Ellipsys ®

BENEFITS:

- **PINPOINT TROUBLES**, even intermittents, repeats and chronics

- **ISOLATE** problems systematically

- **DOCUMENT** the exact source of troubles

- **ELIMINATE FINGER-POINTING** between carriers and equipment vendors

FEATURES:

- Simultaneous monitoring and archiving of all call progress and signaling events on 4 to 12 analog lines and trunks

- Expert systems analysis and problem diagnosis

- Stand-alone operation and remote access via dial-up or WAN connection

- Point and click GUI Interface

- Multi-Session/Multi-User

- Fast, simple setup

Stop squandering time, money and customer goodwill on hit-and-miss troubleshooting methods. Go right to the problem – the first time – with Ellipsys Technologies' E4A Call Problem Analyzer.

The E4A Call Problem Analyzer is a revolutionary new tool for quickly and systematically isolating switched network troubles on analog facilities. While most test sets focus on the condition of one circuit facility at a specific point in time, the E4A monitors many circuits over periods of time. By continuously monitoring, capturing and analyzing the events that make up each call, the E4A expert software quickly isolates even the toughest problems. Call transfer difficulties, connection failures, station/network equipment incompatibilities, equipment provisioning problems and user errors can be identified as they happen. Let the E4A do the work. Technicians don't even need to be on site with the E4A's stand-alone operation and remote access through a dial-up or WAN connection.

Using Ellipsys Technologies' proprietary new technique, Call Problem Analysis™, the E4A simultaneously monitors and captures signaling, digits and call progress tones, on up to 4 analog lines or trunks (up to 12 with the addition of E4AC Companion Units). The E4A then translates this data into corresponding call events such as dialed digits, on-hook, off-hook, flash and ring. These events are stored to a relational database and compared to expected behavior (proper signaling protocols, call duration, features invoked and disconnecting party, etc.). A Graphical User Interface (GUI) quickly guides the user through a series of plain English analysis screens and filters to view details of one specific call, call events on a particular circuit, on all circuits being tracked, or by shared characteristics such as call disposition, "busy" calls, etc. Analysis can be performed in real time, and over 1,000,000 calls can be stored for subsequent analysis and report generation.

The Ellipsys family of Expert Call Analyzers also includes companion units. By adding additional analog companion units to your ECA E4A, you can monitor and provide analysis on up to a total of 12 circuits. If you should add a digital companion to your ECA E4A, you can have the best of both worlds. You will have the ability to monitor and provide analysis on 4 analog circuits and up to 96 DS-0s (4 T-1's) digital circuits. Companion units can be used with either digital or analog master units for full application flexibility. These systems are also available in rack-mounted configurations for embedded test and monitor applications.

Expert Call Analyzer System

The Expert Call Analyzer System impartially arbitrates network fault disputes in a multi-vendor or multi-carrier environment. It reduces the cost of maintaining Quality-of-Service, enables increased flexibility and productivity by placing years of problem-solving experience in the hands of a wide range of personnel.

Signaling Detection

SUPERVISORY SIGNALING:
On-Hook, Off-Hook, Flash, OSI, Open, Wink, Float, Test

ADDRESS SIGNALING:
DTMF, DP, and MF Digits

ALERTING SIGNALS:
Metallic 20 Hz Ringing

CALL PROGRESS TONES:
Dial Tone, Audible Ring, Busy, Reorder and Call Waiting

Voltage Measurement

Tip to Ground, Ring to Ground, and Tip to Ring: $\pm$ 200 Vdc
Voltage Range: $\pm$ 200 Vdc
Resolution: 1.5 Vdc
RMS Ringing: 55 to 110 V RMS
Accuracy: $\pm$ 1 V

Current Measurement

Loop Current: $\pm$ 80 mA
Accuracy: 1 mA
Voltage/Current Scanning Rate: 4 ms

Call Progress Tone Detection

Precise Tones: 350, 440 and 620 Hz
Frequency Range: $\pm$ 1% of nominal
Amplitude Range: 30 dBm0 to 0 dBm0 Per Tone
Amplitude Accuracy: $\pm$ 1.5 dB Per Tone
Total Harmonics: >30 dB Below Signal Level

DTMF Receiver

Level Range: -25 dBm to 0 dBm Per Frequency
Frequency Range: < 1% Accepted and > 3.5% Rejected
DTMF Twist: High Freq. = 4dB more or 8 dB< Low Frequency Tone Level
Timing: Exceeds Bellcore TR-NWT-000506 6.2.6.2

MF Receiver

Level Range: -25 dBm to 0 dBm Per Frequency
Frequency Range: < 1% Accepted and > 3.5% Rejected
Timing: Exceeds Bellcore TR-NWT-000506 6.2.6.2

Ring Detection

Level Range: 55 to 110 V RMS
Frequency Range: 20 Hz $\pm$ 2 Hz

Analysis Tools

Call Disposition Analysis Filters Calls By:
Channel, date & time, dialed digits, call disposition(s), trouble types, unusual types and call duration.
Real-Time Call Display
Call List Browser
Processed Events Browser
Raw Events Browser

Administrative

User-Defined Sessions
Automatic Session Re-creation on Reboot
Timed Session Re-Start
Remotely download "local" version of ECA application, reports and session data

Circuit Types

Loop-Start, Ground-Start, Reverse Battery Trunk, DID and 911 Trunk, PBX Station, Wink-Start DP, DTMF, MF, Immediate-Start DP, Immediate/Wink-Start, Wink-Start No Digits and E911 PSAP

General

Dimensions:
8.1" H x 13.75" W x 17.9" D
20.6cm H x 34.9cm W x 45.5cm D
AC Power Supply:
90-264 VAC, 47-63 Hz
Operating Temperature:
0 C to + 50 C
**Storage Temperature:**
-40 C to 70 C
Weight:
20 lb. (9.0 kg)

Certifications

Meets or exceeds **Bellcore, ANSI & IEEE** technical requirements.
c(UL)   US LISTED & FCC certified.

CPR Code: #674883
CLEI Code: #TEASAAHZAA