GroundWork Monitor Enables Hosting Firm to Offer Customized IT Monitoring for Customers

CHALLENGES
- Few configuration options with existing solution
- Unable to customize solution to meet specific needs of each customer
- Limited reporting and analysis
- Difficult to train new users on the solution

RESULTS
- Able to customize solution for each customer
- Cancelled plans to bring in additional engineer
- Significantly improved analytical capabilities
- False alarms expected to drop by 100%
- Maintenance windows expected to shorten
- Cost of maintaining custom solutions expected to drop

"It's not unrealistic to think we could reduce false positives by 100% now that we can customize monitoring for different characteristics and different services."

Chuck Edwards, Managing Partner, Blue Gecko

INTRODUCTION

Blue Gecko (www.bluegecko.net) offers managed and hosted IT services—overseeing everything from running a company's operating system, Web server and email to managing its network components and the applications that make its systems run.

The company's 35 customers include organizations like World Wildlife Fund International, a global conservation organization, and game company Cranium, Inc. Several of its clients have many downstream customers also supported by Blue Gecko. All of them rely on Blue Gecko to deliver services that are uniquely tailored to their company's IT requirements.

PROBLEM

Outgrowing Big Brother
In early 2005, Blue Gecko was growing increasingly dissatisfied with its IT monitoring solution. The company had used Big Brother, an open source monitoring tool. While the tool had served Blue Gecko's needs at first, the company was quickly outgrowing the solution. At the time, its two data centers and more than 75 servers were managing network traffic that often spiked to 100 megabits per second. "We started realizing the limitations when we grew beyond a handful of servers," said Chuck Edwards, managing partner of Blue Gecko. "We needed a lot of functionality Big Brother just didn't provide without a lot of work."

Need to customize for customers
Blue Gecko wanted the ability to tailor its monitoring solution down to a detailed level for each of its customers. If, for example, three customers were running the same version of Apache, one might have higher traffic at certain times, another might want notification about certain events, and a third might have a clustered server configuration. These differences significantly alter the actions required in case of service failure. As a result, Edwards and his organization were resorting to more and more custom coding of Big Brother—which created management challenges. "You get to a point where you can't just educate some-one on how to use Big Brother—you have to show them where all the voodoo is," he said.

Need for better reporting and analysis
Blue Gecko was also frustrated by its inability to perform adequate reporting and analysis, which is necessary for iden-tifying issues and maintaining network functionality. "With Big Brother, there was no easy way to capture all monitoring data into a central place so it could be analyzed. This was critical to our ability to identify patterns and root causes for our customers," he added.

SOLUTION: GROUNDWORK MONITOR

Taking open source to the next level
Blue Gecko initially explored the idea of deploying Nagios, a free, downloadable open source IT monitoring tool. But Edwards knew his team would have to contend with the challenges of open source software—limited documentation, and no support, integration services or enhancements. As Blue Gecko grappled with how to fill these gaps, it came across GroundWork, an open source IT management solution provider that incorporates open source IT monitoring components—including Nagios—into a fully-supported solution.

"As we were going down the path of implementing Nagios, we looked at the integration required with our systems and the need to write APIs to get data into a database," said Edwards. "An open source solution that included services and support just made more sense."

Customization capabilities
Blue Gecko liked that GroundWork's monitors are designed to plug in to and interact with an API. "That layer of abstraction has a lot of advantages because we can update and improve monitoring code without touching the framework. This way, we can focus development efforts on writing value-added monitoring utilities without worrying about how they will integrate with our monitoring tool," said Edwards.

Reporting and analysis
One of the biggest opportunities Blue Gecko saw with GroundWork Monitor was the ability to capture all monitoring information into a central place. "With GroundWork Monitor, we collect all the data together so we can do whatever we want with it," he said. Blue Gecko was also pleased with GroundWork Monitor's portal interface, which in tandem with OpenLDAP, an open source directory software tool, provides a single sign-on through GroundWork Monitor to all of the company's IT monitoring tools.

Lowering costs
Price was an obvious consideration for Blue Gecko when evaluating alternatives. "We considered a couple of commercial software providers, but costs were so prohibitive that we just stopped the discussion," said Edwards who added that to monitor just one large database server with BMC Patrol would have exceeded the annual cost to manage its entire infrastructure with GroundWork.

RESULTS

Better root cause analysis
GroundWork Monitor has enabled Blue Gecko to identify and respond to problems quickly. "With information like memory utilization, number of users logged into the system, and other conditions stored together, we are making far more intelligent decisions as to what action to take," he said. For example, if wait times on database writes are high for a period of time, Blue Gecko can quickly and easily correlate the same time period with physical disk seek times, CPU load or even network activity to get a clearer picture of what is happening. These insights also allow Blue Gecko to provide customers with value-added information about their systems.

Fewer false positive alarms
Edwards expects to reduce the number of false positives the company experiences. "It's not unrealistic to think we could reduce false positives by 100 percent now that we can customize monitoring for different characteristics and different services," said Edwards. Edwards explained that his challenge was to write monitors that determined 1) if the instability is critical, 2) where problems are coming from, and 3) if any automated response is possible. "With GroundWork Monitor, we now have the data and tools to fine-tune alarms and notifications," he said.

Shorter maintenance windows
Because GroundWork Monitor under-stands hierarchy and interdependencies, Blue Gecko can take devices out of service for maintenance without trigger-ing a deluge of notifications. This enables Blue Gecko to incrementally reduce the time required for maintaining networking equipment or servers. "We save up to 30 minutes on each end of a maintenance window," Edwards said.

Reduced costs
Blue Gecko was able to cancel its plans to hire a developer to support the GroundWork solution. "We've saved the cost of adding an employee as well as the time the company would have spent writing and reviewing specifications, testing and ongoing maintenance. Instead, we get all of this from GroundWork's support," said Edwards. The first year alone will net Blue Gecko a savings of over $30,000. "When we did the math, it was a no-brainer," said Edwards. "Add to that GroundWork's ongoing support and innovation compared to our own custom maintenance efforts and the numbers became even more clear."

ABOUT GROUNDWORK

GroundWork Open Source Solutions, Inc. provides open source-based IT infra-structure management solutions such as network and systems monitoring, service desk management and IT dashboards. GroundWork's solutions enable IT management to leverage the flexibility and low cost of open source tools to achieve enterprise-level availability, performance and operational efficiency for a fraction of the cost of commercial software.

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