

Protocol Analyzer for Wireless & IP Networks- PacketScan™ (GSM, GPRS, UMTS, SIGTRAN, LTE, Diameter)

Capable of Monitoring 2G, 3G,
and 4G Protocols over IP



Real-time and Offline Analysis



Includes Call Detail & Statistics
Views



Advanced Filter and Search
Features



Powerful and Customizable
Reporting Tools



Call Trace Capability Over
Various Interfaces



Supports Intelligent Triggers
and Actions



Customize Decode Options



Overview

GL Communications offers a wide range of centralized monitoring and testing technologies for Wireless and IP networks. GL's [PacketScan™-All IP Protocol Analyzer](#) supports monitoring all **2G, 3G and 4G** protocols such as GSM, GPRS, UMTS, SIGTRAN, LTE, and Diameter, in addition to **IP protocols** such as SIP, MGCP, MEGACO, Skinny, and H.323.

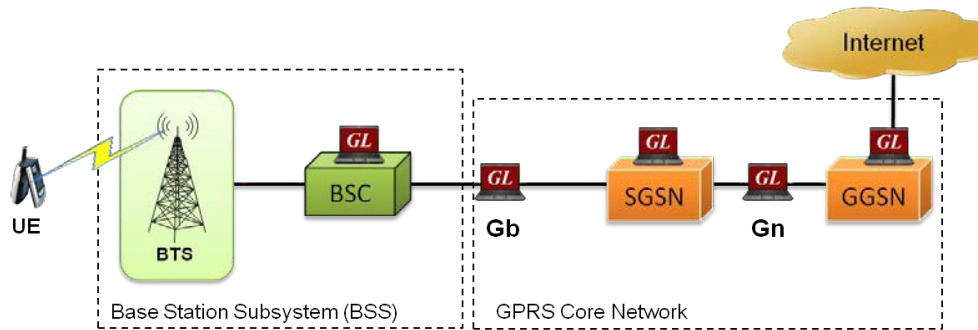
PacketScan™ cellular protocol analyzers support monitoring calls progressing through advanced 3G or 4G networks from a central location, along with the powerful and customizable reporting tools.

For more details, visit <http://www.gl.com/packetscan.html> and <http://www.gl.com/protocol-analyzer-for-all-ip-2G-3G-4G-networks.html>.

Common Features

- Advanced filtering and search based on any user selected protocol fields.
- Any protocol field can be added to the summary view, filtering, and search features providing users more flexibility to monitor required protocol fields.
- Trigger intelligent actions based on signaling and traffic conditions
- Support for Multi-technology, Multi-protocol
- Displays Summary, Detail, Hex dump, Statistics, and Call Detail Views.
- Detailed View
 - Displays decodes of user-selected frames from the Summary View.
 - Provides options to display or hide the required protocol layers.
 - Contents of this view can also be copied to clipboard.
- Hex dump View displays the frame information in HEX and ASCII format, the contents of this view can also be copied to clipboard.
- Statistics View displays statistics based on frame count, byte count, frames/sec, bytes/sec etc for the entire capture data.
- Call Detail View displays called/ calling number, released calls, call status, & more.
- Provides a consolidated interface for all the important settings required in the analyzer. All the configuration settings done in any of these options can be saved to a file, loaded from a configuration file.
- Allows the captured frames to be saved to a trace file using different conventions such as user-defined prefixes, date-time prefixes, total number of files, file size, frame count, or time limit.
- Supported on Windows® 7/8 (32 bit and 64 bit) OS.

