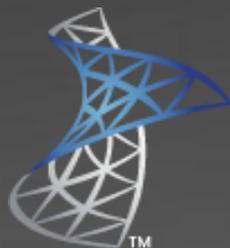


Digitalen
Forum for it-pro



Microsoft®

System Center

Virtual Machine Manager 2008

Lasse Carthberg

Product Technology Specialist

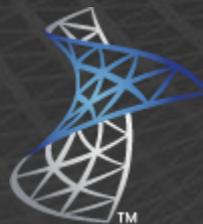
Management Solutions

Enterprise & Partner Group, Microsoft Danmark



Agenda

- System Center
- Virtual Machine Manager
 - Overblik
 - Demo
- Roadmap



Microsoft®

System Center

System Center



Microsoft®
System Center

Industry Trends

Macro Trends

Current Indicators

Virtualization acceleration

- #1 CIO priority in 2008 (up from #17)
- Companies virtualizing servers will double next year
- Hyper-V will accelerate virtualization adoption

Large Datacenter build outs

- 74% of enterprises mandate all servers reside in the DC
- Projected to consume 5% of US power in 2009

BSM/Service Management

- SLM/BSM shows highest growth of any IT management segment – 23% from 2006–2007

Anywhere Access

- Laptops sales outnumber desktops for first time
- Converged mobile phones growing 2x faster than mobile PCs

SaaS gaining mindshare

- Systems Management-Related SaaS grows to \$4B market in next 3 years
- Major player market entry: Dell; Symantec

