

Solution overview

Data retention in real time

HP DRAGON



Your organization needs a fully integrated, real-time approach to fulfilling lawful requests for data. With HP DRAGON solutions—comprising a complete, end-to-end offering for warrant management, lawful intercept, and data retention, you get actionable intelligence for your global law enforcement efforts.

Ensure technology supports global law enforcement efforts

Communications technology is at the heart of the global fight against terrorism, child exploitation, drug trafficking, and other serious crimes. Law enforcement is asking more of service providers—greater cooperation and expanded capabilities. This requires that lawful requests for communications information to support criminal investigations be fulfilled in a timely manner. As a service provider, you need a cost-effective way to manage these requests; to quickly identify, locate, and retrieve data on user activity history, intercept content in real time, and deliver it securely to the authorities.

Complicating the challenge are new technologies, equipment, and user devices being developed and deployed throughout the communications ecosystem. Where in-house solutions were once adequate, a comprehensive set of integrated capabilities is now required. Standards-based, proven solutions are needed to mitigate the risks, timeframes, and costs of adding critical functionality.

Use proven tools for intelligence support and data retention

HP delivers a comprehensive portfolio of intelligence support systems (ISS) that meet the requirements for today's converged communications services. Based on technology proven in worldwide deployments, HP Data Retention And Guardian Online (DRAGON) solutions are modular and standards-based and take a fully integrated, real-time approach to fulfilling lawful requests for data. Together, they comprise a complete, end-to-end offering for warrant management, lawful intercept, and data retention; providing actionable intelligence for today's global law enforcement efforts.

Table 1. The HP Investigation portfolio addresses the special challenges of six critical areas.

Solution name	Brief description
1. Data Retention	Innovative capture and management of communications activity data
2. Warrant/Request management	Process-driven reengineering of warrant handling
3. Lawful Interception and Law Enforcement Agency monitoring and analysis	Innovative lawful interception capabilities for IP services and next-generation networks
4. Large Event Archive	A highly scalable and flexible solution to ease access to critical operations data
5. Deep Packet Inspection	Network probes used to collect more detailed network traffic data in real time
6. ISS as a Service/Cloud	Flexibility, low cost, and easy implementation offered

Data Retention

New regulations for retaining data records are greatly expanding what information is kept and its lifecycle. This can present a burden for service providers, who must not only deal with issues of data collection, but also efficient and secure storage and retrieval. Today's next-generation converged environments have exposed the limitations and inadequacies of legacy systems. The rapid adoption of network-intensive services means you have to process several times the volume of records. Immense scalability and cost-effective storage and retrieval are crucial. Further, the shifting services environment and regulatory landscape require a solution that can easily adapt.

Data Retention benefits

- Reduces data retention operating expenses (OPEX)
- More efficiently gathers data to respond to warrants and requests
- Complies with local regulation

