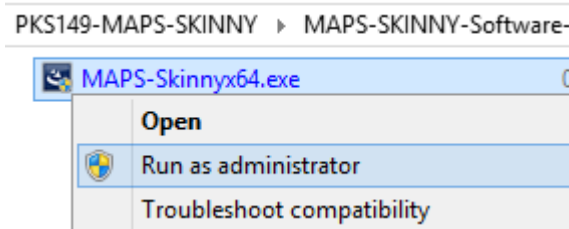


Software and License Installation

DO NOT CONNECT USB DONGLE TO THE PC FIRST. Perform Software installation first, followed by License installation and then plug-in the USB hardware dongle to the PC.

- PC Requirements
 - Windows® 7 and above Operating System (**64 bit Only**).
 - Core i3 to i7 (or equivalent), 4 GB Memory, NIC, and USB 2.0 Ports.
- Plug-in the **USB Installation Stick** (pen drive) to the PC. This is provided with the shipment package by GL Communications.
- Navigate to \ **PKS149-MAPS-GSMA** \ **MAPS-SKINNY Software** folder, execute **MAPS-Skinnyx64.exe** or (MAPS-Skinnyx86.exe for 32 bit Installer) in **Run as Administrator** mode.





- Navigate back to root directory in USB installation stick (pen drive) to \ **GL-Dongle License Installer** folder, execute **GLDongleLicenseInstaller_x64.exe** (or **GLDongleLicenseInstaller_x86.exe** for MAPS™ 32-bit installers)
- NOW PLUG-IN the USB Hardware Dongle to the PC to the USB 2.0 port of your computer. Windows® should install all required drivers automatically. A red light should appear on the dongle indicating that the device is functioning correctly and ready to use.
- It is recommended to reboot the system after the software installation. If you had problems with installation so far, refer to [Troubleshoot](#) section explained in this document.
- You can verify if the required licenses are installed. Navigate to **C:\Program Files\GL Communications Inc\GLDONGLE** (or **C:\Program Files(x86)\GL Communications Inc\GLDONGLE** for 32-bit version) directory, execute **appl_list.exe** and confirm that the following licenses are listed:
 - PKS149 (MAPS™ Skinny)
 - PKS102 (RTP Traffic) or PKS109 (HD RTP Traffic)*
- Double-click the **MAPS-SIP** icon created on the desktop. The application should execute without any errors.

***Note:** Additional licenses may be required for optional codecs and other traffic options. Please verify that all licenses purchased are displayed using the **appl_list.exe** utility.

Verification

For functional verification of **MAPS™ Skinny** application, it can be configured as **IP Phones (Skinny Clients)** endpoint simulating call control functionalities such as registration and management, call control (setup, teardown, and statistics), media (audio) stream control procedures. The following explains MAPS™ Skinny configuration to act as IP phone to place and to receive calls from the Call Manager.

- Click on the **MAPS-Skinny** icon created on the desktop and invoke the application.
- While invoking the MAPS™ Skinny instance, verify the following in the **Protocol Selection** window -
 - **Protocol Standard** is set to **SKINNY**
 - **Protocol Version** to **CISCO**
 - Select **Node** as **Phone**
 - **Transport** layers as **TCP**
 - Click **Ok**

- On the **Test Bed Default** window, load **TestBedDefault** configuration and check for the configuration settings as below:
 - **TCP Transaction Type** = Client
 - **Phone IP Address** = System IP address (Ex:192.168.1.39)
 - **CCM IP address** = Call Manager IP Address (Ex:192.168.20.75)
 - **Destination Port** = **2000** (Skinny default port)
 - **End User Configuration** = **SkinnyProfiles.xml**
- Select **Editor** -> **Profile Editor** from the main menu. Load **SkinnyProfiles.xml** configuration file. Edit the following parameters in each of the profile as per the configuration in the Call Manager.
Ex: Profile001:
 - **Device Name** = **SEP001676122661** (MAC Address of the NIC where Skinny client is running, prefixed with "SEP")
 - **Called Party Number** (Destination number to which the call is to be placed, Ex: 337)
 - **Traffic Type** = **IVR**Ex: Profile002:
 - **Device Name** = **SEP001676122666** (MAC Address of the NIC where Skinny client is running, prefixed with "SEP")
 - **Called Party Number** (Destination number to which the call is to be placed, Ex: 336)
 - **Traffic Type** = **IVR**
- Close the window
- Click **Start** to start the test bed setup
- Click  **Call Generation** icon seen in the MAPS™ toolbar menu
- Verify that **Parallel Execution**  is enabled, seen in the toolbar menu.
- Observe that by default, 2 instances are loaded with **Phone_OutBoundCall.gls** and **Phone_InBoundCall.gls** scripts and **Profile000*.xml** profiles.
- First **Start** the **Profile002** instance with **Phone_InBoundCall.gls**.
- Select Profile002 instance, verify the **Line Dir Number** from the **Line Stat Message** decode in the **Message Sequence** tab. This number should be the **Called Party Number** set in Profile001 (Ex: 346).
- Now **Start** the **Profile001** instance with **Phone_OutBoundCall.gls** script.
- Observe that the calls are sent and automatically received to/from Call Manager running the **InBound** and **OutBound** scripts.
- Observe that the call status changes from
Phone Registered > Place Call > Dialing > Ringing > Session Created > Connected > Send Digits Started > Send Digits Completed > Digits Detected > Session stopped > Phone DeRegistered.
- Wait for the calls to terminate, and verify the **Message Sequence** flow.
- To verify the occurring Events during the calls, select **Reports > Events** menu and click on the **Event Log** tab.

Troubleshoot

- “**Security Error: Application is not licensed**”, if you see this error when you run MAPS™ Skinny 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
 - 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 **PKS149 MAPS™ Skinny** 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.
- If the SIP/RTP Core console does not invoke with the MAPS™ TestBed start-up, check for the following:
 - RTP Soft Core licenses may not be installed for the dongle used. Run *appl_list.exe* available in the *C:\Program Files\GL Communications Inc\GLDONGLE* directory. Verify that there is a line in the table reading **PKS102 RTP Soft Core** with the serial number you noted above.
 - Verify if the Skinny IP Address and RTP IP Address in the testbed are configured appropriately.
- If you cannot resolve your issues, please contact your appointed technical support person. If you do not know your technical support contact, please reach us at info@gl.com