



## Automated Data Retention for Telecommunications Service Providers

Retention of subscriber data and communications related data has become a legal requirement for telecom operators and service providers around the world. Law enforcement agencies and intelligence services regard the access to retained telecom data as an important pillar of criminal investigation and the prevention of terrorism.

For this purpose many telecommunications service providers are requested to retain communications data for a period between six and twenty-four months. Retained data shall be reported without undue delay in case a legally authorized request by law enforcement is presented.

While much of the data required is being recorded by providers already for billing purposes, the data retention regulations put some cumbersome and potentially costly obligations on service providers in regards to data protection, response times, and completeness of information.

Utimaco has addressed these challenges with a new approach that is affordable, quickly implemented, and secure. Utimaco Data Retention Suite (DRS) is a state-of-the-art, purpose-built management system for secure data retention and fast data retrieval. The system has been designed to easily integrate into existing network infrastructures that generate thousands to billions of data records per day.

**Utimaco DRS** incorporates a configurable workflow management system which reduces operational expenses by automating the administrative tasks of request handling and delivery of search results to authorized agencies. Comprehensive security mechanisms like granular user management functionality, strong access control, encrypted storage and handover, and full audit trails, are fundamental features to support compliance with national regulations for data protection and for public safety.



## Highlights

### Seamless Integration

Utimaco DRS has been designed for seamless integration into existing multi-vendor and multi-service networks. The solution can be customized easily to interface with CDR/IPDR systems, log files, subscriber databases, and other data sources.

### Multi-tenancy

One Utimaco DRS system can be used to administer warrants and search requests for multiple network operators and service providers. The granular rights management system of Utimaco DRS can be configured to securely segregate between networks, users, and authorities and thus supports various business models like MVNO models, managed services, or cross-border service platforms.

### High Performance & Capacity

Utimaco DRS has been optimized for simultaneous loading of big data volumes and fast query processing. The system can ingest several billion data records per day, supporting the transaction rates generated by large telecommunications networks with millions of subscribers. Average queries results are returned in seconds not minutes.

### Strong Security

Comprehensive security features like role-based access control, encryption and integrity checks prevent unauthorized access and manipulations of sensitive data during storage and handover. Full audit trails are maintained for all system and user events to provide full accountability for evidential quality.

### High-availability

Server redundancy, RAID-5/6 data mirroring and real-time system monitoring are integral concepts of Utimaco DRS to satisfy highest availability demands and disaster resilience.

### Cost-efficiency

Utimaco DRS runs on broadly available and cost-efficient X86 servers and uses standard SAS/SATA disks arranged in redundant disk arrays. This together with the excellent data compression rates reduces hardware expenses to the absolute minimum.

### Data Analysis

Utimaco DRS easily integrates with 3rd party visualization and analysis tools such as IBM® i2® Analyst's Notebook®.

