ComTrail

Unified Monitoring Platform for Triple-Play Networks

ComTrail is an integrated product suite for centralized Interception and Monitoring of Voice & Data Networks. ComTrail unified platform comprises of multiple modules, each addressing surveillance of a specific communication network type such as PSTN, GSM, CDMA, GPRS, EDGE, 3G, Wi-Max, VSAT, large Data Service Providers & Transmission Networks. These probe / switch based modules can be deployed in isolation or unity to serve targeted and mass monitoring requirements.

The platform is equipped with advanced analysis engine for pro-active analysis of thousands of connections to quickly arrive at conclusion and limit intelligence leakage. Integrated with various value added tools such as Link Analysis, Voice Recognition, GIS, Target Location etc it immensely improvises investigative effectiveness and efficiency.

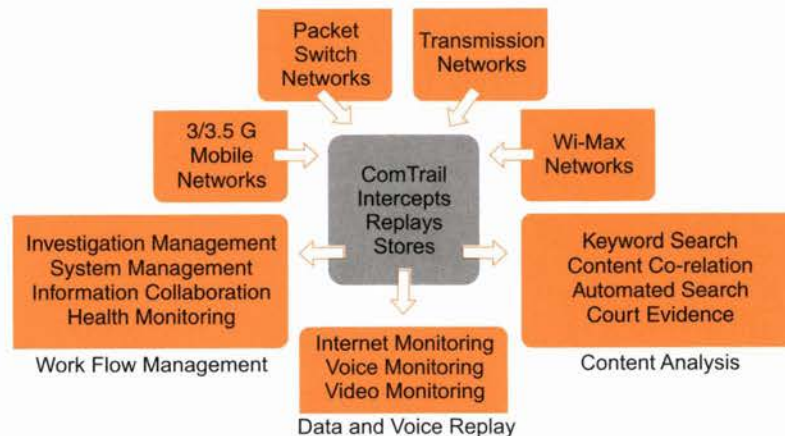ComTrail consists of the following subsystems:

The Interception & Delivery Function

Deployed within a service provider network, it facilitates both switch based interfacing and intuitive probing of links, with the help of indigenously developed intelligent access devices

The Monitoring Function

Set up at LEA HQ, Monitoring Function enables surveillance and investigation management. When deployed as an unified platform, it facilitates correlation of Voice & Data intercepts across diverse networks to provide a comprehensive intelligence picture. ComTrail UI coupled with smart analysis tools provide easy access to requisite information besides record, replay and archiving. Monitoring Function is a highly scalable component governed by proprietary algorithms that can efficiently handle data size up to Petabytes.

Packet Switch Networks · Transmission Networks · 3/3.5 G Mobile Networks · Wi-Max Networks · ComTrail Intercepts Replays Stores · Investigation Management / System Management / Information Collaboration / Health Monitoring · Keyword Search / Content Co-relation / Automated Search / Court Evidence · Work Flow Management · Internet Monitoring / Voice Monitoring / Video Monitoring · Content Analysis · Data and Voice Replay

Any communication Type

ComTrail supports capture, record & replay of a variety of Voice & IP communications:

- GSM/CDMA/PSTN Voice Calls
- MMS
- SMS
- FAX
- 100s of VoIP Application based calls
- Text Chats (MSN, YAHOO, ICQ, DIGICHAT etc.)
- Web Mails (Gmail, Yahoo, Hotmail, Maqtoob Mail etc.)
- FTP
- SMTP
- POP3
- BlackBerry (in clear text)
- Other P2P communications

From any type of Network

ComTrail intercepts data from any network technology- Wire line, Wireless, packet data, VoIP networks:

- T1/E1 to STM1, STM4, STM 16
- Fast Ethernet up to 40 Gigabits

Data Interception

When deployed for Internet Gateway monitoring, ComTrail enables an investigator to filter data on the basis of 375 attributes across 15 protocols. This includes pure keyword based filtering without any URL / IP Address based combinations. The product provides record and replay facility for webmails, Email attachments, VoIP, Chats, FTP and many more Internet transactions.

Voice Interception

ComTrail is compatible with a variety of switch specifications for correlation of CC & CRI in line with CALEA, ETSI and other regional LI compliance standards. Its smart probing technology can automatically detect CIC map while directly interfacing with the links without any help from the service provider.

Workflow Management

ComTrail's workflow management allows system operators to manage the target information in a hierarchical manner with facility for session archive and allocation of targets to investigators, besides linking sessions with the target. An investigator can perform powerful search and analysis operations on the captured Internet / Voice sessions to zoom on critical intelligence.

In-built Security Measure

ComTrail can be extended easily to adapt to a workflow, security, authorization, auditing and other constraints in a large deployment spanning multiple organizations, with strict judicial regulatory oversight.

Health Monitoring

The ComTrail health monitoring subsystem centrally monitors all its components for more proactive maintenance and greater system uptime. It displays hardware, software, and system functionality status using an intuitive, easy-to-understand graphical user interface. Alarms and events are triggered based on user-definable thresholds and are accompanied by detailed troubleshooting information.

Data Management Platform

ComTrail provides selective and comprehensive storage of full session traffic for future analysis coupled with Auto Deletion, Archive Maintenance, and Backup capabilities. The system can run 24x7 with minimal administration overheads.

Following are the salient features of this platform

- Consistent & Predictable Performance overtime
- Linearly Scalable for various Functional Elements
- Designed for High Speed & High Data Loads
- Optimized for Response Time and Throughput
- Designed to use Multi-Core Hardware Capabilities
- Leverages High Density Server technologies
- Supports Meta Data collection for post event analysis
- Lays foundation for Post Analysis Correlation, Context Analysis, Image Processing, Content Classification & Reporting, Speaker Recognition, Voice Transcription, Keyword Spotting, etc.

ClearTrail

ClearTrail Technologies

ClearTrail
Empowering Intelligence