



leostream

Remote Desktop Access Platform

Case Study

Enhancing Hospital Operations with HIPAA-Compliant Remote Access Enabled by Leostream Connection Broker

Customer Profile

This case study focuses on a prominent Midwest clinic, an integral part of one of the world's largest not-for-profit group medical practices. This facility operates across two separate campuses, serving over 250,000 patients annually. Employing a workforce of 400, consisting of physicians, allied health professionals, and administrative staff, the clinic faced the challenge of upgrading clinical systems, bolstering security, and accommodating future growth as part of its regular hardware refresh cycle.

The Challenge

The clinic's IT department had several crucial objectives—including implementing new clinical systems, heightened security measures, and expansion planning. Given the stringent regulations set forth by the Health Insurance Portability and Accountability Act (HIPAA) for patient data security and the necessity for uninterrupted 24/7 system reliability and concerns over manageability, the clinic sought innovative virtualization solutions to meet these objectives.

Most importantly, the IT team needed to address the security concerns outlined in HIPAA regulations concerning Electronic Protected Health Information (EPHI), such as the risks posed by lost passwords, offsite and insecure access, unattended workstations, USB data theft, data interception, and open networks.

The Solution

The clinic thoroughly evaluated various approaches, including traditional desktop setups, application virtualization, and desktop virtualization. Ultimately, they chose a secure Hosted Desktop solution, managed by the Leostream Connection Broker and built upon a VMware virtualization infrastructure, with thin clients replacing conventional desktop PCs. These thin clients were equipped with card readers. Windows desktops were moved to virtual machines, and the Leostream Connection Broker was deployed to establish and control secure access to the Hosted Desktops. This solution effectively addressed the security gaps associated with traditional "fat" desktops by implementing strong two-factor authentication using smart cards, location-based access to Hosted Desktops, and USB lock-down.

Key Objectives Achieved

The primary goal of the solution was to provide fast, secure, HIPAA-compliant, 24/7 "anywhere" desktop access to healthcare professionals and support staff.

Solution Components

The components of the solution included the Leostream Connection Broker, VMware ESX Server, Wyse WTOS S10 thin clients, RDP protocol, smart cards with X.509 digital certificates, and smart card readers.

How It Operates

When a user inserts their smart card into the reader, the card's data is validated by the clinic's Active Directory. The Connection Broker then selects the appropriate Hosted Desktop to present. The user enters a PIN, providing the second authentication factor, and unlocks their desktop.

Results and Lessons Learned

The implementation of the Leostream Connection Broker enabled IT administrators to enforce the clinic's business rules effectively. Broker policies allowed for finer-grained security controls, enabling administrators to set location-based policies and USB access rights for groups or individuals.

The clinic improved manageability and reduced power consumption by centralizing desktops in the data center. Adopting thin clients resulted in cost savings, reduced maintenance, and a smaller device footprint, particularly in areas with limited space, such as examination rooms and medical carts.

The most significant benefits of the solution stemmed from enhanced security, combining strong two-factor authentication with a seamless and fast end-user experience. The clinic achieved the following:

- ✓ **Utilized existing tools:** The Connection Broker seamlessly integrated with the existing architecture, requiring no changes to Active Directory.
- ✓ **Secured data centrally:** HIPAA-governed data was stored centrally, reducing the risk of data loss at the network's edges and facilitating compliance.
- ✓ **Provided highly secure "anywhere" access:** Using smart cards and PINs, staff and physicians could access their desktops securely from authorized locations.
- ✓ **Offered a seamless user experience:** Users could rapidly disconnect and reconnect their desktop sessions, maintaining their desktop state.

Conclusion

Implementing the Leostream Connection Broker enabled the clinic to meet its critical objectives, ensuring HIPAA compliance while enhancing security, manageability, and the overall user experience for healthcare professionals and support staff.

Are you ready to experience all the benefits of what the world's leading Remote Desktop Access Platform offers?

Our expert team is waiting to show you a whole new way to connect your people and your business.



BOOK YOUR DEMO TODAY