Vlingo Meets Critical Service-Level Agreements (SLAs) with VMware vFabric Hyperic

Vlingo, based in Cambridge, Massachusetts, is the inventor of the mobile phone voice user interface.

Vlingo’s intelligent voice applications turn words into action. Users simply speak into their phones to connect with the people, businesses and activities that are important to them. Vlingo is the safest and easiest way to get things done while on the go. Send text and email messages, search the web, use Google maps, update Twitter and more. Vlingo sells its technology directly to consumers and also to OEM cell phone manufacturers, carriers, and mobile application developers.

The typical end user has a Vlingo application installed on a mobile phone. The user presses a button or widget and speaks into the phone, and the spoken words are sent to Vlingo’s datacenter, where the speech recognition engines interpret the words and send a text version back to the phone. For Vlingo’s business model to succeed, the datacenter and speech recognition engines must be up and running 24/7. Monitoring is critical.

Challenge

“For monitoring, we started with Nagios, but we quickly ran into its limitations,” explains Steve Caissie, Director of Operations at Vlingo. “We had to configure Nagios every time we added new software or made changes to our environment. We were always making changes in the Nagios configuration files, and that was very error prone. We often would miss a server. There would be a typo somewhere or we would miss a key piece of infrastructure because we did not modify the right Nagios configuration file, and the entire monitoring infrastructure would fail.”

Caissie also recalls that there were situations where they installed their technology on a new server and then forgot to add it to the Nagios configuration file, so the server was not covered by the monitoring tool.

“The autodiscovery wasn’t there with Nagios, so it was a lot more difficult to keep the software running and doing the job we needed,” he adds.

Nagios also provided limited coverage for Vlingo’s complex environment. Caissie explains that if Nagios was not able to monitor a particular element, customer complaints were the only way to find out about a performance issue. In addition, Caissie says Nagios did not provide any historical data or tools to help find the root cause of a problem.

“The monitoring system could not always help us solve the problem because there was no historical data,” Caissie remembers. “Our engineers had to make a lot of educated guesses instead of looking at solid data.”

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Solution
To gain access to historical data and provide better monitoring coverage, Vlingo chose VMware vFabric Hyperic, the leading Web application performance monitoring and management software, over several other monitoring tools including Zenoss. Vlingo uses Hyperic Enterprise Edition to monitor the entire production environment, including the Linux operating system, Apache Tomcat application servers, physical hardware and software infrastructure. Vlingo also uses Hyperic to monitor some critical corporate systems such as file and database servers.

“Without a strong monitoring system like Hyperic, we are flying blind.” says Caissie.

Benefits
Hyperic delivers the following business results to Vlingo:

High Availability and Performance
High availability and performance is critical to Vlingo. If the system goes down or performance slows, this impacts consumer end users as well as carriers and other partners using the Vlingo service. Caissie says that Hyperic allows the company to keep its systems up and running and meet the SLAs that Vlingo customers demand, including stringent uptime and latency requirements.

Faster Problem Solving
“Hyperic certainly allows us to solve problems faster,” says Caissie. “Hyperic alerts us when services slow down, and we can look at the historical information to find out what the system was doing last week or last month, and identify the source of the problem.”

For example, Vlingo sends artificial voice recognition requests through Hyperic to check how long it takes the server to respond. Shortly after making configuration changes to the production environment, Hyperic can alert Vlingo if there is any server performance degradation.

“I was able to use Hyperic to look at the historical information, and see the server performance last week and last month,” he adds. “That kind of information is invaluable to us, and we didn’t have that before with Nagios.”

Competitive Advantage
“Hyperic helps us meet the SLAs and allows us to be more competitive,” Caissie confirms. “Our senior executives are more comfortable writing customer contracts with strong SLAs because we have Hyperic watching the environment and alerting us when there are problems.”

Great First Impression to the End User
Caissie explains that potential users are often skeptical about speech recognition technology. If a customer downloads Vlingo software and the system is not working or they do not have a good experience right from the start, they will uninstall the software and never look at it again.

“It is important that we make a great first impression when the user tries out our technology, and Hyperic helps us accomplish this goal,” Caissie notes. “We can lose a customer quickly if the servers are not up and running and performing well. Hyperic enables us to ensure that everything is working as expected.”

Improved User Experience
Once a new user is onboard, Vlingo has an ongoing responsibility to maintain a good customer experience to retain the user base. Hyperic enables Vlingo to respond quickly to solve issues that trigger customer complaints because it provides the historical data necessary to troubleshoot those problems. Hyperic also enables Vlingo to correct issues before they become problems that impact the user experience. In addition, Vlingo was...
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able to build a Hyperic plug-in that tracks the error rate and alerts the operations team. In all three cases, Hyperic helps Vlingo maintain a positive user experience.

**Higher Operations Team Productivity**

“We spent too much time on Nagios just to keep it running,” Caissie explains. “Today we spend that time more productively, developing plug-ins and enhancing the monitoring system. That speaks to power of Hyperic, that we have the ability to extend its capabilities to handle whatever we need.”

**More Comprehensive Monitoring Coverage**

“One of the features that attracts us to Hyperic is the autodiscovery mechanism, and the fact that we can create our own plug-ins that have their own autodiscovery characteristics,” says Caissie. “When we deploy new speech recognition engines to a machine, Hyperic automatically discovers what the machine is running. This works very well for us.”

Since Hyperic automatically discovers and starts monitoring new additions to the environment, Vlingo no longer has problems with missing servers and failed monitoring systems. In addition, Hyperic allows Vlingo to monitor more components of the environment than previous monitoring tools.

“Hyperic is a more flexible environment, so we can put plug-ins in place to gain monitoring coverage on just about anything we need,” Caissie concludes. “With Hyperic, I am confident that I am not going to miss something. That is extremely important to me, and I did not have that level of confidence with Nagios. When we add a new piece of technology to our environment, I know Hyperic is going to watch it without too much interaction on our part.”

**About VMware**

VMware, the global leader in virtualization and cloud infrastructure, delivers customer-proven solutions that reduce IT complexity while significantly lowering costs and enabling more flexible, agile service delivery.

**About VMware vFabric**

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