

Supports up to 20 MHz Bandwidth

Supports Interfaces - S1, S3, S4, S5 (or S8), S6a, S10, S11, S13 & X2

Capture, Decode, and Performing Measurements

Supports both Real-time and Offline LTE Analysis

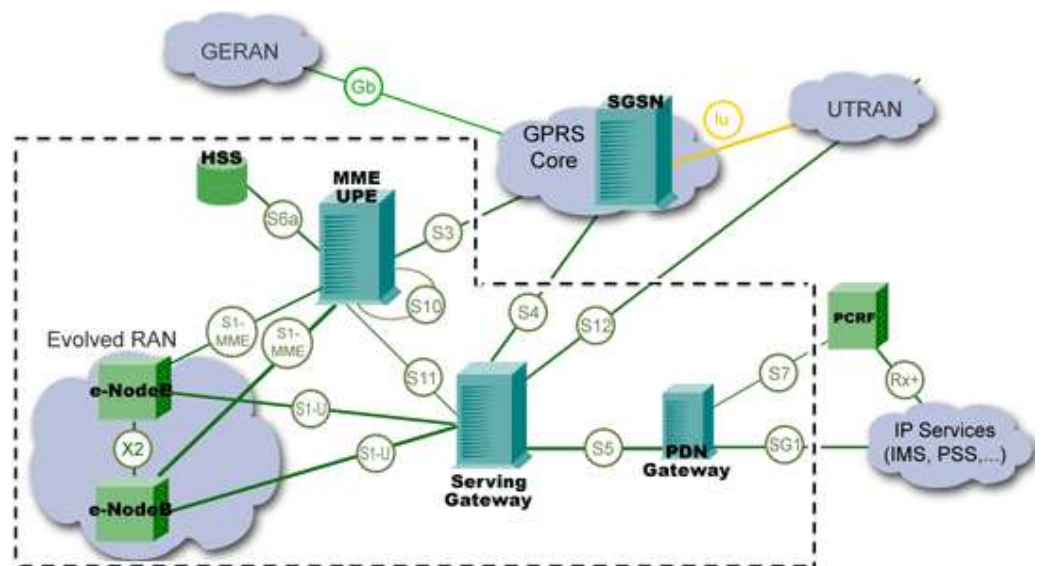
Supports Filtering & Search Features

Network Surveillance

Detail Statistics Computation

Save Captured Trace Files in CSV & ASCII Formats

## LTE (Long Term Evolution) Protocol Analyzer



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

### Overview

The LTE air interface is a completely new system based on orthogonal frequency-division multiple access (OFDMA) in the downlink and single-carrier frequency-division multiple access (SC-FDMA) (DFTS-FDMA) in the uplink that efficiently supports multi-antenna technologies (MIMO). This robust feature is useful when handling the varying propagation conditions seen in mobile radio.

GL's LTE analyzer is capable of capturing, decoding and performing various test measurements across various interfaces i.e. S1, S3, S4, S5 (or S8), S6a, S10, S11, S13 and X2 interfaces of the LTE network. GL Communications supports both Real-time and Offline types of LTE Analyzer. Required pre-requisites are - Hardware Dongles and Windows® 2000/XP/Vista Operating System.

For more details, refer to <http://www.gl.com/lteanalyzer.html>

### Main Features

- Supported Interfaces - S1, S3, S4, S5 (or S8), S6a, S10, S11, S13 and X2 interfaces
- Supports capturing, decoding and performing various test measurements
- Displays summary, detail, hex-dump, summary and statistics views.
- Detail View displays decodes of a user-selected frame from the Summary View.
- Statistics View displays statistics based on frame count, byte count, frames/sec, bytes/sec etc for the entire captured data.
- Hex dump View displays raw data as a hexadecimal and ASCII octet dump.
- Search and filtering capabilities.
- Exports Summary View information to a comma delimited file for subsequent import into a database or spreadsheet.
- Capability to export detailed decode information to an ASCII file.
- Remote monitoring capability using GL's Network Surveillance System.



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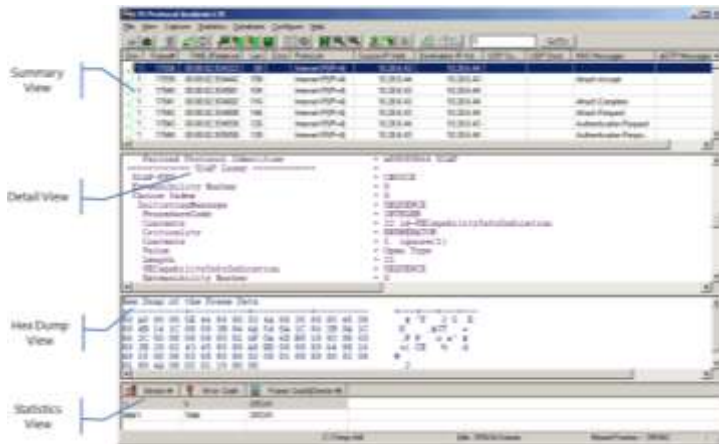
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## Real-time and Offline Analysis

GL's LTE analyzer is capable of capturing and decoding various interfaces i.e. 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, Diameter, SCTP, UDP, TCP, IP.

