DataOS®

Modern®

The Data Product Platform

DataOS empowers data teams to build, deploy, and manage Data Products efficiently and collaboratively. DataOS optimizes the developer experience by abstracting low-level complexities, enabling developers to focus on creating enterprise-grade Data Products.

The Data Product Quantum

Data Product = Data + Product Thinking

The Data Product, as a foundational element of DataOS. It is a container-like unit that combines data with metadata, code, and infrastructure, making it self-contained and independently usable. It is an independently deployable unit that wraps transformation logic, input and output definitions, discovery and observability APIs, service level objectives (SLOs), security and governance, and infrastructure dependencies. Data Products are reusable, composable, portable and cloud-agnostic.

Transformative Data Experience

DataOS provides composable architecture, intuitive tools, automated workflows, and standardized resources to eliminate the complexities of managing infrastructure across multi-cloud environments that significantly accelerates time to market.

Fully Governed, Trusted & High-quality Data Products

Implement data contracts to enable trust among data producers and consumers, maintain data privacy across the data product lifecycle with fine-grained data policies, and monitor health with real-time data profiling.

Business Autonomy and Agility

Accelerated delivery, rapid prototyping and easily discoverable and usable data products empower business teams with greater autonomy, agility and foster experimentation and innovation.
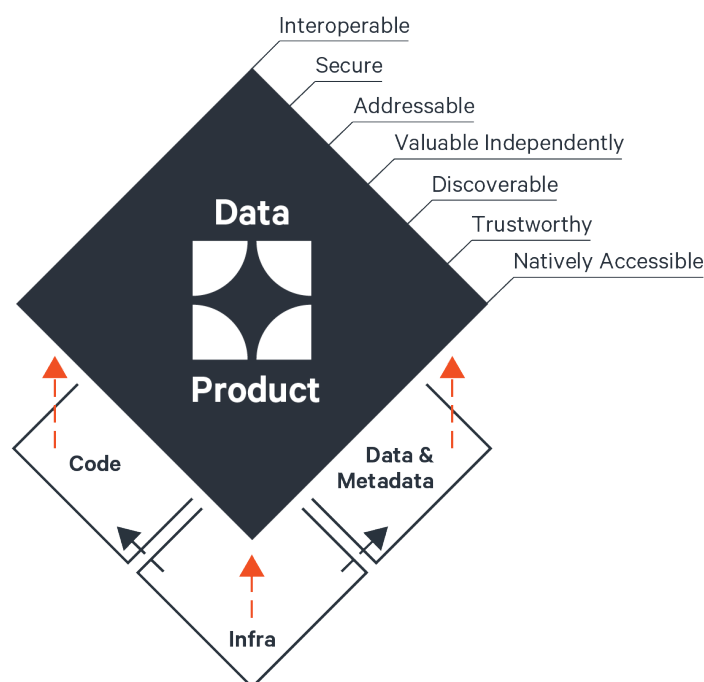
The DataOS Data Product Lifecycle

The most comprehensive end-to-end lifecycle management for Data Products.

1. DESIGN

Rapid prototyping to preview your outcomes before moving data to materialize views

Ability to find, understand and re-use existing data products to build a larger solution

2. BUILD

Platform resources and infrastructure provisioning needed to compose the Data Products

Federated governance available as a first-class feature

3. DEPLOY

Deploy on public, private, hybrid cloud or host it on-prem

Data Mesh or Data Fabric compatible

4. MANAGE & ITERATE

Output ports and open APIs enable users to augment and leverage these data products programmatically

Comprehensive data product observability including usage, performance and resource utilization

Think **Data Products.** Think **Modern.**

Business Teams

Autonomy with Innovation: Data products empower business teams to experiment, test hypotheses, and make real-time data-backed adjustments quickly. This autonomy fosters innovation and agility within the teams.

Built Once, Used Repeatedly: Increase efficiency by building data products that can be augmented for other use cases and chained together to drive more complex use cases.

Business Driven, Outcome Focused: Data products are built from the perspective of the business user. Desired outcomes are evaluated and configured directly into the data product to ensure full alignment with business objectives.

Agile: Enable rapid integration, analysis, and visualization of data to deliver value incrementally. Respond to changing conditions while minimizing IT reliance.

Common Language for Business and IT: A common platform and language for understanding data to promote collaboration within the enterprise.

Enhanced Data Trust and Integrity: Data products enhance data trust and integrity with robust mechanisms for data validation, quality control, and security. Data is accurate, reliable, and consistent across the entire data lifecycle..

Future-Proof: Data products future-proof your infrastructure by enabling scalability, adaptability, and seamless integration of new technologies and data sources.

Reduced Costs: Data products streamline data management processes by automating repetitive tasks, reducing a need for manual intervention - ensuring data quality and consistency.

Engineering Teams

Environment Consistency: Package up code and all its dependencies so data products run quickly and reliably from one cloud to another.

Isolation: Ensure separation between data products since they run as stand-alone units on a shared environment. They don't interfere with each other, increasing security and reducing the risk of conflicts.

Portability: DataOS runs in containers supported by the major cloud providers using their container services.

Scalability: Data products can be quickly spun up or down, based on demand, for easy horizontal scaling.

Efficient Resource Utilization: Data products are lightweight and require fewer system resources.

Version Control and Component Reusability: DataOS enables versioning and component reusability. This makes it easy to roll back to a previous version if needed and promotes reusability of components across different projects.

CI/CD Integration: Data products integrate with continuous integration and continuous deployment (CI/CD) pipelines, automating the testing and deployment of data products, and increasing the overall speed of development.

Compliance Management: Optimum control for regulatory compliance with features like automatic profiling, quality checks, lineage, impact analysis and versions.