T3/E3 Frame Relay Protocol Analyzer

Protocol Standards
Q .933, Annex A, T1.617, Annex D, FRF.X, LMI

Decode Multiple Protocol Encapsulation, TCP, IP, UDP, PPP etc.

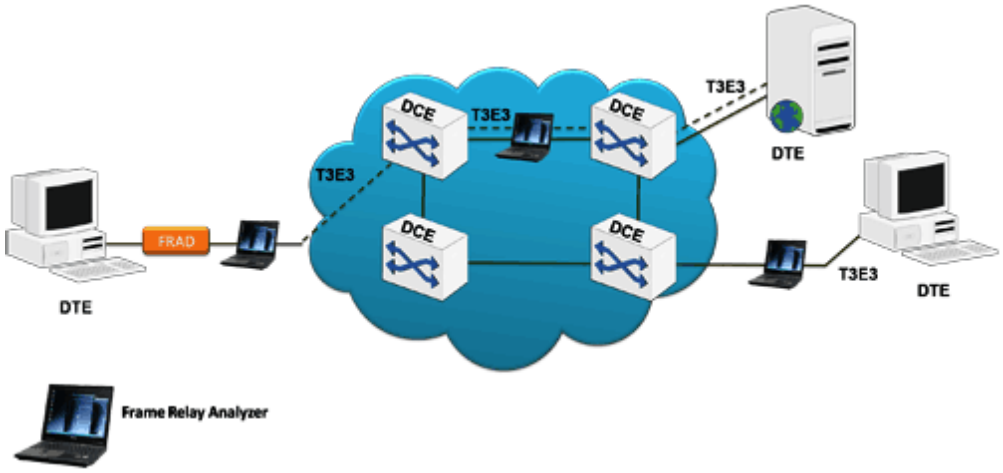
Supports LAPF, SNAP, IP, TCP, UDP etc.

Analyzes PVC's and SVC's

Filtering and Search Features

Summary, Detail, Hex Dump and Call Trace Views

Statistics Based on Various Protocol Fields



Overview

Frame Relay is a commonly used data link protocol based on packet switching technology. It is mainly incorporated by the corporate data networks due to its cost-effective data transmission, and flexible bandwidth. Frame relay is mostly used to connect local area networks with major backbones; also used in public wide area networks and in private network environments with leased lines over T3/E3 lines.

GL's T3 Frame Relay Analyzer is used to analyze and decode frames conforming to Q.921, Q.922, LAPF, Frame Relay Forum standard -FRF.9 and FRF.12, Multiple Protocol Encapsulation, LCP RFC1661, Q.933 SVC and LMI SNAP, PPP, IP, SMTP, POP3 and so on.

Main Features

- Supports decoding of encapsulated protocols, and long frames up to 16 Kbytes.
- Analyzes Permanent Virtual Connection (PVC) and Switched Virtual Connection (SVC) frames
- Supports filtering and search features based on LAPF parameters and Q.933 layer parameters such as DLCIs, Message Type, FECN, BECN, DE, NLPID's TCP, IP, SMTP, POP3, and so on.
- Provides summary view, detail view, hex dump, statistics, and call trace views.
- Summary view displays LAPF information like DLCI, FECN, BECN, Q.933 Message Type, IP address, TCP/UDP port address etc.
- Detail view displays easy to understand 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 capture data.
- Hex dump view displays the frame information in HEX and ASCII format for a user-selected frame from the summary view.
- Call trace view displays called/ calling number, released calls, call status, & more.
- Capability to export summary to the comma separated values (CSV) format for subsequent import into a database or spreadsheet
- Capability to export detailed decode information to an ASCII file.
- Streams can be captured on selected ports
- Multiple streams of traffic on various T3/E3 ports can be simultaneously decoded (single instance can decode multiple streams)

For more details, visit our web page http://www.gl.com/t3-e3-frame-relay-analysis.html

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Analyzer Interface

The analyzer displays summary, detail, hex dump, statistics, and call detail records views in different panes. The summary pane displays Frame Number, Time, Length, Error, DLCI, DE, BECN, FECN, CTL, NLPID and more. User can select a frame in the summary view to decode all fields in the detail view. The Hex dump view displays the frame information in HEX and ASCII format.

