

If you have purchased **MAPS™ SIP HD** product, you will receive a network appliance with all the necessary PC hardware interfaces, including Regular NIC cards, Operating System (Windows® 64-bit Only), required MAPS™ applications, GL's High Density NICs (4x 1 Gbps), and all required licenses pre-installed. And therefore, you will need to only plug-in the monitor, and connect the network appliance to the power outlet

Note:

- PCs which include GL hardware/software require Intel or AMD processors for compliance.

Then connect the USB Hardware Dongle you have received with the shipment and proceed to verification steps.

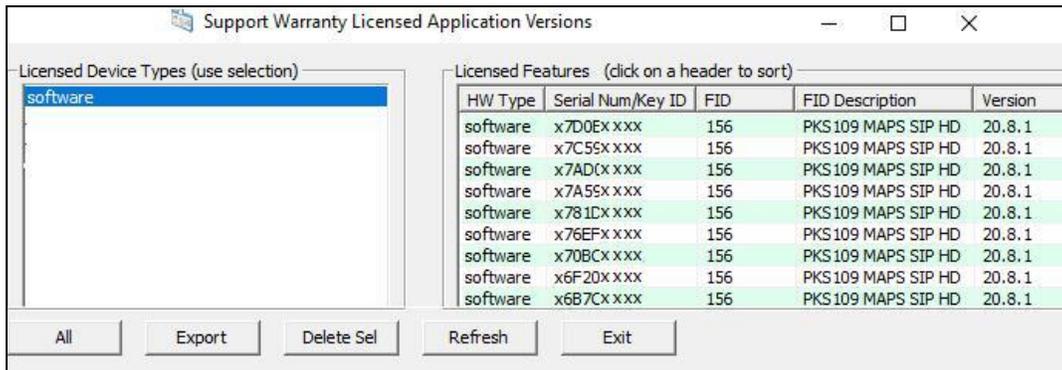
Software and License Installation

Note: NOW PLUG-IN the USB Hardware Dongle to the PC to the USB port of your computer. A red light should appear on the dongle indicating that the device is functioning correctly and ready to use. Ensure the warranty licenses are installed for invoking the application.

- Ensure that the MAPS™ SIP application and the below listed licenses are installed on the network appliance. To verify if the purchased 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:
 - PKS120 (MAPS™ SIP)
 - PKS102 (RTP Traffic)
 - PKS109 (HD RTP Traffic) ****Note2**

****Note2:** 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.

- 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.



Licensed Device Types (use selection)		Licensed Features (click on a header to sort)				
software		HW Type	Serial Num/Key ID	FID	FID Description	Version
software	x7D0Ex xxx	software	x7D0Ex xxx	156	PKS109 MAPS SIP HD	20.8.1
software	x7C55x xxx	software	x7C55x xxx	156	PKS109 MAPS SIP HD	20.8.1
software	x7AD(x xxx	software	x7AD(x xxx	156	PKS109 MAPS SIP HD	20.8.1
software	x7A55x xxx	software	x7A55x xxx	156	PKS109 MAPS SIP HD	20.8.1
software	x781Cx xxx	software	x781Cx xxx	156	PKS109 MAPS SIP HD	20.8.1
software	x76EFx xxx	software	x76EFx xxx	156	PKS109 MAPS SIP HD	20.8.1
software	x70BCx xxx	software	x70BCx xxx	156	PKS109 MAPS SIP HD	20.8.1
software	x6F20x xxx	software	x6F20x xxx	156	PKS109 MAPS SIP HD	20.8.1
software	x6B7Cx xxx	software	x6B7Cx xxx	156	PKS109 MAPS SIP HD	20.8.1

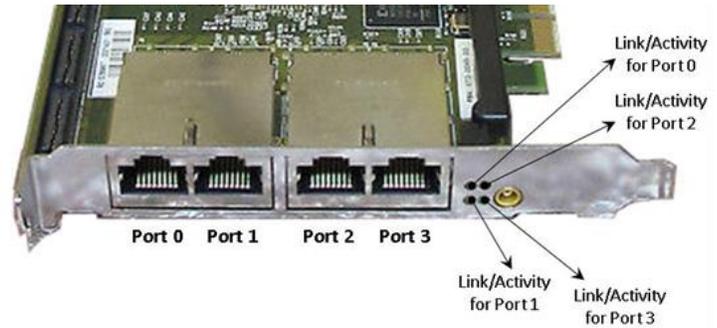
- Users can check the Warranty expiry date in the **Version** column that is **20.8.1** (i.e. 2020 August 1st), and user can verify the date to be as expected (depending on the support warranty purchased).

