

### The Challenge

**Integrated Solution Stack** 

**Delivery Models** 

Virtualization Roadmap Methodology

**Benefits** 

Summary

# The Challenge

Enterprises of all sizes are poised to explore alternatives to traditional end user computing. Many are reevaluating how their IT groups provision, manage, and support their workforce. IT administrators need ways to boost user mobility and work flexibility while also helping to tighten enterprise security, simplify management, and reduce the overall cost of owning and operating client systems. Dell<sup>TM</sup> Desktop Virtualization Solutions (DVS) are a cost-efficient way to enhance security, streamline management, and boost user productivity.

IT departments are facing an array of challenges, including:

**Mobile Workers**—Mobile workers need predictable and complete access to their work applications, tools, and data from outside the office.

**Explosion in Devices**—IT is also dealing with an explosion in numbers and types of devices being used by employees. For instance, many organizations are feeling pressure from their employees to enable connecting tablets to corporate networks and resources.

**Need to Simplify Desktop Management**—Managing a complex desktop environment is costly, and pulls administrators away from strategic projects. IT desires to streamline desktop support operations, manage more users with more diverse needs, while reducing costs for key tasks, including provisioning desktops, deployment of updates, patches, and upgrades.

**Increasing Security Concerns**—No enterprise wants their name in the news because of a security breach. Employee mobility, the explosion in devices, and consumerization all introduce risk and exposure for your company.

**Consumerization**—Employees now expect organizations to allow the use of personal devices, like smartphones and home computers, to access work resources.

**Implementation Complexity**—Desktop virtualization is inherently complex requiring orchestration of multiple inter-connected components spanning all traditional IT domains including; servers, storage, networks, enterprise software, management, hypervisors, connection brokers, and client devices. Designing and deploying a desktop virtualization solution can be a daunting task, especially when considering resources, budgets, and ROI.





The Challenge

**Integrated Solution Stack** 

**Delivery Models** 

Virtualization Roadmap Methodology

**Benefits** 

Summary

# **Dell Integrated Solution Stack**

#### Accelerate your time to value

DVS Enterprise enables desktop virtualization from pilots to full scale deployments as a complete datacenter solution inclusive of all hardware, software and services to deliver operating environment, applications and data to most Internet-connected computing devices in a cost-effective and predictable way – improving employee productivity, while reducing IT management complexity. The Integrated Solution Stack (ISS) is designed to accelerate the adoption of end user computing so businesses can adapt to the changing dynamics of a virtual workforce – more mobile, more global, and more technologically savvy. DVS Enterprise includes the Integrated Solution Stack\*, Dell ProSupport services, and strong partnerships with world-class software vendors:

- Dell PowerEdge<sup>™</sup> servers offer the processing performance, memory capacity, and reliability to host the virtualization software environment. Dell PowerEdge 12G servers (R720 and M620) deliver up to 80% more basic users per server than 11G servers (R710 and M610).
- Dell EqualLogic<sup>™</sup> PS Series Internet SCSI (iSCSI) storage area network (SAN) arrays provide an easy-to manage storage solution with seamless, non-disruptive scalability and enterprise-class performance and reliability to support virtual desktop environments.
- Dell PowerConnect or Dell Force10 (optional) dedicated network switching with monitoring capabilities.
- Dell also leverages its strong partnership with world-class software vendors such as Citrix, Microsoft and VMware to offer an open, capable and affordable desktop virtualization experience.
- Dell ProSupport™ services provide access to highly trained experts 24x7x365 to help resolve issues quickly and effectively.
- Portfolio of Dell Wyse thin/zero clients or Dell PCs



# **Servers**Dell PowerEdge

#### **ToR Network Switches**

Dell PowerConnect\*
Dell Force10 (optional)

Storage
Dell EqualLogic\*

## **Virtualization Software**

Citrix XenDesktop & VMware View

# **Hypervisor** VMware Sphere

vi iware opriere

# **Optional Dell Services**

Dell ProSupport,
Deployment Services
Blueprint Assessment Services

### **End Point**

Dell Wyse thin/zero clients

 $<sup>{\</sup>color{blue}^*} \ \text{Dell hardware recommended for optimal performance. Non-Dell hardware must meet minimum technical specifications.}$ 



The Challenge

Integrated Solution Stack

#### **Delivery Models**

Virtualization Roadmap Methodology

Benefits

Summary

## **Dell Delivery Models**

# Flexible Delivery Models for a faster time to value

Dell offers a complete spectrum of virtual desktop service delivery models including a subscription-based, cloud delivered offer — Desktop-as-a-Service, hosted and managed offerings, customer purchase and build (custom) option. All models include world-class Dell ProSupport to drive down costs and simplify implementation complexity.