## Features

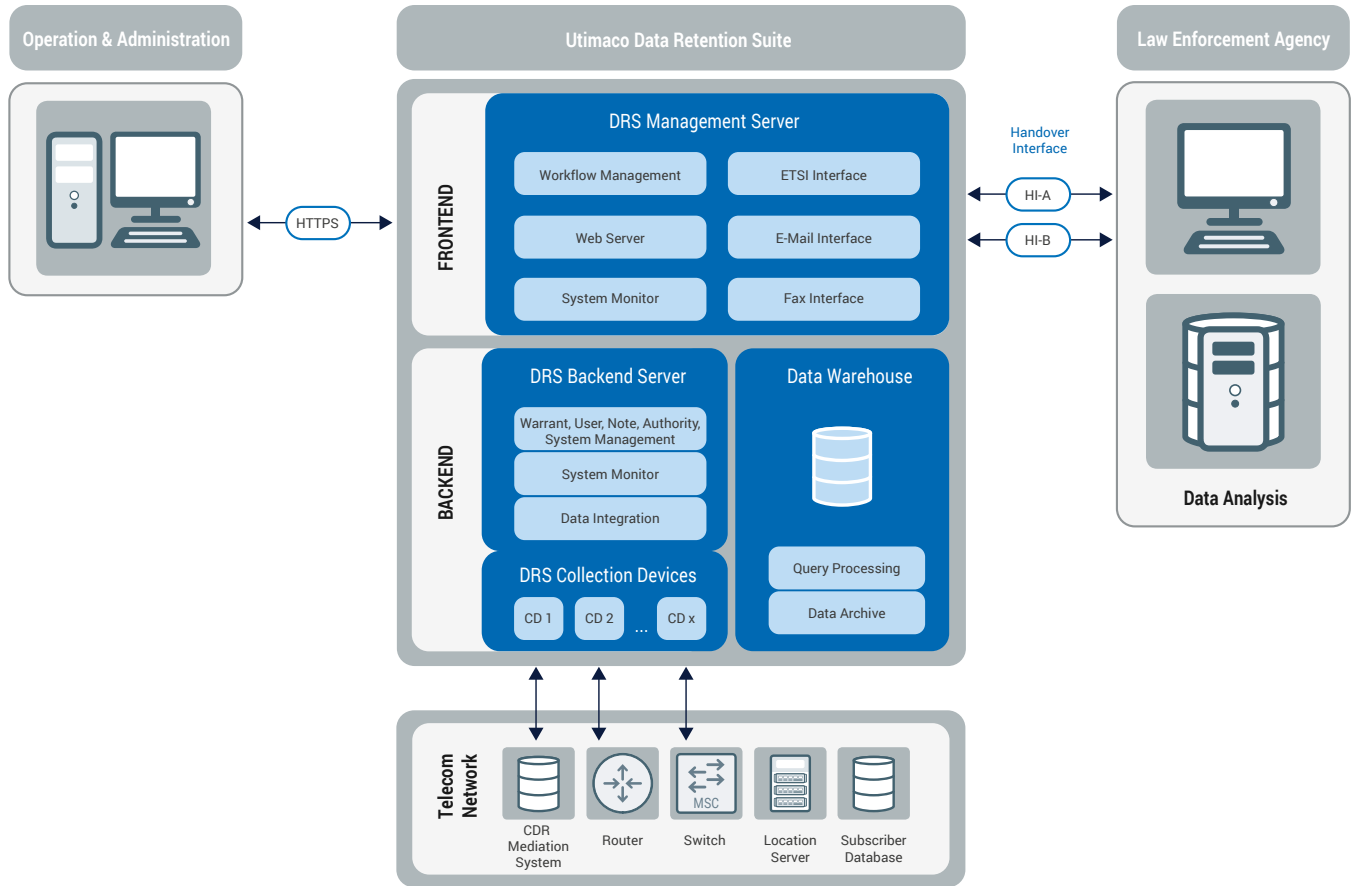
- Collects communications data (CDR, IPDR) and subscriber data from any telecommunications network
- Retains large amounts of data in a powerful and secure data warehouse
- Provides very fast search and analytics in billions of data records
- Automates request processing and reports search results over secured interfaces

## Benefits

- Complete solution to satisfy the data retention obligations of communications service providers
- Lowest operating costs due to high automation of workflows
- Cost-effective integration in existing networks of any size with various communication services
- Suitable for large networks with several billions of CDRs per day
- Compliant to national data protection laws



## Utimaco DRS System Architecture



**HI-A:** Administrative handover interface for request management

**HI-B:** Data handover interface for retained data



## Specifications

### Hardware Platform

- Dell PowerEdge servers
- Various configurations from single server appliances to multi-server clusters
- Integrated disk storage (up to 12TB)
- External SAN from 6TB to 1000TB (RAID)
- Redhat Enterprise Linux OS
- SAP IQ data warehouse
- CE marked, FCC compliant, ROHS

### Services

- PSTN telephony
- Mobile telephony & data (GSM, UMTS, CDMA)
- Mobile Messaging (SMS, MMS)
- Internet Access(DSL, cable, Wimax, WLAN)
- CG-NAT, IP-Logs
- VoIP, Push-to-Talk
- E-Mail, Webmail
- Other services on request

### Security

- Granular rights management
- Remote access via https (password, certificate)
- Full audit trail (encrypted)
- Data integrity protection
- Encrypted storage (optional)
- Hardened operating system

### Performance

- Loads up to 1 Mio. records per second (on one server)
- Average search performance: 5 sec per 1000 query results

### Standards

- ETSI TS 102 656
- ETSI TS 102 657

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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.

**utimaco**®

**Utimaco TS GmbH**  
Germanusstrasse 4  
52080 Aachen | Germany  
+49 0 241 - 16 96 0  
li-contact@utimaco.com

For more information on the Utimaco® products please visit:

**lims.utimaco.com**