

Decodes and analyzes Data, Fax, Mobile Fax, Mobile Data, and VoIP transmissions

Decodes and analyzes over PSTN, A-Interface and IP networks.

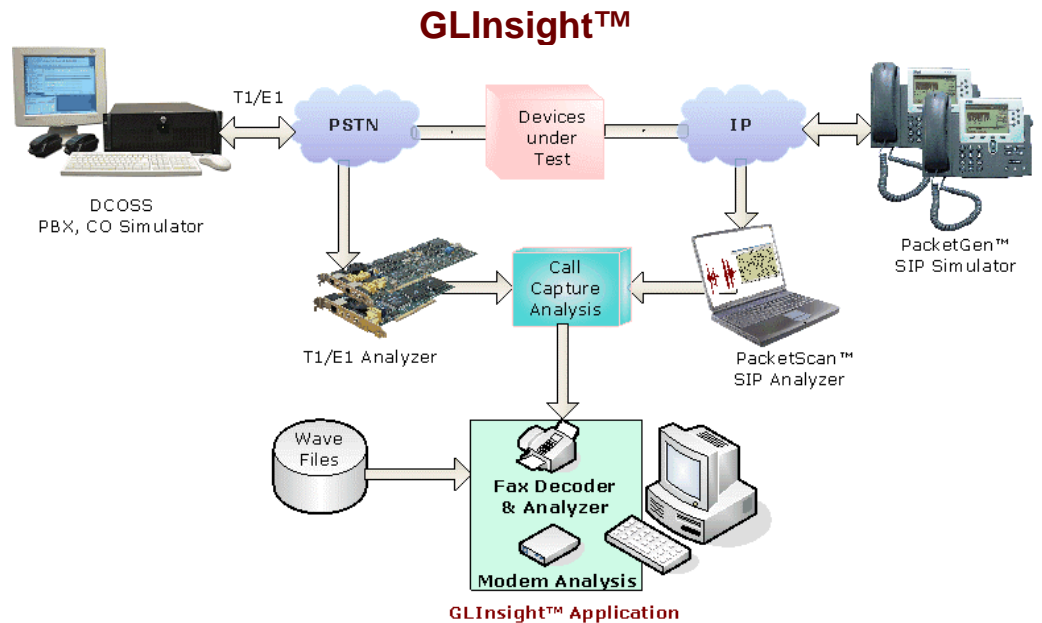
Mixed Fax-over-IP using T.38/G.711

Offline analysis of TDM & IP captured files

Fax/Modem-over-PSTN Cross Analysis

Mixed Modem over IP (Using G.711)

Device-independent communications analysis



GLInsight™ enables decoding and analyzing of modem and fax pre-recorded transmissions. The transmission signals are recorded over PSTN and IP media. It is a unique system used by developers of modem and fax technology often in interoperability labs. GLInsight™ can be used during the development and deployment phases of the products.

GLInsight™ receives the recorded modem or fax transmissions in one of the two ways:

- As raw signal files (PCM files)- in either mono or stereo format
- As IP capture files- created by capturing devices or by software

GLInsight™ extracts the transmission from the files, de-modulates them and presents the decoded data. It produces extensive log files with all relevant debugging information for easy event tracing which in turn provides an insight to potential sources of problems.

The raw files required for fax and modem analysis over TDM interface can be obtained using GL's Call Capture Analysis (CCA). Similarly for fax and modem analysis over IP, the captured files can be obtained using GL's PacketGen™ and PacketScan™ applications.

Main Features

- Device-independent communications analysis
- Enables decoding and analysis of Data (Modem), Fax, Mobile Fax, Mobile Data, and VoIP transmissions over TDM and IP networks.
- Offline analysis of TDM & IP captured files
- Real-Time analysis (future)
- High-level "insights", based on expertise and field-hardened experience
- GLInsight™ has a user-friendly GUI, Windows-based solution.
- Mixed Fax-over-IP using T.38/G.711 and Fax-over-PSTN Cross Analysis
- Mixed Modem over IP (Using G.711) and Modem over PSTN Cross Analysis
- A time synchronization process is performed on PSTN and IP signals
- All information indicators from IP and PSTN sides are mixed on a single time scale to determine where on the timeline (IP or PSTN) problems started to occur.
- Cross Analysis of two networks.
- Provides bottom-up deep diagnosis of the call and helps solve interoperability issues
- Diagnoses physical and network layer problems.
- Non-intrusive IP/TDM network diagnosis like high packet loss rate, high jitter, echo path, echo canceller performance, which indicates possible location of problems.



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Fax-Over-PSTN/IP Decoding & Analysis

T.38 decoder analyzer supports Packet loss, Jitter behavior, Improper T.30 protocol indication, bad packets indication, and packet collision detection. In addition to the above G.711 decoder analyzer supports SID (Silence Descriptor) detector to detect improper use of Voice Activity Detector while transferring data.

Supported Protocols

V.34HD, V.17, V.33, V.29, V.27, V.21, T.30, T4/T6.

Features supported by both Fax and Modem analyzers are as follows:

Signal Analyzers

- Discriminator information.
- Unstable signal detector.
- Signal overflow detector.

Data Pump State Machine Analyzers

- Phase changes, data rates, symbol rate
- Structures interchange (MP, Info) and complete connection parameters
- PDSNR (post detection signal quality measurement) improper quality drop detector.

T.30 Decoder Analyzers

T.30 raw data, T.30 frames and information, T.4/T.6 page coding information, CRC error detector in V.21, Repetitive T.30 frames detector, T.4/T.6 bad-line statistics, Suspicious ECM retransmission indication, ECM failure to correct error frames indication, Unexpected end of Fax indication, Improper T.30 protocol flow indication

