VMware Mirage
VDI Manageability – Local Execution

VMware Mirage™ centralizes desktop images in the network like VDI, but allows a copy of the image to run locally on a laptop so that users take advantage of the native performance of a PC—including the ability to run multimedia applications and work while disconnected from the network. Mirage software can be installed in an enterprise datacenter or hosted by a service provider.

KEY BENEFITS

- **Centralized single image management** enables IT to take advantage of "the power of one" – manage and update a single copy of Windows and a single copy of each application instead of trying to manage thousands of endpoints.
- **Total image recovery** creates a complete image of any computer to allow disaster recovery to same or different machine types – even down to user files, applications, and settings. The image is continuously propagated to the datacenter, preserving hourly, daily and monthly snapshots. Restoring is as easy as installing a new Mirage client – no need for CDs, DVDs, or other complicated alternatives.
- **Full bi-directional network optimization and integrated deduplication** stores only one copy of a file, application, or operating system in the data center and does not transfer any blocks of user files, applications, or operating system over the WAN if another user's system has already done so.
- **Integrated PC break-fix and troubleshooting** enables IT to use centralized images to solve common PC issues or revert back to a point in time with last known working configuration – without affecting newly created user data.
- **Automated OS and Hardware Migration** enables IT to migrate a large number of endpoints from XP to Win7 (or from one hardware to another) without manually installing the new images and not requiring external boot media. Furthermore, Mirage leverages network optimization to transfer the image efficiently over the WAN, even to remote locations. It minimizes user downtime to 30 minutes, and creates a backup copy of the XP image. The bottom line is 100 migrations per centralized technician per day, regardless of the location of the end users, compared to four-to-five a day using standard methods
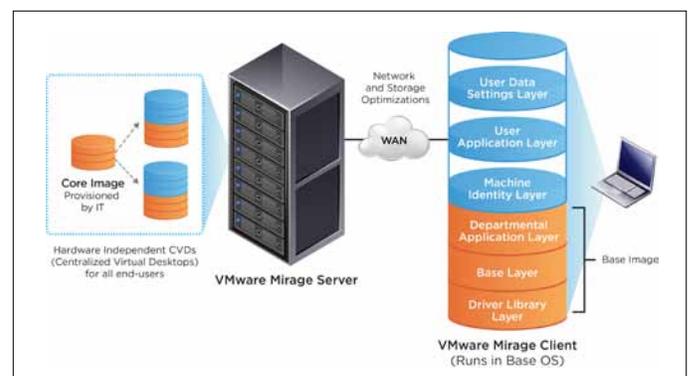
What is VMware Mirage?

VMware Mirage offers a unique solution for endpoint management and recovery that combines image centralization and local execution. The images of the endpoints are cloned into the datacenter to enable the benefits of centralized management and recovery while leaving cached copies of the image on each endpoint for local (and offline) execution thereby preserving an uncompromised user experience.

How Does VMware Mirage Work?

Mirage centralizes the full desktop contents at the datacenter for management and protection purposes, distributes the execution of desktop workloads to the endpoints for superior user experience, and optimizes the synchronization in between.

Mirage conceptually splits the PC into six layers, divided into two groups: IT centrally managed and user managed. The first group consists of a Base Image Layer, a Driver Library Layer, and a Departmental Application Layer (experimental). The second group consists of User-Application Layer, Machine Identity Layer and User Data Settings Layer. These layers form an individually managed, centrally stored Centralized Virtual Desktop (CVD). CVDs are hardware-agnostic and can be easily migrated from one desktop (physical or virtual) to another, creating a wide range of use cases. The Mirage Client runs a copy of this CVD directly on the end point, so users can work offline, use processor-intensive applications, and enjoy predictable, native PC performance regardless of network connectivity.

The Mirage architecture includes VMware Mirage Server in the datacenter to centralize desktop management and protection; Mirage Client to create a local cache for optimal user experience at the endpoint, and advanced WAN optimization technology to speed bi-directional synchronization over the WAN

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Features and Benefits

VMware Mirage Server – Centralizes management of all desktops in the datacenter and provides a powerful management console functionality for controlling image management, storage and clients.

