Why not use what you already own to lower the TCO of your desktop or application virtualization project?

Existing Hardware, Software and Infrastructure assets can be easily leveraged –saving significant time and money.

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Executive Summary- How can we leverage what we already own as we move toward Desktop and Application Virtualization?

Organizations of all sizes view their investments in technology as significant. Whether you are categorized by industry measurements as an SMB or Enterprise organization, your technology budgets and expenditures are generally considered a significant cost center - and closely examined every year.

A variety of published industry estimates indicate the annual cost of supporting a Desktop or Laptop falls in the range of $500.00 to $900.00, higher than the capital cost of the PC. Many estimates say over 50% of the Total Cost of Ownership (TCO) of a “User Device” is related to managing the device.

Systems administrators are tasked with limiting user interaction to the “right” level, not too restrictive - preventing them from doing their jobs - but not too open so they can muddle with the PC.

Managing desktops, keeping productivity high, ensuring data and applications are secure - these are all daily concerns for executives and IT personnel. Most corporate executives know the ways in which devices must be used and implemente to provide a competitive advantage. As new applications and capabilities are deployed, the PC continues to be the most common point of entry to the IT infrastructure.

Managing PCs takes a lot of time. While sophisticated desktop management tools usually work well, occasional physical visits to the PC to upgrade or repair their PC are costly. In addition, having data and applications on the desktop has huge security risks and compliance issues. Hence, the move to centralizing and/or virtualizing as many of the desktop components as possible (applications, data, profiles, and so on).

Desktop Virtualization, Application Virtualization and Terminal Services have pointed the way to additional levels of security, data protection, and manageability of the PC or "client end point device".

Virtualization strategies from various vendors have proven effective at separating the physical hardware from the applications, Operating System (OS) and data. Once separated, the applications, data, OS and related individual profiles are more effectively managed in the data center, greatly reducing the cost of managing and upgrading the desktop.

An access point is still required. It might be a PC, Thin Client, Ultra Mini, Tablet, or even a phone. The majority of access devices continue to be a Desktop or Laptop PC's. It is almost always cheaper to re-use the existing PC asset than to replace it with a Thin Client. The various options for replacement hardware are also a key consideration as equipment ages, and begins to fail.

This paper looks at these issues and offers a simple, secure way to address the executive's concerns and the administrator's needs.

The Value Proposition of a Personal Computer (PC)

What a perfectly named device! Users come to think of the Corporate PC as their own Personal Computer. They have their favorite background pictures on the device, maybe some personal data and an application or two. The user does their job with the tool you have provided - a PC. It "can do" anything: burn a movie, run any application, enter data, access local and remote resources, and so on. For many users, this is perfect. The PC can run applications locally, store data locally, be picked up and moved (laptop), work wirelessly and even support different users on the same machine. It is the ultimate computer and access device. However, most companies do not want their users to have access to all of available functionality.

The Downside of a Personal Computer

In general, the flexibility of the Personal Computer is not a blessing to the Information Technology department. To IT, the PC is a virus gathering, update needing, user messing around with and breaking device. Applications and settings on the PC may require a visit and/or a re-imaging if there are upgrades or support issues. The IT department often tries to control access to its capabilities via Group Policies, registry edits, etc., while the device user is constantly wrestling to find ways around the roadblocks created to prevent installation of applications, surfing the web or making the PC more "personal". In other words, PC's (some might say PC Users) can be a nuisance.

The Value Proposition of a Thin Client

Looking at the websites of the major players in the Thin Client market creates a picture of compelling advantages to the Thin Client: they appear to be affordable, secure, reliable, efficient, space-saving, power saving, dependable and have lower IT support costs. Aside from the fact that most of IT expertise has been with PC's, Thin Clients sound great.

The Downside of a Thin Client

Thin Clients come in one of several OS varieties: Linux, "Zero Client" or a Windows Embedded Version, (and a few with with a proprietary OS). Each Operating System has strengths and limitations.

Unlike the PC, thin client challenges include lack of driver support for network, printers, USB devices, and so on. The very definition of a thin client means they are limited devices. If Citrix/Microsoft/VMware introduces a new, faster protocol or capability, often times a Thin Client has no upgrade path. At the very least, you wait until the Thin Client vendor adds support. Nearly every PC inherently has these capabilities – and the vendors introduce "the windows version" first. Another significant concern is that most Thin Client vendors require proprietary software for managing and deploying devices. Deploying and managing a Thin Client can be far different than deploying and managing a PC. Nearly every company has existing knowledge, experience and tools to manage their Windows environment – not so when it comes to thin client devices.

