Dell Technologies Relies on VMware for Elastic Cloud Capacity at Premier Event

INDUSTRY
TECHNOLOGY

LOCATION
ROUND ROCK, TEXAS

KEY CHALLENGES
- Needed infrastructure to scale to support 28,000 virtual machines (VMs) for 3,900 Hands-on Lab environments during four-day event
- Needed to mitigate single-point-of-failure risk
- Required highly performant and cost-effective solution

SOLUTION
The Dell Technologies World team turned to a hybrid cloud model based on VMware to enable the seamless transfer of content between a short-term VMware Cloud™ on AWS environment and three private clouds.

BUSINESS BENEFITS
- Supported a massive burst in capacity with 40 percent more VMs than the prior year's event
- Achieved 100 percent content uptime compared to 90 percent in the prior year, driving positive customer experiences for higher sales and a Net Promoter Score (NPS) of 72
- Realized cost savings with an efficient, high-performance temporary public cloud environment

More than 15,000 customers and partners attend the four-day Dell Technologies World event to experience the latest innovations in IT infrastructure. Hands-on Labs at the show let customers test-drive solutions from Dell Technologies, helping influence important purchase decisions.

At the 2018 conference, more than 2,800 unique users participated in over 3,900 Hands-on Labs that required about 28,000 VMs. To cost-effectively support this massive burst in infrastructure resources, the event team turned to a hybrid cloud solution underpinned by a temporary VMware Cloud on AWS environment, resulting in vital improvements in uptime and the overall customer experience.

Dell Technologies World is the premier annual conference sponsored by Dell Technologies, offering thousands of breakout sessions, trend-leading keynotes, and a comprehensive solutions expo. Its solutions provide the essential infrastructure for organizations to build their digital future, transform IT, and protect their most important asset: information.

The challenge
The Customer Solution Centers (CSC) team at Dell Technologies supports presales demos and personal learning for corporate employees and channel partners year-round. But the team faces its biggest challenge each year by delivering its content to customers on a massive scale, and in just four days, at Dell Technologies World. These Hands-on Labs at the conference are primarily individual, self-paced tutorials that allow attendees to learn how the solutions work by setting them up as an administrator of an actual virtual environment within each lab.

To support nearly 4,000 Hands-on Lab environments with an average of 10 VMs per lab, the CSC team needed to plan for a huge boost in capacity with a solution that wouldn't impact the IT infrastructure used for the company's day-to-day operations. With a goal to improve the 90 percent content uptime rate from the 2017 event, the CSC

team explored possibilities that would provide high performance and redundancy. The solution also needed to be cost effective, especially considering the heavy usage would only be temporary.

The solution

For the 2018 event, the CSC team worked with VMware to re-architect the old infrastructure in favor of a scalable, hybrid cloud design. This would ensure quick deployment of a highly available platform that would simplify transfers and releases of Hands-on Lab resources.

The new infrastructure enabled seamless management of three private clouds, along with a temporary VMware Cloud on AWS environment that was stood up a few weeks prior to the event. As the team for the Hands-on Labs observed how well this new environment was performing, they shifted more of the load to VMware Cloud on AWS, which ultimately handled 40 percent of the overall cloud capacity at the event.

"The familiar tools and scripting process with VMware Cloud on AWS made it seamless to use. It helped us quickly spin out more resources and migrate workloads from our private clouds when needed," said Ian O'Gorman, solutions architect for the Customer Solution Centers at Dell Technologies. The private cloud environments leveraged software-defined data center infrastructure with VMware vSphere® 6.5 plus all-flash Dell PowerEdge servers with VMware vSAN™.

"With the hyperconverged infrastructure, we got outstanding performance even with the demanding workloads of the Hands-on Labs," said O'Gorman. "We designed it to deliver up to 50TB of RAM. Yet with the more modern, vSAN-based hybrid cloud architecture we had this year, we were able to deliver 40 percent more labs with less raw capacity than last year, while achieving higher performance."

VMware vRealize® Operations™ provided a complete dashboard overview of the cloud infrastructure's health, helping ensure smooth Hands-on Labs experiences for participants. The team used linked cloning capabilities in VMware vCloud Director® to deliver additional lab environments faster.

The segmentation capabilities in VMware NSX® Data Center made it possible to isolate each lab environment. With this solution, the team could quickly spin up more copies of the same lab without IP address conflicts for a faster lab delivery process.

Business results and benefits

With the new, transformed cloud infrastructure, the team easily supported the event's massive burst in required capacity, even while improving uptime for the Hands-on Labs to 100 percent. Lab participants noticed the improvements. The event team received reams of positive feedback from participant surveys praising the smoothness and snappiness of the virtual lab experience.

"If the underlying system is unstable or has latency, it reflects poorly on the products that participants are trying to evaluate. The terrific experience that VMware Cloud on AWS helps provide translates to higher customer confidence in our products and solutions, preserving and enhancing revenue opportunities for the company," said Tricia Kreis, senior manager of events and operations for the Customer Solution Centers at Dell Technologies.

The seamless integration of additional short-term public cloud capacity with VMware Cloud on AWS also saves the company important capital and operational expenses. "Our normal, day-to-day presales demo and learning environment supports about 350 labs per day. That spikes to nearly 1,000 labs per day during the four days of

vmware®

" The terrific experience that VMware Cloud on AWS helps provide translates to higher customer confidence in our products and solutions, preserving and enhancing revenue opportunities for the company."

TRICIA KREIS
SENIOR MANAGER OF EVENTS AND OPERATIONS
FOR CUSTOMER SOLUTION CENTERS
DELL TECHNOLOGIES

VMWARE FOOTPRINT
• VMware Cloud on AWS
• VMware vSphere 6.5
• VMware vSAN 6.6
• VMware NSX Data Center 6.3
• VMware vRealize Operations 6.6
• VMware vCloud Director 8.20 and 9

PLATFORM
Dell PowerEdge servers

Dell Technologies World. We don't want to deploy and maintain extra infrastructure to support that burst only to have it then sit idle for a year until the next conference. The VMware Cloud on AWS solution delivers tremendous efficiencies," said Maurice Harty, director of demo strategy and enablement for the Customer Solution Centers at Dell Technologies.

"Ultimately, it's not as much about the cost savings, but more about stability, high availability, and the ability to burst and then scale down easily, while delivering the best possible experiences to our customers," Harty said.

Looking ahead
"We take pride in achieving a world-class-level NPS score of 72 this year," Kreis noted. "That indicates phenomenal customer satisfaction that we celebrate. We look forward to continuing that distinction in the years to come."

vmware®