Regain Control of the Desktop: Cisco Desktop Virtualization Solution with VMware View 4.6

vBootcamp: Virtualisation Desktop
Today’s Agenda

- Cisco + VMware: Better Together
- Modernizing the Desktop
- Cisco Desktop Virtualization Solution with VMware View
- Customer Use Case Example
- Getting Started
Cisco and VMware
Leaders in Enterprise Networking, Computing and Virtualization

- Leader in networking from desktop to data center
- First virtualization-optimized compute solution
- 10 World Record Benchmarks including Highest VMware VMmark performance with Intel Xeon processors
- Cisco Unified Computing System™ deployed in over 2,800 enterprises in first year

Together, delivering a hardware and software solution that meets customer needs for simplicity, scalability, and lowest cost

- End-to-end solution optimized to deliver virtual desktops
- First to deliver a purpose built display protocol for desktop virtualization
- First to integrate online and offline capabilities for desktop virtualization
- Over 10,000 customers
The Desktop Dilemma – Freedom or Control?

IT Requirements
- Manage OS images and applications easily
- Support the multitude of endpoint devices
- Provide secure, continuous access to desktops, apps
- Deliver highest level of service at lowest cost

End-user Requirements
- Personalized desktops
- Flexible access from a variety of locations and devices
- OS and Application support
- Access to rich content

How do you solve the desktop dilemma while providing the best solution at the lowest cost?
Modernizing the Desktop – A Managed Service Model

- Persona
- Applications
- Operating System

Centralized Management
Desktop Delivery
## Wide Range of Customer Use Cases

### Windows 7 Migration
- Reduce migration costs
- Minimize application incompatibility
- Extend life of existing desktop software

### Business Process Outsourcing
- Reduce costs by managing desktop applications and users centrally
- Centrally control sensitive data
- Streamline desktop and application deployment

### Remote Office/Branch Office
- Reduce costs by managing desktops and users centrally
- Centrally control sensitive data
- Streamline desktop and application deployment

### Mobile Users
- Enable desktop access regardless of network connection
- Extend security and control of offline users
- Leverage local device resources

### Contractors/EOIT/BYOPC
- Deploy and manage a desktop image on employee owned assets
- Centrally control desktops and data
- Separation between corporate and personal desktop

### Business Continuity/Disaster Recovery
- Support end-users working from remote locations
- Ensure desktops are available 24 x 7
- Quickly provision new desktops
Solution Components

User Experience
- View Client
- PCoIP Protocol
- Local Mode
- Usability
- Flexibility
- Cius
- VXC 2100
- VXC 2200

Management
- View Administrator
- View Composer
- ThinApp
- Simplicity
- Efficiency
- Security
- Virtual Security Gateway
- UCS Manager
- ASA / AnyConnect

Platform
- vSphere for Desktops
- Availability
- Reliability
- Scalability
- Nexus 1000v / VNLink
- UCS B/C-Series
- WAAS, ACE
Components of VMware View 4.6

- VMware vSphere 4
- View Manager
- View Composer
- ThinApp
- Offline Desktop
- Proven Virtualization Platform
- Enterprise Desktop Manager
- Storage Optimization
- Application Virtualization
- Anywhere Mobility
Cisco Desktop Virtualization with VMware View

- Best user experience
- 60% Higher density without performance impact
- 20% Lower infrastructure costs
- Simple operation – start in minutes, scale in seconds

**Platform**
- VMware vSphere
- For Desktops
- Cisco Nexus 1000v
- Cisco UCS
- Cisco WAAS
- Cisco ACE

**Management**
- VMware View Manager
- VMware View Composer
- VMware ThinApp
- Cisco UCS Manager
- Cisco Virtual Security Gateway
- Cisco ASA / AnyConnect

**User Experience**
- PCoIP, Print, Multi-Monitor Display, Multimedia, USB Redirection, Local Mode, Cisco VXC

**Cisco VXC Clients**
- VXC 2100
- VXC 2200
- Cius
Optimize storage with View Composer

Traditional VDI

View Composer

VMware View helps reduce storage costs by 70%
Optimize desktop image management with View Composer

- Office 2007
- Acrobat Reader
- Office 2003
- Virus Utility
- Operating System – XP / Vista / Win 7

Department 1

Department 2
Optimize desktop image management with View Composer
View Manager: Provisioning Floating Pools

- Provisioning from template
- Automated connection
- Desktop returned to pool after each use
- Reverts to predetermined state for future use
- For factory workers, kiosks, transaction workers
View Manager: Provisioning Floating Pools

