

BAE Systems DataRetain™

Cloud Ready Lawful Disclosure Compliance
for 5G and Beyond



Digital
Intelligence

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The need for Telcos and CSPs to comply with lawful disclosure of retained data

In order to help protect the public against terrorism and crime or locate a vulnerable person, most telcos and communications service providers (henceforth collectively referred to as CSPs) are required to retain records of the metadata associated with communications that cross their networks. Although it excludes the actual content of any data communications, this retained data does include, for example, the IP metadata, subscriber information and call data records (CDRs).

This data is of significant value to law enforcement agencies (LEAs), who may be analysing pattern of life changes or investigating the current or historical activity of Subjects of Interest (Sols), or attempting to find a missing person. Where necessary, LEAs may be authorised to approach CSPs with a warrant for the legal disclosure of specified historic metadata relating to the communications of targeted Sols, and CSPs must respond with provision of that metadata within an acceptable time frame.

As directed by individual national legislation – and normally at their own cost – CSPs are required to keep records of pre-specified communications metadata, encrypting and securely retaining that metadata and ensuring its automatic deletion after defined time periods.

For many CSPs, enabling and supporting the lawful disclosure of retained data can become an expensive burden that hinders development of new services and consumes valuable resources better deployed elsewhere.

Helping service providers meet compliance obligations with minimum impact on business objectives

BAE Systems DataRetain is a market leading solution designed and built for CSPs, enabling them to cost-effectively, securely and efficiently, capture, store, query, collate, and lawfully disclose retained data to LEAs. The DataRetain solution also securely documents all disclosures and enables audits of transactions to be performed by authorised personnel.

It has been developed during 30 years of working in partnership with some of the world's most exacting CSPs, LEAs and governments in the lawful disclosure and data retention space and is now increasingly being adopted by CSPs across the globe. In the past decade it has become the de facto solution for helping CSPs comply with national data retention legislation, providing a streamlined seamless interface between LEAs and CSP police liaison units and empowering authorised CSP users with the full breath of functionality required to run a trusted, secure, data disclosure service for compliance with LEA requests.



Security and privacy by design

By implementing a dedicated data retention solution, the tailored workflows of the solution enable compliance to local legislation to be enacted safely and with the minimum of impact on business operations, thus enabling CSPs to focus on normal commercial activities.

The solution is implemented with a level of security embedded to ensure the information held is protected and activities within the system are logged and audited.

Workflows can be set to include manual review steps and reports can be generated to account for activities within the system.

Helping LEAs combat serious crime

A well-implemented, powerful solution for disclosure for retained data can support LEAs in combatting serious crime. Being able to respond quickly and accurately to urgent LEA requests connected with investigations concerning organised crime, kidnappings or missing people, can often make a significant difference to case outcomes.

Helping alleviate future LEA demands

As technology changes and LEAs drive regulation for future access to new types of data, the DataRetain solution provides a level of assurance that CSPs will be able to meet evolving compliance requirements using existing, and future, network infrastructure.

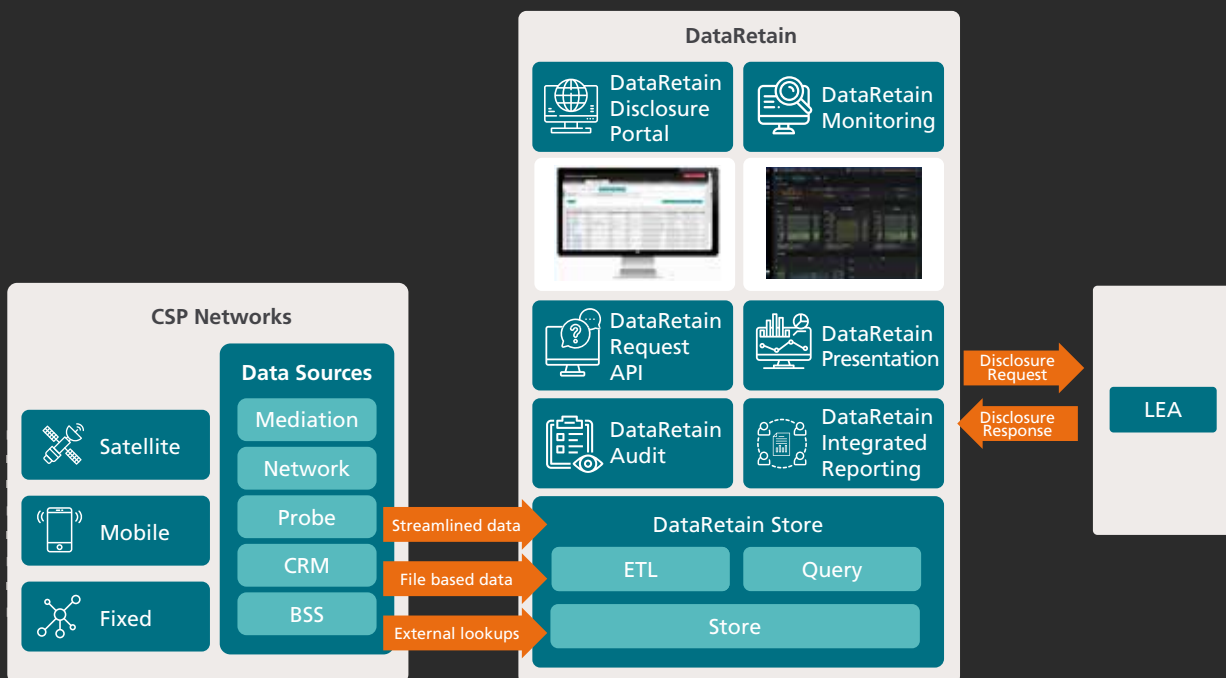


Figure 1: Architecture for BAE Systems DataRetain

Scalable, Virtualised Solution

BAE Systems DataRetain is a highly scalable, distributed and virtualised solution that fits directly into the CSPs' IT estate. It provides the following features and benefits:

