NetApp®

Success Story

Salsa Labs Delivers Powerful Software as a Service with NetApp and Red Hat

salsa
INGREDIENTS FOR ORGANIZING

Another NetApp
solution delivered by:

redhat.

Customer Profile

Since 2004, Salsa Labs has provided the solutions and services that help organize, mobilize, and engage the employees, volunteers, donors, and audiences of its thousands of customers. From nonprofit organizations and unions to political entities and their campaigns, Salsa offers its customers an integrated, flexible platform as a service, enabling them to communicate and collaborate with their end users far better than any other solution available.

Organizations choose from dozens of Salsa and third-party tools, and can tap into Salsa's training and online community of more than 2,000 user groups supporting 50 million members, donors, and activists from around the world. Headquartered in Washington, D.C., Salsa has an office in Austin, Texas, and a worldwide network of developers and partners.

The Challenge
Evolving its data center

The vision of Salsa Labs is rooted in the innovation of organizing. Since its inception, the company has remained focused on discovering new ways to use technology to enhance, rather than deplete, its clients' resources; to leverage software to empower, rather than impair; and to use technology to help customers further the causes they believe in. That vision has enabled Salsa to adapt to the fast-changing online organizing landscape and generate substantial growth, both within the U.S. nonprofit and political sectors and from entirely new markets.

To continue to deliver emerging online tools that democratize and revolutionize online communications and organizing activities, the company needed to evolve its data center. While Salsa Labs customers benefit from the integration offered in the Salsa platform, Salsa was increasingly challenged by a lack of unification across its storage infrastructure. "We had a variety of storage solutions and no unified and systematic method for provisioning storage," says Justin Nemmers, chief operating officer, Salsa Labs.

In addition to integrating storage resources into a unified platform, the company wanted to expand its virtualization strategy to continue to meet

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Justin Nemmers
Chief Operating Officer, Salsa Labs

customer demand and reach new markets. A long-time Red Hat Enterprise Linux® user, Salsa wanted to leverage Red Hat Enterprise Virtualization to help deliver a virtual server environment built around kernel-based virtual machine virtualization technology, and needed a storage solution that would support it.

"We depend on Red Hat for its innovative, market-leading open-source software, and needed a storage solution that offered an open-standards unified architecture and seamless integration with Red Hat," says Nemmers. Nemmers stressed the importance of the storage solution's integration with Red Hat Enterprise Virtualization, which offered the desired virtualization capabilities at lower total cost of ownership than other virtualization solutions. "Our typical client has limited financial and IT resources, so it's imperative that we can offer our services at a competitive price, and a cost-effective IT infrastructure helps us provide that," he says.

Salsa explored numerous storage solutions, searching for one that offered a shared storage capability, scalability, flexibility, integration with Red Hat technology, NFS protocol support, and a pathway to virtualization. Salsa Labs ultimately chose NetApp storage.

The Solution
Gaining powerful capabilities, quickly and easily

Salsa quickly deployed two easy-to-use NetApp FAS2050 storage systems in its northern Virginia data center. "Less than two weeks after delivery, we were running production workloads on NetApp unified storage," says Nemmers. NetApp allows Salsa to continue to utilize its NFS and Gigabit Ethernet technologies without having to invest in Fibre Channel, and without having to completely reengineer and rearchitect its storage environment.

"We offer our customers a turnkey solution that provides powerful capabilities without them having to invest much time and energy," says Nemmers. "NetApp offers us a similar solution." Salsa takes advantage of the simplified storage management offered by NetApp Data ONTAP®, which helps increase storage utilization and efficiency. Data ONTAP enhances the productivity of the company's storage administrators, allowing them to focus more time on serving their business units and the changing needs of Salsa's unique customer base. Salsa IT simplifies backup activities using NetApp Snapshot® technology to easily, instantly create backup copies of internal business data.

Salsa further streamlines storage management using NetApp Operations Manager, which provides a complete picture of the storage resources that deliver the company's organizing and communication tools to its customers. "The NetApp configuration, performance, alerting, and reporting capabilities promote system health and performance, which helps us ensure the ongoing availability of the Salsa platform for our customers," says Nemmers.

Salsa Labs is gaining additional efficiencies through virtualization, with approximately 70% of its production workloads virtualized on NetApp storage. Salsa creates, deploys, and manages its critical enterprise server workloads and virtual machines using Red Hat Enterprise Virtualization. The virtualized environment includes production and replica database instances and the majority of Salsa's Web server, load balancing, support, and ancillary e-mail systems that support activities such as advocacy messaging.

