

It is assumed that the PacketScan™ Analyzer Software and License installations (PKV100, PKV107) are already performed referring to the Software Quick Installation Guide (Packetscan-Quick-Install-Guide.pdf). Now proceed with the verification steps below for capturing and analyzing LTE protocol.

- **PKV107** license supports analysis of LTE eGTP, S1AP, X2AP, and S6a Diameter interfaces.



Note:

- Verify that Windows® Firewall is disabled before proceeding with the instructions given below. You should **Turn off Windows Firewall** on Windows® and on any 3rd party Anti-Virus software that may be installed on the PC to make sure that Firewall is not blocking any packets or frames.

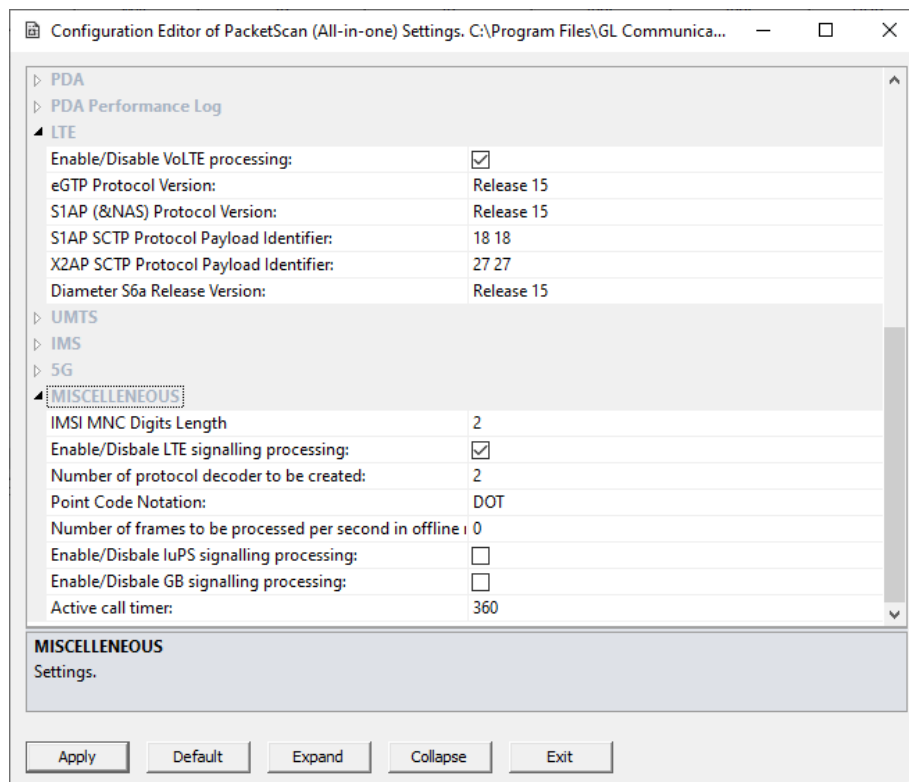
Verification



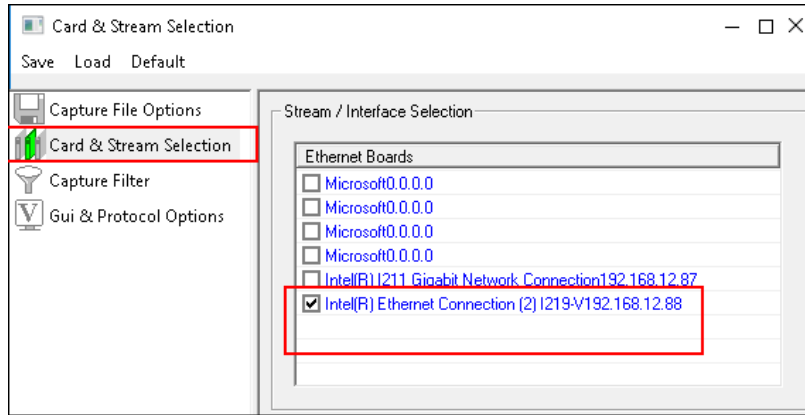
- Right click on the PacketScan shortcut icon created on the desktop and select "**Run as Administrator**" to launch the application. The application should invoke without any errors.

Follow the steps below for functional verification of PacketScan™ **Real-time** analysis feature.

