Yale-New Haven Health System Gains Rapid WiFi Access of Desktops on PCoIP Optimized Thin Clients

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YALE-NEW HAVEN HEALTH SYSTEM

AT A GLANCE

Situation
- Healthcare system (four campuses plus off-site doctors’ offices)
- New Haven, Connecticut
- 12,000 employees

Challenges
- Giving doctors and nurses rapid anywhere access to their desktops
- Maximizing the user experience regardless of network performance
- Reducing the amount of ITS time required for desktop issues and support

Solution
- Leverage existing VMware® Horizon View™ servers
- Replace all endpoints with Dell ThinOS clients equipped with Teradici® PCoIP® technology

Results
- Faster client start-up: New endpoints start up and open virtual desktop sessions in seconds instead of minutes.
- Device support: USB redirection feature seamlessly maps devices to virtual sessions.
- True mobility: No more dropped WiFi connections while roaming between access points.
- Recovered IT time: The new endpoints give ITS a “set-it-and-forget-it” approach for hardware support.
ITS was not happy, and Medical Staff at Yale-New Haven Health System (YNHHS) were not happy. The previously deployed thin clients were taking too much time to support, and were not giving care teams fast enough access to information. The laptops on carts would also frequently lose network connections as they moved from one WiFi access point to another. ITS initiated an in-depth review of endpoint alternatives, with goals that included:

- **Investment protection.** ITS looked for new endpoints compatible with the existing VMware Horizon View servers for virtual desktop sessions, and also wanted to leverage the existing USB devices (printers, scanners, card readers, etc.) attached to many of the endpoints.
- **Performance.** Regardless of network fluctuations, each endpoint needed to deliver rapid, reliable access to critical information (electronic medical records) and applications.
- **Simplicity.** Deploying and supporting endpoints needed to be quick and easy. Updates, in particular, were taking too much ITS time and frequently requiring troubleshooting and trips to the endpoint locations.

Research and testing pointed ITS to the PCoIP protocol. “When we learned how PCoIP could enhance our VMware Horizon View environment, that drove us to Teradici, the creators of the protocol,” said David Franco, engineer, servers and virtualization, YNHHS.

“We looked at other alternatives, but PCoIP levels out bandwidth with regard to network speed. Nothing else we looked at could do that. With thousands of endpoints on our network, some were experiencing slower connections, some faster. PCoIP optimizes the user experience regardless of the network.”

The endpoint project moved forward with the evaluation and selection of new thin clients with integrated PCoIP technology from Teradici. The technology team at the health system chose as its new endpoint standard the Dell Wyse D10DP PCoIP Optimized Thin Client with WiFi support.

“Luckily, Teradici had already optimized PCoIP software technology to run on Dell clients, and could give us the perfect fit for our end users,” said Franco.

The first 3,000 PCoIP thin clients were deployed, and now ITS enjoys the simplicity of standardized desktop images hosted on a central server. Images are delivered to thin clients over WiFi with PCoIP enabling excellent connectivity in all areas of the health system, even in moving elevators and in areas with steel walls and 12-inch thick cement construction.

“Now, everything is managed on the back-end, on the servers,” said Franco. “Regarding the endpoints, we don’t have to think about them anymore. We just set them and forget them – PCoIP Optimized Thin Clients are really easy for ITS.”

Besides protecting investments in the back-end VMware servers, the new thin clients leverage the existing WiFi network and fully support USB devices on the endpoints.
“Thanks to some critical PCoIP features, the new thin clients are giving our end users excellent performance,” said Franco. “And we achieved this without any adjustments to our WiFi network – this was a critical factor for us. Similarly, the PCoIP protocol allows for USB devices to be redirected to the virtual session. Without this feature, we would have been a no-go.”

The PCoIP Optimized Thin Clients save time for ITS, which bodes well for staff and patients at YNHHS. “Our goal from the start was to be able to manage endpoints more easily,” said Franco. “With Teradici PCoIP technology, we have met that goal and can better support the people who are working to improve patient care. We spend less time resolving endpoint issues, and can spend more time planning and architecting new improvements.”

Those improvements include the expansion of the new server-client solution, and the replacement of a total of 16,000 older thin clients in the next few years. To further speed access to virtual desktop sessions, ITS is also evaluating tap-in/tap-out access solutions.

With PCoIP driving up network efficiency, the health system can also accelerate a telecom initiative. Today, less than 100 doctors or nurses access the network over the Internet. The telecom pilot would provide more flexible access and ultimately help critical care teams stay more connected even when they are off campus.

“PCoIP made it possible to successfully complete the endpoint refresh project – it made it easy to fit the new clients into our existing environment and support existing devices,” said Franco. “As a result, we have been able to eliminate Windows at the endpoint and many related support complexities. This has meant many changes for us, but most important is that it allows us to give our end users the access they want without the previously daunting amount of ITS work behind the scenes.”