



CLOUD SERVICES

■ CLIENT

CenturyLink, a global communications, hosting, cloud, and IT services company

■ CHALLENGE

Respond to market demands for faster infrastructure deployments at lower cost

■ SOLUTION

VCE Vblock Systems

■ RESULTS

Reduced one customer's deployment costs by 81 percent; enabled self-service resource provisioning in minutes versus weeks, and accelerated application development cycles from months to weeks

CENTURYLINK'S PRIVATE CLOUD OFFERING POWERED BY VBLOCK

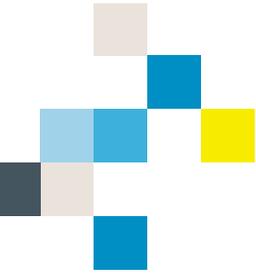
CONVERGED INFRASTRUCTURE ENABLES GLOBAL SERVICE PROVIDER TO LOWER COSTS, ACCELERATE TIME-TO-MARKET FOR CUSTOM-TAILORED HYBRID IT SOLUTIONS

With a 450,000-mile global communications network and more than 55 data centers in North America, Europe and Asia, [CenturyLink](#) is a global leader in hybrid cloud, big data analytics, and IT consulting for businesses large and small. To compete effectively in the growing private cloud market CenturyLink sought a way to meet customer demands for infrastructure cost reductions and increased deployment speeds.

Traditional infrastructure approaches of integrating storage, server, and networking technologies were too inefficient to meet these demands. CenturyLink alternatively pursued a [converged infrastructure](#) strategy based on VCE Vblock® Systems as the foundation for private clouds and augmented by its own managed services, co-location facilities, and public cloud offerings.

CenturyLink now can quickly deliver complete, cost-competitive hybrid IT solutions. For one customer, [International Hotels Group \(IHG\)](#), CenturyLink reduced hardware costs by 20 percent while delivering resources to developers in minutes instead of weeks. IHG also achieved a 25 percent improvement in application performance. By responding to the market with speed, agility, and lower cost, CenturyLink has strengthened its competitive position.





The Challenge

CenturyLink's competitive differentiation comes from custom tailoring cloud infrastructures that precisely match customers' needs. Piecing together separate compute, storage, and networking components proved too time-consuming and costly. And despite downward pressure on costs, CenturyLink's customers still expect access to best-of-breed technologies and world-class support.

Michael Joffe, CenturyLink's director of cloud product management, notes, "Cost and time to market are paramount for most customers. You really can't meet today's expectations with a piece-parts approach. We needed to help our customers capitalize on the efficiencies of cloud computing, but in a much more streamlined way."

CenturyLink's customer, IHG, presented additional requirements: accelerate application development and simplify support. Operating 4,900 hotels across nine brands in 100 countries, IHG is growing fast and has no patience to wait for infrastructure or deal with finger pointing.

The Solution

To address these challenges, CenturyLink standardized on [Vblock Systems](#), comprised of EMC, Cisco, and VMware technologies. CenturyLink deploys Vblock Systems as dedicated or multi-tenant private clouds based on individual customer requirements. To monitor and manage health of converged infrastructures, CenturyLink relies on VCE Vision™ Intelligent Operations software.

For IHG, CenturyLink deployed dedicated Vblock Systems 320 in its Washington, D.C. and Santa Clara, Calif. co-location facilities. The company plans to use EMC RecoverPoint for continuous replication between the two Vblock Systems, replacing Oracle Data Guard and SQL Server log shipping.

In addition, CenturyLink built a hybrid cloud solution for IHG using VMware vRealize cloud automation suite with the Vblock Systems. This allows IHG to extend its Vblock Systems-based private cloud to CenturyLink's public cloud offering, [CenturyLink Cloud®](#), hosted in its Sterling, Virg. data center.

The Results

With Vblock Systems, CenturyLink eliminated cost and complexity of assembling different components for each customer's cloud environment. Instead, the company can deliver a factory-integrated converged infrastructure and customize it for customers much faster and more economically than before. Vblock Systems also provide CenturyLink with the flexibility to support a wide range of customer needs. For example, some customers aren't ready to leap directly into a hybrid cloud solution and simply need an outsourcing model that simplifies their infrastructures.

