

*Actual Reality

The truth about Microsoft Virtualization

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- * A small ski resort in the Laurentian Mountains
- * After five years of stable growth, Alpine has carved out a stable niche in the shadows of its competitors
- * Made an investment in IT infrastructure 3 years ago in anticipation of growth potential
- * Marketing's pitch to Ontario skiers more successful than anticipated

*** Alpine Ski House**

- *Most Servers running latest version of OS

- *Active Directory 2008

 - *Single AD DS Domain Controller (DNS, DHCP)

 - *SQL Server

 - *SharePoint Server

- *Ticketing server runs Windows NT 4.0 SP6

***Existing
Infrastructure**

- * Virtualization stable, allows for higher availability
- * Lower TCO / Higher ROI
- * Lower Capital Expenditures may mean higher Operational Expenditures in the short term
- * Lower costs for electricity & cooling
- * Lower carbon footprint (Green IT) saves the planet

*The Decision To Virtualize

*CxOs are not impressed by ‘cool’, they need reports with numbers justifying expenditures

*It is hard to determine the best place to start

*The unknown can be daunting

*But wait... 😊

***Challenges**

*Free tools available from Microsoft to help

* On-line resources to help you learn

* Solution Accelerators to help you measure, plan, and implement

* Community (user groups, on-line forums) to hold your hand

***A light...**

*Tools & Guidance from Microsoft that help you solve deployment, planning, and operational IT problems. Free & FULLY supported

*[Microsoft Assessment & Planning Toolkit \(MAP\)](#)

*[Infrastructure Planning & Design \(IPD\)](#)

*[Disk2vhd](#) creates VHDs from (running) physical servers for simple P2V conversion

*Microsoft Solution Accelerators

- * Two (identically configured) virtualization hosts

 - * Windows Server 2008 R2 (SP1) Enterprise Edition

 - * Hyper-V role

 - * Failover Cluster feature

- * One server for shared storage

 - * Windows Server 2008 R2 (SP1) Standard Edition

 - * Microsoft iSCSI Software Target 3.3

 - * As many disks as you can fit!

*** The servers**

- *Join Hosts & shared storage server to domain

- *Create External virtual network (Ski-Net-1)

- *Install a standard VM in host 1

- *Create a domain controller in existing domain

***The plan**

demo 1

Building and connecting to a Software Target



- * Shared Storage
- Microsoft iSCSI
Software Target

demo 2

Building a Failover Cluster with a Cluster Shared Volume



***Failover Cluster &
CSVs**

*Microsoft iSCSI Software Target

*vLAN Tagging

*Failover Cluster Manager

*Cluster Shared Volumes

***Review of non-
virtualization
technologies**

*CPU Compatibility

*Virtual Networking

***Preparing Hyper-V
High Availability**

demo 3

Making a Virtual Machine Highly Available



*Failover VMs

demo 4

Creating a Highly Available Virtual Machine (HAVM)



*Failover VMs

demo 5

Running a VM with Windows NT 4.0
in Hyper-V



*The Legacy...

* Redundancy

* Stability

* Supported

* Relaxed!

* (Demo Failover)

*** Results**

*System Center Essentials

*System Center Virtual Machine Manager

*Performance & Resource Optimization

*Manage mixed environments

***What's Next?**

	VMware vSphere 4.1	Windows Server 2008 R2 with Hyper-V
3 Node Cluster (2 socket servers)	\$13,470	FREE
3 Node Cluster (4 socket servers)	\$26,940	FREE
5 Node Cluster (2 socket servers)	\$22,450	FREE
5 Node Cluster (4 socket servers)	\$44,900	FREE

*VMware Cost Comparison

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13.4K self-assessments passed

9.8K hours of training delivered

Activity in last 7 days

892 students registered

1.1K self-assessments passed

TOP 3

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Tracks

[Microsoft Virtualization for VMware Professionals - The Platform](#)



[Microsoft Virtualization for VMware Professionals – Management](#)



[Microsoft Virtualization for VMware Professionals – VDI \(Coming Soon\)](#)



[Planning, Building and Managing a Private Cloud](#)



*Microsoft Virtual Academy

<http://www.microsoftvirtualacademy.com>

Exam Number and Title	Core Exam for the Following Track
70-659, TS: Windows Server 2008 R2, Server Virtualization	Microsoft Certified Technology Specialist (MCTS)
70-669, TS: Windows Server 2008 R2, Desktop Virtualization	Microsoft Certified Technology Specialist (MCTS)
70-693, PRO: Virtualization Administrator 2008 R2	Microsoft Certified IT Professional (MCITP)



Virtualization Administrator 2008 R2



Windows Server 2008 R2, Server Virtualization
Windows Server 2008 R2, Desktop Virtualization

*Microsoft Virtualization Certifications

*A secure, well-managed infrastructure means the IT staff can spend less time putting out fires and can actually go home at 5:00!

***More Time to Ski!**