

Infrastructure-as-a-Service

New providers innovate to win enterprise cloud business

By Larry Lange

New cloud-based IT infrastructure providers are taking aim at the enterprise market for infrastructure-as-a-service (IaaS) by offering the kind of innovative solutions for which there is growing demand, especially private cloud hosting and consulting.

But they face stiff competition from IT outsourcing (ITO) providers like IBM and Hewlett Packard, according to the PwC IT Outsourcing and Cloud Computing Survey. The survey suggests that many, if not most, functions of the traditional data center—internal or outsourced—will gradually migrate to the cloud.

“It’s an opportunity for smaller, more nimble and younger companies like us to really take advantage of that shift. It’s a threat for all the big guys,” says John Engates, CTO at Rackspace, which has offered some version of these services since 1998.

Engates was one of several IaaS executives who reviewed results from the PwC survey, which reveals a slight preference for new cloud-focused service providers over traditional IT outsourcing vendors to manage private clouds. The survey of CIOs and other senior executives at 489 companies found:

- 77 percent had a cloud plan (completed or in development).

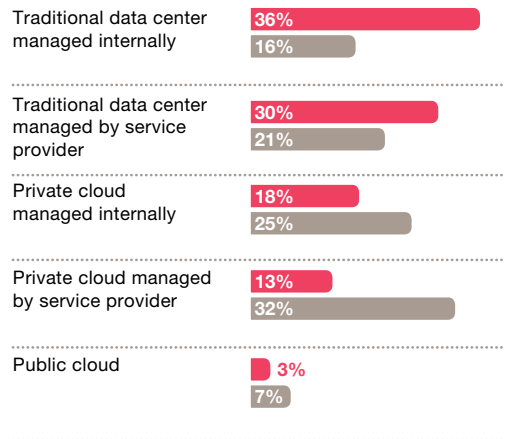
- 64 percent said some type of cloud, including private and public, would be the best way to manage IT infrastructure in three years. (See Figure 1)

Figure 1: Best today, in 3 years

Question

Considering all the different ways of managing IT infrastructure, please indicate which you consider the one best solution today and in three years.

- Today
- In 3 years



n = 484

- 55 percent said service providers who specialize in private cloud offerings would be the best choice in three years. (See Figure 2)
- Even ITO customers leaned toward the new providers instead of their ITO partners: 45 percent of the 151 ITO customers who answered this question said new cloud-focused providers were best for managing private clouds now; 52 percent said they would be best in three years.

Reflecting on the findings, Engates says: “It is going to play out the way the PwC survey indicates.”

Mark Bilger, CTO for Dell Services, which recently entered the IaaS market, says IaaS is a “boon for ITO customers” who are thinking of moving workloads to the cloud because it gives them many of the same characteristics of ITO at a lower price and with greater flexibility.

Amazon Web Services (AWS) is the largest of these providers. Two others, RackSpace and GoGrid, have offered some type of infrastructure hosting for more than a decade. Much of their business comes from small firms and individuals, but they also have large enterprise customers. For example: AWS has Ericsson and Virgin Atlantic; Rackspace has Mazda and MillerCoors and GoGrid has the Orange Business Services, a unit of FranceTélécom.

AT&T has offered cloud storage and compute solutions for three years, and infrastructure hosting for more than a dozen years. More recent IaaS entrants include Dell and Fujitsu, well-known technology providers that have staked a claim on the cloud infrastructure business. Dell announced plans in early 2011; Fujitsu launched in late 2009 in Australia and Europe, and recently in North America.

45%

Percentage of organizations that outsource IT indicating that new IaaS service providers were the best solution for private clouds

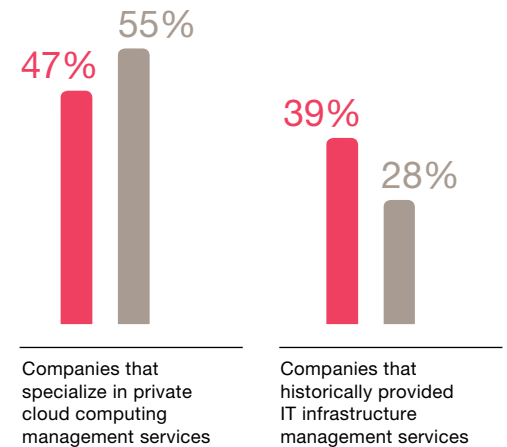
Figure 2: Best at managing private clouds

Question

Which type of vendors do you consider the best source of managed private cloud computing services today and in three years, based on what you've heard, read or experienced first-hand?

