NetApp®

Success Story

Radiant Delivers Cloud-Computing Services Using Cisco, VMware, and NetApp Secure Multi-Tenancy Architecture

RADIANT
TOTALLY CONNECTED™

KEY HIGHLIGHTS

Industry
Communications

The Challenge
Deliver secure, reliable cloud-based services, including hosted e-mail, hosted disaster recovery, and virtual servers, to enterprise customers.

The Solution
Deploy a secure multi-tenancy architecture based on Cisco®, VMware®, and NetApp® technology.

Benefits
- Enables high level of security for cloud-based services
- Provisions cloud-based services in 24 hours or less
- Gained the ability to add customers without expanding staff

Customer Profile

Radiant Communications is Canada's largest independent business-to-business broadband service provider, with more than 4,000 business customers. Specializing in midsize businesses, the Vancouver, Canada–based provider offers business Internet, private networking, and cloud computing services. In 2008, Radiant launched its AlwaysThere Enterprise Cloud Computing service that features virtual servers, virtual data centers, hosted disaster recovery, and hosted Microsoft® Exchange e-mail.

The Challenge

A few years ago, Radiant realized that it had hit a wall—the customer's wall. "We had a significant footprint—more than 20,000 sites—but our services stopped at the edge of the enterprise infrastructure," says Dale Neilly, Radiant's vice president of Sales and Marketing. "We started looking at how Radiant could offer cloud-based services that extended into the enterprise—computing power, application hosting, disaster recovery, even complete virtual data centers."

Cloud-services must be reliable and secure

As Radiant's marketing and technical teams began to flesh out that vision, they identified a number of key internal and external challenges. "In many cases, enterprises were reluctant to outsource their on-premise infrastructure into the cloud," Neilly explains. "We needed to convince prospective customers that our cloud-based services were a secure, reliable, and cost-effective alternative to building and managing their own infrastructure."

Competitiveness requires flexibility and ease of management

On the service delivery side, Radiant required a flexible platform that could scale easily and quickly with changes in demand. In addition, the service delivery platform had to be easy to learn and manage. "The operational complexity of running this kind of business can be significant," says Jason Leeson, director of Advanced Hosting for Radiant. "Anything we can do to simplify the platform streamlines management overhead, reduces our costs, and improves our competitiveness in the marketplace."

"VMware vShield Zones, Cisco VN-Link, and NetApp MultiStore—these technologies drive the secure end-to-end solution that is core to our value proposition for cloud computing services."

Jason Leeson
Director of Advanced Hosting, Radiant Communications

The Solution

Radiant rolled out its AlwaysThere services in early 2008, starting with hosted e-mail and adding services over the next two years, all delivered from its Vancouver data center. Its cloud-based business grew rapidly—and so did the operational costs and management challenges. When Radiant decided to expand the offerings to its Toronto data center, a refresh of the infrastructure was clearly needed. "At that point, we evaluated the state of cloud-computing technology," says Leeson. "Our goal was to standardize on a proven, stable solution for both data centers, one that would support us for years to come."

Joint offering from Cisco, VMware, and NetApp impresses Radiant

That's when Radiant learned about the secure multi-tenancy offering from Cisco, VMware, and NetApp. Leeson and other Radiant decision-makers attended a seminar put on by the three companies, and came away impressed by the level of cooperation. "The NetApp guy didn't just talk about NetApp, he also talked about VMware and Cisco," Leeson says. "That convinced me that this was a unified solution with all three vendors working together." Other key selling points were "Designing Secure Multi-Tenancy into Virtualized Data Centers," an 82-page reference architecture description coauthored by experts in the three companies, and the joint support model developed by the three partners.

In the final analysis, it was the reference architecture that swayed Radiant's decision. "VMware vShield Zones™, Cisco VN-Link, and NetApp MultiStore®—these technologies drive the secure end-to-end solution that is core to our value proposition for cloud-computing services," says Leeson. In early 2010, Radiant made the decision to standardize on the secure multi-tenancy architecture.

Rolling out the VMware, Cisco, and NetApp stack

Radiant purchased the Cisco UCS™ blade servers and the Cisco Nexus® 1000v and 5000 switches from system integrator UNIS LUMIN. NetApp partner Seven Group provided additional VMware software licensing and the NetApp storage components, including a NetApp FAS3140 storage system and NetApp MultiStore and SnapManager® for Virtual Infrastructure software.

