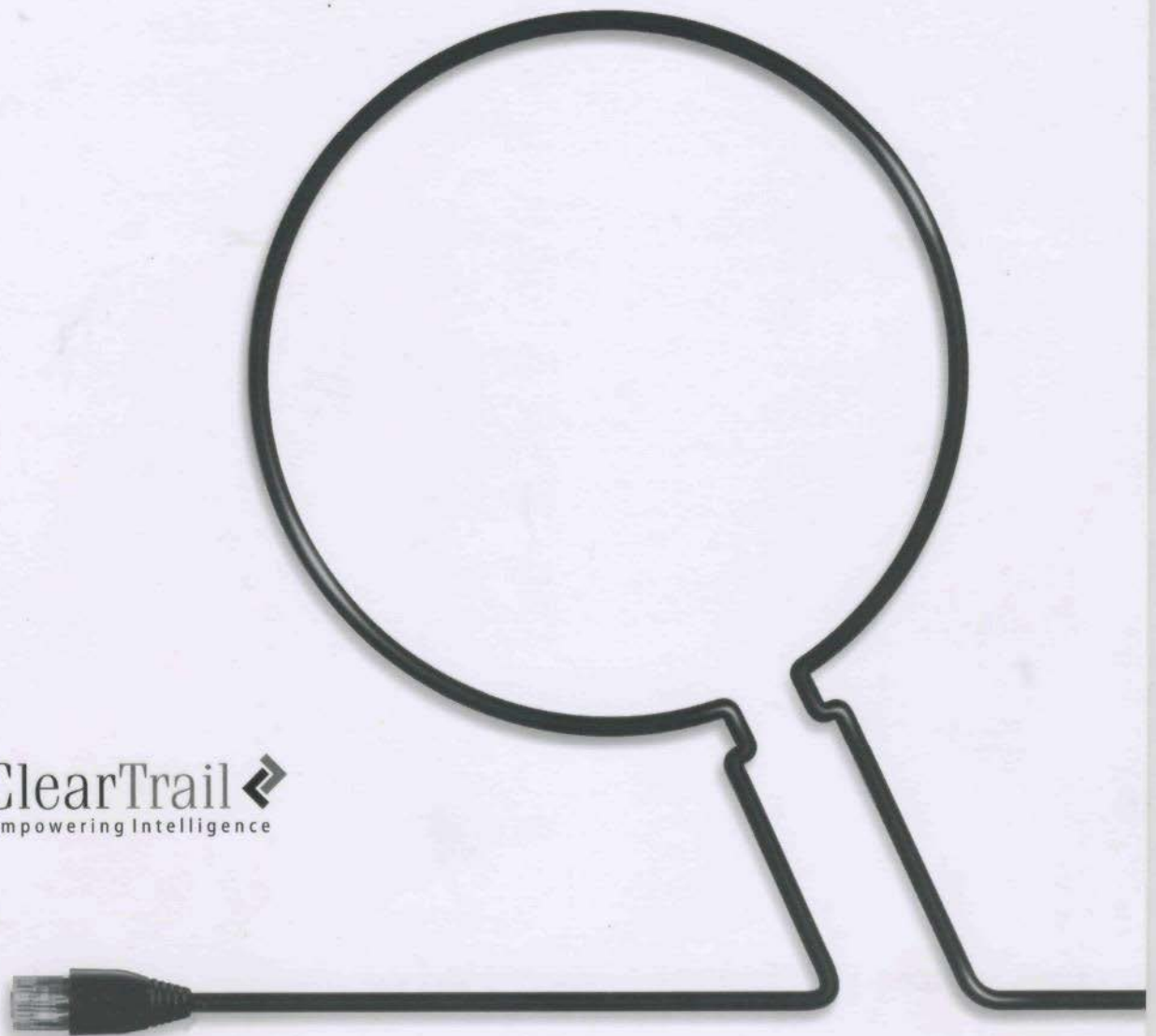


**ClearTrail's success lies in its
ability to spot possibilities.**

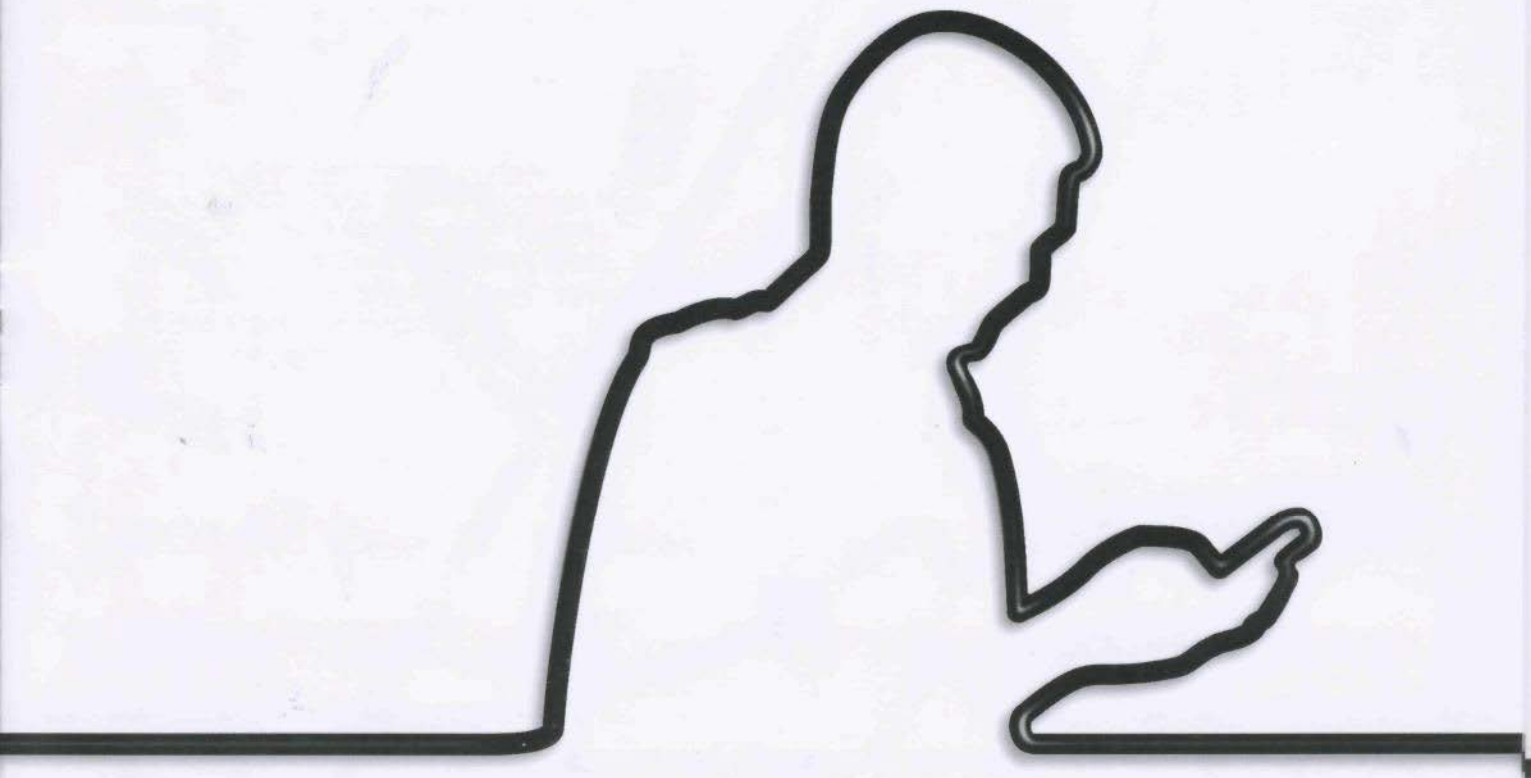
ClearTrail 
Empowering Intelligence



mission

Empowering the intelligence community with advance solutions to meet complex monitoring challenges