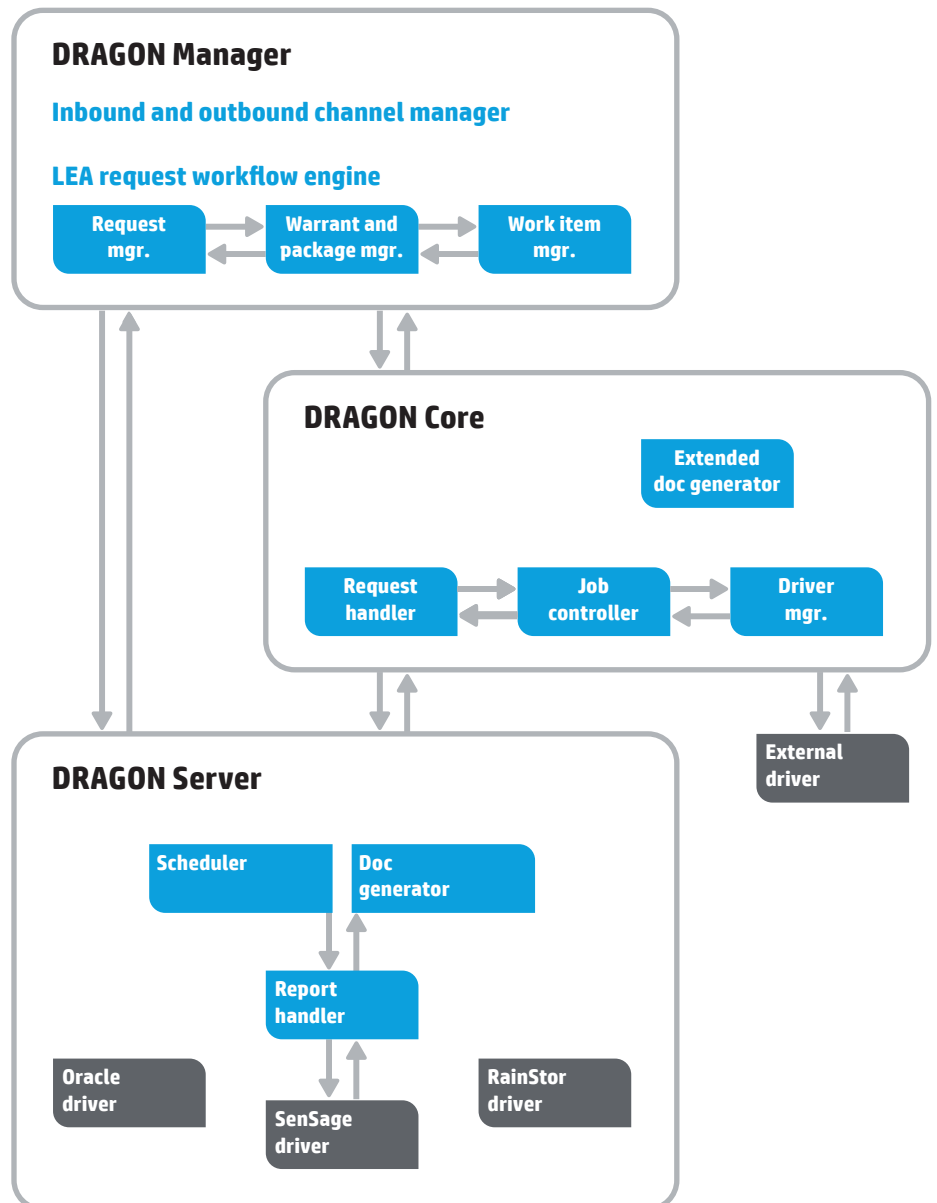
HP adds value

- Market-leading data retention solution
- 15+ years of experience
- Process, system, and data review service assessment
- Warrant management engine

Data Retention solution features:

- Provides scalable, flexible data collection for circuit- and packet-switched infrastructures
- Uses high-performance data management to optimize storage and retrieval of communications traffic data
- Leverages multilayer security to protect the integrity and privacy of sensitive data
- Can be implemented with a choice of data repository options to ease integration with existing architectures and technology standards

Figure 1. Manager core server architecture



Warrant/Request management

Warrant/Request management benefits

- More flexible and efficient way to gather customer data and respond to LEA warrants and requests
- Legal compliance

HP adds value

- Warrant workflow engine
- Process, system, and data review service assessment
- Software brokering capabilities

An increasing volume of requests for lawfully intercepted and retained data comes from a range of law enforcement agencies (LEAs). Key issues are involved in efficiently and effectively fulfilling these requests while ensuring privacy at every point—provisioning, result validation, and returning results to the LEA. With some service providers, fulfilling thousands of time-intensive requests each day, improved efficiency directly translates into the bottom line. Over time, many service providers have deployed individual ISSs for each service area. In many cases, requests had to be input for each system or service area, the results are manually aggregated and then returned to the LEA. Consolidation and integration may cut operating costs and shorten response time, while helping safeguard privacy.

Warrant/Request management solution features:

- A single, unified front end manages request fulfillment for lawful intercept and retrieval of retained data.
- Increased workflows reduce the effort and timeframes for processing requests.
- Flexible deployment models enable localized deployment at communications service providers, or remote deployment for self-service operations at law enforcement and intelligence agencies.
- Document management capabilities support warrant and request documentation.
- A billing function supports reimbursement of compensated requests.

Lawful Interception

While seamless interception has long been available for analog circuit-switched networks, the evolution to advanced services running across packet-switched infrastructures now requires new technologies. Interception must be performed—in real time—across wireless, wired, broadband, and IP networks, while still remaining invisible to parties under surveillance.

Interception of new network-intensive applications such as email and instant messaging requires not only application awareness but also immense scalability and flexibility. As more and more services are deployed via IP networks, the challenge will grow in volume and complexity.

