

MAPS™ LTE S1 is licensed either through software licensing or USB hardware dongle. Follow the procedures below as per your purchase order.

System Requirements

- Windows® 10 and above Operating System (**64 bit Only**).
- Core i3 to i7 (or equivalent), 8 GB Memory, NIC cards, and USB Ports.

Software Based Licensing (for evaluation only)

- In the case of software-based licensing, the software executables, license installer, and documents can be downloaded from the software licensing web portal (refer to email notification from GL Communications).
- Follow the instructions in the <https://www.gl.com/ses/download/GL-Software-License-Evaluation-Instructions.pdf> to install software license.
- To verify that the purchased licenses are installed correctly, open any web browser from the system on which the software license is installed and type the URL "<http://localhost:1947/int/products.html>". Click on **Features** and confirm that the following **Product licenses** are listed:
 - **PKS140** - MAPS LTE S1
 - **ETH101** - MobileTrafficCore-GTP
 - **ETH102** - MobileTrafficCore-Gateway
 - **PKS127** - MAPS™ SIP IMS
 - **PKS102** - PacketGen™ RTP Soft Core
 - **PKS108** - RTP Voice Quality Measurements
 - **PKS109** -MAPS™ SIP HD (**Optional**)
 - **PCD103** - Optional Codec AMR Narrowband (**Optional**)
 - **PCD107** - Optional Codec AMR Wideband (**Optional**)

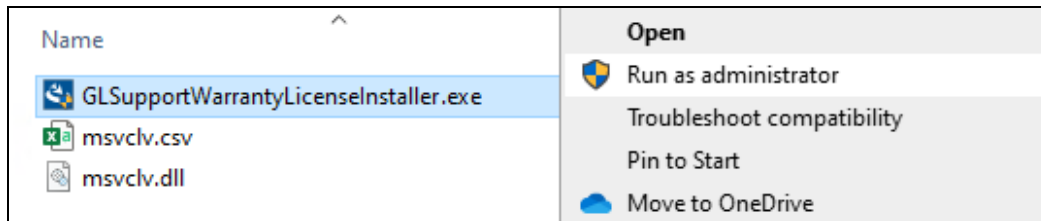
USB Dongle Based Licensing


- If the software is licensed through hardware USB dongle, the shipment will contain a **USB Installation Stick** (pen drive) with necessary software executables, license installer, and documents along with USB Dongle.
- Plug-in the dongle to the USB port of the computer.
- Plug-in the USB Installation Stick (pen drive) to the PC.
- Navigate to |**GL-Dongle-LicenseInstaller** folder in installation USB stick and execute **GLLdkDongleLicenseInstaller_x64.exe**. Follow the on-screen instructions to complete the installation.
- A **Red** light should appear on the dongle indicating that it is functioning correctly.
- User can verify if the required licenses are installed. Navigate to **C:\Program Files\GL Communications Inc\GLDONGLE** directory, execute **appl_list.exe** and confirm that the following licenses are listed:
 - **PKS140** - MAPS LTE S1
 - **ETH101** - MobileTrafficCore-GTP
 - **ETH102** - MobileTrafficCore-Gateway
 - **PKS127** - MAPS™ SIP IMS
 - **PKS102** - PacketGen™ RTP Soft Core
 - **PKS108** - RTP Voice Quality Measurements
 - **PKS109** -MAPS™ SIP HD (Optional)
 - **PCD103** - Optional Codec AMR Narrowband (Optional)
 - **PCD107** - Optional Codec AMR Wideband (Optional)
- For any issues during the installation, follow hardware dongle licensing procedure mentioned in the <https://www.gl.com/Brochures/Brochures/Installation-Instructions-for-Dongle-Programs.pdf>.