Dynamic IT

Enabling IT Pros and Development Teams Across the IT Lifecycle

Manage Complexity,
Achieve Agility

Protect Information,
Control Access



Advance the Business
with IT Solutions

Amplify the Impact
of Your People



**Unified &
Virtualized**



**Process-Led,
Model-Driven**



**Service-
Enabled**



**User-
Focused**

Secure & Interoperable Platform

Core Innovation Areas

Enterprise Suite



Microsoft®
System Center
Operations Manager



Microsoft®
System Center
Configuration Manager



Microsoft®
System Center
Data Protection Manager



Microsoft®
System Center
Virtual Machine Manager



Microsoft®
System Center
Essentials



Microsoft®
System Center
Remote Operations Manager



Microsoft®
System Center
Mobile Device Manager 2008



Microsoft®
System Center
Online



Microsoft®
System Center
Service Manager



Microsoft®
System Center
Capacity Planner 2007

Licensed Individually



Microsoft®
Asset Inventory
Service

Microsoft®
Desktop Optimization Pack
For Software Assurance



Microsoft®
Diagnostics and
Recovery Toolset



Microsoft®
Advanced Group
Policy Management



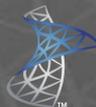
Microsoft®
Application
Virtualization



Microsoft®
System Center Desktop
Error Monitoring

kidaro

System Center Virtual Machine Manager



Microsoft®
System Center
Virtual Machine Manager 2008

Microsoft Virtualization

From the datacenter to the desktop

Presentation Virtualization

 Windows Server[®] 2008
Terminal Services



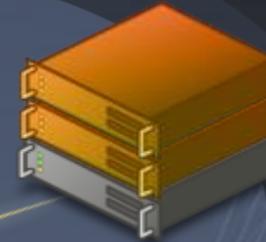
User State Virtualization

Document Redirection
Offline files



Server Virtualization

 Windows Server[®] 2008
Hyper-V[™]
Microsoft[®]
Virtual Server 2005 R2



Microsoft[®]
System Center

Desktop Virtualization

Microsoft[®]
Virtual PC

Microsoft[®]
Enterprise Desktop
Virtualization

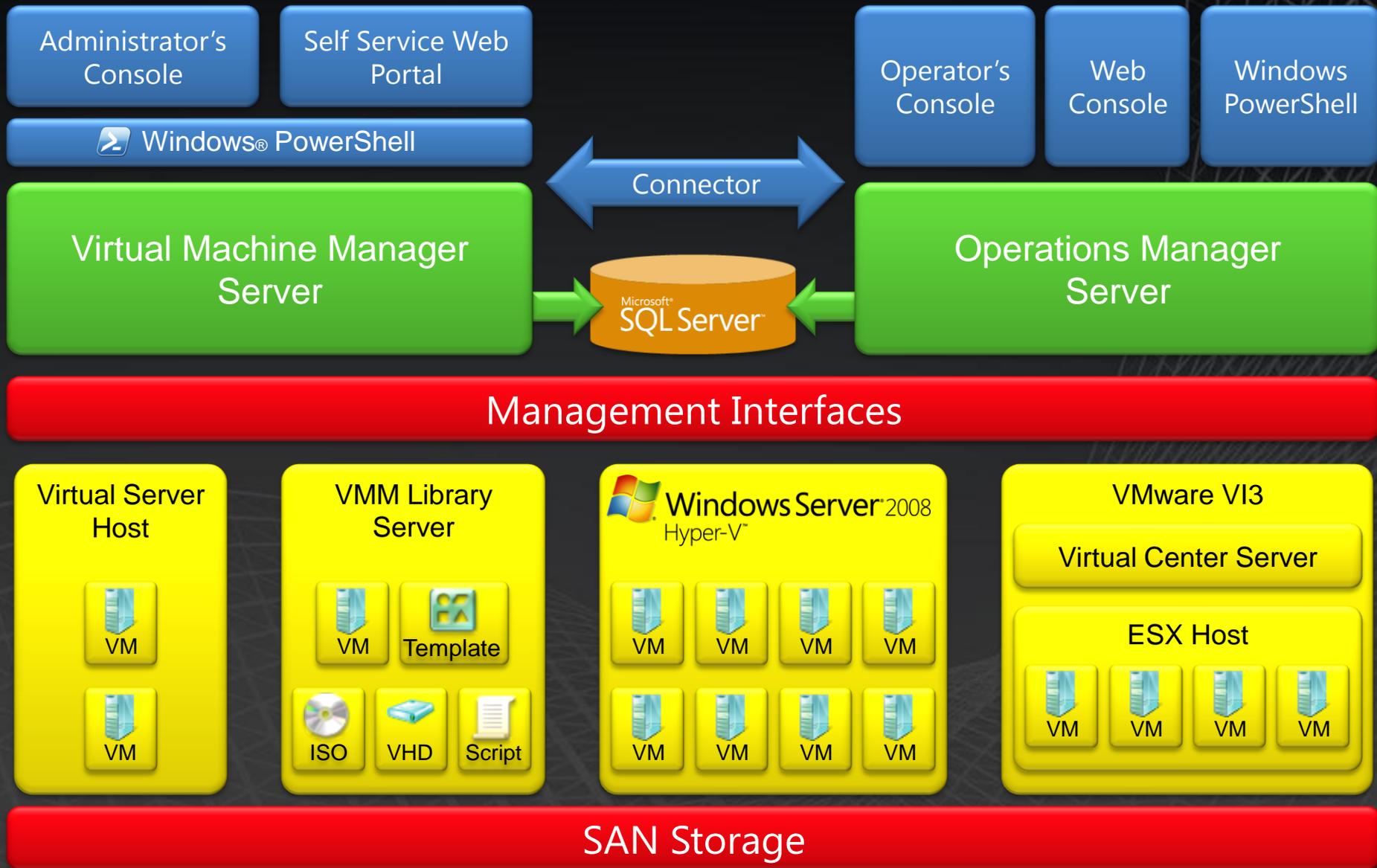


Application Virtualization

Microsoft[®]
Application Virtualization



VMM 2008 Architecture



Virtual Machine Manager 2008

VMware Support

- One management console for both:
 - Physical and Virtual
 - Hyper-V and VMware
- Full virtual machine management
 - vMotion, Resource Pools, osv.
 - VI3 support: PRO, Intelligent Placement, Library, Convert and PowerShell
- Customers today have coexistence of virtual platforms