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

- Right-click on MAPS-SIP HD short-cut icon created on the desktop and select **'Run as Administrator'**. The application must invoke without any errors.
- This completes the installation process. If you had problems with installation so far, refer to Troubleshoot section explained in this document.
- For a quick self-test procedure, refer to the steps explained in the [MAPS-SIP HD-Quick-Verification-Guide](#) document.

Troubleshoot

- Check manually the LEDs on GL's HD card. Blinking LEDs indicate traffic activity, and Green LEDs indicate just the link up status



- Click  icon from the desktop and invoke **NT 3G Tools** console window. Type **monitoring.exe** command to invoke the following monitoring utility. This displays the link status of each SFP Type connection, and the auto negotiated link speed Also observe the Tx and Rx traffic statistics on each port after the bulk call simulation.

P - Port number

A - Adapter number

Type - Connection type

Link - Link speed (Down indicates cable is unplugged or SFP module is incompatible)

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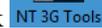
C:\Program Files\Napatech3\bin\monitoring.exe
Font
monitoring (v. 2.9.1.32-9d272)
P A Type Link Down Rx Tx Max Tempo.
0 0 SFP-SX-DD 1G Full 0 47.70M 47.70M 9018 33.40 C
1 0 SFP-SX-DD 1G Full 1 47.70M 47.70M 9018 35.10 C
2 0 SFP-SX-DD 1G Full 0 47.70M 47.70M 9018 35.00 C
3 0 SFP-SX-DD 1G Full 1 47.70M 47.70M 9018 35.30 C

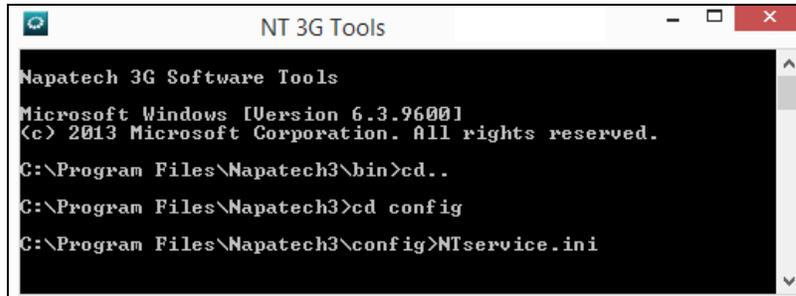
RX RMON1 counters
Packets : 0x0000000003F94D79 Octets : 0x0000000035F9CC518
Broadcast : 0x0000000000047651 Multicast : 0x0000000000000000
64 octets : 0x000000000004765D 65-127 octets : 0x0000000000000000
128-255 octets : 0x00000000003F4D71C 256-511 octets : 0x0000000000000000
512-1023 octets : 0x0000000000000000 1024-1518 octets : 0x0000000000000000
Undersize : 0x0000000000000000 Oversize : 0x0000000000000000
Fragments : 0x0000000000000000 Collisions : 0x0000000000000000
Drop events : 0x0000000000000000 Crc/Align errors: 0x0000000000000000
Jabbers : 0x0000000000000000