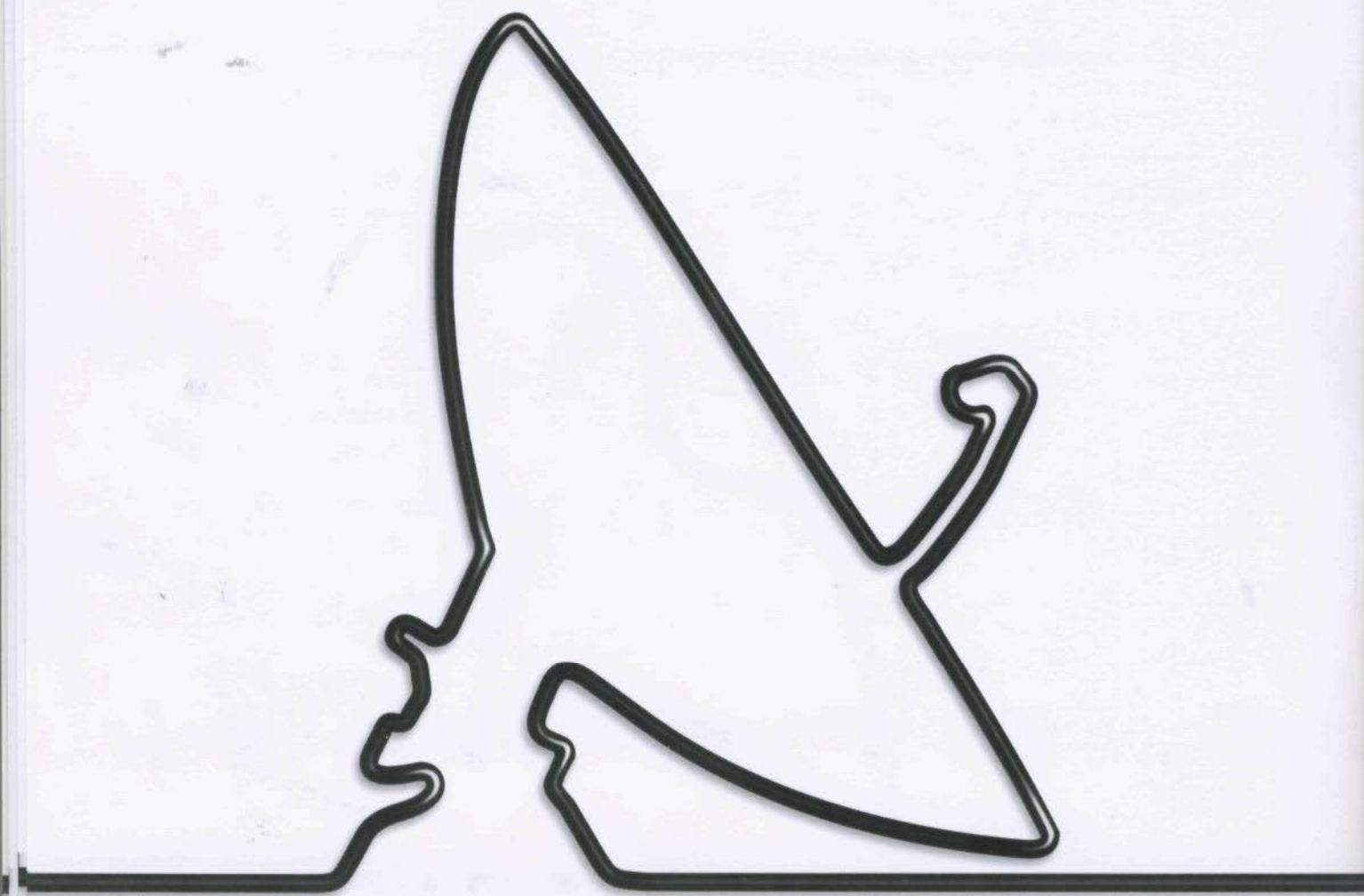
Cutting across cultural, geographical and political boundaries through its products, ClearTrail commits itself to providing apt solutions to its clients globally. Our clear edge lies in equipping our clients to mitigate threats emerging due to modern day communication, helping them pinpoint suspected communications while countering organized crime outfits.