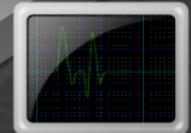
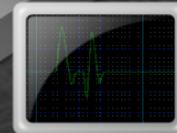
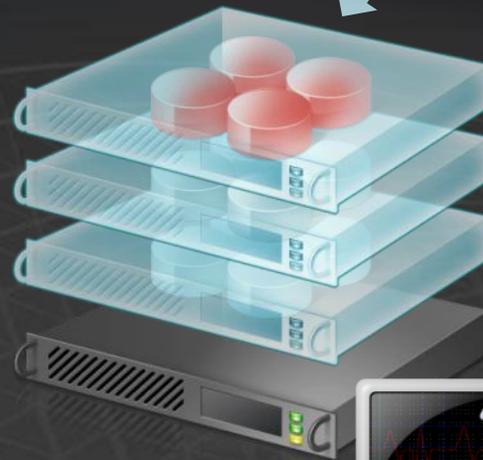
Rating	Host Name	Cluster	Type
★★★★★	Host 01	Cluster01	Network Transfer
★★★★☆	ESXHost 01	None	Live Transfer
★★★☆☆	Host 03	Cluster03	Cluster Transfer
☆☆☆☆	Host 04	Cluster04	SAN Transfer

Performance and Resource Optimization (PRO)

- Alleviate the effects of host-level failure
- Ensure efficient use of resources in the virtualized environment
- Allow VMM Admins to react and manage resources independently
- Do it with knowledge and vendor support

Virtual Machine Manager 2008

Performance and Resource Optimization



Microsoft
System Center
Virtual Machine Manager

PRO Tips User Interface

The screenshot displays the Virtual Machine Manager (VMM) interface with a 'PRO Tips' window open. The background interface includes a menu bar (File, View, Go, Actions, Help), a toolbar (Actions, Columns, Jobs, PRO Tips (0), Networking, PowerShell, Help), and a sidebar with sections like Hosts, Host Groups, Filters, and Administration. The 'PRO Tips' window is the primary focus, containing a table of tips and a detailed view for a specific tip.

Source	Tip	State	Created
myhost01.extralongname.com	Migrate a vm to free host memory	Active	04/24/08 10:07 PM
MyVM02	Add another IIS server to the Order Tracker...	Active	04/24/08 11:20 AM

Detail view
MyVM02 Age: 10 minutes

Add another IIS server to the Order Tracker web farm

The web traffic for Order Tracker is exceeding expected levels. Adding another IIS server will increase the capacity available to Order Tracker site.

▶ Cause

Virtual Machine Summary

- CPU: 1-processor 1.00 GHz
- Memory: 1.00 GB
- Storage: 127.00 GB

Show this window when new PRO Tips are created

PRO Enabled Management Pack

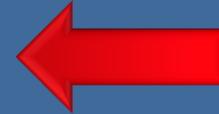
PRO Enabled MP

Dagnostic Tasks 

Recovery Tasks 



Monitors



Knowledge

PRO Library MP

Target



Hyper-V Host
PRO Target



VMware Host
PRO Target



Virtual Machine
PRO Target



Custom
PRO Target



Hyper-V Host



VMware Host



Virtual Machine



Hardware/Software
Component

Reporting

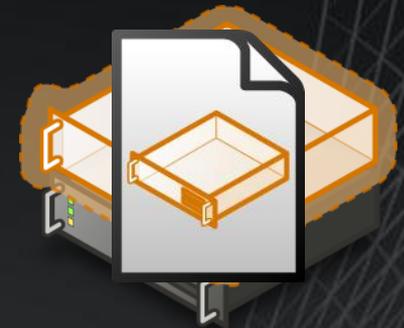
- Identify Virtualization Candidates
- Virtual Machine Allocation
- Virtual Machine Utilization
- Host Utilization
- Host Utilization Growth

Virtualization Candidates

Server Name	Processor				Memory			Disk		Network
	Processor Speed	Number of Processors	Avg CPU Usage	Maximum CPU Usage	Total RAM	Avg Memory Available	Avg Memory Usage	% Free Disk Space	Avg Bytes Total/Sec	Avg Bytes Total/Sec
server01.corp.contoso.com	3600 MHz	4	1.39 %	23.10 %	4095 MB	1997 MB	51.24 %	93.06 %	53 KB	62 KB
server02.corp.contoso.com	2327 MHz	1	1.49 %	38.27 %	1023 MB	153 MB	85.01 %	71.93 %	29 KB	1 KB

Offline Virtual Machine Servicing Solution Accelerator

- Locate Offline Machine in VMM Library
- Move it to Hyper-V “patch” server
- Start the Machine
- Identify, download & apply patches
- Shutdown Machine
- Move it back to VMM Library
- Continue...