GPRS Gb and Gn Protocol Analysis



PacketScan™ - GPRS Gb Gn over IP

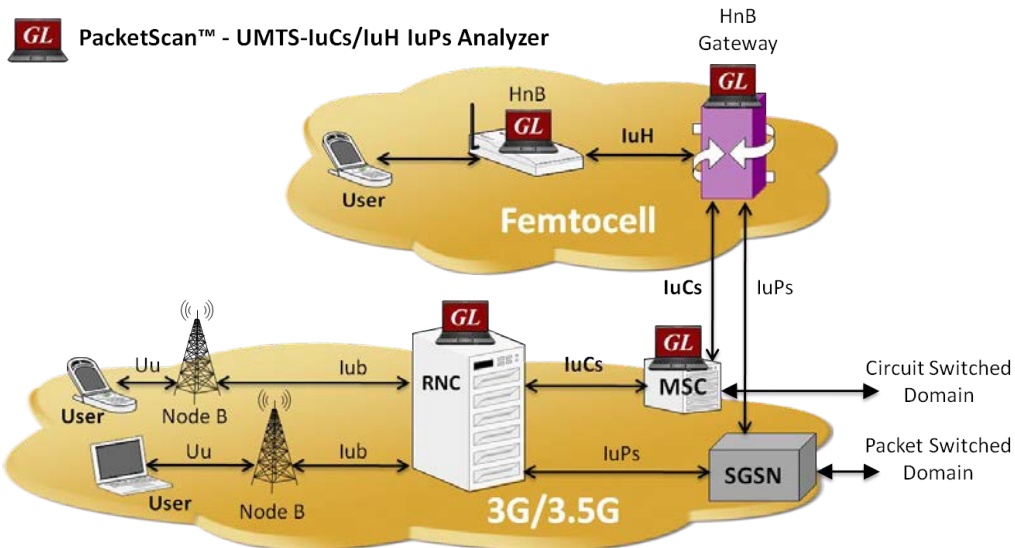
Features

- Decode and analyze signaling and user data protocols over Gb and Ga/Gn interfaces.
- Provides details about routing area update, PDP activation, and traffic patterns in the network.

Screenshots

- [Summary, Detail, Hexdump view](#)
- [Filtering Criteria](#)
- [Statistics View](#)
- [Protocol Stack](#)

UMTS IuCs and IuPs over IP Protocol Analysis



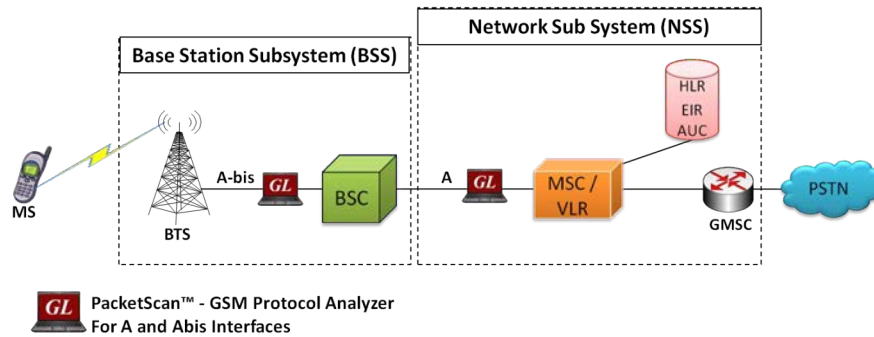
Features

- Test RNC, MSC, Home NodeB (HnB) and Home NodeB Gateway (HN GW) entities.
- Decode and analyze different control plane protocols i.e. NBAP, RNSAP, RANAP and more over IuCS, IuH, and IuPS interfaces.
- Supports decoding of AMR and AMR_WB codec with IUUP Header

Screenshots

- [Summary, Detail, Hexdump view](#)
- [Filtering Criteria](#)
- [Statistics View](#)
- [Protocol Stack](#)

