

# Sun Secure Data Retrieval Server for Communication Service Providers



Compliant for today,  
protection for the future



## Highlights:

Sun Secure Data Retrieval Server combines “best of breed” appropriate technology to provide Communication Service Providers with a cost-effective, energy efficient and scalable solution to meet the challenge of the EU Data Retention Directive without driving up operating costs or adding unnecessary business impact.

Key features include:

- “Plug and Comply” appliance solution with full compliance request & disclosure workflow
- Coppereye's Greenwich Indexing technology, optimised software for scale and performance
- Built upon the world's first data server with integrated AMD Opteron processors, massive data storage and throughput providing unrivaled energy efficiency
- Sun's Solaris 10 Operating System, the most secure OS on the planet, providing security features previously only found in Sun's military-grade Trusted Solaris
- Sun Secure Global Desktop Software providing secured access to the appliance from a wide range of popular client devices regardless of location
- TruSeal technology adds evidential weight by proving the authenticity of disclosure contents, identity of the originators and independently verifiable data & time.



> With the imminent introduction of the new EU Data Retention directive all communications service providers will be faced with either a new business process challenge, a massively increased technology challenge or both. In creating the Secure Data Retrieval Server (SDRS) Sun has created a “plug & comply” solution built using best of breed technology adhering to open standards. The solution is delivered as an appliance, where performance does not equate to vendor lock-in, and which addresses the whole range of business and technology challenges. The solution exhibits unbeatable performance and requires the smallest physical and energy footprint in the industry.

Sun is the first major vendor to offer a new approach to meeting the data retention need that is affordable, quickly implemented, energy efficient and a perfect match to the requirements compared with other, far more costly and complex solutions.

To date, meeting the requirements of the EU Directive caused a costly distraction from core business and IT projects and activities. With Sun there is no need to compromise budgets, solution performance or other business objectives in order to comply.

Most communications companies already retain much of the data required to satisfy the mandate (Source CDR files, SMTP / POP3, Authentications log files etc). Sun's newest generation of AMD based systems deliver

massive storage capability whilst completely resetting the bar for price performance. The challenge is therefore not that of retention but in fact that of retrieval. For the directive to be appropriately implemented, retrieval should be specific, to the security initiative in hand, that is as needed to satisfy the request for communications information by an investigating body and not as needed to perform broad analytics of all communications. In short, this means the ability to perform an almost surgical approach to data retrieval, where the surgeons are security cognisant and thoroughly audited. Queries against massive volumes of data should rapidly deliver only the appropriate data to fully satisfy the request, confidently balancing civil liberties and data privacy concerns with the absolute need to protect public and national security interests.

## Maintaining the current systems status quo is not good enough

In order to meet the challenges facing Communications Service Providers (CSPs), Sun has identified that current data management approaches are not enough to meet the compliance and security requirements of today's heightened compliance regulations. By integrating high levels of security and evidential integrity with efficiencies possible through new indexing and server technologies, the challenge of meeting compliance without significantly impacting operating costs can be solved both economically and ecologically.

### Coppereye Greenwich

Any data retrieved must be of evidential quality (sufficient to support efficient investigation processes and potentially future legal prosecution) which means that ideally it will not have been through a range of processes which could have affected its accuracy or timeliness. As such the most appropriate place to capture the data is at its initial source i.e. the files generated by network equipment/servers. (In most large networks due to the evolution of the network over time, these source files will vary in type and structure but will generally contain the necessary elements of data to meet with the mandate's requirements.) Taking this approach also massively reduces the potential of impact to existing revenue generative systems.

CopperEye's data management technology is perfectly matched to these requirements in that it neither moves, modifies or further loads any of the data (data remains in its original format, in read only files on cost-effective storage). As new communication data is generated (at volumes up to billions of transactions per day) this revolutionary approach ensures that maintaining pace with even the largest communications network is no longer a technology constraint. Gaining query results in seconds versus minutes or even hours is a proven reality.

