



NRW Conf 2012:  
FEEL THE ENERGY!

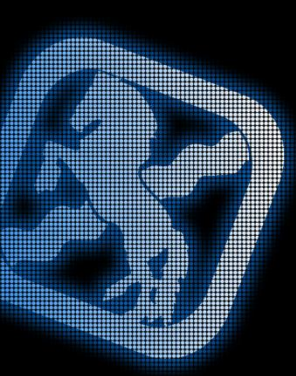
Windows Server 2012 kann alles  
besser als Windows Server 2008 R2?!

Marc Grote

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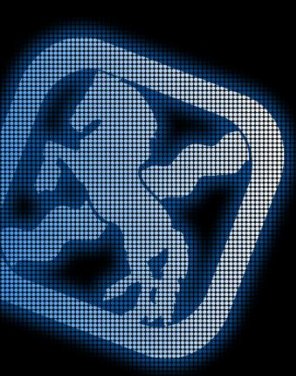
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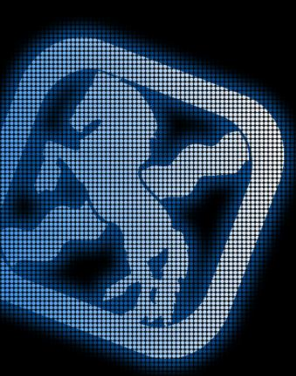
# Inhalt

- Windows mit und ohne Fenster
- Server Manager Neuerungen
- Active Directory Neuerungen
- Hyper-V
- Windows Subsystem Neuerungen
  - Failover Clustering
  - DNS / DHCP
  - IIS
  - Remote Desktop Services
  - DirectAccess



# Was bin ich?

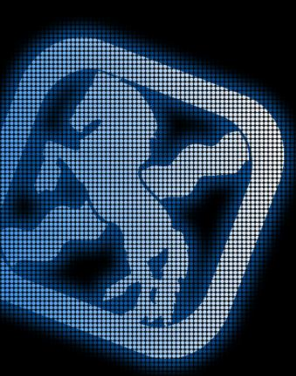
- Marc Grote
- Baujahr 1972
- Seit 1989 hauptberuflich ITler  
Seit 1995 Selbststaendig, vorher angestellt als  
IT-Administrator und Teilzeitconsultant
- Schwerpunkte: TMG/UAG/SCEP, Windows  
Server Clustering/Virtualisierung/PKI,  
Exchange Server seit v5.0



# Weit ueber 300 Neuerungen?

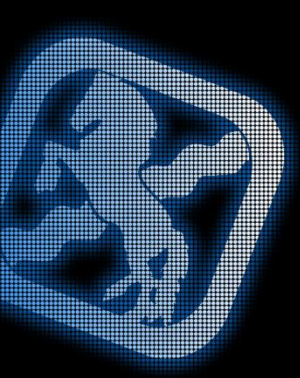
- Ich habe nachgezaehlt ....
  - Es sind 467,5 Neuerungen ....
  - Und 1.247,00 Aenderungen
- Stimmt das wirklich? ....
  - Wir werden sehen





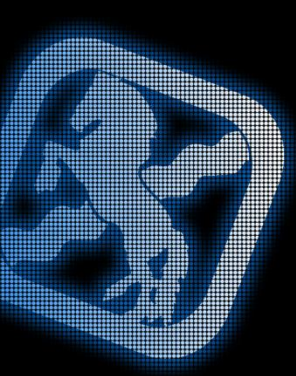
# Windows mit und ohne Fenster

- Mit und ohne GUI oder doch beides?
  - Server Core
    - Back to the DOS GUI?
  - Server GUI
    - Server Graphical Shell
    - Minimal Server Interface
    - Graphical Management Tools and Infrastructure
  - Features on Demand



(Hard)Core

# Demo

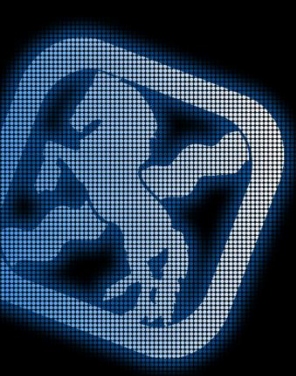


# Server Manager reloaded

Computer	Typ	Beschreibung
MAYA	Windows 95 Arbeitsstation	Windows 98
MIXTEC	Windows NT Server	Samba 2.2.2
SINAGUA	Windows NT Primärer DC	
TOLTEC	Windows NT Server	Samba 2.2.2
ZAPOTEC	Windows NT Arbeitsstation	

