to invoke RTP cores (communication between MAPS[™] and RtpCore) and GL's HD NIC is used to pump and receive RTP Traffic.





GL's HD card connections verification:

Verify that network cables are properly connected and locked. Also, you can use the monitoring tool (refer to Troubleshoot section in MAPS-SIP-HD-Quick-Install-Guide) to check the Ethernet links status on GL's HD NIC is UP or DOWN.

For illustration purposes, we assume the IP address of the 2 Regular NIC cards are configured as NIC#1 - 192.xx.xx.161 and NIC#2 - 192.xx.xx.239.

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. Ensure that the warranty license (GLSupportWarrantyLicenseInstaller.exe) is installed and also confirm that PKS120 (MAPSTM SIP) and PKS109 (MAPSTM SIP HD) is listed in Warranty Application List. Refer to *MAPS-SIP-HD-Quick-Install-Guide*.

Testbed Setup	×
This version of software requires latest warranty license for id:65. Please click on below link to download or renew the waran https://www.gl.com/download-system	feature tty license:
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Invoke 2 instances of MAPS[™] SIP HD application instances (one for each NIC) using the short cut icon HD created on the desktop. The configurations below allow first instance of MAPS[™] SIP to use NIC 1 IP address as source and the NIC 2 IP address as destination endpoint. Similarly, the second instance of MAPS[™] SIP to use NIC 2 IP address as source and the NIC 1 IP address as destination endpoint to simulate SIP calls.



MAPS[™] SIP HD (Instance 1)

- MAPS-SIP HD created on the desktop and select '**Run as Administrator**'.
- Right-click on MAPS-SIP HD short-cut icon
 - By default, <u>Testbed Setup</u> window is displayed loaded with TestBedDefault_4RTP Cores configuration. Verify the following settings.
 - > Select End User Configuration parameter and change the profile name to UserAgent_Profiles_1.xml
 - Set NIC IP Address to NIC1 IP Address (192.xx.xx.161)

HD RTP Media Configuration

Number of RTP-Cores: Set to 2 and click Apply. For this self-test setup, we are invoking 2 RTP-Cores only.

RTP Core 1 Configurations:

- **RTP Port Index:** Set this to *Port_0::4x1G* Adapter.
- RTP Media IP Address: Specify the RTP Core IP address. (Enter the HD Port1 IP address here, Ex: 192.168.12.150).
- Gateway IP Address: Set this to 192.168.12.1 (Enter the Gateway IP address of LAN).

RTP Core 2 Configurations:

- **RTP Port Index:** Set this to *Port_1::4x1G* Adapter.
- RTP Media IP Address: Specify the RTP Core IP address. (Enter the HD Port2 IP address here, Ex: 192.168.12.151).
- Gateway IP Address: Set this to 192.168.12.1 (Enter the Gateway IP address of LAN).

- From MAPS-SIP HD main window, select Editor → Profile Editor. By default, UserAgent_Profiles profile is loaded in the window. There are 4 profiles here, each profile corresponding to a port on GL's HD NIC. From the left pane, choose Profile0001 profile. Verify the following settings:
 - Set Call Type → Audio Call.
 - ➢ Edit Contact Address → 0001@192.168.12.161 (Enter the source NIC1 SIP URI here).
 - ➢ Edit Address of Record → 0001@192.168.12.161 (Enter the source NIC1 SIP URI here).
 - ➢ Edit To Address → 0001@192.168.12.239 (Enter the destination NIC2 SIP URI here).
 - Scroll down to Codec Options and Traffic Configurations and select Codec as PCMU from the Codec list.
 - Set Traffic Type to Auto Traffic File type, and Traffic Direction to TxRx.
 - Set *Traffic Profile Name* to *Profile0001* (configured in TrafficProfile.xml).





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Click Save As to save TestBedDefault_1.xml file.



- Similarly, select **Profile0002** from the left pane and edit the parameters settings as below:
 - ➢ Set Call Type → Audio Call.
 - ➢ Edit Contact Address → 0002@192.168.12.161 (Enter the source NIC1 SIP URI here).
 - Edit Address of Record $\rightarrow 0002@192.168.12.161$ (Enter the source NIC1 SIP URI here).
 - ➢ Edit To Address → 0002@192.168.12.239 (Enter the destination NIC2 SIP URI here).
 - Scroll down to *Codec Options and Traffic Configurations* and select *Codec* as *PCMU* from the Codec list.
 - Set *Traffic Type* to *Auto Traffic File* type, and *Traffic Direction* to *TxRx*.
 - Set *Traffic Profile Name* to *Profile0002* (configured in TrafficProfile.xml).
- Click Save As to save *UserAgent_Profiles_1* file. Exit from the Profile Editor window.
- On the same MAPS[™] SIP HD instance, from **Configuration** → invoke **Incoming Call Handler Configuration** window. Verify that the **SipCallControl.gls** script is loaded against the **INVITE** message. Close the window.

