End-to-End Data Governance for Complex Regulatory Needs

Navigate evolving regulations with an integrated platform that ensures data integrity, security, and streamlined governance.

Maintaining robust data governance and compliance with standards (HIPAA, PCI DSS, etc.) is critical in regulated industries such as finance, healthcare, and government. Pentaho+ provides an integrated suite of tools designed to address these challenges, offering stability, flexibility, and comprehensive governance features. With Pentaho+ 10.2, organizations can optimize data management, ensure regulatory compliance, and maintain data quality, all while leveraging seamless integrations with third-party systems and cloud platforms.

Key Challenges in Data Governance for Regulated Industries

Data Compliance and Regulatory Requirements
Industries handling sensitive data face strict compliance requirements, including data lineage, policy enforcement, access controls, and regular audits.

Data Quality and Trust
Reliable data quality is essential to meet compliance standards. Regulated organizations need tools that monitor data quality and automate policy applications across data assets.

Integration Across Systems
Data flows across various environments (cloud, on-premises, hybrid) and third-party applications, making seamless data integration critical for comprehensive governance.

Pentaho+ Solution Overview

Pentaho+ offers a unified platform with a set of specialized tools designed to meet data governance needs in regulated industries:

- **Pentaho Data Integration (PDI):** facilitates ETL/ELT processes, enabling organizations to efficiently move and transform data across systems.
- **Pentaho Data Catalog (PDC):** provides data lineage tracking, cataloging, automated policy creation, application and enforcement, and metadata management, allowing for transparent and consistent governance.
- **Pentaho Data Quality (PDQ)** ensures data integrity by automatically applying quality rules, with the results integrated back into PDC.
- **Pentaho Data Optimizer (PDO):** manages data storage and archiving to reduce costs while maintaining regulatory compliance for storage of sensitive data.

COMPLIANCE & GOVERNANCE *IN ACTION*

Financial Services Compliance with PCI DSS
A financial services provider leveraged Pentaho+ to achieve PCI DSS compliance. Using PDC's cataloging and lineage capabilities, they were able to document and trace all cardholder data within their environment, ensuring data integrity and audit readiness. PDQ's automated quality checks helped maintain data accuracy, and PDI's integration capabilities supported efficient data flows across internal systems and third-party applications

Data Integration and Transformation

PDI enables organizations to extract, transform, and load data from various sources, including cloud and on-premises systems. This capability is essential for maintaining centralized governance, as PDI automates data flows and reduces manual handling risks.

Compliance-Focused ETL/ELT Flexibility:

With ETL and ELT support, PDI can handle complex regulatory requirements, ensuring data transfers maintain integrity while meeting audit standards.

Data Quality Assurance

Data quality is crucial in regulated industries for compliance and service delivery. PDQ integrates directly with PDC, ensuring that data meets quality standards before it's cataloged. Organizations can define quality rules based on regulatory needs, automatically apply them, and track results back in PDC.

Automated Quality Assessments: PDQ applies predefined quality standards to data, addressing issues such as missing fields or outdated records before they reach end-users.

Data Trust Scores: Pentaho+ calculates trust scores based on quality metrics, lineage, and sensitivity, giving stakeholders a clear view of data reliability across systems.

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Healthcare Data Quality and HIPAA Compliance
A healthcare organization used Pentaho+ to catalog patient data, enforce data policies, and ensure HIPAA compliance. With PDQ, the organization assesses data quality in real-time, identifying missing or incorrect fields, and quickly addressing issues. PDC's lineage tracking and Galaxy View provided transparent audit trails, simplifying HIPAA compliance for sensitive patient data.

ABOUT PENTAHO

Trusted by over 70% of the Fortune 100, Pentaho's end-to-end data intelligence platform enables the foundational and AI-grade data fitness that drives faster and more confident decision-making.

Pentaho

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Government Data Governance and Cost Control
A government agency dealing with citizen data used Pentaho+ to manage data governance requirements. PDO's storage optimization capabilities enabled the agency to meet archival mandates without exceeding storage budgets. PDC cataloged all data, enforcing government-mandated policies, while PDI ensured seamless data integration across legacy systems and cloud platforms.

Data Cataloging and Lineage Tracking

PDC is the core governance layer, cataloging all data assets and maintaining lineage across transformations and system migrations. This lineage tracking ensures that regulated entities can trace data origins, transformations, and usage, providing transparency for audit purposes.

Galaxy View for Data Lineage: PDC's Galaxy View visually represents data relationships and lineage, allowing organizations to identify sensitive data quickly flows and comply with regulations such as GDPR and HIPAA.

Business Vocabulary and Policy Enforcement: PDC allows organizations to enforce compliance policies consistently, documenting where sensitive data resides, who has access, and how it's used.

Data Storage and Cost Management

For regulated industries that accumulate large datasets, PDO offers data storage optimization to control costs and meet archival requirements without compromising compliance. By intelligently managing storage and archiving, PDO ensures that only necessary data remains readily accessible, while infrequently used data is stored cost-effectively.

Automated Data Archival: PDO enables organizations to archive data based on predefined rules, maintaining compliance with retention policies while controlling storage expenses.

Seamless Cloud Integration: PDO works with both on-premises and cloud storage solutions, providing flexibility to scale as data volumes grow.

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Talk to Our Data Experts ⟶