values

ClearTrail is proud to reflect its values in the company's strategies, decisions, policies and actions.

We understand that a right blend of "BUSINESS" and "VALUES" is a must for an organization to achieve its underlined goals.



ClearTrail's values system is fundamental to its success. Our business is driven by the following values:

Originality

Since inception, ClearTrail has believed in originality. This has helped us in continuous innovation. We are more than aware of how innovation matters not only to the world of Lawful Interception but also to the success of our company. ClearTrail's R & D distinctively differentiates it from run-of-the-mill solutions, a value addition much admired by our clients.

Belief in mutual benefit

The company has always shown dedication in creating a WIN-WIN situation for its clients, a fact which gave us an early establishment.

Integrity

Probably one of the most important aspects of the arena which we operate in is integrity, which is deeply ingrained in each member of ClearTrail. Again, a fact that has held us in good stead and proved a great contributor to the confidence reposed in us by our clients.

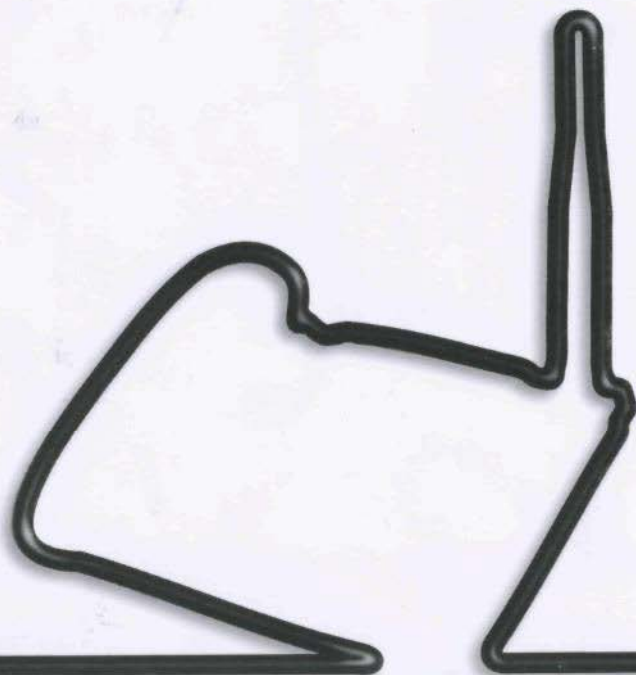
technology

Next level of LI Solutions

ClearTrail provides solutions to challenges of Law Enforcement Agencies, Intelligence Agencies and Communication Service Providers globally. ClearTrail offers a complete range of innovative solutions for lawful interception, monitoring and analysis of voice and data networks.

We have defined new paradigms for large monitoring systems by enriching range of target definitions to address complex & unforeseen interception scenarios.

ClearTrail has established itself among thought leaders in the domain contributing avant-garde solutions for the next level of Lawful Interception challenges such as encryption.



Know the Unknown Communications

Targets on modern IP networks can communicate over a wide range of P2P protocols. It is a tedious process to detect and decode such communication channels as hundreds and thousands of new services are being added every day.

ClearTrail's next generation LI system identifies such channels that enables LEAs to zero-in on precise protocols hence providing timely intelligence. Moreover, the same monitoring approach proves equally relevant to both, LEA's as well as Intelligence Agencies, by helping them intercept information that is not even exchanged among partners in crime.

