



Desktop Virtualization: Best Practice Considerations & Recommendations



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Why is the desktop so important....

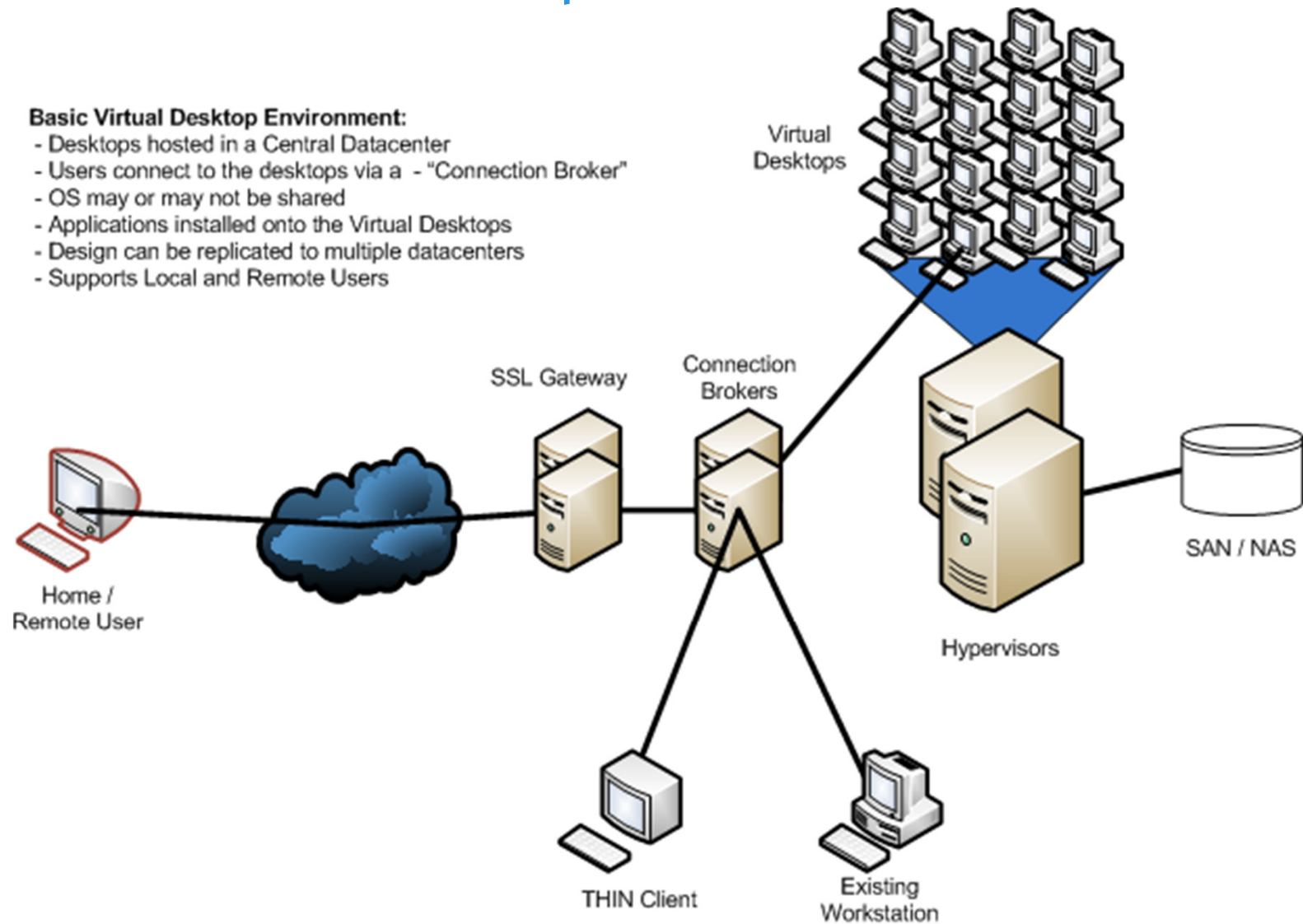


- Users interact with the business processes, systems, and customers that drive their business
 - The focus should be on delivering APPLICATIONS and DATA to end users...not on the technology
- Every organization has desktops
 - looking for better and cheaper ways to provide and manage them
- The desktop is SO much bigger than IT
 - Focus on the business requirements that add value to the business

Basic Virtual Desktop Architecture

Basic Virtual Desktop Environment:

- Desktops hosted in a Central Datacenter
- Users connect to the desktops via a - "Connection Broker"
- OS may or may not be shared
- Applications installed onto the Virtual Desktops
- Design can be replicated to multiple datacenters
- Supports Local and Remote Users



VDI Use Cases

1 Securing Home User Devices



2 Securing Third Party Devices



3 Securing Contractors



4 Device Consolidation



5 M&A Acceleration



6 Training Room Setup



7 Application Centralization



8 Universal Desktop Access



Bring Your Own PC



Desktop Virtualization may mean more than you think...



