

# **INVESTOR'S BUSINESS DAILY**

### **TECHNOLOGY**

## OpenStack Gains In Cloud, Which **Companies Will Win?**



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penStack could soon be the software that runs the non-Amazon cloud.

Open-source software available for free, OpenStack helps corporate IT departments manage data centers packed with computer servers.

OpenStack has also gained popularity as a tool to connect data centers to public clouds, where computing resources are shared via the Internet.

But **Amazon.com**'s (AMZN) Amazon Web Services (AWS) is by far the biggest provider of infrastructure-as-a-service (IaaS). And it uses its own software, not OpenStack.

Still, OpenStack has gained popularity among enterprises that want to use multiple cloud platforms.

For investors, the question is: which companies will gain the most from OpenStack's rise as a cloud operating system?

"There's a big roster of household name IT vendors that are backing OpenStack — **Intel** (INTC), **IBM** (IBM), **Cisco Systems** (CSCO), Dell and **HP** (HPQ) — a lot of companies have placed a bet," said Al Sadowski, an analyst at 451 Research.

Worries over whether OpenStack could handle large business workloads have eased. So OpenStack seems primed for wide adoption, though there are open-source rivals such as **Citrix Systems**' (CTXS) CloudStack, points out James Staten, a Forrester Research analyst.

"The concerns now are less about the platform itself and who is influencing its development," Staten told IBD. "The concerns instead are about who takes OpenStack successfully to market and begins to lead through market power. That's a key theme worth watching in 2015."

#### Rackspace, NASA Developed

Rackspace Hosting (RAX) and government space agency NASA co-developed OpenStack in 2010, aiming to make the software a cloud computing standard. Rackspace's main business has been hosting websites. Rackspace stepped up investments in OpenStack in 2012 and 2013, but its revenue growth slowed as companies lingered in testing OpenStack's capabilities.

Rackspace now supports multiple cloud platforms and has become less dependent on OpenStack near term.

"While Rackspace continues to develop solutions on the OpenStack platform, management is providing managed cloud solutions across multiple technologies," wrote James Breen, a William Blair analyst, in a research report last month.

The OpenStack ecosystem is growing, says 451 Research. The market research firm says that OpenStack-related revenue will rise to \$3.49 billion in 2018 from \$890 million in 2014.

"All OpenStack needs to do is get to the same reliability and resiliency as the computing platforms it's replacing," Sadowski said. "It's clear, though, that OpenStack is gaining mindshare and marketing power."

Early backers hoped that OpenStack would slow the march of AWS. Oppenheimer analyst Tim Horan estimates that AWS revenue will jump 40% to roughly \$5 billion in 2015. Even so, "OpenStack is starting to mature as enterprises shift legacy IT workloads to cloud environments," Horan said.

**Expedia** (EXPE), **Walt Disney** (DIS), **Time Warner Cable** (TWC), **Wells Fargo** (WFC) and BMW are among recent OpenStack adopters, says 451 Research. Earlier users included **eBay**'s (EBAY) PayPal, **Best Buy** (BBY) and Fidelity Investments.

To attract corporate customers, OpenStack supporters positioned the open-source software as an alternative to **VMware** 's (VMW) software, widely used in data centers to make servers more efficient.

**Red Hat** (RHT), the leading provider of Linux open-source server software and a VMware rival, has lined up behind OpenStack.

But pushing its own cloud platform is still VMware's top priority, analysts say. With partners such as the privately held Mirantis, VMware sells software that helps its customers use OpenStack for building so-called "private" cloud data centers that are accessible by branch offices, clients and others.

Analysts say that most enterprises are interested in a public-private hybrid cloud model — running the most important business apps on their own servers behind a private corporate firewall and accessing public laaS providers as needed.

Many tech vendors are focused on providing tools for hybrid clouds. Rackspace aims to provide managed services in the hybrid cloud market rather than struggle vs. much bigger laaS firms AWS, **Microsoft** (MSFT) and **Google** (GOOGL).

#### **Positioned As Cloud Concierge**

"Rackspace continues to remain technology agnostic even as the company's OpenStack is increasingly attractive as a platform for public cloud," said Barclays analyst Sandeep Gupta in a report. "As AWS, Microsoft and Google continue to put pressure on pricing, we wouldn't be surprised if Rackspace positions itself as a cloud concierge to a hybrid cloud environment."

Many tech suppliers aim to use OpenStack to bridge private and public clouds.

"The strong leaders in OpenStack today are a mix. Hewlett-Packard and Red Hat are clearly strong voices in the community, as is SuSE, Mirantis, Internap (INAP) and arguably Cisco Systems due to their recent moves," said Forrester's Staten.

"Rackspace still has a strong voice, IBM to a lesser degree, as they are really only focusing on it for their private cloud initiatives."

IBM last year acquired cloud-service firm SoftLayer for \$2 billion. HP has said that it'll spend \$1 billion over the next two years on products and services around OpenStack.

451 Research says that Europe-based OVH and startup Blue Box have gained traction with OpenStack customers. Some companies are using acquisitions to gain a foothold in cloud computing services and OpenStack. **EMC** (EMC), another cloud company, acquired Cloudscaling in October, Cisco bought Metacloud in September and Red Hat purchased eNovance in June.

Lydia Leong, an analyst with research firm Gartner, agrees that OpenStack has gained momentum. The OpenStack Foundation, with more than 430 members, has regularly rolled out improved versions of the software.

"OpenStack is gaining more traction than it had before as the product starts to become more useable," Leong told IBD. "The primary beneficiaries are those that sell (software) distributions, such as Red Hat, HP and Mirantis."