Break Through

Virtual Desktop Solutions: A Comparison of Costs and Benefits

perotsystems®

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Virtualization: Understanding the Potential Impact

As a healthcare leader, you determine when and how you will use new technologies. With all the claims around the enhanced capabilities for technologies such as virtualization, you are naturally left to wonder: what is the true bottom line impact? This document defines the most common desktop environments and identifies the features, benefits, and expected savings that can be achieved by using a virtualized environment.

Defining the Environments: A Spectrum of Capabilities, Benefits, and Costs

Typical Traditional Desktop Environment—approximately 50-70 percent of software is centrally managed and pushed to desktops, laptops, and tablets, leaving 30-50 percent manually maintained. With many users having administrative rights and able to install software themselves, this percentage can be much higher — causing an increase in support costs.

Best Practices Traditional Desktop Environment—upwards of 95 percent of desktops, laptops, and tablets are deployed under a centralized software management system for virus protection, patching, and application distribution.

Terminal Services Environment—the conventional means of delivering applications to remote locations when network bandwidth makes application performance unacceptable. Typically uses costly and labor-intensive banks of servers and software for the virtualized application, but leaves the rest of the desktop in the traditional model with the same limitations, risks, and costs.

Managed Virtual Desktop Solutions (VDS)—full featured and mobile desktop experience made possible by moving all processing, memory, and storage from the desktop to centralized infrastructure. Users have a fully functional desktop that can be accessed from any authorized device, and they can pick up exactly where they left off without having to reopen applications or files. Virtual desktop solutions also provide a bridge to applications-as-a-service and other cloud-based solutions.

A Comparison of Capabilities

Benefits	Typical Traditional Desktops	Best Practices Traditional Desktops	Terminal Services	Managed VDS
Centralized Company Data	No features offered	Minimal features offered	Minimal features offered	Full features offered
Remote Access	Moderate features offered	Minimal features offered	Minimal features offered	Full features offered
Session Mobility	No features offered	No features offered	Moderate features offered	Full features offered
Small Form Factor	No features offered	No features offered	Minimal features offered	Full features offered
Performance	Moderate features offered	Minimal features offered	Minimal features offered	Full features offered
End-User Satisfaction	Moderate features offered	Minimal features offered	Minimal features offered	Full features offered
Standardized Images	Moderate features offered	Minimal features offered	Minimal features offered	Full features offered
End-User Productivity	Moderate features offered	Minimal features offered	Minimal features offered	Full features offered
Secure Stable Environment	Moderate features offered	Minimal features offered	Minimal features offered	Full features offered
Ease of Upgrades	No features offered	Moderate features offered	Minimal features offered	Full features offered

No features offered —   Minimal features offered ◗   Moderate features offered ◯   Full features offered ●

Managed VDS: The Benefits

Perot Systems® virtual desktop solutions allow your users to access their desktop, exactly where they left off, from any network-connected computer. Our solutions allow your IT teams to manage and support the end-to-end virtualized desktop environment centrally, with all processing and data remaining securely within the data center. The desktop is presented and usable on the end-user device, optimizing network bandwidth and improving information security. The enhanced feature set of our virtual desktop solutions include:

- Session mobility
- "Follow me" printing
- Device independence
- Improved security
- Single sign-on
- Reduced network load
- Centralized processing
- Zero application engineering impact

Perot Systems virtual desktop solutions are available on a pay-per-use basis that can include all costs including the end-user device in a single, simple monthly expense. Our services allow desktop computing costs to scale dynamically with the workforce and convert capital costs for desktops into a predictable monthly operating expense.

Managed VDS Impact Analysis: Changing the Economics of Technology Implementation

Perot Systems has created an impact analysis that helps build a virtual desktop business case by computing the economic benefits of our solution.
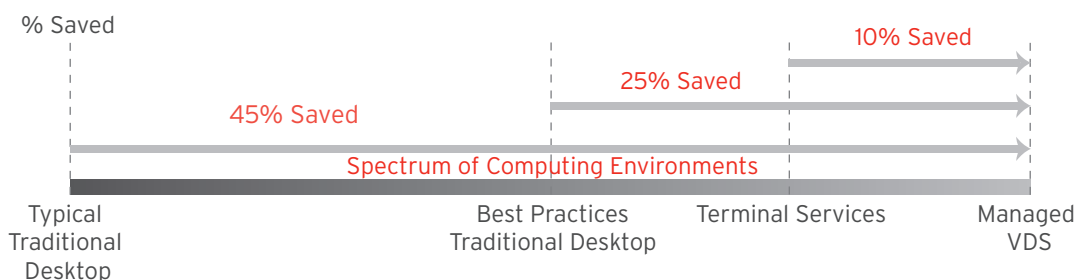
Converting 2,000 desktops to a virtual solution, your internal cost can reduce by:

