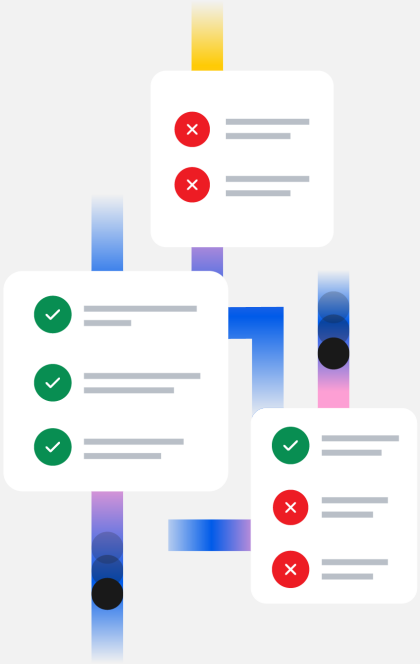
PANZURA

SOLUTION BRIEF

Policy-Driven Data Management with Panzura Symphony and GRAU DATA MetadataHub Integration

Optimize Storage, Enhance Security, and Automate Workflows for IT and Data Teams Across Diverse and Highly Regulated Industries



Policy-Driven Data Management is a strategic approach to governing and managing data assets in alignment with organizational policies, regulations, and business objectives. Automating data lifecycle management tasks based on predefined policies allows teams to improve data security, compliance, and efficiency. However, the increasing complexity of data environments, coupled with evolving regulatory landscapes and technological advancements, presents significant challenges for IT and data teams.

One of the most significant challenges is the complexity of unstructured data. Unlike structured data, which conforms to a predefined format, unstructured data – such as text documents, diagnostic and medical files, experimental and quantitative research, survey and descriptive data, images, and videos – lacks a clear structure. This makes it difficult to identify, classify, and apply appropriate policies. Extracting meaningful metadata from unstructured data is a time-consuming and complex task, often requiring advanced techniques like machine learning (ML).

The rapid growth of unstructured data also exacerbates storage costs and operational efficiency. Traditional storage approaches, designed for structured data, may not be suitable for managing unstructured data. Efficiently storing, managing, and protecting unstructured data at enterprise scale requires comprehensive, thoughtful data management strategies, including data tiering, archiving, and backup.

Security and compliance are paramount concerns in Policy-Driven Data Management. Protecting sensitive data from unauthorized access, breaches, and data loss is a top priority. Adhering to industry-specific regulations, such as GDPR, HIPAA, and CCPA, requires stringent data management practices and retention of sensitive personally identifiable information (PII) and financial data. Implementing granular access controls, data encryption, and regular security audits is essential to safeguard sensitive information.

Whether it's sensitive customer information in financial services, research data in life sciences and biotechnology, or classified intelligence in government agencies, the need for efficient, secure, and compliant data management is paramount.

However, the dynamic threat landscape and the emergence of new vulnerabilities make it increasingly difficult to maintain data security. Cyberattacks, ransomware, and data breaches pose untold risks. While cyberattacks pose a serious threat, data governance and metadata management are equally crucial for ensuring data quality, accessibility, and compliance.

Establishing clear data ownership, access rights, and retention policies is essential for maintaining data integrity. Metadata management plays a key role in providing context and enabling effective data search and discovery. However, managing metadata effectively can be challenging, especially for large and complex datasets. Extracting, storing, and maintaining metadata requires significant effort and resources. Additionally, metadata is essential for accurate data analysis and decision making.

The increasing adoption of artificial intelligence (AI) and ML in the enterprise introduces new challenges in Policy-Driven Data Management. AI and ML models rely on large amounts of data to train and improve their performance. Managing and securing this data, as well as ensuring the ethical use of AI, is crucial. The proliferation of edge devices generates vast amounts of data, and ensuring data security and privacy is essential, especially for devices that collect sensitive information.

To address these challenges, organizations must adopt a comprehensive approach to Policy-Driven Data Management. This includes advanced data classification and labeling, leveraging AI and ML for automation. Intelligent data tiering, implementing efficient data tiering strategies to optimize storage costs and performance is crucial. Security and compliance must encompass enforcement of strong security measures including encryption, access controls, and regular security audits.

Effective data governance and metadata management also relies on establishing clear data governance policies and managing metadata effectively. Data integration and extract, load, and transform (ELT) processing tools are essential for integrating data from various sources to create a unified view. Data analytics and business intelligence provide the means for teams to apply advanced analytics tools to extract insights from data.

