IDC
Analyze the Future

Sponsored by: **VCE**

Authors:
Richard L. Villars
Matthew Marden

June 2014

Business Value Highlights

Customers using Vblock Systems as a platform for deploying private cloud workloads are realizing significant efficiencies and cost savings while making strides in implementing their private cloud strategies. Benefits include:

- Leveraging the reliability and higher utilization rates of the Vblock Systems converged infrastructure solution to support private cloud deployments

Faster infrastructure deployment:

70%
Improvement in speed to deployment of infrastructure

Lower datacenter-related operational costs, including:

78%
Savings on network hardware costs

43%
Reduction in storage costs

Using Converged Infrastructure to Enable Rapid, Cost-Effective Private Cloud Deployments

Today, an organization's datacenter is the first point of contact with customers and the foundation for new business models. Business leaders expect their datacenter operators to reliably and dynamically deliver transactional, content serving, archiving, and analytic capacity on time, with no delays and no excuses.

Private clouds play a key role in enabling rapid IT asset provisioning, and IT teams must aggressively exploit infrastructure solutions that make deployment and operation of their private clouds reliable, flexible, and scalable.

Vblock Systems as Private Cloud Enablers: Quantifying the Value

IDC conducted in-depth interviews with 11 VCE customers to identify and quantify the value of a Vblock Systems infrastructure. Five of these customers were implementing private cloud workloads on their Vblock Systems, often in conjunction with other datacenter workloads. These customers are technology, financial services, manufacturing, and healthcare organizations. They are all large organizations with 3,000–10,000 employees, headquartered in North America or Europe, often with global reach.

One company explained that its goal of "doing private cloud" was "the primary motivation" behind the datacenter infrastructure consolidation it undertook with Vblock Systems. Another company, which is beginning to use infrastructure as a service (IaaS), called Vblock Systems a "foundation" for its efforts.

IDC
Analyze the Future

A service provider said that its Vblock Systems infrastructure served as the cornerstone of the cloud infrastructure service it offers external customers and that it is also using Vblock Systems to enable its intra-company private cloud. It noted that it sees cloud services as a key growth area for its business.

Companies running their private cloud on Vblock Systems are realizing significant efficiencies. In total, these companies are achieving about $79,000 in savings per 100 users. Over 80% of these savings are on the infrastructure side. For all workloads including private cloud, IDC found the following efficiencies with the companies' Vblock Systems compared with the companies' pre–Vblock Systems or non-converged environment:

> **Companies running their private cloud on Vblock Systems are realizing significant efficiencies. In total, these companies are achieving about $79,000 in savings per 100 users.**

» **Storage.** Increased utilization and reduced storage requirements have helped these organizations cut storage costs by 43.0%. One company noted the ease and efficiency with which it can align its storage needs and capacity with Vblock Systems, which is especially important as its demand for storage climbs rapidly with its cloud deployment.

» **Network hardware.** Increased port utilization reduced network equipment costs by 78.4% among those companies looking to leverage Vblock Systems for private cloud.

» **Server hardware.** Increased CPU utilization and virtualization have helped these organizations avoid server purchases, decreasing their server costs by 31.7%. For interviewed companies migrating workloads to the private cloud, virtualization benefits them not only through efficiencies and cost savings but also by preparing their IT infrastructures for private cloud.

» **Power and facilities.** Space efficiencies realized with Vblock Systems and more efficient power consumption have helped these organizations reduce their power and facilities costs by 18.2%.

These companies also benefited from staff efficiencies during the deployment process and on an ongoing basis. Several companies noted that infrastructure deployments with Vblock Systems are close to 90% faster — and require fewer employees — than infrastructure deployments with a piece-part datacenter infrastructure solution.

One interviewed company noted that it is using the same number of IT staff to support its Vblock Systems as its previous datacenter infrastructure solution, but now it is spending only 20% of its time on Vblock Systems-related activities compared with close to 60% of its time with the legacy solution.

Figure 1 presents the cost savings for respondents using Vblock Systems as a foundation for their private cloud deployment efforts for each of the elements.

FIGURE 1

Private Cloud and Vblock Systems — Business Value Results for All Datacenter Workloads
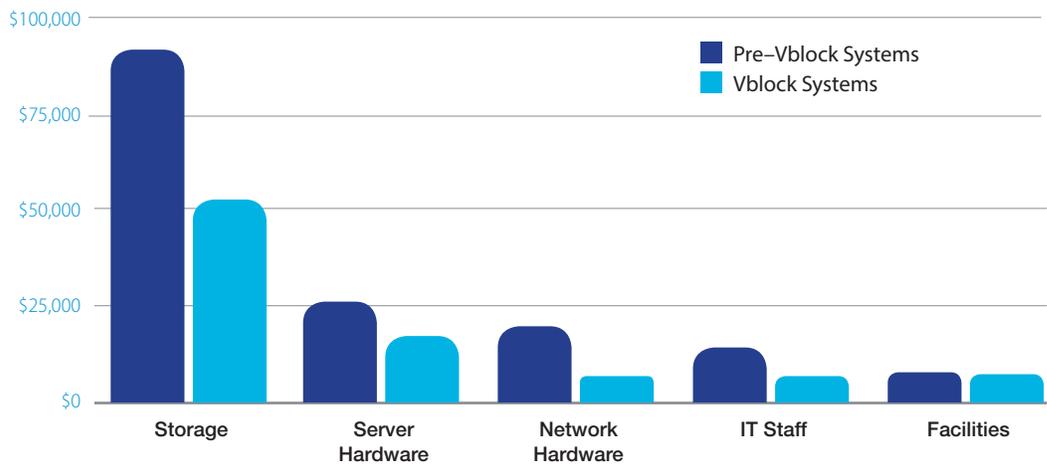
	Facilities (Including Power)	IT Staff	Network Hardware	Server Hardware	Storage
Pre–Vblock Systems	$6,412	$12,283	$21,798	$24,773	$88,981
Vblock Systems	$5,244	$4,668	$4,700	$16,913	$50,719
Difference	18%	62%	78%	32%	43%

Data is presented per 100 users.

