



Insight

Converged and Integrated Datacenter Systems: Creating Operational Efficiencies

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IDC OPINION

Enterprise IT has moved away from siloed servers, storage, information, and processes and is embracing converged, virtualized, and cloud-based technologies. Concurrently, some enterprise line-of-business (LOB) owners are learning to communicate and work with IT; as a team, the two groups are creating solutions to make the business more successful. Optimizing and streamlining a business process and then being able to support and manage that workflow efficiently and cost-effectively from creation to consumption is the Holy Grail for enterprises. Also, reducing the support and management spend on these solutions is – and will continue to be – a goal for CIOs and the enterprise as a whole. This document explores the benefits of integrated infrastructures, which include the following:

- Provide datacenter managers with an easier and more efficient method to contact and work with support, offering a single point of contact for complex datacenter environments.
- Reduce the amount of equipment needed in the datacenter. (These purpose-built systems can reduce the number of physical assets that need to be maintained and offer a reduced footprint with fewer moving parts.)
- Decrease environmental needs, thus reducing the pressure on cooling and power and enabling assets to run more efficiently.
- Provide a common management and trouble reporting tool that enables less searching across multiple management consoles to figure out problems and issues.

IN THIS INSIGHT

This IDC Insight examines the benefits of an integrated infrastructure within the datacenter environment. Incorporating data gathered through surveys and customer interviews, this document provides information to CIOs and datacenter managers on the benefits of integrated systems, including reduced head count and more efficient services.

Definitions

Integrated Platforms Versus Integrated Infrastructure

Integrated platform systems are integrated systems that are sold with additional pre-integrated packaged software and customized system engineering optimized to enable such tools and functions as application development software, databases, testing, and integration tools.

Integrated infrastructure systems are designed for general-purpose, distributed workloads that are likely to have differing performance profiles. While integrated infrastructure is similar to an integrated platform in that it leverages the same infrastructure building blocks, it is not optimized for a specific workload.

Integrated infrastructures are preconfigured, vendor-certified systems containing server hardware, disk storage systems, networking equipment, and basic element/systems management software. Management software includes embedded or integrated management and control software optimized for the auto-discovery, provisioning, and pooling of physical and virtual compute, storage, and networking resources shipped as part of the core, standard integrated system.

Most important, a centralized mechanism for support should be an integral part of the integrated infrastructure solution set.

