

Solution Brief

Data Lifecycle Management and Footprint Reduction



Global data storage is on track to reach a staggering 230 zettabytes by 2025, according to IDC. This exponential growth presents a significant environmental challenge. Traditional data management practices often lead to data sprawl, making it difficult to control and manage data effectively. This uncontrolled sprawl increases storage needs, consumes vast amounts of energy, and hinders sustainability efforts.

Three key challenges necessitate a data-driven approach to data lifecycle management and footprint reduction:

- **The Sustainability Squeeze:** The ever-growing volume of data creates a strain on storage resources and energy consumption. Organizations struggle to balance their data needs with their environmental footprint, needing to find ways to optimize storage and minimize their data's impact.
- **The Data Discovery Dilemma:** Extracting value from vast amounts of data requires effectively identifying, classifying, and managing it. This complex task can be a bottleneck for organizations, hindering their ability to leverage all the insights their data holds.
- **The Compliance Conundrum:** Data privacy regulations like GDPR and CCPA add another layer of complexity to data management. Organizations must not only ensure responsible data governance but also navigate retention periods and secure data deletion procedures to stay compliant.

The number of data centers has grown from 500,000 in 2012 to over 8 million currently, with energy consumption doubling every four years (IDC).

In an age of exploding data volumes, can organizations truly achieve sustainability goals by throwing more storage hardware at the problem? Isn't a more holistic approach necessary - one that combines data lifecycle management with automated footprint reduction to optimize storage and minimize environmental impact?

This is where Zubin steps in.

Zubin is Data Dynamics' AI-powered self-service data management software, bringing a fresh approach to privacy, security, compliance, governance and optimization in the world of AI-led workloads. It empowers enterprises by enabling users across all levels - from C-suite to data owners - to discover, define, act, transform, and audit data through a user-friendly interface. Zubin brings correlation, consistency and standardization across your organization by delivering granular insights, deriving recommended workflows, and automating actions using personalized policies and RBAC-driven processes. This transformation fosters a culture of data ownership, where everyone becomes a data champion, and the organization fulfills its responsibility as a data custodian.

Zubin tackles the challenges of data lifecycle management and footprint reduction in a data-driven way. It automates data lifecycle management tasks, reduces storage footprint with techniques like deduplication and compression, and facilitates secure data deletion. Zubin also streamlines data migration and archiving, optimizes data placement across tiers, and enhances data visibility and governance. By employing Zubin, organizations can achieve sustainability goals and improve data management practices.

Automated Data Lifecycle Management

- **Policy-Driven Workflows**

Zubin automates DLM tasks based on predefined policies. These policies govern data discovery, classification (identifying sensitive data and data types), retention (defining storage duration based on business needs and regulatory requirements), and deletion (ROT).

- **Metadata and Content Analytics with Classification**

Zubin utilizes a combination of metadata analysis and content analytics powered by AI/ML. This enables automated data discovery and classification, ensuring all data within the organization is identified and categorized according to its sensitivity and purpose.

- **Retention Management and Compliance**

Based on retention policies, Zubin automatically schedules data deletion or archiving. This ensures compliance with data privacy regulations and eliminates the risk of storing outdated or unnecessary data.

Footprint Reduction with Compression, Deduplication and Deletion

- **Data Deduplication**

Zubin employs intelligent data deduplication techniques to identify and eliminate redundant data copies across storage systems. This significantly reduces storage consumption and optimizes data center resource allocation.

- **Data Compression**

Zubin leverages advanced data compression algorithms to minimize the physical size of data files while maintaining data integrity. This further reduces storage requirements and minimizes the environmental impact of data storage.

- **Secure Data Deletion Workflows**

Zubin leverages advanced metadata analysis to automatically identify Redundant, Obsolete, and Trivial (ROT) data. Data owners and custodians can action secure data deletion workflows based on predefined corporate policies as per user.

Streamlined Data Migration and Archiving

- **Policy-Driven Data Movement**

Zubin automates data migration and archiving processes based on predefined policies. This includes tasks like data transfer between storage tiers (e.g., primary to secondary storage), cloud migration, and data format conversion (e.g., file to object).

- **Secure and Scalable Archiving**

Zubin facilitates secure data archiving with support for various storage formats (object, file). Archived data remains readily retrievable through software or RESTful APIs, ensuring long-term data accessibility for compliance or historical analysis.



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- **Data Tiering and Placement**
Zubin analyzes data usage patterns and access requirements to optimize data placement across storage tiers. Frequently accessed data can be stored on high-performance storage, while less frequently used data can be migrated to lower-cost, secondary storage tiers.

Enhanced Data Visibility and Governance

- **Data Usage & Traceability**
Zubin maintains a centralized data index that tracks all data usage activities, creating an audit trail of the movement and transformation of data throughout its lifecycle. This facilitates impact analysis and helps identify potential data quality issues.
- **Actionable Analytics and Reporting**
Zubin provides comprehensive reports and dashboards that offer insights into data usage trends, storage consumption, and potential risks. These insights empower data owners and IT teams to make informed decisions about data management strategies.
- **Self-Service Data Management**
Zubin provides a user-friendly interface for data owners to monitor data usage within their area of responsibility. This empowers data owners to identify potential data quality issues and take corrective actions within corporate guardrails.

What's in it for you?

Reduce Storage Footprint with Automated Deduplication

Studies reveal organizations achieve an average data reduction of 52% through deduplication. Zubin's intelligent deduplication eliminates redundant data copies across storage systems, minimizing storage needs and environmental impact.

Optimize Storage Costs with Intelligent Compression

Research suggests data compression can deliver storage capacity savings of 30-70%. Zubin employs advanced compression algorithms to shrink data size while preserving integrity. This further reduces storage requirements, lowers costs, and promotes a sustainable data footprint.

Streamline Data Lifecycle for Compliance and Efficiency

Organizations with automated data lifecycle management see a 15% reduction in storage costs. Zubin automates data lifecycle tasks based on predefined policies, ensuring compliance and eliminating unnecessary data storage, minimizing resource consumption and energy costs.

Simplify Data Archiving for Long-Term Accessibility

Efficient data archiving practices improve data retrieval efficiency for historical analysis by 20%. Zubin facilitates secure and scalable data archiving with various storage formats for long-term retrievability. This optimizes storage utilization by moving less frequently accessed data to lower-cost tiers while ensuring accessibility for future needs.

Empower Data Owners with Self-Service Management

Studies show organizations with data ownership practices experience a 20% increase in user-championed data quality initiatives. Zubin provides data owners with a user-friendly interface to monitor data usage within their area of responsibility. This transparency empowers them to identify potential data quality issues, take corrective actions, and contribute to more efficient storage practices.

Your next chapter of success awaits; let's write it together with Zubin.

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