

Notes for presenter:

- n This presentation is meant for net new customers who are being exposed to desktop and application virtualization for the first time.
- n For customers who have a good understanding of VMware View, we recommend using the "What's new with VMware View 4" customer facing presentation.
- n Please use the VMware View in-depth technical presentation for a deep dive into each of the components and features high lighted in this sales presentation.
- n Recommend using only 2 case studies as part of the overall presentation. Additional VMware View customer use cases can be found at http://www.vmware.com/customers/

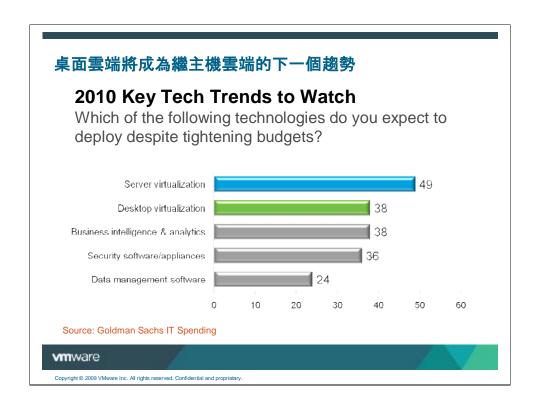


討論大綱

- § 桌面雲端的趨勢
- § 終端桌面管理的問題與挑戰
- § 何謂桌面雲端
- § VMware View 4.5 解決方案
- § 桌面雲端的好處

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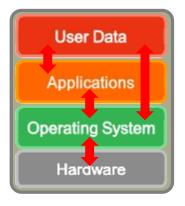


桌面雲端將成為繼主機雲端的下一個趨勢 Exist 1 CIO Interest in Desktop Virtualization has Increased Steadily over the Past Year Exhibit 7 25% New PCs May Get Virtualized By 2014 New PCs - Large Ent/Govt/Edu (M) -VDI Penetration % of Respondents with VOI Projects Planned in 2010 70% 25% 20% 65% 10% 2006 2009 2010 2011 2012 2013 2014 JM 109 Out 109 Jan 193 Mar*10 Source: Morgan Stanley Research Belmutes Source: Morgan Stanley CIO Surveys **vm**ware Copyright © 2009 VMware Inc. All rights reserved. Confidential and proprietary.



傳統桌面管理架構的問題

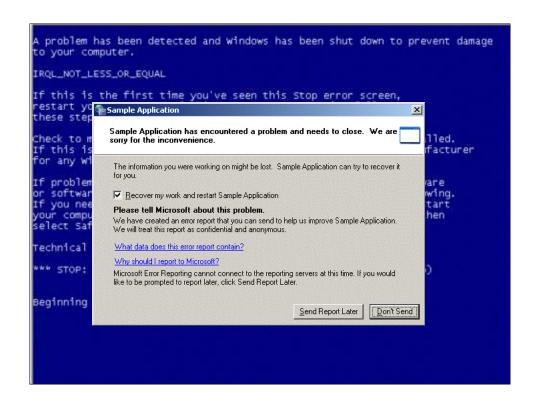




在大部分的企業資訊環境所有的電腦元件都是聯結在一起的包含應用程式,作業系統,使用者profile 以及使用者資料,造成資訊人員管理和維護上的困難以及成本的增加

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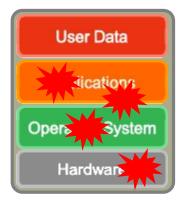






電腦元件的損失將間接造成企業重要資料和工作力的損失



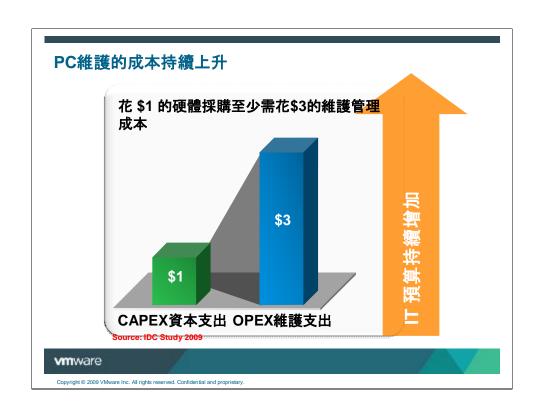


這樣的連鎖問題會嚴重造 成個人資料和相關設定的 毀損導致企業的損失 大部分企業能做的只是換 一台電腦或重新安裝相關 作業系統和應用程式

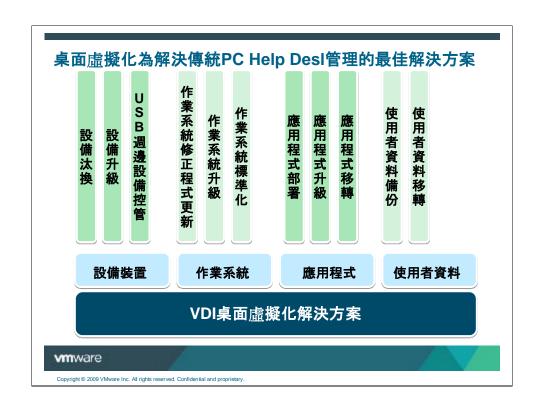
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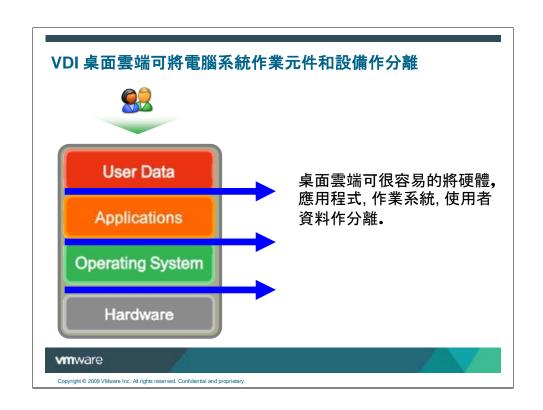