• **Single Image Management** – Update or patch a base image once, and automatically propagate changes to all related desktop images. Maintain central image management even if end users are not connected to the network. Synchronize changes automatically when the end user connects.

• **Image Layering** – PC is conceptually divided into six layers. Enables single image management with persistent user customization. Allows re-imaging while preserving user data and personalization.

• **Continuous Compliance with Base Image** – Base Image enforcement ensures end points match central Base Image. Enables you to avoid "image sprawl'" and reduce support calls by ensuring an always-good image.

• **Continuous Backup of the Complete Desktop** – All data on the desktop is automatically protected, and can be restored, including user-installed applications, machine state, user settings and data. Protects mission-critical data and enables desktop continuity. You gain visibility into applications installed on endpoints. Maintain a year of snapshots for point-in-time restores.

• **Fast CVD restore or Re-Base** – Restore desktop image to new PC – even from a different hardware manufacturer. Fix end points with corrupted or virus-infected images by restoring a CVD from a snapshot. Reduce end user downtime if a laptop is lost, stolen or broken. Simplify hardware migration by quickly moving users to new hardware, complete with user-installed applications and personalization.

• **Fast Endpoint Re-Image** – Restore an endpoint to a previous snapshot to fix a problem – in minutes – optionally preserving or cleaning up user-installed applications. Reduce cost of support and improve SLAs. Maximize end user productivity.

• **Global Single Instance Store** – Deduplicate data across all users, including OS, applications and data. Significantly reduce storage requirements for CVDs.

VMware Mirage Client – A copy of the centralized desktop image executes at the endpoint, giving end users native performance as well as the ability to work offline and install their own applications.

• **Hypervisor-Free (But Hypervisor-Friendly)** – Mirage does not require a hypervisor of any kind, although it does support execution on one. Manage the primary OS, with no underlying unmanaged OS or hypervisor. Avoid purchase of two OS licenses. Avoid limited hardware compatibility associated with Type-1 hypervisors.

• **User-Initiated Backup and Restore** – In addition to the IT-managed backup policy, users can selectively restore files and initiate backup at their convenience. Reduces support requests for file restores. Ensures fast backup for mission-critical data.

• **Image Executes Locally at Endpoint** – Run a complete instance of the centrally-stored and managed CVD at the endpoint. Achieve native PC performance, regardless of connectivity or bandwidth. Work offline. Instantly transition between online and offline; no check-in/check-out.

• **Local Compute Power** – Leverage local compute resources of the end point. Avoid costly data center server build-out. Increase scalability by an order of magnitude over conventional VDI.

• **Branch Reflector** – Distribute an image once and then let local peers access what they need across local LAN. Reduce WAN traffic. Avoid server build-out at branch offices for software distribution or PXE-boot. Centrally manage software updates such as Windows XP to Windows 7 migration.

VMware Mirage Network Optimization – A robust combination of deduplication and optimization technologies dramatically reduces network traffic and speed synchronization for remote and mobile users.

• **Desktop Pipelining Over the WAN** – Download minimal set for boot, and intelligently stream remaining data in the background or on-demand. Restore a complete desktop to a remote endpoint in minutes. Fix a corrupted remote endpoint within minutes.

• **Global Data Reduction** – Block and file-level deduplication across all files, users, network and storage. Reduce network traffic, transfer times, and storage capacity. Accelerate full desktop image transfer by 100X.

System Requirements

Mirage Client

• Windows XP Professional with SP2, SP3m 32-bit or Windows 7
• Standard lapto/desktop hardware

Mirage Server

• Windows Server 2008 R2 Standard Edition, 64-bit
• Commodity Hardware or ESX

Find Out More

For information or to purchase VMware products, call 877-4-VMWARE (outside North America, +1-650-427-5000), visit http://www.vmware.com/products, or search online for an authorized reseller. For detailed product specifications and system requirements, refer to the VMware Mirage documentation.

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