Leaders of the (Virtualization) Pack

Seattle Children's Hospital


Jake Hughes (left) and Wes Wright (right) of Seattle Children's Hospital examine their new, virtualized environment.

After virtualizing its infrastructure, mission-critical applications, and desktops, Seattle Children's Hospital is a model of possibility and achievement.

Not enough security. Not enough control.

When it comes to virtualizing mission-critical applications and putting them in a cloud, these are two of the concerns that continue to give organizations pause. And yet, security and control were two of the reasons that prompted Seattle Children's Hospital to fully embrace application virtualization.

"We are way ahead of everyone else," says Wes Wright, CTO of Seattle Children's Hospital, which is ranked among the nation's top 10 children's hospitals. "I don't think we have any mission-critical applications that aren't virtualized."

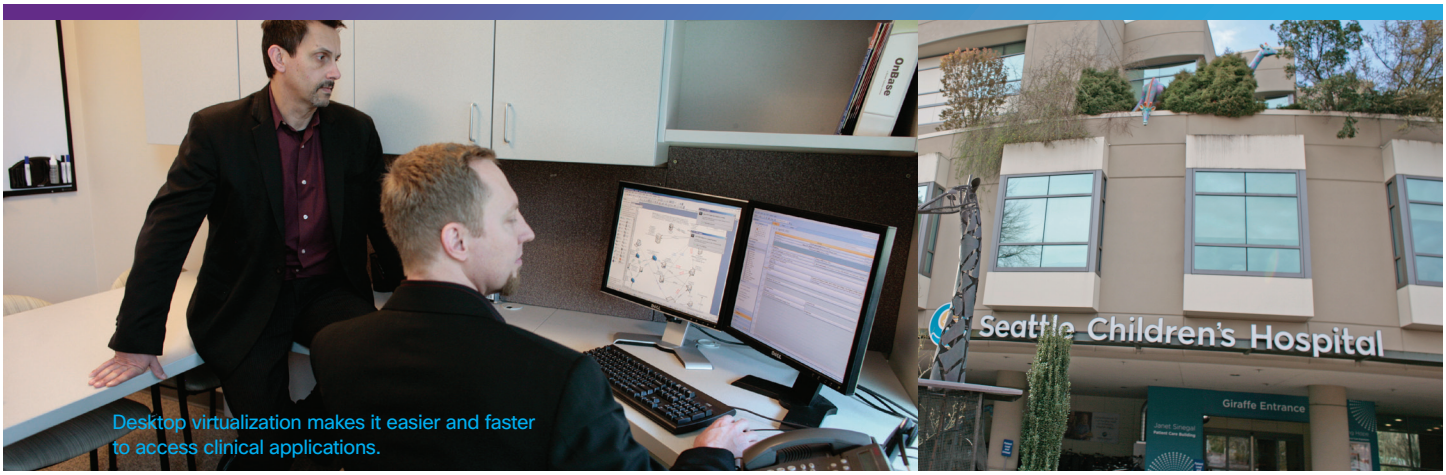
Their efforts started in 2007, a time when many companies had never considered virtualization or heard of cloud computing. Today, with countless companies still taking baby steps toward these computing paradigms, Seattle Children's is a model of possibility and achievement.

"We had a long-term strategy and we stuck with it," says Jake Hughes, Chief Technical Architect for Infrastructure Systems at Seattle Children's. "In retrospect, it was probably a bit risky to put all of our eggs in such a new basket. But we focused on the benefits, conducted pilot projects to prove the value of virtualization, and it caught on like wildfire."

Focusing on business needs

Most companies pursue virtualization and cloud computing, at least initially, to reduce the time and cost of IT administration. Seattle Children's, however, focused squarely on business improvement and enablement.

"We don't do IT for IT's sake," says Wright. "For us, it's all about making the business better. And that means improving clinician productivity, information security, and patient care."



Desktop virtualization makes it easier and faster to access clinical applications.

Seattle Children's virtualized nearly all of its servers, roughly 400 in all, and brought 5500 workstations under central management. Using Citrix XenApp, the hospital then virtualized more than 450 individual executables, including the vast majority of its point-of-care and clinical information applications.

"Our assets and data were previously distributed across a 7000 node network," explains Hughes. "By bringing everything back into a virtualized data center, we were able to establish a secure method of accessing applications and data that is fully encrypted and easier to control."

While information security and control improved, information access and clinician productivity continued to be challenging. It typically took 4 minutes or more to log onto each hospital workstation, which caregivers had to do dozens of times each day.

"It was sometimes taking 10 minutes for our clinicians to log on, open an application, and get the information they need," says Hughes. "That time should be spent with a patient instead of a workstation. We wanted to make it easier and faster for our clinicians to access applications and information, so we started looking into VDI (virtual desktop infrastructure)."

Because Seattle Children's had already virtualized its server infrastructure and applications, desktop virtualization was a logical—and pain free—next step. The hospital deployed Citrix XenDesktop, giving users fast, cohesive access to Windows 7 desktops and clinical applications from client devices found throughout the hospital.

Improving productivity and reducing costs

Seattle Children's state-of-the-art, virtualized IT environment, all running on the Intel® Xeon® processor-based Cisco® Unified Computing System™ (UCS), has become one of the healthcare industry's most advanced private clouds.

With virtualized applications and desktops, caregivers can access clinical systems and information in seconds instead of minutes—giving them at least 45 extra minutes each day with patients. Data is centralized and more secure, improving patient privacy and safety. And although it was a secondary priority behind business enablement, Seattle Children's has dramatically reduced the time and cost of IT administration.

The hospital's IT team previously spent 90 percent of its time chasing repetitive workstation issues and errors, and managing roughly 5500 different instances of more than 400 applications. Today, applications and desktops are managed from a central server, eliminating the need to update 7000 nodes individually.

"We essentially stream our applications," says Hughes. "With isolation and separation from the server image, we can update our applications independent of the server or virtual desktop. It's nimble, flexible, and fast."

"Over the next 5 years, we anticipate that we'll save more than $6 million in hardware and energy costs, as well as thousands of hours in staff time," adds Wright. "This allows us to dedicate more of our valuable resources to delivering the best care possible to patients and families, which is our number one job. Every minute of staff time we give back and every dollar we save lead directly to better care."

Pilot and Discovery Workshop Offers

Speak to your Cisco or Channel Partner representative about desktop virtualization, VXI pilot offers, and the custom Cisco Discovery Workshop. Visit www.UnleashingIT.com for more information.

This article first appeared in *Unleashing IT*, Spring 2012—available for download after subscribing to www.UnleashingIT.com.