

Ueberblick ueber Microsoft System Center 2012 R2 und Windows Server 2012 R2 Hyper-V



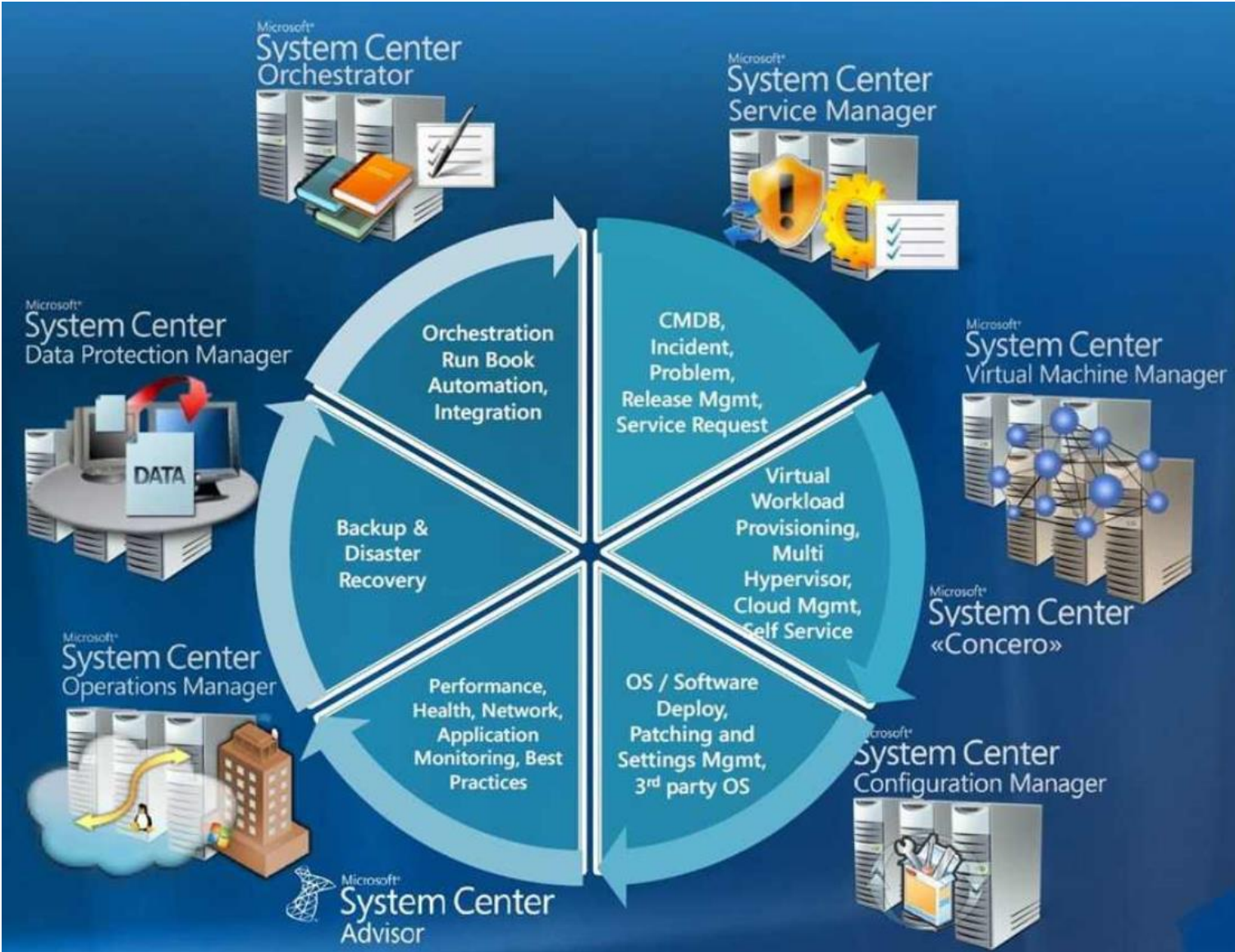
Agenda

- Ueberblick ueber System Center 2012 R2
- Neue Funktionen in Windows Server 2012 R2 Hyper-V
- Clustering mit Windows Server 2012 R2
- SCVMM 2012 R2 Grundlagen und Funktionen
- Integration von SCVMM 2012 R2 in Hyper-V Umgebungen

Wer bin ich?

