Thinspace
Healthcare
White Paper

Elevating Patient Care with Thinspace SkyDesk and SkyDirect

User-centric access to virtualized applications and desktops

Healthcare agencies and organizations of all sizes place a high priority on providing staff, and caregivers with seamless access to applications and real-time data, required to deliver optimal care to patients. This focus is often motivated by government mandates to adopt technology, beginning with electronic health records (EHR) and subsequent add-ons; ambulatory EHR, computerized physician order entry (CPOE), special departmental modules, medical imaging and more. Advances like these enable caregivers to review and document every aspect of patient care, including medical histories, treatment orders, prescriptions and test results.

Achieving this high level of IT service is not easy, but it is vital, especially when fast accurate access to client data can impact someone's life. While, challenged with limitations in both budgets and workforce reductions many healthcare IT departments are focused on finding and delivering greater operational efficiencies as they implement and upgrade their systems and applications under strict business and government guidelines and mandated deadlines.

This white paper explains how virtualization can aid organizations in solving IT management in healthcare. The information that follows outlines the ways in which Thinspace employs over 15 years of expertise and leadership in application and desktop virtualization to help providers deliver mission-critical clinical and business apps and desktops to any device – enabling IT to put the potential of healthcare IT transformation to work.

Real-time challenges for healthcare IT leaders

A number of trends are driving change in healthcare IT, confronting leaders to balance many critical – but often competing – mandates and priorities, including the need for:

- Compliance and enforcement:
  - The American Recovery and Reinvestment Act of 2009 (ARRA), which provides incentives for the adoption of EHR technology, CPOE and health information exchanges (HIE)
  - The Health Information Technology for Economic and Clinical Health (HITECH) Act, a new extension of the Health Insurance Portability and Accountability Act of 1996 (HIPAA) that covers privacy breaches
- Data security and observance in the face of:
  - Constant threats of cybercrime
  - Rising use of mobile computing and mobile access to patient information
  - Reality of adopting bring-your-own-device (BYOD) programs
  - Continual demand of security audits
- Simplified clinical workflows and access for:
  - Delivery of crucial information at the point of care
  - Maximize efficiency from the replacement of paper-based workflows
  - Reduced medical errors
- Rapidly deliver picture archiving and communications systems (PACS) images
- Reduce the time, resources and personnel costs associated with:
  - The ongoing support and maintenance of complex IT infrastructures
  - Responsiveness and flexibility in supporting regulatory requirements, mergers and acquisitions and new specialty services, affiliate programs, remote clinics and offices or other initiatives
- Safeguard business permanency and disaster recovery
  - Emergency systems must run 24/7 due to potential patient risk
- Perform update management due to:
  - Maintaining legacy Computing/Device fleets that require labor-intensive maintenance
  - Migrating to newer versions of operating systems, with enhancements for multimedia and collaboration, effecting the acceleration of end-of-life for legacy devices

The significance of application and desktop virtualization in healthcare

As healthcare continues to transform, application and desktop virtualization increasingly plays a central role in supporting clinical workflows. Virtualization will continue to grow to address several of the emerging needs that follow:

Investment protection for large and expensive EHR deployments

In the United States, Meaningful Use regulations require healthcare providers to adopt EHRs in order to obtain Medicare and Medicaid reimbursements. Meaningful Use has been (and will continue to be) a major driver of health information technology (HIT) investment. Virtualization provides huge efficiency and cost benefits by allowing IT to centrally manage, deliver and update complex and rich clinical applications to anyone and any device.

BYOD deployments

To be successful, EHR modules must be delivered to a variety of devices – including thin clients, laptops, tablets and some healthcare-specific devices – across hospitals and other care settings. Moreover, it's critical for clinicians to be able to use whatever device they choose – personal or corporate – without increasing management headaches or security risks. Virtualization enables device choice by empowering employees to work how and where they prefer, making everyone more mobile, productive and satisfied, and ultimately helping healthcare organizations attract and retain valuable employees.

Personal Devices

Many of today's clinicians want to use their personal devices to access the data and applications they need, regardless of whether they're working from home, the hospital, the clinic or a nearby coffee shop. Virtualization accommodates the consumerization of IT, granting clinicians the freedom and flexibility they want while addressing the IT department's need to ensure information security and access control.

Enhanced security

Virtualization continues to be a major technology consideration whenever security and compliance are being reevaluated or there are concerns over data breaches. Through centralized application management, data storage and maintenance, IT gains more control over content and can remotely ensure a strict separation between healthcare data and personal data on BYO devices. Security and compliance are simplified by leveraging virtualization to keep all electronic protected health information (ePHI) in the data center rather than on the device itself, thereby significantly shrinking the overall potential threat of attack. Access rules can be enforced to limit the risks of full exposure to databases, and systems can be isolated from the virtualized apps to keep malware from spreading. In addition, with virtualization, security software and critical application patches can be centrally deployed to all user-facing application infrastructure at once.

