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Take Your Life Back With Tools That Maximize Desktop Virtualization from the Data Center to the Endpoint

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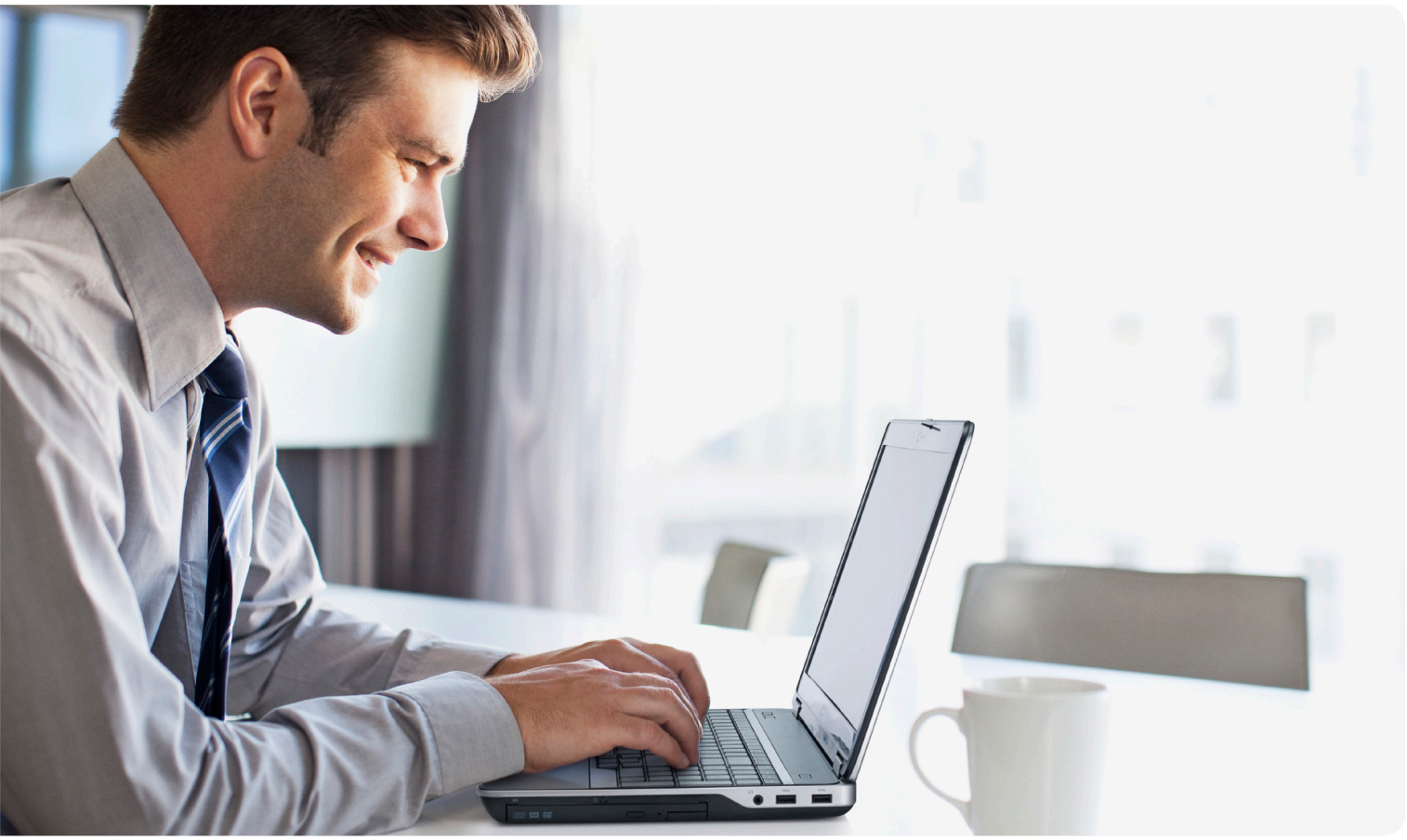

Users today not only carry an average of three connected/internet-enabled devices; they also expect that they can use them all to stay connected with their business, causing IT managers to jump through hoops to maintain security across sensitive data and apps. Desktop virtualization can help IT departments mitigate risk and regain control of enterprise data and network access.

Desktop virtualization technology, now available in a more accessible and affordable "appliance" form factor, allows you to save time, money and energy, while also enabling secure bring-your-own-device (BYOD) initiatives. With centralized management and control, your IT team can accelerate many maintenance tasks and focus on more strategic projects.