- Marc Grote
- Seit 1989 hauptberuflich ITler
- Seit 1995 Selbststaendig
- Microsoft MVP seit 2003
- Microsoft MCT /MCSE Private Cloud, Messaging /MCLC /MCITP /MCSA /MC*
- Buchautor und Autor fuer Fachzeitschriften
- Schwerpunkte:
 - Windows Server Clustering/Virtualisierung/PKI
 - Forefront TMG/UAG/SCEP
 - Exchange Server seit Version 5.0

Was ist System Center 2012 R2



Neuerungen in System Center 2012 R2

- System Center 2012 R2 App Controller
 - Support for System Center 2012 R2 Virtual Machine Manager
 - Service Provider Foundation in System Center 2012 R2
- System Center 2012 R2 Configuration Manager
 - Site Database Pfadanpassung
 - Certificate Registration Point
 - Merge von anderen System Center 2012 R2 Hierarchien
 - Mac und Android Enrollment
 - Reassignment von Config Manager Clients
 - Erstellung von VPN- und WiFi Profilen
 - Neue Software Update Optionen
 - Windows 8.1 Support
 - Unterstützung fuer Windows 8.1 und Windows Server 2012 R2 OS Deployment
 - RBAC Unterstützung fuer Config Manager Reports
 - Und vieles mehr
- System Center 2012 R2 Data Protection Manager
 - Windows Azure Backup
 - SQL Cluster Support
 - Virtualized Deployment
 - Linux Virtual Machine Backup

Neuerungen in System Center 2012 R2

- System Center 2012 R2 Operations Manager
 - Health Monitoring fuer Private Clouds
 - Microsoft Monitoring Agent
 - Support fuer IPv6
 - Java Application Performance Monitoring
 - System Center Advisor
 - UNIX und LINUX Monitoring basierend auf OMI
- System Center 2012 R2 Orchestrator
 - Integration Pack fuer Sharepoint
 - Windows Azure Integration Pack
 - Integration Pack fuer SCVMM 2012 R2
- System Center 2012 R2 Service Manager
 - Installation auf Windows Server 2012 R2 und Windows 8.1

Neuerungen in System Center 2012 R2

- System Center 2012 R2 Virtual Machine Manager
 - S2S mit privaten IP Adressen
 - Cisco NVGRE Support
 - IPAM Integration
 - Services fuer Xen
 - Neue SCOM Management Packs
 - Windows Server 2012 R2 und Windows 8.1 Support
 - Storage
 - Virtual Fibre Channel Support
 - ODX Support
 - Shared VHDX Support
 - Baremetal SOFS Cluster Deployment
 - Storage Tiering
 - VHD Management
 - Differencing Disk
 - Live Cloning von VM
 - Erweiterter Support fuer Dynamic Memory
 - Unterstuetzung neuer Hyper-V API
 - Schnellere Live Migration (TCP/IP – SMB – Compression)

Was ist neu in WS 2012 R2

- What's New for iSCSI Target Server in Windows Server 2012 R2
 - VHDX Support
 - SMI-S Support
 - 544 Sessions pr Target
 - 256 LUN pro Target Server
- What's New for SMB in Windows Server 2012 R2
 - Auto Load Balancing von Clients im SOFS Cluster
 - Verbesserte SMB Direct (RDMA) Performance
 - Verbessertes SMB Event Logging
 - Hyper-V LiveMigration ueber SMB (SMB Direct / Multichannel)
 - SMB Bandbreiten Management (Default, LiveMigration, Virtual Machine)
- What's New for Windows Deployment Services in Windows Server 2012 R2
 - Windows 8.1 und WS 2012 R2 Deployment
 - .VHDX Support
 - Powershell CMDlets
 - TFTP und Multicast ueber Ipv6 und DHCPv6
 - x86 Clients mit UEFI