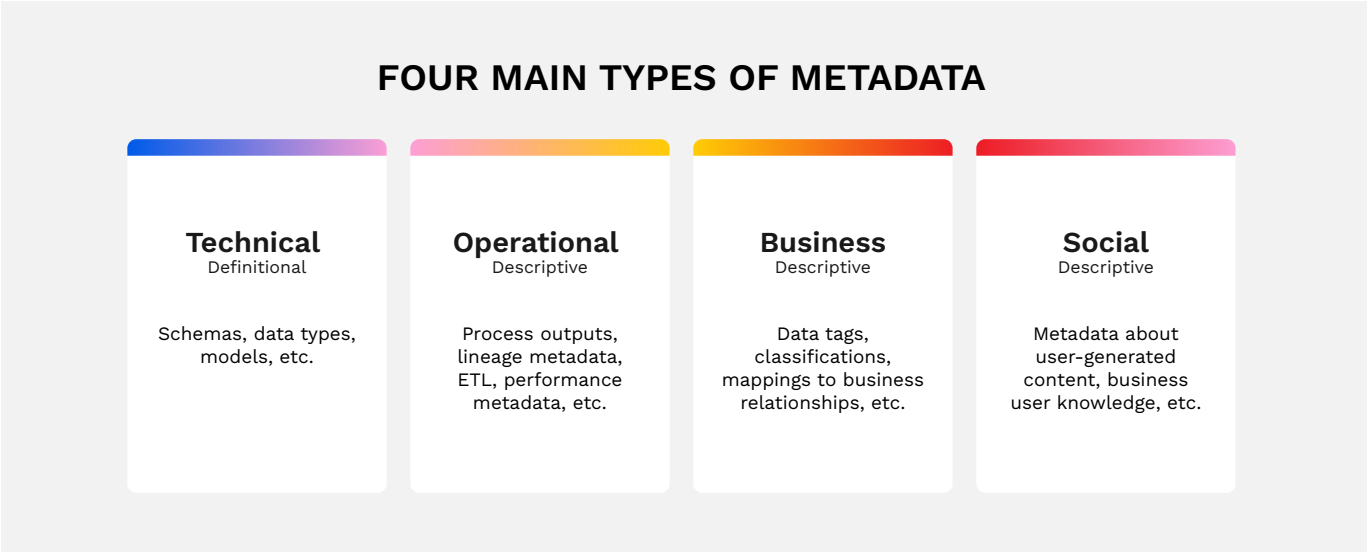
The ETL Process Explained

Extract
Retrieves and veriþes data from various sources

Transform
Processes and organizes extracted data so it is usable

Load
Moves transformed data to a data repository

Metadata is a lodestar. It offers both challenges and untapped potential for Policy-Driven Data Management. Metadata provides critical context about data, such as its origin, usage patterns, and relationships with other data. This information is essential for effective data classification, search, and retrieval. However, extracting accurate and comprehensive metadata from unstructured data requires advanced techniques and tools.



Despite these challenges, metadata holds significant potential for enhancing Policy-Driven Data Management. Leveraging metadata can automate data classification and policy enforcement, optimize storage and retrieval processes, and improve data security and compliance. Advanced metadata management solutions, such as AI-powered metadata extraction and enrichment, can help organizations unlock the full potential of their data assets. These solutions enable more efficient data management, better decision-making, and improved business outcomes.

Powerful Duo: Panzura Symphony and GRAU DATA's MetadataHub Integration

The Panzura Symphony integration with GRAU DATA's MetadataHub, offers a powerful solution for Policy-Driven Data Management. Leveraging the power of metadata and automation, organizations can optimize data storage, enforce security policies, and automate workflows. This integration addresses the challenges faced by IT and data teams in managing unstructured data, controlling storage costs, ensuring security and compliance, and maintaining access controls.

MetadataHub extracts valuable information from files, enabling the creation of granular policies based on content, sensitivity, and usage patterns. This metadata-driven policy enforcement allows organizations to classify and manage unstructured data more effectively, ensuring that data is stored, accessed, and protected according to predefined policies.