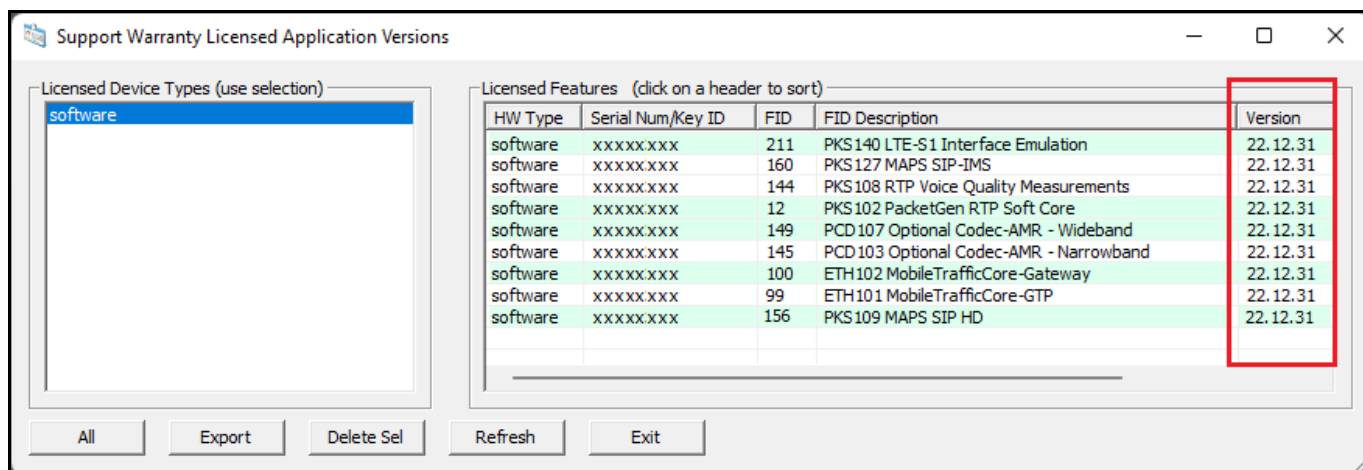
Warranty License Installer

Follow the below steps to install the Warranty license.

- Navigate to root directory in **USB installation stick** (pen drive) to **\Warranty_LicenseInstaller** folder, execute **GLSupportWarrantyLicenseInstaller.exe**. Follow the onscreen instructions and complete the installation.



- To confirm that warranty is installed properly, double-click on **Warranty Application List** icon . This will display the list of warranty applications which are purchased.



- In the **Version** column, verify the warranty expiry date to be as expected (depending on the support warranty purchased)

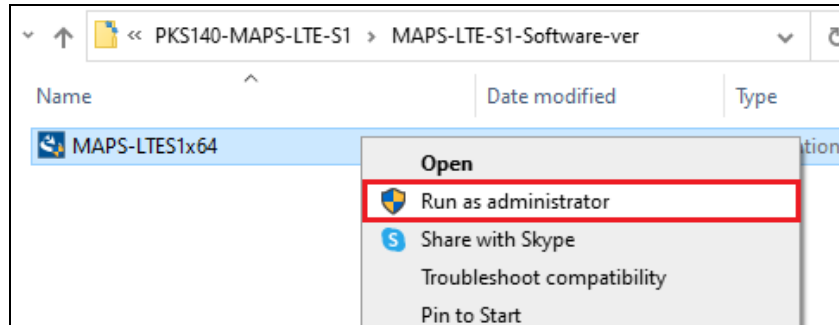


Note:

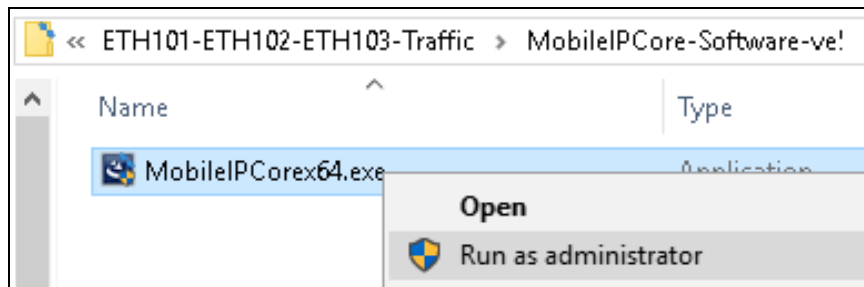
- Any latest software updates after warranty period will not be available until warranty licenses are renewed.