Was ist neu in WS 2012 R2

- What's New in Active Directory in Windows Server 2012 R2
 - Workplace Join
 - Web Application Proxy
 - ADFS mit Multifaktor Auth.
- What's New in DFS Replication in Windows Server 2012 R2
 - Powershell fuer DFS Replication
 - Database Cloning und Initial Sync
 - Database corruption error repair
 - Cross File RDC Deaktivierung
 - File Stage Tuning
 - Autorecovery nach Power Loss
- What's New in DHCP in Windows Server 2012 R2
 - Workgroup Member Registration mit Gast DNS Suffix
 - DNS A und PTR Record Automatisierung fuer DHCP
 - Neue Powershell CMDlets

Was ist neu in WS 2012 R2

- What's New in DNS Server in Windows Server 2012 R2
 - Erweiterte Zonenstatistik
 - Erweiterter DNSSEC Support (Key Management)
 - Neue Powershell CMDlets
- What's New in Failover Clustering in Windows Server 2012 R2
 - Shared VHDX
 - Virtual Machine drain on Shutdown
 - Live Migration von VM in bei Netunterbr. in der VM (Protected Network)
 - CSV Erweiterungen (CSV Placement, Auto CSV Cache max. 80%, CSV Diagnose)
 - Dynamic Witness
 - Autorecovery eines partitionierten Cluster (Split Brain)
 - Verbesserte Cluster Node Health Detection
 - Cluster Dashboard
 - Failover Cluster ohne AD (CNO im DNS only, Nodes muessen AD Member sein)
 - CSV Diagnose (Get-ClusterSharedVolumeState)
 - CSV Interoperabilitaet (ReFS, DeDup, Tiered/Parity/WBC/Storage Spaces)

Was ist neu in WS 2012 R2

- What's New in Group Policy in Windows Server 2012 R2
 - Verbesserter IPv6 Support
 - Policy Caching
 - Verbessertes Event Logging
- What's New in Hyper-V in Windows Server 2012 R2
 - Siehe andere Slides
- What's New in IPAM in Windows Server 2012 R2
 - RBAC
 - Virtual Address Space Management fuer Hyper-V
 - MS SQL Datenbank Support
 - IPAM Migration von Windows Server 2012
 - Erweiterte Powershell Unterstuetzung

Was ist neu in WS 2012 R2

- What's New in Networking in Windows Server 2012 R2
 - Windows Server Gateway (VM Software Router)
- What's New in Remote Desktop Services in Windows Server 2012 R2
 - Session Shadowing
 - Online Storage Deduplication fuer VDI auf WS 2012 R2 SMB Share
 - Improved RemoteApp (Transparenz, Live Thumbnails, seamless application)
 - Quick reconnect for Remote Desktop Clients
 - Improved compression and bandwidth usage (50% Ersparnis gegenueber WS 2012)
 - Dynamic display handling
 - RemoteFX virtualized GPU supports DX11.1
 - Restricted Admin Mode Remote Desktop
- What's New in Windows PowerShell
 - Windows Powershell 4.0
 - Desired State Configuration
 - ISE unterstuetzt PowerShell Workflow/Script Debugging
 - Powershell Web Services/WebAccess Erweiterungen
 - Zahlreiche Bug Fixe

Was ist neu in Windows Server 2012

R2 Hyper-V

- Shared Virtual Hard Disk
- Virtual Hard Disk Resize bei laufender VM
- Storage Quality of Service in VM
- Verbesserte Live Migrations-Optionen
- Virtual Machine Generation v2
- Kopieren von Dateien in VM ohne Netzwerk
- Live VM Export
- Storage Failure Detection im Failover Cluster
- Enhanced Session Mode (Clipboard und Datei Drag&Drop)
- Hyper-V Replica (Zeitintervalle und Chained Replica Support)
- Erweiterter Linux VM Support (mehr Linux Distributionen und Funkt.)
- Verwaltung von WS2012 Hyper-V mit WS2012 R2 Hyper-V
- Automatische Virtual Machine Product Activation in WS 2012 R2 DC