GSM A and Abis over IP Protocol Analysis



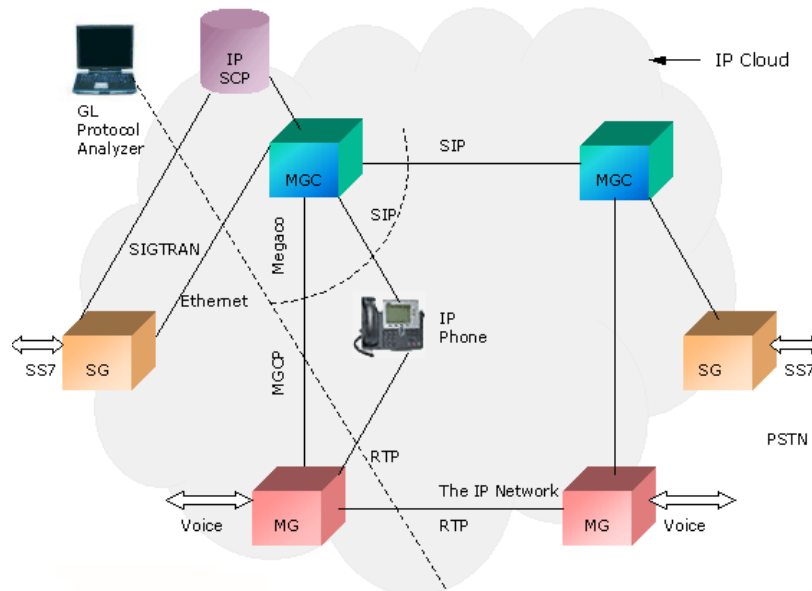
Features

- Decode and analyze complete GSM protocol stack on A and Abis interface.
- Supports BSSAP, DTAP, BSSMAP, and GSM MAP protocols.

Screenshots

- [Summary, Detail, Hexdump view](#)
- [Filtering Criteria](#)
- [Statistics View](#)
- [Protocol Stack](#)

SIGTRAN Protocol Analysis



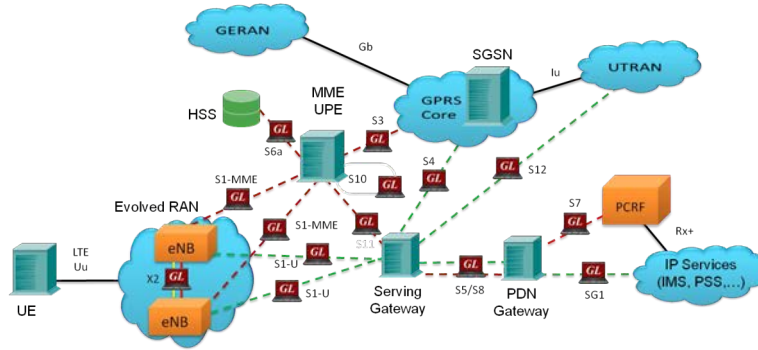
Features


- Decode and analyze SCTP, and user adaptation (UA) layers such as M2UA, M3UA, M2PA, SUA, IUA, ISUP and GSM MAP
- Permits testing and verification of Signaling Gateways.

Screenshots

- [Summary, Detail, Hexdump view](#)
- [Filtering Criteria](#)
- [Statistics View](#)
- [Protocol Stack](#)

LTE (Long Term Evolution) Protocol Analysis



 GL's PacketScan™ - LTE
 - - - Data
 - - - Signal

SGSN - Serving GPRS Support Node
 MME - Mobility Management Entity
 PDN - Packet Data Network
 PCRF - Policy and Charging Rules Function
 HSS - Home Subscriber Server
 UTRAN - Universal Terrestrial Radio Access Network
 E-UTRAN - Evolved Universal Terrestrial Radio Access Network
 GERAN - GSM EDGE Radio Access Network

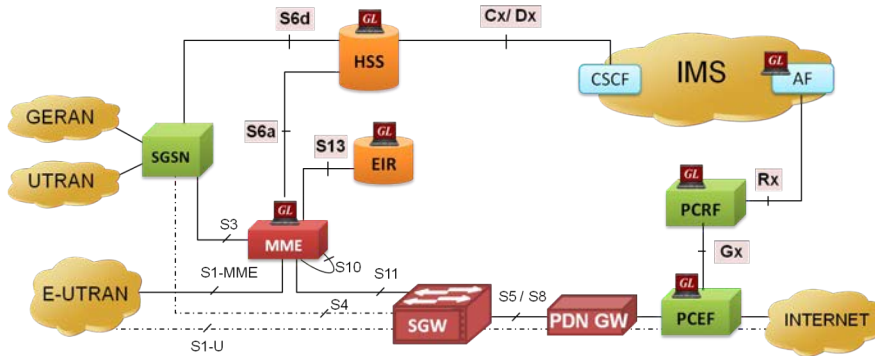
Features


- Decode and analyze full LTE protocol stack.
- Test eNodeB or UE over S1, S3, S4, S5 (or S8), S6a, S10, S11, S13 and X2 interfaces of the LTE network.
- The protocols supported for decoding across all these interfaces are NAS, S1AP, X2AP, eGTP, GTP-U, Diameter, SCTP, UDP, TCP, and IP

