OpenStack Hype vs. Reality
Companies see promise; need for implementation expertise.

OpenStack® is a hot topic, and with good reason: This rapidly evolving open-source architecture can enable IT departments to build infrastructure-as-a-service (IaaS) clouds running on standard hardware. Companies of all sizes see the possibilities, a recent IDG Quick Poll of CIOs shows. But those companies may not be quite as aware of all the obstacles to an OpenStack deployment, the poll finds.

Respondents hail from a variety of industries and are evenly split between those from larger companies (600-plus employees) and smaller ones (less than 500 employees). Most respondents have at least some knowledge of OpenStack, and for many, deployment is on the roadmap—11 percent say they have deployed or implemented OpenStack, and another 11 percent report they are in the process of doing so (See chart on next page). Further, 23 percent say they will deploy or implement OpenStack within the next 24 months, and 20 percent plan to implement it, but have no timetable for implementation.

More than half the respondents say they are using or will use OpenStack in conjunction with an existing cloud provider. Sixty-five percent of respondents use or plan to use OpenStack for on-demand infrastructure, 62 percent say they use or will use OpenStack for private cloud capabilities, and 42 percent use or will use it for massive scalability, followed by public cloud and automation capabilities (40 percent each).

Most survey participants expect to reduce costs, increase IT service delivery efficiencies and improve flexibility by implementing OpenStack. But companies looking for short-term reduced costs should temper their expectations, says Chuck Dubuque, Red Hat senior manager of product marketing.

That anticipation of reduced costs may come from customers’ experience with public clouds, which are generally based on open-source technology and have a pay-as-you-go approach. “A lot of the features that customers are used to in simple virtualized environments don’t exist yet or may never need to exist on a cloud platform, because the two architectures support different types of applications,” Dubuque says. “A lot of folks don’t realize the difference between the two application models means very different requirements. People can spend a lot of money trying to force the wrong applications onto OpenStack, without really understanding that OpenStack isn’t the right place for those types of workloads.”

On the other hand, companies will see cost benefits for the right applications on an OpenStack system, such as cloud-enabled apps that are designed to provide distributed load balancing themselves rather than depending on the architecture underneath, according to Dubuque. “The workloads they deploy today in Amazon or other public cloud providers are the kinds of apps that are cloud-architected, and OpenStack is a great choice for those apps because they feed and care for themselves,” he says.

Managing OpenStack environments can also be a challenge. “The best customers for OpenStack today have probably already built a cloud or two themselves, either for test development or self-service, or they’re hosting service providers and they’ve built [a cloud] from scratch using KVM [Kernel-based Virtual Machine] and scripting tools,” Dubuque says.

A simple question
Finding the right match between applications and architecture is a big barrier as well. When companies approach Red Hat with these issues, getting an answer to a fundamental question—“What’s your definition of cloud?”—
is often the first step toward finding the right tools for the job, according to Dubuque. “For some, it’s a virtual [architecture] plus a little bit of extra monitoring and some chargeback. For others, cloud is ‘what I do on Amazon, but I want to bring it in-house,’ or ‘I want this highly scalable, set-it-and-forget-it [architecture], and I don’t have to pay for all those features I don’t need.’”

Red Hat has an open hybrid cloud portfolio that can help enterprises benefit from cloud computing across a range of physical, virtual and public cloud infrastructures—without lock-in. Red Hat’s open hybrid cloud products include:

- 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)

OpenStack can be complicated to implement—for every early adopter, there are many other companies that want to deploy it but don’t know where to start. The survey points to the need for experts to help with OpenStack implementations, and that is where Red Hat comes in—with its portfolio of open hybrid cloud services and unique position as a leader in the open-source community. Red Hat can help companies migrate from traditional workloads to cloud-enabled workloads on their own terms and their own timelines, as applications require, without locking into a single-vendor solution.

Red Hat and its partners collaborate with developer communities to hone the technologies that are used as testbeds for focused development, testing, hardening, integration and packaging. Red Hat stabilizes the technologies, ensures they are enterprise-ready, and then releases them as a stable, certified and commercially supported technology, Red Hat Enterprise Linux OpenStack Platform.

As more organizations look to OpenStack for the potential benefits of open hybrid cloud, removing some of the implementation complexity and management obstacles from the OpenStack equation is vital.

“There are a lot of golf-course conversations going on about OpenStack: There’s awareness and a buzz around it, but I think [too] few people who are talking about it have actually tried to deploy it, or know what it is,” Dubuque says. “Red Hat is investing in making the core OpenStack projects more secure, higher performance, and adding value to ease installation, update and deployment. Bringing those things to the OpenStack community will make OpenStack an ideal fit for the enterprise.”

As the IDG Quick Poll shows, a growing number of enterprises understand OpenStack can help them build open-source systems using conventional components. And many enterprises understand some assistance in implementing OpenStack is needed. Red Hat is an OpenStack provider that offers a broad portfolio of open hybrid cloud technologies and the expertise to ensure the right infrastructure and applications are in place to get an OpenStack architecture up and running.

To learn more, visit www.redhat.com