🔐 MAPS (Message Automation Protocol Simulation) (SIP IETF) - [Incoming Call Handlers Configuration 👝 💷 💌						
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Message Name	Script Name	Scripts				
INVITE	SipCallControl.gls	SipCallControl.gls (• :				
OPTIONS	SipCallControl.gls	C 1				
NOTIFY	SipCallControl.gls	U 1				
SUBSCRIBE	SipSubscribeControl.gls					

MAPS[™] SIP HD (Instance 2)

- Similarly, click on the MAPS SIP HD shortcut icon created HD on the desktop and invoke another instance of MAPS SIP HD.
 - By default, <u>**Testbed Setup**</u> window is displayed loaded with **TestBedDefault_4RTP Cores** configuration and verify the following settings.
 - Select End User Configuration parameter and change the profile name to UserAgent_Profiles_2.xml.
 - Set NIC IP Address to NIC2 IP Address (192.xx.xx.239).

HD RTP Media Configuration

Number of RTP-Cores: Set to 2 and click Apply. For this self-test setup, we are invoking 2 RTP-Cores only.

RTP Core 1 Configurations:

- RTP Port Index: By default, set to Port_2::4x1G Adapter.
- RTP Media IP Address: Specify the RTP Core IP address. (Enter the HD Port3 IP address here, Ex: 192.168.12.152).
- Gateway IP Address: Set this to 192.168.12.1.(Enter the Gateway IP Address of LAN).

🚾 MAPS (Message Automation Protocol Simulation) - [Testbed Setup - TestBedDefault_2]				
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Config	Value			
SIP Configuration				
 End User Configuration 	UserAgent_Profiles_2.xml			
 NIC IP Address 	192.168.12.239			
- IPSpoofing	Disable			
HD RTP Media Configuration				
LEI RTP Cores	2			
- RTP Cores 1	- RTP Cores 1			
 RTP Port Index 	Port_2::4X1G Adapter			
 RTP Media IP Address 	192.168.12.152			
L Default Gateway Configuration				
 Subnet Mask 	255.255.255.0			
Gateway IP Address	192.168.12.1			
- RTP Cores 2				
 RTP Port Index 	Port_3::4X1G Adapter			
 RTP Media IP Address 	192.168.12.153			
Le Default Gateway Configuration				
 Subnet Mask 	255.255.255.0			
Gateway IP Address	192.168.12.1			

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MAPS (Message Automation Protocol Simulation) (SIP IETF) - [Profile Editor - UserAgent_Profiles]

RTP Core 2 Configurations:

- **RTP Port Index:** By default, set to *Port_3::4x1G* Adapter.
- **RTP Media IP Address:** Specify the RTP Core IP address. (Enter the **HD Port4 IP address** here, Ex: 192.168.12.153).
- Gateway IP Address: Set this to 192.168.12.1.(Enter the Gateway IP Address of LAN).
- Click Save As to save TestBedDefault_2.xml file.
- From MAPS-SIP HD main window, select Editor → Profile Editor. By default, UserAgent_Profiles profile is loaded in the window. From the left pane, choose Profile0001 profile. Verify the following settings:
 - Set Call Type → Audio Call.
 - ➢ Edit Contact Address → 0001@192.168.12.239 (Enter the source NIC2 SIP URI here).
 - ➢ Edit Address of Record → 0001@192.168.12.239 (Enter the source NIC2 SIP URI here).
 - ➢ Edit To Address → 0001@192.168.12.161 (Enter the destination NIC1 SIP URI here).
 - Scroll down to Codec Options and Traffic Configurations and select Codec as PCMU from the Codec list.
 - Set Traffic Type to Auto Traffic File type, and Traffic Direction to TxRx.
 - Set Traffic Profile Name to Profile0001.
- Similarly, select **Profile0002** from the left pane and edit the parameters settings as below:
 - ➢ Set Call Type → Audio Call.
 - ► Edit Contact Address → 0002@192.168.12.239 (Enter the source NIC2 SIP URI here).
 - ► Edit Address of Record → 0002@192.168.12.239 (Enter the source NIC2 SIP URI here).
 - Edit *To Address* \rightarrow 0002@192.168.12.161 (Enter the destination NIC1 SIP URI here).
 - Scroll down to *Codec Options and Traffic Configurations* and select *Codec* as *PCMU* from the Codec list.
 - Set *Traffic Type* to *Auto Traffic File* type, and *Traffic Direction* to *TxRx*.
 - Set Traffic Profile Name to Profile0002.
- Click Save As to save *UserAgent_Profiles_2* file. Exit from the Profile Editor window.
- From MAPS-SIP HD main window, select Configurations → Global Configuration, scroll down to set **RTP Traffic Path** as '**Back To Back'** and then click **Apply**. Ensure this step is followed on both the instances. This allows for self-test MAPS-SIP HD by looping back GL's HD NIC. To do normal testing, change this value back to '**Through Network'** and restart MAPSTM SIP HD instance.