Reset Tx/Rx 0RMON 1ExtRMON 2Checksum 3Decode 4Drop 5IPF
quit Sensors color stat XTimeSync 4EEE 1588 PTP 6Stream 7Dump
  
```

- **“Security Error: Application is not licensed”** error 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 **PKS120 MAPS™ SIP, PKS109 MAPS™ SIP HD** 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:
 - Verify that the IP Address in the User Agent Profiles (UserAgent_Profiles) are configured with the proper IP address of the 2 Regular NICs. These should free IP address within the same subnet, and when connected to a switch, no IP Conflicts should be reported. If the system is connected to a LAN, contact your system administrator to avoid IP address conflicts before you perform the steps below.
 - 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 **PKS102 RTP Soft Core** and **PKS109 MAPS™ SIP HD** are listed.



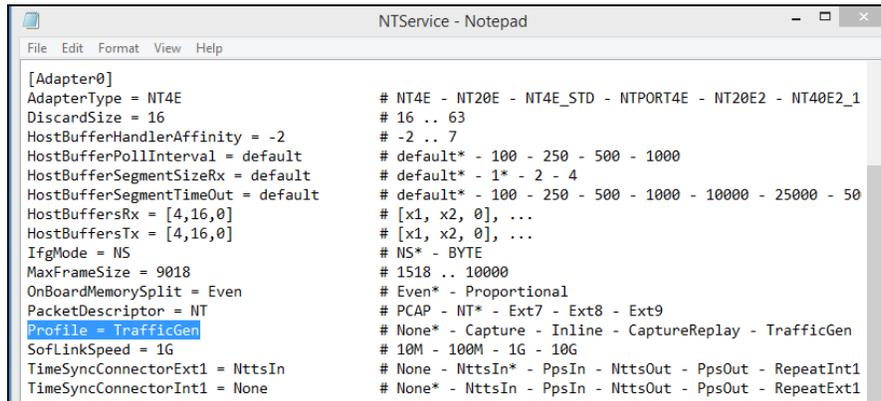
- If the Tx and Rx traffic statistics on each port after the bulk call simulation is showing incorrectly, click  icon from the desktop and invoke **NT 3G Tools** console window.
 - Type the commands as shown in the screen below and from the **C:\Program Files\Napatech3\config** directory, to open **NTservice.ini** file. Press **Enter**.



```

NT 3G Tools
Napatech 3G Software Tools
Microsoft Windows [Version 6.3.9600]
(c) 2013 Microsoft Corporation. All rights reserved.
C:\Program Files\Napatech3\bin>cd..
C:\Program Files\Napatech3>cd config
C:\Program Files\Napatech3\config>NTservice.ini
  
```

- Make sure that **Profile** parameter in the file is set to '**TrafficGen**'. If not make this change, save the file in the same location (you will need Administrator privileges to give write permission to this folder).



```

NTService - Notepad
File Edit Format View Help
[Adapter0]
AdapterType = NT4E           # NT4E - NT20E - NT4E_STD - NTPORT4E - NT20E2 - NT40E2_1
DiscardSize = 16            # 16 .. 63
HostBufferHandlerAffinity = -2 # -2 .. 7
HostBufferPollInterval = default # default* - 100 - 250 - 500 - 1000
HostBufferSegmentSizeRx = default # default* - 1* - 2 - 4
HostBufferSegmentTimeOut = default # default* - 100 - 250 - 500 - 1000 - 10000 - 25000 - 50
HostBuffersRx = [4,16,0]    # [x1, x2, 0], ...
HostBuffersTx = [4,16,0]    # [x1, x2, 0], ...
IfgMode = NS                # NS* - BYTE
MaxFrameSize = 9018         # 1518 .. 10000
OnBoardMemorySplit = Even   # Even* - Proportional
PacketDescriptor = NT       # PCAP - NT* - Ext7 - Ext8 - Ext9
Profile = TrafficGen        # None* - Capture - Inline - CaptureReplay - TrafficGen
SofLinkSpeed = 1G           # 10M - 100M - 1G - 10G
TimeSyncConnectorExt1 = NttsIn # None - NttsIn* - PpsIn - NttsOut - PpsOut - RepeatInt1
TimeSyncConnectorInt1 = None # None* - NttsIn - PpsIn - NttsOut - PpsOut - RepeatExt1
  
```

- If you cannot resolve the issues, please contact the appointed technical support person. If you do not know the technical support contact, please reach us at info@gl.com.