Virtual Desktop e-VALUE-ation Guide

Evaluating Desktop Virtualization Solutions?
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Desktop Virtualization makes perfect sense. Companies of all sizes are looking for ways to centralize and simplify IT management, support multiple employee devices with consistency, increase security of data and applications, and take advantage of the economic benefits that come with Cloud computing.

Desktop virtualization is a good idea. But how do you know what kind of virtual desktop solution is a good idea for your organization? And who is the right partner to meet your goals?

In situations like this, many companies immediately jump on board with the largest or most well known providers in the space. Well-known brands such as VMware and Citrix both have vast histories and large client bases who rely on them for virtualization. You may not realize, however, that neither of these companies has a solution that was purpose-built for the virtual desktop.
The Challenge of Desktop Virtualization

Many companies offer technologies that were built for terminal services or server virtualization, but can be customized or altered to work on the virtual desktop. From VMware’s strong image management tools and storage capacity optimizations to Citrix’s powerful remote display protocol, the pieces of the desktop virtualization pie exist. Even Microsoft offers application streaming and remote desktop technology, but it is focused primarily on extending the Windows platform.

The challenge lies in the fact that all of these technologies must be integrated and navigated to create a customized desktop virtualization solution. And the result – a cobbled together combination of approaches and tools – leads to a notion that desktop virtualization is expensive, complex, and only reasonable to embark on in certain limited implementation scenarios. Thankfully, this conclusion could not be farther from the truth.

The Virtual Bridges Difference

Virtual Bridges envisioned, developed and continues to update its VERDE solution with all the core components necessary for the virtual desktop – and nothing else to bulk up price or slow it down. As an all-in-one, light-weight solution, VERDE focuses on the all-important hypervisor, but also includes connection brokering, desktop image management, automated provisioning and management – with each element tightly integrated, simplified, and custom-made for desktop virtualization.

*Virtual Bridges supports the way your company works today.* Private or public clouds, on premises or hosted, client, or branch server – VERDE offers a desktop virtualization approach that maps directly to your environment. The VERDE
solution is flexible, scalable and high performing, delivering access to end-users wherever they may be located.

**Virtual Bridges is half the cost** of other vendors, without compromising on value. Desktop virtualization is an investment that eases management challenges today, but it can also future-proof your environment for the long term. Contrary to popular belief, even if you are investing for the long term, desktop virtualization does not have to empty the bank. As an all in one solution, VERDE reduces your total cost of ownership across the board, from storage to hardware, software and licenses.

**Virtual Bridges removes the complexity.** The desktop environment is complicated enough. Unlike other solutions that have limited scalability, proprietary interfaces and low server densities that continuously drive up costs, Virtual Bridges offers one complete solution that can be installed in hours (instead of days or weeks), allowing you to get your desktop in order right away.

**Virtual Bridges provides the coverage you need.** Desktop virtualization is only as good as its reach. Integrated online, offline and branch support means end users gain consistent, high quality access to the applications and data they need, regardless of location. In addition, Virtual Bridges makes scaling easy, which will support your organization’s growth over the long term.

**Virtual Bridges has been validated.** When it comes to the virtual desktop, it’s hard to know what to believe and how to compare. External validation must be earned, which is why Virtual Bridges is proud to have been endorsed by industry leaders such as IBM and Compucom. In fact, IBM’s Virtual Desktop for Smart Business solution is powered by Virtual Bridges.
Virtual Bridges = Value

Virtual Bridges does not simply strive to do more or cost less – we’ve built the VERDE solution to do both at the same time.

By delivering a comprehensive solution instead of technologies that can be custom fit to do the job, VERDE:

• Reduces CAPEX by extending the life of desktops, supporting thin clients, and limiting software license and storage costs.

3rd Party Comparison Summary

- Comprehensive study for End User Computing Services to compare costs for a 1000 seats
  - Citrix
  - Citrix with VMWare
  - VMWare
  - Virtual Bridges
- Capex and 5-year Opex for a fully managed virtual desktop offering (hardware, software, services)
• **Adapts to business growth** by scaling from 1 to 100,000 desktops and providing pre-set use cases that support a range of user scenarios.

• **Ensures consistent policies and reduces risk** with integrated policy and patch management that spans physical and virtual endpoints.

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**Introducing VERDE**

VERDE was designed from the ground up to eliminate the stigma surrounding early desktop virtualization solutions: high cost, complexity and lack of coverage. Through core architectural and technology differentiators, VERDE has become the gold standard for the virtual desktop.

VERDE offers a powerful hypervisor for virtualization in a fully integrated platform that includes connection brokering, desktop image management, automated provisioning, and management. Its architecture was **built to scale and automatically load balance**. VERDE serves virtual desktop images to authorized users from the least-loaded node via a fully-distributed, policy-based connection broker. There are no single points of failure, and scale-up or scale-out are as simple as adding additional nodes to the cluster.