- Provisioning from template
- Automated connection
- Desktop returned to pool after each use
- Reverts to pre-determined state for future use
- For factory workers, kiosks, transaction workers
- PERSISTENT Pools also available
View Manager: Provisioning Dedicated Pools

- Provisioning from template
- Automated connection
- Desktop assigned on first log-in
- Remains associated with user & can be personalized
- Ideal for knowledge workers
View Manager: Provisioning Dedicated Pools

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Provide a superior experience from LAN to WAN using PCoIP

- Built for desktops
- Designed for the LAN or WAN
- Uses end-to-end software implementation
- Superior desktop experience from task worker to power user
- Flexibility to address the widest variety of use cases
Progressive Build Example

Low Resolution
• Initial Image
• Low bandwidth & resolution
• High resolution text
Use ThinApp for application virtualization

Features
- Decouples applications and data from OS
- Uses agent-less architecture
- Provides wide platform and application support
- Plugs into existing application management tools

Benefits
- Minimizes the number of desktop images managed
- Streamlines application patch updates
- Allows the use of multiple versions of applications
View 4.6 & ThinApp 4.6 – New Feature Overview

Windows 7 Support

Local Mode
- Encryption
- Smart Card Support
- Replication & Policy Controls

PCoIP Improvements
- Protocol Enhancements – WAN performance
- SmartCard Support with PCoIP
- FIPS Compliance

Enterprise Ready
- Role-Based Delegated Administration
- Brokering Architecture for 10,000 VM pod
- Scalable Admin UI in Flex
- Full logging through Events Database
- Thin Provisioning Support with vSphere

ThinApp 4.6
- Integrated ThinApp Assignment in View
- Templating
- IE6 Virtualisation Support
- MSI Convertor

View Composer Enhancements
- Support for SysPrep
- Refresh, Recompose & Rebalance for Non-Persistent Pools
- Tiered Storage Support
- Persistent Disk Management Detach/Reattach/Archive
- local storage support, temp file/page file redirection
- Semi-Automatic Pools

Management Improvements
- Kiosk Mode (MAC-based client authentication)
- Automated USB Redirection
- Location-based Printing
- Real-time SmartCard Cert Revocation

Extensibility
- Automation and Integration with Powershell
- SCOM Support
- Reporting and Auditing Enablement

System and User Diagnostics
- Dashboard and System Monitoring
- User Troubleshooting
- System Troubleshooting

Client Localization
- German, Japanese, French, and Simplified Chinese
Windows 7

Full Windows 7 Support

- Supporting Windows 7 32-bit and 64-bit as a client and remote desktop
- Virtual desktop related improvements
- ThinApp Support for Windows 7
- Local mode support

RDP7 Support

- Requires RDP 7 on guest and host (win7 on both)
- True multi-monitor and Multimedia redirection support
- MMR is enabled by default
- Aero support for RDP7 client
Local Mode: Mobility & Bring Your Own Computer

View Client with Local Mode

- Virtual desktop is checked-out to local endpoint and encrypted
- Access desktop, applications and data regardless of network availability
- Changes are checked in to the datacenter when online
- Extend IT security policies to local desktop
Enterprise Ready Features

New Improved GUI

- Scalable Adobe Flex UI based
- Full event logging through New Events Database (supports SQL and Oracle)
- Detailed logging for all user logons and operations performed in View by administrators.
- Event information exportable to .CSV format.
Enterprise Ready Features

Delegated Administration

- Full Role Based Delegation
- Separate Roles Database in View to vCenter. (Helps separate out Desktop and Server team functions)
- Based on Active Directory Users and Groups
- Logical grouping via Folders unique to View
Enterprise Ready Features

Increasing Scale and Efficiency

- New Reference Architecture for 10,000 VM pod
- Total number of VMs can be architected by View Manager(s) up to 10,000 (per pod design)
- Number of brokers: 5 + 2 (redundancy)
- DMZ Security server: 1 + 1 (redundancy)
- Maximum sustained rate of logons: 5 per second across all brokers

Federated Pool Management:
Concepts Behind the Feature

- Management was the big cost when scaling.
- Each VM managed by one broker only
- Adding brokers does not increase management load
ThinApp 4.6 What’s New

**ThinApp SDK**
Public release of ThinApp SDK to allow published API integration of ThinApp with third party software.

**ThinApp Converter**
Silently convert multiple app installers simultaneously into ThinApp packages by use of VMware vSphere VMs and vSphere API calls.