Screenshots

- [Summary, Detail, Hexdump view](#)
- [Filtering Criteria](#)
- [Statistics View](#)
- [Protocol Stack](#)

Diameter Protocol Analysis



 GL's PacketScan™ - Diameter (S6a, S6d, S13, Cx/Dx, Gx, Rx) Protocol Analyzer

MME - Mobility Management Entity
 HSS - Home Subscriber Server
 EIR - Equipment Identity Register
 SGSN - Serving GPRS Support Node
 AF - Application Function
 PCRF - Policy and Charging Rules Function
 PCEF - Policy and Charging Enforcement Function

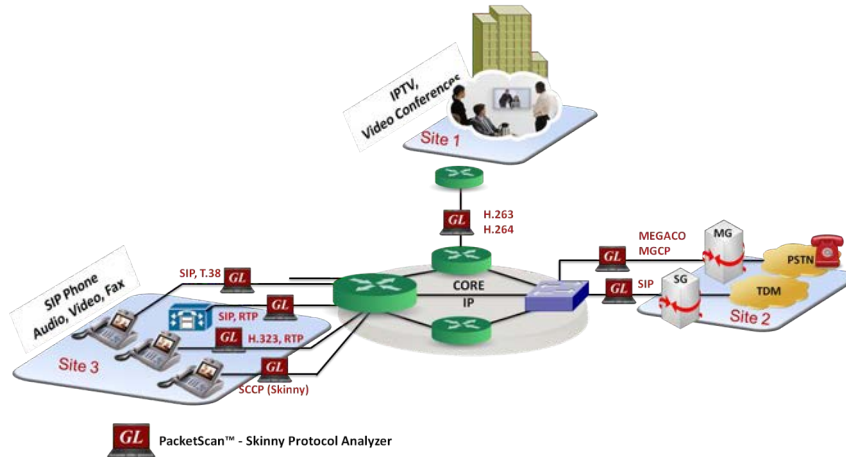
Features

- Monitor thousands of Diameter sessions over S6a, S6d, Cx, Dx, Zn, Zh, Wx, Gq, Gy, Sh, Dh, Gx, Rf, RO, Wg, Wm, Pr, Wa, Wd, Rx interfaces.

Screenshots

- [Summary, Detail, Hexdump view](#)
- [Filtering Criteria](#)
- [Statistics View](#)
- [Protocol Stack](#)

SIP, MGCP, MEGACO, H.323, Skinny Protocol Analysis



Features

- Test IP phones, Gateways, IP Routers and Switches, and Proxies.
- Detail Packet Data Analysis (PDA) and extensive graphical reports

See [Protocol List](#) for more details.

Screenshots

- [Summary, Detail, Hexdump view](#)
- [Filtering Criteria](#)
- [CDR and Statistics View](#)
- [SIP Call Flow](#)
- [MEGACO Call Flow](#)
- [H.323 Call Flow](#)

Buyers Guide

[PKV100](#) – PacketScan™ (Real-time and Offline)

[PKV101](#) – PacketScan™ - Offline

PKV301 – LAN Switch w/ Mirror Port

[PKV105](#) – SIGTRAN Offline Analyzer

[PKV106](#) – Offline SIGTRAN Analyzer (Optional with PacketScan™)

[PKV103](#) – IP Based GSM and UMTS Analyzer, requires PKV100

[PKV109](#) – Offline IP Based GSM and UMTS Analyzer (Optional with PacketScan™)

[PKV107](#) – LTE (Long Term Evolution) Analyzer, requires PKV100

[PKV108](#) – Offline LTE (Long Term Evolution) Analyzer (Optional with PacketScan™), **requires PKV101**

[PKV104](#) – FaxDDT38™ - Decodes Fax images in TIFF format from PCAP files

[PCD103](#) – AMR Codec for PacketScan™

[PCD104](#) – EVRC Codec for PacketScan™

[PCD105](#) – EVRC-B Codec for PacketScan™

[PCD106](#) – EVRC-C Codec for PacketScan™

[PKV170](#) – NetSurveyorWeb™ (Network Surveillance Software) for IP Network

[PKV171](#) – Network Surveillance Agent Toolkit