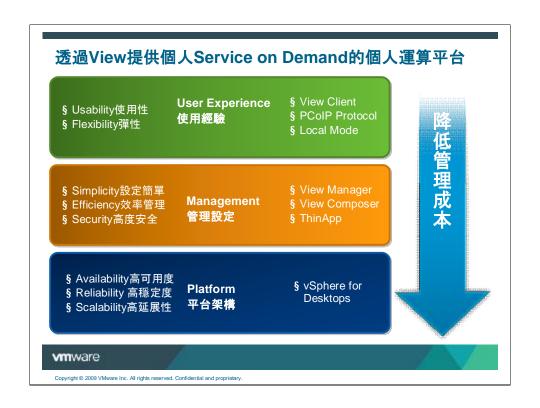




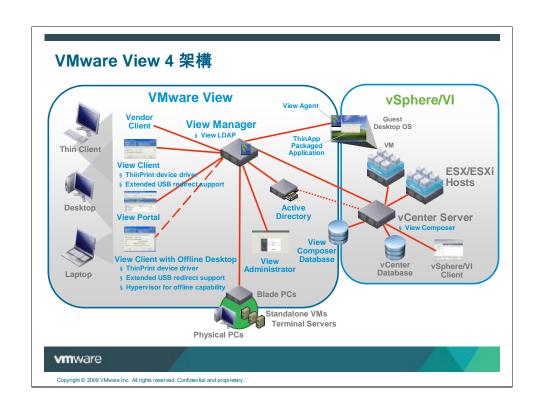


















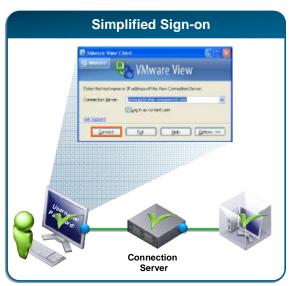
支援不同的認證模式

Single Sign On 單一簽入認證

- Windows Username/Password
- Smart Cards/Proximity Cards
- Client Based (MAC Address)
- USB connected biometric devices

可和MS AD認證作整合

・不會異動任何 Domain Schema



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- § Kiosk mode is useful in environments where there is need to support a public end-point or one that is shared by multiple endusers
- § An endpoint that is set up with View Kiosk Modes will automatically login to the View virtual desktop with no need to user credentials
- § Users will typically authenticate to applications if needed at all
- § The benefit of Kiosk mode is that IT can provide a solution that greatly reduces the complexity of the end point device for the end user. For example logging into the desktop is done automatically, redirection of USB devices can be done with no user intervention and Windows error messages can be kept from appearing on the endpoint device
- While this feature has be requested by our healthcare customers we
 also see this being a useful capability in other environments where
 end users may share a single endpoint or for those endpoints that
 are in public spaces.



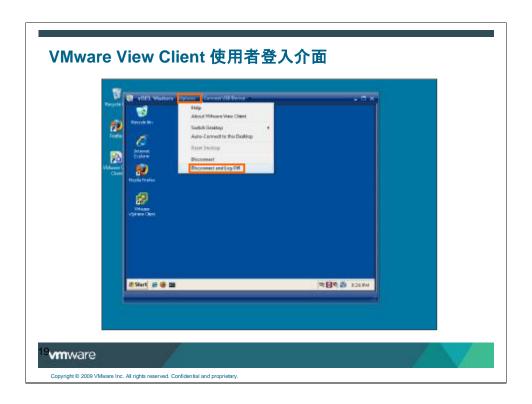


- Once you have deployed and entitled a desktop pool, you need to test the virtual desktops you created by connecting to them with the View Client access method or the View Portal method.
- Let's start by looking at the View Client access method.
- > Log on to the end user's machine as the administrator.
- > Next, double-click the VMware View Client icon on the end user's desktop.
- > Next, enter the user name, password and select a domain.
- > Click Login.









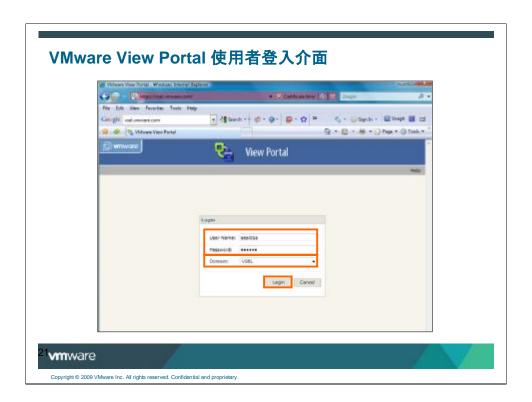
- > Once you are logged on and you have verified connectivity, then you will log off.
- > To Log off, click Options and then click Disconnect and Log Off.





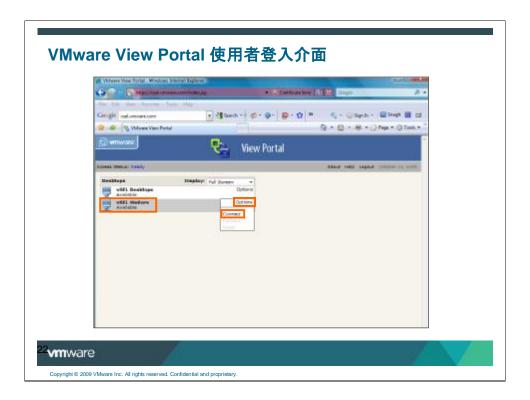
(add details here on a scenario where user who breaks their laptop is temporarily handed a zero client from the closet to access their desktop running in the data center – emphasize how a core principle of our _complete_ BYOC vision supports resolving this issue regardless of whether original workload was running on the client or in the datacenter. One common management fabric makes this flexibility possible).





> Enter an entitled user name and password. Next, select the correct domain from the drop-down menu, and click Login.





- > A list of virtual desktops that are available to you display.
- > To connect to this virtual desktop, click a desktop in the list, click Options, and then click Connect.

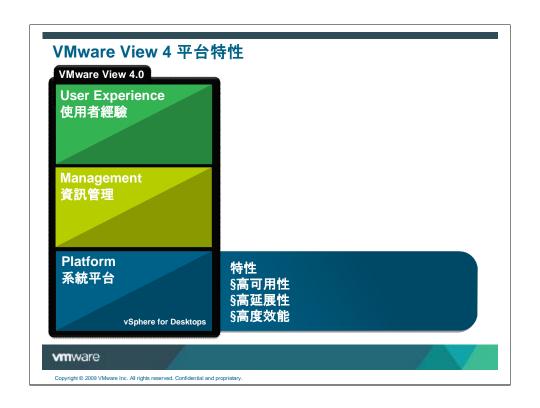
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Once you are logged on and you have verified connectivity, then you will log off. To Log off, click Options and then click Disconnect and Log Off.







