imprivata®

Virtualization and SSO removes technology overhead from clinical workflows

"The ability to get back to your desktop in seconds rather than minutes really improves patient care. And so the Imprivata piece, the SSO, really enabled that even further." – John McFarland

Key facts

Industry: **Healthcare**
Location: **Tampa, Florida**
Industry Beds: **206**

Challenges

- Reduce technology overhead within clinical workflows
- Rapid deployment of VDI, SSO, and Windows 7
- Achieve a high adoption rate

Results

- Fast, secure No Click Access®
- Reduced login times to three seconds or less
- Streamlined clinical workflows with No Click Access
- Deployed VDI to 95% of the clinical enterprise

Moffitt Cancer Center, the no. 6 cancer hospital in the nation based on U.S. News & World Report, is a 206-bed facility located in Tampa, Florida.

Moffitt, like any other busy clinical environment, is always looking to improve the clinical workflows of care providers. They were particularly interested in saving clinicians' time, and allowing care providers to focus less on technology and more on patients. That's why John McFarland, Director of IT Business Management, and his team initiated a comprehensive implementation of virtual desktop infrastructure (VDI) and single sign-on (SSO).

"We wanted to do anything we could do to make our clinicians' lives easier," McFarland says. "Anything you can do to simplify the process of getting a clinician to the information they need is well worth the investment and improves patient care."

A big mountain to climb

The VDI deployment started out as a way to speed up migration to Windows 7 and to make maintenance easier from an IT perspective. However, Moffitt quickly realized there was a critical problem happening in the clinical space — it was taking too long for clinicians to access applications and patient information. This shifted Moffitt's VDI approach from a migration enablement perspective to a workflow optimization and return-on-investment focus. McFarland and his team decided to combine their VDI project with single sign-on (SSO) to streamline clinical workflows. "We combined those projects together into one big project that had a nickname of Everest," laughs McFarland.

Starting with two clinics, the team began deploying zero clients with Imprivata Virtual Desktop Access and Imprivata OneSign® Single Sign-On. "It was wildly successful," says McFarland. "So our CMIO put the gas on the project and started rolling it throughout the organization very quickly." Indeed, within eight months of the initial pilot, Moffitt had a solid 85% of their clinical enterprise running on zero clients and VDI.

Single sign-on: Critical to adoption

To ensure their VDI fired on all cylinders, McFarland and his team used a number of different hardware and software solutions, including:

- XenServer as the hypervisor
- XenApp and XenDesktop
- AppSense to manage all profile aspects as well as GP in the environment
- Dell Xeniths, Dell All-in-Ones

And at the endpoints are Imprivata Virtual Desktop Access and Imprivata OneSign providing authentication management and No Click Access, enabling clinicians to sign in at any workstation with a tap of their badge or swipe of their fingerprint.

"The ability to badge into the workstation was a critical component. I don't even think it was much of a discussion. It was just a 'we need this to do this.'" McFarland continues, "Again it goes back to the ease of use. That technology shouldn't have overhead in the workflow. The easier you can make technology to use, the better it's going to be for adoption."

A huge success

As of 2016, Moffitt has achieved a solid 95% adoption of VDI across their clinical enterprise, with a peak of 1,500 concurrent desktops during the week.

Implementing VDI across the entire organization has had a huge impact. "At the end of the day, I see our virtual environment as a workflow enabler for the clinical practice," says McFarland. "The ability to get back to your desktop in seconds rather than minutes really improves patient care. And so the Imprivata piece, the SSO, really enabled that even further."

Recommended best practices

Throughout this experience, the Moffitt team discovered key best practices to their success. "Really understand seconds," McFarland advises. "When you're talking about zero overhead to the workflow, typically three seconds is about as long as someone really wants to wait for anything. What really drove us was the need to get clinicians to patient information as fast as possible." This focus on reducing overhead is apparent when you look at the time savings Moffitt achieved for logins. An initial boot of the desktop now takes anywhere from 20 to 25 seconds, and subsequent reconnects are two to three seconds at most.

Overall, coming out on the other side of the VDI deployment, McFarland offers this advice: "If you're a healthcare organization that hasn't implemented VDI yet, then you've got a lot of opportunity if you do, and I encourage any healthcare organization to go down the path."

In the future, Moffitt looks to continue to bolster their VDI, but also turn their attention toward achieving an "anywhere, anyplace, anyone, any device" approach to access for clinicians. "That's really the next step for us," McFarland says. "We want to make VDI even more portable and more accessible outside of the four walls of the hospital."