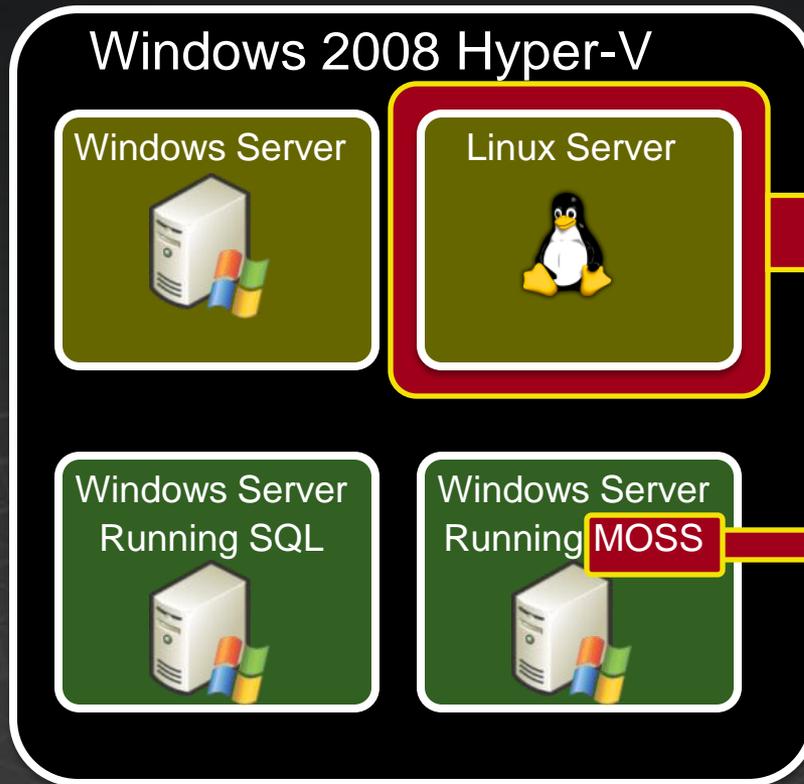
Hyper-V Server



Virtual Machine Manager Library

System Center Roadmap

Protecting a server Virtual vs. Physical



Protecting the Virtual OS
using Snapshots
DPM Unaware of OS type



DPM 2007
with integrated Disk & Tape

Protecting the Applications
within the Virtual OS.
Treat like a Physical Server
DPM Aware of OS and Appl.

Managing the Server Lifecycle

Microsoft®
System Center
Data Protection Manager



Microsoft®
System Center
Configuration Manager



Server Management Suite Enterprise

Backup

Hardware
Provisioning

Performance
and Health
Monitoring

OS / Software
Deploy,
Patching and
State Mgmt

Microsoft®
System Center
Operations Manager



Microsoft®
System Center
Virtual Machine Manager



System Center Roadmap

	2007	2008	2009	2010
Microsoft® System Center Virtual Machine Manager	2007	2008		V3
Microsoft® System Center Data Protection Manager	2007	Rollup/SP1		V3
Microsoft® System Center Configuration Manager	2007	SP1/R2		V5
Microsoft® System Center Operations Manager	2007	SP1	R2	V4
Microsoft® System Center Service Manager				V1
Microsoft® Desktop Optimization Pack for Software Assurance	2007	2008	2009	2010
Microsoft® System Center Mobile Device Manager		2008	SP1	Included in SCCM
Microsoft® System Center Essentials	2007	SP1	SP2	V2
Microsoft® System Center Online				V1



Microsoft[®]

Your potential. Our passion.[™]

© 2008 Microsoft Corporation. All rights reserved. Microsoft, Windows, Windows Vista and other product names are or may be registered trademarks and/or trademarks in the U.S. and/or other countries. The information herein is for informational purposes only and represents the current view of Microsoft Corporation as of the date of this presentation. Because Microsoft must respond to changing market conditions, it should not be interpreted to be a commitment on the part of Microsoft, and Microsoft cannot guarantee the accuracy of any information provided after the date of this presentation.

MICROSOFT MAKES NO WARRANTIES, EXPRESS, IMPLIED OR STATUTORY, AS TO THE INFORMATION IN THIS PRESENTATION.