VMware View 4 平台特性 (全球市占率第一名 84%)

§ 降低主機停止服務時間

- · High Availability (HA)
- VMotion
- Storage VMotion
- Fault Tolerance

§ 保護企業重要使用者資料

Data Recovery

§ 提供企業級的高延展功能

• 可管理10,000 台的虛擬桌面機器

§ 桌面負載最佳化

- · 較高的虛擬桌機整合比 (VM density)
- · 可自動做DRS負載平衡
- 效能針對同時大量的同時開機或暫定情境有作最佳化







VMotion特性

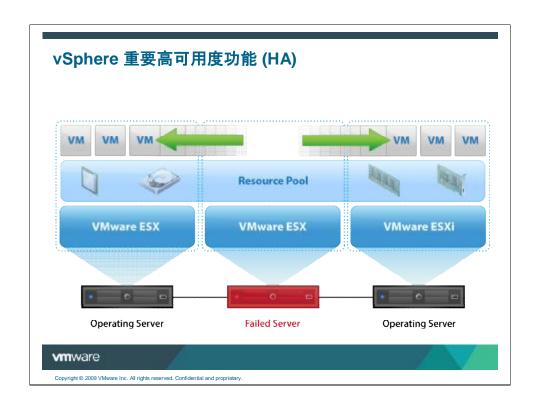
§ VMotion

- · 可線上將虛擬桌面從其中一台ESX主機轉移到另一台
- 此技術可應用在其他備援技術
 - § Fault Tolerance
 - § Storage VMotion
 - § DRS and DPM



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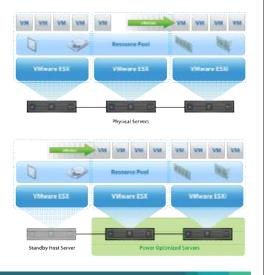
vSphere 重要高可用度功能 (DRS & DPM)

§ DRS

· 可根據主機效能狀況自 動做負載平衡,提供使 用者最佳的作業環境

§ DPM

可和iLO & BMC晶片整 合進入維護省電管理模 式,可配合上班尖峰離 峰時段自動協助資料中 心作自動化的電源管理



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vSphere 重要高可用度功能 (Storage VMotion)

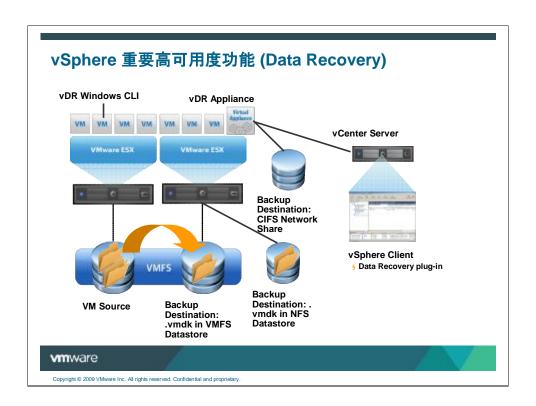
§ Storage VMotion

- · 在不同datastore 移轉
- 在不同的存儲設備移轉
- 可改變 VM 磁碟格式 (thick or thin)

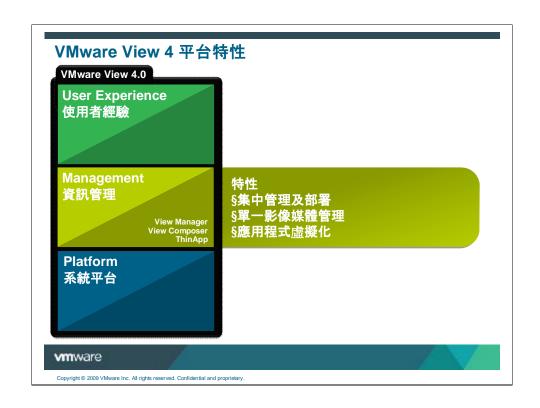


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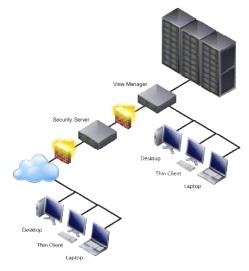
- With VMware View administrators use a single web-based console to manage their entire environment
- · Create desktops, entitle users, set policies and more from a simple web based interface
- All tasks are performed in a similar manner using the familiar View Manager interface

ADDITIONAL INFORMATION

- Some examples of administrative actions performed in View manager include:
 - Create Individual Desktops, Persistent and Non-Persistent Pools (and configure parameters)
 - Desktop Name
 - Enable/Disable
 - Template used for creating pools
 - Instance customization
 - Pool sizes
 - Power Control Policy
 - Search AD for users and groups, and entitle them to Individual Desktops or Pools
 - View connected and disconnected sessions and information such as IP address and session duration
 - Disconnect users and reboot virtual desktops
 - View audit logs from each View Connection Server (e.g. errors). May be used for audit and accountability trail for compliance.
 - When changes are made they are replicated to each server in a group. This means changes only need to be made from one View Manager server.



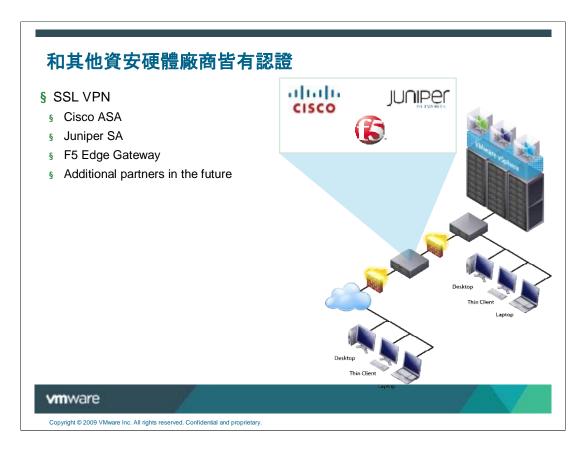
安控和延展性支援



- § 可作大量的企業部署
- § 資料儲存集中化
- § 支援 AES128 SSL 加密連結
- § 支援DMZ安全主機架構
- § 可看其他廠商的資訊安全認 證產品整合如 RSA
- § 可透過WSWC Script或AD credential cache支援SSO單 一簽入認證

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- There is an increasing need to access View desktops from outside of the enterprise from locations such as branch offices, home offices, cafés, airport lounges and other remote locations
- · With this requirement comes the need to access the virtual desktops in the datacenter securely
- VMware has worked with Cisco, Juniper and F5 to provide SSL VPN based solutions to address this requirement.
- The products shown in this slide have been tested with VMware View 4.5 desktops using the PCoIP display protocol
- This class of product offers a solution with the right level of features and scalability to address the needs of customers of all sizes
- We continue to work with SSL VPN vendors to qualify more products that will work with the View solution and PCoIP
- Please see the View page on vmware.com as well as our partner's websites for more information about this solution
- · Application notes with additional configuration and technical details are pending