In addition to addressing all of the technology and data integrity/security challenges (further enhancing our "bullet proof", "military grade" security reputation) we have also delivered a solution to the business process challenges presented by the increased scope of the EU Communications Data Retention initiative. SDRS includes a configurable workflow management system which supports national legislative frameworks managing the request and disclosure of communications data. The system also includes all necessary usage reporting to support National and European government statistical requirements.

The screenshot displays the COPPEREYE DRS web interface. At the top, there is a navigation bar with 'New Request', 'Pending Requests', and 'Reports' buttons. Below this is a progress indicator showing stages: Capture, Authenticate, Create, Fulfill, and Complete. The main form area includes the following fields and options:

- Requesting SPOC:** Archie Fountain (For Authority: SCOTLAND YARD) | **Request Method:** Email
- Notice Date:** 2007-03-07 09:16:36 | **Received Date:** 2007-03-07 09:16:36
- Request:** Telco Data
- Urgency:** Grade 1 | 1-- hours
- Reason:** National Security
- Authorised By:** John Barnes
- Office:** Chief Constable
- Available Reports:**
  - GPRS Phone Data
  - Voice Calls Inbound
  - Voice Calls Outbound
  - Text Msgs Inbound
  - Text Msgs Outbound
- Fulfillment Method:** email | **Fulfillment Value:** Archie.Fountain@scotland.gov.uk
- Team Ref:** 234156 | **URN:** 11/234 | **Request Ref:** exA | **SPOC Ref:** 287690
- Notes:** (empty text area)
- Disclosure Details:**
  - [View Full Details](#)
  - Authority: SCOTLAND YARD
  - Reason: Created -
  - Urgency: (0 hours)
  - Received -
  - Authenticated -
  - Completed -
  - Team Ref: Archie Fountain
  - URN: Authorised By:
  - Req Ref: Authorising Office:
  - SPOC Ref: Fulfill to:

At the bottom of the form, there are 'Back' and 'Next' buttons, and a 'CopperEye Greenwich' logo.

### Sun Fire X4500 Server

By integrating state-of-the-art server and storage technologies, the Sun Fire X4500 Server delivers the remarkable performance of a four-way x64 server, the highest storage density available with up to 24 TB in 4RU (seven inches) of rack space, with incredibly high data throughput at very low cost. This approach allows customers to host their applications and data on a single integrated platform with breakthrough pricing at £2/GB and importantly with extremely low energy requirements.

For applications that are driven by storage density, high bandwidth requirements, and lowest cost, the Sun Fire X4500 Server delivers the highest storage density available (approximately 2 to 5 times the density of alternatives), incredibly high throughput rates (approximately 1GB/s from disk to network, approximately 2GB/s from disk to memory), jaw dropping prices (almost ½ cost of traditional solutions), and runs virtually any x86 application.

Designed from the ground up to facilitate system management, the Sun Fire X4500 Server's architecture provides Sun's Integrated Lights Out Manager (ILOM) and state-of-the-art remote automation that

integrates at the data centre level. With zero touch capabilities managed through a variety of interface options, the Sun Fire X4500 Server's architecture simplifies installation, deployment, and maintenance. The Sun Fire X4500 Server also features Solaris ZFS, a ground-breaking 128-bit file system. Solaris ZFS delivers advanced file system capabilities by automating administrative tasks, protecting data from corruption, and providing virtually unlimited scalability.

### Sun Secure Global Desktop

Sun Secure Global Desktop Software provides secure access to server-based applications running on Microsoft Windows, Solaris Operating System, Linux and other UNIX, Mainframe and Midrange systems from a wide variety of popular desktop PCs and mobile devices. Utilising a unique three-tier architecture, the software delivers modern desktop applications side by side with legacy applications without costly modifications to existing software. This allows for consolidation of critical applications and data onto highly reliable, centrally maintained servers and off individual desktop and laptop computers, improving manageability while increasing flexibility.