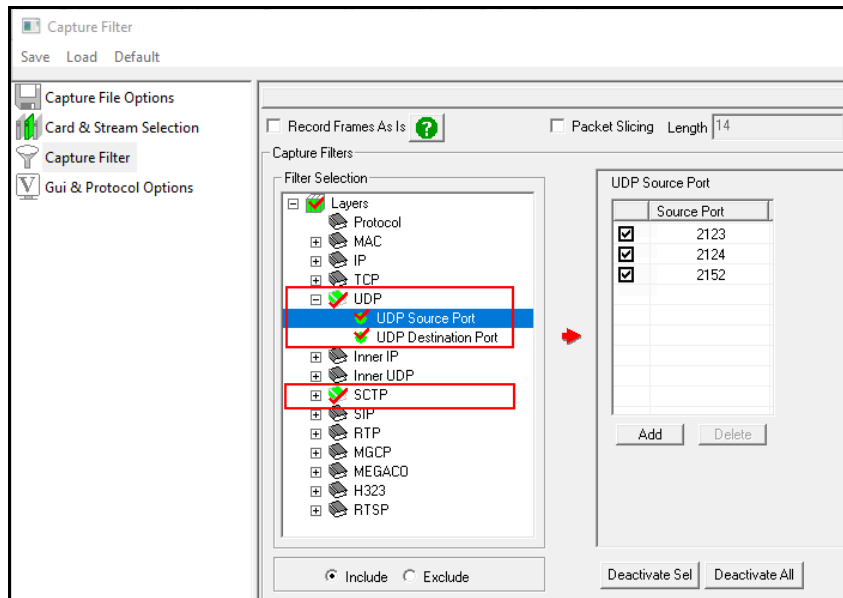
- From the **PacketScan™** main menu, select **Configure → Settings**. This will invoke **Configure Editor of PacketScan Settings** window.
- Expand **LTE** option, from the drop-down list check the options **Enable/Disable VoLTE Processing**. Make sure that **Release 15** for **eGTP protocol version** is selected.
- Expand **Miscellaneous** and check the **Enable/Disable LTE Signalling Processing** option. Refer to the below screenshot. Click on **Apply** and **Exit**.



- A warning message will appear to restart the PacketScan Analyzer. Click on **OK**.
- Close the **PacketScan™** application and invoke again to apply the changes as per configuration settings.
- Select **Capture → Stream/Interface Selection** and select the Ethernet card on which packet needs to be captured.
- From the **PacketScan** main menu, select **Capture → Capture File Options → Card and Stream Selection** option to choose the particular Cards/ NIC.





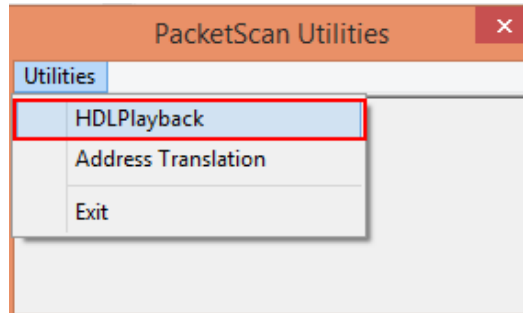
- On the left pane, select **Capture File Options** and verify that **Circular Capture Buffer** is checked.
- Now, on the left pane, select **Capture Filter** option, under Filter Selection, expand **UDP** option and select **UDP Source Port**. In the **UDP Source Port** option, click on **Add** and enter the following Source Port numbers '2123, 2124, 2152'.
- Similarly, under UDP option, select **UDP Destination Port**. In the **UDP Destination Port** option, click on **Add** and enter the following Destination Port numbers '2123, 2124, 2152'.
- Click on SCTP protocol and check **Filter all SCTP data** option. After configuration, close the **Capture Filter** window.



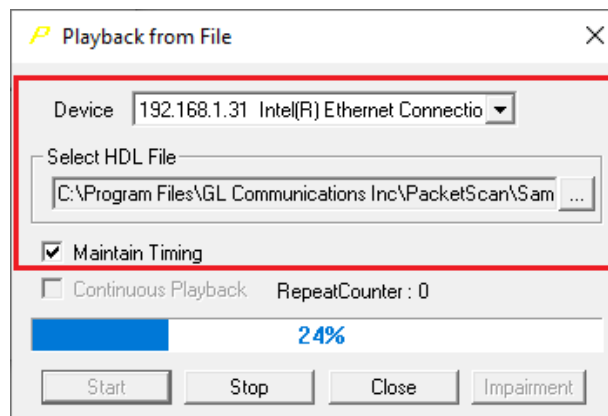
Note:

- Above port settings is applicable to filter LTE traffic. The above mentioned UDP port numbers are applicable in this example only. User can delete the UDP port numbers in the **Capture Filter** to configure the ports as required.

