

Dell and Red Hat Collaborate to Deliver OpenStack for Enterprise

Dell pragmatically invests in partners to fill-in most cloud strategy gaps.

Highlights of the Dell – Red Hat Joint Announcement on 12/12/2013

- Dell and Red Hat will expand their collaboration to co-engineer enterprise-grade OpenStack for private clouds.
- Dell is the first company to “OEM” Red Hat Enterprise Linux (RHEL) OpenStack Platform, containing RHEL, KVM, and OpenStack.
- Dell has joined the Red Hat OpenStack Cloud Infrastructure Partner Network as an Alliance Partner.
- Dell will provide professional services, delivery, and support for RHEL OpenStack Platform through a dedicated practice within Dell Cloud Services.

Topline Observations

We believe that this broad collaboration between Dell and Red Hat is transformative to enterprise IT private cloud deployments. RHEL OpenStack Platform has a good chance to be perceived as the “most standard” version of OpenStack, potentially providing Dell advantages with enterprise IT clients favoring more open implementations.

What is OpenStack?

The goal of OpenStack is really simple. A slight mash-up from their website yields: an open source cloud computing platform for public and private clouds that is simple to implement, massively scalable and feature rich. At first glance, OpenStack’s public cloud competitors are Amazon Web Services (AWS) and Google’s Compute Engine (GCE). Although it may be somewhat risky to agree with Cloudscaling’s founder and CTO Randy Bias, we agree with his view that OpenStack is a software framework that will enable folks who own hyperscale datacenters (folks who have paid for buildings, physical servers, storage, networking, and utility contracts) compete with AWS and GCE in the public cloud market, if they so wish, but OpenStack is not directly comparable to either. More importantly, OpenStack is designed to enable hosters and smaller enterprise IT datacenter operators to stand up their own private clouds. OpenStack was founded by Rackspace and NASA precisely for that purpose.

That sounds like its being built to be enterprise-ready, but there is a catch.

OpenStack is a collection of software modules for compute, storage and networking that plug together to create a service. The OpenStack community offers a lot of modules, and therefore a lot of choices, for assembling a service. Looking at storage modules as an example, would you like block, file or object storage with your OpenStack? Each one

has a selection of modules available, many are supported by independent third party vendors, and some of the modules span the three storage types. Deciding on a storage model and which module to implement is not straightforward, and that's one of the simpler decisions in standing up an OpenStack implementation.

OpenStack is also still very much a work in progress, with yearly major releases pounding out a cadence of upgrades and updates to existing modules while new modules are introduced. Module upgrades and introductions are determined by user-base interest – which contributors are willing to invest in which modules – and so different features and capabilities of OpenStack are maturing at different rates.

Red Hat's OpenStack Aspirations

Red Hat's Enterprise Linux has become the standard for enterprise Linux computing solutions, but deploying private clouds is now also dependent on software defined networking and storage.

Radhesh Balakrishnan, GM of Red Hat's Virtualization Business Unit, shared that their default customer engagement is now a solution-based relationship based on services and not solely on products. The baseline solution that customers are asking for breaks down into delivering a hypervisor, a cloud operating framework, and a consistent API for delivering application that can migrate and scale within and across private and public clouds.

One of the challenges Red Hat faces is that their standard RHEL product has a typical lifecycle of 10-years, but OpenStack is on a 6-month upstream release schedule. Early OpenStack customers are on roughly an 18-month lifecycle for a given release, and tend to leapfrog to a current release when they upgrade (skipping releases in between).

Red Hat introduced their OpenStack distribution for general availability last July, after over two years of work building a solid foundation with the OpenStack organization. RHEL OpenStack Platform will be on a faster release cadence (it's now on 4.0) than RHEL the Linux distribution (7.0 beta was just announced) during the next few years as OpenStack goes through rapid evolution.

RHEL OpenStack Platform is the future of Red Hat; it is a bet the company initiative. In effect it is Linux all over again. Over the last couple of years, Red Hat has become a major contributor to OpenStack, and in the last two releases they were the top contributor and have become a Platinum member.

Dell's OpenStack Aspirations

Dell has always been a standards-based vendor, Michael built it into the company's DNA. Dell played a crucial role in working with Red Hat to make RHEL the standard for enterprise Linux deployments.

Dell points out that over half of the resources needed to deliver an enterprise server to market are now software, and that over 4 of 5 servers are now virtualized. Their customers are rapidly moving past virtualization and are asking about how to stand up private cloud services.

Dell looks at their opportunity with OpenStack as an acceleration function – moving OpenStack from an emerging hosting and third-party outsourced services customer base to become the standard in-house private cloud solution. For Dell that means not owning the standard distribution, but instead working with Red Hat, who transformed the market for open operating systems.

In addition, Dell is anticipating that close collaboration with Red Hat to deliver enterprise-grade RHEL OpenStack Platform will enable Dell to engineer better OpenStack hardware platforms – along the lines of [Oracle's Engineered Systems](#) strategy.

Dell is a Gold member of the OpenStack organization and also has been (and remains) a significant contributor to OpenStack.

Dell and Red Hat Strengthen Collaboration to Deliver RHEL OpenStack Platform

Most enterprise IT organizations are conservative when it comes to overly complex decision matrices or immature product stacks, and both at once compounds the perceived risk. In order for enterprise IT in general to consider adopting OpenStack for their private cloud operating environment, these conditions must be met:

- **Regular delivery cadence for a comprehensive core set of enterprise hardened and supported modules.** This is the centerpiece of today's Dell and Red Hat partnership – they will co-engineer an enterprise-grade OpenStack distribution, just like Red Hat hardened Linux for the enterprise market. Dell DCS will deliver and support this new OpenStack distribution via a dedicated practice within DCS. Dell gets access to a known good open source delivery channel into enterprise accounts and Red Hat gets deeper insight into datacenter hardware evolution and a strong partner to bring that innovation to market. It's a net win for both companies.
- **Professional services assistance in configuring the right set of modules to meet the requirements for specific customers' private clouds.** Dell Cloud Consulting and Application Services is being formed to assess customers' private cloud needs and provide guidance to them on building and running an OpenStack environment. Red Hat does not provide professional services, they could not have addressed this group of enterprise customers without deciding to extend their business model (a substantial investment that probably would have involved M&A activity).

- **Capability to scale capacity from private to public clouds on demand, and then back again...** otherwise why invest in building a private cloud capability? Simultaneous with the announcement that Dell and Red Hat will jointly develop an enterprise-grade OpenStack distribution, Dell is also announcing cloud partnerships with Google and Microsoft. Dell Cloud Consulting and Application Services will work with customers to ensure that applications designed and written to run on this joint OpenStack distribution can scale as needed to one or more of these large public clouds. Adding these large clouds to Dell's Cloud Partner Program does not make much sense without putting all of the above capabilities in place.

There is not a lot to dislike about this bundle of partnerships. HP has a head-start, but we believe this is a credible strategic counter to HP's Cloud OS strategy (effectively HP's OpenStack distribution, which is already a competitor to Red Hat), HP's professional services, and to HP's public cloud capability. Execution will be critical for Dell to succeed. Dell still needs to align its sales, marketing, and services teams with Google, Microsoft, and Red Hat to reach a fully-functioning and aligned go-to-market motion, something HP has recently shored up. Additionally, there are a few moving parts that need to be maintained over time, but given that occurs, it is a comparatively small price to pay to implement this competitive strategy.

This is a bold and smart move by Dell.

Important Information About This Paper

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