Of course, to get the most from your investment, you need solutions that automate the incremental steps of provisioning,

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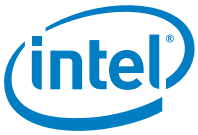

> "With the centralized management and control that comes from desktop virtualization, your IT team can accelerate many maintenance tasks and focus on more strategic projects."

managing and scaling your desktop virtualization solution. You also need management tools that can monitor your users' experience and provide early alerts so potential problems can be remediated before they impact productivity. In short, you need an approach that lets you seamlessly and elegantly control the entire data stream from end to end.

This article examines the opportunities that exist for IT departments to maximize the value of virtual desktops. Dell's newest appliance-based offerings include tools and technologies that simplify, accelerate and optimize every aspect of desktop virtualization management, including architecting the initial infrastructure with affordable, small-footprint converged Dell PowerEdge 13G servers, powered by Intel® Xeon® processors. The article also discusses how centralized control of the virtual desktop infrastructure allows you to "Take Your Life Back" by streamlining or minimizing the effort historically required to manage diverse endpoints, patch software, update anti-virus definitions, replace hard drives and conduct other hardware repairs.

Simplifying back-end deployment and management

A successful desktop virtualization deployment starts with a robust back-end infrastructure. Centralizing control of user desktops inherently places more demands on data center resources—servers, storage and networking—necessitating a purpose-built architecture. To fully leverage the technology, IT has to ensure that the data center can meet the performance, capacity and scalability requirements needed to deliver a great virtual desktop user experience. Here are some of the primary infrastructure models and tools that can help you "Take Your Life Back" by simplifying deployment and control of your back-end desktop virtualization infrastructure.

Converged infrastructures

In the context of desktop virtualization, "convergence" involves combining two or more separate IT elements within a unified platform that simplifies the deployment and management of the combined elements. Converged infrastructures can be deployed as certified reference architectures that are custom tailored to meet the specific requirements of your desktop virtualization deployment or in a modular and easily scalable "appliance" form factor.

These purpose-built appliances are much more tightly integrated in that the components are pre-integrated, with virtualization software often included as well. Tightly integrated appliances make it faster and easier to build desktop virtualization infrastructures because they are basically "plug-and-play," with fast and simple procurement and deployment. These qualities not only accelerate initial deployments, they make scaling fast and simple as well.

Examples of platforms for desktop virtualization include:

Custom desktop virtualization: Dell reference architectures such as Wyse Datacenter for Citrix XenDesktop provide tested and certified models that can be tailored for your specific environment and use case. By using templates and deployment scripts, you can specify and deploy Citrix XenDesktop and Dell infrastructure far more rapidly than with other solutions. Dell's solution reference architectures can support 50 to 50,000 users in

a virtual desktop environment that incorporates Dell's latest compute, storage and networking infrastructure.

Easy desktop virtualization: Purpose-built appliances enable you to assert greater control by accelerating many of the tasks typically involved in specifying and deploying a backend infrastructure. With a purpose-built rack- or tower-based appliance, you minimize procurement efforts while saving steps in integration and scaling. You can also take advantage of a unified management platform that makes it easier to manage, optimize and orchestrate across server, storage and networking resources. Citrix XenDesktop adds the ability to deliver a superior user experience along with ease of management of the virtual desktop environment.
Additionally, purpose-built appliances can be used to accelerate and simplify any type of deployment. For remote and small offices, Dell offers solutions such as the PowerEdge VRTX, a stand-alone and compact hyper-converged tower server powered by Intel® Xeon® processors. Another tightly integrated solution, the new Dell Appliance for Wyse - Citrix, is designed specifically to meet the needs of organizations implementing Citrix XenDesktop for up to 350 users in shared sessions, and includes Dell-designed wizards that greatly simplify and speed deployment.

For larger deployments and/or deployments that might require a broader range of options for components, Dell provides higher-tier solutions such as the Dell XC Web-Scale Converged Appliance for VDI. This offering, powered by Intel® Xeon® processors and Nutanix software-defined storage technology, can be ordered in prescriptive configurations for virtually any use case and any type of user.

Management platforms and tools
Unified management platforms and tools simplify many of the manual tasks typically involved in provisioning infrastructure resources. Some examples include:

Dell OpenManage, which helps IT control infrastructure management with features such as intelligent, agent-free embedded management; template-based deployment and configuration processes; automated policy-based operations and scheduling, and integration with third-party management solutions.