**Desktop-as-a-Service**—Dell provides fully-managed virtual desktops hosted from the Dell Cloud with Service Level Agreements (SLA) for availability and ongoing operations. Minimum configuration requirements may apply.

# Managed Services—Dell implements, operates and remotely manages the customer owned Integrated Solution Stack located in either a Dell data center or on the your premises. This is a

**Customer Managed**—Dell deploys the Integrated Solution Stack at your location, and turns over all management of operations, monitoring and incident resolution to you after the deployment is completed.

monthly billed, subscription based offering.

Solution delivery models that best meet your unique needs & goals

Desktopas-a-Service

Dell Cloud

Managed Service

Integrated Solution Stack Customer Managed

Integrated Solution
Stack

Custom

#### **Dell Manages**

- Dell provides fully-managed vitual desktops hosted from the Dell Cloud
- Service Level
   Agreements (SLA)
   for availability and
   ongoing operation
- Dell for final design, configuration and implementation
- You own the ISS
- Dell provides ongoing solution management via Managed Service
- Your site or Dell data center

- Dell Services for final design, configuration and implementation
- You own and manage the ISS
- Dell Services provides Dell ProSupport

   solution level
   1-800 support
- Dell hardware and software components such as servers, storage

and network

You Manage

- Dell to design or modify reference architecture
- Optional Dell Services to build and/or implement



The Challenge

**Integrated Solution Stack** 

#### **Delivery Models**

Virtualization Roadmap Methodology

Benefits

Summary

# **Delivery Models**

**Custom**—You purchase Dell hardware, software, and/or services, such as design and implementation, and the solution is implemented within your data center. You have the opportunity to take advantage of best practices documented in Dell validated reference architectures or leverage Dell consultants to create a custom architecture.

#### **Dell Delivers Results**

The various delivery models allow the shifting of IT investments from capital expenditures (CAPEX) to operational expenditures (OPEX). Dell DVS Enterprise brings enterprise computing to most internet connected computing devices in a cost-effective and predictable way – improving employee productivity, while reducing IT management complexity. Dell offers open, capable and affordable solution delivery models including Desktop-as-a-Service, remote managed and custom solutions designed to ease implementation complexities and address each organization's unique business, user, and IT requirements.

Solution delivery models that best meet your unique needs & goals

Desktopas-a-Service

Dell Cloud

Managed Service

Integrated Solution Stack Customer Managed

Integrated Solution Stack Custom

### **Dell Manages**

- Dell provides fully-managed vitual desktops hosted from the Dell Cloud
- Service Level
   Agreements (SLA)
   for availability and
   ongoing operation
- Dell for final design, configuration and implementation
- You own the ISS
- Dell provides ongoing solution management via Managed Service
- Your site or Dell data center

- Dell Services for final design, configuration and implementation
- You own and manage the ISS
- Dell Services provides Dell ProSupport

   solution level
   1-800 support

- You Manage
- Dell hardware and software components such as servers, storage and network
- Dell to design or modify reference architecture
- Optional Dell Services to build and/or implement



The Challenge

Integrated Solution Stack

**Delivery Models** 

Virtualization Roadmap Methodology

**Benefits** 

Summary

# **Virtualization Roadmap Methodology**

## Best fit solution with our virtualization roadmap methodology

Dell can help you find the right solution for your workforce and business— whether it involves a virtual desktop or a more traditional environment. Dell consultants work to understand your organization's challenges, specific use cases, and goals. Dell DVS Enterprise provides end-to-end services—from feasibility assessments to design and implementation to operational management and support.

Feasibility—In the first step of the engagement you work with Dell consultants to determine if desktop virtualization is right for you.

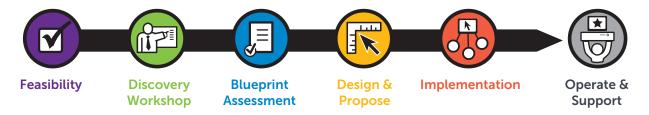
**Discovery Workshop**—The Discovery Workshop is usually conducted in two 4-hour sessions. The intent is two-fold: 1) to gather data about your existing infrastructure and architecture, geographies, and user profiles so that you will have a clear understanding of your environment as it exists today, as well as document the future environment that will achieve your short and long-term IT and business objectives, and 2) to introduce Dell's Economic Impact Assessment (EIA) tool to help you establish a preliminary Desktop Virtualization business case.