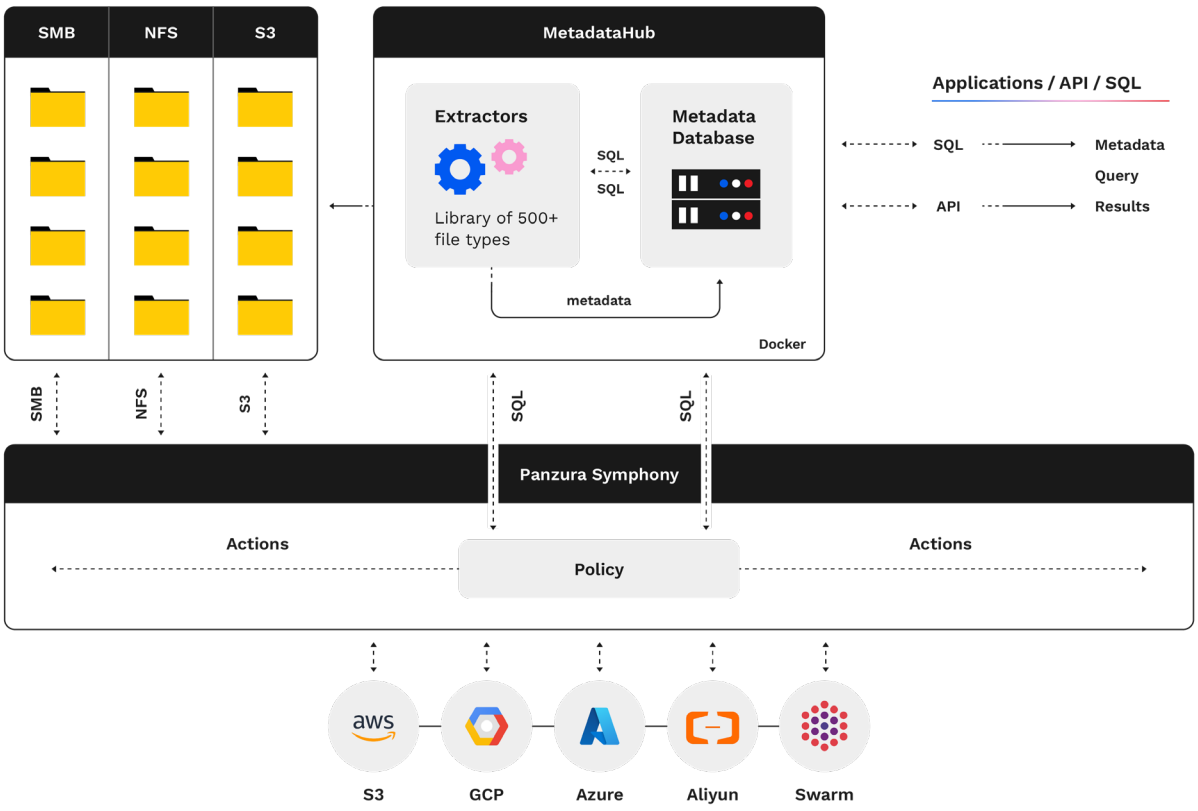
Automating the extraction and management of metadata, the integration reduces the manual effort required for data classification and policy enforcement, freeing up IT and data teams to focus on more strategic initiatives.

One of the key benefits of this integration is optimized data storage. Panzura Symphony automatically places data in the right place based on the policies created using metadata insights extracted by MetadataHub, ensuring optimal storage utilization and performance.

This intelligent data placement and tiering strategy helps organizations manage storage costs by moving less frequently accessed data to more cost-effective storage tiers, while keeping critical data readily available on high-performance storage. Optimizing storage costs and improving storage efficiency, the integrated solution simplifies and dramatically accelerates the management of unstructured data without incurring excessive costs.

This is a cornerstone in the life sciences and biotechnology industries, for example, where handling vast amounts of data from clinical trials, genomic sequencing, and laboratory experiments is crucial for research, development, and regulatory compliance. Effective data management involves securely storing, and ensuring easy accessibility of data, which is essential for analysis and informed decision making.

This integration also enhances data security by automating the enforcement of security policies. Sensitive data can be automatically encrypted and stored in secure locations, ensuring that it is protected from unauthorized access and breaches. Granular access controls can be implemented based on the metadata extracted by MetadataHub, allowing organizations to restrict data access based on user roles and specific content requirements. This content-aware access-control mechanism prevents unauthorized data transfers and improves network efficiency by ensuring that only authorized users access the data they need.



The integration of Panzura Symphony with GRAU DATA's MetadataHub also streamlines compliance with data retention and privacy regulations by automating the classification and retention of sensitive data. MetadataHub provides comprehensive metadata tracking, enabling organizations to maintain an auditable history of data, including its origin, modifications, and relationships with other data points. This metadata tracking ensures data provenance and integrity, supporting regulatory reporting and compliance efforts which can be achieved with Symphony's reporting capabilities.

Leveraging the metadata-aware capabilities of Panzura Symphony and GRAU DATA's MetadataHub, for instance, government agencies and contractors can automate compliance analysis, ensuring adherence to regulatory schemes and data protection standards. This is crucial in supporting national security as well as operational efficiency in the government sector.

The integration also improves data accessibility and accelerates data discovery. AI-powered metadata generation enables universal search capabilities across all data assets, regardless of their location or format. Automatically tagging and categorizing data, the integrated solution makes it easier for users to find the information they need, eliminating the time-consuming process of manual searching and indexing. This enhanced data discovery capability improves operational efficiency and supports better decision-making by providing users with quick access to relevant data.