Whereas competitive solutions require expensive third-party tools and/or complex configurations to store and create large numbers of personalized desktops, **VERDE builds a fully personalized desktop for each Linux or Windows user**, on demand and as requested without increasing storage capacity requirements.

Most solutions also require a heavy investment in expensive shared storage. VERDE keeps capacity requirements in check, and with patent-pending technology dramatically reduces the IOPS driven to the storage platform as well, whether DAS, NAS, or SAN.
For those looking to simplify virtual desktop management, **VERDE offers a single-pane window** into all provisioning and maintenance activities. One console, built on the open-source Linux-based KVM hypervisor, VERDE provides **flexibility for both Linux and Windows desktops, as well as visibility across online, offline and branch.**

Because VERDE was designed for the way we work today, it offers the **best remote display protocol for a rich PC experience** for any location, based on the user’s current connection and the type of desktop they require. It works with PCs, Macs, thin clients, netbooks, tablets, and PDAs.

Finally, VERDE is packaged in an all-inclusive pricing model, designed to **lower the costs of deployment both on premise and in a public cloud.**
Set Up for Success

Virtual Bridges has developed its Desktop Transformation Methodology so that any business using VERDE is set up for success. By including all necessary components and driving down total cost of ownership, we’ve created a long list of satisfied and successful clients.

Virtual Bridges also offers a broad range of additional services that increase VERDE’s effectiveness throughout the lifecycle of a deployment. They include:

**VDI Assessment Workshop**

This Virtual Bridges offering helps clients understand the business drivers, and ultimately determine the business value proposition of moving to the virtual desktop. In this workshop, you’ll identify your own key requirements and assess whether they are a good fit for desktop virtualization. You’ll also identify

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**Purpose Built for the Desktop, VERDE offers:**

- **Maximum Value** – VERDE is half the cost of competitive offerings, features all-in-one licensing and requires half the resources to deploy and manage.

- **Reduced Storage Costs** – VERDE’s Storage Optimizer significantly reduces IOPS and related hardware requirements, and in turn, the overall cost of storage.

- **Optimal Performance** – Integrated offline capability (LEAF) and branch support delivers fast access and optimal performance regardless of user location.

- **Independence** – Multiple protocols and agnostic operating system support means end users have access from any connection, location or endpoint.

- **Streamlined Deployment** – Built for a successful deployment across a highly scalable environment, from one to hundreds of thousands of desktops.
risk areas for moving to the virtual desktop, which can be invaluable as you embark on such a transition.

**VDI Solution Design and Pilot**

In this “Quickstart” program, Virtual Bridges will develop a solution for you based on results of an assessment. The solution will include a full rollout plan with an initial pilot phase. Virtual Bridges will define the scope, project plan and success criteria for the pilot based on critical success factors and risk areas identified during the assessment.

**VERDE Deployment Service**

Sometimes it simply makes sense to have your solution provider bring desktop virtualization into your business. With this service, Virtual Bridges will assist with a detailed Bill of Materials, install and configure the products, and even train personnel on management if desired. We’ll also troubleshoot and resolve issues during the “burn-in” period, and assist with developing standard operating procedures.

**VERDE Managed Service**

For those clients who would prefer a more hands-on experience, Virtual Bridges is happy to manage the entire VERDE installation. This work can be done on-site, or can be completed remotely if required access is granted. It covers VERDE software, image management and provisioning, but does not include end-user help desk support or application, peripherals or hardware support.
University Eliminates Cost and Complexity of Managing Linux Desktops

With more than 25,000 students spread across multiple campuses, a London-based university was looking to simplify desktop management. While much of the University used Windows systems, computer labs throughout the Engineering School were all outfitted with Linux machines. Facing a shortage of IT resources to deploy, update and manage the machines, this University sought a solution that could reduce management costs and support Windows running on Linux guests from a single management platform.

VERDE helped the University improve efficiency, save on labor costs and centralize the management of all desktops. Benefits include:

• Reduced time, manpower, and cost of managing desktops

• Improved system control and security. The University now has a single management console for managing both Linux and Windows desktops from a central server

• Improved productivity through the delivery of Windows and Linux user desktops to all popular computing devices, including PC, Mac, thin clients, netbooks, tablets, and PDAs

Business Minimizes User Disruptions and Costs when Migrating to Windows 7

Support for Windows XP formally ends in April 2014. Fast-growth organizations must migrate to ensure business growth and sustainability. But key challenges plague this migration – including software, hardware and labor costs as well as application compatibility issues.
One Virtual Bridges customer deployed VERDE to eliminate the need to upgrade or replace desktops with higher performance PCs. Benefits of the VERDE solution include:

- Reduced/eliminated CAPEX costs by running PCs off a central server. The company no longer needs to replace or upgrade most existing hardware.
- Reduced OPEX costs through significantly decreasing the manual and labor-intensive processes associated with traditional PC upgrades.
- No compatibility issues, saving time and costs. The client migrated to Windows 7 in less than a day, maintaining backward compatibility with Windows XP.
- Reduced organizational disruption through minimizing the time it took to roll out Windows 7.