Hyper-V 2012 R2 Neuerungen

Demo

Windows Failover Clustering

- Failover Cluster
 - Max. 64 Node
 - Max. 8.000 VM pro Cluster
 - Max 1.024 aktive VM pro Cluster Node
 - CSV2 (Snapshot Integration, Bitlocker, SMB 3.0)
 - Scale Out Fileserver (SOFS)
 - Erweiterte Cluster Validation
 - Integriertes Cluster Aware Updating (CAU)
 - Integrierter Cluster Service Account
 - Task Scheduler Integration
 - VM Priority
 - VM Monitoring
 - Node Vote Weights
 - Dynamic Quorum
 - Node Drain
 - Erweiterter Powershell Support

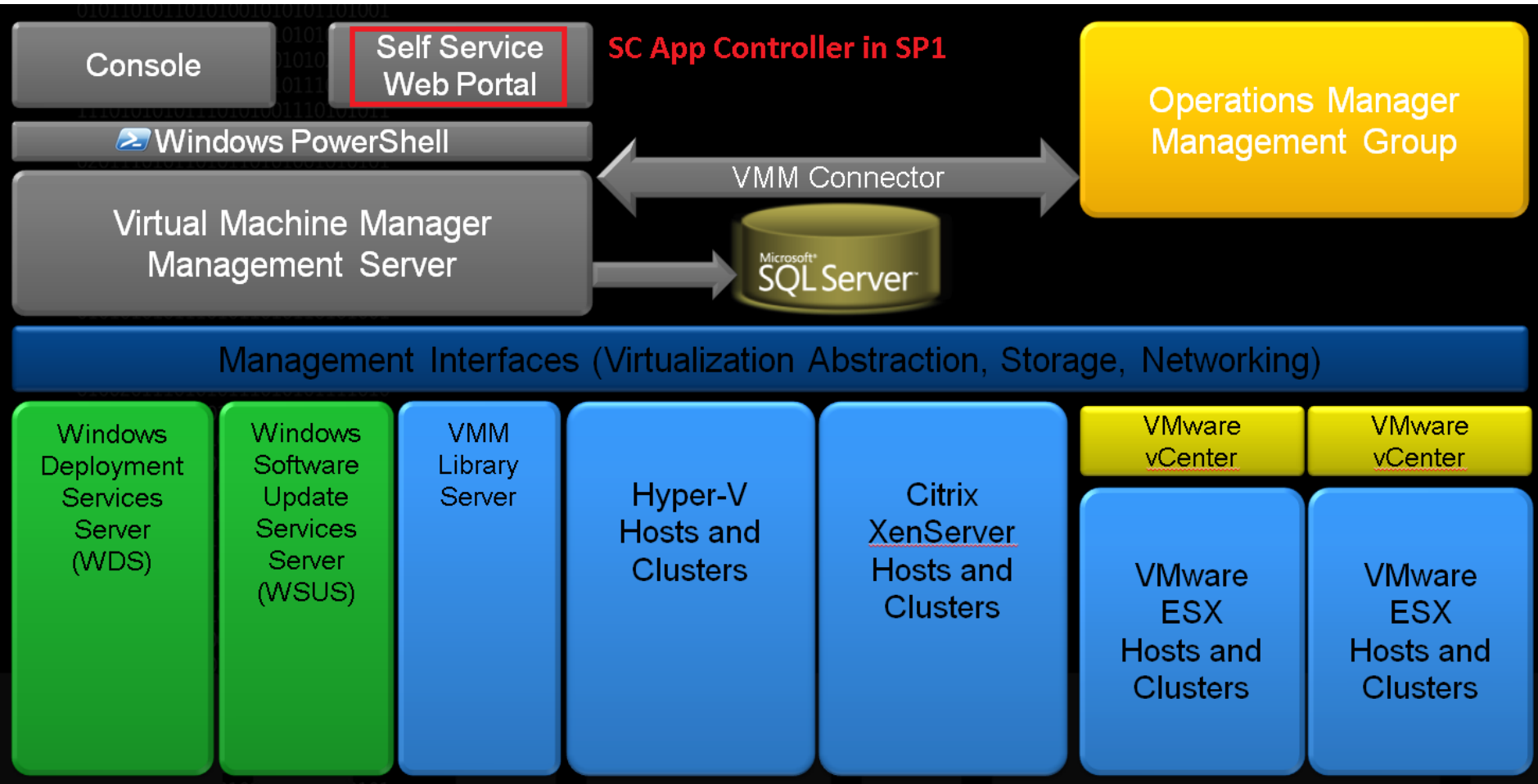
Failover Cluster in Windows Server 2012 R2

