

Wanova Mirage™ Software

Distributed Desktop Virtualization

Distributed enterprises constantly struggle to manage, support and protect their remote and mobile end users. In fact, a recent survey by Gartner indicated that mobile user management was the number 1 pain point cited by IT organizations in 2009. While virtualization has promised to simplify desktop management, its adoption has been limited in part because traditional desktop virtualization solutions could not meet the needs of today's remote and mobile workers.

Wanova Mirage reinvents desktop virtualization to help IT organizations bridge the gap between centralization and user experience. Desktop managers gain complete centralized control of all endpoints, regardless of their location and whether they are connected to the network. Plus they can easily support remote users and protect users' data. End users get excellent performance regardless of network connectivity, full offline support and the flexibility to install and retain applications and personalization.

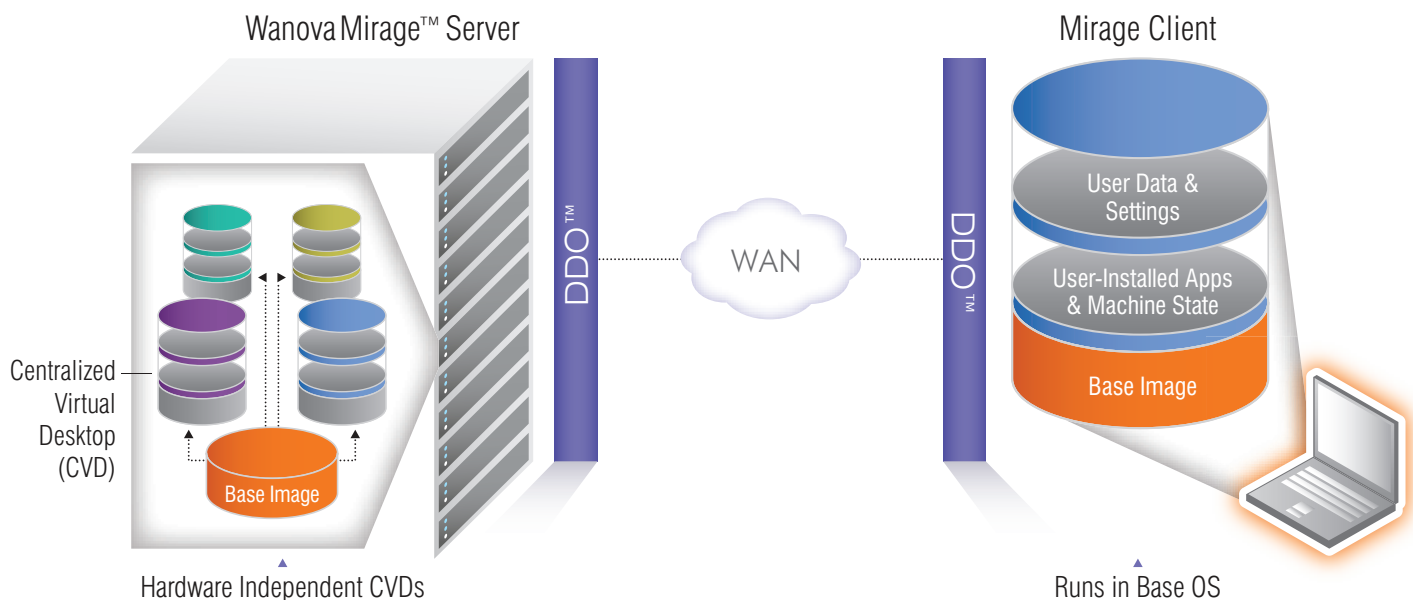


Wanova's Distributed Desktop Virtualization transforms desktop management, support and protection.

Wanova Mirage is Different

- Optimized for remote and mobile workers
- Single image management with persistent user personalization
- Hypervisor-free and hypervisor-friendly
- Highly scalable and doesn't require data center buildout

Mirage conceptually splits the PC into layers, combining a centrally managed Base Image (OS and core applications) with two layers from the endpoint: user-installed applications and machine state, and end user data and settings. These three components 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 Wanova Client runs a local cache of this CVD directly on the endpoint (virtual or physical) hardware, using local compute resources to enable offline productivity and ensure predictable, native PC performance regardless of network connectivity.



Wanova's Distributed Desktop Virtualization architecture includes Wanova Mirage™ Server in the data center to centralize desktop management, protection, and support; Mirage Client to create a local cache for optimal user experience at the endpoint, and advanced DDO™ technology to optimize bi-directional synchronization and fast desktop streaming over the WAN.

Wanova Mirage™ delivers a range of benefits through three tightly integrated components.

- 1 Wanova Mirage Server** – Centralizes management of all desktops in the data center and provides a powerful management console and 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 CVDs

BENEFITS:

- ▶ Patch and update regardless of whether the end user is connected
- ▶ Synchronize changes automatically when end user connects

CVD layering

PC is conceptually divided into three layers: Base Image (OS and core Apps), User-installed applications and machine state, and user data and settings.

- ▶ Enable single image management with persistent user customization
- ▶ Allow re-imaging while preserving user data and personalization

Continuous compliance with Base Image

Base Image enforcement ensures endpoints match central Base Image

- ▶ Avoid the 'image sprawl' phenomena
- ▶ Reduce support calls by ensuring an 'always-good' image

Continuous backup of the complete desktop

All data on the desktop is automatically protected, including user-installed applications, machine state, user settings and data

- ▶ Protect mission critical data and enable desktop continuity
- ▶ Gain visibility into applications installed on endpoints
- ▶ Automatic snapshots for point in time restores

Fast CVD restore or re-base

Restore a CVD to similar hardware or to new hardware

- ▶ 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

Deploy a Base Image to address a problem

- ▶ Reduce cost of support and improve SLAs
- ▶ Bring endpoint into compliance with Base Image, without overwriting user-installed applications or personalization

Global single instance store

Deduplicate data across all users

- ▶ Significantly reduce storage requirements for CVDs

- 2 Mirage Client** – The cached copy of the CVD, which resides at the endpoint, lets end-users execute desktop workloads with native performance, work offline, and install their own applications.

Hypervisor-free (but hypervisor-friendly)

Mirage does not require a hypervisor of any kind, though it does support execution on one.

BENEFITS:

- ▶ Manage the primary OS, with no underlying unmanaged OS or hypervisor
- ▶ Avoid purchase of two OS licenses

User-Initiated backup and restore

In addition to the IT-managed backup policy, users can selectively restore files and initiate backup at their convenience

- ▶ Reduce support requests for file restores
- ▶ Ensure fast backup for mission-critical data

Local caching of CVD

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 endpoint

- ▶ Avoid costly datacenter server build-out
- ▶ Increase scalability by an order of magnitude over VDI

- 3 Distributed Desktop Optimization™ (DDO)** – A robust combination of deduplication and optimization technologies dramatically reduce network traffic and speed synchronization for remote and mobile users.

Desktop streaming over the WAN

Download minimal set for boot, and intelligently stream remaining data in the background or on-demand

BENEFITS:

- ▶ Restore a 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

- ▶ Global index reduces network traffic, transfer times, and storage capacity.
- ▶ Accelerate full desktop image transfer by 100X

SYSTEM REQUIREMENTS:

Mirage Client

- ▶ Windows XP Professional with SP2 or SP3, 32-bit or Windows 7*
- ▶ Standard laptop/desktop hardware

Mirage Server

- ▶ Windows Server 2008 R2 Enterprise Edition, 64-bit
- ▶ Commodity hardware or ESX

* Windows 7 will be supported in Q3.