Parallels® Remote Application Server

Whitepaper

VDI – Why Is It Still Virtually Untapped?

Parallels

Introduction to the VDI Market

Cloud computing and virtualization technologies have undoubtedly brought about a revolution in the IT world in the past decade. With the increase in BYOD environments, a work-from-home culture and the drive for resource optimization, desktop virtualization and remote application delivery have been welcome solutions for modern businesses of all sizes – often being their first foray into cloud computing. IT analysts had predicted that 2012 would be the 'year of VDI' (virtual desktop infrastructure). The same forecast was made for 2013, and again for 2014. However, while desktop virtualization is perceived as a mature market, it is far from being so – VDI penetration is still less than 2% of all desktops worldwide. VDI has been touted as the short cut to cloud computing, so what has put a sea of traffic cones in the way?

Desktop virtualization trends

Despite all the discussions and predictions, it is surprising to discover that the penetration of desktop virtualization is not as extensive as expected. Most companies are not using VDI, and those that are use it for only a small part of their business.

According to DataCore's State of Virtualization survey in March 2013, the percentage of organizations that haven't implemented some desktop virtualization is 55%, while only 11% have virtualized up to a quarter of their desktops. According to Gartner, VDI penetration was around 1.5% before 2012 and this percentage is expected to grow to 8-15% by 2015. Clearly, these statistics highlight a major shortfall and potential in the market.

To reap the rewards of desktop virtualization, organizations need to understand how this technology works and the benefits it offers to businesses.

Benefits of desktop virtualization

Coupled with application virtualization and Windows user virtualization, desktop virtualization offers centralized desktop management. Each desktop is virtualized and offered in an isolated state, resulting in highly secure networks. Employees moving between work locations can access the same work environment, data and applications. If a user loses a device, he can easily connect to the server from another device as all components are readily available at login. All data are saved in the data center, so lost or stolen devices will have little effect on the organization's data integrity (assuming that they are secured correctly). Recovery from any disaster is easily achievable.

Potential barriers for desktop virtualization

With optimized resources, lower TCO (total cost of ownership) and highly scalable desktop solutions, desktop virtualization is a very attractive approach to IT. As we have seen, few organizations have implemented this technology widely, so what are the issues that are acting as potential barriers?

Cost / Return on investment (ROI)

It is commonly thought that desktop virtualization reduces infrastructure costs when compared to other network solutions. However, there are certain caveats attached. The costs saved on desktop hardware and infrastructure are balanced by the more expensive server infrastructure required, including storage and network solutions. The network must be always on, and graphically rich applications demand more bandwidth and low latency to provide a rich user experience – all of which adds to the infrastructure cost. The solution is to effectively plan the VDI environment so that more desktops are delivered and resources are optimized.

Uninterrupted network connection

Secondly, the VDI environment requires an always-on network connection. As desktops, application and data are delivered from a centralized server, any network issues deny access to company resources. For this reason, organizations have to provide highly reliable network solutions with contingencies for possible outages.

Complexity

Compared to an RDP (remote desktop protocol) network, a VDI deployment is a complex procedure. It has to be well-planned and effectively implemented. There are several aspects to consider, such as the components that are to be virtualized, the types of users that require virtualization, and the total ROI. Moreover, adequate bandwidth and low latency must be managed, based on the organization's network requirements.

How can these barriers be overcome effectively to improve ROI?

Looking at present desktop virtualization trends, many organizations are obviously unable to reap the full potential of desktop virtualization. However, it is important to understand that desktop virtualization is designed with a specific purpose: to deliver a rich user experience with an easy and scalable desktop management environment, and

to deliver medium/long term ROI.

Desktop virtualization adds value to businesses in a number of ways

ROI – the investment in server hardware for desktop virtualization results in a customized user experience and better (and more reliable) management of desktops from a centralized location.

Efficiency – administrators can deliver virtual applications to virtual machines (VMs) on the go.

Offline virtualization – running applications inside a VM means that you can securely access corporate information; additionally, you can work offline when the network connection is not available and synchronize later.

VDI with Parallels Remote Application Server

Parallels Remote Application Server (RAS) allows companies to test and experiment with the advantages of VDI. Parallels RAS allows you to deliver remote desktop and virtual desktop services to your network through the same console. One of the the reasons discouraging companies from fully embracing VDI is the initial cost, with CEOs and CIOs reluctant to trash previous investment to migrate to a new paradigm. With Parallels RAS you can easily implement VDI in specific areas of your business, as it is possible to rely on different hypervisors at the same time. For example, is possible to implement VDI side by side with remote desktops and virtual applications. IT administrators can migrate part of the infrastructure and perform stress testing on the network, with immediate gains in flexibility through the hybrid cloud infrastructure.

Parallels RAS easily delivers Windows applications hosted on hypervisors and Windows remote desktop servers to anyone anywhere, using any type of operating system, computer or mobile device. By hosting applications in the cloud, businesses benefit from reduced administrative overheads and less helpdesk support, with easy control over access to applications, and assurance that all users are using the latest and most secure versions of applications.

Conclusion

Not all desktop virtualization systems are equal. Likewise, storage solutions differ too. What works well for one organization cannot be assumed to be the ideal fit for a second. A comprehensive desktop virtualization plan would involve factors like IT requirements, infrastructure, user experience and application workload.

With the evolution of software delivery models, a company's CIO now has multiple options to choose from. Desktop virtualization is sure to yield good ROI in the long run, notwithstanding its cost and complexity. With proper planning, complexity can be replaced with ease of management and highly scalable, agile, and cost-effective virtualization solutions for businesses of all sizes – effectively clearing the road up ahead for your 21st century corporate network.