



Comprehensive Data Control: Securing the Lifecycle

Examining the policies and mechanisms governing the storage, use, and disposition of enterprise data to ensure compliance, reduce risks, and optimize costs throughout the data lifecycle.

Introduction to Data Control



DATA CONTROL POLICIES

Establish the rules and guidelines for managing the storage, usage, and disposition of data throughout its lifecycle.



DATA LIFECYCLE MANAGEMENT

Ensure comprehensive oversight of data from creation to end-of-life, aligning with regulations and information rights management (IRM) practices.



CONNECTION TO DATA CLASSIFICATION

Data control is directly linked to the data classification process, with retention, auditing, and disposal policies tailored to each classification level.



COMPLIANCE AND RISK MITIGATION

Effective data control helps organizations adhere to jurisdictional regulations and minimize the risks associated with sensitive or regulated data.

BY IMPLEMENTING ROBUST DATA CONTROL MEASURES, ORGANIZATIONS CAN ENSURE THE PROPER MANAGEMENT OF DATA THROUGHOUT ITS ENTIRE LIFECYCLE, ENHANCING COMPLIANCE, REDUCING RISKS, AND OPTIMIZING COSTS.

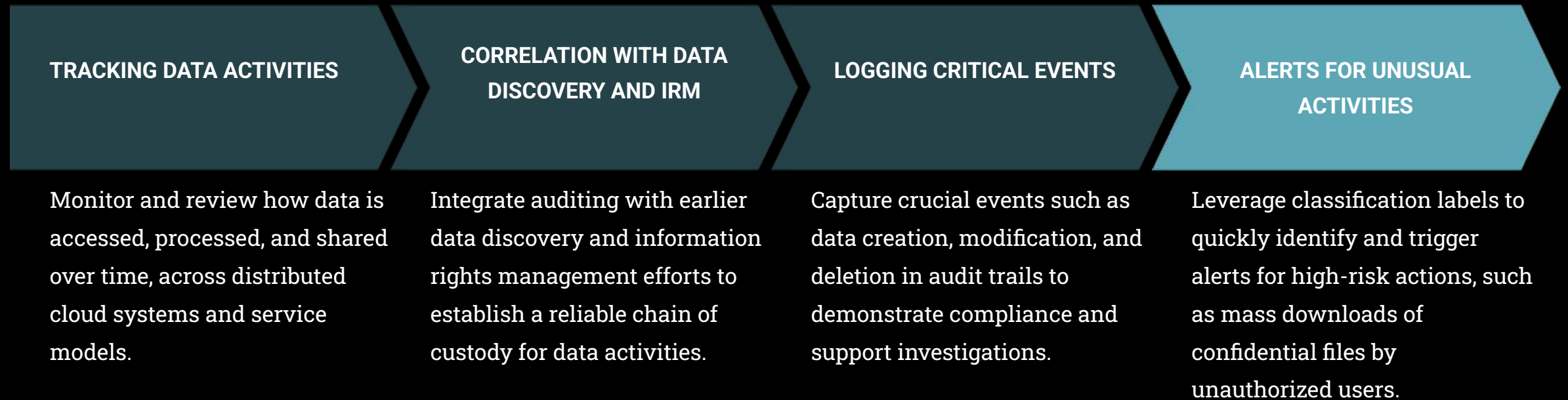


Data Retention and Destruction

Data Retention: Aligning with Regulations

Organizations must define data retention policies that specify how long data is preserved, often mandated by legal, regulatory, or business requirements. These policies are typically aligned with the classification labels assigned to data, balancing compliance obligations with cost considerations.

Data Auditing: Monitoring and Reviewing



Data Destruction and Disposal

ENSURING IRRECOVERABILITY

Data destruction ensures that information is irrecoverable once retention obligations have been satisfied, preventing accidental exposure and mitigating long-term storage costs.

CRYPTOGRAPHIC ERASURE

In cloud environments, destruction may involve cryptographic erasure, rendering data unreadable by destroying encryption keys.

SECURE OVERWRITE

Secure overwrite mechanisms can be used to permanently delete data, ensuring no traces remain on the storage media.

VARYING APPROACHES

Destruction approaches vary based on the classification of the data, with highly confidential material requiring stringent, documented processes such as multiple overwrites or hardware degaussing.

COORDINATING WITH POLICIES

Coordinating data disposal with existing retention and audit policies ensures a seamless process, with automated workflows logging the final action and revoking associated controls.

Case Study: Comprehensive Data Control

● UNIFIED RETENTION POLICIES

Mapped data classification labels (public, confidential, restricted) to specific retention schedules, e.g., 15 years for clinical trial data, shorter timelines for business communications.

● SECURE DESTRUCTION

Automatically triggered a cryptographic erasure procedure, including the destruction of encryption keys, when data reached its retention threshold, and documented the destruction process for compliance.

● AUTOMATED AUDITING

Employed a centralized logging and analytics solution to flag unusual activities, such as bulk downloads or repeated attempts to alter retention flags, and stored audit data in a secure, tamper-evident repository.

● STREAMLINED GOVERNANCE

Combined approach enabled the company to enhance regulatory compliance, reduce overall storage expenses, and improve eDiscovery processes.

Regulatory Guidelines and Standards

- **NIST SP 800-88: GUIDELINES FOR MEDIA SANITIZATION**

Provides guidance on methods for sanitizing (clearing, purging, or destroying) digital media to protect sensitive information from unauthorized disclosure.

- **ISO/IEC 27040: STORAGE SECURITY**

Establishes guidelines for the protection of information stored on storage systems, covering the entire storage life cycle from planning and design to disposal.

- **ISC2 OFFICIAL STUDY GUIDES (CISSP, CCSP)**

Offers best practices and industry-recognized standards for data lifecycle management, including data retention, auditing, and secure destruction.



Conclusion: Holistic Data Governance

By addressing data throughout its entire lifecycle, organizations can reinforce compliance, reduce risks, and optimize costs. Effective data control sets the stage for advanced security measures, such as encryption key management and secure data sharing.