The Follow Me Desktop

VMware View in Healthcare

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Agenda

Healthcare Desktop Challenges
The VMware View 3 Solution
Healthcare Case Study
Next Steps
Desktop Challenges in Healthcare

Caregiver Needs
- Immediate access
- Available on any device, throughout the hospital
- No time to retrain, need desktop to look the same
- Rich application interface
- Downtime not an option

IT Requirements
- Easily manage disparate desktops and apps
- Maintain security and compliance
- Quickly provision, update, roll out new services
- Provide high availability
- Lower costs
Centralize and Virtual Desktops

- VMware decouples Desktop image from the device
- Desktops run in secure datacenter
- Present Desktop to clients over Network
Desktop Virtualization

Enables Isolation, Encapsulation & Mobility

- Encapsulate entire desktop environment into an isolated virtual machines
- Separate OS from machine, applications from OS, and user data and settings
- Dynamically assemble a universal desktop
- Complete Mobility with Security
Meets the Needs of the Provider

- Always On
- Follows User
- Any Device
- Familiar Interface
- Apps all Work
And the Needs of Healthcare IT

- Quickly Provision
- Easily Manage
- Maintain Security
- Lower Costs
- High Availability
VMware View 3: Integrated Solution

Includes: VI3 Enterprise, View Manager, View Composer, ThinApp and Offline Desktop (Experimental)
Built on VI3: A Proven Platform

**Powerful Mature and Proven**

- Wide adoption – 120,000 customers
- Enterprise features applied to desktop
  - HA, DRS, VMotion, Storage vMotion, Consolidated Back Up
- Security, Reliability, Scalability
- Integrated solution from one vendor
View Manager – More than a Broker….

- Authenticate and Connect
- Manage and Provision
- Security
View Manager – Authenticate and Connect

- Easily connect users to appropriate virtual desktop
  - VI3, Blade PC, Windows Terminal Server or Remote Physical PC
- Use existing Windows Username and Password
- Integrates with MS Active Directory and SSO Vendors
- Authenticate using Smart Cards, USB connected biometric devices
- Optional integration with SecurID for two-factor authentication
View Manager – Manage and Provision

Create Desktops

- Automated provisioning from template
- Persistent or Non-persistent Pools
- Standardize desktops by groups
- Apply group policies
  - Nos of desktops in pool
  - Log on, Log Off
  - Client Info
View Manager – Manage and Provision
**View Manager – Security**

- SSL encrypted connection between clients and virtual desktops
- Optional Security Server for Secure Remote Access
- Data removed from endpoints and stored in datacenter
- Single sign-on
- Access desktop anywhere and anytime
View Manager – User Experience

- Virtual Printing
  - Driver Free Printing
  - All printers automatically available
  - Advanced print stream compression

- Multimedia Redirection
  - Multimedia stream decoded at client
  - Better user experience
  - Min impact on servers, bandwidth consumed

- USB Redirection
  - Provides support for local storage, scanners, printers
Future Remote User Experience – Display

- Announced Partnership with Teradici to develop next generation display protocol using PCoIP
- Delivery date 2009
- Task worker to the Designer
- Capable of true PC like experience from datacenter or cloud – LAN or WAN
View Composer – Storage Optimization

Traditional VDI

With Linked Clones
Disk Separation

- Highly Managed OS Disk
  - Reduces provisioning time
  - Roll out updates and patches rapidly by creating a new snapshot

- User Data Disk
  - Persistent disk to store user data and settings
  - Helps maintain user personalization

**Seamless user experience by logically joining two virtual disks**
**ThinApp – Application Virtualization**

**Features**
- Decouples applications & data from OS
- Agent-less architecture
- Wide platform and application support
- Plugs into existing Application Management tools

**Benefits**
- Reduces Storage Costs
- Minimizes desktop images to be managed
- Streamlines application patch updates
- Allows multiple versions of applications to be used
ThinApp with View Composer

User Data Disks

- By default, packaged ThinApp applications redirect all application “writes” to the user data disk.
- Reduce the number of master images and size of base disk.
- Provides a simplified means of entitling, deploying, and managing applications.
- Seamless updates for users.
Offline Desktop (Experimental) – Mobility

- Enables end-users to check-out their hosted VM to a local physical computer
- Enables administrators to extend security and encryption policies
- When checked out – the virtual machine has a “heartbeat” back to the datacenter allow administrators to deactivate if necessary
- When the user checks-in, only the delta is checked in
Accessing VMware View Desktops

Native Windows Client
- Re – use existing client devices
- Re- purpose into thin clients

Browser Access

Thin- Client Support
- Broad industry support – over 100 devices
  - Linux, Win XPe, Win CE, and Zero Client
- VMware Thin Client Compatibility list
  http://www.vmware.com/resources/compatibility/view
End Result: “Follow Me” Clinical Desktops

Flexible and Familiar End User Experience with True Mobility and Security
Agenda

Healthcare Desktop Challenges

The VMware View 3 Solution

Healthcare Case Study

Next Steps
Healthcare Case Study

Background
- Network of 5 hospitals and 11 immediate care centers, 10,000 employees
- Health practitioners require ready access to information and apps
- IT is responsible for ensuring systems are readily accessible at any of the locations

Challenges
- Current architecture was Citrix XenApp with thin clients and wireless carts
- Practitioners wanted a similar experience to a normal PC
- Poor performance and some apps were not available in this model
- High number of support calls
Solution

**VMware View**

- Linux Thin Clients
- 950 Win XP Virtual Desktops
- Hosted on 2 CPU/Quad Core Servers
- 10 VM Desktops per Core, 8 GB ea
- Applications installed on template
  - Meditech C/S, McKesson PACS, some Office Apps
- Both LAN and WAN access
- Using Security Server for remote access
- Fibre Channel Symmetric Array
- Using DRS and vMotion for HA

“Our physicians could go to a thin client, login, access a patient list and then walk down the hall to another thin client, and their patient list would be right where they left it. The staff recognized the benefit of that capability immediately.”

Brian Cox
Director of Customer Service, Norton Healthcare
Norton Architecture

100Mbps LAN

802.11 b/g wireless LAN
The Benefits

Results

- Reduced help desk calls by 92%
- Easy to use "follow me" desktop with no application compatibility issues
- Upgrades accomplished in a fraction of the time
- High level of end user satisfaction
  - Familiar desktop experience
  - Ability to customize
  - Flexibility
- Plans to expand to the Pharmacy

“Application upgrades are kind of a non-event now. Recently, we did an upgrade to one of our main applications — Meditech — and received zero helpdesk calls for the virtual desktops.”

Brian Cox
Director of Customer Service, Norton Healthcare
Next Steps VMware View

More Information on VMware View:
http://www.vmware.com/products/view/

Register for VMware View Healthcare Virtualization Kit:
www.vmware.com/go/desktop-healthcare-em

More information on VMware in Healthcare:
www.vmware.com/solutions/industry/healthcare/

Download and Evaluate Solution:
www.vmware.com/download/view/

Use the VMware View TCO calculator:
www.vmware.com/products/vi/calculator.html