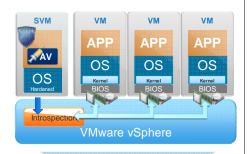






新一代雲端防毒架構

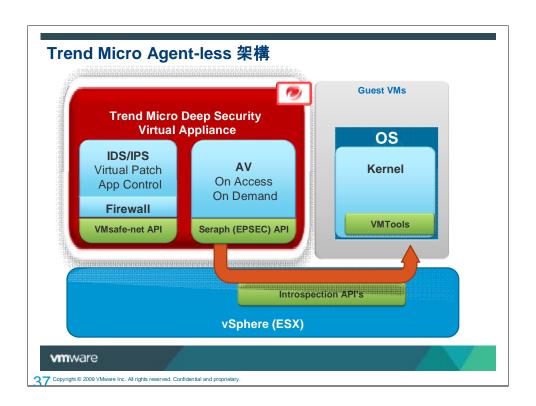
- § 整合vShield Endpoint API, 無須於 Guest OS上安裝AV Agent, 採用Virtual Appliance針對 Windows-Based Guest OS做即時掃描,排程掃描,立即掃描等, 僅需於Windows-Based Guest OS上安 裝vShield Guest Driver,就能將File Event送給Virtual Appliance
- § 病毒碼和防毒引擎的更新只需針對SVA 作異動即可



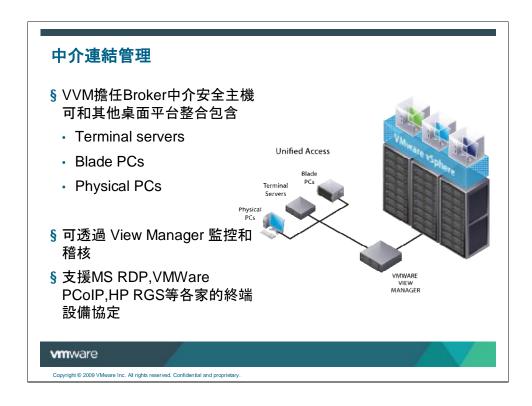


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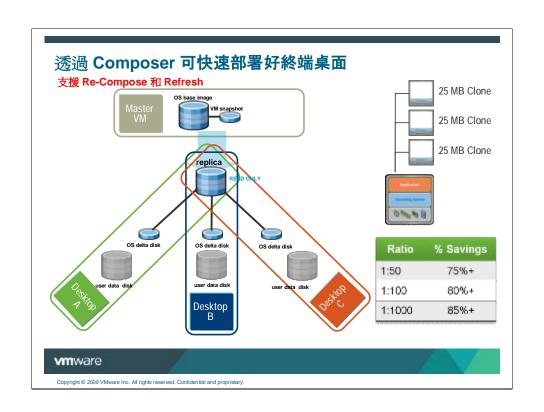




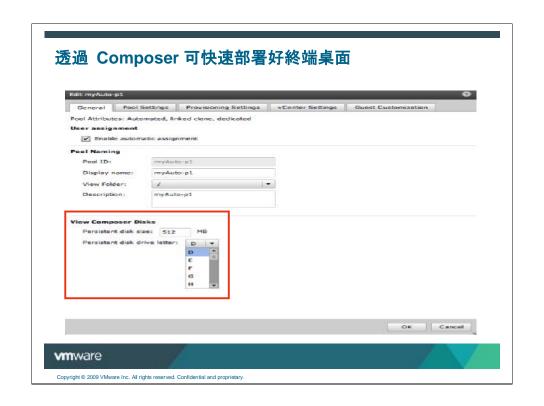


- View Manager Unified Access provides a central point of connection brokering and desktop management for legacy platforms such as Terminal Servers, Blade PCs and other physical desktops hosted in the data center
- This allows IT to manage the entire hosted environment from a single console
- This also allows for continued support of existing hosted environments and a smooth transition from these environments to the VMware View solution















永久和非永久硬碟 View Composer Disks Redirect Windows Profile Persistent Disk Windows profiles will be redirected to • Redirect Windows profile to a persistent disk persistent disks, which are not affected by View Composer MB Disk size: 2048 operations such as refresh, Drive letter: D ▼ recompose, and rebalance. Disposable File Redirection O not redirect Windows profile Use this option to redirect disposable Disposable File Redirection ② files to a non-persistent disk that will be deleted automatically when a Redirect disposable files to a non-persistent disk user's session ends. Disk size: 4096 MB (minimum 512 MB) § Redirect paging and system temp O Do not redirect disposable files files to a temporary disk removed upon VM powered off **vm**ware Copyright © 2009 VMware Inc. All rights reserved. Confidential and proprietary.







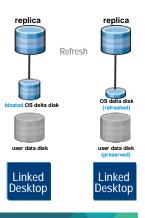
Refresh 桌面作業影像

回復到基本桌面

- § 繼承原本的影像副本
- § 登出所有對作業系統的改變都會消失
- § 保留原本的使用者資料磁碟 (UDD)

選項

- 可針對pool 的所有使用者或特定群組或使用者
- 可立即Refresh 或於特定時間Refresh
- Refresh 時可強制所有人登出或等待使用者登出時再 Refresh



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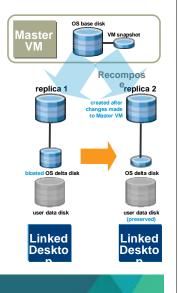
Recompose 桌面作業影像

繼承新的影像副本

- 和refresh類似,唯一的差異在於此用新的影像 副本
 - § 原本Master VM的snapshot
 - § 其他Master VM的snapshot

Options

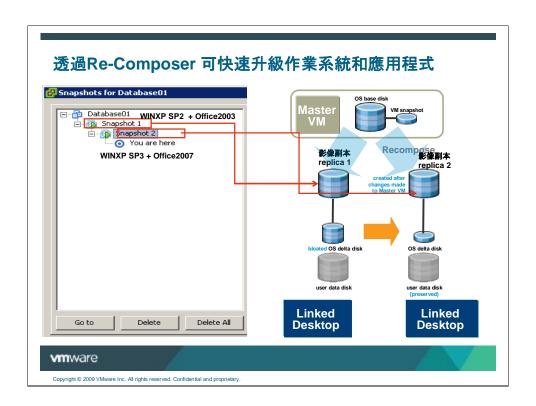
• 和Refresh相同



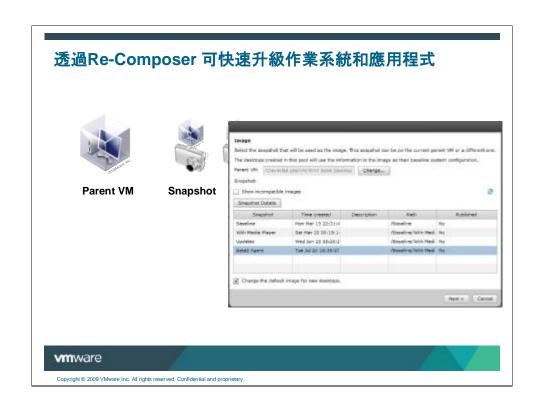
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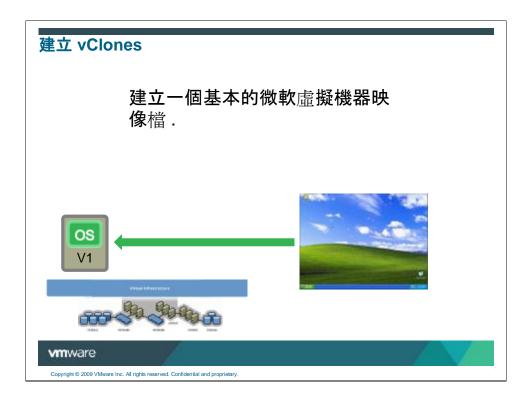












