Teradata VantageCloud Lake

Teradata's next-generation, cloud-native analytics and data platform for AI

A cloud-native architecture for the AI-driven future

Artificial intelligence and machine learning (AI/ML) are the future—but the path to that future isn't clear or easy, especially with the multitudes of data available to organizations today. Despite generative AI's commercial promise, most organizations aren't yet ready to use it and lack the technology and resources to drive that strategy. Teradata VantageCloud Lake empowers you to tackle these challenges.

By leveraging a next-generation cloud-native architecture, VantageCloud Lake has the ability to run independent elastic workloads using an object store-centric design. This means every part of a business can run analytics projects on demand—all while sharing data in cost-effective object storage. With VantageCloud Lake, you can:

- **Promote business user autonomy**
  Enable teams to quickly launch AI/ML projects on their own with a self-service console.

- **Accelerate business outcomes**
  Make it easy to build and deploy powerful analytics, leveraging both governed enterprise data and the full array of data stored within the broader lake.

- **Reduce costs**
  Realize the benefits of centralized shared object storage, which can enable superior price performance.

- **Maintain financial visibility**
  Deploy governance policies to monitor and maintain budgetary decisions. Policy-driven scaling, unit pricing, and telemetry visualizations enable smarter scaling and granular chargebacks.

- **Guarantee critical SLAs**
  Ensure service-level agreements (SLAs) for business-critical workloads with automated elastic independent compute clusters and tiered storage options.

Activate analytics across the enterprise with powerful in-database capabilities

Unlock data, activate AI and analytic workloads, and accelerate value with VantageCloud Lake. Optimize your analytics and AI environment using specially configured compute cluster resources that best accommodate your workload requirements. Based on Teradata's extensive experience and expertise, VantageCloud Lake delivers industry-leading capabilities through ClearScape Analytics™ —the most powerful, open, and connected cloud analytics for AI/ML on the market today.

- **Powerful in-database advanced analytics**
  Move beyond reporting to real-time AI/ML with Teradata's high-performance in-database analytics library.

- **Open and connected tools of choice**
  Leverage languages and tools of choice with R/Python and the ability to bring your own tools and models. Tap into the ecosystem of data science tools you already love, such as Dataiku, AWS SageMaker, Azure Machine Learning, and Vertex AI for AI innovation.

- **Open and connected storage**
  Enable access to data where it lives with first-party support for Apache Iceberg and Linux Foundation Delta Lake open table formats (OTFs), leveraging object stores like AWS S3, Azure Data Lake Storage, and Google Cloud Storage.

- **Operationalization at scale**
  Integrated ModelOps provides end-to-end model management, making it easier than ever to deploy AI and analytics models in database and at scale for AI innovation.

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Cloud-native innovation

VantageCloud Lake unlocks all the benefits you'd expect in a cloud solution, including Teradata's differentiated technology stack, our industry-leading Analytics Database, ClearScape Analytics, and QueryGrid data fabric. Teradata continues to drive cloud-native innovation by releasing new capabilities:

- **Innovate faster**
  Empower each part of your business to drive analytics insights and AI innovation with a flexible, self-service environment. Teams can utilize their own dedicated compute against a single shared data store and leverage ClearScape Analytics for end-to-end model management. Connect to your preferred tools and services to create more efficient AI/ML workloads that increase business agility and give back time for further innovation.

- **Scale smarter**
  Compute only scales when necessary thanks to superior workload intelligence based on system utilization algorithms—not just based on the number of users or queries—so you only pay for the resources you use. User-defined guardrails also ensure you only scale within the available budget.
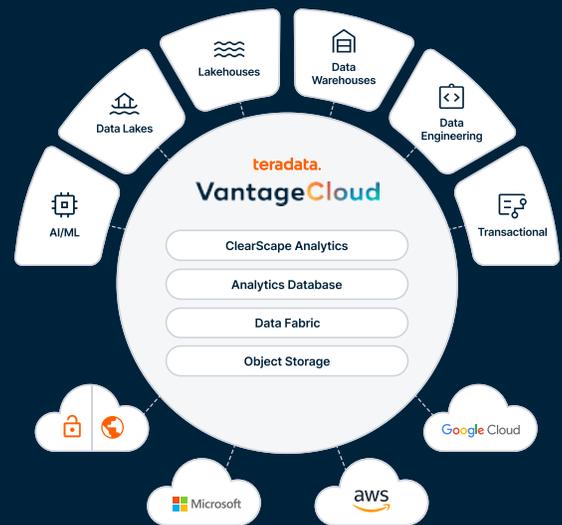
- **Govern better**
  Maintain better data oversight through a centralized management system with effective financial governance of cloud resources to manage sprawl, eliminates overruns, and enable user flexibility. The generative AI-powered ask.ai tool also facilitates administration. Using natural language, administrators can easily retrieve system information related to VantageCloud Lake, such as the status of the environment and compute groups.

Regardless of where you are in your modernization journey, you can look forward to an easy, fast, and low-risk migration to VantageCloud Lake

VantageCloud Lake can be deployed to solve complex analytic challenges across any analytic workload type while delivering the superior performance needed to ensure business transformation.