The NetApp storage solution delivers the extensible, customizable Salsa platform, powered by a combination of Java® and Salsa's own server-side SalsaScript framework, which uses embedded JavaScript and runs on Apache Tomcat and Apache Web
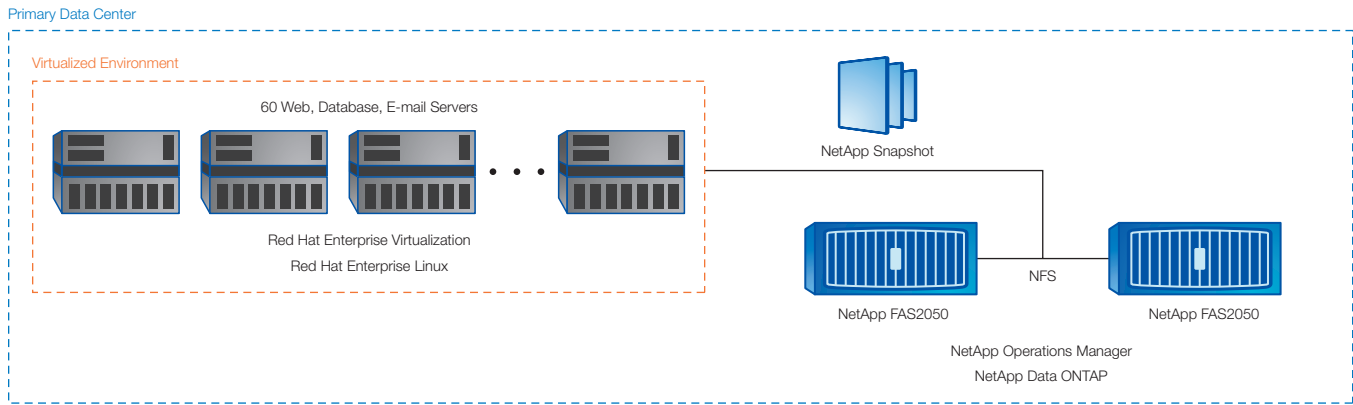
Figure 1) Salsa Labs storage infrastructure.

server, with a MySQL database. Its primary servers run on Red Hat Enterprise Linux, providing Salsa with a consistent application environment, along with platform stability across a broad ecosystem of systems and applications.

Business Benefits
Efficiency through advanced virtualization technology

NetApp efficiency and integration with Red Hat virtualization technology helps Salsa Labs optimize its IT infrastructure and deliver cost-effective services and solutions to the leading nonprofit and political organizations that it serves. Red Hat is a member of the NetApp Alliance Partner Program, a partnership that is crucial to delivering well-integrated joint solutions that offer maximum value to NetApp customers. "NetApp works closely with Red Hat to architect storage solutions that enable joint customers such as Salsa Labs to optimize Red Hat Enterprise Virtualization," says Andrew Cathrow, product manager, Red Hat Enterprise Virtualization at Red Hat.

NetApp and Red Hat integration enables Salsa IT to easily create virtual machines in the Red Hat Enterprise Virtualization environment. "In a matter of minutes, we can set up and test a simple instance of Red Hat Enterprise Virtualization on our NetApp storage platform," says Nemmers.

Effectively managing a growing application environment

NetApp storage provides Salsa Labs with a unified storage platform, end-to-end visibility, and centralized management. "NetApp Data ONTAP and Operations Manager give us a common operating picture of how and where we're storing our Salsa platform and applications such as Donation Management, State and Local Advocacy Targeting, and Volunteer Management," says Nemmers. "With NetApp, we can effectively manage our growing server and application environment on a limited budget, while optimizing our storage space."

Salsa relies on the unified NetApp storage platform, Data ONTAP, and Operations Manager for flexible resource allocation and load balancing. "NetApp allows us to better balance our workloads and prevent wasted storage space," says Nemmers. "This is especially important in our growing virtualized environment, deployment of virtual machines and virtual workloads, and delivery of new Salsa solutions."

Salsa also depends on Red Hat Enterprise Virtualization for virtualization management capabilities. Using Red Hat Enterprise Virtualization Manager, Salsa leverages live migration, prioritized high availability, load balancing,

system scheduler, power saving, and other features to manage its growing virtual environment.

The flexibility and scalability to think smarter

With the flexible NetApp FAS storage system, Salsa can quickly add or remove capacity on demand, which is critical for the dynamic nature of the services it delivers. "During marketing campaigns, for example, the storage requirements for our clients can suddenly skyrocket," says Nemmers. "To allow a particular client to act quickly during a recent election, we needed to immediately add storage capacity. With the NetApp shared infrastructure and easy management, we simply clicked a couple of buttons and added Web server capacity in minutes."

Red Hat Enterprise Virtualization also provides Salsa with important scalability. "Red Hat Enterprise Virtualization offers us the flexibility and end-to-end virtualization capabilities to support our virtualization strategy today and moving forward," says Nemmers. "Red Hat allows us to virtualize even our most demanding application workloads, and easily scale up our virtual machines and Exchange workloads as customer requirements change and we deploy new services."

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Nemmers plans to gain additional NetApp storage flexibility and efficiency in the near future with NetApp deduplication and other capabilities. "NetApp scalability will allow us to expand capacity, add incremental functionality, and upgrade to a larger system quickly and easily, if needed," says Nemmers. "NetApp is tightly aligned with our growth path and will continue to enable us to think smarter while freeing up our IT resources to deliver emerging online organizing tools to our clients."

SOLUTION COMPONENTS

NetApp Products
NetApp FAS2050 storage systems

Data ONTAP 7.3.3

Operations Manager

Snapshot technology

Third-Party Products
Red Hat Enterprise Virtualization

Red Hat Enterprise Linux

Microsoft® Exchange Server 2010

Apache Tomcat

Apache Web server

Protocols
NFS

GbE

Environment
Applications: Salsa Labs' custom open-source business solutions

Server platform: Microsoft SQL Server®

Database: MySQL database

Partner
Red Hat
www.redhat.com

NetApp®

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