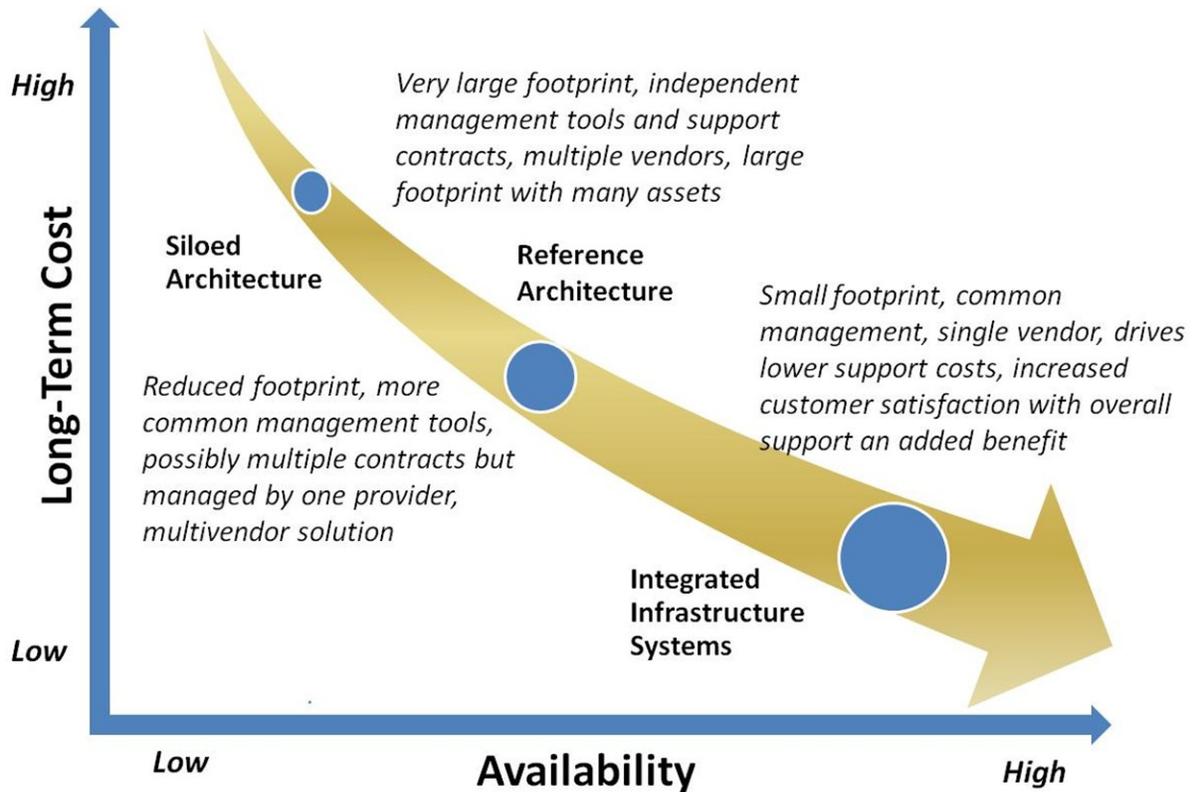
SITUATION OVERVIEW

IDC's research indicates that, typically, an IT operations team spends over 70% of its time on day-to-day IT management operations – monitoring, troubleshooting, patching, updating, and configuring resources. This leaves little time for those teams to add value to the business or support new innovation. Hence, CIOs and datacenter managers are looking for robust solutions to help streamline these operational inefficiencies.

Integrated infrastructures (with the help of partner services) can help create an environment that can lower long-term IT costs and can increase workload reliability (see Figure 1).

FIGURE 1

Total Cost of Support by Architecture Type



Source: IDC, 2014

In 2013, IDC interviewed customers of integrated systems to ascertain what factors were driving their decisions. IT buyer decisions around converged systems revolve around these essential business drivers (see Figure 2).

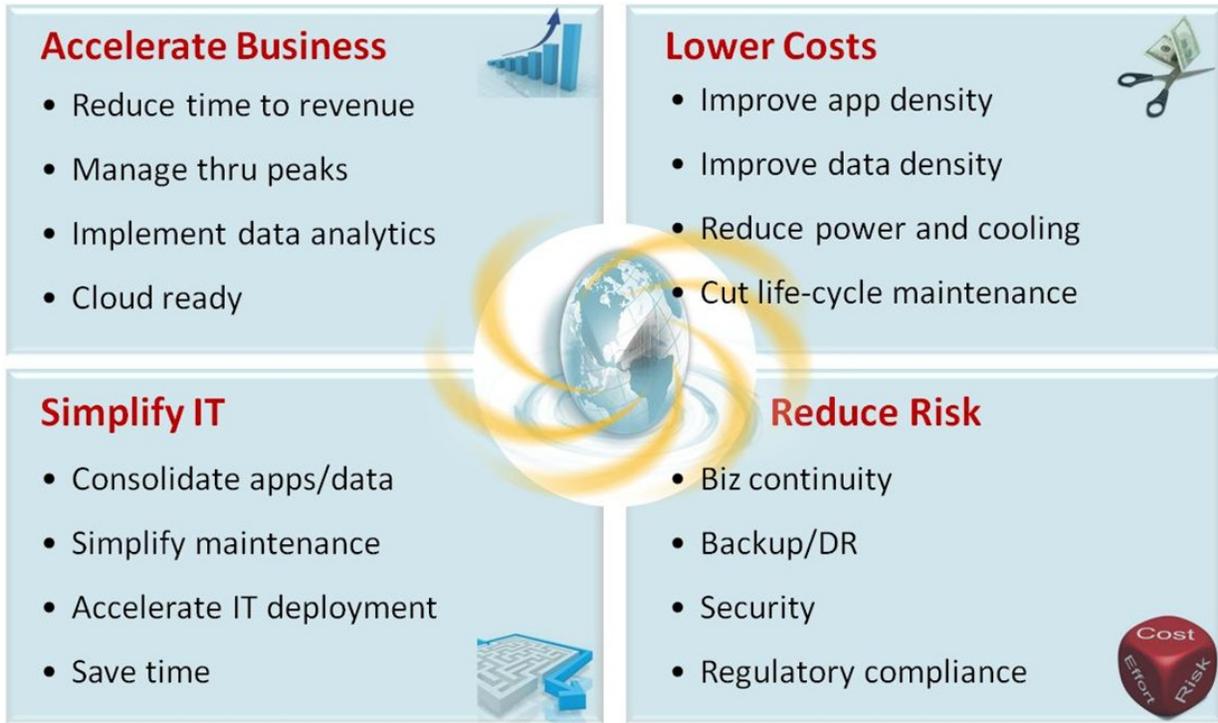
Customer comments highlight the ability of these architectures to help IT reduce costs:

