GeoProbe® | ISDN/IP

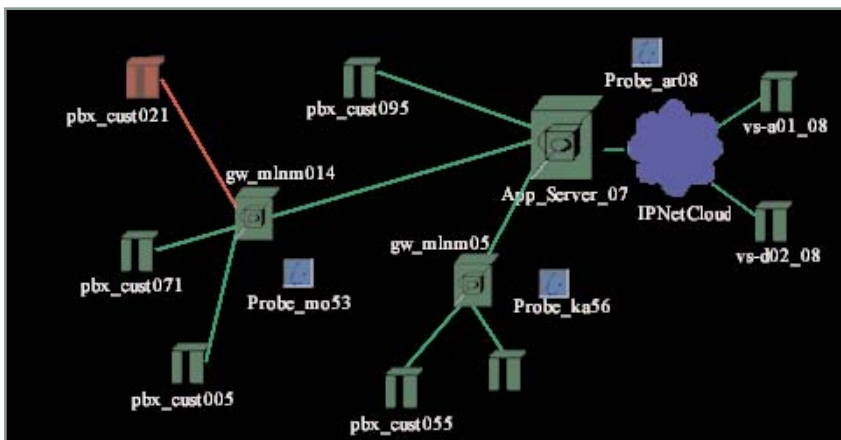## Network Assurance for Fixed Access

With the addition of ISDN monitoring to Tektronix' GeoProbe system, carriers have a viable means with which to address legacy ISDN access architectures without sacrificing their overall converged network initiatives.

Designed to support the rigorous performance monitoring needs of Tier 2 and 3 Troubleshooting and Analysis groups, the GeoProbe provides proactive statistical event alarms, reactive historical performance data and real-time and historical multi-protocol, multi-technology call trace. These capabilities assist the most demanding Network Operations organizations as they address ISDN performance.

- Monitor DSS1 Q.931, DPNSS and DASS2 over SCTP in converged networks to verify Sigtran IUA / DUA associations.

- Evaluate PRI links serving IP Call Centers and Large VoIP installations with support for Q.931, DASS2, DPNSS over LAPD for both T1 and E1 DSS1 links.

- Analyze access layer performance in mobile and fixed networks to deliver unmatched, proactive end-to-end visibility and problem isolation for IP call centers, Large-scale VoIP applications, wholesale PRI connections and enterprise customers.

A carrier's motivation to migrate to an IP-based core is clear-greater flexibility, significant cost savings and the opportunity to create new revenue-generating services. And, while this movement to transform existing legacy circuit-oriented network infrastructures into IP-based architectures is gaining momentum, significant challenges remain. Existing ISDN installations can pose a real, revenue-affecting stopgap in many carriers' converged network strategy.

Widely deployed by enterprise customers and independent carriers with little network infrastructure, ISDN demands special attention. In some cases, carriers have been successful in convincing these customers to adopt IP-based systems that will readily connect and work in synchronicity with the next-generation IP-based core architectures. For others, the catalysts to abandon ISDN have been less compelling and economically feasible for the customer. As a result, carriers must find a way to successfully integrate these ISDN mainstays without sacrificing revenues, customer satisfaction or operational efficiencies.

Intuitive network maps provide immediate indications of ISDN service performance problems.

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Key Benefits

- Core-to-access performance monitoring of ISDN services

- Correlated call trace including ISDN, VoIP and ISUP signaling protocols and media streams across TDM and IP domains

- Single platform solution that seamlessly bridges the performance monitoring gap between circuit-switched and Next Generation Networks and supports network transformation initiatives

- Additional visibility at network gateway points to help isolate problems between IP and TDM networks

- Enhanced performance monitoring for links to High Value Accounts, wholesale customers and large scale VoIP implementations requiring the use of PRI connectivity

Product Features

GeoProbe provides end-to-end monitoring of ISDN service performance with proactive alerts to impending issues, real-time performance statistics and troubleshooting tools including multi-protocol call trace, monitoring and decoding of signaling.

Network Maps: Customized ISDN infrastructure network maps for at-a-glance DSS1 link and node status

Multi-Protocol Call Trace: Unparalleled end-to-end protocol correlation includes H.248, MGCP, H.323, DSS1, DASS2, DPNSS, ISUP Trunking, RTP, Diameter and DNS/ENUM

Remote Monitoring: Capture and view signaling from a combination of ISDN interfaces or monitored nodes.

- Extensive pre- and post-capture filtering capabilities (by Protocol, IP Address and Message Type) enable concentration on specific messages of interest.

Alarms and Statistics: Statistical Event Alarms, Bullseye Alarm Reporting and SNMP Alarm Forwarding, Link and Link Set Availability*, Smart Alerts*

- DSS1 (DPNSS, DASS2, Q.931) Transaction and Call Performance Statistics include Total DSS1 Transactions, Transactions by Type and Result Code, DSS1 Transactions by Transaction Type, DSS1 Transaction Latency, DSS1 Transaction Timeouts, Total DSS1 Calls, Call Success Ratio, Total DSS1 Calls by Call Type, Failed DSS1 Calls by Call Type and Failed DSS1 Calls

Protocol Support:

- **ISDN/IP:** Q.931 over IP - SIGTRAN IUA, UK DPNSS over IP - SIGTRAN DUA, DASS2 over IP - SIGTRAN DUA

- **ISDN/TDM:** Q.931 over Q.921* and Q.921 LAPD*

Future support

About Tektronix:

Tektronix has more than 60 years of experience in providing network operators and equipment manufacturers a comprehensive and unparalleled suite of network diagnostics and management solutions for fixed, mobile, IP and converged multi-service networks.

These solutions support such architectures and applications as fixed mobile convergence, IMS, broadband wireless access, WiMAX, VoIP and triple play, including IPTV.

For Further Information:

Tektronix maintains a comprehensive, constantly expanding collection of application notes, technical briefs and other resources to help engineers working on the cutting edge of technology.

Please visit www.tektronix.com/communications

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