Software Installation

- Navigate to \MAPS-LTES1\MAPS-LTES1-Software-verXX folder, right-click on **MAPS-LTES1x64.exe** and select **Run as Administrator** option to execute the application in administrator mode. Follow the on-screen instructions to complete the software installation.

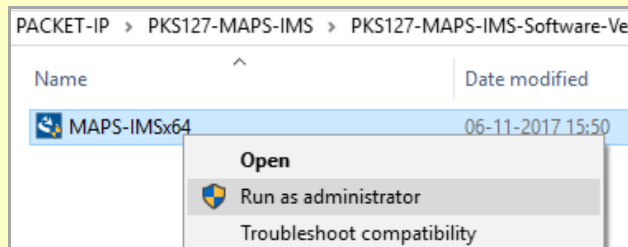


- For traffic simulation on **LTE S1** interfaces, execute **MobileIPCorex64.exe** from \ETH101-ETH102-ETH103-Traffic\MobileIPCore-Software-verXX folder in the USB installation stick. Follow the onscreen instructions and complete the server application installation.



Note:

- The below step is required if the user purchased MAPS™ IMS Core application.
- Navigate to \PKS127-MAPS-IMS\MAPS-IMS Software folder, right-click on **MAPS-IMSx64.exe** and select **Run as Administrator**. Follow the onscreen instructions and complete the installation. For more details, refer to **MAPS-IMS-Reference-UM** provided by GL Communications Inc.

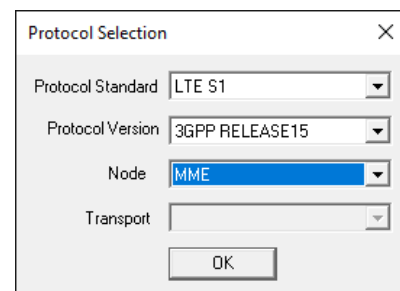


Invoking Application

- It is recommended to reboot the system after the software installation.



- Right-click on **MAPS LTES1** short-cut icon created on the desktop and select '**Run as Administrator**'.
- The application should invoke without any errors. By default, the **Protocol Selection** window is displayed
- Select the appropriate parameters in the **Protocol selection** window and click **OK**. The application displays the testbed setup window as shown below