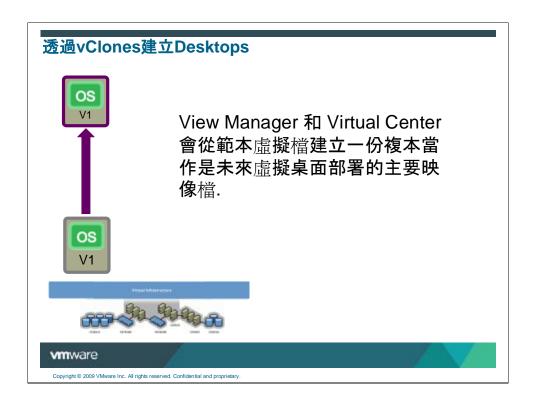
> Using View Composer is simple from VDM. But first we need to get a Windows machine. You can build one from scratch, import it, P2V it, or get it into a VM any way you like. Make sure it's joined to the domain and that it has at least the Vmware tools and the View Agent installed.





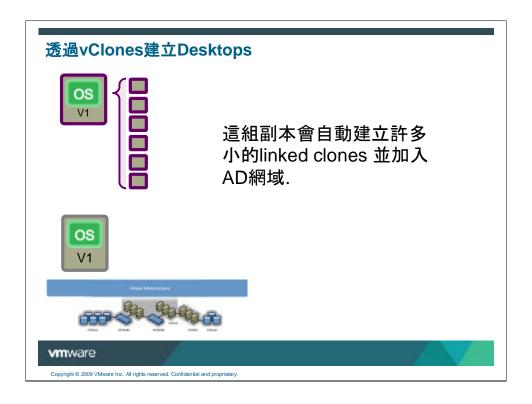
Now you'll go into the View interface and tell it that you want a pool of clones created off of this VM.





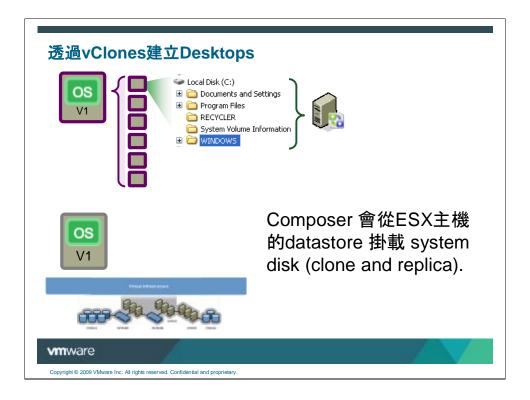
> View (working with vCenter) then copies that VM into a protected space as a 'Replica'. This initial full copy allows us to flatten any layers of snapshots for performance, and puts the base VM in a location that can't be accidentally deleted through VC, which is important when you've got many users relying on it.





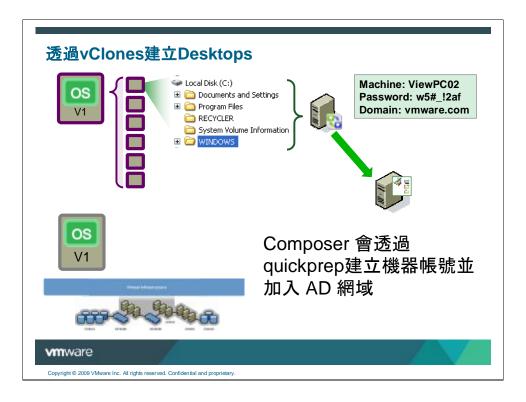
- > Using our linked clone technology, we create an original clone, called the 'Source' linked clone which is tied to the Replica. This process takes a little bit of time, so we hang onto that Source clone, and simply use file copy operations to duplicate it as many times as necessary for additional clones.
- Once these clones are created, we run a tool called Quickprep against them to join the domain. When working with large numbers of clones, Sysprep can be the longest part of the process, so we avoid using it.
- Quickprep creates a machine account on the domain with a password that it knows. It then takes this information and injects it into the VM. In this way, the vClone can be joined to the domain without ever having been on the network, and in a matter of seconds instead of minutes.





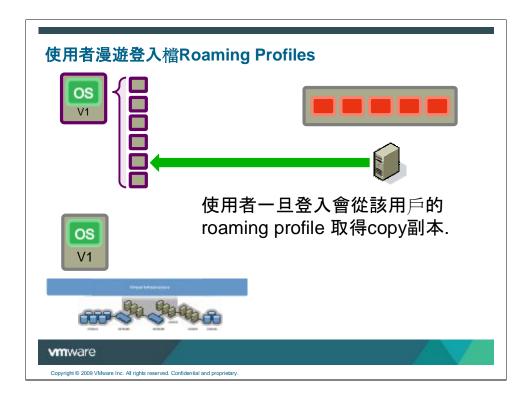
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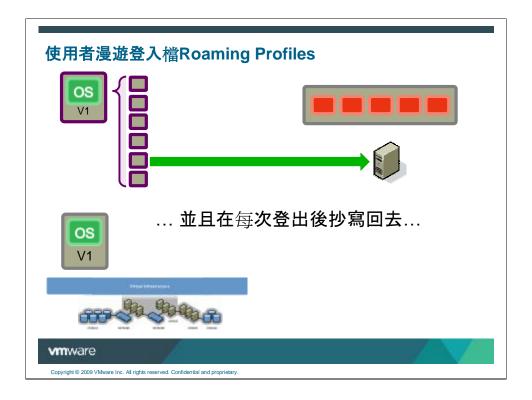
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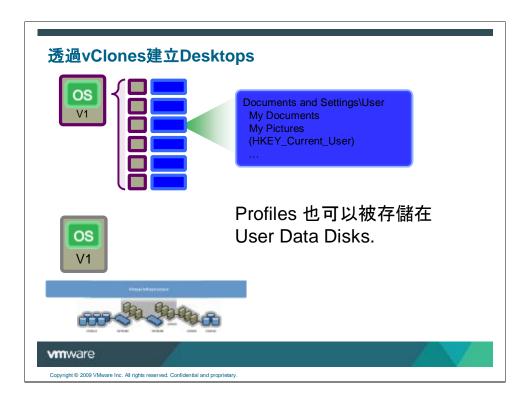
> You can use roaming profiles in this environment as well, and they'll be relatively fast since we're so close to your profile servers. On each login the user's profile will be copied down to their VM.