By utilising the Sun Secure Global Desktop Software within the Secure Data Retrieval Server, users access applications remotely from their client device. Users need only a Java technology-enabled Web browser.

#### This approach:

- Allows application access from the corporate internet safely and securely.
- Ensures users can access only the RIPA / Disclosure application if approved.
- Centralises management of users, applications and data.
- Enables auditing of application usage.
- Eliminates the need to install software packages on each client device.
- Dramatically reduces the time to deliver the application.

#### TruData Integrity TruSeal

TruData Integrity TruSeal adds to the SDRS solution by providing the ability to prove the authenticity of any data once it has left the control of the CSP - instantly proving whether the data in question is tamper free.

TruSeal provides data-centric, not system centric proof of the information integrity of any digital file from any online location. This means that even if the original file and system are destroyed, any other legitimate electronic copy will still hold the crucial evidential weight for legal purposes. The file may be authenticated and validated from any online location.

TruSeal demonstrates undeniable evidence of "Who" was the author, "What" was the original content and "When" was the TruSeal applied to the highest legal and compliance standards required. TruSeal technology is BSI and ISO compliant. Furthermore, TruSeal uniquely offers MultiSealing - any number of TruSeals may be attached to the same document/file so that anyone viewing a multi TruSeal file will be able to audit and authenticate the original data immediately, together with proof of all other relevant parties and stages involved in the process.

TruSeal is portable and inexpensive - anyone online may validate TruSeal anywhere - and validation is free. Crucially, there is no confidentiality or leakage threat - TruSeal never takes the original data away from the CSP's environment - only the fingerprint and ID reference leave their system, yet it

protects the information integrity of any type of data. TruSeals are applied to the raw data itself - the original data - not a new file with a different fixed format. Through the creation of "Evidence Bags", multiple transactions may be stored with a single TruSeal. This is particularly pertinent to the log-file type format of data that must be retained by Communication Service Providers.



#### About Sun Microsystems, Inc.

Since its inception in 1982, customers have continually turned to Sun to help them grow their business, lower their costs, and gain competitive advantage. Sun is a leading provider of industrial-strength hardware, software, services and technologies that make the Net work.

Sun's systems approach to innovative products, technologies and methodologies allows organisations to manage data and ensures data is identity-enabled, data access is more affordable and data utilisation and retrieval are increased. Sun takes a whole-system approach to security and compliance. Sun Systemic Security integrates layered protections directly into essential IT infrastructure. Sun and its partners also provide services to help organisations manage risk, comply with regulations and achieve business growth.



#### About CopperEye

CopperEye was founded in June 2000 and is a provider of enterprise data management software that delivers an order-of-magnitude cost saving for companies needing to capture, store and quickly access business event data. With CopperEye companies are able to improve global business and implement more powerful business applications faster and at dramatically lower costs than competing solutions. CopperEye's underlying technology is a new, patented indexing approach that delivers a quantum leap in performance over traditional indexing alternatives. CopperEye has offices in Bath, U.K.; Stamford, Connecticut and San Francisco, California, U.S.A.



#### About TruData Integrity

TruData Integrity was borne out of the requirements surrounding the RIPA Act. As this is the most stringent and robust of all compliance acts both in Europe and North America, it was apparent that the same model could be applied to other compliance areas. To date TruData has over 40 customers in local government and police sectors. TruData Integrity is a daughter company of Singlepoint Holdings Ltd., based in Barnsley, South Yorkshire with satellite offices in London & Malvern. TruData deliver managed services and solutions to a range of industries including organisations such as Ikon and Savvis. TruSeal, will be used to protect over 20 million transactions this year. It is aimed at the Telecommunications, Financial and Pharmaceutical sectors, Legal Services and Local Government, Pharmaceutical sectors, Legal Services and Local Government.

#### Learn More

For more information on the Sun Secure Data Retrieval Server for Communication Service Providers, please contact

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