Findings are for five survey respondents who ran private cloud as one of the workloads on their multi-application Vblock Systems implementations.

Source: IDC Business Value Group, 2014

Agility/Speed Benefits

Users reported that Vblock Systems enabled them to deploy infrastructure assets (hardware, network, storage, software) much more rapidly than they could have by building traditionally on their own.

Integrated infrastructure system users reported a 70% improvement in speed to deploy systems from approximately five months to a little more than one month. These companies also reported a reduction of over 70% in the internal IT staff time to configure, test, and deploy this infrastructure.

In the words of one service provider, "[The integrated infrastructure system] itself only takes five days. In other words, if I wanted to take the amount of storage … and compute capacity that [this system] has and use a traditional architecture to deploy it … getting it deployed would easily take me two to three months."

Efficiency Benefits

IDC research finds that organizations that use integrated infrastructure systems to deploy infrastructure gain the following benefits:

» **Direction.** Organizations reduced the amount of time and attention that management had to devote to plan and ensure infrastructure functionality that can track and match business activities and processes and applications.

» **Extension.** Once organizations solidified initial configurations for integrated infrastructure systems, they saved time in the process of identifying and obtaining additional capacity for scaling business needs.

» **Implementation.** With integrated infrastructure systems, organizations avoided the normally labor-intensive and time-consuming process of powering, cabling, provisioning, and testing the hardware and software once "on the floor."

» **Operations.** Downtime was reduced and time to recovery improved (one source for problem resolution), saving IT staff time and improving user productivity.

» **Change management.** As new versions, release levels, and patches for different components (e.g., network, server, storage, hypervisor) proliferated, the benefit of "outsourcing" the task of systematically integration testing these releases became more pronounced, saving staff time and both planned and unplanned downtime.

» **Resilience.** Adding capacity for expanding business needs becomes easier as organizations add units of complete infrastructure — server, storage, and network — rather than figure and balance purchases of different levels of each separate server, storage, and/or network infrastructure element.

Moving to integrated infrastructure systems enabled these organizations to purchase modular units of infrastructure tuned to deliver higher utilization of networking, compute, and storage resources.

Organizations reduced the amount of time and attention that management had to devote to plan and ensure infrastructure functionality that can track and match business activities and processes and applications.

Challenges and Opportunities

Integrated infrastructure systems include all the infrastructure elements — storage, server, network — at once; they also include higher levels of support and integrated service — for example, the pretesting of new versions and releases of underlying partner products. This carries with it a relatively steep initial price tag — a high capital investment cost. Not all organizations command the financial flexibility to absorb the higher up-front costs.

Supplier management practices vary along a continuum. Some organizations espouse more of a sole source approach and look to a trusted vendor as a partner. Others keep all vendors in a competitive mode and look for the best in class at the lowest possible cost. The former plays more easily into the current integrated infrastructure system solution set.

Some organizations have already attained such a level of infrastructure standardization and maturity that they frankly do not benefit as significantly from the simplicity of reference architectures and integrated infrastructure systems.

Conclusion

IDC found that firms are adopting integrated infrastructure systems as the foundation for delivering internal or "private" cloud services.

IDC found that firms are adopting integrated infrastructure systems as the foundation for delivering internal or "private" cloud services. These integrated infrastructure systems are being deployed today, and they offer compelling benefits and considerations. As the analysis in the study proves, as firms move to integrated infrastructure system strategies, they gain material cost efficiency and time-to-market advantages.

We found that integrated infrastructure systems offer advantages over the traditional/"build your own" system approach. They reduce overall costs by 55% and time to deployment by 65%. In addition, the integrated infrastructure system approach or model enables more efficient use of available IT capacity than traditional IT. The higher utilization rates drive down hardware costs and make long-term infrastructure planning more reliable and efficient.

IT organizations facing time-to-market, cost reduction, and IT efficiency imperatives must increasingly consider integrated infrastructure system approaches to building "private" clouds.

About IDC

International Data Corporation (IDC) is the premier global provider of market intelligence, advisory services, and events for the information technology, telecommunications and consumer technology markets. IDC helps IT professionals, business executives, and the investment community make fact-based decisions on technology purchases and business strategy. More than 1,100 IDC analysts provide global, regional, and local expertise on technology and industry opportunities and trends in over 110 countries worldwide. For 50 years, IDC has provided strategic insights to help our clients achieve their key business objectives. IDC is a subsidiary of IDG, the world's leading technology media, research, and events company.

IDC Global Headquarters

5 Speen Street
Framingham, MA 01701
USA
508.872.8200
Twitter: @IDC
idc-insights-community.com
www.idc.com