The Lawful Interception solution:

- Supports disparate, multiple communication networks—circuit-switched, packet-switched, mobile, fixed, and IP
- Includes support for products from most major vendors
- Supports global standards with customizable local implementations
- Enables cost-effective expansion of architecture with a distributed, scalable solution

Lawful Interception benefits

- Complies with LEAs requirements
- Can upgrade capabilities to IP services
- Consolidates LI vendors

HP adds value

- HP software is a single frontend for different LI infrastructures
- Process, system, and data review service assessment
- Integrated ISS approach—legal investigation plus data retention

Large Event Archive

Large Event benefits

- Provides the right archive technology to different data needs
- Reduces CAPEX and OPEX
- Offers the solution in the cloud

HP adds value

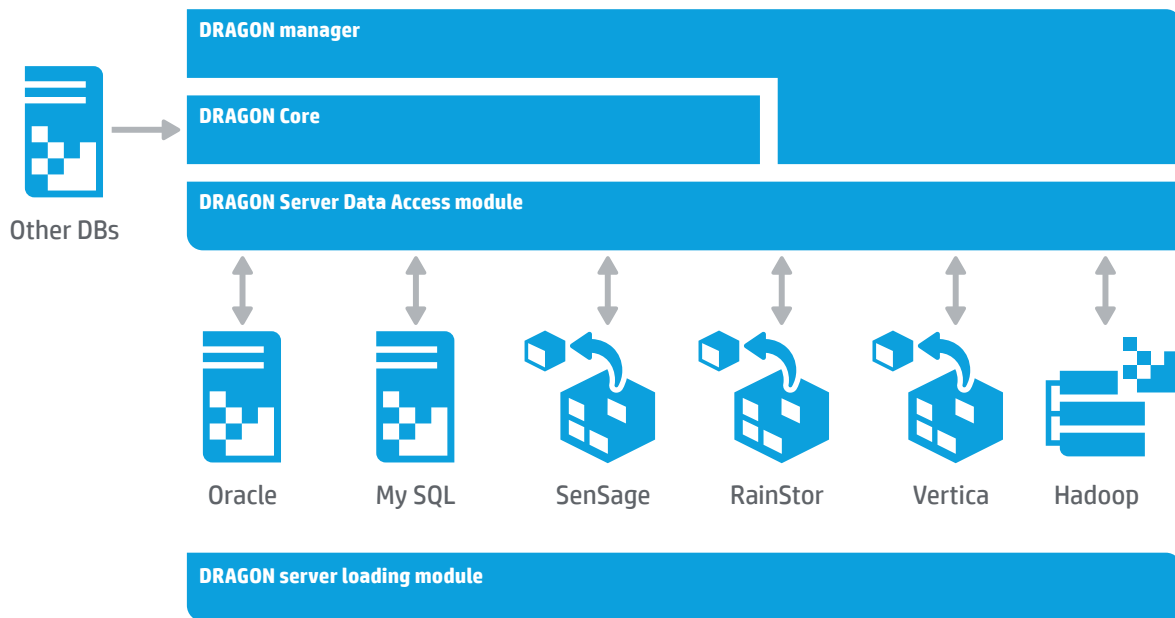
- 15+ years of DRAGON experience
- Huge compression factor
- System integration capabilities

Every day, companies must store and manage a large amount of information, used for purposes ranging from marketing to billing to capacity planning and legal and compliance. Data is becoming one of the biggest corporate topics; managing it is no longer an IT problem but a consideration of corporate strategy. Moreover, different data types need different archival, retrieval, and security capabilities. A mixed-data environment means a mix of capabilities.

Large Event Archive solution features:

- A solution technology based on the proven HP DRAGON Data Retention architecture and experiences to deliver a data repository solution for all data types
- Scalability and flexibility offer easy access to critical operations data
- Enhanced data compression reduces storage size
- Capability to collect logs

Figure 2. HP DRAGON extended deployment architecture



Deep Packet Inspection

DPI benefits

- Advantages of network-based monitoring vs. log-based monitoring
- Real-time data capture
- Data filtering

