



Langs Building Supplies Empowers Workforce with VMware Horizon, NVIDIA GRID, and the Nutanix Virtual Computing Platform

INDUSTRY

Building Construction

LOCATION

Queensland, Australia

ABOUT THE BUSINESS

Langs Building Supplies is one of the leading suppliers of timber, hardware, roof trusses, wall frames, and doors and windows for the construction industry in Australia.

KEY CHALLENGES

Needed to upgrade desktop infrastructure and support geographically distributed end users, including designers using graphic-intensive CAD/CAM tools.

BUSINESS BENEFITS

- Enabled virtual desktops for 3D CAD users
- Achieved 96 percent reduction in power costs
- Reduced space requirements by 83 percent
- Obtained 53 percent lower TCO than alternative solutions
- Saved AUD\$350,000 on IT staffing
- Improved security and availability with linear scalability

To better support its global workforce, Queensland-based Langs Building Supplies recently moved to an integrated virtual IT infrastructure using VMware Horizon®, NVIDIA GRID™ Cards, and Nutanix Converged Infrastructure.

Langs Building Supplies is a leading supplier of timber and hardware products and a fabricator of roof trusses, wall frames, and door and window joinery for the construction industry. Based in Queensland, Australia, Langs is privately owned with a global workforce of nearly 400 employees. "We're a mid-sized organization with large enterprise needs," noted Matthew Day, IT manager at Langs. "We operate with a finite IT budget, but we still try to push the envelope. We want to achieve everything we can with the best technologies on the market."

The Challenge – Virtualize Everything

After a period of economic sensitivity, the server, storage, and desktop infrastructure at Langs was overdue for a technology refresh. One of the goals for their infrastructure project was to shift away from applications running on dedicated servers to a shared infrastructure with higher resource utilization. "Instead of having 90 percent of our storage idle, we wanted an infrastructure that is at least 70 percent utilized," Day said. "Virtualization was the best way to consolidate our servers. Our goal was to provide the same level of efficiency to our desktops."

Day started looking for a new infrastructure that could scale with the business and be simple to manage. He also wanted to find a converged storage solution that was highly reliable and powerful enough to support all of the company's business-critical applications and VMware Horizon virtual desktops. "We wanted to implement a well thought out plan, based not only on our current needs, but also for the next three to five years," noted Day.

Langs made the decision to implement virtual desktops with VMware Horizon to serve all user requirements and offer remote access – not only to improve worker productivity, but to enable better work-life balance for the company's workforce. Roughly 75 percent of Lang's employees are considered "task users" that access the company's ERP system and perform duties like data entry, document handling, and email; 15 percent are "design users" that engineer products using 3D CAD with heavy graphics processing; and the remaining 10 percent are power users that run two or three concurrent ERP sessions and utilize some graphics processing.

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Matthew Day
IT Manager,
Langs Building Supplies

Building on the Ideal Combination of Nutanix and VMware

After evaluating a full gamut of solutions involving traditional storage architectures, Langs Building Supplies selected the Nutanix Virtual Computing Platform and VMware Horizon for the company’s desktop virtualization project. “We did a Horizon proof of concept on the Nutanix solution – I certainly didn’t take it on faith alone,” reported Day. “Nutanix sent me a system to play with. I tried my best to break it, but it took all of the abuse I could dish out without missing a beat. Nutanix and VMware together deliver a very robust solution. Not only does Nutanix provide the performance and the high availability we need, it’s not finicky, like other many of the solutions we’ve used in the past.”

Nutanix’s patented architecture is a true convergence of storage and compute, the ideal complement for VMware Horizon. It is also easy to manage and offers built-in high availability, including automatic failover in case of a node failure. It delivers high IOPS performance – essential for VDI – and similar to Horizon, it linearly scales. “Nutanix provides a complete solution, whereas other companies just offer cut-down racks with a SAN at the bottom,” Day explained. “With Nutanix, I don’t have to think about storage, or server architecture, or middleware anymore.”

Better Scalability and Resiliency

Langs installed the Nutanix Virtual Computing Platform including NX-3000 and NX-7000 nodes at the company’s Yatala data center, taking advantage of the ability to mix and match different Nutanix models. The NVIDIA GRID K1 cards were installed in the NX-7000 nodes as a shareable resource for the 30 simultaneous graphic design and power users. “We now have 130 users total, although I fully expect to have hundreds more on the system within two years,” noted Day. “That’s why it is so important that Nutanix and VMware Horizon can easily scale. I’ve got to be able to add a new site at a drop of a hat. Together they let me do that.”

The Nutanix system’s resiliency was immediately apparent when Langs lost power during a massive storm. “Over 100 VMs were running, and the whole thing was back up and running in 20 minutes,” Day reported. “It’s a very robust solution.”

Achieving 53% Lower TCO

The Nutanix Virtual Computing Platform hosts all of Lang’s business-critical applications and the VMware Horizon desktop environment. The company’s task, power, and design users now access their Windows desktops running in Horizon, mostly with thin clients. A branch office 100 kilometers away from the main site in Yatala accesses the virtual desktops over a wide-area network.

According to Day, the TCO of the solution is 53 percent lower than traditional infrastructure. The system is so easy to manage that Langs was able to reallocate one full-time IT administrator, saving AUD\$350,000. For the overall environment, with the end-user workstations factored in, total power costs fell by 96 percent. Rack space was reduced by 83 percent, from three full racks to just a half rack. These massive reductions made it cost-effective to move the equipment into a professionally managed data center with much better physical security and availability.

A Boost in End-User Productivity

Virtual desktop remote access has improved worker productivity for Langs employees. “One of our key engineering users went on leave, but because of the Nutanix, VMware, and NVIDIA solution, she can work from home and access the environment as if she was here at the office. This has been a massive boost to our productivity and for retaining good staff,” said Day. Remote access also enables the company to hire engineering contractors from other locations in Australia or abroad, which has improved turnaround time for providing customer quotations. If a request comes in late in the day, a contractor in Europe or Asia can pick up the job and have it ready by the next morning.

“Nutanix, VMware, and NVIDIA together are enabling us to efficiently leverage a global working model.”

Matthew Day
IT Manager,
Langs Building Supplies

PRODUCTS

- VMware vSphere®
- VMware Horizon
- Nutanix NX-3000 and NX-7000 Series, each with NVIDIA GRID K1 Cards

Looking Ahead

With the new virtual computing platform in place, Langs Building Supplies is now ready for the future. The company has already started building a new site in South East Queensland that will support 80 new users. “In terms of IT infrastructure, I can stand up a new site in less than a day with Nutanix and VMware,” said Day.

When Nutanix needs to be expanded down the line, it can be done non-disruptively – one node at a time – by simply adding additional nodes. “I don’t have to rebuild anything anymore,” Day stated. “With a SAN, I would have to migrate everything. But with Nutanix, the cluster will do it for me. I’ve worked in IT for 18 years. This was the most straightforward implementation I have ever experienced with a new technology.”

“Working with Nutanix and VMware has been very refreshing,” concluded Day. “The whole engagement – from the very first meeting to the proof of concept – was simply fantastic. They bent over backwards to support us. It’s very rare to find a product that actually does what it says it’s going to do. We found that with Nutanix and VMware.”

