Cloud Data Sharing Made Easy with Teradata Vantage

Easily Share Data Internally, Externally, and With Business Partners Using Teradata Vantage

The more users who have access to data, the more the business can benefit. Ideally, data is integrated and shared across the organization and even shared outside the organization. This means data must be made easily available and accessible. But what is data sharing? In its simplest form, data sharing is when a provider, or creator, shares data with a consumer, or user.

There are three main scenarios in which companies typically share data:

- **Data shared internally** with users within an enterprise
- **Data shared across separate business units** of an enterprise
- **Data shared with external partners,** including third parties and publicly

Within these scenarios, companies can utilize numerous methods to share their data. Typical data sharing methods within analytical environments also fall into three main buckets:

- In-place sharing via a database or data warehouse
- Sharing a curated data set in shared storage
- Leveraging a data exchange or marketplace

Regardless of which method is used to share data, Teradata Vantage™ simplifies the process so companies can unlock the full value of their data. As the connected multi-cloud data platform for enterprise analytics, Vantage enables frictionless data sharing internally, with business units, and externally.

Seamless Data Sharing with Teradata Vantage

The main data sharing models that Vantage provides are in-place, shared storage, and marketplace sharing. Deciding which model to leverage depends specifically on the business and technical data sharing needs and the drivers of the organization. Pros and cons exist for each method, so there's not a one-size-fits-all approach. Here are factors to consider when choosing a model:

In-Place Data Sharing

With Vantage, in-place sharing uses a single copy of the data. The consumer has direct access to that data through the database and BI tools, but more typically through a front-end portal (Figure 1). Identity and access management to the data are controlled through Vantage and/or the front-end portal. Teradata customers have been utilizing this data sharing method for years.

Figure 1

Because providers and consumers are leveraging the resources of a single system, workload management is crucial. This is another area where Vantage offers industry-leading capabilities. The robust workload management features in Vantage enable customers to effectively manage the resources that providers and consumers are using.

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The in-place sharing method within Vantage has many benefits. For example, companies need to maintain only a single copy of the data, which helps prevent data silos and multiple versions being used by different departments. This data sharing approach with Vantage also ensures that data is always fresh and up to date. In addition, consumers have the ability to leverage the high performance and scalability of Vantage to access and analyze shared data.

Consumers can also be given their own workspace within Vantage. They can use this space to bring in their own data, join it with the shared data, and then analyze it for new insights. Because everything is done in-place within Vantage, the provider typically pays for compute and storage, unless a chargeback method can be put in place. Customers must take into consideration the load and utilization of resources on their Vantage system. Likewise, capacity planning for the storage and compute resources leveraged for data sharing has to be considered.

Shared Data Storage

In this sharing method, data that exists in Vantage is written to an object store and the data is shared with consumers. It uses a simple open storage level data sharing approach (Figure 2). By leveraging the Vantage Native Object Store (NOS) write functionality, a provider writes data to an object store in an open Parquet format.
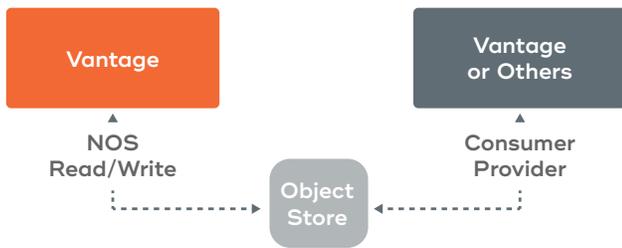

Figure 2

This open-sharing method allows the consumer to access, read, and analyze the shared data with another instance of Vantage or other tools that read Parquet, like Presto or Spark. A consumer and provider can have separate compute resources, and the provider can leverage the compute engine of their choice. All identity and access management for the shared data are controlled through the object store identity and access management framework.

Within the management framework, the provider can choose to encrypt data both at rest and in transit. Because access is controlled through the object store management framework, the process to set up, authorize, and track consumers is more manual than other methods and is dependent on the functionality of the object store management tools and processes.

Marketplace Data Sharing

Teradata Vantage Marketplace data sharing connects Vantage to a cloud vendor's data sharing marketplace services. This approach enables providers and consumers to leverage the cloud vendor's existing ecosystem to privately share and consume data. Vantage Marketplace sharing is integrated with both Microsoft's Azure Data Share and Amazon's AWS Data Exchange.

Govern your subscriptions for safer sharing

Figure 3

The sharing method works by providers leveraging Vantage's NOS write capability to write data that is to be shared to an object store in AWS and Azure. Vantage's integration with the marketplace allows the data to be consumed by the marketplace services and distributed to consumers (Figure 3). These services provide the benefit of an existing identity management, access, and logging services. No manual access or identity management are needed on the provider's object store for the consumers.