Dell Active System Manager, which takes a top-down and service-centric approach to IT automation, using standardized processes with template-based provisioning and orchestration.

Dell KACE K1000 Management Appliance, which helps IT take greater control over managing software inventory and endpoints with functions such as automated inventory and asset management processes, including asset data audit, tracking, compliance and reconciliation.

Foglight, software that delivers performance monitoring and diagnosis tools that enable IT to avoid bottlenecks in delivering virtual desktops.

Simplifying endpoint management and deployment
As we have mentioned, managing a diverse population of legacy endpoints has traditionally been a major challenge

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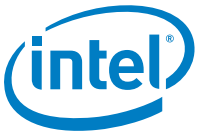

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for IT organizations. The challenges are exacerbated in an era of enhanced mobility, BYOD and security threats that target users directly, often through e-mail attachments or hitching a ride on USB-enabled devices.

By using cloud client-computing tools and platforms that centralize control of endpoints, you can reduce complexity by having users share a single OS image. This will allow you to improve productivity by reducing downtime that results from the regular cycle of endpoint management and repair. Here are some of the leading endpoint solutions and tools that enable you to "Take Your Life Back" by simplifying control of your users' access devices and without the need for a rip-and-replace of your existing data center.

Wyse Clients Using Wyse ThinOS: Thin and zero clients enable IT departments to maximize control of their desktop populations by centralizing data, applications and operating systems within the data center. Thin clients running Wyse ThinOS locally centralize and simplify security management because they are completely virus-immune and don't include a published API, a local file system, browser, libraries, extensions or add-ons.

Wyse clients using ThinOS are assigned to a specific technology, such as Citrix HDX. Organizations needing more flexibility, such as the use of an Internet browser on the endpoint, can use thin clients running Windows Embedded Standard, such as the Intel-based Wyse 3290 thin client, which features an innovative dual core processor, a small physical footprint, energy efficiencies and flexibility through support of a wide range of I/O and networking options.

Dell Wyse Device Manager is a management platform for all Dell Wyse thin and zero clients. With Wyse Device Manager the IT team can eliminate the need for desktop visits by taking advantage of several flexible features: complete device imaging/patching/updates; device health status and reporting; automated discovery; HTTPS-based imaging and updates for enhanced security, and detailed hardware asset information.

Dell Wyse Configuration Manager provides a self-configuring client technology for Windows Embedded virtual desktop environments in a stand-alone application and service. IT can create a configuration from a stand-alone GUI or an already configured device. With a defined gold image, IT can simplify and reduce the costs of provisioning and maintaining Dell Wyse thin clients with Windows Embedded Standard.

Wyse Cloud Client Manager is a cloud-based solution that allows you to securely manage thin clients, mobile devices and employee access to corporate applications and content from a single console. IT can increase control by monitoring user devices, enforcing policy compliance, tracking assets and tracking application inventory. The solution also offers real-time alerts, troubleshooting and audit trails.

Intel Active Management Technology: The use of endpoints running on Intel® processors with vPRO/iAMT (Intel® Active Management Technology) allows for out-of-band management. This means that IT can remotely discover/access those endpoints to make patches and upgrades—even if the endpoint is completely shut down. Intel® Core™ vPro™ processor/iAMT comes mostly

with desktop PCs and it can also work with laptops.

Conclusion

The ability to centralize control of user desktops is one of the most compelling benefits of desktop virtualization. IT can be more efficient in its use of time, talent and resources, while delivering a seamless, satisfying experience to any user within your organization. To maximize the value of centralized control and "Take Your Life Back," it is important to utilize the right management platforms and tools. The best solutions allow your teams to leverage increased automation and convergence from the back-end infrastructure to the endpoint. The commitment to innovation and compelling technologies from market leaders Dell, Citrix and Intel® is making it possible and giving you more choice and control.

For more information, please visit www.dell.com/wyse or contact us.

Here's where to get started.

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Work getting in the way of life? Tired of wasting time on inflexible desktop management systems? There's a better way. Join best-selling author and VDI visionary Brian Madden on a journey to streamlined, secure and cost-effective management of your cloud client-computing environment. It's time to Take Your Life Back.

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"With desktop virtualization, IT can be more efficient in its use of time, talent and resources, while delivering a seamless, satisfying experience to any user within your organization."