

South Eastern Health and Social Care Trust Deploys VDI on Tintri Storage



Tintri Provides Fast and Secure, Single Sign-On Access to Virtual Desktops for Thousands of Healthcare Workers

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Industry

- Healthcare

Geography

- Northern Ireland

Virtualization environment

- VMware vSphere
- VMware vCenter
- VMware Horizon View (for VDI)
- Imprivata Single Sign-On solution

VM profile

- VMware Horizon licensed for 2,400 VDI user sessions
- Several dozen server VMs
- vCenter infrastructure servers

Key challenges

- Wanted to provide simple and fast SSO access to virtual desktops for all healthcare workers
- Needed a solution that was easily scalable to thousands of local and remote users
- Performance of existing storage platform could not handle VDI spikes for just 50 end users

Tintri solution

- Two Tintri VMstore systems
- Tintri Global Center management interface

Primary use case

- Virtual desktops with Single Sign-On access

Business benefits

- Obtained high performing VDI and SSO environment
- Gained granular scalability to expand to thousands of VDI users
- Simplified management
- Accelerated deployment, with 2-3 hour installation and 5 minute configuration

Company

South Eastern Health & Social Care Trust (SEHSCT) provides an extensive range of quality health and social care services to over 440,000 people in Northern Ireland. SEHSCT currently employs over 12,500 staff across a wide range of disciplines, including hundreds of nurses, midwives, social workers, dentists, medical professionals, and administrative staff.

IT Challenges

South Eastern Health & Social Care Trust virtualized its server environment using VMware vSphere and vCenter several years ago. When they made the decision to deploy virtual desktops in 2013, VMware Horizon View emerged as the obvious choice. The IT team replaced the clinicians' desktop computers with thousands of zero clients and mobile devices, including Android tablets and iPads, and implemented an Imprivata OneSign single sign-on (SSO) solution to ease access to the virtual desktops from these devices.

"VDI is an excellent way to provide mobility, but it introduces several challenges to the IT environment," explained Darren Henderson, ICT Services Manager for SEHSCT. "If you are doing VDI, you have to be very careful about your choice of software, SSO solution, and storage platform if you want to guarantee an excellent end user experience."

Before they chose the Tintri VMstore systems, SEHSCT piloted the VDI solution on the Trust's existing HPE StoreVirtual platform. "The HPE solution works very well in our general datacenter environment, but it's not ideal for the virtual desktops," Henderson reported. "During the initial pilot, we experienced significant performance bottlenecks, even with just 50 users. VDI requires high performing storage to handle the IO spikes during employee logins and other compute-intensive tasks. You need make sure you have sufficient headroom with the storage to be able to cope with the increased load."

“We wouldn't have been able to deploy VDI and SSO to all of our end users unless we had Tintri's high performance, easily scalable storage platform underneath it. Tintri is enabling us to provide unlimited mobility to our medical professionals, and ultimately, better healthcare to all of our patients across Northern Ireland.”

Darren Henderson, ICT Services Manager, South Eastern Health and Social Care Trust

The Tintri Solution

Henderson first heard about the Tintri solution while attending VMworld in 2013. “What really sold me on Tintri was its ease of use,” Henderson explained. “With Tintri, there are no more LUNs to manage. We don't have to worry about carving up volumes, capacity management, and all of that. Since we have a very small IT team, we can't afford to spend a lot of time configuring, tweaking, and fixing things in our storage environment all day long.”

SE purchased two Tintri systems in 2013. “We knew that buying a single Tintri system would be sufficient for the VDI environment, but we bought an extra one for our other data center,” explained Henderson. “With two active data centers, even if we lose one site, our services will continue uninterrupted.”

Henderson was also very impressed with the fast Tintri deployment. “It took us longer to physically put the Tintri system into the rack than to connect it,” he explained. “After we mounted the box, it only took five minutes to configure the new system. We were absolutely blown away by the simplicity of the Tintri platform. It was an absolute no-brainer to go with this intuitive solution.”

Results

Single Sign-On Access to Virtual Desktops

South Eastern Health & Social Care Trust selected the Imprivata OneSign single sign-on solution to simplify access to the virtual desktops. “VDI with SSO provides our healthcare practitioners with fast, instant access to the information they need to provide quality healthcare,” Henderson explained. “Our staff can now walk up to any device, swipe their ID cards, and access their virtual desktops in under 7 seconds. When they move to new location, it takes seconds to switch the session to the new device. The performance of the VDI and SSO solution on Tintri is absolutely amazing.”

The Trust's healthcare employees can also logon to their desktops from home using their username, password and token code. “Some of our staff prepare for their morning clinics at home over breakfast,” explained Henderson. “When they arrive at the outpatient clinics, all of the information is still on their screen. The ‘follow me’ desktop is something we've been trying to do in healthcare for decades. That functionality is now possible with VDI and SSO on Tintri.”

Simpler Management and Supportability

Henderson reportedly has a very large whiteboard in his office with a ‘laundry list’ of IT projects and management tasks that just keeps getting longer every day. “When you have to manage all of the ‘lights-on’ tasks in your IT environment, it takes a lot of time away from tackling more important projects,” he said. “Our Tintri rep said it would be easy to manage the storage environment, he said it would be fast, and he told us that we wouldn't have any issues. He was absolutely right. Tintri is enabling our team to deliver on other IT projects that we weren't able to get to, rather than just keeping the storage systems running.”

Better Visibility with Global Center

Henderson was also impressed with Tintri's Global Center management interface. “With Global Center, we can easily see if there is a performance issue on the network, server, or storage side,” he reported. “We don't have to look at the management console very often, but it is nice to know that it is there. It's almost a waste to have such a great management interface, since the Tintri systems are so reliable!”

Removing the VDI “Bottlenecks”

“When rolling out VDI and single sign-on to end users, the bottleneck most organizations face is constantly managing all of the infrastructure and buying additional shelves to get the solution to stand up,” noted Henderson. “With Tintri, the ‘bottleneck’ is further upstream. Our only challenge now is keeping enough iPads in stock so we can hand them out to our staff when they request a virtual desktop.”

Easier Scalability and Redundancy for a Growing VDI Environment

SEHSCT's VDI environment has grown very quickly, from 600 virtual desktops in 2013 to over 2,400 users today. "Since Tintri is an independent node, we don't have to 'size for tomorrow', we can just buy what we need for today," stated Henderson. "With other solutions, we would have to buy a large, expensive storage systems up front. Tintri is a much more scalable and cost-effective solution."

After purchasing the two T540s in 2013, SEHSCT added two T850 systems in 2016 to accommodate growth. "The performance of the first two T540s was great, but the performance of the T850s is simply staggering," Henderson reported. "We could run our entire VDI or environment on the two T850s if we needed to, but it's nice to have the T540s around for redundancy."

Future Plans

South Eastern Health and Social Care Trust is now deploying additional virtual desktops and zero clients for its administrative personnel. "Many of our office workers are asking us if they can trade their old workstations over for the new 'tiny PCs', because the virtual desktops are 10 times faster than their old desktop systems."

"We wouldn't have been able to deploy VDI and SSO to all of our end users unless we had Tintri's high performance, easily scalable storage platform underneath it," Henderson concluded. "Tintri is enabling us to provide unlimited mobility to our medical professionals, and ultimately, better healthcare to all of our patients across Northern Ireland."