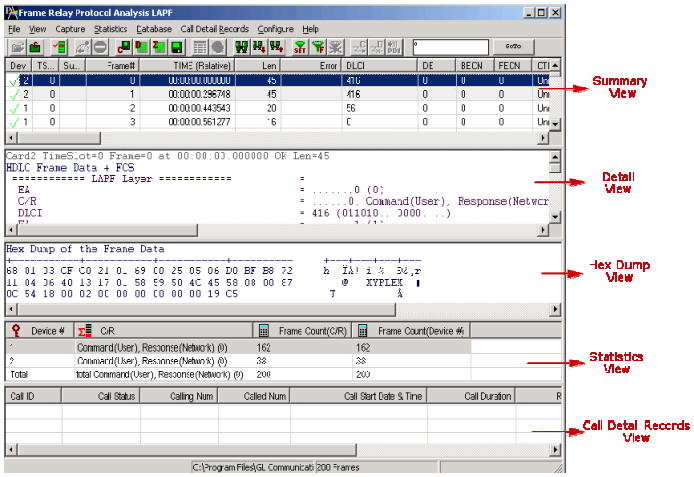

Figure: Analyzer Views

Filtering and Search

There are 2 types of filters: capturing filter and view filter. The capturing filter is used to limit frames captured to a trace file. The view filter applies to the trace file before it is displayed. Filtering and search capability adds a powerful dimension to the Frame Relay Analyzers. This feature can isolate frames of interest from all frames in real-time, as well as offline. Users can specify length, offset, mask, and value to filter frames for real-time capture filter. The view filter applies to the captured frames and is based on the data link and decoded protocol field values. Frame Number, Time, Length, Error, DLCI, DE, BECN, FECN, CTL, NLPID, etc. Similarly, search capability helps user to search for a particular frame based on a specific search criteria

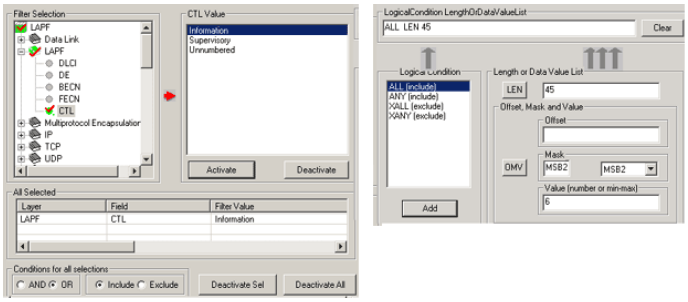

Figure: View Filter and Real-time Capture Filter Options

Buyers Guide:

TE3001- Portable (USB) Dual T3 E3 / T1 E1 Hardware Unit– requires TT3001 or EE3001

TT3130 / EE3130 – T3 / E3 Frame Relay Analyzer (GUI) Analysis and decode of Frame Relay over T3

Real-time, and Offline Analysis

Multiple ports can be selected in a single instance of the analyzer to capture frames simultaneously. The recorded trace file can then be analyzed offline and exported to ASCII file, or printed.

The real-time capturing requires users to specify ports, and frame check sequence (FCS) type.

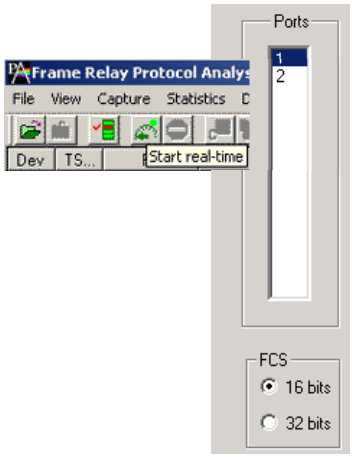

Figure: Port and FCS Selection

Call Trace & Statistics View

Call trace defining important call specific parameters like Call ID, Call Status, Call duration, Called/Calling Number, CRV, and Release Cause displayed in Call Trace view. Call traces can also be logically grouped with each group comprised of unidirectional (either 'Forward' or 'Backward') data links.

Statistics is an important feature available in the Frame Relay Analyzer and can be obtained for all frames both in real-time as well as in the offline mode. Numerous statistics based on protocol field can be obtained to study the performance and trend in a Frame Relay network.

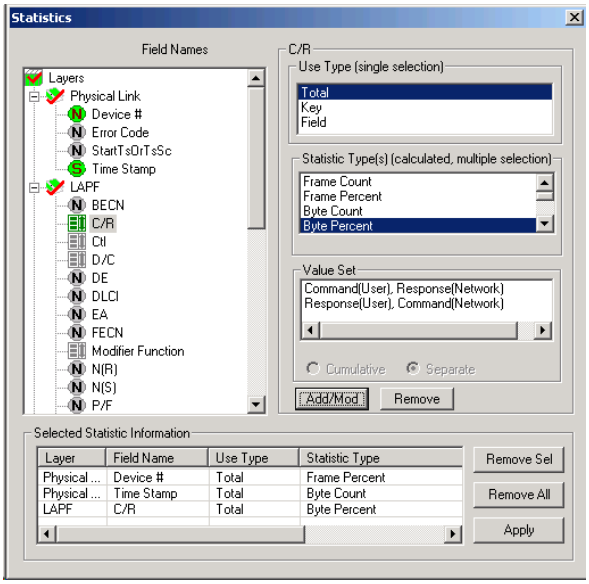

Figure: Define Statistics View

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