Joffe explains, "Many of our customers just want to collapse server sprawl and offload the administrative burden. We'll put them on a Vblock System where they can run multiple workloads in their own private cloud managed by CenturyLink. Once they get comfortable, we use the VMware tools integrated in Vblock Systems to burst their environments out to our public cloud and get access to the agility and cost savings that hybrid cloud delivers."

From stone age to space age

IHG is already reaping the benefits of its hybrid cloud. With a Vblock Systems-based private cloud and the public CenturyLink Cloud, IHG is modernizing its entire hospitality service infrastructure with new applications to better serve a global market.

The edict from IHG's CIO was to make everything faster—deliver resources to developers faster and bring new capabilities to market faster. By moving development onto Vblock Systems with extensions into the public cloud, that's exactly what CenturyLink enabled them to do.

Paul Stapleton, client technology architect with CenturyLink, remarks, "Hybrid cloud is game changer for IHG. They're basically moving from the stone age to the space age.

"Developers can self-provision VMs on the Vblock System in minutes compared to weeks in a traditional infrastructure. Instead of taking three to six months to implement an application upgrade, they're able to run through development and release cycles in weeks. With more speed and agility in the development cycle, some of the new capabilities IHG is rolling out to their customers are just insanely cool."

Higher performance, lower cost

Developing on the same Vblock System configurations as those running in production also results in higher application performance. In the past, some IHG developers acquired inexpensive resources from public cloud providers like AWS. Developing on these environments did not accurately reflect how the applications would perform in production.

"Now that they can get resources so fast on the Vblock Systems, IHG developers are staying truer to accepted best practices for performance tuning and release management," says Stapleton. "This has led to a 25 percent increase in application performance overall."

In addition, the combination of the Vblock Systems private cloud and CenturyLink's managed services enabled IHG to cut spending on hardware.

"The virtual computing capabilities on Vblock Systems enable developers to get full utilization out of the hardware," Stapleton notes. "This eliminates the need to build parallel platforms for each stage of the release cycle, and saved IHG about 20 percent on hardware costs."

Overall, cost of infrastructure deployment went down 81 percent, from \$32,000 to \$6,000, due to receiving a fully integrated and virtualized cloud infrastructure system that allowed CenturyLink to focus on business innovation instead of integrating, validating, and managing IT infrastructure.

“VCE and Vblock Systems bring CenturyLink a real competitive advantage. They address market demands for speed, agility, and lower cost. They allow our team to operate more efficiently. And they bring our customers proven, integrated technologies from three industry leaders. What more could you ask for?”
— Michael Joffe, Director of Cloud Product Management, CenturyLink

Resilience to withstand site loss

By spreading applications and services across the hybrid cloud, CenturyLink provides IHG with a highly resilient production environment and disaster recovery solution.

“IHG can swing their global traffic from one data center to another seamlessly,” Stapleton explains. “This allows them to do system maintenance without disrupting the business. They could have an entire site go down and everything would keep running just fine.”

When technical support is needed, it's far simpler than before when multiple vendors were involved. Now, CenturyLink provides IHG with [one number to call](#) — VCE — for issues with servers, storage, or networking.

Consistent operations around the world

Vblock Systems also help CenturyLink internally to simplify infrastructure operations and deliver consistent performance for its global customers. By vetting and testing every microcode release, VCE eliminates compatibility issues that can occur when mixing different vendor hardware in a cloud infrastructure. VCE's Release Certification Matrix (RCM) provides CenturyLink with the reports and insights to keep all of its Vblock Systems up-to-date and secure.

“We can't afford to have a minor code update bring down an entire customer environment,” says Stapleton. “VCE Vision™ Intelligent Operations helps us manage the RCM and simplify the process of keeping our software and firmware updates consistent across the enterprise and free of vulnerabilities.”

Joffe concludes, “VCE and Vblock Systems bring CenturyLink a real competitive advantage. They address market demands for speed, agility, and lower cost. They allow our team to operate more efficiently. And they bring our customers proven, integrated technologies from three industry leaders. What more could you ask for?”

