DDS Analyzer

Overview

- DDS Networks and Testing Techniques

- DDS Protocol Analysis

- T1 Analyzer Hardware and Accessories

- Software Operation

DDS Networks
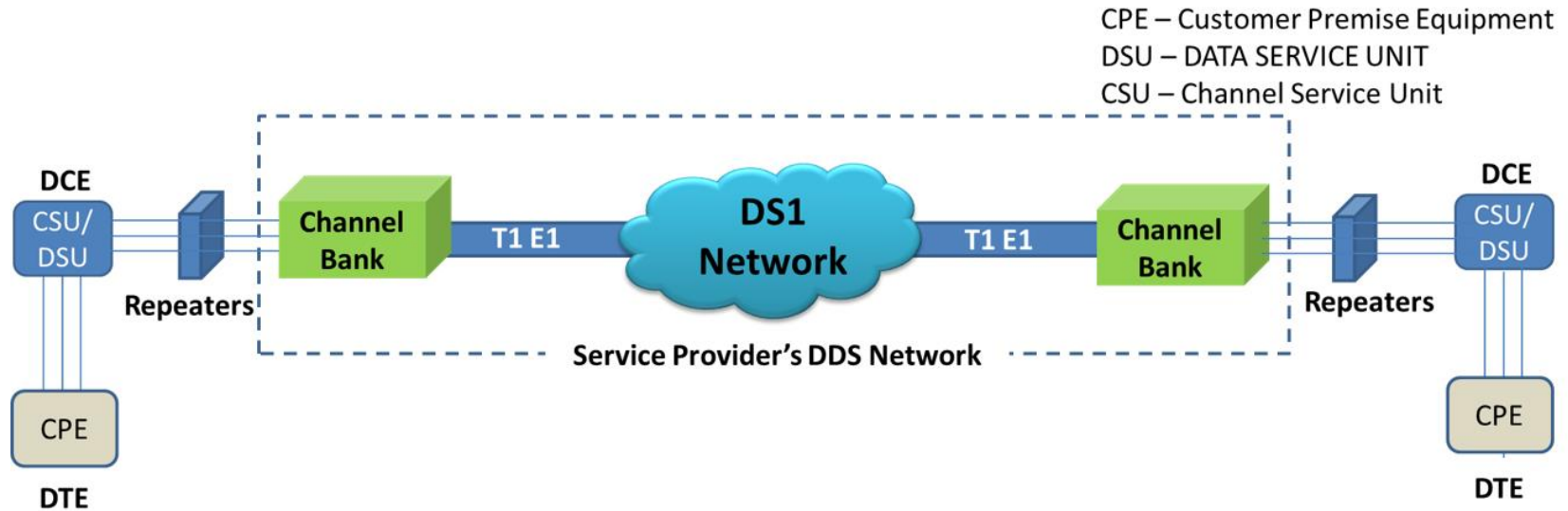
DDS Data Format

- Digital data rates are serviced at : 2.4kbps, 4.8kbps, 9.6kbps, 19.2kbps, 38.4kbps, 56kbps, 64kbps, N x 56kbps or N x 64kbps

- Rate multipliers above 56 kbps/ 64 kbps require a T1 circuit to the subscriber

DDS Testing Techniques

Normal testing methods used to verify DDS circuits are –

- BERT Testing at DS0 level with standard set of pseudorandom and fixed patterns

- Circuit sync at subscribed rate (4.8kbps, 9.6kbps, 19.2kbps, 64kbps, etc)

- Loopback or End-to-End tests to isolate faulty DDS circuits

- Non-Intrusive monitoring and analysis of frames at certain points within the network infrastructure or at customer premises

