Dual-Source Virtualization Clears Path to Open Hybrid Clouds

Companies value security, performance and support in quest to build new IT paradigm.

At enterprises everywhere, private clouds are catching on. And increasingly, businesses are finding that an open hybrid approach to building private clouds is the best way to maximize their benefits—cost-effective, flexible computing and storage capacity without single-vendor limitations. That conclusion is causing IT leaders to seek out alternative providers of virtualization technology as well as technology to manage a heterogeneous virtual environment.

How important is it to build an open hybrid cloud? In a recent IDG Quick Poll of U.S. CIOs involved in purchasing cloud solutions, more than one-third of respondents say they highly prioritize an open hybrid architecture, and the importance of open hybrid grows with company size. Forty-eight percent of respondents at companies with 500 or more employees consider the ability to build an open hybrid cloud to be a critical/very important priority.

"Standardization on a single vendor mainly has to do with weighing the benefits versus the costs," says Chuck Dubuque, Red Hat senior manager of product marketing. Small businesses might be happy with a standardized environment of a single OS, single virtualization platform and single hardware vendor, he says, but midsize to larger companies are likely to have more complex IT needs—as well as pools of Linux, cloud and other expertise in-house. These companies are more likely to want to avoid locking in with a single vendor, whether for virtualization technology or hardware.

Experience may be the best teacher: 45 percent of survey participants have already built a private cloud or are in the process of building one, according to the Quick Poll. Another 22 percent intend to build a private cloud within the next 24 months.

When building a private cloud, respondents cite the need for flexibility, cost-effectiveness and better performance/scalability as the top factors that lead to consideration of alternative virtualization vendors (See chart on next page). Providers that don't require a long-term commitment, and those that can provide a better ROI and/or better performance and scalability, are more appealing to respondents who are already using multiple virtualization vendors when building a private cloud:

- 48 percent want a flexible/agile platform that can support rapid change.
- 40 percent need a more cost-effective solution.
- 38 percent need better performance and scalability.
- 36 percent must have better virtualization ROI.
- 33 percent are looking for vendors with combined Linux and Windows performance.

VMware remains the primary virtualization vendor currently in use, according to the Quick Poll, but other vendors are expected to make inroads during the next 12 months—including Red Hat Enterprise Virtualization, respondents say.

Keep it open

Respondents deem visibility into security and performance across the cloud environment as the most important capability when managing a heterogeneous cloud environment—although the ability to deploy and manage applications and easy integration with tools and software from a variety of other vendors are not far behind. Half the respondents cite consistent

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policy enforcement as a key capability, and 47 percent say providing self-service for users is important.

Taken together, the results of the Quick Poll show a rising awareness that a single-vendor cloud strategy might not be the wisest course—even among companies that currently use a single vendor for cloud-building.

"The conversation is moving beyond just virtualization," says Dubuque. "Businesses are looking at self-service, chargeback, predictive capacity management and deploying policies across an entire framework. If you're building a private cloud, you should build it so the capacity underneath it is abstracted in some way, so it doesn't have to be single vendor on top of single vendor."

Red Hat's role

For companies seeking multivendor capacity and interoperability, Red Hat has an advantage over some of its competitors because its range of components will work with other vendors' products. Red Hat's open hybrid cloud portfolio includes:

- Red Hat® Enterprise Linux® OpenStack® Platform for public or private OpenStack clouds

- Red Hat Enterprise Virtualization for managing virtualized data centers
- Red Hat Enterprise Linux and Red Hat JBoss Middleware for building cloud applications
- Red Hat Storage for hybrid cloud data access and storage
- Red Hat CloudForms for hybrid cloud management
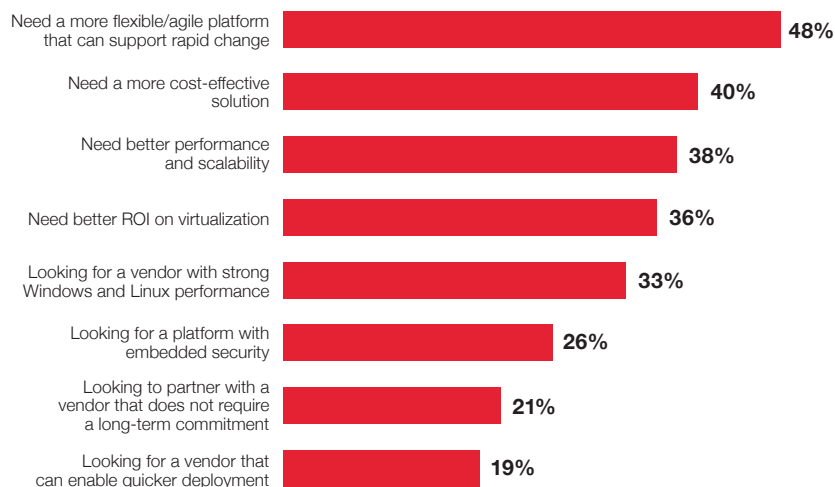- OpenShift Enterprise by Red Hat for platform as a service (PaaS).

Red Hat recently rolled out a cloud infrastructure that bundles Red Hat Enterprise Virtualization, CloudForms and Red Hat Enterprise Linux OpenStack Platform. The bundle provides a reference architecture for getting started with Red Hat Enterprise Virtualization and CloudForms, and an on-ramp to start working with OpenStack, according to Dubuque.

"Everything we do starts with our expertise in the Linux space.…We chose to enable KVM [Kernel-based Virtual Machine], which takes Linux and makes it into a hypervisor. We get the benefit of all the performance and scalability that we build into Red Hat Enterprise Linux and leverage that into our virtualization and cloud technologies."

When it comes to open hybrid cloud architectures, he adds, "Customers want best of breed and they want choice. Standardization has benefits, but locking yourself into one vendor restricts potential business growth."

Interest in hybrid clouds is likely to increase as companies realize their cloud-building options are expanding as rapidly as their need for adaptable, cost-effective infrastructure. The IDG Quick Poll findings demonstrate that many CIOs are very interested in keeping those options "open" to get the most out of virtualization and private cloud technologies.■

Drivers for Consideration of Alternate Virtualization Vendors When Building a Private Cloud

Driver	Percentage
Need a more flexible/agile platform that can support rapid change	48%
Need a more cost-effective solution	40%
Need better performance and scalability	38%
Need better ROI on virtualization	36%
Looking for a vendor with strong Windows and Linux performance	33%
Looking for a platform with embedded security	26%
Looking to partner with a vendor that does not require a long-term commitment	21%
Looking for a vendor that can enable quicker deployment	19%

SOURCE: IDG Research Services, May 2013

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