Cloud Client Computing Brings Desktop Virtualization to a New Level

CONTENTS

Today, technological advancements are making it easier for companies to use desktop virtualization in ways that were nearly impossible a few years ago. There's no doubt that the technology has been evolving rapidly, such that virtual desktop deployments of 10,000 or more end users are quickly becoming reality. From multinational corporations to small local businesses, from healthcare to education and government, desktop virtualization is offering end users an unrivaled computing experience, while providing IT with greater management and control.

Corporate leaders are recognizing the business benefits, too: greater cost control, improved data management, better security and increased end-user productivity, among others. Many of these leaders are ramping up adoption and have expressed confidence that in five years, a significant proportion of their end users will be working with virtualization at their desktops. Trends such as bring your own device (BYOD) are evidence that today's workforce wants anytime, anywhere access.

As desktop virtualization continues to evolve, it will account for an increasingly large footprint within desktop and mobile environments. Still, companies are looking for guidance on the best desktop virtualization approach and, in some cases, full implementation and hosting. Dell provides all of these services, offering long-term experience in helping a broad range of companies adopt the most effective desktop solutions.

TechTarget® Custom Media

DESKTOP VIRTUALIZATION TODAY

In the past, the complex terminology surrounding virtualization and virtual desktop infrastructure (VDI), in particular, has led to confusion among end users. Broadly, data center vitualization consists of running multiple operating systems and applications on the same server at the same time. Partitioning one physical server into several operating systems, or virtual machines, lets you simultaneously deploy, operate and manage multiple OS instances on a single physical server.

As an alternative to traditional desktop computing, desktop virtualization offers enormous expansion opportunities for accommodating increased numbers of applications and unique users. Dell offers a diverse range of desktop virtualization technologies that can meet your unique needs, end to end.

Many newer companies are hoping to capitalize on the growing VDI trend by offering virtual desktop products and technology components. By contrast, Dell's Cloud Client Computing solutions sets represent a long-standing commitment to desktop virtualization development, to providing customers with end-to-end solutions and to establishing an innovative standard for desktop virtualization technologies.

Dell's desktop virtualization solutions cover every aspect of computing, from the data center to the user device. Such offerings include on-premise infrastructure deployment, support services, software and cloud-based device management. They ensure that companies can achieve measurable gains in employee productivity while helping to reduce IT expenditures.

Dell's Cloud Client Computing encompasses five unique models for delivering alternative desktop solutions to end users:

1. **Application presentation:** Virtualize and stream applications from a central server to a user end point.

2. **OS presentation:** Provision an operating system from a shared server platform to a user end point.

3. **VDI:** Virtualize and place an OS on a server for remote connection to a user end point.

4. **Cloud PC:** Encapsulate an OS to stream across a LAN and run locally on a Dell Wyse user end point or end-user device using the client processor, memory, graphics and networking.

5. **Shared model:** Share the single instance of an OS in combination with a central server, such as Windows MultiPoint Server.

(Dell offers a complete set of cloud client computing end points for all users to support all use cases, including zero clients, thin clients, cloud PCs, tablets, laptops, desktops, and even workstations.)

These five delivery models offer organizations enormous flexibility in terms of meeting budgetary targets and providing an optimal end-user environment. Currently, VDI represents a compelling area of interest to customers, especially in regards to the extended benefits and capabilities that desktop virtualization offers.

Such benefits extend across an organization and include reduced power consumption, central desktop management and increased security, to name a few. The technology enables hosted desktop images to be presented to remote users via a thick/thin/zero client or through a mobile device functioning as a virtual desktop client. Each device solution provides a gateway for accessing critical back-end compute resources.

As desktop virtualization technology rapidly evolves, it presents infrastructure and architectural challenges to organizations looking to implement a solution. It stands to reason that before recommending a specific desktop virtualization solution, it's necessary to first understand the challenges that companies face. To that end, Dell has created an effective customer service methodology that helps customers meet those unique structural and productivity requirements.

AN UNPARALLELED SERVICE APPROACH

With Dell's broad portfolio of solutions, customers often need guidance to determine which virtualized solutions will help them achieve their goals. By understanding a customer's technical and business challenges and objectives, Dell's team of specialists work to make the migration to virtualized end-user computing a natural evolution.

For example, an organization's goal might be to increase the use of telecommuting to minimize operating expenses for the current work environment. Understanding current use cases, such as how workers employ technology to perform their tasks, is a critical component, providing valuable information as to the immediate challenges the customer faces.

Once the Dell team understands those critical pain points, it can recommend the optimal solution. For a company looking to increase telecommuting, Dell's broad array of software and hardware solutions offers unique, customizable approaches. In this case, instead of a full deployment that includes servers, storage and software to run a VDI architecture, the best alternative might be a simple application presentation delivery model.

Dell services extend to actual implementation and post-deployment needs. Dell's Cloud Client Computing service can run a customer's infrastructure or entire virtual ecosystem. For example, Dell offers a Desktop-as-a-Service option delivered on a per-month, per-seat basis, or it can host a customer's VDI or OS presentation environment.

Dell's desktop virtualization solutions not only improve user productivity, but also enhance IT infrastructure management capabilities. Consider the standard software or custom applications typically found on most workstations. There's no comparison between performing patch procedures via desktop virtualization versus physically administering updates to individual systems.

Customers can achieve reduce IT administrative costs plus the security and simplicity that comes from having data in one carefully guarded place.

MOBILITY AND DESKTOP VIRTUALIZATION

When it comes to desktop virtualization and mobile devices, more than one definition of "mobile user" can apply. In addition to a remote employee desiring desktop access from a fixed location, it can also describe other kinds of users, for example a healthcare worker.

A clinician on the go might require access to patient records from a patient's room, nurse's station or another remote location. Moreover, access might mean connecting into a session that provides custom applications. Increasingly, organizations are grappling with a diverse mobile user population and how to provide secure access related to BYOD.

As organizations consider how to incorporate the vast increase in corporate mobile device use, Dell offers the experience and capabilities to provide the most effective solution. For example, a company might assume a VDI deployment would be the best approach for providing applications to mobile users on multiple platforms, including BlackBerry, iOS and Windows.

However, instead of a VDI implementation, the most economical and effective solution might be an Application Presentation approach. Once Dell specialists understand the business issues, technical pain points and the customer objective, the team can ensure that the right solution is architected which will address customer expectations and offer an effective deployment based on best practices, enabling that company to reach its goal.

CONCLUSION

Desktop virtualization represents a significant innovation that is primed to meet the needs of a broad spectrum of users. Currently, businesses are adopting the technology faster than at any other time. That's because desktop virtualization has evolved to the point where it can deliver on the hype.

These advancements have made it feasible for companies to use desktop virtualization in ways that were never previously possible. From simple application access for thousands of employees to high-end graphics workstations, the experience of end users is the same or better than what they encounter with their traditional desktops.

Dell has consistently provided customers with a level of expertise and guidance that remains unmatched in the industry.

Dell can facilitate the move to a virtualized desktop environment and help your company achieve significant savings. It's easy to get started.

Visit http://www.dell.com/virtualclient for more information.