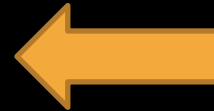
Quelle: [http://www.oreilly.de/german/freebooks/samba2ger/images/4\\_16.gif](http://www.oreilly.de/german/freebooks/samba2ger/images/4_16.gif)

# Demo

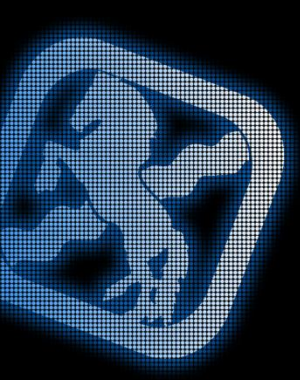


# Active Directory Neuerungen

- Snapshot Support
- Neue Powershell CMDlets
- Group Managed Service Accounts
- ADFS 2.1 in a Box
- Flexible RID Pool Size und RID Pool Block Allocation
- DC-Cloning
- Erweiterter Offline Domain Join
- KDC Delegation ueber Domanen und Forest Grenzen
- Dynamic Access Control
- GPRESULT zeigt jetzt die richtige Windows Version an 😊
- DCPROMO in Server Manager integriert
- Erweitertes LDAP Logging
- AD based Product Activation (DSSITE – SPP Objects)
- ADAC
  - Recycle Bin/FGPP/Powershell History
- Certification Authority
  - Compatibility View in CA Templates/V4 Templates/All AD CS Roles run on Server Core
  - Authorize additional service accounts to access the private key

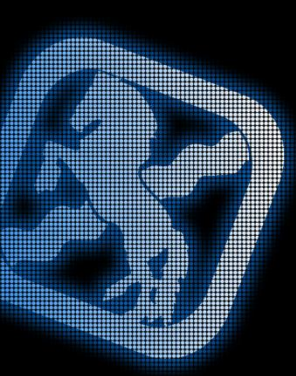






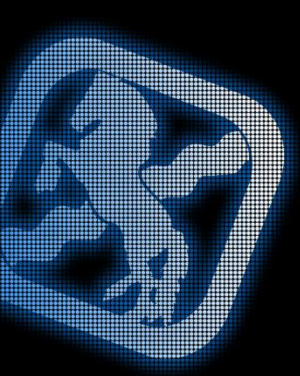
Active Directory Neuerungen

Demo



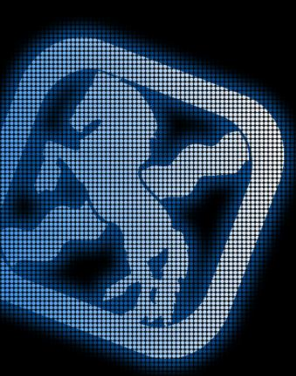
# Hyper-V – Neuerungen 1

- 64 vCPU per VM
- 1.024 GB VM RAM
- Support for up to 64 nodes per Cluster
- Support for 8.000 VMs per Cluster
- Hyper-V support for up to 4 TB RAM
- New 64 TB VHDX format + Performance and Self Healing
- Hyper-V Replica
- Verbesserter VM Import
- Hyper-V Virtual FC
- Live storage migration
- Cluster Aware Updating
- Dynamic Memory Enhancements
- Smart Paging
- More Concurrent live migration



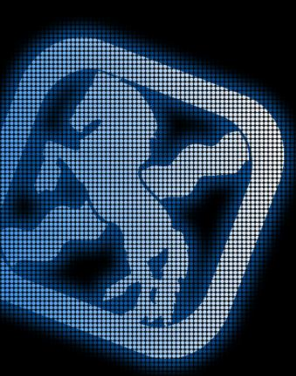
Hyper-V Neuerungen

# Demo



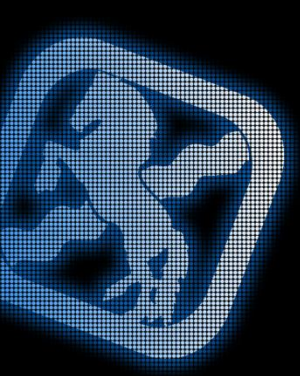
# Hyper-V – Neuerungen 2

- Live VHD Merge
- CSV v2
- SMB 3 Support
- 150 Hyper-V PowerShell commands
- Hyper-V Extensible Switch
- VM Failover Prioritization
- VM Monitoring
- New Placement policies – Virtual Machine Priority and enhanced placement
- Virtual NUMA
- Dynamic Virtual machine queue
- RSS (Receive Side Scaling)
- RSC (Receive Segment Coalescing)
- Offloaded Data Transfer (ODX)