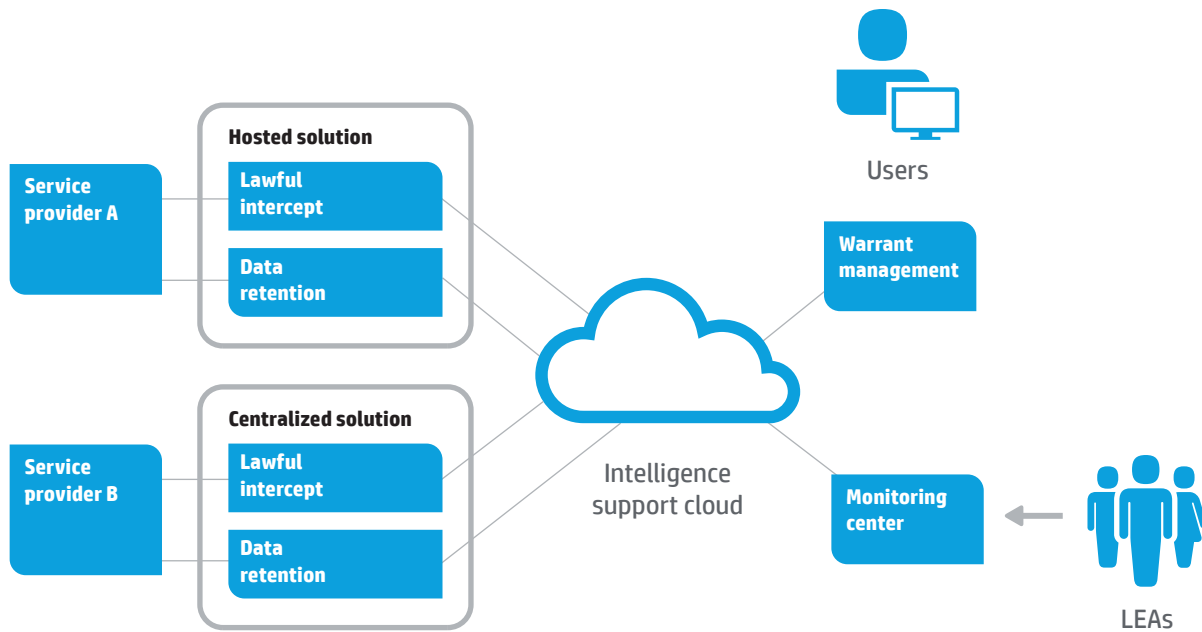
HP adds value

- End-to-end solution for data collection
- DPI integration into Data Retention, Lawful Interception, or Warrant Management solutions

Deep Packet Inspection (DPI) has become a relevant tool in telecommunications and the ISS sector for data collection during the last decade. It enables real-time data collection and offers the capability to filter out unnecessary data. HP DRAGON solutions are improved by the DPI data collection mechanisms as the DPI solution can be integrated with Data Retention, Lawful Intercept, Warrant/Request management solution, or it can be deployed in the ISS as a cloud solution. The DPI solution features:

- Accurate user identification across multiple applications, physical locations, terminals, and identities
- Extraction of relevant data to enhance storage space and speed up post-processing
- Implementation of real-time, network-based monitoring using probes

Figure 3. ISS as a Service/Cloud



ISS as a Service/Cloud

ISS as a Service/Cloud benefits

- More flexible, easy-to-deploy ISS solution
- Minor investment for ISS
- Compliance with local regulation

HP adds value

- End-to-end ISS solution for Data Retention, Lawful Interception, Warrant Management, and several enhancements
- 15+ years of experience

ISS as a Service/Cloud provides all the features of Data Retention, Warrant/Request management, and Lawful Interception solutions in a hosted or centralized virtual environment. It provides easy implementation—one of the advantages of cloud solutions; and it requires less upfront investment, resulting in a good choice for small- and medium-sized communications service providers (CSPs). The solution complies with regulations, and further changes can be easily adopted.

ISS as a Service/Cloud solution features:

- A solution customized by the communications service provider or government requirement.
- Flexible approaches: “Broker” or central solution can be implemented.
- A hosted intelligence support solution for small- and medium-sized operators.
- An integrated ISS solution to improve information flow and reduce complexity.

Review the platform—DRAGON

Central to the HP solutions is HP Data Retention And Guardian Online. Providing intelligence support systems for leading service providers around the world, HP DRAGON delivers the multidimensional scalability of performance, capacity, and functionality required to fulfill requests for communications data. It provides key functions to Warrant/Request management, Lawful Interception, Data Retention, and integration.

The flexible HP DRAGON supports many business models, including mobile virtual network operator (MVNO); hosted, multiple operating units; and multiple geographies. The latest DRAGON version—DRAGON 6.2—addresses the challenges of integration and security with proven technologies and methodologies.