**Military Base Turns to Virtual Bridges to Lockdown Desktops**

A military base was looking to improve security of end-user Linux desktops, reduce management costs and minimize capital expenses. The highly classified environment includes developers conducting sensitive software programming, as well as hardware development work that requires significant flexibility. Compliance regulations are also crucial, as is network isolation for distinct groups.

VERDE allows this government base to reduce capital expenses by providing support for Windows thin clients running virtual Linux desktops. Additionally, by enabling the base to move desktops into the secure data center and isolate access based on need or clearance level, the solution significantly improves security. VERDE has eliminated the burden traditionally felt by remote locations and has offered this base significant benefits:
• Reduced capital expenses through the switch to thin clients
• Improved security and control over network access
• Reduced management costs due to Linux support and centralized desktop management
• Decreased burden on branch locations

**Large Tech Company uses VERDE for Post-Acquisition Data Security and User Flexibility**

As a leader in the business processing space, this firm services multinational corporations and government agencies in more than 100 countries. After being acquired by a large hardware vendor, the firm faced significant challenges to meet customer demands while adhering to the new parent company’s stringent security requirements. Thousands of employees working offsite needed to have access to email using any device from any location, and the firm needed a flexible and cost-effective way to manage large numbers of desktops.

VERDE keeps the company’s data from being stolen by storing it only in the central datacenter as opposed to on end user machines. Additionally, desktop sessions can now be accessed on thin clients, zero clients, netbooks, notebooks and traditional PCs. VERDE benefits include:

• Reduced management costs across thousands of employees and hundreds of locations
• Improved security that ensures all critical data is maintained at the central datacenter
• Reduced costs due to extending the life of PCs rather than purchasing new laptops for employees
• Improved productivity as users can access data regardless of location or device
Asset Management Firm Sees Strong Returns and Easier Branch Management with VERDE

One of the largest Asset Management firms in the world was seeking a solution that would drive down the costs of desktop management, improve security and compliance and increase organization agility. Dispersed across multiple geographic regions, the firm’s employees require dependable access to their desktops at all times. Additionally, the organization must adhere to critical compliance regulations to ensure client financial data is secure.

The firm turned to VERDE to minimize costs and increase flexibility, offering users Windows and Linux support and allowing them to access multiple desktop sessions from a single client. VERDE also offers native malware resistance, secure remote access and disaster recovery. IT can quickly provision guest/remote access, new users or applications and provide access to desktops from any client. With VERDE, this firm has experienced:

• Significant CapEx and OpEx savings
• Elimination of organizational disruption during technology upgrades
• Improved control and security with a single management console
• Increased flexibility and better access for investment professionals
• Reduced Help Desk costs
Virtual Bridges VERDE is the industry’s most comprehensive desktop management and provisioning solution that leverages virtualization to deliver desktops either on-premise or in the cloud. The VERDE solution lets enterprises transform their desktop TCO by simplifying desktop management, improving security and compliance by centralizing the administration of desktop images and data, and increasing the organizational agility by quickly providing desktop and application access to users on any client machine (PC, Macintosh, Linux, thin client, home computer or on a portable drive) at any time.

About Virtual Bridges VERDE

Virtual Bridges VERDE provides the following:

**All in One Solution** – includes connection brokering, desktop image management, automated provisioning, and management with each element tightly integrated, simplified and purpose-built for VDI.

**Scalable, Clustered Architecture** - built to scale; there are no single points of failure, and scale-up or scale-out are as simple as additional nodes to the cluster.

**Delivers the Dynamic Desktop** - builds a fully personalized desktop for each user on demand and as requested; doesn’t require expensive third-party tools and/or complex configurations.

**Breaks Down the Storage Barrier** – keeps capacity requirements in check; patent pending technology dramatically reduces the IOPS; leverages local disk to optimize both read and write IOPS.

**Provides Unified Management** – single pane window into all virtual desktop provisioning and maintenance activities; provides visibility across on-line, off-line and branch VDI desktops.

**Includes Broad Connectivity, Protocol and Device Coverage** – designed for the way we work today, not re-engineered; sync technology provisions the best remote display protocol for a rich PC-experience; delivers Windows and Linux desktops to the most popular end point devices such as PCs, Macs, thin clients and even iPads.

**Service-Based Pricing & Packaging** – offers both hosted and on-premise options; all inclusive pricing.