Maximize data innovation with VantageCloud Lake:

- Business autonomy and self-service
- Centralized shared lake object store
- Independent compute and storage
- Intelligent elasticity
- Competitive unit-based pricing
- Corporate-wide financial visibility
- Multi-cluster workload isolation
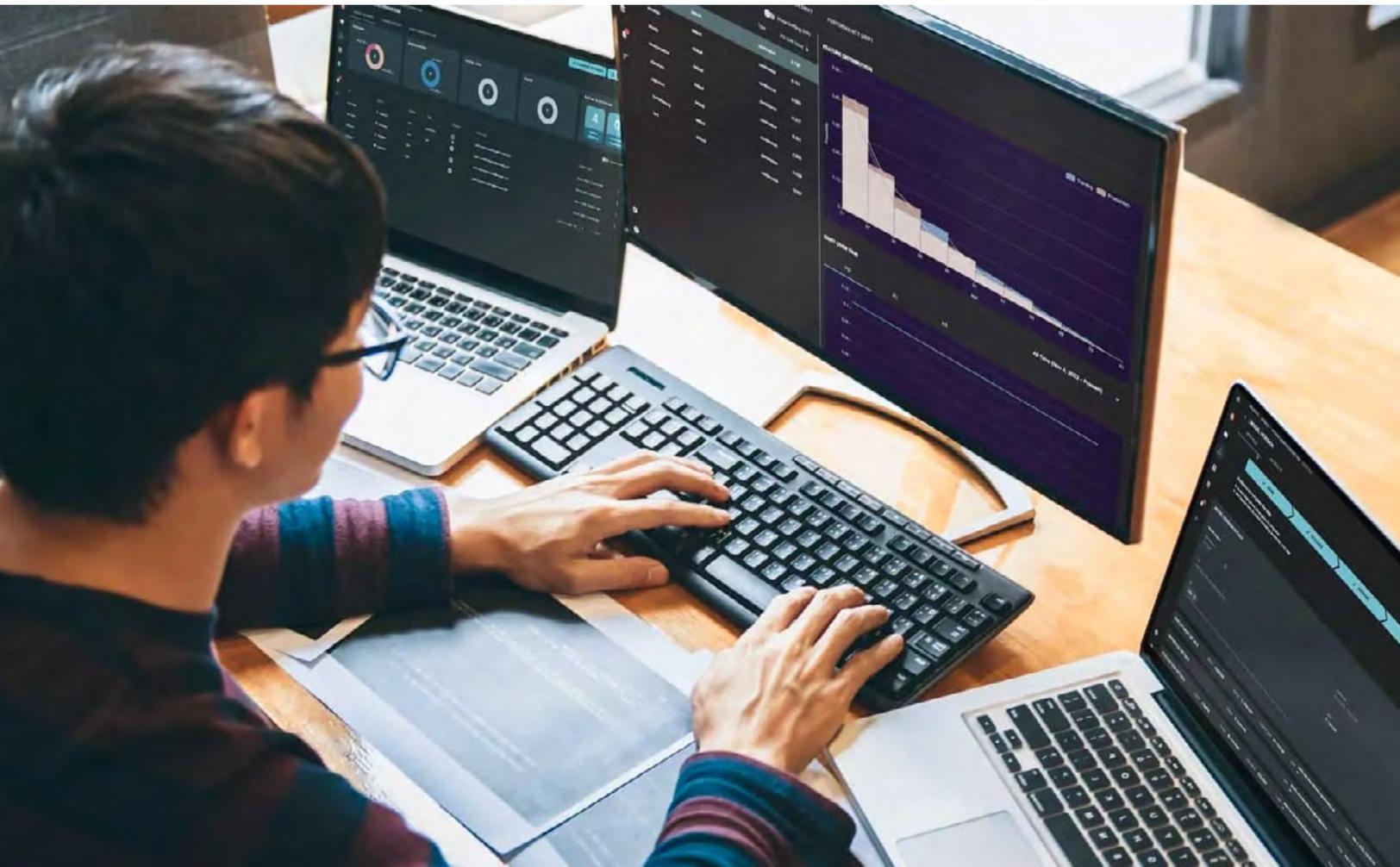- ClearScape Analytics

Realize value today

Consolidate your data, compute, and technologies with a modernized lake-centric environment that can uniquely execute all your workloads and design pattern types. VantageCloud Lake delivers the best-in-class Analytics Database, workload management, and financial governance to empower your business to drive innovation at scale.

Teradata provides flexibility to migrate at a pace that meets the demands of your business. Regardless of where you are in your modernization journey, you can look forward to an easy, fast, and low-risk migration to VantageCloud Lake. VantageCloud Lake is now available on AWS, Azure, and Google Cloud. **Get started now.**

About Teradata

At Teradata, we believe that people thrive when empowered with trusted information. We offer the most complete cloud analytics and data platform for AI. By delivering harmonized data and trusted AI, we enable more confident decision-making, unlock faster innovation, and drive the impactful business results organizations need most. **See how at Teradata.com.**

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