

Business Needs

- Replace time-consuming, application deployment method
- Locate a solution that technicians can easily use
- Manage applications from IT on-site across departments and branches
- Find a solution that doesn't require intensive new infrastructure or training

Solution

- Mixed Terminal Server based Solutions, both central and distributed

Business Benefits Expected

- Centralized Management through disk images and pre-configured desktops
- Conflict free application deployments, reduced hassles and increased User and IT productivity

Achieve Personal Health Information Compliance

Proactively Reduce Impact to Continuity of Care

InstallFree's Application Virtualization enables HealthCare Organizations to achieve compliance, reduce impact to Continuity of Care, and place the focus of their resources back on patients and not the supporting technology for EMR.

Challenge

With the vast advancements in medical equipment, regulations around patient information and records (Health Insurance Portability and Accountability Act, Personal Credit Information Act, Sarbanes Oxley) - the current Healthcare system is struggling to keep pace and continuity of care is significantly impacted. Nurses, Therapists and Physicians find themselves spending more time trying to learn, work around or deal with the limitations imposed by the technology that they often are overworked and overloaded – impacting their ability to focus on what really matters – their patients.

Regulations like PCI, SOX and HIPAA extend the burden not only from the care providers but also to the back office – regulating everything from electronic medical records, patient billing and the financial systems that connect them. Balancing these requirements while maintaining focus on buying critical supplies like blood and surgical tools squeezes the IT staff and their budgets to do more with less.

One Healthcare organization consists of over 48 hospitals, 25,000 full time employees – 10,000 associated physicians, hundreds of clinics, remote offices and affiliates in the “network” including Urgent Care, Emergency Room Services, Specialty research facilities for research in cancer, neurological studies, and congenital heart defects for children and adults. They provide a variety of in room devices including Workstations on Wheels loaded with specialty drug interaction software (requiring frequent updates), patient charting software, Microsoft Word and PowerPoint for residents and physicians only, 3 and 4-D imaging readers for MRIs, Echos, and other required diagnostics, thin clients in the main nurses station and specialty carts for dispensing drugs. Their back office operations – medical billing, technical support, on call answering service, and application customization are split between Outsourcers (performed on site, offshore in India, Ireland) and in-sourced for critical applications.

Actual Results

- Added complexity and costs for compliance
- Impact on business continuity
- Risks to Continuity of Care due to impact of work around on care providers
- Negative User experience: conflicts, downtime, limited access and degraded performance
- Expensive and disruptive

Experience With Current Solution

Many Healthcare Facilities have some type of Systems Management solution in place (outsourced, in-sourced, or sneaker-net) that they leverage to maintain compliance with patch, application distribution, inventory and OS migrations for PCs owned by the business. Adhering to the Electronic Medical Records requirement of Privacy Acts (HIPAA – US) has proven to be a challenge over diverse networks and devices for non-IT owned assets. Physicians, Therapists, and travelling Nurses struggle with adapting to the varying views required for multiple layers of locked down computers based on public access and location. Violations and potential violations have occurred unknowingly through lost PCs, printing to wrong printer and mis-configuration of applications. Application down time can mean the difference between life and death for certain departments in the hospital (Emergency Room or ICU).

Early attempts at Desktop and Application virtualization proved only a partial solution due to the end user impact, disruption and compliance:

- Worked great to centralize data for outsourcers in other countries to reduce impact to HIPAA
- Failed to provide the clarity needed in graphic resolution due to protocol issues– significantly impacting diagnostics that require precision (ER, Heart, Neuro)
- Lost connections to backend server impacting access to patient records - risking continuity of Care
- Technology limitations around printing and provisioning based on user and location require multiple versions of same application to work around HIPAA
- Conflicts and limited support for existing system management agents for audit and compliance.
- Increased Risks to access control, audit trail, license and HIPAA compliance when deploying applications outside of Virtual Desktop environment.
- Lost lives or significant impact to patient continuity of care due to Application Reboots, Network impact, etc
- Critical resource time wasted (Surgeons, Physicians, Therapists, Nurses) on “finding” work around to self provision and during support call cycle.