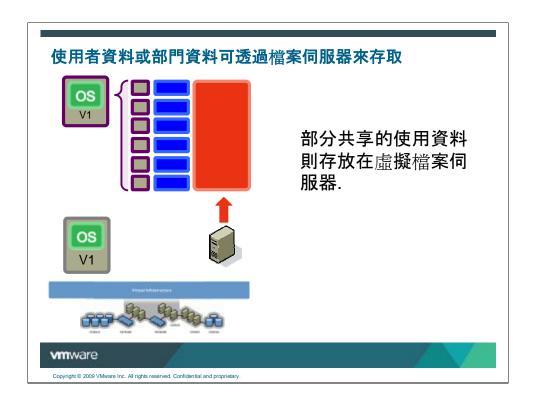
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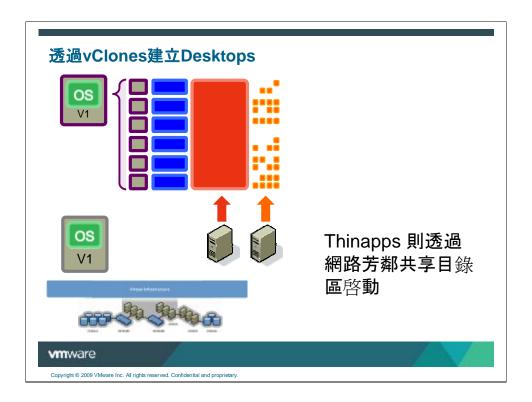
- > Vmware provides 'User Data Disks' to users in a persistent pool. This user data disk is effectively another virtual disk (VMDK) that sits on your shared storage and is attached directly to the VM as an additional hard drive typically drive D:
- > We then use full profile redirection to point the user profile to this disk. All of their data is available immediately upon boot without any delay, no matter the size of the profile. This also eliminates the need to perform the copy step altogether, which is the source of most profile corruption issues.





> Being close to the servers allows users to have very highspeed access to file shares, group drives, and other departmental data stores.





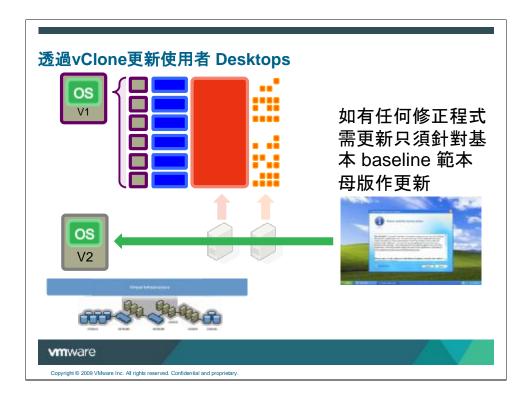
➤ And if you've followed along through all the plans for packaging applications, those Thinapps will be delivered off of a file server as well.





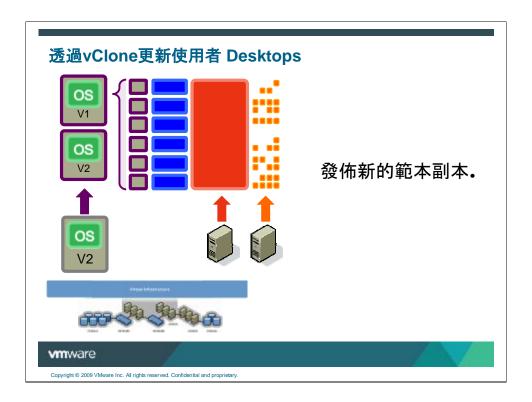
- We've changed the back-end drastically for the administrator.
- The C: drive of the VM is now built from the Replica and Clone, the D: drive exists to serve the user's profile, and their applications are delivered as packaged independent components.
- > But to the end user, it has the same look and feel no re-training required. You can allow your users to continue to work the same way they always have without dealing with the monolithic "Blob" VM.





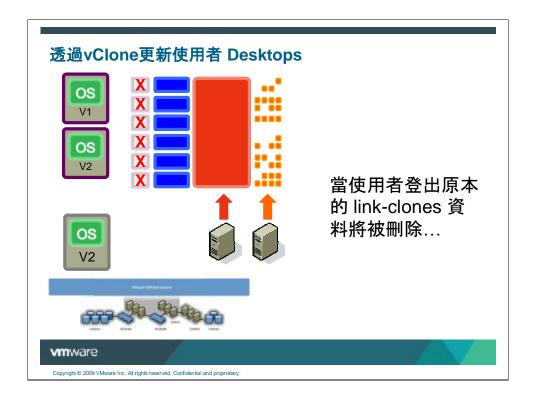
- One thing is certain however, and that's the fact that you're going to need to do some updates. Probably almost immediately. vClone technolog gives you the ability to patch a single time for your entire pool of machines.
- ➤ Open up your original VM and take a snapshot. Now add whatever it needs SP3, IE7, etc. You can use a distribution or patch management tool to do this, but you don't really have to. Just patch it up the way you like it, and when you're done, shut down and take another snapshot.





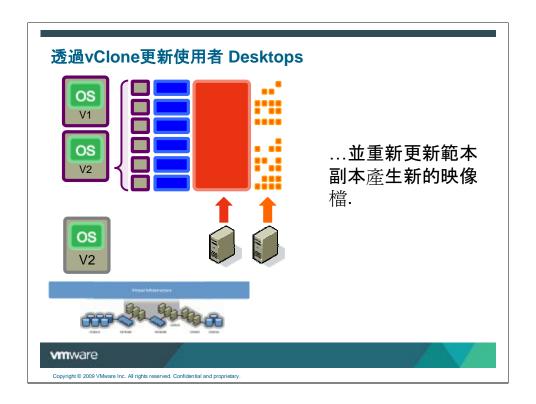
> Now tell View you want to update your pool to this new image. It will again flatten and copy the VM as a new Replica.