	$500K/ year savings	Virtual Desktop Solutions can reduce the number of calls to the service desk for desktop related issues and the resulting need for desktop technicians required for deskside visits
	$600K/ year savings	Virtual Desktop Solutions allow you to use new, less costly and longer lasting desktop devices reducing the cost, frequency, and time required for desktop refresh
	$120K/ year savings	New virtual desktop devices use less energy
	$588K/ year savings	Virtual Desktop Solutions increase user productivity through less downtime, better performance, fewer and faster logins

The Result-- The potential for $1.8M in internal cost reductions by adopting the simple, predictable, per-use costs of Perot Systems Virtual Desktop Solutions. Plus the additional benefits of greater information security, enhanced risk reduction against disasters, and better data recovery programs and services.

Potential Savings Based on Current Environment

Every client's environment rests at a unique point along the spectrum. Expected savings are dependent on two things: where you are now and how far toward fully hosted VDI you plan to be.

% Saved

10% Saved

25% Saved

45% Saved

Spectrum of Computing Environments

Typical Traditional Desktop

Best Practices Traditional Desktop

Terminal Services

Managed VDS

Application Virtualization vs. Desktop Virtualization

Many organizations invested significantly in virtualizing specific applications to enable their capabilities across a Wide Area Network (WAN), as this was previously the only way to deliver some applications to remote sites. While VDS supports continued leverage of existing virtual application environments, in most cases once you virtualize the entire desktop, the need to virtualize an application is eliminated.

Direct benefits include:

- Significant cost reductions associated with infrastructure, licensing, and support

- Simplification of support to the end-user

- Consistent performance without regard to location

- Further reductions in total cost of ownership

Cost Comparison: Measuring the Indirect Costs

Traditional Desktop Cost

Most organizations view traditional desktop expenses as the hard costs of the hardware/ software itself, plus the direct labor supporting that equipment. In reality, that approach only represents about 70 percent of the total cost of ownership. Embedded and indirect costs (such as facilities, power consumption, procurement, tax accounting, and more) are not so easy to identify or quantify, however they are a meaningful part of the overhead and cost equation.

Virtual Desktop Cost

Virtual desktop costs are simplified because centralizing resource consumption provides significant efficiencies in your enterprise computing environment. Network traffic between the desktop and the application is contained within the same switch or LAN, which leaves relatively low data traffic travelling back to a user's physical work place. Disk, processing and memory are all consolidated in a high availability, highly managed environment typically reserved for data center servers. Physical device support is reduced and resource consumption is managed holistically versus one device at a time. In addition, data security improves and the end user experience becomes more consistent and many times improved.

Example cost comparison for a 2000 seat environment

		Traditional Desktop Cost	Virtual Desktop Cost
Hardware	Desktop/Laptop cost for new & refresh	$31.94	$8.33
	Support servers cost for refresh	$0.25	Included
	Energy consumption	$7.50	$1.88
Labor	Desk-side support technicians; Remote resolution service desk agents; Desktop/Laptop engineering; software management; Management of labor	$42.00	Included
Tools	License & support costs	$0.95	Included
Security	Snap copies of user data on end-user device (EUD)	N/A	Included
	Corporate end-user data securely stored in thei data center	N/A	Included
Other	Lost end-user productivity	Varies	N/A
	End-user satisfaction	Varies	High
	Microsoft VECD (Optional)	N/A	$1.92
	Managed virtual desktop as a service (volume discounts and user profiles mix not applied)	N/A	$55
	Total per month/user	**$86.65**	**$67.13**
	Total annual cost benefit	**$372,240**	

For more information about solutions for your business or organization, contact us at healthcare@ps.net or call 888-888-3872. To learn more about VDS, visit perotsystems.com/insights.

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