

OnDemand Desktop™ Virtual Desktops – Get Virtually Green

Green IT is all about doing more with less to conserve your – and mother earth's – precious resources. The majority of today's desktop delivery architectures are based on distributed PCs, typically requiring one PC to be allocated to each employee with a computing responsibility. Synchron has engineered OnDemand Desktop to make replacing PCs possible while improving end user productivity, preserving the PC computing experience, and having the maximum savings impact on three critical resources – electricity, equipment, and IT administrators' time and effort.

Conservation of Power and Computer Equipment

OnDemand Desktop is a server-based virtual desktop management system that enables the phased replacement of PCs at every desk with thin clients. Thin clients are solid-state devices with no moving parts and use substantially less electricity than PCs. Virtual desktops (VDTs) are hosted as virtual machines (VMs) on centrally located servers. In a typical infrastructure VDT host servers may substitute for PCs at the rate of roughly one server per fifty PCs. OnDemand Desktop minimizes the number of servers needed to host a VDT infrastructure and eliminates the requirement for a SAN. The right sidebar shows an example PCs vs. VDTs comparison that quantifies the yearly electrical savings of a 500 seat implementation.

{ Provision. Manage. Secure. Scale. }

Conservation of IT Administrators' Time and Effort

OnDemand Desktop provides IT Administrators Synchron's breakthrough Habitat™ technology. Habitat automation greatly simplifies the administration and runtime management of large numbers of VDTs. Habitats automatically provision one shared, read-only "gold image" to one, tens, hundreds or thousands of users. Habitats are designed to use only disposable (i.e., "stateless") VDTs. Habitats dynamically maintain a defined reservoir of VDTs, conserving resources by starting and stopping them relative to the number of current users. When users log out, Habitats recycle VDTs (discard and reprovision them) guaranteeing users a pristine workspace every time they log in. No other approach to desktop virtualization can save administrators' time by providing such a high level of automation and ability to scale user-specific virtual desktops.

OnDemand Desktop Delivers:

- Fast Access and High Availability
- Centralized Management and Operation
- Improved Scalability at Reduced Capital Outlay
- Lower Operating Costs and Hands-Free Runtime Automation
- Centralized Data Security



THE NUMBERS

PCs vs. VDTs Electrical Cost Comparison

Assumptions	
Number of Desktops	500
Avg. PC Wattage	95
Server Wattage Rating	1000
VDTs per Server	50
Thin Client Wattage Rating	16
Cooling Overhead	150%
Cost per KWH	\$ 0.10
PCs, Aggregated Results	
Daily KWHs	1140.0
Daily Electrical Costs	\$ 114.00
Yearly Electrical Costs	\$ 41,610
Yearly Electrical + Cooling Costs	\$104,025
VDTs + Thin Clients, Aggregated Results	
Server Watts per VDT	20.00
Daily KWHs	432.0
Daily Electrical Costs	\$ 43.20
Yearly Electrical Costs	\$ 15,768
Yearly Electrical + Cooling Costs	\$ 39,420
Comparison Results	
VDT Savings Percentage	62%
Dollar Savings VDTs vs. PCs	\$ 64,605

KEY FEATURES AND BENEFITS

Easier to Manage and Administer

- Fully automate provisioning and management of myriad virtual desktops using Habitats.
- Deploy upgrades in minutes, not days.
- Conserve – stop (power-off) VMs when not needed.
- Tighten data security – centralize user storage and data management.
- Fully personalize VDTs via roaming profiles and folder redirection.
- Simply authorize users to resources using user directory “security groups.”
- Set local privileges such as printers and peripherals (USB, smart devices, etc.).
- Flexibly design and configure fault tolerant architectural solutions.
- No changes are necessary to existing network resources or back-end systems.

No-Compromise, Enjoyable User Experience

- Fast disconnect and reconnect for roaming users
- Single sign-on for authorized access across all platforms and available desktops
- “Roam” from access device to device (including thin clients, any browser-enabled device, tablet PCs, home PCs, etc.)
- Enjoy coming back to desktops just like they were for seamless work continuity
- Automate location-sensitive settings such as printer mappings, application access, or other user settings
- Use roaming profiles and folder redirection to retain personalized desktop settings and user-specific file systems (i.e., “My Documents”)
- Set Habitat SLAs (service level agreements) to protect users’ desktop performance

ONDEMAND DESKTOP ARCHITECTURE

Synchron supports heterogeneous networks and multiple virtualization platforms, including VMware VI3™, Microsoft Hyper-V™, Microsoft Terminal Server™, and provides the architectural flexibility to support any additional platforms.

A typical architecture may include:

- one or more VMware VI3 servers
- one or more Microsoft Hyper-V servers
- one or more Microsoft Terminal Servers
- multiple virtual desktops (XP™, Linux, Windows Server 2003™, or Vista™)
- combinations (as access clients) of remote or local thin clients, Windows PCs, laptops, tablets, or PCs re-purposed as thin clients
- unlimited, no-charge instances of OnDemand Desktop Portal
- unlimited, no-charge instances of OnDemand Desktop Command Center
- any third-party VPN, firewall, and/or proxy login server solution