Unified Platform

ClearTrail unified monitoring platform supports both switch as well as probe based interception over a variety of voice and IP networks. It facilitates correlation and retroactive analysis of the intercepts captured across diverse networks providing a complete view of the suspect's communication.

The unified platform comes with futuristic database design that can handle Petabyte of information. It has been architected for mass monitoring of voice & data. The entire functional elements of database can be scaled linearly and provide consistent and predictable performance over time.

Standards and Regulations

Our systems meet LI regulatory requirements across the globe. These are compliant with ETSI and CALEA regulations. Our products are efficient to cater to region specific requirements too.

Stealth Technology

ClearTrail also provides exclusively designed stealth technology for active and passive field monitoring of communication networks. The products with these attributes are portable and tactical enough to perform interception and analysis of secured communication over Wired, Wi-Fi & GSM networks.

e x p e r i e n c e

An invaluable ally in LI

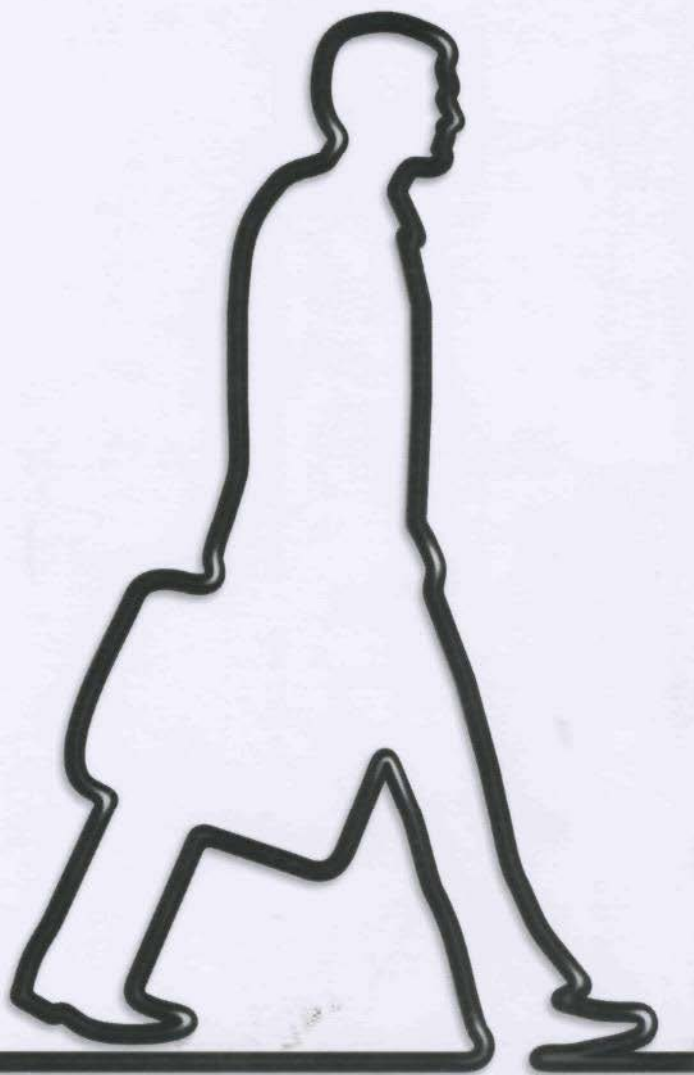
ClearTrail has gained leading position in the field of communication interception with large installations in the Middle East, Europe and Asia Pacific. In the last 10 years, we have developed a series of innovative "firsts" in the carrier grade monitoring domain.

We have expertise in countrywide monitoring and offer systems with a wide range of interception capabilities in complex communication networks. ClearTrail has successfully deployed more than 50 large systems, intercepting hundreds of voice & data links and has delivered several tactical field surveillance systems.