■ Today
■ In 3 years

n = 264



Fujitsu Global Cloud is focused entirely on the enterprise market, according to Jody Little, vice president of cloud portfolio at Fujitsu America. “Cloud is bringing rapid improvements to the data center that are equivalent to the magnitude of technology advances we have experienced in our personal lives over the past decade through growth in Internet businesses, advances in mobile technology and adoption of social media,” Little says.

The survey indicates the migration to the cloud could also take a long time. The respondents currently had an average of 31 percent of IT resources allocated to some form of private or public cloud; they said that figure would rise to 34 percent in three years—not exactly a groundswell.



Dhiraj Pathak

Leader in PwC's cloud services practice

“Cloud options for enterprises are definitely set to rapidly expand,” says Dhiraj Pathak of PwC's cloud services practice. “More and more clients are buying-into the cloud promise. But buying-into the promise and actually making big changes are two different things. Many are still holding back from a bold cloud strategy because of the perceived complexity of the transition to cloud. Add to this the excessive market hype about cloud, lack of cloud standards and

IaaS executives, however, are confident that they already offer the managed private cloud services in demand; that they understand the model better and that at least some of them benefit from having gotten into the game ahead of their ITO rivals.

Rackspace calls its managed private cloud service “Enterprise Cloud”—leaving little doubt about the intended customer. Likewise, GoGrid

The best way to take advantage of the promise of cloud computing is to embed the cloud into the architectural fabric of the enterprise.

the shortage of cloud expertise in most enterprises and it is not hard to see a long adoption cycle ahead for cloud computing.”

The big question for IaaS providers: Over the long haul, can they match the spending, innovation and marketing one can expect from ITO providers, many of whom already offer cloud services?

IBM, for example, is making major investments in its cloud offerings. It projects \$7 billion in cloud-related revenue by 2015.¹

hosts a private cloud offering, which John Keagy, executive chairman and founder, likens to “training wheels” for customers entering the cloud for the first time.

“They want all the great things the public cloud can offer, but they’re afraid of it for legal, compliance, security, political or whatever reasons,” Keagy says. “So right now, we’re giving them a hosted private cloud using dedicated hardware that leverages public cloud technology and architecture.” The survey confirms that all those concerns—with security number one—do exist.

AWS, AT&T, Dell and Fujitsu also offer or soon will offer private cloud hosting. Dell and Fujitsu also are partnering with Microsoft on related initiatives.

For the foreseeable future, there is likely to be enough demand to keep everyone busy. But besides deep pockets and trusted brands, another differentiator for ITOs is the vast experience many of them have with consulting services.

In the survey, only 18 percent of respondents said 51 percent or more of their compute workloads were ready for the cloud today,

18%

Percentage of respondents who said 51 percent or more of their compute workloads were ready for the cloud today

¹ <http://www.ibm.com/investor/events/investor0311/presentation/pres3.pdf>; see Slide 23 “Growth Initiatives”

suggesting a market for consulting services to help determine the when, what, where and how of migration.

PwC's Pathak agrees there is wide scope for helping enterprises migrate applications to the cloud. "But like any other technology shift, the best way to take advantage of the promise of cloud computing is to embed the cloud into the architectural fabric of the enterprise and seek out opportunities for moving workloads to the cloud when the business is pushing for changes in existing applications or seeking new applications to drive growth."

Recognizing the opportunity to help companies migrate to the cloud, some IaaS providers are offering consulting services, not just compute clouds.

Consulting is integral to Fujitsu's strategy, Little says. She says Fujitsu advisors help customers by taking them through the entire cloud lifecycle, putting together a roadmap, an ROI for the business value, workload assessments and design—and then helping them to modernize applications to align with migration and, finally, to migrating the applications. "We're full service; we cover the whole spectrum," Little says.

According to Bilger, Dell entered the IaaS consulting side before it began to offer private cloud management, creating a special advisory group called Data Center Solutions. "Today, we should really be calling it Data Center & Cloud Solutions," he adds.

Rackspace consultants advise enterprise customers on the applications they ought to move to the cloud, and on the architectures they ought to use. "It's a high-touch service we offer, for those willing to pay for it," Engates says.

Steve Caniano, vice president of hosting services at AT&T, holds a similar view: "Consulting is one of many key elements that shape our approach to providing complete private cloud hosting and virtual private cloud solutions to our customers."

Established ITO vendors aiming for the new cloud business would be wise to not ignore the modest and not-so-modest beginnings of these IaaS providers.

More insight on IT outsourcing and the cloud

To view customized survey results or read the other articles in the series, please visit www.pwc.com/technology and click on the **Future of IT Outsourcing** panel under *Highlights*.