About Imprivata

Imprivata, the healthcare IT security company, enables healthcare globally to access, communicate, and transact patient information, securely and conveniently. The Imprivata platform addresses critical compliance and security challenges while improving productivity and the patient experience.

For further information please contact us at

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imprivata®

Oregon Health & Sciences University improves patient satisfaction and workflow efficiency by enabling fast, secure EPCS with Imprivata Confirm ID

Key Facts

Industry: **Education and healthcare**
Location: **Portland, Oregon**
Employees: **15,098**

Challenges

- Improving the patient experience with picking up and filling prescriptions
- Preventing prescription fraud, especially for controlled substances
- Enhancing clinical workflow efficiency for busy practitioners dividing their time between patient care, research, and teaching

Results

- Decreased patient wait time with increased patient satisfaction
- Improved prescribing workflow efficiency for providers
- Reduction in paper prescriptions, prescription errors, and fraud

Oregon Health & Science University (OHSU) is Oregon's only academic health center and includes two hospitals as well as a medical school. More than one million patients visit OHSU's medical and dental clinics each year, with about 275,000 in active treatment at any given time.

As part of its ongoing commitment to patient safety and satisfaction, OHSU recognized that its process for prescribing controlled substances could be improved. Like most organizations, OHSU used paper-based prescriptions for controlled substances, which created a number of challenges for physicians, patients, and pharmacists.

"We realized we needed a more efficient prescribing process for controlled substances that would improve physician workflow, increase prescription security, and boost patient satisfaction," says Tom Drury, Manager of OHSU's Health Care Applications Management department.

In particular, Drury and his team wanted to address:

- **Patient convenience:** OHSU treats patients from across the state, and paper prescriptions caused some to make additional lengthy trips to get a refill or a replacement for a lost prescription. OHSU also wanted to decrease patient wait time for controlled substance prescriptions.
- **Clinical workflow:** Because OHSU combines academics with healthcare, many providers also do research and teaching, which limits their time in clinical settings. The process of issuing paper prescriptions for controlled substances created inefficiencies that took time away from patient care.
- **Fraud concerns:** Improve security by reducing the use of prescription paper for controlled substances.

In evaluating options to address these challenges, Drury and his team determined that electronic prescribing of controlled substances (EPCS) would deliver a significant improvement in how controlled substances are prescribed. But EPCS is highly regulated, and the DEA mandates a number of requirements before organizations can enable physicians to electronically prescribe controlled substances.

Specifically, the DEA requires:

- An EHR or e-prescribing application that is properly certified for EPCS
- Identity proofing for all providers who will be enabled for EPCS
- A process for enrolling providers and approving credentials
- Two-factor authentication for signing EPCS orders
- Comprehensive reporting mechanisms

Drury and his team sought a solution that would not only meet the stringent DEA requirements for EPCS, but also deliver a fast, convenient workflow for physicians.

"We needed to find a solution that our physicians would view as advancing – not interrupting – their workflow. This was crucial to drive EPCS adoption and allow us to realize the security, efficiency, and patient satisfaction benefits," says Drury.

Choosing Imprivata

OHSU had already implemented the Imprivata authentication management solution for Epic. It was an obvious next step to use the Imprivata EPCS platform for provider identity proofing, supervised enrollment of credentials, two-factor authentication, and auditing and reporting.

"Imprivata Confirm ID was definitely the best solution for our needs," says Drury. "We needed a comprehensive, centralized solution that could be used by those who were on-premise as well as remote." The OHSU team also appreciated that security would be robust, yet still convenient for end users, by replacing passwords with innovative authentication methods.

Another driving factor in the choice was that Imprivata Confirm ID for EPCS would integrate tightly with Epic (OHSU's EMR system), thus delivering the functionality OHSU wanted.

"The Imprivata Confirm ID integration with Epic was excellent and easy to implement," says Drury. "The workflow for providers is fast and efficient and has been very well-received by our clinical staff."

Seeing results and meeting goals

With Imprivata Confirm ID for EPCS in place, OHSU realized a number of benefits, including improved security and increased efficiency through a single, electronic prescribing workflow for all medications.

"EPCS is easy, convenient, and much more secure than a paper workflow with Imprivata Confirm ID," says Dr. David Sibell, an OHSU physician specializing in anesthesiology, orthopedics, and rehabilitation. "I can prescribe for patients wherever I can log in, using my soft token, which is very satisfying."

In addition, fraud was virtually eliminated. Sibell adds that Confirm ID usage means that very little prescription paper is now stored in clinics. "That alone lowers the risk of prescription fraud," he says.