For offline analysis, trace files can be loaded and various measurements can be performed. Multiple trace files can also be loaded simultaneously with different GUI instances.

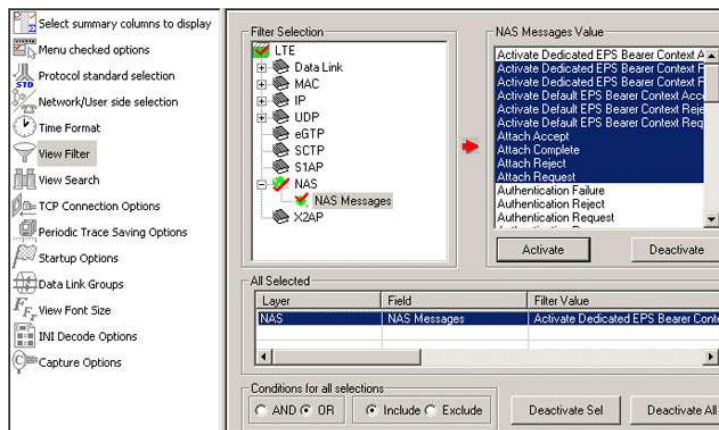


## Filtering & Search Criteria

Filter can be used in real-time and offline to display frames satisfying a certain filtering criterion. The active filter is used as WYSIWYG (What You See Is What You Get).

The filtering and search criteria are set for protocol fields with various parameters and traces satisfying the conditions may be included or excluded from the result.

If filtering is active, the search operation is conducted among the already filtered frames.



## Buyer's Guide

[PKV107](#) - Real-time LTE Protocol Analyzer (Analysis/Decode of broadband wireless protocols)

[PKV108](#) - Offline LTE Analyzer (Decode / Analyze pre-captured LTE files)

## Related Software

[PKV100](#) - PacketScan™ (Online and Offline)

[PKS170](#) - PacketScan Web™

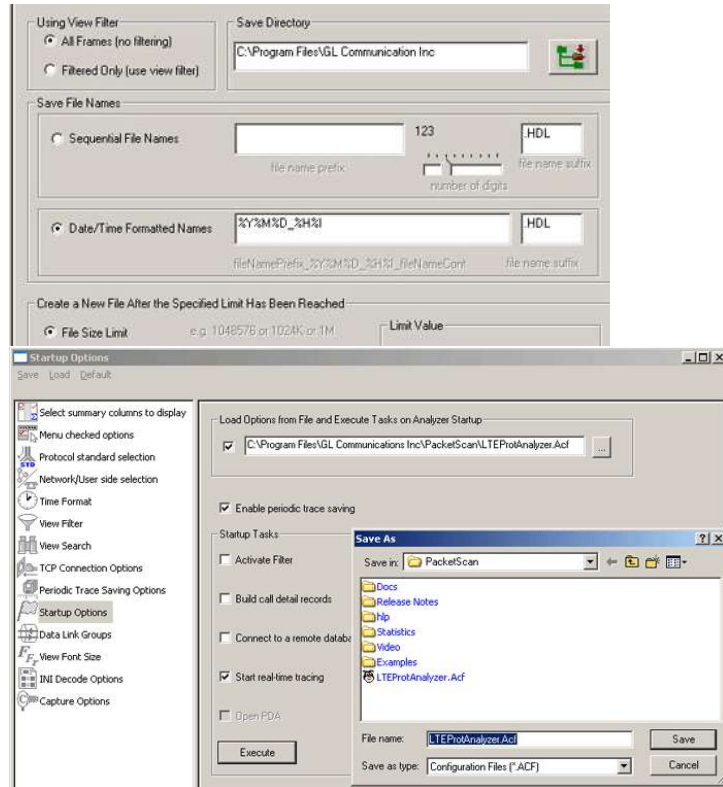
[PKS171](#) - PacketScan Web™

[PKV105](#) - SIGTRAN

## Save / Load Configuration Settings

Periodic trace saving is used to preserve all real-time captured data. Frames are saved to separate trace files by size or time criteria and capture is limited only by the available amount of hard disk space.

Save the configuration settings in \*.ACF format and load the previously saved configuration settings \*.ACF file later.



## Statistics

Protocol statistics is one of the main features of LTE analyzer. The Statistics are calculated based on the protocol fields. Defined statistics can be calculated and displayed in off-line and real-time modes.

