GridGain aggressively expands its in-memory computing platform with new features

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The company has been busy growing its in-memory computing platform with new features and winning customers across an increasing number of verticals. Speed and scale are at the heart of its efforts to meet the highly demanding data-processing needs of the modern digital enterprise.

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Summary

In-memory computing platform provider GridGain Systems had a fairly busy 2018 with the release of fresh features and product enhancements every quarter, a growing headcount, and new customers across a growing number of verticals. Speed and scale are at the heart of the company's efforts to meet the highly demanding data-processing needs of the modern digital enterprise.

451 TAKE

GridGain continues to increase in size and expand its platform with new, differentiating features. Last year in particular was strong for the company, especially in terms of recurring revenue growth and the number of new features released. It still is a small organization that is competing with data management big names – however, it already has an impressive list of reference customers across a number of industries. These clients can potentially help GridGain spread the word and further innovate.

Strategy

GridGain Systems was founded in 2007 in Foster City, California, and has raised $39m in funding to date. The company now has nearly 140 employees (11% growth compared with 2017), with about 40 people based at its headquarters and a further 100 spread across Europe, the CIS region and Asia.

It reportedly has over 100 paying customers – about 60% of them are in the US, 25% in Europe and 15% in the rest of the world. In 2018, new customer growth was especially strong in the US, the UK and APAC across a growing number of verticals beyond financial services. Reference customers include Agilent, American Airlines, Barclays, Huawei, ING, Microsoft, NTT Data, Sberbank, TUI Travel and VMware. GridGain reports 113% recurring revenue growth for 2018. We estimate that the company's annual revenue for 2017 was about $11m.

Technology

The four key components of GridGain's in-memory computing platform are In-Memory Data Grid, In-Memory Database, Streaming Analytics and Continuous Learning Framework. The company's commercial offerings are all based on the Apache Ignite open source in-memory data-processing project, which it had initially developed itself and converted to an Apache Software Foundation project in 2014.

The Continuous Learning Framework, which supports machine and deep learning (ML/DL) algorithms, was added to the platform in the first quarter of 2018. This framework supports in-process hybrid operational and analytic processing workloads. By combining in-memory processing and ML/DL, GridGain aims to empower its customers to make decisions in real time. Essentially, the company brings ML/DL algorithms to customer data in GridGain so clients don't have to move their data elsewhere for machine and deep learning.

In the same quarter, the company also introduced the ability to store and manage Apache Spark DataFrames and Resilient Distributed Datasets (RDDs). In essence, Spark can be used to process data in GridGain, while users can store DataFrames and RDDs in GridGain.

In the second quarter, the GridGain Cloud was unveiled, which for now is a self-service capability, but will form part of the company's managed service offering in the near future. It allows developers to quickly and easily bring up a distributed in-memory cache that then can be managed from a single dashboard.

Further additions include a connector for Apache Kafka to allow users to leverage Kafka's streaming data capabilities for IoT and web-scale applications. The company has also integrated the open source machine learning library TensorFlow, where GridGain becomes the data store and provides high-capacity performance and fault tolerance for TensorFlow users.

As well as GridGain Cloud, the company offers this functionality to customers via its GridGain Professional Edition, Enterprise Edition and Ultimate Edition products. All three add security updates and maintenance releases and patches, in addition to the four core components of the GridGain In-Memory Computing Platform.

Moreover, GridGain Enterprise Edition and Ultimate Edition both include management and monitoring capabilities, advanced security, network segmentation protection and datacenter replication functionality, as well as support for rolling production updates, integration with Oracle GoldenGate and the connector for Apache Kafka. GridGain Ultimate Edition further features backup and recovery capabilities that are recommended for deploying the offering to support mission-critical use cases.

Most recently, the company has introduced a new support package for Apache Ignite known as GridGain Basic Support, which includes access to its support engineering team via web and email, as well as assistance with identifying and addressing bugs and product limitations, troubleshooting performance and reliability issues. After a 'feature busy' 2018, we expect to see fewer new releases this year, as GridGain will likely be focusing on ease of use of current capabilities.

Competition

GridGain's closest competition comes from other open source in-memory data grid/cache products, including Hazelcast's IMDG, Red Hat's JBoss Data Grid, Pivotal's GemFire and Software AG's Terracotta. There are also closed source alternatives such as Oracle's Coherence, GigaSpaces' XAP, IBM's WebSphere eXtreme Scale, TIBCO's ActiveSpaces and ScaleOut Software's StateServer.

In addition, the company's in-memory computing platform vies with cloud-based in-memory services like AWS's Amazon ElastiCache and Microsoft's Azure Cache for Redis. The Redis NoSQL database can also be employed as an in-memory cache – therefore, GridGain encounters Redis Labs' Redis-e enterprise edition, both on-premises and as a cloud service.

SWOT Analysis

STRENGTHS
GridGain continues to build differentiating features on top of the popular, open source Apache Ignite based on the most demanding needs of its largest customers.

WEAKNESSES
The company might need to put more effort into educating potential customers on its approach and rationale, and further improve user experience.

OPPORTUNITIES
As more organizations go through digital transformation, there is an increasing need for real-time data processing on a 'massive' scale.

THREATS
Despite its continued growth, GridGain remains small compared with the data management behemoths it is competing with.