New features in DRAGON 6.2

- Solution for repositories, Large Event Archive
- Solution for ISS as a Service/Cloud

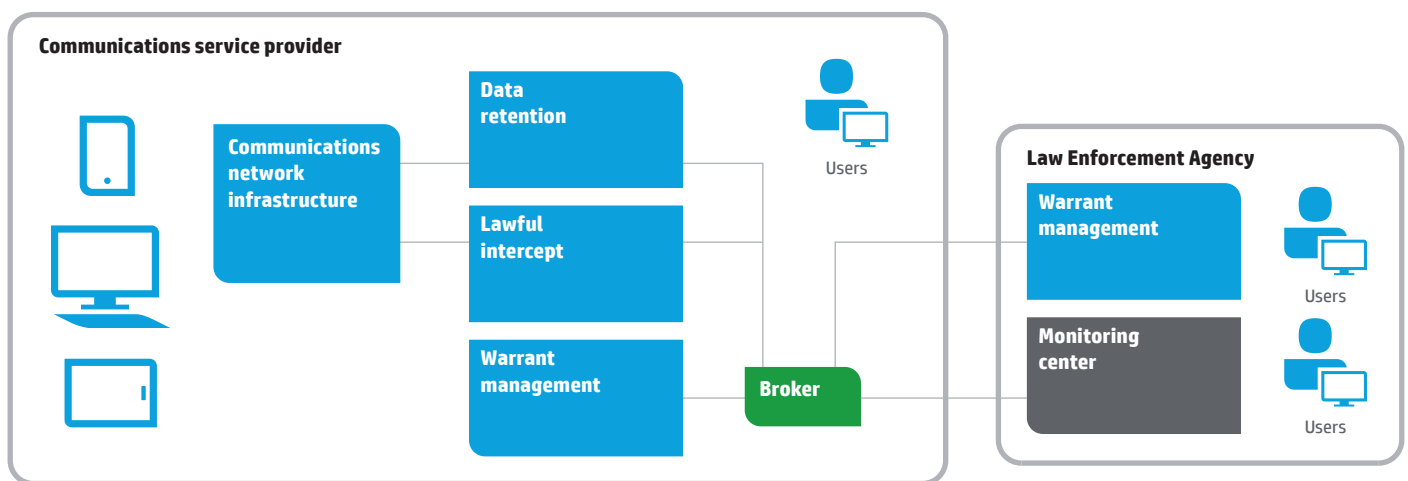
Integration

- Supports all common integration standards and technologies, including ETSI, CALEA, 3GPP, web services, and XML
- Reduces operating costs through a common integration approach for external and internal systems

Security

- Provides comprehensive data security features, including encryption and certificates that protect privacy and integrity
- Includes robust user security mechanisms, such as user access controls, auditing and reporting, and optional integration with external authentication systems
- Provides secure messaging channels

Figure 4. HP Investigation overall architecture



Work with a leader

HP helps the world's CSPs transform the way they do business—to grow in a fast-changing market. CSPs must meet a huge demand for new services and streamline internal operations. HP is well known for its ability to help drive that transformation with 30+ years of telecom experience, global IT leadership, expertise in entertainment, and leadership in consumer devices.

We offer a truly end-to-end portfolio of technologies for the core network to handheld devices, including a suite of convergent IT and telecom solutions, such as software—OSS/BSS, SDP, SDM, and cloud; professional services, including business consulting, integration, and managed services/outsourcing; joint go-to-market programs; carrier-grade servers; storage; printers; and tablets and smartphones.

HP Services

HP Solution Lifecycle Services for the communications and media industry help you realize the full value of your solutions, from planning and assessment through to testing, deployment, operation, and nearly continuous improvement. Each service area leverages proven processes and best practices to balance capital expenditures (CAPEX) and OPEX and reduce risk, while keeping your projects on time and your operations running smoothly.

HP Solution Consulting Services help define business transformation and translate strategies into actionable solutions.

HP Solution Implementation Services offer a low-risk project lifecycle across design, development, customization, and network and system integration.

HP Solutions Management Services increase the operational efficiency of your existing solutions, including reactive, proactive, operational, and enhancement services.

HP sourcing options are designed to improve business agility while reducing your OPEX; options include IT and infrastructure outsourcing, application management, and business process outsourcing.

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