Protocol Selection

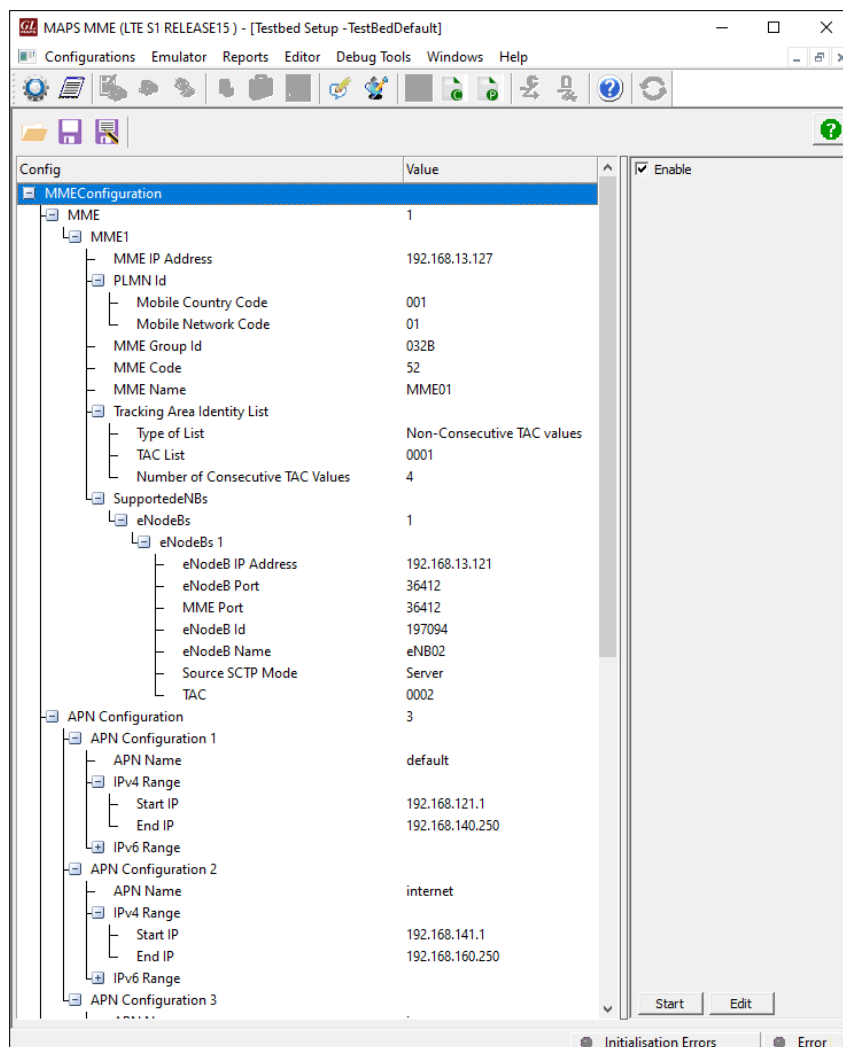
Protocol Standard: LTE S1

Protocol Version: 3GPP RELEASE15

Node: MME

Transport:

OK



MAPS MME (LTE S1 RELEASE15) - [Testbed Setup - TestBedDefault]

Configurations Emulator Reports Editor Debug Tools Windows Help

Config	Value	Enable
MME	1	<input checked="" type="checkbox"/>
MME1		
MME IP Address	192.168.13.127	
PLMN Id		
Mobile Country Code	001	
Mobile Network Code	01	
MME Group Id	032B	
MME Code	52	
MME Name	MME01	
Tracking Area Identity List		
Type of List	Non-Consecutive TAC values	
TAC List	0001	
Number of Consecutive TAC Values	4	
SupportedNBs		
eNodeBs	1	
eNodeBs 1		
eNodeB IP Address	192.168.13.121	
eNodeB Port	36412	
MME Port	36412	
eNodeB Id	197094	
eNodeB Name	eNB02	
Source SCTP Mode	Server	
TAC	0002	
APN Configuration	3	
APN Configuration 1		
APN Name	default	
IPv4 Range		
Start IP	192.168.121.1	
End IP	192.168.140.250	
IPv6 Range		
APN Configuration 2		
APN Name	internet	
IPv4 Range		
Start IP	192.168.141.1	
End IP	192.168.160.250	
IPv6 Range		
APN Configuration 3		

Start Edit

Initialisation Errors Error

- For functional verification of **MAPS-LTES1** application, refer to [MAPS-LTE-S1-Quick-Verification](#) guide.
- For functional verification of **MAPS-LTES1** application with **Mobile IP Core** for **GTP** traffic, refer to [MAPS-LTE-S1-and-Mobile-IP-Core-Quick-Verification Guide](#).
- For functional verification of **MAPS-LTES1-HD** application, refer to [MAPS-LTE-S1-HD-Quick-Verification-Guide](#).
- For Functional verification of **MAPS-LTES1** with **PacketLoad** application, refer to [MAPS-LTE-S1-and-PacketLoad-Quick-Verification-Guide](#).