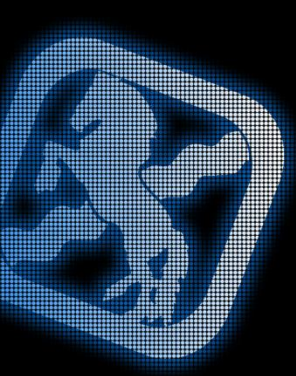
# Failover Cluster

- Max. 64 Node
- Max. 4.000 VM pro Cluster
- Max 1.024 active VM pro Cluster Node
- CSV2 (Snapshot Integration, Bitlocker, SMB 3.0)
- Scale Out Fileserver
- Erweiterte Cluster Validation
- Integriertes Cluster Aware Updating (CAU)
- Integrierter Cluster Service Account
- Task Scheduler Integration
- VM Priority / VM VM Monitoring
- Node Vote Weights
- Dynamic Quorum
- Node Drain
- Erweiterter Powershell Support



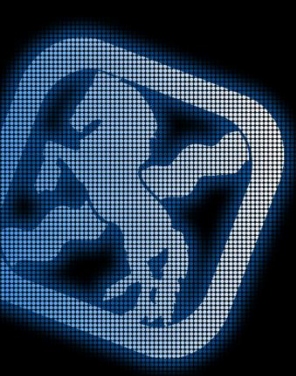
Failover Cluster

# Demo



# Windows Subsystem Neuerungen

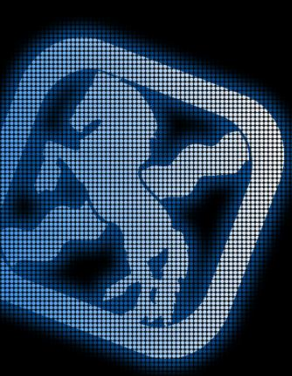
- DNS
  - Erweiterte Support for Active Directory–integrated DNS
  - DNS dynamic updates in DNSSEC signed zones
  - Support for updated DNSSEC standards, including NSEC3 and RSA/SHA-2 und Validation (NSEC3, RSA/SHA-2)
  - Updated User interface mit Deployment und Verwaltungs Wizards
  - PowerShell Support zur verwaltung und Konfiguration von DNSSEC
- DHCP
  - DHCP Failover
    - Load Balancing
    - Hot Standby
    - Zwei DHCP Server teilen sich die gleiche DHCP Konfiguration
  - Policy based Assignment
  - Zuweisung von Policies fuer DHCP Scopes und -Konfigurationen



# Windows Subsystem Neuerungen

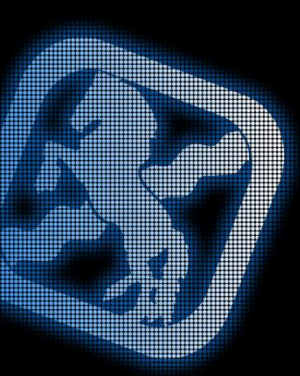
- IIS
  - Zentraler SSL Zertifikatspeicher
  - SNI (Server Name Indication) als Host Header Alternative
  - „Echtes“ CPU Throttling
  - Dynamic IP Address Restriction
  - FTP Logon Attempt Restriction
  - IIS Configuration Editor erstellt Powershell Script
  - WebSocket Support
  - HTML 5 Support





