



Rackspace—Managing and Supporting Multiple Linux Platforms with SUSE®

When support for Red Hat Enterprise Linux 4 ended, Rackspace needed a flexible solution for path delivery to multiple Linux platforms and a provider to help enhance their **Fanatical Support®** to affected customers. Only SUSE had multi-Linux-distribution capabilities.



Overview

ABOUT RACKSPACE

Rackspace® Hosting (NYSE: RAX) is the global leader in hybrid cloud and founder of OpenStack®, the open-source operating system for the cloud. Hundreds of thousands of customers look to Rackspace to deliver the best-fit infrastructure for their IT needs, leveraging a product portfolio that allows workloads to run where they perform best—whether on the public cloud, private cloud, dedicated servers, or a combination of platforms. The company's award-winning **Fanatical Support®** helps customers successfully architect, deploy and run their most critical applications. Headquartered in San Antonio, TX, Rackspace operates

“SUSE’s flexibility makes them the ideal provider for our solution.”

AARON CONKLIN

Product Manager
Rackspace

data centers on four continents. Rackspace is featured on *Fortune's* list of *100 Best Companies to Work For*. For more information, visit: www.rackspace.com

Challenge

Rackspace's ability to deliver Fanatical Support was tested by events beyond its control. The company's cloud service business includes small-to-mid-sized businesses (SMBs) as well as large enterprise. Many of these customers run Linux variants, predominantly, Red Hat Enterprise Linux (RHEL). When Red Hat announced that it was ending support for RHEL 4 in February 2012, Rackspace immediately spotted a difficulty for its many customers on this platform: they would need a longer period, 12 to 24 months, to make a smooth transition to another environment.

How could Rackspace provide these customers with support including patch management? Rackspace used Red Hat Network Satellite for configuration and



Rackspace® Hosting at a Glance:

■ Industry and Location

Information Technology: Cloud Computing Services, United States

■ Products and Services

SUSE Manager
SUSE Linux Enterprise Server with Expanded Support
SUSE Linux Enterprise High Availability Extension

patch management of all its customers' RHEL versions. But this tool could handle only RHEL distributions. Adding a new patch management solution for RHEL 4 users alone would multiply the number of such systems—increasing IT complexity and costs.

Rackspace looked at Spacewalk, an open source Linux management solution. Red Hat Network Satellite was based on Spacewalk, so Spacewalk could provide patch management for all RHEL versions as well as for other Linux variants including CentOS (a free version of RHEL), openSUSE® and SUSE® Linux Enterprise Server. What's more, with Spacewalk, Rackspace could handle all of these systems from "one pane of glass."

But Spacewalk had its limitations, too. To make it ready for enterprise use, Rackspace would need to develop and refine it—especially the user interface. This work would take at least 18 months—so it wouldn't be ready for the RHEL 4 end-of-service. Also, an open source community could not provide ad hoc engineering and support, for example, addressing requests for special features or configurations—like the high availability environment that Rackspace needed to provide excellent support. In short, Rackspace wanted a flexible patch management system and a provider to extend support for its RHEL 4 customers during their transition—and both with the ability to handle multiple Linux platforms.

Solution

FINDING A SOLUTION PARTNER AND A PATCH MANAGEMENT SYSTEM

Rackspace reached out to all major organizations in the Linux operating system development business—big names and boutiques. Then Microsoft, a solution partner of

both Rackspace and SUSE, brought SUSE into the deal. SUSE had a service offering—SUSE Linux Enterprise Server with Expanded Support—that could support multiple Linux distributions as well as a configuration and management system, SUSE Manager. Based on Spacewalk, SUSE Manager could deliver and manage patches for Red Hat and similar distributions as well as its own operating system.

Also critical, SUSE was willing to take on the challenge. "Almost nobody, other than SUSE, wanted to play in this market, and those that did couldn't field a multi-distro-capable solution," says Aaron Conklin, Product Manager at Rackspace.

The value of choosing SUSE was reaffirmed six months later when Red Hat announced a price increase for cloud service providers. Many Rackspace customers, especially SMBs, were price-sensitive. Rackspace came up with the idea of moving them to CentOS, a free, open source version of RHEL that SUSE Manager could handle as well.