DDS Protocol Analyzer
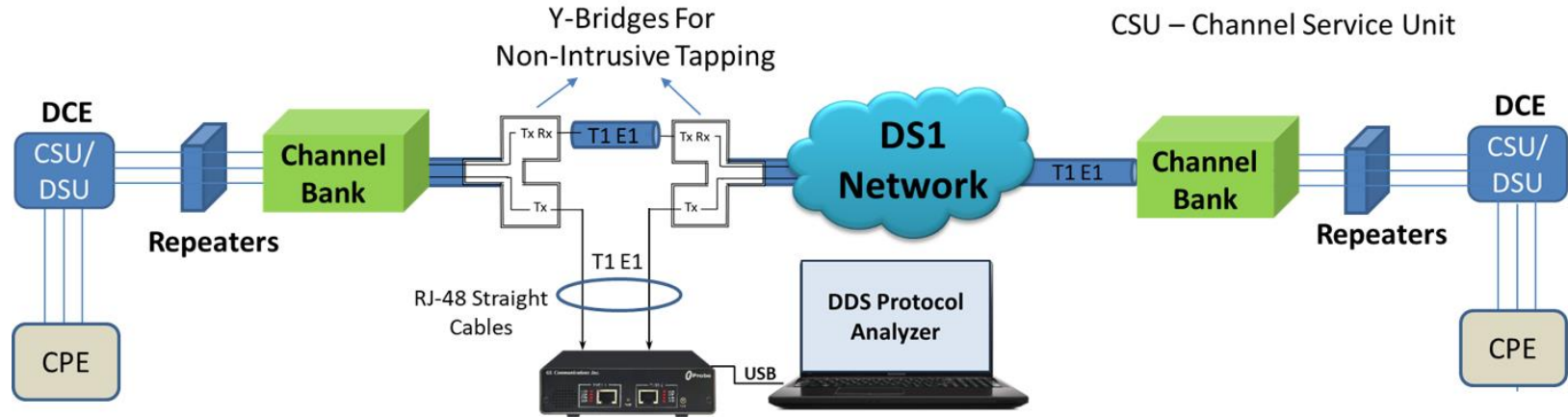
T 1 Analyzer Hardware

Front Panel

Back Panel

tProbe™ - Portable USB based T1 E1 VF FXO FXS and Serial Datacom Analyzer

Quad / Octal T1 E1 PCIe Card

Dual T1 E1 Express (PCIe) Board

tScan16™ with 16-port T1 E1 Breakout Box

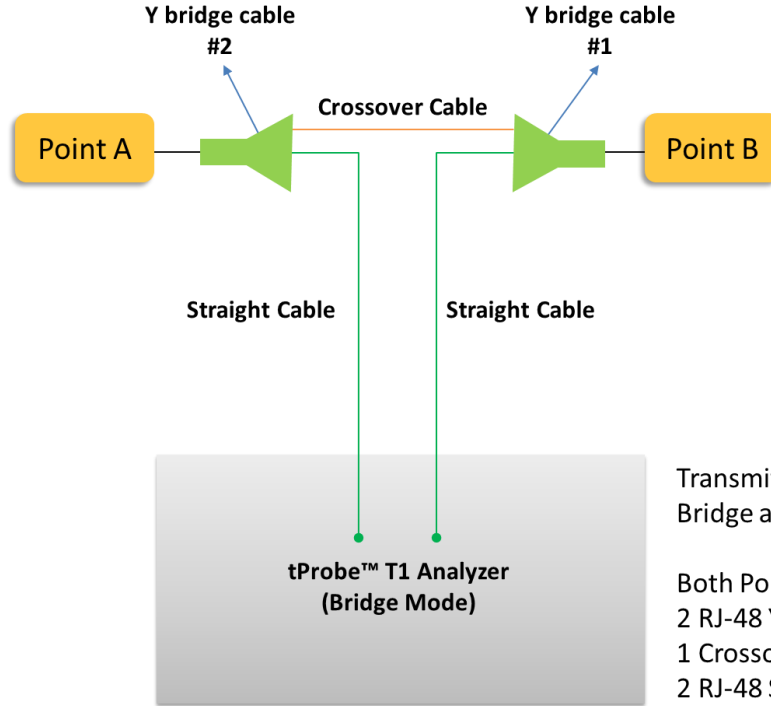

PCIe Board

Hardware and Accessories

- Y-Bridge

- RJ-48 Crossover Cable

- RJ-48 Straight Cable

Operations

Transmitter is Disabled in Bridge and Monitor Modes

Both Ports are in Bridge Mode (Must not be in Terminate Mode)
2 RJ-48 Y-Bridges (SA007e) are required
1 Crossover Cable (SA007h) is required
2 RJ-48 Straight Cable (SA007g) is required