The implementation was a collaborative project involving NetApp Global Services, UNIS LUMIN, the Seven Group, and Radiant's advanced hosting team. "I was pleased with how the different groups all worked together," says Leeson. "The NetApp consultants took the time to educate our people on the fly, so that we were ready to take over as soon as they left."

Business Benefits

The credibility of a proven solution, backed by three industry leaders

The secure multi-tenancy architecture has given Radiant a valuable sales tool: credibility. "We tell our prospective customers that we're running a solution that has been validated by Cisco, VMware, and NetApp," says Leeson. "It shows them that we have an enterprise-class offering backed by enterprise-class vendors."

Choosing NetApp storage has opened doors. "If the customer has NetApp storage, they are much more willing to listen to us," says Neilly. "The conversation goes, 'You have NetApp, we have NetApp,' and we immediately start talking about the services we can offer them, such as hosted disaster recovery. The customer realizes that we can have a seamless interface between our two environments, and that makes cloud-based services, such as hosted disaster recovery, have more value and a much easier service for them to buy and us to sell… ."

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Jason Leeson
Director of Advanced Hosting, Radiant Communications

Selling flexibility to enterprise customers

Leeson points out the agility that the secure multi-tenancy architecture brings to Radiant: "We sell our customers flexibility. They can buy just what they need now, and scale to meet demand. That means Radiant's infrastructure has to scale, too. With the Cisco, VMware, and NetApp environment, we have that capability."

Now Radiant can more easily tailor its offerings to the customer's individual needs. "Some customers still feel strongly that they need dedicated hardware for certain applications," says Neilly. "With the secure multi-tenancy architecture, we can offer them all-virtual, all-dedicated, or mix and match. And we can change it on the fly. That degree of flexibility gives us a powerful edge in meeting customer needs and in our sales cycle."

Fast provisioning today, self-service tomorrow

When Radiant's virtual data center customers need changes to their cloud-based services, they want them now. A typical case is deploying a new application. Radiant can turn up a virtual server with either a Windows® or Linux® operating system, and let the customer load its own application. Alternatively, the customer can provide the VMware image, OS, and application, and Radiant loads the entire software stack on its VMware cluster. Either way, the application is typically up and running within 24 hours.

That's much faster than the customer could provision a new physical server, but Radiant isn't satisfied. "We want to put the tools in the customer's hands, so that they can provision their own services," Leeson says. "We plan to offer a self-service portal where our customers can add servers, applications, and other services in as little as 15 minutes."

Ease of management and great support

The new environment is making life easier for the IT staff at Radiant. "My team is fired up about the way the Cisco, VMware, and NetApp environments work together," Leeson says. "They can manage the environment directly from the VMware vCenter™ console, saving time and streamlining system administration. We can bring on new customers without growing our staff."

Radiant is also benefiting from the collaborative support model. "There's never any finger pointing," Leeson says. "The three vendors work closely to resolve issues, reducing our management overhead. And we extend that model to our channel partners, which helps them sell Radiant's services to their customers."

Growing the list of cloud-based offerings

In Radiant's hosted e-mail service, each customer gets its own dedicated instance of Microsoft Exchange with its own Active Directory® linked to Radiant's data center. Based on its success selling hosted e-mail, Radiant is evaluating other application-level offerings, including Microsoft SharePoint® and OCS. To complement its virtual server offerings, Radiant plans to offer secure virtual storage. This offering will be based on NetApp storage, with NetApp MultiStore software providing the secure multi-tenancy at the storage layer.

Leeson sums up the situation that Radiant faces—and the opportunity: "Cloud computing is new for many of our customers, and as a result we face two key challenges: educating them on what it is and why they should care, and convincing them that it's a secure, reliable, and cost-effective alternative to building and managing their own infrastructure. The Cisco, VMware, and NetApp secure multi-tenancy solution gives us the credibility and flexibility to meet those challenges."

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SOLUTION COMPONENTS

FlexPod Components
NetApp FAS3140 storage system

Cisco UCS blade servers

Cisco Nexus 1000V and 5000 switches

Virtualization Components
VMware vSphere® 4

VMware vCenter

NetApp Software
NetApp Data ONTAP® 7G operating system

NetApp MultiStore

NetApp SnapManager for Virtual Infrastructure

NetApp Global Services
Implementation

Protocols
NFS, iSCSI, CIFS

Partners
The Seven Group
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