Lawful Interception of Telecommunication Services

Throughout the world, providers of telecommunication services are required to support law enforcement agencies in their fight against crime and terrorism. Network operators and telecommunication service providers have to install interception facilities in their network to fulfill these obligations. The legal framework of lawful interception (LI) is stipulated by national laws and regulations, and international standards constitute the foundation for the technical implementation and for the cooperation between law enforcement agencies and service providers.

Utimaco LIMS (Lawful Interception Management System) is a proven solution for network operators and service providers to automate the administrative and operative tasks related to lawful interception. The system is based on a central management system for the surveillance of communication services and implements electronic interfaces to various authorized law enforcement agencies and their monitoring centers.

Utimaco LIMS offers the industry’s broadest range of supported network elements for active interception as well as highspeed network probes for passive interception. This approach enables lawful interception in virtually any fixed, mobile, and Internet service provider’s environment without any negative impact on the performance and reliability of the network and revenue generating services. LIMS supports all common telecom services including phone calls, SMS, MMS, email, VoIP, instant messaging and other Internet services. While the system is designed for large-scale networks with millions of subscribers, the LIMS suite easily scales to economically feasible solutions for networks with only a few thousand users. The modular architecture of LIMS facilitates cost-effective extension and adaptation to new technologies and changing regulatory requirements.

LIMS complies with international LI standards of ETSI, 3GPP, ATIS/ANSI and CableLabs and satisfies the highest security requirements to protect sensitive data from unauthorized access and misuse. Utimaco supports providers, carriers, and LEAs in need of lawful interception solutions with consulting and technical support services, and also provides managed service models together with qualified solution partners.
**Benefits**

**Compliance**
- Provides real-time interception of all common telecommunication services in fixed and mobile networks
- Complies with regulatory requirements in numerous countries worldwide
- Conforms to international lawful interception standards of ETSI, 3GPP, ATIS/ANSI, Cable-Labs and others

**Cost Efficiency**
- Central management of all intercepts
- Modular and scalable architecture
- Smooth integration with multi-vendor and multi-service networks

**Reliability**
- Meets highest security demands
- No negative impact on performance or reliability of networks and services
- Continuous enhancements support the latest technologies and standards
- Close cooperation with regulatory authorities and standardization bodies
- More than 20 years experience in LI

**Key Features**

- Central administration of intercepts and target assignments
- Active and passive interception of voice and data services
- Collection and mediation of intercepted data from all network nodes
- Standard compliant delivery of intercepted communications to the authorized law enforcement agencies
- Comprehensive user management with granular access rights
- Multi-tenancy, segregates up to 64 different networks/providers
- Authority management
- Integrated system administration and alarm monitor

**Security features**
- RBAC (Role-based Access Control), central user authentication
- Transparent separation of multiple authorities
- Full audit trails of all user and system events
- IPsec/SSH/TLS encryption
- Encrypted database and backups
- System monitor and alarms
- System redundancy
- Disaster recovery system
- Automatic consistency checks
- Secure remote access
- Remote administration of other LI systems
- Dynamic load-balancing
- Data buffering
- Integrated billing capabilities
- Various language kits available
**Architecture of the Utimaco LIMS**

**INI**: Internal Network Interface

**IRI**: Interception Related Information

**CC**: Content of Communication

**X1, X2, X3**: Internal Network Interfaces for LI provisioning, IRI and CC exchange

**HI1, HI2, HI3**: Standard handover interface to the Law Enforcement Agency for LI Provisioning, IRI and CC exchange
Technical Data

Networks & Services
- GSM, GPRS, UMTS, CDMA, CDMA2000, LTE, IMS, VoLTE, RCS
- PSTN (Fixed Telephony)
- xDSL, cable
- WiMAX, WLAN
- SMS, MMS, Voicemail
- PoC (Push-to-Talk over Cellular)
- Internet Access (IPv4 and IPv6)
- VoIP (SIP, RTP, H.323, SCCP)
- E-Mail (POP3, SMTP, IMAP, webmail)
- other IP-based services

Lawful Interception Standards
- ETSI TS 101 671 (voice), TS 101 331 (generic), ES 201 158 (generic), TS 102 232-1 to 102 232-7 (IP, E-Mail, Multimedia)
- 3GPP: TS 33.106, TS 33.107, TS 33.108 (mobile)
- PacketCable v1.5 (Cable)

Vendor Interfaces

Performance
- Maximum number of subscribers: virtually unlimited, scalable configurations from 1,000 to several million subscribers
- Maximum number of intercept targets: up to 400,000
- Maximum number of LEAs: 256

Network Interfaces
- 10/100/1000 Mb Ethernet, 10 Gb Ethernet, X.25, ISDN, E1/T1, SDH/Sonet, ATM, SS7 interfaces