Microsoft

Global manufacturer supports growth with private cloud on hyper-converged platform

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>
> Antone Heyward, IT Systems Architect, Jabil

Customer: Jabil
Website: www.jabil.com
Customer size: 150,000 employees
Country or region: United States
Industry: Manufacturing
Partner: Nutanix
Website: www.nutanix.com
Partner: Infront Consulting Group
Website: www.infrontconsulting.com

Customer profile
St. Petersburg, Florida–based Jabil is one of the largest contract manufacturers in the world. It helps customers in a range of industries design, build, and take products to market quickly and efficiently.

Software and services
- Microsoft Private Cloud Fast Track Solution
- Microsoft Server Product Portfolio
  – Windows Server 2012 R2
  – Microsoft System Center 2012 R2
- Technologies
  – Hyper-V
  – Windows Azure Pack

Infrastructure
- Nutanix Virtual Computing Platform
  NX-3000 Series
  NX-6000 Series
  NX-8000 Series

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Companies come to Jabil for help getting their products to market quickly. The global product solution partner adopted a Microsoft cloud platform running on a Microsoft Private Cloud Fast Track–validated Nutanix solution to gain the IT infrastructure scalability needed to accommodate rapid business growth. The company's IT staff can now automate many more IT processes, deliver servers in days versus months, and increase capacity on demand.

When companies in healthcare, clean technology, defense, aerospace, automotive, computing, consumer products, and other industries need help getting products to market quickly, they turn to Jabil.

Jabil is a global manufacturing services company that helps customers design, build, and take products to market affordably and efficiently. Its services include design engineering, manufacturing, and supply chain management.

Headquartered in St. Petersburg, Florida, Jabil is one of the largest companies in the Tampa Bay area and one of the leading manufacturing partners in the world. It has 90 facilities in 23 countries and more than 150,000 full-time employees. In 2013, Jabil earned US$17.2 billion in revenue.

Keep pace with business growth
Jabil management has no plans to slow down. The company continues to grow, partly through acquisition, and its IT organization must stay one step ahead of the business' need for servers and related IT infrastructure. Jabil IT had reined in server proliferation by virtualizing the company's nearly 4,500 servers. However, ongoing business expansion meant that Jabil IT needed to deploy server

NUTANIX.

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infrastructure even more quickly and scale capacity faster.

"With 35 datacenters around the world, it got to the point where we couldn't scale our systems and manage them as efficiently as we wanted to," says Antone Heyward, IT Systems Architect at Jabil. "We wanted to consolidate our datacenter footprint and increase efficiency."

Which way to the cloud?
Jabil IT knew that cloud computing was the next step in datacenter automation and consolidation—pooling virtual compute, storage, and networking resources into a single fabric that could be scaled and reconfigured dynamically.

Jabil IT decided to build its private cloud on the Microsoft platform: the Windows Server 2012 R2 operating system, Hyper-V, Microsoft System Center 2012 R2, and Windows Azure Pack. Azure Pack is a set of tools consistent with Microsoft Azure that simplifies the deployment of a private cloud for a true infrastructure-as-a-service (IaaS) environment. Azure is a public cloud environment for creating, managing, and running applications in Microsoft datacenters.

At the same time, Heyward's team decided to use a hyper-converged infrastructure solution, so called because it consolidates compute and storage tiers into a single integrated appliance for a simpler overall architecture, faster deployment, and easier maintenance than traditional standalone systems offer.

Jabil IT settled on the Nutanix Virtual Computing Platform, a hyper-converged solution that was validated through the Microsoft Private Cloud Fast Track program. This program provides a reference architecture that Nutanix used to validate Microsoft cloud software on its systems according to Microsoft best practices. The Private Cloud Fast Track Reference Architecture uses the core capabilities of the

Microsoft cloud platform to deliver a rapid-build private cloud infrastructure while greatly reducing deployment risk.

"Nutanix had what we wanted: an infrastructure that would let us start small and scale out gradually," Heyward says. "The Nutanix platform supported Hyper-V and contained integrated solid-state storage fed by intelligent tiering that would boost application performance. Once we saw how simple it would be to deploy and manage, the Nutanix platform was a no-brainer."

The combination of the Microsoft private cloud platform and Nutanix hyper-converged infrastructure is projected to help Jabil reduce its datacenter assets by hundreds of rack units and to reduce physical host servers by more than 25 percent. The joint solution also helped Jabil avoid a half-million dollars in costs, which translated to a 40 percent savings on infrastructure-related capital expenses.

Deploy the cloud and scale rapidly
Jabil worked with Infront Consulting Group, Microsoft Private Cloud experts, to help deploy Microsoft Hyper-V, System Center 2012 R2 and Windows Azure Pack. These tools are used to manage, provision, and monitor infrastructure and, soon, to provide self-service capabilities.

Jabil is in the process of implementing 156 Nutanix nodes that will host 4,300 virtual machines across 35 datacenters globally. It takes only about 30 minutes to deploy a Nutanix environment. "We can now deploy multiple Hyper-V host environments in about an hour, whereas before it took several days to deploy using our old processes," Heyward says.

Jabil configures the Nutanix systems to meet anticipated needs, but scaling the systems is as straightforward as pushing a button. Heyward's team and local IT teams in various datacenters use System Center to provision virtual machines and storage in a highly automated fashion. "It's

expensive to add physical servers after the fact, but the Nutanix and Hyper-V solution gives us instant scalability at a lower cost when compared to the traditional way," Heyward says. "And once hardware reaches maturity, we don't have to do a big bulk decommissioning of servers; we just upgrade individual server nodes one at a time." Soon, Jabil teams will use Azure selectively to scale beyond the company's own datacenters.

To date, Jabil has seen performance improvements when using the Microsoft and Nutanix platform. "So far, our users tell us that they're seeing improved performance with Nutanix and Hyper-V, which is good news," Heyward says. "Application load testing has also shown that we'll be able to virtualize critical, I/O-demanding workloads previously not able to be virtualized."

Deliver servers in days
With its new infrastructure, Jabil IT can better sate the business's voracious appetite for servers. It will use Azure Pack to create a self-service portal that Jabil's software developers can use to spin up their own virtual machines without involving the infrastructure staff.

"With the Nutanix and Microsoft Hyper-V solution, we can deliver servers to the business in a matter of days, enabling Jabil's continued growth," Heyward says. "Once our self-service portal is fully deployed, delivery time could shrink to minutes or hours. The Jabil IT team helps our internal customers get resources much faster, which empowers our business groups to make things happen faster for our customers. It's a powerful combination all around."