Brief

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Teradata VantageCloud Lake

The company

Teradata hardly needs an introduction: it is the longest established pure-play analytics and data platform vendor. The publicly traded (NYSE:TDC) company has offices throughout the world and across all continents (except Antarctica), with 100s of proven vertical and enterprise customer use cases.

What is it?

Teradata Vantage is a connected, multi-cloud data platform for enterprise analytics that aims to provide a unified solution for all of your data sources. It delivers advanced analytics and machine learning functions, and makes it easy for analysts,



Figure 1 -Teradata VantageCloud architecture

data scientists, and line of business users alike to harness these functions to address business opportunities. Its core value proposition is that it will help you to operationalise your AI by improving the productivity of your data scientists, training your models at scale, and situating those models within a concrete business context that directly links them to business outcomes.

VantageCloud - formerly Vantage in the Cloud – is a version of Vantage that operates as



The image in this Mutable Quadrant is derived from 13 high level metrics, the more the image covers a section the better. Execution metrics relate to the company, Technology to the product, Creativity to both technical and business innovation and Scale covers the potential business and market impact.

a cloud analytics and data platform, offering the aforementioned capabilities as part of a cloud deployment. VantageCloud comes in two versions: VantageCloud Enterprise and VantageCloud Lake. VantageCloud Enterprise is similar to the previous Vantage in the Cloud offering, and accordingly is suitable for mixed, business-critical enterprise workloads. VantageCloud Lake, on the other hand, is a new development that has been designed to enable exploratory analysis and that can operate wherever your data already exists. Both Enterprise and Lake VantageCloud offerings can be used standalone or in conjunction with one another, and both are built on the same underlying tech stack (which is itself very similar to the stack used by onpremises Vantage deployments).

ClearScape Analytics refers to the analytic capabilities available as part of the Vantage platform, including VantageCloud and deployments thereof. It is comprised of more than 150 in-database functions, open and connected integrations/APIs, and features enabling the full-scale activation and operationalisation of analytics. In particular, this means that the same analytics functionality underpins all Vantage deployment options.

For this report we will be focusing on VantageCloud Lake, although we are also publishing a sister report that covers ClearScape Analytics.



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We are always looking to provide the best experience for Giants fans, which we can do by leveraging all of our data in the most efficient and insightful way. We look forward to working with Teradata's VantageCloud Lake platform to help us enhance our analytics capabilities by accessing, connecting and making well-informed decisions through data.

What does it do?

VantageCloud Lake is designed to let you run analytics on data in the object store and other systems while leveraging the push down capabilities of Teradata's data fabric.

This provides the ability to move the query to the data rather than incurring the costs and complexity of moving the data itself. It provides a self-service, web-based console for doing just that, as well as an open, connected analytics framework, enabling you to either leverage analytics capabilities provided by ClearScape Analytics or to bring your own. Third-party API support and integrations are also featured, and collaboration is supported via data sharing and the Teradata store.

VantageCloud Lake uses a new, consumptionbased pricing model that offers optimised, unitbased pricing. It also offers a variety of spend management features. For instance, it provides automatic elasticity with incremental, intelligent scaling, meaning that you only scale up when your currently allocated resources reach their limits, and you only pay for the amount of data actually accessed or stored rather than just provisioned. The product boasts highly trackable and comprehensive usage reporting, which makes for predictable pricing and holistic financial visibility, and you can put guardrail policies in place on particular workloads to prevent accidental overspending. In addition, VantageCloud Lake separates storage from compute, which helps support this pricing model by enabling granular chargebacks to compute cluster owners. Multi-cluster compute is available.

The product also features several built-in resiliency features, such as backup-as-a-service, and rolling upgrades delivered via CI/CD pipeline. High availability is provided, and is enhanced via the session manager, which will hold user sessions and queries in place even if the application they are using goes down.

At present, VantageCloud Lake is available on AWS and Azure, with Google Cloud integration planned for 2024.

Why should you care?

Teradata has been the gold standard for data warehousing for several decades, offering extensive breadth and depth of capability, but with VantageCloud Lake it has have taken a step forward to bring its well-developed analytics capabilities to wherever your data lives.

This provides considerable benefits to ad hoc and exploratory querying, which by their nature require low up-front costs in terms of time and effort expended by the user in order to be efficient. Essentially, having to move your data (and quite likely a lot of it to, since the whole point of exploratory testing is that you do not know precisely what you are looking for) to a data warehouse in order to perform a one-off query on it is a lot of wasted effort, and in such a scenario we would imagine that exploratory and ad hoc queries just do not happen, or if they do are a laborious process that everyone would rather avoid doing. VantageCloud Lake provides alternatives by allowing you to move your data to low-cost storage (such as the object store) and by enabling you to move your query rather than your data.

Past that, VantageCloud Lake possess many of the same strengths and capabilities as Vantage in the Cloud before it, but is now deployed in a much more cloud-focused architecture. As such, it benefits from Teradata's considerable analytics capabilities as well as enjoying all of the advantages of the cloud, including flexibility, scalability, and ease of use.

The Bottom Line

Teradata VantageCloud Lake is by no means a complete replacement for more traditional enterprise analytics (at least, not yet), as seen in, say, VantageCloud Enterprise, but it is certainly a compelling complement to it. At the same time, it – and VantageCloud in general – has retained many of the qualities that have made Teradata Vantage so well-regarded in terms of performance, scalability, high availability, reliability, and so on. In short, it is well worth considering for inclusion in your analytics suite.

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