



SOLUTION GUIDE:
HOW TO CHOOSE THE RIGHT VDI SOLUTION
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Desktop computing has become a core technology for enterprise IT infrastructures providing enormous flexibility and mobility. But with that flexibility come challenges in costs associated with operations, licenses, support and maintenance.

The mass adoption of server virtualization is one of the biggest data center transformations to hit the IT world in years helping organizations consolidate resources and improve resource utilization. While cost savings are being realized with server virtualization, it is the desktop environment where organizations are now in search of economic-sensible, cost savings solutions.

Virtual Desktop Infrastructure (VDI) brings virtualization to the desktop environment delivering enterprise-class control and manageability while maintaining the familiar end-user environment. VDI virtualizes a desktop image that is deployed from a centralized server providing the reduction of operational costs and improved security while maintaining the current end-user experience – no learning curve. VDI technology provides companies with a true win-win.

Achieving these benefits requires evaluation of some core solution criteria.

- **Cost efficiencies:** All VDI solutions promise cost efficiencies but you need to validate these promises to ensure the solution you select provides the largest savings possible. Savings needs to come from a variety of areas: consolidation of desktops to servers, power, cooling, space, licensing, and management costs. Virtual machines provide the lowest consolidation ratios translating into lower savings through the ecosystem.
- **Green Computing:** Not all VDI solutions are equally green and it comes down to the solution design. Criteria include system resource allocation, ability to use existing hardware & software drivers and utilizing technology in your servers to reuse your older hardware. Virtual machine solutions require pre-allocation of resources that remain in effect through the entire lifecycle, if over allocated, resources are wasted. Hardware and software drivers are translated through virtual machine micro-kernels creating overhead.
- **Improved Manageability:** Resources are lean today so they need to be as efficient as possible. Virtual machine solutions create road blocks to software updates across all servers by requiring each administrator to login and perform the update. Virtual machines require systems to be off line to perform backups.

- **Data Security and Integrity:** Compromised business data can be an embarrassment to an organization. Virtual machine solutions place home grown micro-kernel layers on top of the operating system. These micro-kernel layers have not been matured like the OS, leaving your environment vulnerable. Read the results from an example:
<http://blogs.vmware.com/console/2008/08/letter-from-vmw.html>
- **Full user experience with no compromises:** Most VDI solutions make this claim but at what cost? The disk space required per desktop needs to be as small as possible. Virtual machines require up to 250 Mbytes of RAM memory plus another 50 Mbytes to accommodate the hypervisor.

VDI Solution Criteria:

Criteria	Description	Questions to ask your VDI vendor	Why Parallels is the Preferred Solution
Cost-Efficiency of The VDI Solution			
Total Cost of Ownership	VDI implementation results in maximum cost reduction possible while maintaining productive environment	<ol style="list-style-type: none"> 1. How many desktops can your solution deploy with a given configuration? What documented cases can you share? 2. What types of total cost savings do you hope to experience? OR What types of total cost savings are your customers reporting? Do you have any documented examples? 	Lowest energy requirement of any solution and highest density ratio of servers to desktops results in the industry's lowest TCO cost as measured by 3rd party calculator: https://roianalyst.alinean.com/quest
Green Solution			
Solution Design	Solution efficiently allocates system resources with minimum overhead	<ol style="list-style-type: none"> 1. How do system resources get allocated? 2. Can resource allocation be changed once assigned? 	OS container design facilitates dynamic allocation of all system resources on demand ensuring optimum utilization with nothing wasted
Virtualization Density	Maximum desktop images per server for cost efficiency	<ol style="list-style-type: none"> 1. What are your desired consolidation ratios? 	Highest ratio of desktops to servers in the industry – 140:1 compared to hypervisors 40:1
Performance	Near standalone server/desktop performance	<ol style="list-style-type: none"> 1. What type of performance does the virtualization technology provide? 2. Does the virtualization technology allow the use of older hardware? 	OS container design enables use of existing hardware & software drivers providing close to native performance. Employment of VT technology in the CPU allows for use of older hardware.

Ease of Desktop Manageability, Standardization and Security			
Improved Management	Efficient management of resources by groups or locations, automation of tasks globally and quick provisioning of desktop images	<p>1. What is the OS and application update process under consideration compared to your standalone environment?</p> <p>2. What tools are provided for backup and recovery?</p> <p>3. What tools are included to support provisioning similar desktops? Can you provide different desktop profiles for different types of users? With different resources, applications and access rights?</p>	<p>Single administrator can perform all updates to servers without login rights/privileges. Software update is simple three step process requiring only one reboot.</p> <p>Backup tool is included – VSS aware. Snapshot based with ability to set compression levels and schedule when backup occurs.</p> <p>Template process enables desktops & applications to be deployed with a few clicks using minimal disk space & resources Quick Migration moves data between servers in as little as 15 seconds. Data moved between types of servers & chip sets</p>
Security	Solution securely protects data stores from unauthorized users/access	<p>1. What is the isolation schema being used to protect your virtual environment from attack?</p> <p>2. In the event one virtual environment is compromised, are your other virtual environments at risk?</p>	<p>OS container design provides highest level of isolation between workloads averting proliferation of attack between workloads.</p> <p>Mature/stable kernel code used for critical tasks</p> <p>Unnecessary OS services turned off or moved to separate containers with limited capabilities</p>
User Experience		<p>1. How familiar is the desktop experience?</p> <p>2. Does the experience change when working in areas outside the office?</p>	<p>Virtual PC looks exactly like the physical PC environment – Windows XP Pro experience remains the same whether working at home, working in a remote geographic location or in the office. Parallels implements virtual PC environment with small footprint – only 50-60 Mb/desktop</p>

At a time when every dollar counts, Parallels VDI provides you with:

- The highest consolidation ratios in the industry today providing maximum cost savings throughout the ecosystem
- Solution design that provides dynamic allocation of resources, use of existing hardware & software drivers for near native performance and utilization of server VT technology to reuse older hardware
- Single administrator access to all servers without login rights and privileges with only one reboot required.
- Backup tools included with ability to dial in compression level and schedule backups to meet the needs of your environment and network bandwidth
- Highest levels of isolation between workloads and the utilization of mature kernel code for critical tasks providing high levels of protection for your environment.

Take the next step and schedule a demo today at: <http://www.parallels.com/products/virtuozzo/vdidemorequest> or contact your Parallels account representative.

Contact Us

Contact your parallels account representative at (703) 815-5670 (Option 3)

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