- One of the most complex initiatives in IT
 - Hypervisors, Management, and Monitoring
 - Storage Solutions & Data Protection
 - Connection Brokers & Display Protocols
 - App Virtualization, Distribution, & Management
 - Physical Server infrastructure
 - Networking and Security Infrastructure, VPN, Firewalls
 - New Endpoint management infrastructures
- While continuing to support the legacy desktop infrastructure

Understanding VDI Use Cases

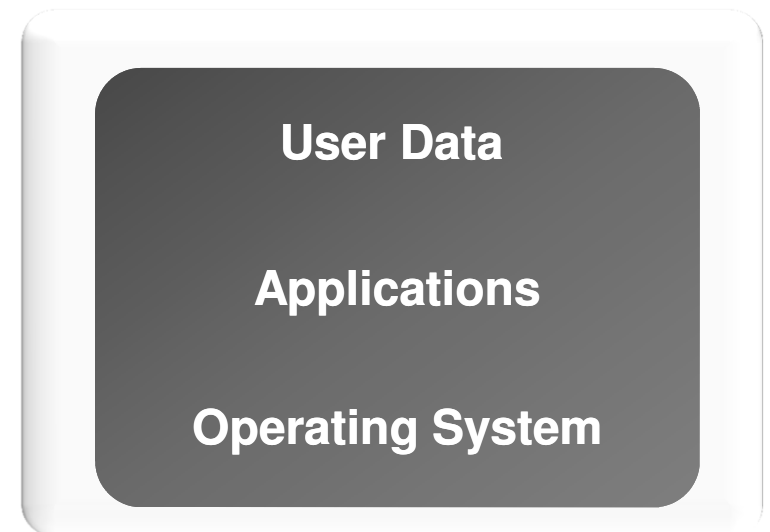
- Analysis of the Physical Desktops is a good START...
 - What are the applications and devices that are being used?
 - What apps and devices are most prevalent?
 - What “resources” are being consumed?
 - What is IMPORTANT to the USER and the BUSINESS?
- True “Understanding” of the requirements comes from POC & PILOT activities...and working with your users
- Not all users will be VDI candidates...be realistic
- Once you know the attributes, you can begin to OPTIMIZE

Organizational Considerations

- Executive Sponsorship is critical
- Partner with your business units
 - Involve your end users and THEIR business needs
- Create a Desktop Virtualization Program Office Team
 - Include non-IT members as well
- Profile YOUR use cases & workloads
 - Reference architectures are a good start...but not accurate for YOUR environment
- Fully understand the TCO of YOUR specific design
- Establish a *targeted and focused* support team

Separate the OS, Applications, and Data

- Remove the applications from the base image
- Separate the user data
- Reduce the number of OS images to support
- What do you gain?
 - Faster Provisioning
 - Simplified Management
 - Increased Performance
 - Assured Image & App Consistency



Windows 7 Optimization

- ALWAYS start with a clean build...NO P2V!!!
- Stop the unnecessary IOPs running in the background
- Free up CPU and Memory resources
- Offload tasks such as antivirus scanning
- Manage the optimizations from Group Policy to enable future updates
- Read the design and optimization guide...
 - <http://www.vmware.com/files/pdf/VMware-View-OptimizationGuideWindows7-EN.pdf>

Best Practices Summary

- Desktop Virtualization has a lot of moving parts
- The design varies for each organization and use case
- Every IT silo in your organization needs to participate from the beginning
- Involve your users and their representatives...avoid the “White Elephant” or “Science Project”
- Strategic desktop changes **MUST** be driven top-down
- Success relies on alignment with the Strategic Business Goals

Where does EMC offer value for VDI?

- Lower the cost
- Protect the data
- Ease of management
- Proven reference architectures
- Factory-built total solutions
- Security and Compliance
- Consulting Expertise

Where does EMC offer value for VDI?

- FASTcache / FAST Tiering
- EMC Backup and Protection Solutions
- VMware Integration Points
- EMC Proven Solutions
- V+C+E: Vblock infrastructure
- EMC Management and Security Solutions
- EMC Consulting Services

V+C+E: Vblock infrastructure

- Converged infrastructure for your next generation datacenter
 - Performance, Flexibility, and Efficiency
- Unified Management
 - Unified Infrastructure Manager (UIM) enables users to unify their compute, network, and storage management.
- High availability
 - Provides business continuity and disaster recovery for your VDI infrastructure at every level of integrated stack.



Thank You!

- Join us every Thursday at 11:00 AM ET for our EMC Solutions for VMware Webcast Series
- Virtual Geek Blog: <http://virtualgeek.typepad.com/>
- [White Paper: Cost-Effective EMC Unified Storage Solutions for VMware View 4.5](#)
 - \$38 per Desktop Reference Architecture (2250 desktops)
- [Reference Architecture: EMC Infrastructure for Virtual Desktops \(Fibre Channel\)](#)
- [Applied Best Practices: Deploying Microsoft Windows 7 Virtual Desktops with VMware View](#)
- [EMC Consulting: Next-Generation and Virtual Desktop Infrastructure](#)
- EMC #1 Choice for Virtualization:
<http://www.emc.com/campaign/global/virtualization/index.htm>
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