**ThinDirect**
Redirect native to virtual browsing based upon URL and vice versa.

**Full IE6 Support**
Virtualize legacy IE6 web apps on Win XP and deploy to Windows 7 and 2008 R2.

**AppLink Enhancement**
Enable AppLink between ThinApp 4.6 and older ThinApp packages.

**Support Startup Services**
Easily allow virtualized services to run as natively installed services on system startup.
ThinApp 4.6 & View 4.6 Integration

ThinApp Entitlement

- Application Delivery through View for ThinApp
- Concept of ThinApp repositories (can be multiple for logical groupings and performance)
- Recommendations of Placing repositories of SAN storage for performance
- Assignment of Templates or individual ThinApps to Desktops and Pools not users
- Choice of streaming of ThinApps or Full deployment via MSI’s
- Templating of Applications into logical groups for deployment
Full IE6 Support on Win 7 and 2008 R2

- Easily Create IE6 packages
- No “install capture” - Harvest of IE6 from XP SP3
- Easy deployment into newer operating systems
- Run IE6 on both 32-bit and 64-bit systems.
- Run IE6 side-by-side with native IE
- Run different versions of components (Java, .NET/ActiveX, Flash, etc.) in separate IE6 packages on same Win 7 system.
- No more “Web App Hell”!
- Thindirect allows seamless user experience between browsers
- GPO policy based administration of URL’s associated with different browser versions

For more info..

Diagnostic and Localisation

System and User Diagnostics

- Dashboard and System Monitoring
- Easy drill down and extensive search capabilities with filtering.
- Easy user troubleshooting
- System troubleshooting

Client Localization Sim-Ship

- German, Japanese, French, and Simplified Chinese
How Cisco UCS + VMware View Helps Reduce IT Costs

OPEX Savings
- Reduce help desk calls
- Improve desktop management efficiency
- Simplify security and compliance
- Provision users & deploy desktops in minutes

VMware View reduces desktop TCO by up to 50%
Source: IDC White Paper, 2009

Increased Productivity
- Reduce end-user downtime
- Automate desktop and data backup
- Simplify desktop for end-users

CAPEX Savings
- Delay hardware refreshes
- Reduce storage requirements
- Improve desktop consolidation ratios
- Improve backend user density

* Customer examples compiled from typical cases in the industry
Large Healthcare Provider

Delivering New Clinical Workflow Efficiencies

Challenge:
- Improve / accelerate physician access to imaging application
- Eliminate repetitive / lengthy desktop login cycles for Nurses
- Reduce Physician travel time to dictation workstations, improve timeliness of data-capture

Solution: Cisco Unified Computing with VMware View 4.6
- Clinical Imaging – Referential Viewing (Physicians)
- Follow-me Desktops (Nurses)
- Ubiquitous Dictation (Physicians)

Results:
- CAPEX reduction of 30% per end-point
- Workflow & productivity benefits (travel time, logins, payback in 9 months from workflow/productivity
Cisco + VMware Solution Values

Customer Issues/Imperatives
- Physician Access to Imaging
- Nurse Desktop Login Cycles
- Physician Access to Dictation
- HIPAA Compliance
- CAPEX
- OPEX

Solution
- Thin Clients with PCoIP / View 4.6
- Network Quality of Service (QoS)
- UCS Memory Footprint / Scalability
- View desktop persistent access
- View Security
- USB Redirection
- Lengthened Hardware Refresh Cycle
- Reduced software maintenance and OPEX
- Lower Desktop Power Consumption
- Self-Service Desktop Fault Resolution
Take the Risk Out of Getting Started
Cisco Desktop Virtualization Solution with VMware View

Cisco Validated Design® Reference Architecture
- Predefined system and network configurations
- Joint testing at scale
- 100+ virtual desktops per server

Proof of concept
- Technical support

Financial analysis
- ROI and TCO calculator

Cisco Professional Services
- Planning, Design & Strategy, Implementation
For More Info…

Deep-Dive Webcast on View 4.6 Validated Design:
- http://tinyurl.com/4guwx6x

Cisco + VMware View Validated Designs:
- With NetApp: http://tinyurl.com/5s7hb57
- With EMC: http://tinyurl.com/64l35lk

Try it out FREE!:
- http://www.vmware.com/go/tryvmwareview

TCO Calculator

Cisco: www.cisco.com/go/vdi
VMware: www.vmware.com/view