



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 fulfil 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 realtime 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

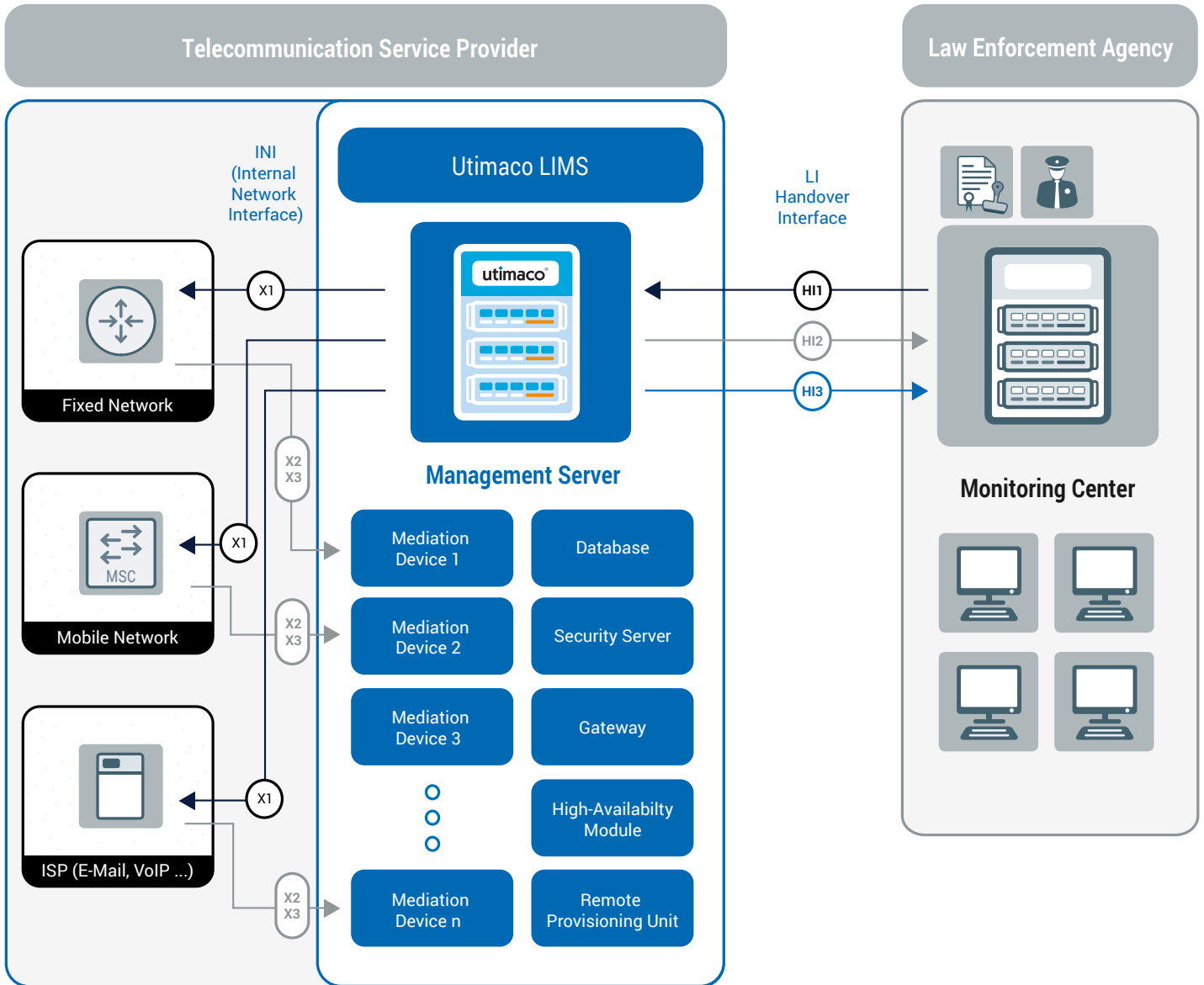
Reliability

- 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)
- ANSI/ATIS: J-STD-025-A/B (Voice, CDMA), T1.678v2 (VoIP), ATIS-1000013.a.2009 (IAS), ATIS-0700005 (VoIP, MM)
- 3GPP: TS 33.106, TS 33.107, TS 33.108 (mobile)
- PacketCable v1.5 (Cable)

Vendor Interfaces

- Affirmed-Networks, Arris, Bridgewater, Broadsoft, Casa Systems, Cisco, Comverse, Ericsson, Fuze, Genband, Huawei, Ipageon, Iptego, Italtel, Juniper, Metaswitch, Mitel, Nokia, Oracle (Acme Packet), Open Exchange, Saguna, Sitronics, Sonus Networks, Squire, Thomson-Cirpack, Zimbra, ZTE and others

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

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Since 1994 Utimaco has been developing lawful interception and data retention systems for telecom operators and Internet service providers. Utimaco's carrier-grade systems enable real-time monitoring and long term data retention in public telecommunication networks. The systems interface with essentially all common network technologies and communications services. Utimaco is the preferred partner of many of the world's leading network equipment vendors. With around 300 installations in over 90 countries, Utimaco is a leading global supplier in the Lawful Interception and Data Retention market. Utimaco participates in LI standardization and supports international standardization institutes and industry associations, such as, ETSI, 3GPP, ANSI/ATIS and Bitkom.

Customers and partners value the reliability and long-term investment security of the Utimaco security solutions. Utimaco stands for recognized product quality, user-friendly software, excellent support, and products that effectively meet market requirements.

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