- "From a hardware perspective, costs might be on par, but from the perspective of installation, configuration, management, and maintenance, it's significantly more expensive with non-integrated systems in our estimation."
- "One of the things I'm looking for is anything that's going to free up the IT guys. I could deploy them and do something that is more critical – something that's going to save us money. The staff that we have are top notch, and I don't want to waste their time."

Across the IT life cycle, CIOs are being asked to reduce costs, consolidate resources, and produce and deliver higher-quality services more quickly than ever. IDC's research shows that more than half of IT decision makers are looking for ways to shrink the number of platform vendors they use in an effort to simplify and reduce the cost and complexity of many aspects of the IT life cycle. Figure 3 shows the percentage of time spent on a list of customary IT tasks.

FIGURE 2

Integrated and Converged Systems Drivers

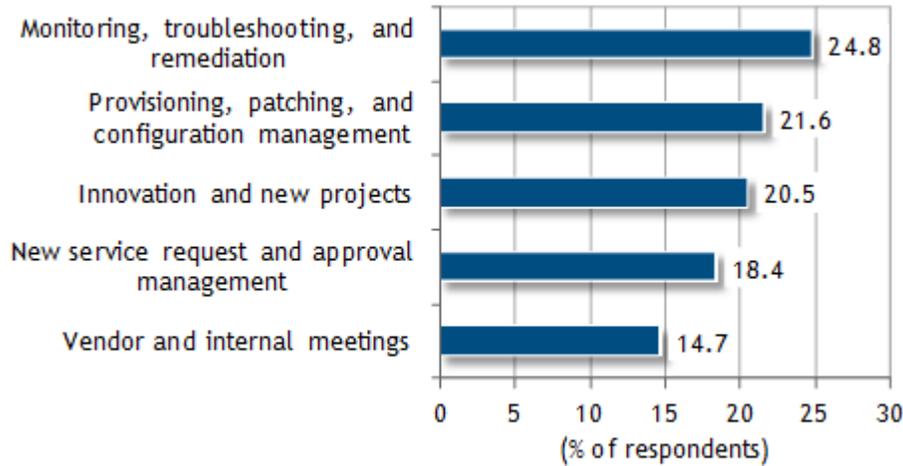


Source: IDC, 2014

FIGURE 3

Percentage of Time Spent on Customary IT Tasks over a Given Week

Q. Considering the following mix of tasks, over a given week, what percentage of total IT admin and operations staff time (across server, networking, and storage infrastructure) is spent on the following five general tasks?