The marketplace also provides automated alerts and data propagation to the consumers. When updates or changes are made to the shared data within the provider's object store, they are automatically sent to the consumers who have subscribed to that specific sharing service. All data in this sharing framework is encrypted at rest and in transit for a high level of protection and security.

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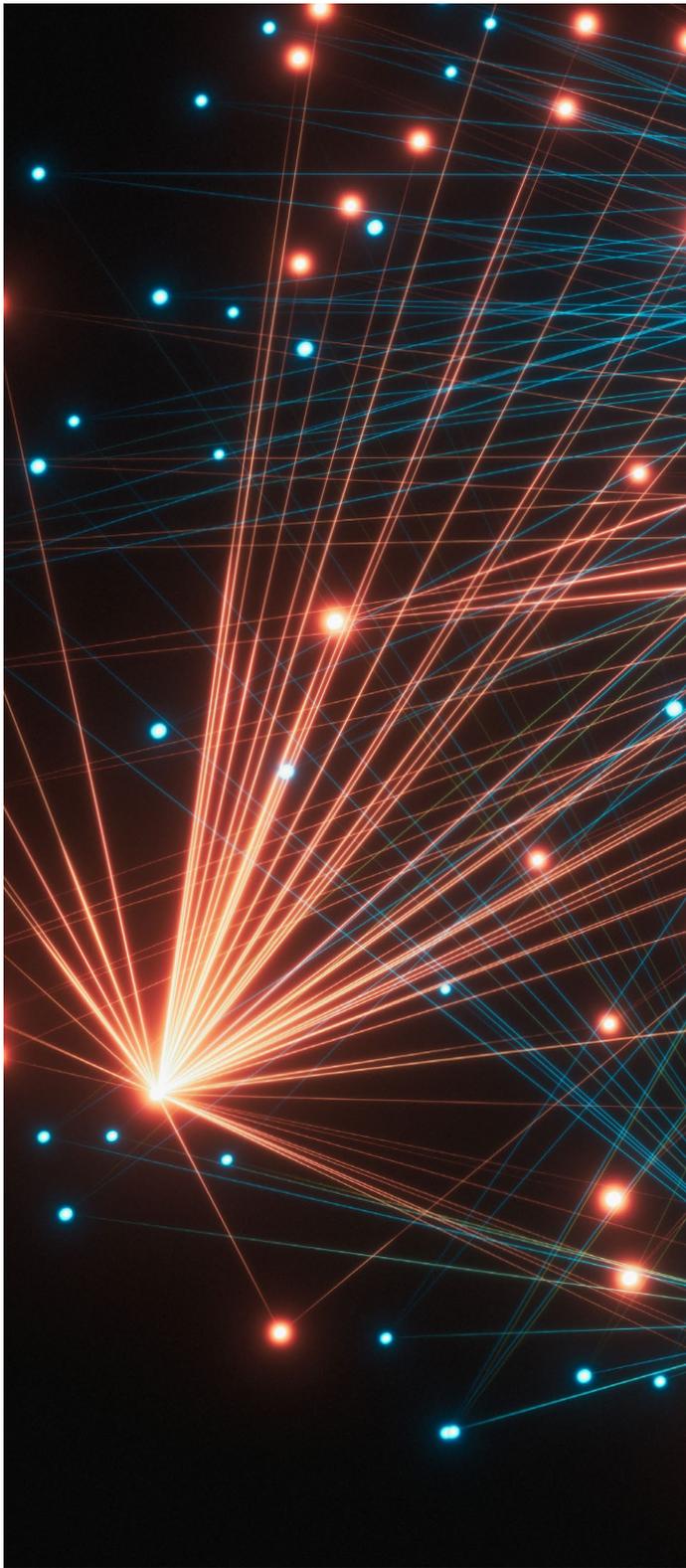
Just like with shared storage, consumers can choose to leverage another instance of Vantage or another engine of their choice to read and analyze the data. Marketplace sharing does have a requirement that the consumer also have their own S3 storage when leveraging AWS Data Exchange or Azure Blob or ADLS Gen 2 storage when leveraging Azure Data Share.

Empower Users to Unlock Answers Anywhere

Any user in any department must have the ability to ask any question against integrated and connected cross-functional data to unlock new answers and gain unlimited intelligence. Vantage makes it easy to unify and integrate any type of data from any source within an organization, then share it with others. Data sharing, or data democratization, with Vantage puts data at users' fingertips while governing the data process. Users can simply access the data they need, when they need, it to maximize its value.

About Teradata

Teradata is the connected multi-cloud data platform company. Our enterprise analytics solve business challenges from start to scale. Only Teradata gives you the flexibility to handle the massive and mixed data workloads of the future, today. The Teradata Vantage architecture is cloud native, delivered as-a-service, and built on an open ecosystem. These design features make Vantage the ideal platform to optimize price performance in a multi-cloud environment. Learn more at **Teradata.com**.

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