REPORT REPRINT

Hybrid database proponent MemSQL eyes greater adoption with new freemium tier

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Upstart database vendor MemSQL is wrapping up the year with its second update, which includes a new freemium offering, usability updates and performance improvements, among other enhancements.

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Upstart database vendor MemSQL has been heavily promoting its hybrid operational and analytics processing capabilities and recently rolled out its second database release inside of six months. The company's most recent release carries a theme of encouraging enterprises to adopt its hybrid-based database that can handle multiple workloads (transactional and analytical), and thus includes a new freemium offering, along with improved usability and additional performance updates

THE 451 TAKE

While MemSQL has done some tweaking of its positioning over the past several years, it has now settled on addressing hybrid workloads to accommodate both transactional and analytical processing. However, it could be argued that the company's previous marketing around real-time analytics was a precursor to settling on hybrid workloads. Regardless, the company has been demonstrating that its database version updates are supporting this approach, including enhanced pipelining, query performance and a monitoring tool – all of which are boosting MemSQL's profile for handling hybrid workloads.

CONTEXT

Founded in 2011 and headquartered in San Francisco, MemSQL is a company we have categorized as part of the NewSQL group of database providers, primarily because of its ability to scale its SQL-based database. However, not long ago, the vendor actively adopted a 'real-time data warehouse' positioning, perhaps as a precursor to further enable the database to be capable of hybrid workloads – that is, capable of handling transactions as well as analytics within the same system.

As such, MemSQL's database releases have certainly supported this strategy. For instance, in July the company unveiled version 6.5, which included, among other updates, improved workload management, extensible pipelines, full-text search support and scalable multi-tenancy support.

For its most recent release, version 6.7, made available in November, MemSQL has highlighted that the version can enable wider adoption and usability of its database. Starting with this release, the company is rolling out a freemium edition. This new free offering is replacing its previous developer edition, which while also free, had some constraints related to availability and security. With the developer edition being deprecated, the new freemium edition will provide full functionality but will have a capacity restriction of 128GB of RAM. While the freemium offering does not offer support, the company is also launching a new developer community site called MemSQL Forums, where users can find MemSQL experts and ask them technical questions.

It has also completely redesigned its MemSQL Studio tool, which enables query monitoring, troubleshooting and tuning capabilities. Additionally, there is a newly added 'visual explain' functionality for queries. As part of the redesign, the tool effectively operates as agentless on the nodes, which means it can be updated independently to provide greater development flexibility for future updates.

Further performance enhancements have been introduced as well, as the company's earlier on-chip query vectorization capability has been extended to now encompass star join queries. And finally, MemSQL has extended its ecosystem reach with third-party tie-ins for new native connectors for SAS, Informatica and MicroStrategy, providing greater performance over earlier connectors that leveraged the MySQL wire protocol.

COMPETITION

With its positioning as a hybrid database specialist, MemSQL will encounter several competitors on various fronts. On the transactional front, MemSQL should continue to see traditional RDBMS vendors such as Oracle, IBM, SAP (Sybase) and Microsoft, while it should also be noted that some of these firms claim hybrid capabilities by leveraging in-memory processing.

But the notion of providing both transactions and analytics in the same system continues to gain momentum among a number of existing as well as emerging contenders targeting this area. SAP, for instance, has been targeting hybrid workloads for some time with its HANA in-memory system. Others include Actian with its Actian X offering, VoltDB, MariaDB and InterSystems with its IRIS Data Platform.

A few vendors are leveraging Hadoop and open source tools to address hybrid workloads, including Esgyn and Splice Machine. And some recent entrants in the NewSQL space are eyeing hybrid workloads, including HarperDB and PingCAP. Even in-memory data grid/cache providers such as Pivotal, GridGain and GigaSpaces are increasingly being positioned for a combination of operational and analytical workloads.

SWOT ANALYSIS

STRENGTHS

MemSQL has done well to blend its data-ingestion capabilities with a relational system that can also carry out analytics, thus giving it the ability to compete on several database fronts.

WEAKNESSES

The company has done a handful of market-repositioning efforts so its focus is now on hybrid workloads – this makes sense with its architecture, which means it will take time build up its market profile.

OPPORTUNITIES

Hybrid workloads continue to pique the interest of enterprises with transactional needs looking to be more data-driven. MemSQL is well-positioned to address this market, particularly with its ingestion capabilities mixed with strong performance.

THREATS

As noted, there are several vendors focusing on hybrid workloads. There are, however, nuances to many of their offerings, so MemSQL will need to continue to focus on its particular area of differentiation.