OUTCOME: Search For A Better Solution

Experience: InstallFree Solution

Providing IT Flexibility

One size fits all does not work in Healthcare when literally – a missed patch, line on an echo, crashed system literally means the difference between life or death in some instances. InstallFree enables a variety of options to provide IT the flexibility to focus on the unique requirements of their users and their users to focus on their patients – not learning and re-learning the same software to adhere to different versions based on limitations of machine based provisioning and privacy acts that came about after 1st and 2nd generation Desktop and Application Virtualization and Management tools. The hospital is able to leverage a combination of tools (physical and virtual) to fit the needs of their business versus being limited by the technology. The back office operations can continue to leverage the SAME patient information, charting and billing applications through the virtual desktop infrastructure in place to centralize data for audit and control and prevent critical missteps based on lack of understanding for various privacy acts. Nurses and physicians alike can leverage the SAME application package dynamically provisioned based on their access location and permissions set in current Active Directory. The complexity for physicians is removed by allowing them the type of access required based on their location – their virtual applications and data can be launched off their personal PC from either a remote file server, VDI, their Blackberry/iPod, or USB key. The critical applications like Echoes can be set to leverage local compute power to eliminate protocol and resolution issues with server based computing models.

Solution: InstallFree Application Virtualization:

- Piggybacked InstallFree server of applications and bridge off of existing systems management infrastructure for N-Tier distribution of virtual applications across multiple paradigms (VDI, Citrix, File Server, Local PC, Blackberry/iPod, PC)
- All hospital owned PCs were locked down to reduce the number of images, risks, and patching requirements for OS via standardization and eliminating application compatibility issues.
- InstallFree enabled side by side provisioning of legacy and new applications to reduce conflicts, dependency and re-provisioning or requirements for isolation via Citrix/Terminal Services.
- Built in digital rights management enable them to provide pre-populated applications, data, and configurations on low costs USB storage, using existing Blackberry or iPod for Physicians and Hospice workers that leverage encryption and their existing Active Directory environment setup for authentication to provide quality of life balance while maintaining HIPAA Compliance.
- Applications could be updated, patched and extended on-the-fly with no disruption to the care providers during application usage (in place updates, no system reboots, admin privileges).
- Patient records and applications protected via User Mode only access both to underlying system and virtual applications preventing Trojans or viruses from infecting virtual applications (reverse write) or for users requiring administrative privileges due other system applications.
- Application packaging complexity, management, and impact to usability for care providers was significantly simplified via dynamic provisioning based on policies set for both the user and their current machine.
- Experienced significant productivity gains and time savings due to reduced requirements for regression testing, packaging time (no clean PC, sequencing, or specialty scripting)
- Cross platform and OS support enabled them to significantly reduce outages, support calls and issues due to OS incompatibility, upgrade conflicts, and requirements for legacy applications.
- Several instances of the same application package could be released to different departments reducing confusion and impact to care providers working across multiple disciplines (ICU, Floor, Clinic, Physicians Office).
- Care Providers were provided self service portals with approved applications

Summary:

Balancing the stringent requirements for control, requirements of care providers to perform their jobs, and costs associated with healthcare is no easy task when the life at stake could be your own or someone your care for. InstallFree's hybrid approach to Application virtualization provides a rich experience for users and an elegant solution for IT to mold their application management processes and costs according to the needs of the business, department, IT, users and their patients without risk across a variety of devices, networks, operating systems, and applications.

About InstallFree

InstallFree provides application virtualization software used by enterprises to lower the cost and complexity of delivering and managing applications while increasing portability and compatibility of applications. InstallFree stands alone in offering an approach that requires no infrastructure changes to realize these benefits. Designed for Users. Built for IT.

Contact InstallFree

To learn how InstallFree can address your IT and Corporate challenges by simplifying application delivery and management tasks, visit us at www.installfree.com or call (203) 276-1460.