

# DEMYSTIFYING DESKTOP VIRTUALISATION



Desktop virtualisation offers several business benefits such as lower cost of ownership and ease of management, but challenges in implementation remain

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There is a lot of hype around desktop virtualisation, which is also referred to as 'Hosted Virtual Desktop'. One common virtualisation goal is to improve the way in which IT manages and optimizes its resources. This may take the form of improved service level, increased peak capacity, reduced configuration costs, and reduced operating expenses. One or more of these goals is often achievable through desk-

top virtualisation if designed and implemented in the right manner. Perceived virtualisation savings may also take the form of reducing the amount of hardware that IT purchases or manages. Although there may be some concerns about the upfront investment on the hardware and storage, there is little doubt that desktop virtualisation has value and is here to stay.

Virtualisation at the desktop level promises many desirable attributes such as centralization, better management, improved security, lower operational costs, and remote and branch access that are difficult to achieve in traditional PC environments.

One of the prime drivers of desktop virtualisation is that the cost of managing PCs continues to rise, dwarfing the cost of acquisition easily by 2 to 1. According to IDC, the costs associated with managing PCs could be well over \$1,000 per PC per year and there are 1.2 billion PCs world-

wide, of which 50% come from enterprises.

Businesses want technology solutions and infrastructure strategies that contribute to IT optimization, lower TCO, increase in the ROI, ease of use, and empower greater productivity of staff. Desktop virtualisation can also contribute to the green IT adoption, as the virtualised desktop helps a firm to stretch the hardware for more like five or six years, rather than the standard three-year PC refresh cycle.

In this context, the market for virtualisation has huge potential, with Microsoft, Citrix and VMware competing for the major market share along with few other players such as VERDE, Redhat, Novell SUSE, Oracle and Parallels. Unfortunately, most of the customers who get impressed by desktop virtualisation end up holding off because of the upfront hardware costs and expensive licenses.

Another factor hindering the wider adoption of virtualisation is the sheer number of varieties it comes in - even the vendors get confused.

## Desktop virtualisation readiness

A typical desktop virtualisation implementation requires the following three major components: server virtualisation software to host desktop images, broker software to connect users with their desktop environment; tools for managing the provisioning of virtual desktops and images.

Moving from the physical server world to a virtual infrastructure requires adherence to industry best practices for virtualisation. Best practices include activities and procedures that create outstanding results in a given situation. These practices can then be efficiently and effectively

adapted to other situations.

Desktop virtualisation is a major infrastructure overhaul that can lead to resistance from users and the business if performance levels suffer because of mistakes at the design and implementation stages. Therefore, an organisation needs to pay attention to hardware compatibility lists. When deploying virtualisation technologies in a production environment, it needs to make sure that all host hardware is on the virtualisation software vendor's hardware compatibility list.

Users who need a lot of capacity on their local desktop or ones who often work offline are not ideal candidates for desktop virtualisation.

Most customers will begin their desktop virtualisation project by piloting Proof-Of-Concept (POC) implementations. These projects tend to be limited in scope, involving small subsets of users as a part of larger client-computing implementations. For these POCs, Microsoft, VERDE, VMware or Citrix's products will work effectively to carry out the evaluation well. It is advisable for firms to test and evaluate the products from the performance and ease of use perspective,

and to make a decision at the end of the POC cycle. The software vendor or the implementation provider of desktop virtualisation must offer all three necessary components in combination (server virtualisation platform, brokering software and session management layer, and management tools). Some may be brought in from third parties, but the vendor or solution provider must take responsibility for integration and implementation.

Factors that will influence the product choice include the number of users, users' locations, application type and performance requirements, and manageability requirements.

It's important to remember that an established relationship with a trusted channel partner or systems integrator should have weight in the decision process. The major desktop virtualisation software vendors are heavily dependent on their channel for delivering their product and implementation services. Furthermore, many channel partners are vendor-neutral and offer a solution which is priced and featured right for the business.

## Planning



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VIRTUALISATION AT THE DESKTOP LEVEL PROMISES MANY DESIRABLE ATTRIBUTES SUCH AS CENTRALIZATION, BETTER MANAGEMENT, IMPROVED SECURITY, LOWER OPERATIONAL COSTS, AND REMOTE AND BRANCH ACCESS THAT ARE DIFFICULT TO ACHIEVE IN TRADITIONAL PC ENVIRONMENTS.

Storage and network bandwidth management should be planned properly during the desktop virtualisation design and deployment. A lot of resources can be wasted if storage and network optimization is not done properly. For example, organisations looking to deploy across complex network configurations where guaranteed bandwidth is unknown and network latency is an issue tend to choose Citrix's XenDesktop because of the ICA protocol. Although VMware has partnered with other protocol vendors such as HP, Oracle/Sun, most customers deploying VMware's View do so by using RDP. If desktop virtualisation is part of a broader application delivery strategy that also involves server-based computing and applications streaming, then Citrix's XenApp could be a complimentary solution to XenDesktop. Adding more products to the mix adds complexity. However, specialized solution providers or systems integrators can help to address the application integration complexity issues during design and testing. ■

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