



I D C A N A L Y S T C O N N E C T I O N



Rick Villars

Vice President, Datacenter and Cloud

Business Challenges for Enterprises with Hybrid IT Environments

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With cloud computing becoming a de facto part of organizations' IT strategies, the notion of hybrid cloud quickly becomes part of the discussion. As companies face the myriad challenges of supporting employees, partners, and customers in a data-intensive world, the real focus is on the more inclusive concept of hybrid IT. IDC research shows that IT organizations increasingly recognize the importance of optimally managing diverse hybrid cloud environments in coordination with existing applications and datacenters but often overlook the host-diverse networking interoperability and WAN connectivity challenges a hybrid IT strategy poses. Companies need highly reliable and scalable systems of records, robust and rapidly changeable systems of engagement, and very sophisticated systems of insight. They also need a secure, scalable, and agile network foundation to interconnect these critical systems, ensuring that they all work together to optimize the user/customer experience.

The following questions were posed by CenturyLink to Rick Villars, vice president of IDC's Datacenter and Cloud program, on behalf of CenturyLink's customers.

Q. A lot of companies are talking about using hybrid clouds. Are they asking the right questions?

A. Many IT organizations ask us where hybrid cloud should fit into their IT portfolio. They've identified an existing business application and want to take advantage of cloud as a way to add disaster recovery or enable bursting. As we get deeper into that conversation, it becomes apparent that their business is already taking a broader perspective about how cloud is transforming the business, not just IT. Cloud efforts are already much more diverse. They are key to enabling a whole range of new services that the business needs to optimally function in different locations and datacenters for performance or time-to-market reasons. The company still owns and operates many of the applications underlying these services, but a growing portion require either data or IT resources from a cloud partner.

IT organizations that understand this new context recognize that their job is to manage a diversified set of cloud environments so they can deliver the best possible services to internal business units. Meeting those goals requires a hybrid IT strategy, not just a hybrid cloud strategy. IT organizations will need access to internal and external resources to pull together new services for their customers. The real conversation starts when they change the way they think about how much accommodating different sets of IT resources and optimizing service and application delivery will depend upon having the right networking and WAN foundations.

Q. What business challenges are companies trying to solve using hybrid IT?

- A. IT is no longer just about enabling existing resources such as critical databases, ERP systems, or product inventory systems. Those systems are still vital for running the business, but we're seeing business also reacting to the new world of big data and other social networks where companies are expected to continuously engage with their customers and partners on a real-time basis, as well as be able to capture and analyze this unstructured social data. The business isn't just trying to complete or record a transaction. It's also providing information to customers and collecting information from them using systems of engagement that foster an information exchange.

Increasingly, these systems of engagement determine how companies are being judged as competitive businesses. Customers don't expect you to just provide information; they also want insight. You have to deliver information in the right context and be smarter in using data about what they want or need, based on what they've been doing and where they are. In other words, they not only want but also expect to get the best information at the right time. What companies are looking for in a hybrid IT solution are the right sets of compute and data resources, linked with the right networking solutions to optimally address this requirement. As companies extend their data strategy beyond managing traditional structured data and into exploiting unstructured big data, they will increasingly require a hybrid IT solution that strikes the right balance of on-premise and off-premise compute, networking, and storage resources.

Q. What new challenges does hybrid IT pose for the IT organization?

- A. The first challenge in the world of hybrid IT is recognizing that the IT team is no longer focused on just the company's datacenters and the assets in those datacenters or dedicated off-premise assets often utilized for disaster recovery purposes. Increasingly, the IT team's job is to take advantage of resources in cloud and service providers' datacenters to get the best performance when delivering services to users, no matter where they are. Compute and data assets, whether company or third party owned, must be strategically placed, enabling the best performance and results for customers and partners. Achieving this goal requires more thought about where to optimally place applications and how to monitor their performance from the end user's perspective. It also requires finding a solutions provider that you can count on to quickly and reliably tune the network to provide optimal internal and cloud datacenter connectivity.

The second challenge for the IT organization is changing its expectations with regard to application longevity and stability. Systems of records and the parts of the service they support tend to be pretty stable and don't change frequently. Systems of engagement and insight are much more dynamic, often requiring rapid changes in design or optimal placement measured in weeks or even hours. In a hybrid IT environment, IT needs to work with an IT partner that can deliver agility without sacrificing data security or application and network stability. The solutions provider must be able to help IT teams leverage or migrate resources across multiple locations and datacenters so that data can move quickly and securely in a way that's both reliable and scalable.

Q. How can IT departments reduce complexity while fully taking advantage of hybrid IT solutions?

- A. The services supported by hybrid IT environments have inherent complexity compared with individual applications, but companies can minimize the impact. First, IT needs to recognize that the three types of systems discussed — systems of record on internally owned systems, engagement systems on a public cloud and/or internally offered ITaaS, and systems of insight using hosted private cloud — can all be in the same physical datacenters. A solutions provider that offers datacenter resources such as managed service capabilities, secure

private clouds, and access to public cloud along with an agile WAN network foundation can make running hybrid IT much simpler.

We call this a hybrid datacenter option. Whenever practical, it's a very good approach for minimizing latency impacts between resources while still providing high performance and flexibility in service design and delivery. The IT team also needs to rationalize core data transport practices and security policies to better ensure consistency across all environments. Finding a solutions partner with experience in helping companies do that is a big plus.

Q. What should enterprises look for in partners as they consider deploying and managing their hybrid IT environments?

A. First, you have to look for a solutions partner with access to the right facilities. As your business extends its reach into new geographies, you need to be able to quickly move compute and data assets close to where the customers are located. Second, you need a partner that can rationalize and optimize compute, storage, and network connections between these diverse datacenters, including your own. The services you're delivering will depend, in part, on applications running at your own sites, so you need a partner that offers infrastructure resource flexibility and can link to external datacenters as securely and efficiently as possible.

Third, and most important, you need to look for a partner that can meet very high standards for performance as well as provide proof that it's meeting them. It's important to trust but continuously verify. Look for a partner that provides access to key metrics concerning its own network traffic as well as datacenter operations in its own cloud facilities. With that kind of visibility, you can make better decisions about where you want to place resources and configure capabilities. How many 9s are in the partner's SLA, or is it a 100% guarantee? And what are the remediation policies if those promises are not met? If your goal is to provide the best customer experience, then you want a partner that can provide the best insight into how well you're delivering on that experience.

ABOUT THIS ANALYST

As vice president of IDC's Datacenter and Cloud program, Richard Villars is a senior member of IDC's IT Infrastructure research team, which assesses the development and adoption of solutions for datacenter transformation and exploitation of rapidly evolving technologies in the areas of big data and cloud. He develops IDC's viewpoints on the evolution of converged IT infrastructure as well as the adoption of public and private cloud solutions.

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Global Headquarters: 5 Speen Street Framingham, MA 01701 USA P.508.872.8200 F.508.935.4015 www.idc.com