"SUSE has been willing to reach out beyond their distribution to bring their type of management-and-configuration tools to support CentOS and other options out there. SUSE's flexibility makes them the ideal provider for our solution," comments Conklin.

A HIGH AVAILABILITY, SCALABLE IMPLEMENTATION

Rackspace engaged SUSE Professional Services to deploy the new system and provide knowledge transfer. Today, SUSE is implementing the new SUSE Manager environment customized for extensive scaling—a sort of SUSE Manager of SUSE

Managers. Rackspace is integrating its own tools for moving customers between channels and registering and removing boxes utilizing the SUSE Manager API.

Three of the planned worldwide data centers—one in the U.S., one in Europe, and one in Asia-Pacific—are up and running. The rest are scheduled to come online in the fall of 2013. In each data center, the implementation consists of nine servers: two with SUSE Linux Enterprise Server and SUSE Linux Enterprise High Availability (HA) Extension running SUSE Manager, four running the SUSE Manager proxy software, and three running an Oracle Real database. These servers include Dell 720s (mostly), 810s, and 820s with dual socket 6-core Intel processors and 64 GB RAM.

Because the previous Rackspace environment didn't scale well, each new data center is designed to handle up to 30,000 hosts to start. In alignment with the Rackspace commitment to Fanatical Support, SUSE Professional Services is building these environments to be non-disruptive—with the SUSE Linux Enterprise High Availability Extension, SAN storage, multi-path I/O, customized scripting for cluster enablement and failover, optimized JAVA memory stacks for the Tomcat application component and Taskomatic processes.

Customers who choose the Rackspace patch management service are integrated into this environment with Rackspace providing the service using a SUSE Manager interface similar to the former patch management system.

"SUSE has been great to work with," says Tim Symchych, Director of Strategic Sourcing, Rackspace.

Results

The SUSE relationship and solution are already generating benefits for Rackspace and its customers:

Fast time-to-market. According to Aaron Conklin, “A Rackspace team would have taken 18 months to develop and refine Spacewalk to be market ready. By using SUSE Manager and working with SUSE Professional Services, we probably saved a year in deployment time.” In addition, a common Spacewalk foundation resulted in similarity between the user interface of SUSE Manager and Red Hat management system made training faster and easier for Rackspace personnel.

Cost savings for Rackspace and its customers. SUSE’s price structure proved to be less expensive than Red Hat’s, especially with the latter’s price increase. In fact, Rackspace has saved multiples of

the cost of new Red Hat cloud pricing. Equally important, SUSE has provided a low-cost unified Linux management infrastructure to standardize server patching and management.

Simplified IT environment and easy delivery of support. Because SUSE Manager can provide patch management for multiple Linux distributions, it reduces the number of different patch management systems Rackspace needs to deploy to serve its customers—now and in the future. This also enhances the productivity of Rackspace support, which can service many different Linux distributions from “a single pane of glass.”

Customer satisfaction and enhanced competitiveness. Many Rackspace customers have been with the company from two-to-five years or more. The company competes on quality of service and

affordable cost. The SUSE relationship and solution have enabled Rackspace to keep prices stable while, at the same time, offering high-quality patch management services 24x7 in a reliable environment.

According to Conklin, “Since the launch of SUSE Manager with Expanded support, after only three months going live with little marketing, we have already seen over 50% of our new managed/dedicated cloud workloads choosing CentOS backed by SUSE to save money by moving from Red Hat without sacrificing enterprise-grade SLAs (service-level agreements).”

Aaron Conklin sums it all up: “Rackspace’s goal is to offer **Fanatical Support** anywhere in the world, in our data centers, in a competitor’s data center, in a customer’s own facility. Tools like SUSE Manager that allow us to reach into other environments are exactly what we need in the coming years.”

“SUSE has been great to work with.”

TIM SYMCHYCH

Director of Strategic Sourcing
Rackspace

www.suse.com



**Contact your local SUSE Solutions Provider,
or call SUSE at:**

1 800 796 3700 U.S./Canada
1 801 861 4500 Worldwide

SUSE
Maxfeldstrasse 5
90409 Nuremberg
Germany