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Oracle swings for the fences with Autonomous Data Warehouse updates

Omdia view

Summary

With a series of major enhancements to Oracle Autonomous Data Warehouse, the Austin database powerhouse has signaled a clear intent to disrupt the fragmented analytics data platform marketplace. Oracle is offering a solution capable of unifying disparate workloads under a single high performing and highly automated analytics platform. The trick will be convincing customers engrained in fragmented yet familiar database architectures to make the leap to Oracle's converged view.

Why this matters

Ted Williams, a Boston Red Sox star and six-time American League batting champion, explained in his autobiography the secret to his success as a hitter in this simple manner: "My argument is, to be a good hitter, you've got to get a good ball to hit. It's the first rule in the book." That sounds reasonable. So why are there so few hitters in the class of Ted Williams, Albert Pujols, and Barry Bonds? Quite simply, these hitters have the preternatural ability to wait just a few milliseconds longer than their contemporaries before deciding whether to swing at a given pitch.

In its earlier approach to the cloud and in its more recent efforts to create a cloud native modern data stack, Oracle seems more and more like one of those preternatural hitters who does not swing at the first pitch or even the second. Instead, Oracle waits just that market millisecond necessary to enter the market—not as a fast follower but as a disruptor.

What's being announced

Take Oracle's recent series of announcements surrounding Oracle Autonomous Data Warehouse as a case in point. In early May 2023, the company introduced the following updates to Oracle Autonomous Data Warehouse:

- **No-code data exploration:** Oracle introduced a new user experience built into Autonomous Data Warehouse, Data Studio, which purports to greatly accelerate time-to-value for data scientists, data engineers, data analysts, and other data practitioners. This new drag-and-drop tool provides practitioners with a rapid means of exploring, preparing, and integrating new data sources into the warehouse. This is a big deal for data scientists in particular, as it lets them work independently from IT in evaluating potentially valuable data sources.
- **Multicloud data lake access:** Oracle was already able to simplify multicloud data warehouse constructions with secure access to object stores located on Amazon Web Services (AWS), Google Cloud Platform (GCP), and Microsoft Azure. With this update, however, the company is expanding this integration to include query access to the incredibly popular Apache Iceberg file format. As a ready-made entrance into the AWS market in particular, this move will open up new opportunities for Oracle, as many AWS customers are actively switching from file formats like Parquet to Iceberg to greatly reduce storage costs. To help Oracle Autonomous Data Warehouse users capitalize on this move, not only is Oracle providing access to Iceberg tables, but it is also providing integration with AWS Glue. This will streamline access by automatically loading schemas and metadata from AWS.
- **Connections galore:** Connectivity is a major theme of this update in two major regards. First, the new built-in Data Studio includes a capable Data Transforms tool. This features over 100 prebuilt connectors to sources such as applications (enterprise applications, e-commerce, back office, etc.); databases (including relational databases, object stores, cloud native warehouses, and lake houses); and big data sources (e.g., Hadoop and Cassandra). Second, on the consumption side, a new add-on for Google Sheets complements the company's existing Excel add-in. This allows spreadsheet aficionados direct access to data in Autonomous Data Warehouse using their tool of choice.
- **Welcome Delta Sharing:** In a move that harkens back to Oracle's roots in supporting data management workloads on any platform, the company announced that it would support Databricks' open data sharing standard, Delta Sharing. This open-source protocol allows users to share live data—without replicating that data—across disparate vendor platform ecosystems. It also makes possible some compelling new scenarios, such as data clean rooms, where data providers can share data with their constituents without incurring security or privacy risks. In this same way, Delta Sharing can also be used as a driving protocol behind data marketplaces/exchanges. Oracle's support for this protocol instantly brands the company's database as a truly open platform that prioritizes playing nicely among the broader ecosystem of data solutions in the marketplace.
- **Diving into data lakes:** Lastly, Oracle is taking a direct swipe at the ever popular practice of storing huge amounts of analytical data within highly scalable but performance-constrained object stores like AWS S3 and Microsoft Azure Blob Storage. These and many other object stores are great for scaling out disparate data within a data lake architecture, but they lack the performance and manageability found in the more friendly confines of a data warehouse. The trouble is data warehouse storage typically costs more than object storage—at least until now,

thanks to Oracle's move to reduce Autonomous Data Warehouse storage costs by a whopping 75%. Given that the database runs on Exadata, it is no surprise that it can deliver as much as a 20x query performance boost over SQL queries across object stores (as claimed by the vendor). Oracle hopes to tempt customers to consider Oracle Autonomous Data Warehouse as a one-stop analytics data platform.

Omdia view

Strategically, these updates serve the company in three important ways. First, they position Autonomous Data Warehouse as a full-fledged data platform, one capable of outperforming large-scale data lake workloads using Oracle's unique approach to converged data workloads within Autonomous Data Warehouse and, more broadly, Oracle Autonomous Database. Second, with the company's burgeoning focus on open standards like Apache Delta Sharing and ubiquitous access to data, even if that data lives beyond the friendly confines of Oracle Cloud Infrastructure (OCI), the company continues to demonstrate its commitment to multicloud interoperability. Lastly, and perhaps most surprising, is Oracle's move to do away with any pricing disparity between Oracle Autonomous Data Warehouse data storage and third-party object storage costs. The company is showing customers that it is willing to put its money where its mouth is with Oracle Autonomous Database and Oracle Autonomous Data Warehouse.

In Omdia's view, these artificial intelligence (AI)-infused and highly automated converged databases are the company's future and will one day replace Oracle Database as its core data/analytics database platform. The challenge is for Oracle to bring its customer base forward without losing them to the competition. Right now, the competition consists of a highly fragmented, best-of-breed suite of cloud native components, where practitioners expect to bring their favorite tool for X or Y functionality to bear without incurring a heavy penalty on price or administrative overhead. In other words, they expect to use their tool of choice without incurring penalties, but is that reality? Integrations, extract, transform, and loads (ETLs), maintenance, etc., can prove costly—at least in time, if not actual monetary costs.

For Oracle, this means selling users on the inherent value of the company's elevated level of abstraction with Oracle Autonomous Database and Oracle Autonomous Data Warehouse. For customers focused on the major market problem of open data exchange and query across disparate cloud and premises locales, Oracle's recent set of updates to its forward-looking database platform makes the company's case by lowering and even removing the bar to adoption for customers currently using fragmented approaches to data integration. For example, it has completely removed that bar through native, live integrations, open data exchange protocols, and cost parity with object storage. True, Oracle has not swung at the first cloud computing or computer architecture pitch to come over the plate. Rather, just as it did before in waiting on the public cloud to mature, Oracle has waited for the marketplace to mature to the point where an automated converged database that delivers simplicity, governance, security, and manageability will win out over the latest disjointed collection of shiny objects.

Appendix

Further reading

[Generative AI: Tech Provider Viewpoints](#) (April 2023)

["Searching for LLMops in a new generative AI platform from AWS"](#) (April 2023)

[Generative AI: Market Landscape 2023](#) (March 2023)

[“And just like that, generative AI reaches the enterprise marketplace”](#) (March 2023)

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