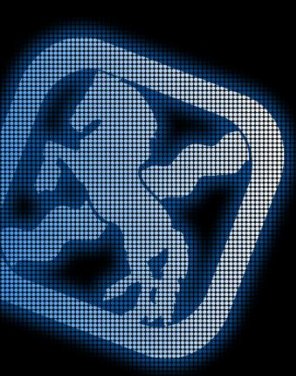
# Windows Subsystem Neuerungen

- Remote Desktop Services
  - RDS Deployment Szenario mit Server Manager
  - RemoteFX ueber WAN Leitungen (TCP/UDP)
  - Multimonitor Support fuer RemoteFX
  - USB Redirection fuer RD Session Host
  - VMConnect fuer RemoteFX aktivierte VM
  - RemoteFX Rolle in RDS Rolle integriert
  - User Profile Disk
  - VDI Zugriff ohne RDS Rolle
  - Virtual Desktop Template fuer VDI
  - Virtual Desktops auf SMB Share
  - Windows 8 Modern UI Remote Desktop App
  - RD Gateway Transport Settings



Remote Desktop Services

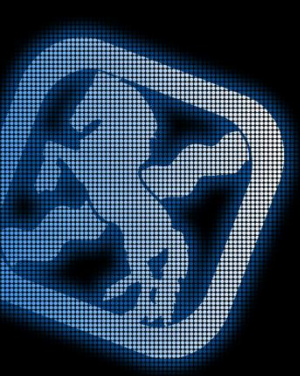
Demo



# DirectAccess

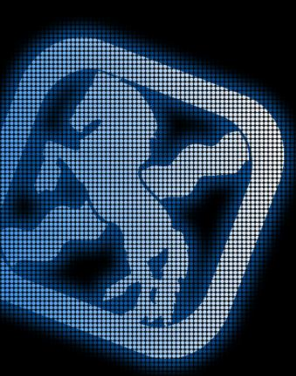
## DirectAccess Erweiterungen

- Keine PKI erforderlich
- Nur eine NIC erforderlich
- DirectAccess durch NAT-Router
- Client Multi Domain Support
- NLS Server kann auf DA Server liegen
- Echter Multisite Support
- Windows 8 und Downlevel Windows 7 Support
- OTP Support



DirectAccess

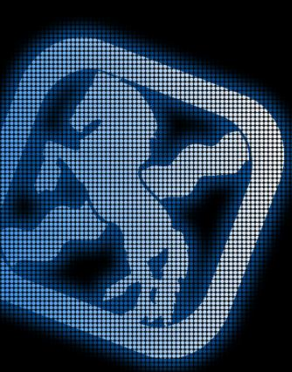
# Demo



# Networking

- QoS and flexible bandwidth allocation
- Support for SR-IOV (Direct Access to the physical Network adapter)
- Network Virtualization
- PVLAN Support
- Dynamic Virtual Machine Queue (D-VMQ)
- Receive Side Coalescing (RSC)
- DHCP Guard
- Port ACLs
- Extensible Virtual Switch
- IPsec Task offload

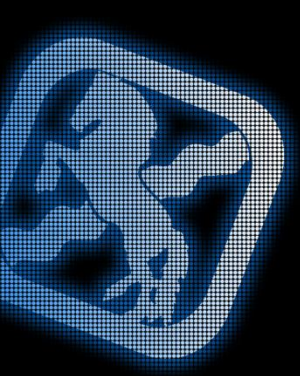
**Notiz an Speaker  
- ueberspringen**



# Noch mehr Abkuerzungen

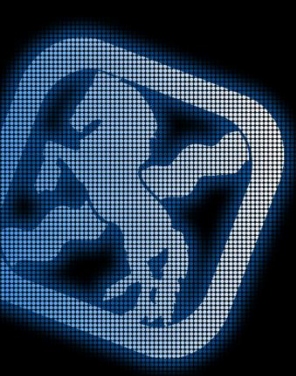
- DataCenter Bridging (DCB)
- Remote direct memory access (RDMA)
- Datacenter TCP (DCTCP)
- Consistent Device Naming (CDN)
- NIC Teaming (LBFO)
- Generic Routing Encapsulation (GRE)
- IPsec Task Offload v2 (IPsecTOv2) for VMs
- Receive Side Scaling (RSS) extensions
- Receive Segment Coalescing (RSC)
- Dynamic Virtual Memory Queues (VMQ)
- Single-Root I/O Virtualization (SR-IOV)

**Notiz an Speaker  
- ueberspringen**



# Fragen?

Sorry, ich habe vergessen Euch alle  
Neuerungen zu zeigen



# Kontakt

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- Mobile: 0176/23380279 (manchmal)
- MSN: Was ist das? 😊
- Twitter: Nicht mit mir
- Facebook: Was bitte? → Einmal die Woche spannen und mich amuesieren was Leute so schreiben