Centralizing the IT function

Many healthcare companies are looking to consolidate, simplify and cut costs in IT through virtualization, which helps eliminate IT silos across regions to avoid redundancies and inefficiencies. Virtualization also enables rapid and consistent delivery of core IT services and applications to acquired hospitals or physician practices, making it possible to get new facilities and employees up and running quickly while providing secure services to business partners or individuals who need temporary access. In addition, virtualization enables healthcare organizations to deliver IT services to the greater community, for example, large providers offering software-as-a-service (SaaS) to affiliated hospitals or smaller physician offices that lack the capability to locally install and manage enterprise software.

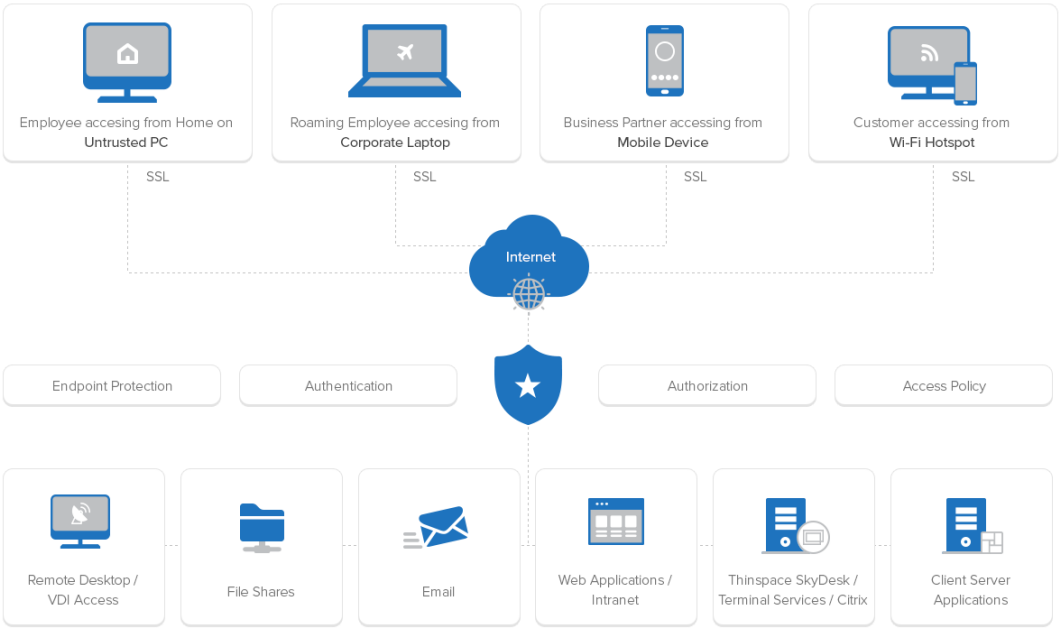
Remote work or remote care initiatives

Virtualization also improves work-life balance for doctors. For example, using virtualized apps and desktops, physicians can finish their documentation and sign off on charts at home, instead of having to perform these tasks on site at the hospital or office. If a patient's status changes, the clinician can even log into the EHR from the home computer, check the updated patient chart and recommend treatment next steps from home.

Desktop and application virtualization powered by: Thinspace SkyDesk and SkyDirect

While healthcare organizations have several desktop and app virtualization vendors to select from, Thinspace has long history of providing the healthcare industry's with a reliable, scalable alternative to their application and desktop virtualizations requirements. Thinspace product suite focuses on ease of use, secure access and world class support. Below you will discover more about some of the basic features of our product and service offerings.

Figure 1: Transform healthcare IT with Thinspace SkyDesk and SkyDirect



SkyDesk and SkyDirect transform healthcare IT by centralizing Windows applications and desktops, securely delivering them to users on any device in any location and streamlining updates and administration. With SkyDesk and SkyDirect (see Figure 1), you can:

- Implement a comprehensive and successful Mobile Health strategy that centralizes desktop, app and data management, thereby lowering your risk of a security breach and reducing operational costs.

- Deliver customized desktops, EHR apps and other critical business and clinical apps on demand, thereby simplifying the overall cost of ownership, reducing or eliminating PC refreshes and strengthening security while significantly improving the user experience.

- Provide secure access to your critical clinical apps with a high-definition user experience from any device, over any connection, thereby delivering information immediately to enable providers to make fast, informed decisions related to patient care.