MAPS[™] SIP HD (PKS120, PKS109) **Quick Verification Guide**

GL Communication -- RTP [192.168.1.244] : Released on [Apr 21 2016]

GL Communication -- RTP [192.168.1.244]

GL Communication -- RTP [192.168.1.244] : Released on [Apr 21 2016]

: Released on [Apr 21 2016]

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GL Communication -- RTP [192.168.1.244]

are RTP - HD Application

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Stop Time

Delete

Days 0 - Hours 0 - Minutes 0 -

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- Now, Start both the testbed and wait for 4 RTP-Core console windows to appear. If the RTP Core console does not invoke with the MAPSTM TestBed start-up, refer to Troubleshoot section explained in the MAPS[™] SIP HD Quick Install Guide.
- From any of the MAPS[™] SIP HD instance, click on icon and invoke the Load Generation window. Verify the following settings:
 - Total calls to Generate by default is set to '*', indicates no limit.
 - > Maximum Active calls to 1000. Note: Uncheck the Unique Distributions per script checkbox first and then enter the maximum active call value and again check the Unique Distributions Per Script checkbox.
 - Uncheck Multi-Distributions checkbox.
 - Select the Statistical Distribution pattern as Fixed from the drop-down list.
 - Set Call Rate to 250.
 - Observe that by default, SipCallControl.gls script and Profile0001 are added in the window.
 - In Profile column, click Add and select Profile0002 profile to include both the profiles as shown in the window.
 - Click Start button to initiate bulk call generation.
- In the same MAPSTM SIP HD instance, from **Reports** menu \rightarrow invoke **Statistics** window. Observe the Outgoing and Incoming Call Statistics.
- icon and open Call Reception window and observe the bulk calls being In the other MAPS[™] SIP HD instance, click received running the SipCallControl.gls answer script.
- On this MAPS SIP HD instance as well, from **Reports** menu → invoke **Statistics** window. Observe the Outgoing and Incoming Call Stats. Also, from **Report** menu \rightarrow invoke User Defined

Statistics window. Click icon and select VoiceQualityStats_HD configuration, observe the QoS Statistics.

Statistics						
Call Stats Message Stats Reset						
Statistic Nan	ne Total Calls	Active Calls	Completed Calls	Passed Calls	Failed Calls	Cals/Sec
Default	0	0	0	0	0	0
Outgoing and	d Incoming Calls 1000	1000	0	0	0	0
Registration	0	0	0	0	0	0
S Call Reception						
Sr No	Script Name	Cal Info	Script Execution	Status	Events	Ev
1	RTP_Stats_Display.gls		Stop		None	
2	SipCallControl.gls	GL-MAPS_2693	Stop		SIP_Terminate	Call
3	SipCallControl.gls	GL-MAPS_2693	Stop		SIP_Terminate	Call
4	SipCallControl.gls	GL-MAPS_2694	Stop	Send_File-Started	SIP_Terminate	Call
5	SipCallControl.gls	GL-MAPS_2693	Stop	Send_File-Started	SIP_Terminate	Call
6	SipCallControl.gls	GL-MAPS_2693	Stop	Send_File-Started	SIP_Terminate	Call
7	SipCallControl.gls	GL-MAPS_2692	Stop	Send_File-Started	SIP_Terminate	Call
8	SipCallControl.gls	GL-MAPS_2693	Stop	Send_File-Started	SIP_Terminate	Call
9	SipCallControl.gls	GL-MAPS_2693	Stop	Send_File-Started	SIP_Terminate	Call
10	SipCallControl.gls	GL-MAPS_2693	Stop	Send_File-Started	SIP_Terminate	Call
11	SipCallControl.gls	GL-MAPS_2694	Stop	Send_File-Started	SIP_Terminate	Call
12	SipCallControl.gls	GL-MAPS_2693	Stop	Send_File-Started	SIP_Terminate	Call
13	SipCallControl.gls	GL-MAPS_2693	Stop	Send_File-Started	SIP_Terminate	Call
14	SipCallControl.gls	GL-MAPS_2694	Stop	Send_File-Started	SIP_Terminate	Call
15	SipCallControl.gls	GL-MAPS_2694	Stop	Send_File-Started	SIP_Terminate	Call
16	SipCallControl.gls	GL-MAPS_2693	Stop	Send_File-Started	SIP_Terminate	Call
Stop Stop All Abort Abort All 🔽 Show Records 🗆 Select Active Call 🔽 Auto Trash						
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MAPS (Message Automation Protocol Simulation) [Load Generation - LoadGendefault] Configurations Emulator Reports Editor Debug Tools Windows Help					
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Total Calls To Generate * (* indicates no limit) Max Active Calls 1000					
Multi Distributions Statistical Distribution Fixed Call Rate 250					
Scripts	Profile 🔲 Exclusive Profiles				
Scripts	Profile				
SipCallControl	Profile0001				

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Start Time - 00:00:00.000

End Time - 00:00:00.000

Delete

Start

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