n = 308

Source: IDC's *Converged and Integrated Systems End-User Survey*, July 2013

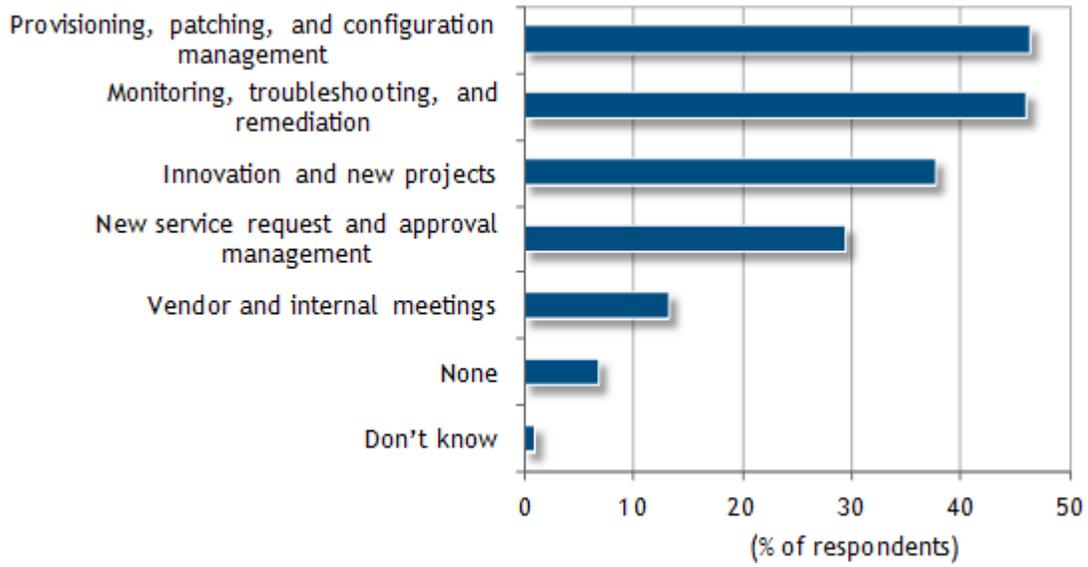
As Figure 4 illustrates, the motivations for deployment of these converged infrastructures include reducing the cost of maintenance and support, automating and streamlining many routine configuration and change management tasks, and reducing the amount of time spent developing and creating solutions with internal and external resources.

Figure 5 details IT buyers' views of the skills necessary for effective adoption of these systems. In essence, IT feels that these systems are complex; hence the number 1 capability an IT executive is looking for is the ability to rapidly detect and remediate issues. IT buyers understand that they will need to train or procure talent to utilize these new technologies, but they also understand that these new infrastructures may be able to streamline their IT operations. And as Figure 6 demonstrates, approximately 40% of IT buyers surveyed believe they will need fewer IT staff resources to manage these environments.

FIGURE 4

Customer Expectations for Converged or Integrated Systems

Q. *Of these five tasks, which, if any, do you expect will be conducted more efficiently in a converged or integrated systems environment?*



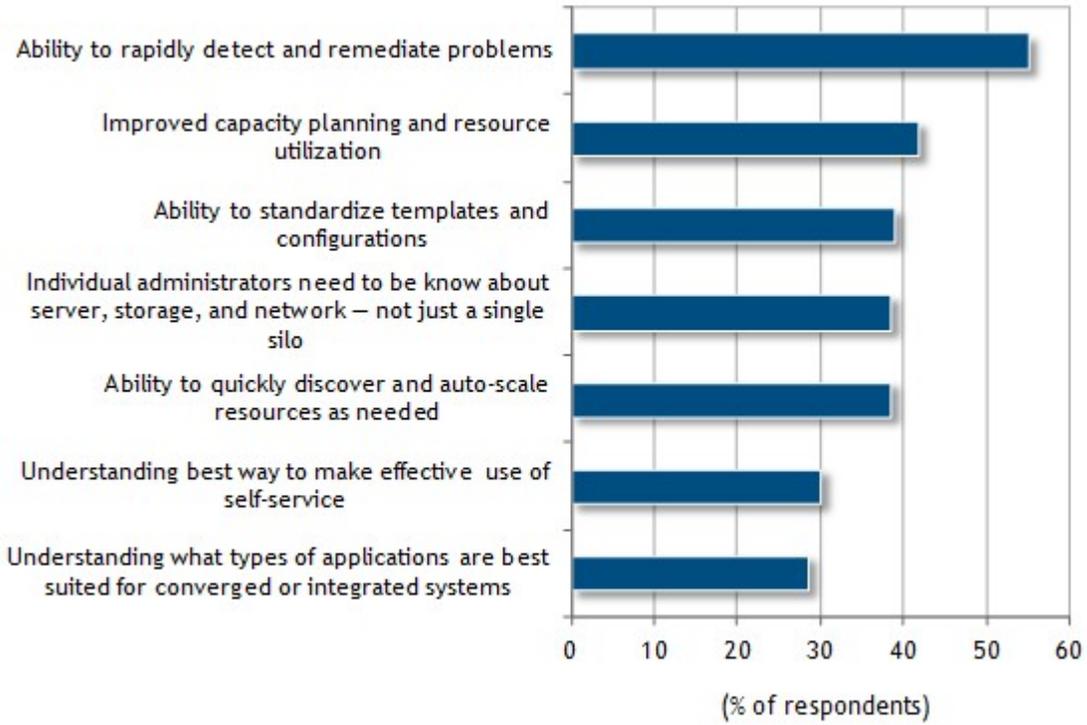
n = 308

Source: IDC's *Converged and Integrated Systems End-User Survey*, July 2013

FIGURE 5

Converged Systems and Expected New IT Management Skills

Q. *What types of new capabilities are most important for effective converged or integrated systems management and operations?*