- **'Self-service' direct LEA user portal**

Enables authorised LEAs to input their requests directly into the system and receive rapid, authorised replies. This facilitates minimal disruption to CSP business operations and allows a higher volume of requests to be processed by a smaller group of staff with less expensive skill sets.

- **Integrated metrics and reporting**

Ensures you understand what is happening and that you can quickly report critical information to key stakeholders with integrated metrics and reporting, showing you exactly what is happening across the system from an operational and business perspective.

- **Flexible deployment configurations**

Deployment options range from a small scale urban broadband provider up to national scale quad play CSPs, with full or partial automation, as required.

Keeps systems simple and cost effective with a flexible container based architecture allowing CSPs to deploy what they need, where it is needed: CSPs can adapt quickly to changes within their network, scaling with increases in data rates and processing of new data types.

Simplify integration with 3P systems through our APIs for key disclosure and retention functions (Request, Query, Ingest and Store).

Hosting to match your business strategy, with COTS hardware on-prem or cloud based options available, with a contractual model to suit customer need.

- **Flexible workflow and configurable role based access control**

The Disclosure Portal provides a comprehensive set of capabilities for your disclosure team to manage their lawful disclosure requests with ease. It provides many features designed to minimise user effort, such as bulk request submission (and other request management actions), configurable approvals, email notifications based on request processing state and in-line result editing.

Support different legal regimes and business processes by configuring different portal workflows.

Allows different teams to operate efficiently without risk by logically partitioning their access to the different stored data sets and the different business processes.

Reduces impact on your team by letting basic repetitive tasks be handled by the LEAs, giving as much access as you require.





Figure 2: DataRetain 'Facts and Figures'




- Comprehensive Audit**
 Ensures CSPs can trust the data disclosed by their compliance teams with detailed audit for both user activity and business data flows.
- Secure by design**
 Protects your business with RBAC and Encryption protecting all LEA requests and results information.
- Data storage and retrieval**
 Fast, compact and scalable encrypted data storage and retrieval, capable of storing billions of data records securely. Records are available for retrieval within seconds of being stored and can be retrieved within milliseconds.
 Enables data records and results to be set for automatic deletion at the end of mandated data retention periods.
- NAT Resolution support:**
 Offers pre-built modules that support user queries on IP Address Resolution, providing capability to acquire, process and retrieve information relating to public and private IP addresses and match with relevant customer identifiers, effectively mapping the IP address used to each communications session.
- Redundant Architecture**
 Can be implemented as a highly available solution with full back-up and disaster recovery achieved by replicating all data to a secondary system.

Virtualised Cloud Deployment Option

The BAE Systems DataRetain solution may be deployed either as a traditional physical data retention solution for data retention and lawful disclosure, or as part of a next-generation cloud-native architecture in a private or public cloud environment.

The cloud native deployment option offers:

- The security, control and separation of a traditional physical data retention solution.
- A secure public cloud deployment, with local sovereign hosting and support. Compliant with NCSC Guidelines (and equivalent EU/US). Suitable for UK Official-Sensitive classification.
- Simple access with high availability by default and supports LEA self-service, with automated results provided directly to users.
- Scalable data storage architecture and separation between individual CSP deployments; on demand usage and schedule based processing.
- A BAE Systems experienced Helpdesk available 24x7 to support customers with queries and manage system responses; standalone training for CSPs available.

Model	Request Management	Infrastructure	Retained Data Storage
 End to End	BAE provides Disclosures Portal	Customer hosts solution	BAE provides Retained Data Store for majority of data types
 Hybrid	BAE provides Disclosures Portal	Customer hosts solution	Customer provides access to data in own data store
 Hosted	BAE provides Disclosures Portal	BAE hosts solution in Secure Cloud Environment	BAE provided cloud retained data store

Summary

In recent years, the burden carried by CSPs striving to comply with data retention requirements, has increased. This burden is anticipated to increase even further as technology changes and LEAs identify new forms of communications metadata which can help them fulfil their missions.

BAE Systems DataRetain provides CSPs with a proven compliance solution to address the operational and economic challenges that data retention regulations place upon them. It provides a scalable architecture that caters not only for existing legislation but also helps CSPs prepare for anticipated future data retention requirements. Where requested, our team of CSP experts are available to help customers with integration into their architecture.

Contact us, or visit our webpage by scanning the QR code



We are Digital Intelligence

As part of BAE Systems, Digital Intelligence has a deep knowledge in protecting and enabling large and complex organisations in the face of today's digital threats.

With our track record for being the trusted partner of governments, we're uniquely able to help financial services institutions counter economic crime and fraud.

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