Demo

SCVMM 2012 R2

- P2V-Funktionen (Physical to Virtual)
- V2V-Funktionen (Virtual to Virtual), inklusive Vmware
- Zentrale Verwaltungskonsole fuer alle Microsoft Hyper-V Systeme und deren Gastsysteme sowie Xen Server und Vmware ESX / Vsphere
- Self Service Portal fuer das Provisioning virtueller Maschinen durch Nicht Administratoren → SC App Controller
- Zentrale Library zur Ablage virtueller Maschinen und Templates
- Baremetal Provisioning
- Update und Compliance Management
- Fabric Management
- Storage Management
- Resource Optimization (DO – PO)

SCVMM 2012 Architecture



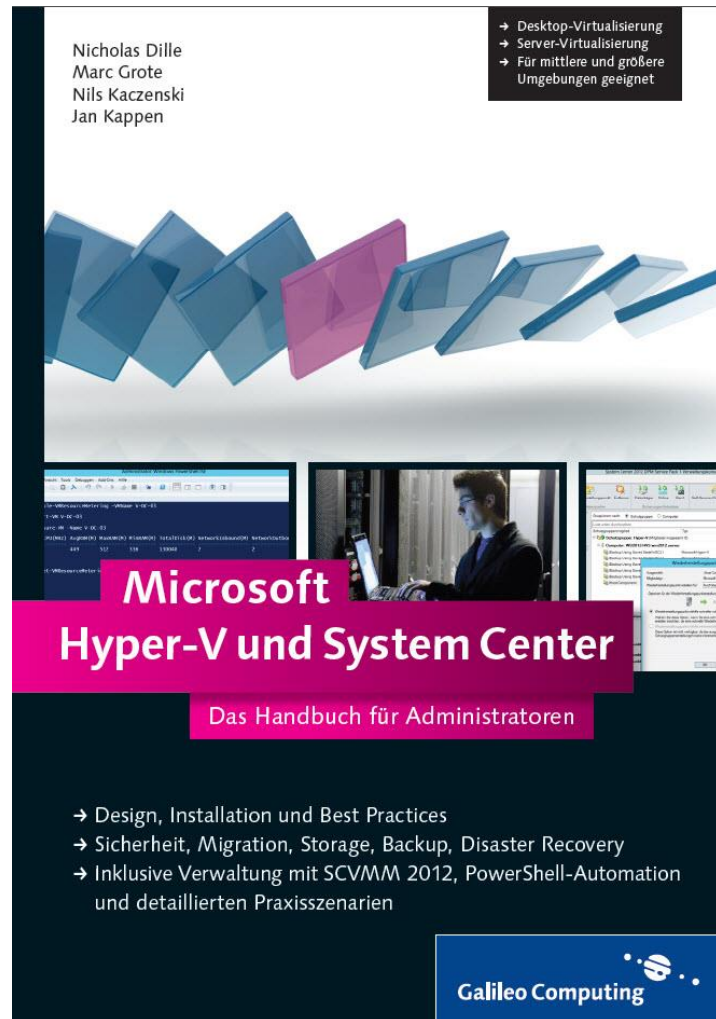
SCVMM

Demo

Fragen?

The image features the word "Fragen?" in a bold, sans-serif font. The word "Fragen" is rendered in a bright orange color, while the question mark is a medium blue. To the right of the text, there is a large, stylized blue question mark icon. This icon is composed of several overlapping, semi-transparent shapes in different shades of blue, creating a layered, 3D effect. The entire graphic is set against a plain white background.

Das Buch



Hyper-V und System
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Buch in Planung
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Kontakt

Marc Grote

- E-Mail: grotem@it-training-grote.de
- Web: <http://www.it-training-grote.de>
- Blog: <http://blog.it-training-grote.de>
- XING: [https://www.xing.com/profile/Marc Grote2](https://www.xing.com/profile/Marc_Grote2)
- Mobile: 0176/23380279