In addition, the capital cost of a Thin Client is typically equal to a PC and often times more expensive. Thin Client limitations are significant enough to warrant serious examination light of both current and future needs.

The Best of Both Worlds

In the best of both worlds, organizations would be able to take an existing (and future) PC and easily turn it into a device that includes advantages of a Thin Client. Some advantages are:

> A PC that becomes a "Thin Client" has the advantages of security, simplicity, affordability, and rapid deployment. The PC advantage is the ability to uses existing PC management tools and to easily change the device into a "Thin Client".
>
> A PC that becomes a Thin Client has the PC advantages of the most current client functionality, local driver support and centrally managed updates and virus protection (if even needed) - all with existing tools.
>
> IT support costs of managing the PC are reduced dramatically. Separating the user from the local applications, operating system, data and desktop dramatically reduces help desk and service requests.

A common user experience is created. All devices have the same look, feel and user interaction – regardless of hardware type or vendor.

The Elephant in the Room- VDA Licensing Costs

Microsoft customers who have Software Assurance (SA) on their PCs are eligible to connect to virtual machines in the data center. Thin Clients, however, always require a VDA subscription. It doesn't matter if the Thin Client has a Linux OS, or a Microsoft OS. VDA subscription is required at the (list price) cost of $100.00 per user per year. Typically it is a 3 year term, paid annually.

Looking at a deployment of 100 Thin Clients for 3 years, the (minimum) costs are as follow: $400.00 for the Thin Client, $300.00 for the 3 years of VDA subscription X 100 users or $70,000.00 over 3 years.

Looking at the same deployment with a new Ultra-Mini PC with a full Microsoft OS purchased (Professional/ Business, Enterprise or Ultimate) and SA, the costs would be ~ $500.00 for the device and SA, with no additional cost for VDA, times 100 users or $50,000.00.

A way to save even more money is to extend the life of the current PC, and only replace it when it breaks or becomes unreliable. In this case, the average cost of Thin Desktop, including 3 years of maintenance, is $57.00, times 100 users or $5,700. The Thin Desktop software maintenance cost includes the right to transfer the Thin Desktop license from the old device to the new device. Of course, at some point new hardware will be purchased to replace the old PC, but the capital expenditure moves down the road – and hardware vendor independence - can lead to even lower costs when it comes time to replace existing devices.

What is Thin Desktop®?

Thin Desktop is an **application** that installs and runs on a PC. It turns a PC into a secure, easily managed "Thin Client" device. It launches and monitors an executable or connection to your virtualized desktops or applications. It is packaged as typical .msi file, which means deployment and management is exactly the same as deploying any application to a PC.

The application works on any PC running XP, Vista, Windows 7, and Windows 8. It also runs on the embedded OS's XPE and WES 7 and 8. An application or connection of your choosing becomes the interface to the end user. In many cases, the ICA, RDP, or View client is that application / connection. Thin Desktop launches and monitor the executable

or connection. So in the case of ICA, the ICA client becomes the shell and the user does not see the desktop at all. This eliminates the ability for the end user to make any local changes or run any applications the System Administrator does not allow. This is done easily; the application is deployed with the same tools the Administrator already uses.

Thin Desktop can also run and monitor a local application - a browser, a specific mission critical application, or a terminal emulation application that connects to a mainframe or some other host. The application becomes the shell, the sole interface and access point to the computing infrastructure. Without any available distractions, users focus on the task at hand.

Thin Desktop extends the life of a PC in an environment where server based computing or virtualized desktops are deployed for their many advantages. This could be a VMware Desktop virtualization environment, a Citrix environment, or a Microsoft Terminal Services environment. It also improves productivity by reducing or eliminating non work related computer usage. The Thin Desktop application is easily deployed to, or removed from, a PC or Thin Client hardware device with existing deployment and management tools.

Conclusion

Thin Desktop is the most convenient, effective and least expensive way to implement your desktop or application virtualization plan. Whether you choose Citrix, Microsoft VMware or a similar solution, Thin Desktop allows you to use your client end point devices without the need for expensive hardware and software upgrades.

There are 3 key advantages of Thin Desktop over the purchase of a Thin Client:

1. Decrease upfront cost by 90% versus the cost of a Thin Client.
2. Lower Microsoft licensing costs (VDA) when compared to a Thin Client, Zero or a Linux based PC.
3. Use existing desktop management tools and skill sets to deploy and manage Thin Desktop; decreasing the time to test and implement a project, lowering overall project costs and time to deploy the desktop device.

For additional information, visit us at www.thinlaunch.com

Your feedback and suggestions are welcome.