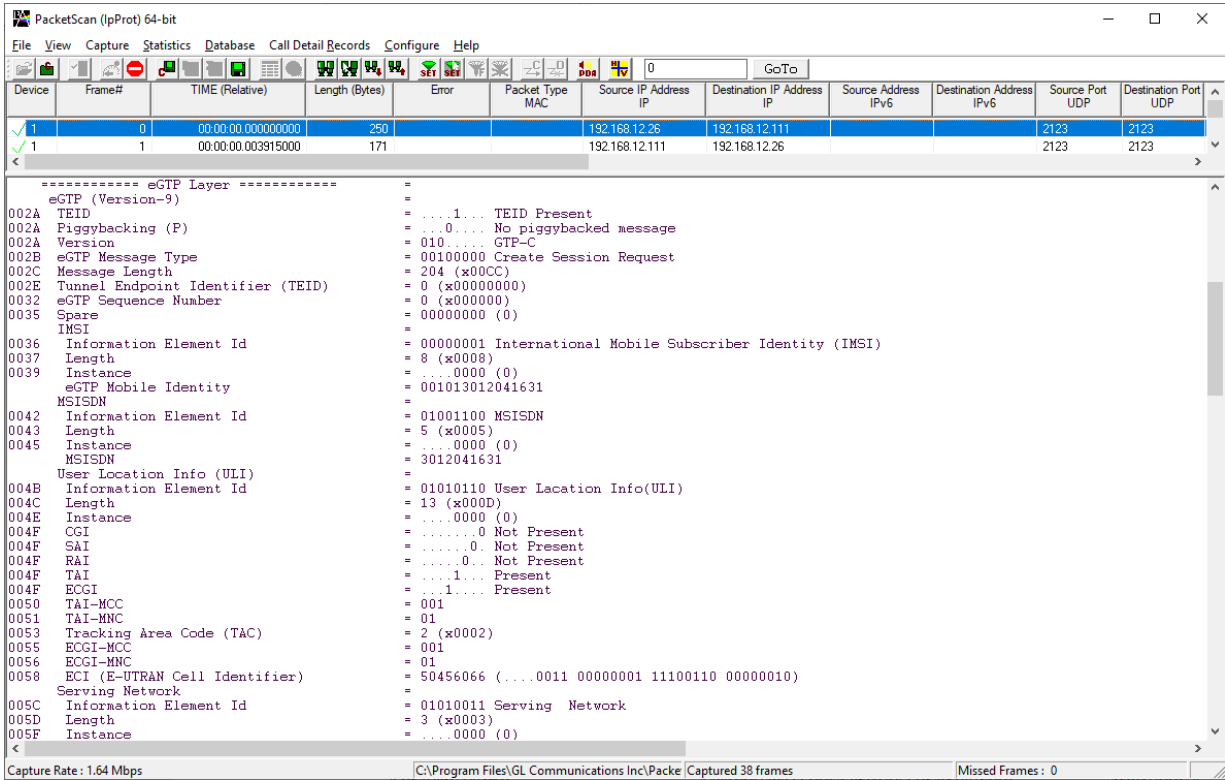
- From the **PacketScan™** main menu, select **File → Start Real-time** or click **Start Real-time**  icon from the toolbar.
- If the Temp.hdl file already exists in the PacketScan installation directory, a warning message will appear to replace Temp.hdl file, click **Yes** to overwrite the file.
- Generate traffic by playing HDL file using **PacketScanUtilities** application. From the PacketScan installation directory (**C:\Program Files\GL Communications Inc\PacketScan**) double-click on  **PacketScanUtilities** application. This will invoke PacketScan Utility application.
 - Select **Utilities → HDL Playback** from the menu.



- In the **Device** option, from the drop-down list, select NIC card on which PacketScan™ Real-time capture is configured. **Note:** Ensure that selected NIC card is enabled in PacketScan™ under **Capture → Stream/Interface Selection**.
- In the **Select HDL File** option click on browse button to browse and select **C:\Program Files\GL Communications Inc\PacketScan\SampleTraces\LTE\LTE-EndToEnd-Call.hdl** file name and click on **Open**.
- Enable **Maintain Timing** option and click **Start**.



- In the PacketScan™, observe the eGTP decodes displayed in PacketScan™ analyzer summary and detail views.



- From the PacketScan™ main toolbar, click on the PDA icon to invoke PDA (Packet Data Analyzer). From the drop-down protocol list select LTE. Select the call in the call summary to view detail analysis of each session, and call graphs for the captured LTE calls.

