VCE THE VIRTUAL COMPUTING
ENVIRONMENT COMPANY

IO JUMP-STARTS INTELLIGENT CLOUD OFFERINGS, USING IO.ANYWHERE MODULAR TECHNOLOGY BUILT ON VBLOCK™ INFRASTRUCTURE PLATFORMS

Executive Summary

About IO

IO designs, engineers, and delivers data center infrastructures for the world's largest enterprises, governments, and service providers. IO owns and operates data centers for hundreds of customers, and its IO.Anywhere modular data centers provide enterprise-class infrastructures that can be rapidly deployed in customer sites anywhere in the world. IO is a privately held company with headquarters in Phoenix, Arizona.

Challenge

- Rapidly growing customer demand for cloud solutions

- Streamline delivery of modular data centers

Solution

- Vblock™ Infrastructure Platforms

Results

- Jump-start delivery of new intelligent cloud-based offerings

- Deliver a modular data center anywhere in the world within 90 days

- Scale to support 10,000 virtual machines in a single data center module

- Streamlined management of integrated infrastructure through a single pane of glass

Challenge

IO needed to streamline operations to meet increased customer demand for its modular data centers and hosted cloud solutions. While IO had achieved fast, efficient manufacturing of its modular data center facilities, the company was investing significant time and resources in testing, integrating, and deploying the IT infrastructure components.

With Vblock Infrastructure Platforms, IO found the perfect solution: a factory-integrated, converged infrastructure that simply drops into IO's modular data center facilities, with all the capabilities needed for cloud built in.

"Our hosting and manufacturing facilities are expanding around the world, with two more slated to open within the next 12 months," says Kevin Malik, CIO, IO. "At this pace, we needed close collaboration with a partner like VCE, whose business model aligns exactly with our own.

"By combining our software, power, and cooling with the Vblock platform's best-of-breed technologies, we'll be able to quickly deploy a completely pre-integrated and tested data center, whether it's hosted in one of our facilities or delivered to a customer site on the other side of the planet."

Solution

IO will be launching a range of Infrastructure as a Service (IaaS), Platform as a Service (PaaS), and cloud offerings using Vblock Infrastructure Platforms comprised of Cisco Unified Computing System (UCS) blade servers, Cisco networking components, EMC storage, and VMware vSphere virtualization.

Initially, the Vblock platform will be the foundation for four cloud offerings delivered from IO's Phoenix data center: private cloud, hybrid cloud, virtual desktop, and self-service business recovery services. The company's IaaS offering will allow customers to subscribe to infrastructure services from anywhere using Vblock platforms running in IO facilities. And Vblock platforms will become standard components of IO's modular data centers that can be rapidly deployed to customer sites worldwide.

"We're working with Fortune 500 customers who take their infrastructure extremely seriously," notes Malik. "So we needed a solid foundation for building our data center solutions and intelligent cloud offerings. Based on our knowledge of the IT industry, we didn't feel there was a strong competitor at the tier-one enterprise level that could match the virtualization, industry-leading uptime, scalability, and rapid deployment capabilities of the Vblock platforms. It was a natural fit to support our business goals and jump-start our cloud offerings."

Results

Pre-integrated Infrastructure Accelerates Delivery of Data Center in a Box
IO is quickly ramping up to deliver intelligent cloud offerings using their IO.Anywhere modular technology, working closely with the VCE engineering team on a standard specification that will enable its customers to order a single product pre-configured to their requirements.

"With the Vblock platform, we'll be able to provide our customers with a menu of items that they can simply check off and in 90 days receive a fully populated and cloud-ready data center—everything from conditioned power to the chips inside the servers and storage," explains Malik. "Their IT staff won't need to install or assemble anything. They won't have to worry about having the right version of software. All they have to do is provide utility power and they're ready for business. There's no other product like this available."

Massive Scalability to Handle Growth in the Cloud
IO also expects to gain exceptional scalability from Vblock platforms to support its ongoing growth.

"We provide our customers with real-time information about their data center footprint, which generates enormous data," says Malik. "Each data center module has 1,100 points that measure air inlet temperature, humidity, electrical usage, and so on. Across our entire customer base, we monitor 30,000 points every five seconds. With the Vblock platform, we expect to increase our monitoring to more than 100,000 points and capture more than 15 million rows of data per day. At that rate, we'll exceed 2 billion rows of data in our database by year end. With Vblock platform technologies like EMC's automated storage tiering and flash drives, we'll be able to manage this growth very efficiently."

To scale up its IaaS and cloud offerings, IO also will lean heavily on VMware virtualization. "We could easily support 10,000 virtual machines on a single data center module," he predicts.

In addition, a highly virtualized Vblock platform can provide the agility to handle unexpected or periodic fluctuations in customer demands.

"With a hybrid cloud built on a virtualized Vblock platform, we'll be able to offer customers instant capacity to handle sudden bursts of workload or cost-effectively support seasonal computing needs," predicts Malik.

Building on the Power of Partnership
When expanding business offerings to thousands of customers across numerous data centers around the world, it's essential to have a dependable partner.

"Vblock platforms will bring a whole new level of confidence into our business," remarks Malik. "It's the most robust, highest-performing, and stable platform we could find. It's completely integrated, with streamlined management of compute, storage, and network resources through a single pane of glass. And the fact that there is just one point of contact for support was very appealing to us."

He continues, "An extremely valuable feature of the Vblock platform is the company behind it. The VCE team has been great to work with and very responsive. They share the same vision that we do and by collaborating, we're creating strong competitive advantage."

ABOUT IO

IO designs, engineers and delivers data center infrastructure for the world's largest enterprises, governments and service providers. IO owns and operates data centers for hundreds of customers, and **has** leveraged this experience to build a next-generation Data Center 2.0 technology platform. IO.Anywhere modular data centers provide enterprise-class infrastructure that can be delivered as Data Center as a Service and rapidly deployed as a product to customer sites anywhere in the world. IO developed the first data center infrastructure operating system, IO.OS, to provide the intelligent control needed to maximize utilization, resiliency and energy efficiency. IO is a privately held company headquartered in Phoenix, Arizona. For more information on IO, please visit us on the web at io.com.

ABOUT VCE

VCE, the Virtual Computing Environment Company formed by Cisco and EMC with investments from VMware and Intel, accelerates the adoption of converged infrastructure and cloud-based computing models that dramatically reduce the cost of IT while improving time to market for our customers. VCE, through the Vblock platform, delivers the industry's first completely integrated IT offering with end-to-end vendor accountability. VCE's prepackaged solutions are available through an extensive partner network, and cover horizontal applications, vertical industry offerings, and application development environments, allowing customers to focus on business innovation instead of integrating, validating and managing IT infrastructure. **For more information, go to www.vce.com.**