



RainStor for Communications Data Retention

Challenges of communication data growth and retention

Many communications service providers (CSPs) must store hundreds of millions of CDR, IPDR, and events per day to comply with existing regulations and directives. The cost of preserving TBs of communication data over retention periods that span years, while keeping those records secure and instantly available to law enforcement agencies, is painfully high. However, data management and storage costs will rise as CSPs add new services, and data retention requirements increase as a result of legislation such as the EU Data Retention Directive and the US Patriot Act.

Many of the ISVs who provide lawful interception and data retention solutions to CSPs leverage traditional database or data warehouse technologies. However, these underlying data management platforms have not been specifically designed for the long-term retention of massive volumes of historical data. These traditional data repositories are unnecessarily complex and an expensive component of the overall data retention solution, often requiring specialized hardware and skills. Moreover, they do not adequately address the fundamental data compression, security, and scalability needs of CSPs tasked with preserving TBs of communication data.

The retention of communication data for regulatory purposes is a sunk cost for CSPs, therefore, it's imperative that data retention solutions are optimized to reduce the cost and complexity of preserving this data. In the current economic climate, there is an opportunity for ISVs to evaluate innovative new data repositories that provide a competitive advantage and lower the total cost of ownership (TCO) of their solutions for their customers.

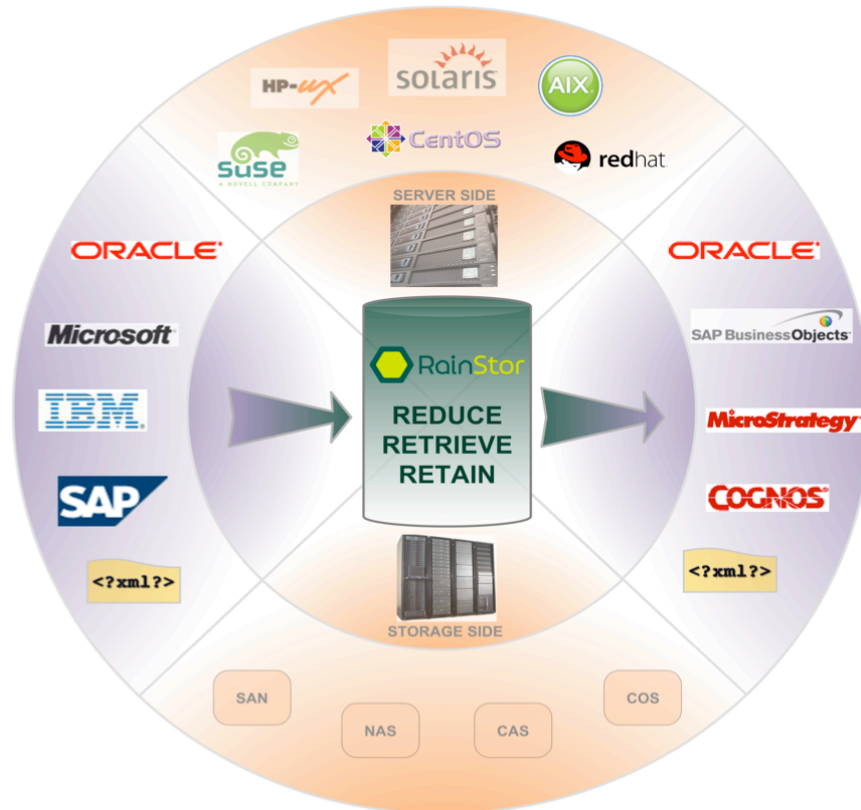
Preserving communication data with RainStor

RainStor is the optimal data repository for CDR, IPDR, logs, and security events. The RainStor software delivers extreme data compression (typically 40x) while maintaining powerful SQL query capabilities. The data stored within RainStor is easily accessible using standard reporting interfaces via ODBC/JDBC, when required by law enforcement agencies.

RainStor is an "autonomic" data store requiring no schema or index creation, ensuring rapid deployment and minimal housekeeping. The RainStor software simply imports data from any source before automatically compressing, storing and securing the data using an immutable data model. The data can then be written to any storage platform, including immutable media, where it can be queried on demand without re-inflating the data. The software also runs on commodity hardware, scaling cost-effectively using RainStor's MPP (Massive Parallel Processing) architecture. This enables RainStor to import tens of thousands of records per second at peak times and deliver excellent query performance across TBs of data.



Diagram: RainStor can take structured data from any source, store it efficiently on any platform, and provide on-demand access using full SQL through any industry-standard reporting or BI tool.



RainStor supports a granular security model and audit trails, ensuring access is controlled and logged. Built-in data retention policies also ensure data is expired and shredded at the appropriate time, while supporting legal hold. In summary, RainStor provides a robust and cost-effective data repository for ETSI or CALEA compliant data retention solutions.

The value of embedding RainStor within data retention solutions

RainStor provides CSPs with storage savings that complement operational efficiencies without compromising the ability to access data quickly for national security purposes. ISVs that embed RainStor as the primary data repository or archive within their data retention solutions are able to extend their capabilities and deliver additional value to their CSP customers. RainStor is easily integrated with ISV solutions within weeks using the RainStor Software Development Kit. RainStor already has proven success with ISVs who have embedded RainStor in their data retention solutions with the following benefits:

- **Increased customer satisfaction** – Significantly reduced the total cost of ownership for customers, while improving performance and scalability.
- **Incremental revenue streams** – Generated additional profitable revenue through margin on sales and maintenance of embedded software.
- **Competitive differentiation** – Delivered enhanced data retention capabilities at a significantly lower cost than using traditional databases and data warehouses.