Our integrated communication interception suite offers a 360° view to monitor a variety of voice and IP networks, such as PSTN, GSM, CDMA, GPRS, EDGE, 3G, 3.5G, Wi-Fi, Wi-Max, VSAT, Large ISP and Transmission Networks.

From voice to data surveillance,
tactical field interception to operator's
network monitoring, targeted
interception to mass capture,
conventional LI to revolutionary
Active Interception technology,
ClearTrail has hands-on experience.

We invest a significant portion of our
revenue in the Research &
Development of new interception &
monitoring technologies. We will
continue to provide new and
proactive solutions to the challenges
of lawful interception.





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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:

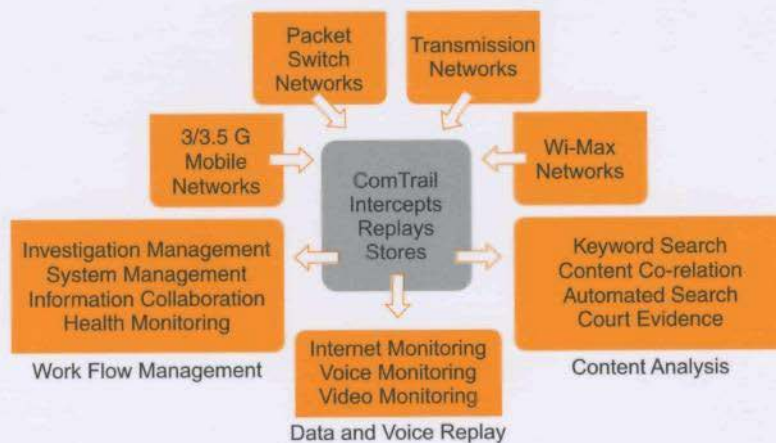
The Interception & Delivery Function

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 over 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.





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.



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These products are intended for use only in countries where such lawful interception is permitted by law and is conducted by authorized law enforcement agencies.

QuickTrail

One click surveillance of public internet networks

When it comes to gathering intelligence from public internet networks then ISP monitoring solution is a time consuming process which may result in loss of critical and vital clues. Also, ISP side monitoring fails to track the suspect's identity especially if the target is operating from a Cyber Café, University Campus or Free Wi-Fi Zones at Airport Lounges / Shopping Malls etc. Moreover, field surveillance of public internet networks can provide enhanced investigative leads, high evidence value and in some cases even physical identification of the targets.

QuickTrail is designed for such field operations. It is one of its kind system in the world that is fitted with unique Swiss-Knife approach to support a number of monitoring scenarios encountered in public internet networks like Hotels, Cyber Cafés, University Campuses, Free Wi-Fi Zones.

QuickTrail is equipped with multiple monitoring tools & techniques that can help intercept almost any Wired, Wi-Fi or Hybrid Internet Network so that a targeted communication can be monitored one way or the other. This laptop computer based highly portable device can be deployed in fractions of seconds to intercept, reconstruct, replay & analyze email, chat, VoIP and other Internet activities of a target.

Full Network Visibility

Unique solution that supports interception of Wired/Wi-Fi and hybrid LANs from single point interface:

- From Wi-Fi to Wi-Fi
- From Wired to Wired
- From Wi-Fi to Wired & vice-versa (hybrid networks)

This All-in-one Device supports real time monitoring through inbuilt interception, reconstruction and viewing interface on same device

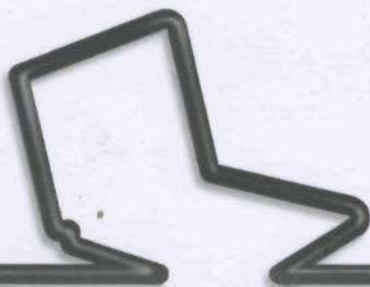
Multi Mode Interception

Set of nifty monitoring tools integrated on single laptop computer, works like a Swiss-knife, complementing both active as well as passive interception.