In addition to improving data management processes, the integration of Symphony with MetadataHub supports advanced analytics and business intelligence initiatives. MetadataHub enriches data with AI-generated metadata, enhancing the quality and discoverability of data through the capabilities of Symphony, which in turn makes it more usable and reliable for AI and ML models and pipelines. This improved data quality leads to more accurate and insightful analytics, enabling AIOps, DevOps, and analytics teams to derive valuable insights from their data and drive innovation.

The seamless integration of Symphony and MetadataHub connects rich, AI-generated metadata with existing data storage systems, allowing organizations to leverage the power of AI-generated insights across their entire data ecosystem. Whether using analytics platforms, reporting tools, or AI and ML pipelines, the integration ensures that metadata can be easily integrated to support data-driven decisions and improved business outcomes.

This powerful duo, Symphony and MetadataHub, offers a solution for Policy-Driven Data Management by leveraging the power of metadata and automation. It allows teams to optimize data storage, enforce security policies, and automate workflows. It's a comprehensive approach that addresses the challenges faced by IT and data teams, enabling them to manage unstructured data more effectively, control storage costs, ensure security and compliance, and maintain access control. Organizations can thereby unlock the full potential of their data assets, improve operational efficiency, and drive innovation.

Benefits

Granular Policy Application
MetadataHub extracts valuable information from files, enabling the creation of granular policies based on content, sensitivity, and usage patterns.

Precise Data Movement
Panzura Symphony automatically places data when and where it needs to be based on granular rules, ensuring optimal storage utilization and performance.

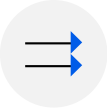
Universal Search Capabilities
AI-powered metadata generation allows for search across data locations, supporting major platforms, protocols and format.

Improved Compliance
Automated classification and retention of sensitive data, ensuring compliance with regulatory and contractual requirements.

Intelligent Data Lifecycle Management
Data is automatically migrated to appropriate storage tiers based on its age and usage patterns.

Meticulous Provenance
Ensure data provenance and integrity through metadata tracking whereas every piece of data is meticulously documented including its origin, modifications, and relationships.

Improved Data Quality
Significantly enhances and improves the quality and discoverability of data by enriching it with AI-generated metadata.



Seamless Integration
Integration of Symphony and MetadataHub leverages non-proprietary, open standards including SMB, NFS, S3, JDBC, JSON and ReST.

How it Works

Intelligence resides in metadata which may contain thousands of fields that capture critical content and context from data files. However, metadata is much lighter compared to the files themselves, making this approach extremely fast and efficient, as it allows for quick access and processing of information without the overhead of handling large files.

Seamlessly capturing critical content and context from files, the integration of Symphony with MetadataHub creates a rich metadata repository that serves as a “proxy” for the original file. Metadata is a fraction of the size of the file itself, so this proxy significantly reduces the need to transfer large files, optimizing network and storage resources.

The Panzura Symphony integration with GRAU DATA’s MetadataHub also delivers comprehensive data visibility and insights that accelerate informed decision-making across departments, teams, and roles like data stewards and those responsible for compliance and security policies. For example, it enables on-demand access to data across an entire organization so storage operations, business analysts, data governance officers, and even AIOps can leverage high-quality data for more accurate analysis or to feed automated processes and pipelines.

01 Deploy GRAU DATA’s MetadataHub alongside Panzura Symphony

02 Configure Symphony to query MetadataHub’s catalog

03 Enhance Symphony’s data placement workflows with MetadataHub’s insights

04 Customize search and analytics capabilities to leverage enhanced metadata

05 Configure integrations with downstream applications to leverage rich metadata via MetadataHub

Implementation and Support

Designed to seamlessly integrate with existing infrastructure, the solution ensures minimal disruption to data operations. Starting with a comprehensive assessment of the data landscape and specific requirements, our team can then develop a tailored implementation strategy that addresses every customer's unique needs and goals.

The phased deployment process allows for a smooth and controlled rollout. Our team works closely with customers throughout the entire process, providing guidance and support every step of the way. To empower users to effectively employ the solution, we provide comprehensive training and documentation. This ensures that customers can confidently manage and optimize the solution from day one.

Our commitment to every customer's success extends beyond the initial implementation. We offer ongoing support and optimization services to ensure the solution continues to meet evolving needs. As businesses continually grow and change, we'll be there to help our customers to adapt, maximize, and reap the full value of their investments.

The integration between GRAU DATA's MetadataHub and Panzura Symphony marks a significant advancement in how organizations manage and utilize their data. This powerful combination creates a dynamic synergy, infusing AI-driven intelligence into data stores while ensuring seamless global access. Enriching data with comprehensive metadata and providing a unified view across the entire data landscape, this integrated solution empowers organizations to make faster, more informed decisions.