Equinix unifies infrastructure monitoring to help its employees do their jobs

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Equinix is justly famous, not only for its global datacenter footprint, but for the interconnection ecosystems that grow up around its physical assets. Customers are drawn to the company by the prospect of proximity to Equinix's other customers. The result – at least as far as infrastructure is concerned – is an immensely complex environment, connecting 4,000 companies via networked datacenters in 31 strategic markets across the Americas, EMEA and Asia-Pacific. As customers come to depend more on their own and their neighbors' Equinix services, the real cost of performance issues and downtime skyrockets. For Equinix's IT team, that's a giant headache.

Company name:
Equinix

Activities:
Datacenters and interconnection

Head office:
Redwood City, California

Number of employees:
3,153

LY revenue:
$1.8bn

LY net income:
$131.58m

Key suppliers:
Cisco Systems, Dell, EMC, Meru, Microsoft, MobileIron, ScienceLogic, ServiceNow, Violin Memory, VMware

Early Adopter Snapshot

The company's IT environment is mostly standardized on Dell, with a sunset program in place to gradually get other vendors' server hardware out. Cisco Systems equipment is used for switching and Meru Networks for Wi-Fi. Storage is mostly EMC, although Equinix does use some Violin Memory for its performance. CIO Brian Lillie believes Flash memory is the wave of the future.

Challenges and obstacles

The Equinix IT team, like most IT shops, had tried all kinds of approaches. Some systems administrators wrote Perl and shell scripts to trap systems and dump data into CSV files. Others assembled a hodgepodge of point tools such as Big Brother. But as the environment grew – at last count, the number of virtual machines had reached 1,600, spread across a couple of thousand hosts – the limitations of these tactical approaches became starkly apparent.

Deployment summary

Lillie and his team compared various monitoring platforms, including CA Technologies' Nimsoft and Zenoss – "a whole slew of them," according to Lillie. One, however, blew the others away. A proof of concept of ScienceLogic's appliance outperformed everything else.

"What we wanted to create is a service view," Lillie explained. In it, administrators should be able to see every element of a given service – the Equinix Customer Portal, branch circuit monitoring, Microsoft Exchange and so forth. When ScienceLogic detects a problem and creates an alert, that alert and its associated data flow into Equinix's ServiceNow deployment. The ServiceNow integration was custom-made for Equinix by ScienceLogic but is now broadly available. Still under way: integration with PagerDuty, which Equinix uses for SMS alerting.

Under the previous arrangement, Equinix had a staff member entirely dedicated to creating dashboards and configuring them. With ScienceLogic, that commitment amounts to half or possibly three-quarters of a full-time employee, freeing up scarce and valuable IT hours.

Innovation and roadmap

Today, Equinix runs two ScienceLogic appliances in its EMEA geography and two more in North America. When ScienceLogic's hosted service becomes bulletproof, Equinix plans to move its deployment into the cloud. The software is already Equinix's global monitoring, alerting and reporting system for the server, networking and storage tiers. While Equinix uses MobileIron for device monitoring, it's possible that ScienceLogic will be extended to monitor desktops and laptops. Another idea is to use ScienceLogic to monitor environmental controls in the datacenters, and then that data through the customer portal to Equinix's enterprise end users. The sky is – quite literally – the limit.