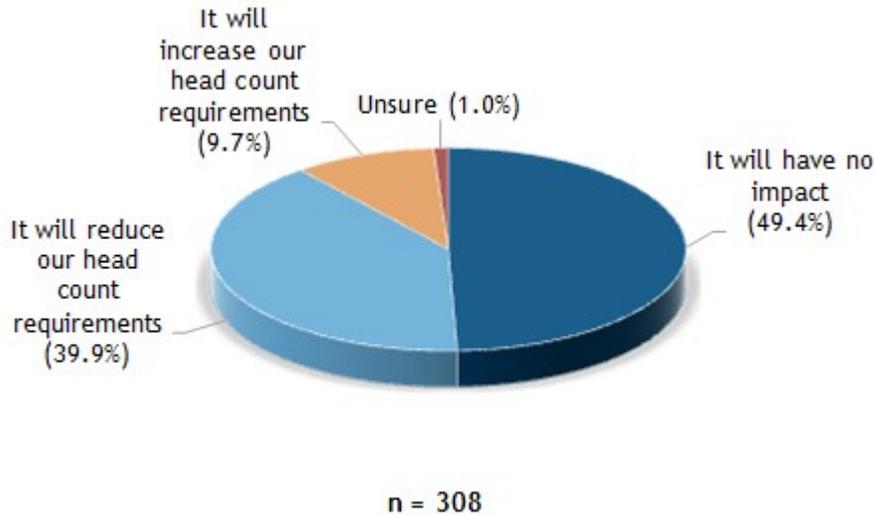
n = 308

Source: IDC's *Converged and Integrated Systems End-User Survey*, July 2013

FIGURE 6

Expected IT Head Count Impact

Q. *What kind of impact do you expect that converged or integrated systems will have on your organization's IT admin and operations head count requirements (including contractors)?*



Source: IDC's *Converged and Integrated Systems End-User Survey*, July 2013

FUTURE OUTLOOK

The integrated systems market is one of the fastest-growing segments of the IT industry. As enterprises look to simplify and streamline IT capabilities, they will turn more and more toward these solution sets to help reduce the burden on their IT departments and provide a better SLA to their corporate users. Vendors will continue to develop more sophisticated tools to manage these stacks more efficiently and integrate more software packages for customers to choose from. In addition, they will continue to partner with one another to help bring these solution sets to fruition.

ESSENTIAL GUIDANCE

Because of the complexity of integrated systems, it is critical that enterprises support these solutions with the proper service contracts and utilize expert resources to implement them. Properly supporting these infrastructures is a critical piece in creating a datacenter that will meet and exceed the SLA expectations of the business. IT decision makers should look for hardware vendors that have deep partnerships with software providers that can provide a "single" stack solution with monitoring and support capabilities that will streamline IT operations.

Development and operations teams that are evaluating these types of platforms should consider the full range of ways that converged systems can streamline IT operations and simplify day-to-day IT operations. They have the capacity to add direct business value while reducing the amount of time that staff spend on maintenance and low value-add activities. Specifically, IT decision makers and executives should look for solutions that incorporate the following elements:

- Use standard images and provisioning templates, eliminating a significant amount of downtime caused by human error.
- Simplify and unify ongoing monitoring, security administration, and IT management activities via a single integrated management interface.
- Provide the ability to analyze performance impacts, identify potential component failures, conduct rapid root cause analysis, and activate automated responses.
- Automate patching and updates using pre-integrated and pretested downloads to avoid service disruptions and to simplify day-to-day management activities.
- Link dashboards, service desks, asset management systems, and related management tools to ensure seamless integration with the broader IT management environment and workflows.
- Streamline support processes by providing a single support number along with integrated monitoring to identify problematic components and conduct root cause analysis of system errors.

Collectively, these capabilities will enable IT teams and line-of-business owners to work together more efficiently to maintain higher and more cost-effective service levels.

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