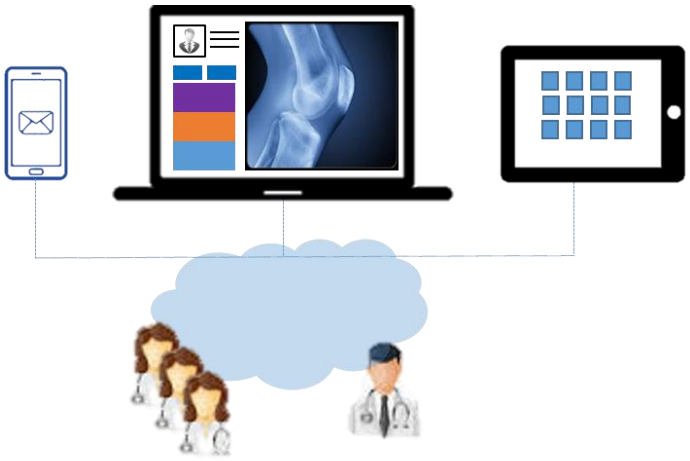
- Centralize your IT department to serve clinicians and staff in distributed locations across the country or state, and to reduce the time and effort required to manage layers of technological complexity. Centralization enables faster onboarding of new users, efficient, system-wide distribution of new apps and upgrades and faster disaster recovery plan execution to ensure business continuity.

- Enable greater productivity and increase clinician mobility by permitting desktops and applications to follow users from device to device. By reducing the time required to launch applications on successive devices, providing a consistent experience from device to device and delivering actionable information right at the point of care, virtualization enhances both workflow and quality of care well beyond other application deployment methods.

These IT benefits can dramatically improve the way clinicians provide care. With real-time access to data, apps and desktops that offer a high-definition experience on any device, today's healthcare professionals spend less time logging in and more time seeing patients, reviewing comprehensive medical records and listening to their concerns. The result? The patients and the healthcare organizations themselves benefit.

How do SkyDesk and SkyDirect work?

With SkyDesk and SkyDirect, IT can mobilize healthcare by delivering either full desktops or the apps alone to a range of devices, while reducing costs by centralizing the control and security of apps and data. The unified SkyDesk and SkyDirect virtual delivery platform permits users to accomplish their workflows on any PC, Mac, laptop, tablet or smartphone – both on premise and in the cloud, while enabling IT to secure information and manage varied mobile workspaces.



Anonymous login

As healthcare organizations leverage remotely hosted EHR systems, anonymous login allows a simplified delivery mechanism that requires much less infrastructure interaction between the healthcare organization and the hosting provider. Anonymous login provides additional flexibility for healthcare organizations to support specific use cases.

Roaming and application prelaunch

Clinicians can speed access to their applications and information by eliminating application launch times with Thinspace desktop roaming and application prelaunch features. The quicker a clinician can access needed information, the more efficient that provider can be. In addition, sessions can be set up to prelaunch and wait in an active or disconnected state, giving users instant-on access to an already active app session. This setting option further reduces the wait time for clinician access.

Provisioning Services

Clinicians demand both speed and consistency from their IT systems so they can focus on the patient, not their computing experience. By using Thinspace Provisioning Services, IT administrators can ensure a fast, consistent user experience on a large scale. With virtual desktops that are rebooted, and therefore re-imaged, when a user logs off, and application servers that are re-imaged on scheduled reboot, the user environment continues to perform as well as the day the "gold" images were released.

Secure by design

Because apps, desktops and data are managed within the data center, IT maintains data protection, compliance, and access control and user administration as easily on BYO devices as on corporate-owned endpoints – within the same unified environment. Protected data, including ePHI, never leaves the data center. Used with SkyDirect, SkyDesk or, Thinspace OneGate Gateway™ secure access technology increases security, better enables mobile user access and reduces costs when compared with alternatives. OneGate Secure Gateway provides a single point of control and tools to help IT administrators ensure compliance with regulations and protect corporate information. It empowers users with a single point of access – optimized for roles, applications, devices and networks – to the enterprise applications and data they need.

High-definition user experience

With integration of Microsoft RemoteFX™ technologies, which feature capabilities that deliver a high-definition experience to users of Windows applications and desktops – on any device and over any network – the user experience rivals that of a local PC, even when using apps featuring multimedia, real-time voice and video collaboration, USB peripherals and 3D graphics. For example, SkyDirect can stream PACS to workstations in diagnostic departments instead of deploying the software on each device.

Healthcare IT organizations are under more pressure than ever to be relevant in supporting and driving business objectives. Turning traditional IT organizations into internal service providers demands flexible infrastructure and streamlined, automated processes.

How SkyDesk and SkyDirect to improve patient care

Thinspace application and desktop virtualization solutions have a long history of market leadership in healthcare. Thinspace provides real-time access to virtualized applications from any device, including zero and thin clients, mobile workstations and other endpoints.

About US: Thinspace Technology Ltd is a global provider of application delivery, desktop virtualization, and cloud client technology solutions. Our technology enables IT and service providers to manage and deploy secure application and desktop delivery solutions providing users instant access to applications on any device, over any network or cloud.

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