**Blueprint Assessment**—The Blueprint Assessment captures a "digital footprint" detailing current computing resource consumption of users and endpoint devices. It also categorizes users according to recommended parameters suggested by requirements identified in the Discovery Workshop. Additionally, "used application inventory" is recorded separately from "installed," creating the opportunity to optimize licensing requirements and determine the impact of latency as observed for each application.

**Design & Propose**—This phase identifies the hardware, software, storage, and services components necessary to implement a desktop virtualization solution for you. Deliverables include pilot validation criteria, rollout plan, cloud or ISS design, implementation plan, final price, and SOWs.

**Implementation**—Dell provides a minimally disruptive implementation with the best potential to improve end-user application performance. Implementation covers everything from infrastructure requirements, build, and configuration to application sequencing, image creation, desktop provisioning, and user migration schedules and timescales.

**Operate & Support**—Dell can assume operations or "install and transfer" operations to your staff, as desired. Either way, we will support you with Dell ProSupport services.





The Challenge

**Integrated Solution Stack** 

**Delivery Models** 

Virtualization Roadmap Methodology

**Benefits** 

**Summary** 

## **Benefits**

## Improved manageability

By relocating the OS, applications, and user settings from client systems to the data center, desktop virtualization helps centralize desktop management. Administrators can avoid time-consuming desk-side support visits to resolve software-related issues—fixes, updates, and patches can instead be implemented from the data center.

## Ease of deployment

Dell DVS Enterprise is pre-configured and pre-tested for faster time to value by enabling organizations to establish a desktop virtualization presence with enterprise level performance in a matter of days for as few as 50 users without major investment or workflow disruption. Dell provides increased flexibility by leveraging customers' investments in Dell and non-Dell network and storage components (must meet minimum technical specifications). Designed to address design and implementation complexities and accelerate the adoption of desktop virtualization, Dell DVS Enterprise brings unique value to our customers with multiple service delivery options and by combining our integrated and validated solution stack with an implementation methodology to guide customers through a clear, proven path to making the right business decision for adopting desktop virtualization.

## Scalability

Dell DVS Enterprise scales seamlessly to help reduce the future cost of ownership of the infrastructure from a limited pilot program with as few as 50 users up to full scale deployment across a global organization of thousands of users. IT groups can plan for the needs of the organization for today and for tomorrow.





The Challenge

**Integrated Solution Stack** 

**Delivery Models** 

Virtualization Roadmap Methodology

**Benefits** 

**Summary** 

## **Benefits**

## Better security

Dell DVS Enterprise helps improve desktop security by enabling IT staff to ensure that critical data—including e-mail messages and documents—does not leave the secure data center. Because employees can access the same virtual desktop and applications from virtually any computer, they no longer need to store data on their laptops or use memory sticks, e-mail, or optical media to transfer files from one computer to another. Desktop virtualization also brings the additional benefit of a centralized back-up system.

To provide additional security, administrators can set policies that make access conditional on location or network type. Administrators can also allow employees to access their desktop environments when they are outside the office, but restrict access to the most sensitive data to office use only. When an employee leaves the company, access privileges can be removed immediately, leaving no data exposed.

## User empowerment and productivity

By giving employees the flexibility to access their desktop applications and data from virtually any device, employees can be more productive with fewer technology related work interruptions. Because the desktop environment is managed centrally, IT groups do not have to worry about supporting a myriad of hardware-dependent images. Additionally, when one system requires repair, employees can quickly move to another without needing to restore data and configurations.





The Challenge

**Integrated Solution Stack** 

**Delivery Models** 

Virtualization Roadmap Methodology

**Benefits** 

**Summary** 

# Summary

Dell's simple, reliable, and complete solutions are designed to accelerate the adoption of desktop virtualization so businesses can adapt to the changing dynamics of a virtual workforce – more mobile, more global, and more technologically savvy. Dell DVS Enterprise enables organizations to deliver operating environments, applications and data to most Internet-connected computing devices in a cost-effective and predictable way – improving employee productivity, while reducing IT management complexity.

Delivering value through the application of a reliable and predictable process to guide customers on a clear path to success is our goal. Dell DVS Enterprise simplifies simplify the complex and is focused on helping you meet your business objectives by analyzing the total economic impact of dramatically changing the way you manage desktops and support users. The benefits are increased business agility, enhanced user experience and productivity, and reduced operational costs.

Ready for the next step? To get started, contact your Dell representative today to discuss our simple, reliable and complete Dell DVS Enterprise solution.

For more information, please visit dell.com/desktopvirtualization