Passive Interception

- Portable System can scan all 14 Wi-Fi channels, while capturing data of 3 concurrent channels
- Chassis based full 14 channel concurrent capturing system also available on request Supports real-time cracking of WEP. WPA-PSK crack under development
- Also supports wiretapping of Ethernet LANs

Please turn overleaf





Active Interception

- 100% target data interception
- Target machine identification on the basis of IP Address, MAC ID, Machine Name, Activity Status and several other parameters.

Smartest way to overcome today's biggest IP monitoring challenge i.e. encryption, only known solution to intercept SSL Passwords & HTTPS based communication like banking transactions, Webmail etc. in real time.

Protocol Decoding Support

- HTTP, SMTP, POP3
- HTTPS

- News Groups
- Webmails (Yahoo, Gmail, Hotmail and many other Webmails)
- Various Chat Clients (Yahoo, ICQ, MSN, PalTalk etc)
- Many VoIP clients
- Password Capture

Centralized Management

Multiple such field units can connect to a central command center to remote manage field operations at geographically different locations.



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mTrail

For off-the-air interception
of mobile communication

GSM communication stands at the center of today's communication, transmitting vital - and often highly sensitive - information while simultaneously connecting users to essential resources. The dependence on GSM is growing rapidly, paralleled by unlawful communication and which is largely a safe media for criminals to organize and operate global terror networks. Law Enforcement Agencies across the world are scouting for solutions to intercept GSM communication for acquiring evidence to prevent such criminal behavior.

Solutions deployed in the mobile operator's networks to intercept such communications are costly, resource consuming and don't provide the flexibility of intelligence gathering operations. What is ideally required is a portable GSM Lawful interception solution that provides the following benefits to the LEA:

- Stealth mode operation, transparent to target
- Rapid Intelligence gathering in the field
- Small portable footprint
- No assistance or information required from the Mobile Operator

mTrail offers passive and active 'off the air' lawful interception of GSM 900/ 1800/1900 Mhz phone calls and data to meet law enforcement surveillance and investigation requirements.

Dual Mode Interception

ClearTrail offers Active and Passive off-the-air interception systems. In the latter, it works in the stealth mode so that neither there is dependence on the network operator nor the user(s) would come to know about the interception.

Scalability

The system is able to support multiple bands (900/1800/1900 Mhz) by adding appropriate modules. The system has the capability to scale from interception of 2 channels (carrier frequencies) to 32 channels.

Mobile or Fix mode of Deployment

mTrail offers two modes of deployment - mobile and fixed. In the mobile mode the system is able to fit into a rugged briefcase. In the fixed mode, the system fits in a rack-mount industrial grade chassis.

Target Selection

The target(s) can be profiled using signal strength, target numbers like IMSI, TIMSI, IMEI or MSI SDN.

Call Listening & Storing

mTrail makes it possible to listen to the conversation on lawfully intercepted calls in near-real time, as well as store all lawfully intercepted calls. In case of interception of multiple calls one can select the call to listen to.

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Highlights

- Off-The-Air real time monitoring of A 5.0/A 5.1(few variants) and A 5.2 encryption methods
- Configurable to randomly intercept all calls in duplex mode / simplex mode
- Intercepts calls based on incoming or outgoing PLMN Numbers
- Intercept targeted calls from pre defined suspect list
- Identifies various operator signals with their base station & network identification
- Allows manual allocation of the available receivers to a specific base station
- Allows dropping of an ongoing call to free occupied channel & allocate the same to next call
- Intercepts targeted calls made within specified distance
- Customizable to operate in restricted mode to prevent any unauthorized interception by end user
- Monitors Voice & SMS and protocol information
- Calls can be tracked after cell handover procedure
- Duplex channels can intercept both uplink & downlink mobile conversations, SMS and protocol info
- Customizable to operate in distributed manner, facilitating simultaneous remote monitoring of multiple interception units deployed in the field through a single interface
- Supports target's location identification



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