It is assumed that the PacketScan™ Analyzer Software and License installations are already performed referring to the Software Quick Installation Guide (Packetscan-SIP-RTP-Quick-Install-Guide.pdf).

Note: Proceed to the verification steps below after successfully installing the software and verifying the required licenses (PKV100, PKV103) as explained in the Software Quick Installation Guide (Packetscan-SIP-RTP-Quick-Install-Guide.pdf).

Verification

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

- From the **PacketScan™** main menu, select **Configure → Protocol and GUI Options →** 

from **Configure → Protocol and GUI Options**. Click on **Edit INI**, to invoke **PacketScanProt.ini** file in the notepad.
- In the ini file, search for **#SCTP_PORT_FLAG_INDEX** and enter the value for SCTP ports on which **RANAP** signaling is known to receive as given below.
  - SCTP_SRC_RANAP_MIN = 0
  - SCTP_SRC_RANAP_MAX = 65535
  - SCTP_DST_RANAP_MIN = 0
  - SCTP_DST_RANAP_MAX = 65535

Note:
- The values shown here represent generic minimum and maximum values.
- User can enter the exact minimum and maximum port number range as required. If the user doesn't know the port number, configure minimum and maximum port range as given above.

- In the ini file, search for **#PROCESS_IUCS_GSMA_CALLS** and enter the IuCS_GSMA_CALLS_PROCESS_FLAG as 1. This allows to process IuCS calls in PDA.
- In case, if you are also looking to decode IuUP frames over IuCS, search for **#RTP_PAYLOAD_FOR_IUUP** in the ini file, and enter value as IUUP_MIN_PAYLOAD = 107 and IUUP_MAX_PAYLOAD = 107; this value indicates RTP payload value for AMR codec for IuUP.
- Save and close the **PacketScanProt.ini** file
- **Close the PacketScan™** application and invoke again to apply the changes done for PacketScanProt.ini.
- Select **Capture → Stream/Interface Selection** and enable the Ethernet card on which packet needs to be captured
- Select **Capture → Capture File Options** and enable **Circular Capture Buffer**
- Select **Capture → Capture Filter** option, click on **Deactivate all** and close the Capture Filter option
- Select **Capture → Capture Filter** option, click **SCTP** in the Filter Selection and check **Filter all SCTP data**. Do not activate any other filters in the **Capture Filter**.
- From the **PacketScan™** main menu, select **Call Detail Records → Build Call Detail Records**
- From the **PacketScan™** main menu, select **File → Start Real-time** or Click **Start Real-time**  icon from the toolbar.(Or Check Start real-time tracing option provided under **Configure → Startup Options**, and then click **Execute)**
- To playback an HDL file containing packets, use **PacketscanUtilities** application. From the GL installation directory double-click **PacketscanUtilities** application.
- Select **Utilities** > **HDL Playback** from the menu.
- In the **Device** option select the correct NIC card on which the PacketScan™ is set to capture the packets.
- In the **Select HDL File** option click on browse button to browse and select **C:\Program Files\GL Communications Inc\PacketScan\Examples\UMTS\IuCS-RTP.hdl** file from the GL installation directory

- Enable **Maintain Timing** option and click **Start.**
- Observe the **UMTS protocol** decodes displayed in PacketScan™ analyzer. The detail view of the decode should display all the UMTS protocol layers - MAC, IP, SCTP, M3UA, SCCP, and RANAP layers.
- From the **PacketScan™** main menu, select **Call Detail Records → Open Call Detail Records** to view Call Trace
- From the **PacketScan™** main toolbar, cick on the PDA icon 

to invoke PDA (Packet Data Analyzer) and view detail analysis of each session, call graphs and quality scores for the captured IuCS calls.
- In PDA, select **Call Summary→Protocols→IuCS Calls** and observe that calls are displayed in PDA with proper codec type.
- In case, if you are also looking to decode IuUP frames over IuCS, verify that the RTP payload value is set to 107 from the **Settings** > **Payload Map Table** > **AMR** = 107.
- Close and re-open the PDA to decode IuUP frames using AMR codec.

Note:

- If you are unable to view the real-time decodes, verify if the Widows® Firewall is enabled. 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.