Glassbeam introduces Studio and Edge analytics offerings for IoT use cases

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The machine data analytics firm is focused on Internet of Things use cases, and claims that its two new releases can dramatically accelerate application development times, helping businesses get their IoT projects off the ground faster.

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Machine data analytics firm Glassbeam has announced two significant products: Glassbeam Studio, which is a data preparation and transformation tool, and Glassbeam Edge, a more lightweight version of its platform that can do analytics and alerts at the edge of the network. The company claims that its two new releases can dramatically speed up application development times, helping businesses get their Internet of Things (IoT) projects off the ground faster.

THE 451 TAKE

While Glassbeam offers a cloud-based machine data analytics platform, there's nothing 'lightweight' about it. In fact, with its complex event-processing engine, ability to ingest most types of machine data, scalable back-end platform that runs in the cloud, and front-end applications such as standard and custom analytics, the company says it offers almost all of the pieces of an IoT puzzle. In order to achieve this, though, it has had to develop its own proprietary language, Semiotic Parsing Language (SPL), which is one of the reasons why it has so far mostly been adopted by manufacturers and OEMs with the in-house resources to come to grips with it. However, that has now changed, as Glassbeam Studio is a graphical development environment that hides most of the complexity of SPL. That should attract a whole new kind of prospect, as should the ability to push analytics to the edge with the latest addition of Glassbeam Edge.

CONTEXT

Glassbeam was founded in 2009 by Puneet Pandit, the founder and CEO of IT services firm Orchesys, where he incubated Glassbeam. Prior to Orchesys, Pandit was a senior director at NetApp, leading its database and business applications services group. He has also held positions at Ernst & Young (now known as EY) and Tata Unisys as a management consultant – altogether, he has more than 20 years of IT experience.

The company has about 50 employees, and roughly a dozen paying customers. It has raised a total of $11m in financing from angel investors as well as Tech Coast Angels and VKRM. When we caught up with Glassbeam recently to hear about its latest product news, Pandit told us that management is once again in discussions with multiple private equity shops about another possible funding infusion.

TECHNOLOGY

Glassbeam is a cloud-based machine data analytics vendor – one that enables the collection and subsequent analysis of data that comes from machines, sensors, smart devices and so on. It has a particular focus on building applications for the Internet of Things. The Glassbeam platform currently runs on Amazon Web Services, but management says there's no reason why a customer couldn't deploy the same array on another cloud.

Much of the IoT analytics concept revolves around the analysis of data that is produced by sensors and other smart devices in order to discover new patterns and trends, and trigger alerts and events. At the core of Glassbeam's technology is the SCALAR platform, which the firm says can be scaled horizontally by adding more nodes to a cluster, as well as vertically by adding more CPUs to a node. The technology does make use of memory, but it's not fully in-memory.

Alongside SCALAR, Glassbeam has developed its own proprietary programming language called Semiotic Parsing Language to parse, tag, model and store data in a cloud architecture. The drawback, however, is that it took some time for developers to learn the language and build their apps, so to accelerate the process the company has now built a graphical development environment for SPL called Glassbeam Studio. While it concedes that a developer still needs to know conceptually how SPL is working in the background, the new tool reportedly accelerates development by up to 100 times.

Thus, Glassbeam Studio is effectively a data transformation and preparation tool for unstructured machine log data. In the future, the vendor plans to enable Glassbeam Studio to also be used to create the rules and alerts that businesses want to set when a certain threshold is met or parameter reached – currently, developers must use a separate rules definition engine.

Glassbeam was already a member of PTC's ThingWorx Ready partner program, and the company says it will work on how Glassbeam Studio can be used to more quickly develop machine-learning offerings. ThingWorx offers a broader IoT platform than Glassbeam, with its Composer, Mashup Builder, search-based intelligence and more. Glassbeam claims that its Studio offering should make it far easier for data scientists to define machine-learning rules when building the likes of predictive analytics.

Since the firm is targeting IoT use cases, and vast amounts of data from sensors and smart devices can saturate networks, it has also developed a lightweight version of its platform that could be deployed at the edge of a network nearer to the 'things.' It calls this Glassbeam Edge.

CUSTOMERS

As noted, Glassbeam has about a dozen customers, most of which tend to be manufacturers or OEMs building analytics applications for their own clients, rather than Glassbeam selling directly to end users. Customers include IBM, VCE, Aruba Networks and Dimension Data. Romi, a global manufacturing provider based in Brazil, selected Glassbeam's IoT analytics offering to examine real-time machine data information and provide insights into its equipment performance.

We spoke with another client, Gridscape Solutions, a software and services vendor that specializes in designing and developing a range of smart energy offerings. The goal is to help its customers save money through operational efficiency improvements. It deploys Glassbeam to help it analyze data that it gathers from a network of electric vehicle (EV) charging stations.

Gridscape CEO and president Vipul Gore notes that Glassbeam is used to take in streaming data from roughly 400 EV charging stations in the US, parse and analyze that data in real-time, and provide feedback. This helps Gridscape streamline its service, lower its maintenance costs and provide insights for improving future generations of EV station equipment. The client plans to start using Glassbeam Studio and Glassbeam Edge, the former to speed development and the latter because analysis of the data closer to the source should be more efficient and cheaper.

COMPETITION

Given its focus on machine data analytics, Glassbeam will certainly be compared with the erstwhile log management firms, some of which have broadened their technologies to analyze more types of data. Players in this space include Splunk (with Splunk Cloud), Sumo Logic, Loggly, Logentries, X15 Software and TIBCO (via its acquisition of LogLogic). Unlike these vendors' offerings, Glassbeam's IoT platform is more of a toolkit predominantly aimed at manufacturers and OEMs – though it would certainly not turn away direct enterprise customers.

For real-time or near-real-time analysis of streaming data, some businesses might also look to data-streaming technologies from the likes of IBM (with InfoSphere Streams), DataTorrent, SQLstream, AWS (Kinesis) or Google (Cloud Dataflow). Again, depending on what potential customers are trying to do, Glassbeam could also find itself compared with complex event-processing technologies from StreamBase, Apama and Aleri – now owned by TIBCO, Software AG and SAP, respectively.

Another vendor that claims to have an IoT analytics platform that could be deployed centrally or at the edge of a network is ParStream, which was acquired by Cisco last October. ParStream has developed its own small footprint database called ParStream DB, whereas for storage needs Glassbeam employs a modified version of the Cassandra open source database.

Other firms that claim to offer edge analytics include SAP, which does so through integration of its HANA database with the SAP SQL Anywhere suite, the mobility offering it obtained via its purchase of Sybase. Hewlett Packard Enterprise has HPE Edgeline IoT Systems; IBM offers the IBM Watson IoT Platform; and Oracle provides Oracle Edge Analytics. Cisco and Dell have been busy in this space for some time, as well, alongside a handful of specialists such as Bright Wolf and Bit Stew.

SWOT ANALYSIS

STRENGTHS
Glassbeam offers a powerful IoT analytics platform that can now be built on much more rapidly thanks to Glassbeam Studio, or pushed to the edge of the network with Glassbeam Edge.

WEAKNESSES
Founded in 2009 and with only about a dozen paying customers, the company clearly doesn't have the brand recognition of some of its far larger rivals.

OPPORTUNITIES
We see growing interest in IoT analytics. While it's still relatively niche in our opinion, edge analytics should also become more popular as smart devices and sensors threaten to saturate networks and datacenters.

THREATS
Though it certainly wouldn't turn away end-user clients, Glassbeam has found the most success among manufacturers and OEMs, where we expect sales cycles to be reasonably drawn out.