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Converged Infrastructure: The Path to Future Readiness

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In June 2015, IDC conducted a global Future-ready Enterprise Study, sponsored by Dell. IDC surveyed 2,529 members of senior and executive management in IT and lines of business as well as information workers. They came from organizations of 100 employees or more across a broad range of industries. Survey respondents were asked about their current use of several core technologies, including converged infrastructure, in connection with a variety of key performance indicator (KPI) metrics.

The following questions were posed by Dell to Matt Eastwood, Senior Vice President of IDC's Enterprise Infrastructure and Datacenter Group, on behalf of Dell's customers.

Q. **A recent IDC study identified converged infrastructure as a key attribute of a future-ready organization. What does IDC mean by future ready, and why is converged infrastructure important?**

A. A future-ready organization is one that's always extending the abilities of its IT infrastructure and applications, while also pursuing IT organizational practices that enable it to identify and address changing business and technology needs. Not only can future-ready organizations react quickly to market changes, but they're also better able to drive change themselves. IDC identified four levels of enterprise future readiness in our study, from most future ready to least future ready: Future Creators, Future Focused, Future Aware, and Current Focused.

Converged infrastructure means integrated bundles of hardware and software components grouped into a single, optimized package. This architectural approach lets organizations better utilize their IT assets. Simply put, converged infrastructure enables simpler, more efficient, and more scalable IT infrastructure within an organization's own datacenters. It provides an agile, scalable foundation that organizations can rely on as they change business processes and launch new services.

For example, a healthcare organization can more quickly and cost-effectively implement mandated electronic medical records systems while also implementing an infrastructure for the rapid development of new, data-intensive personalized medicine services.

Q. **What are the business benefits of converged infrastructure reported by the organizations in the IDC study?**

A.   Organizations in our study cited a range of business benefits from their converged IT infrastructure strategies, including lower operating costs (45%), greater IT staff productivity (44%), and improved business agility (41%). Speed and agility are clearly important, and automating the management of compute, network, and storage resources into a single management pane is critical to improving availability and reducing costs via increased asset utilization across each datacenter resource.

While many organizations cite converged infrastructure benefits in terms of IT improvements, a higher percentage of future-ready organizations are seeing business benefits from their converged infrastructure. For example, consider the following comparisons of Future Creators with Current Focused:

- 60% of Future Creators see greater IT staff productivity as a significant benefit delivered by converged infrastructure, while only 30% of Current Focused see it as a significant benefit.

- 51% of Future Creators see the ability to allocate IT staff to innovative projects as a significant benefit of converged infrastructure, compared with 25% of Current Focused.

- 49% of Future Creators see greater business agility as a benefit of converged infrastructure, compared with 25% of Current Focused.

Q.   How are the most future-ready organizations getting value from their converged IT infrastructure?

A.   It starts with accurately measuring utilization rates for compute, storage, and network. Future Creators are using more sophisticated tools and measuring infrastructure utilization more regularly compared with other organizations. 61% of Future Creators are regularly measuring utilization rates, compared with only 22% of Current Focused. The study also showed 16% of Current Focused organizations don't have tools or processes in place to measure utilization rates at all.

Future Creators are measuring not only more frequently, but also more accurately. They are most likely to use an integrated suite of tools to measure utilization rates (66%) and not rely on ad hoc or manual processes for measurement (66%), compared with Current Focused (35%).

Future Creators differ from less future-ready organizations in other ways as well. They are more likely to treat their IT infrastructure as a resource pool with common provisioning (23% of Future Creators versus 11% of Current Focused). Future Creators are also more likely to have a programmatic, predetermined upgrade path for infrastructure compared with all other segments; for example, 33% of Future Creators upgrade datacenter infrastructure at predetermined intervals versus 15% of Current Focused.

Interestingly, even though Future Creators are most likely to have a predetermined upgrade path and when they will need capacity and where and when to add, so they are also the most agile and responsive to business needs. For their datacenter infrastructure, they are also most likely to upgrade their datacenter infrastructure on an ad hoc basis (37% of Future Creators upgrade datacenter infrastructure on an ad hoc basis, compared with 24% of Current Focused). Future Creators are increasingly able to predict both where and when they will need capacity, and where and when to add, so they are also the most agile and responsive to business needs.

Q.   What's the biggest difference between the most future-ready and the least future-ready organizations when it comes to converged infrastructure?

A.   When IDC looked across all the benefits that organizations cited from their converged infrastructure, operating costs were the only area cited as a greater benefit by the least future-ready organizations. Fifty-seven percent of Current Focused organizations see lower operating costs as a significant benefit of converged infrastructure, compared with only 46% of Future Creators.

This finding implies that the least future-ready organizations are more focused on using converged infrastructure for cost take-out. Contrast this with future-ready organizations, which are more likely to consider their IT infrastructure as a way to drive business agility and productivity.

Future-ready organizations treat converged infrastructure as a source of differentiation and competitive advantage. For example, server virtualization hardly separates the Future Creators from the Current Focused in our study, but there is a big difference between these organizations in both network and storage virtualization. Almost 40% of Future Creators support network virtualization, versus 28% of Current Focused. Likewise, nearly 50% of Future Creators support storage virtualization, versus 31% of Current-Focused organizations.

Additionally, future-ready organizations are making the organizational changes necessary to get the most benefits from their converged infrastructure. They are actively looking to differentiate their business using applications, data, and infrastructure while deferring more responsibility for IT automation and configuration management to their development teams.

A B O U T   T H I S   A N A L Y S T

Matt Eastwood is Senior Vice President of IDC's Enterprise Infrastructure and Datacenter Group. His responsibilities include managing market analysis, tracking, forecasting and consulting for Enterprise Computing, Storage, Networking, Systems Infrastructure Software, Infrastructure Services, Cloud Infrastructure Services and Datacenter. He leads a team of analysts responsible for identifying and analyzing people, process and technology trends affecting enterprise infrastructure and datacenters worldwide. Mr. Eastwood speaks frequently at IDC, industry, and user events around the world and is frequently quoted in leading business and technology publications.