Cirata Data Migrator
Automated data transfer across on-premises and cloud with no business disruption

Organizations are modernizing their on-premises data architectures that were implemented using technologies such as Hadoop or Spark to more innovative solutions in the cloud. Doing so, however, raises data transfer challenges due to the size of the datasets, the amount of data under active change, and the potential for disrupting existing business critical operations.

Product overview
Data Migrator is an automated, scalable, high-performance, and cloud-agnostic data integration solution that simplifies making your data available in and immediately usable across on-premises environments and with any cloud platform. Unlike cloud-specific ingest technologies, data virtualization and federation, ETL technologies, or custom developed solutions, Data Migrator works across all clouds, scales to any volume of data, does not impose downtime or business disruption, does not require changes to existing applications, and can automate the transformation of data to the most common analytic formats.

Key benefits
Flexibility
Data Migrator supports all leading cloud platforms as well as last mile metadata transformation to the most common analytic formats providing users the ability to utilize their target cloud and analytics technologies of choice.

Business continuity
Data Migrator continuously transfers data even as it is actively changing without imposing any production system downtime or business disruption, and simplifying the overall data transfer process.

Scalability
Data Migrator can accommodate data transfer at any scale. Organizations can begin with small terabyte transfers and scale up to multi-petabyte deployments using the same software product.

Cost & risk avoidance
Data Migrator is fully automated and does not require any custom code development nor changes to existing applications. This minimizes the need for IT resource involvement and reduces overall project costs and risks.
Data Migrator capabilities

- **Quick deployment and operation**: Data Migrator is installed on your chosen source host(s). Deployment can be performed in minutes without impacting current operations, so users can begin moving data immediately.

- **Complete and continuous data transfer**: Existing datasets can be moved with a single pass through the source storage, eliminating the overhead associated with multiple scans, while also supporting continuous replication of any ongoing changes from source to target with zero disruption to current production systems.

- **Support for data and metadata migration**: Data Migrator supports the transfer of unstructured datasets as well as metadata stored in structured Hive tables. Data Migrator transforms metadata from the source metastore format to various supported metadata targets including Databricks, Snowflake, AWS Glue and others.

- **Support for multiple sources and targets**: Data Migrator supports HDFS distributions v2.6 and higher as source systems, as well as leading cloud service providers and select independent software vendors, such as Databricks and Snowflake, as target systems. See Data Migrator documentation for specific details.

- **Data transfers at any scale**: Data Migrator supports the transfer of datasets at any scale, from terabytes to multi-petabytes, without impacting current production environments. Horizontal scaling capabilities allow users to scale their data transfer capacity by configuring multiple transfer agents to maximize the productivity of available bandwidth.

- **Configurability and control**: Users can configure data transfer jobs to meet their organizations specific needs. This includes standard configuration options such as defining sources, targets, and data to be migrated, as well as advanced capabilities such as migration prioritization, path mapping, and network bandwidth management controls.

- **Browser-based user interface**: Users can leverage the Cirata user interface (UI), a browser-based UI that allows them to manage the complete data transfer process from the single management console.

- **Programmatic interface**: Data transfers can also be managed through a comprehensive and intuitive command-line interface or using the self-documenting REST API to integrate the solution with other programs as needed.

- **Data transfer verification**: Data transfer verification scans both source and target environments to ensure data fidelity and validate the success of all data transfers. Notifications can be used to specify the status of transfer verifications and receive the results by email.

- **Metrics and monitoring**: Information to keep you updated on the data transfer jobs, from health and status metrics providing estimates for data transfer completion to email notifications and real-time insights regarding usage and promoting hands-off operations.

Use cases

**Data modernization**
Shift away from legacy data technologies and siloed or underutilized datasets to more advanced and capable data platforms, typically in the cloud, that enable advanced analytics, AI, faster decision making, and more flexible and elastic storage and compute to unlock the full value from the data.

**Disaster recovery**
Maintain a current replica of actively used data in another location (either cloud or on-premises) for failover purposes in case the primary production environment becomes unavailable. Providing the ability to replicate the data in near-real-time is critical to meet any near-zero RTO (recovery time objective) and RPO (recovery point objective) requirements.

**Hybrid and multi-cloud**
Implement flexible architectures that maintain data in hybrid environments, which can include on-premises, cloud, multi-cloud, and intercloud deployments. As a result, organizations are able to utilize the cloud and data architecture of their choosing so they can:

- Leverage best in-class capabilities
- Improve availability
- Increase regional coverage