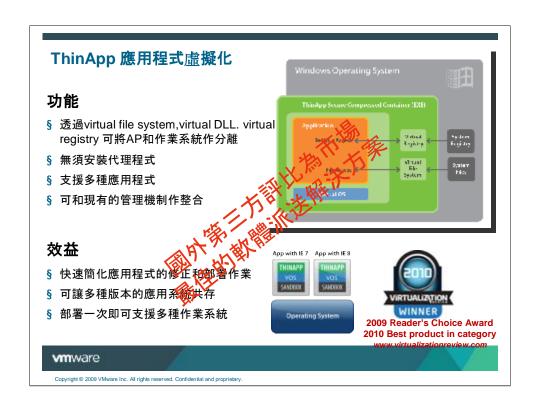
➤ As your users log out - or right now, if you prefer – with a little bit of warning, the existing clones will be deleted. Since we don't know what's in them and how it matches up to the Replica, there's no real way to keep them around.





- > We then create a new Source linked clone and copy it out as many times as is required, recreating a new machine for each one in the pool.
- > When users log in, they get the new machine, but they get their same User Data Disk, the same access to data and applications. If your desktop has become truly modular, you can effectively do single patch management.
- And if you screw it up (click back 2 slides), you can go back to a previous Replica that you know works. Roll forward/Rollback capabilities mean that an incompatibility isn't the end of the world.
- Now there's a limitation here around power users or folks that can install their own applications. When they do that install, the software typically ends up in the linked clone. As an administrator when you delete the clone (click back 1 slide and then forward to this one) their applications are gone.
- > For some types of users, this is a good thing, but for others it will be a headache at best.

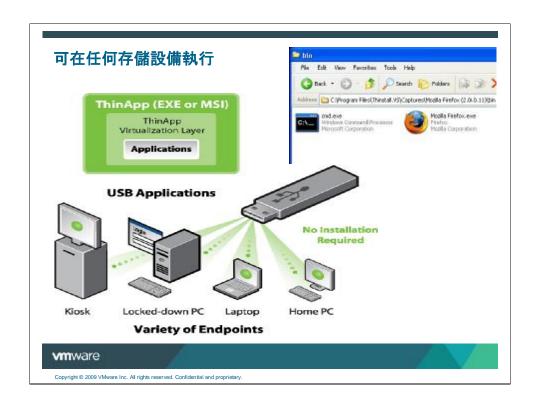








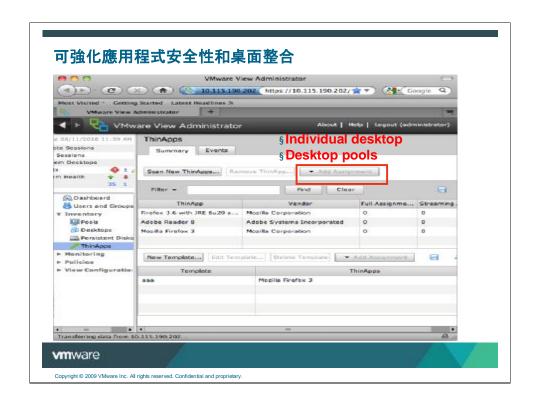














ThinApp的特點

不需要特別的硬體設備和資料庫

Low cost to adopt, faster to rollout

終端設備無須安裝任何代理程式

Low cost to adopt, faster to rollout

可和現有管理機制整合

Seamlessly fits into any existing ESD or process

解決軟體相衝突問題

Lower admin overhead by isolating conflicting apps

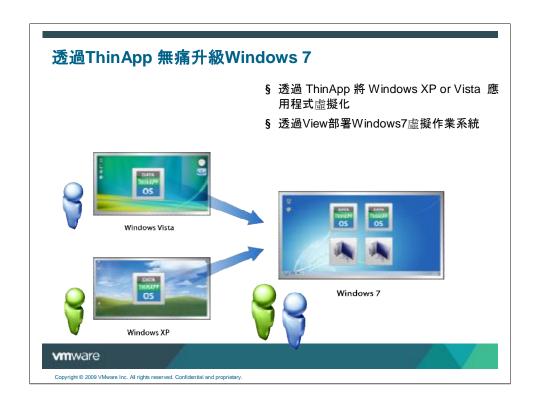
降低桌面移轉風險

Lower cost to upgrade desktops, faster to rollout

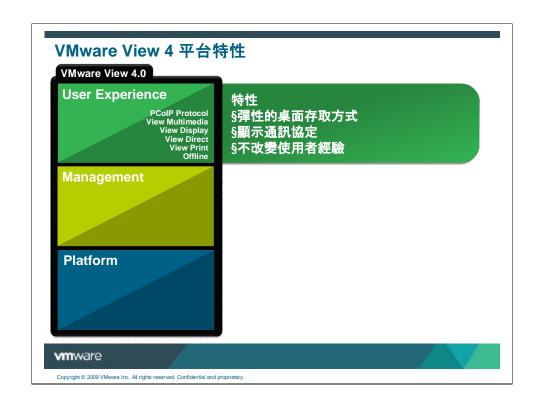
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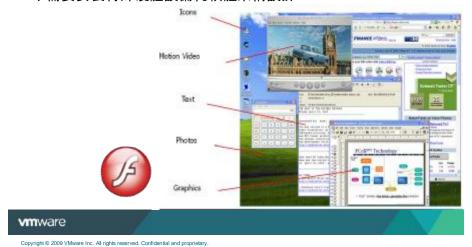


PCoIP針對網路提供高效能的顯示方式

• 專門為LAN和WAN設計的顯示通訊協定



• 不需要安裝特殊硬體設備純軟體架構設計









Initial Image Low BW and latency Only used if constrained Lossless text

Grainy picture 0.2 – 0.5 bits/pixel

Perceptually Lossless Built over a few frames Lossless text High quality picture 1 – 3 bits/pixel



100% Lossless Built as bandwidth permits Lossless text Lossless picture 5 – 15 bits/pixel

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- > VMware View with PCoIP can support up to four monitors simultaneously.
- > Each monitor can support a resolution up to 1920 by 1200 pixels.
- > Clear Type font support helps to improve the appearance of text.
- Monitor pivot provides support for monitors in landscape (horizontal) or portrait (vertical) mode.
- > Variable resolution per monitor allows simultaneous monitors to be set to different resolutions. With support for up to four monitors this means that each monitor can be a different size and set to a different resolution.
- 32 bit color provides the ability to reproduce true color images with support for up to 4.2 billion distinct colors per pixel.