- GL's T1 Analyzer Hardware non-intrusively taps the T1 line using Y-bridges to capture all frames

Operations

Card and Stream Selection

Select Port and Channel on which the DDS frames are expected

Select Data Rate as 64 Kbps

Enable Octet Bit Reversion

Different Views

- **Summary View**
All captured DDS frames are displayed here

Right-click on decoded layer to copy content to clipboard
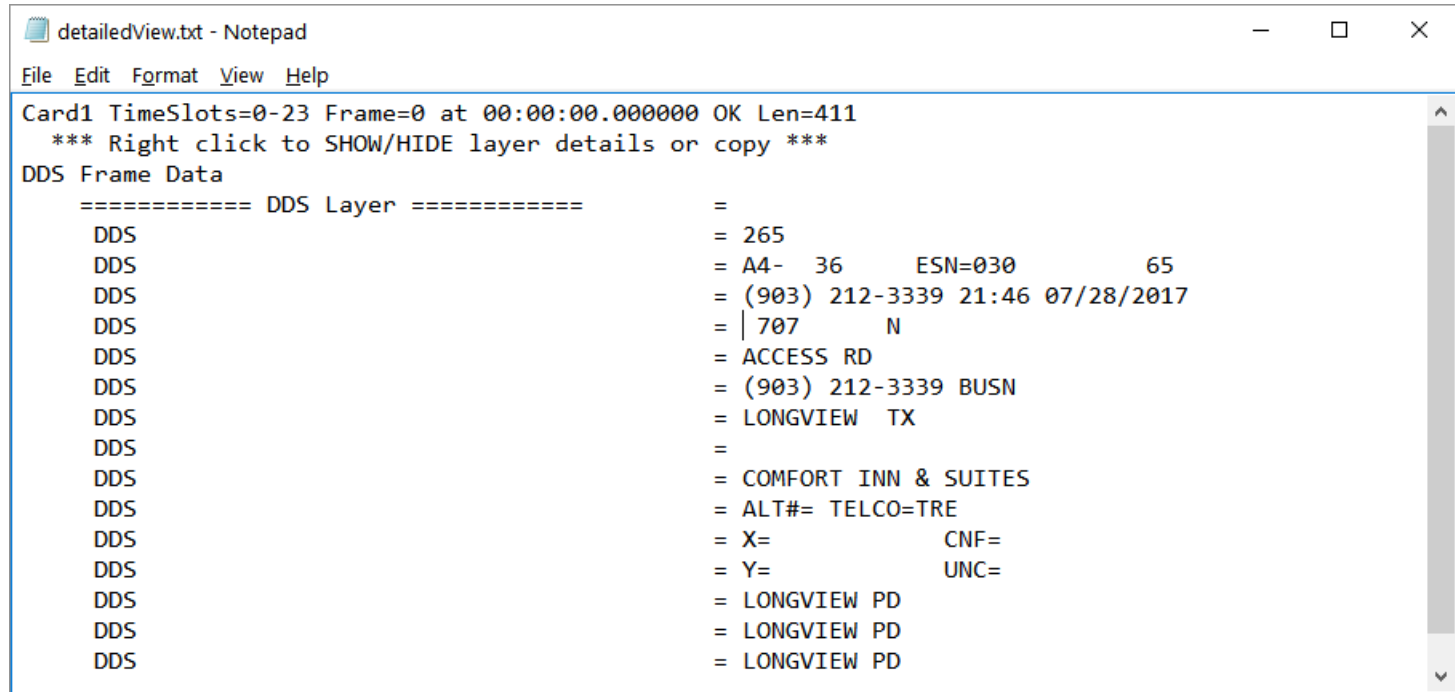
- **Detail View**
Displays the ASCII decode of selected DDS frame

- **Hex Dump View**
Displays Hex Dump Data

Detail View

- Right-click on **Detail View** and copy layer contents to a notepad for further diagnosis and troubleshooting

Thank you