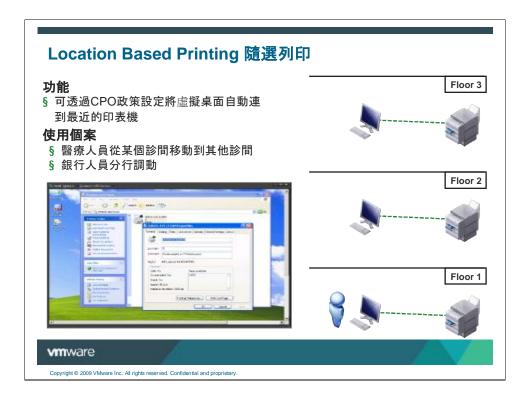


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- The location based printing capabilities in View 4.5 allows IT organizations to set policy to automatically map virtual desktops to a printer that is closest to the endpoint access device.
- Think of a doctor in a hospital. The doctor will move from room to room visiting
 patients while accessing their same virtual desktop in the datacenter from different
 thin clients throughout the hospital. With this feature each time the doctor prints a
 document that print job will be sent to the printer that is closest to the physical end
 point.

> [click]

- As we see in this example the doctor moves from floor to floor and the closest printer (one that is on the same floor) is automatically selected as the destination printer.
- The nice thing about this feature is that the doctor does not have to do anything special to enable this automatic mapping since all of the mappings are defined by the IT organization.
- This not only makes the printing process simple for the doctor but also helps to satisfy compliance requirements in healthcare and other highly regulated industries that have have requirements around data privacy and safety.

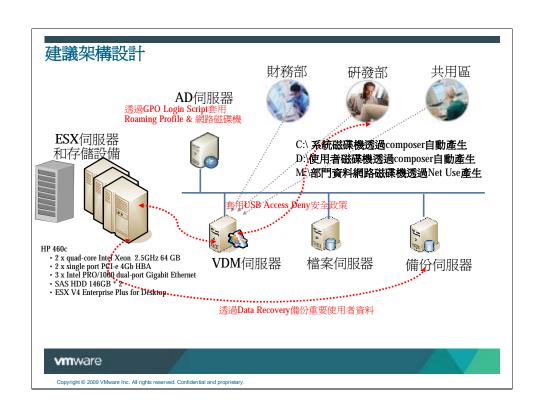


View 版本授權以Concurrent User計價

	View Enterprise	View Premier
vSphere for desktop		
vCenter		
View Manager 4.5		
View Composer		
Local Mode		
vShield Endpoint		
ThinApp 4.5		

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跨行業應用

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
- § Separation between corporate and personal desktop

Business Continuity/Disaster



- § Support end-users working from remote locations
- § Ensure desktops are available 24 x 7
- § Quickly provision new desktops

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醫療業應用 Caregivers



- § Fast access to applications and data from any terminal
- § Ability to roam their session as they move
- § High availability
- § Familiar look and feel
- § Secure remote access

Streamline Clinician Workflow with Follow Me Desktop (Tap and Go)

Healthcare IT



- § Simplify management
- § Quickly roll out new applications or services EMR/EHR
- § Maintain compliance and protect sensitive data
- § Satisfy end users
- § Reduce costs

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- VMware View enables solutions for healthcare customers with the ability to simplify the desktop for IT as well as end-users
- Follow me desktop simplifies the process of logging into the virtual desktop device
 while ensuring desktop consistency across logins and endpoint devices. This
 allows caregivers to move from endpoint to endpoint while quickly establishing their
 session and having access to their desktops, apps and data as they left it in the
 previous session
- The centralization of the desktop and data helps IT organizations secure sensitive data while simplifying their needs to adhere to compliance requirements
- The View solution delivers maximum productivity for end-users while helping IT organizations optimize desktop management process to reduce costs.





金融業應用

Claims Adjuster/Field Agent



- § Centrally manage desktops for remote workers
- § Deliver easy to use mobile desktop and applications
- § Deliver built-in desktop business continuity
- § Ensure security with centralized control and management
- § Reduce costs and increase control

Point of Sale/Kiosks



- § Centrally manage desktops and kiosks in corporate datacenter
- § Deliver consistent desktop experience to a range of devices and end-users
- § Minimize IT footprint at remote branch offices

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- > View can be positioned to address the needs of financial services customers
- With the centralization of desktops and data, the security and compliance requirements of financial customers can easily be met
- View can also be used to deliver desktops to end-users in the field or remote/home offices
- View can be used to centrally support kiosk end-points with central management to reduce the need for a large remote IT footprint



教育業應用 **Distance Learning Classroom and Labs Remote Campuses** § Manage all desktops § Centralize management § Provision new desktops centrally from a of desktop environment quickly common datacenter § Deliver desktops to a § Ensure consistent user § Standardize desktop experience across variety of locations sessions images for all § Ensure consistent campuses § Improve security with experience across users centralized control and § Deliver a secure, § Reduce cost of reliable user experience management supporting a diverse to remote end-users § Reduce cost of student population managing the desktop environment **vm**ware Copyright © 2009 VMware Inc. All rights reserved. Confidential and proprietary.

View can be used to rapidly provision desktops in classrooms and lab environments while delivering a consistent end-user experience

The centralization of desktop and application management helps to simplify and streamline IT process with reducing desktop management costs

With View IT organizations can enable end-users in remote campuses while managing those desktops centrally



對企業的好處

- · 降低系統及應用程式移轉風險和成本
 - § Windows 7 升級
 - § 老舊系統移轉相容性
 - § 改善應用軟體派送或作業系統修正程式管理問題

· 降低桌機管理成本

- § 節能省碳
- § 簡化Help Desk維修管理
- § 加速系統和應用程式部署速度

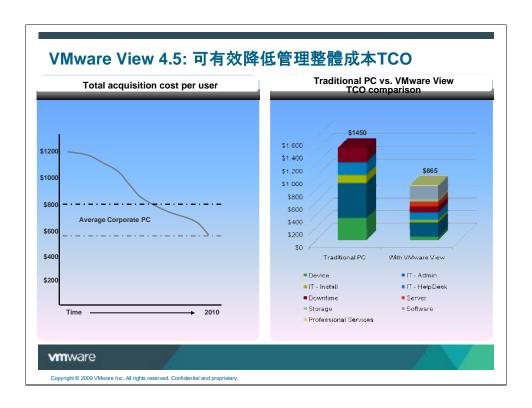
· 提高資訊安全

- § 智慧財產權或其他重要資料的保護
- § 節省其他安控解決方案開銷如USB防護或硬碟加密
- § 企業開發委外如駐點人員

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- View 4.5 reduces the total acquisition cost per user down to a level that is comparable to an average corporate PC
- When looking at the total cost of ownership (TCO) for a View desktop compared to a traditional PC we see that the View desktop has a TCO that 40% lower
- More details can be found in the IDC study here: http://www.vmware.com/files/pdf/resources/IDC_Quantifying-Business-Value-VMware-View.pdf



