



HEROES

happen {here}



Windows Server 2008



Microsoft
Visual Studio 2008



Microsoft
SQL Server 2008



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Beta 2

Verzia pre
nasadenie spoločne
s Windows Vista

Beta 3

Pripravená na
detailné
testovanie

RC0

Plná funkcionality,
pripravená na
testovanie v
prevádzke



Windows Server® 2008

Ship

**4.2.2008
RTM!**

Windows Server

Časová mapa



Microsoft
Windows Server
2008 R2

2009

Microsoft
Windows
Storage Server 2008

Microsoft
Windows
Small Business Server
Code Name "Cougar"



Windows Server
Code Name "Centro"

2008

Windows Essential Business Server



Windows Home Server

Microsoft
Windows Server 2008 RTM

Microsoft
Windows Server
"Longhorn" Beta 3

2007



Windows Server® 2008

Technology Investments

Web

Windows Server 2008 vám umožní poskytovať bohaté, na webe založené zážitky výkonne a efektívne, s vylepšenou administráciou a diagnostikou, vývojovými a aplikačnými nástrojmi a nižšími nákladmi na infraštruktúru.

Virtualization

Vďaka integrovanej technológii serverovej virtualizácie vám Windows Server 2008 umožňuje znižovať náklady, zvyšovať hardvérovú utilizáciu, optimalizovať vašu infraštruktúru a zlepšovať serverovú dostupnosť.

Security

Windows Server 2008 je doposiaľ najbezpečnejší Windows Server. Ustálený operačný systém a bezpečnostné inovácie, vrátane Network Access Protection, Federated Rights Management a Read-Only Domain Controller poskytujú nebývalé úrovne ochrany vašej siete, vašich dát a vášho podnikania.

Solid Foundation for Your Business Workloads

Management

Server Manager – “One-stop shop” to guide you through installation, configuration, management, and reporting of server roles and features.

Windows PowerShell™ - Achieve greater control and productivity using a powerful new command shell and scripting language for accelerated system administration and task automation

Power Management – Reduce energy consumption and maintain server performance through processor power management features.

High Performance Computing – Increase scalability and performance of HPC workloads and improve management of clustered file systems.

Reliability

Server Core Installation Option - Minimal installation option for increased reliability, security, and management

Next Generation Networking - New TCP/IP stack improves scalability, performance and security.

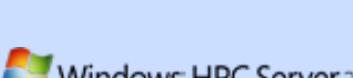
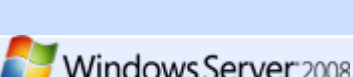
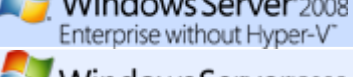
Failover Clustering – Improved setup, validation, management, and geo-clustering deployment simplifies implementation of highly-available failover clusters and helps ensure business continuity.

Dynamic Partitioning - Datacenter and Itanium. Delivers mainframe-class reliability. Increases workload resources, and allows one to hot-add and replace processors and memory without rebooting,

Požiadavky na systém

Component	Requirement
Processor	Minimum: 1 GHz (x86 processor) or 1.4 GHz (x64 processor) Recommended: 2 GHz or faster Note: An Intel Itanium 2 processor is required for Windows Server 2008 for Itanium-Based Systems
Memory	Minimum: 512 MB RAM Recommended: 2 GB RAM or greater Optimal: 2 GB RAM (Full installation) or 1 GB RAM (Server Core installation) or more Maximum (32-bit systems): 4 GB (Standard) or 64 GB (Enterprise and Datacenter) Maximum (64-bit systems): 32 GB (Standard) or 2 TB (Enterprise, Datacenter, and Itanium-Based Systems)
Available Disk Space	Minimum: 10 GB Recommended: 40 GB or greater Note: Computers with more than 16 GB of RAM will require more disk space for paging, hibernation, and dump files
Drive	DVD-ROM drive
Display	Super VGA (800 × 600) or higher resolution monitor
Other	Keyboard and Microsoft Mouse or compatible pointing device

Edície Windows Server 2008

	Windows Server 2008 Standard is the most robust Windows Server operating system to date. With built-in, enhanced Web and virtualization capabilities, it is designed to increase the reliability and flexibility of your server infrastructure while helping save time and reduce costs. Powerful tools give you greater control over your servers, and streamline configuration and management tasks. Plus, enhanced security features work to harden the operating system to help protect your data and network and provide a solid, highly dependable foundation for your business.
	Windows Server 2008 Enterprise delivers an enterprise-class platform for deploying business-critical applications. Help improve availability with clustering and hot-add processor capabilities. Help improve security with consolidated identity management features. Reduce infrastructure costs by consolidating applications with virtualization licensing rights. Windows Server 2008 Enterprise provides the foundation for a highly dynamic, scalable IT infrastructure.
	Windows Server 2008 Datacenter delivers an enterprise-class platform for deploying business-critical applications and large-scale virtualization on small and large servers. Improve availability with clustering and dynamic hardware partitioning capabilities. Reduce infrastructure costs by consolidating applications with unlimited virtualization licensing rights. Scale from 2 to 64 processors. Windows Server 2008 Datacenter provides a foundation on which to build enterprise-class virtualization and scale-up solutions.
	Designed to be used specifically as a single-purpose Web server, Windows Web Server 2008 delivers on a rock-solid foundation of Web infrastructure capabilities in the next-generation Windows Server 2008. Integrated with the newly re-architected IIS 7.0, ASP.NET, and the Microsoft .NET Framework, Windows Web Server 2008 enables any organization to rapidly deploy Web pages, Web sites, Web applications, and Web services.
	Windows Server 2008 for Itanium-Based Systems is optimized for large databases, line of business, and custom applications providing high availability and scalability for up to 64 processors to meet the needs of demanding and mission-critical solutions.
	Windows HPC Server 2008, the next generation of high-performance computing (HPC), provides enterprise-class tools for a highly productive HPC environment. Built on Windows Server 2008, 64-bit technology, Windows HPC Server 2008 can efficiently scale to thousands of processing cores and includes management consoles that help you to proactively monitor and maintain system health and stability. Job scheduling interoperability and flexibility enables integration between Windows and Linux based HPC platforms, and supports batch and service oriented application (SOA) workloads. Enhanced productivity, scalable performance, and ease of use are some of the features that make Windows HPC Server 2008 best-of-breed for Windows environments.
	
	
	



Inštalácia, Server Manager, Serverové role

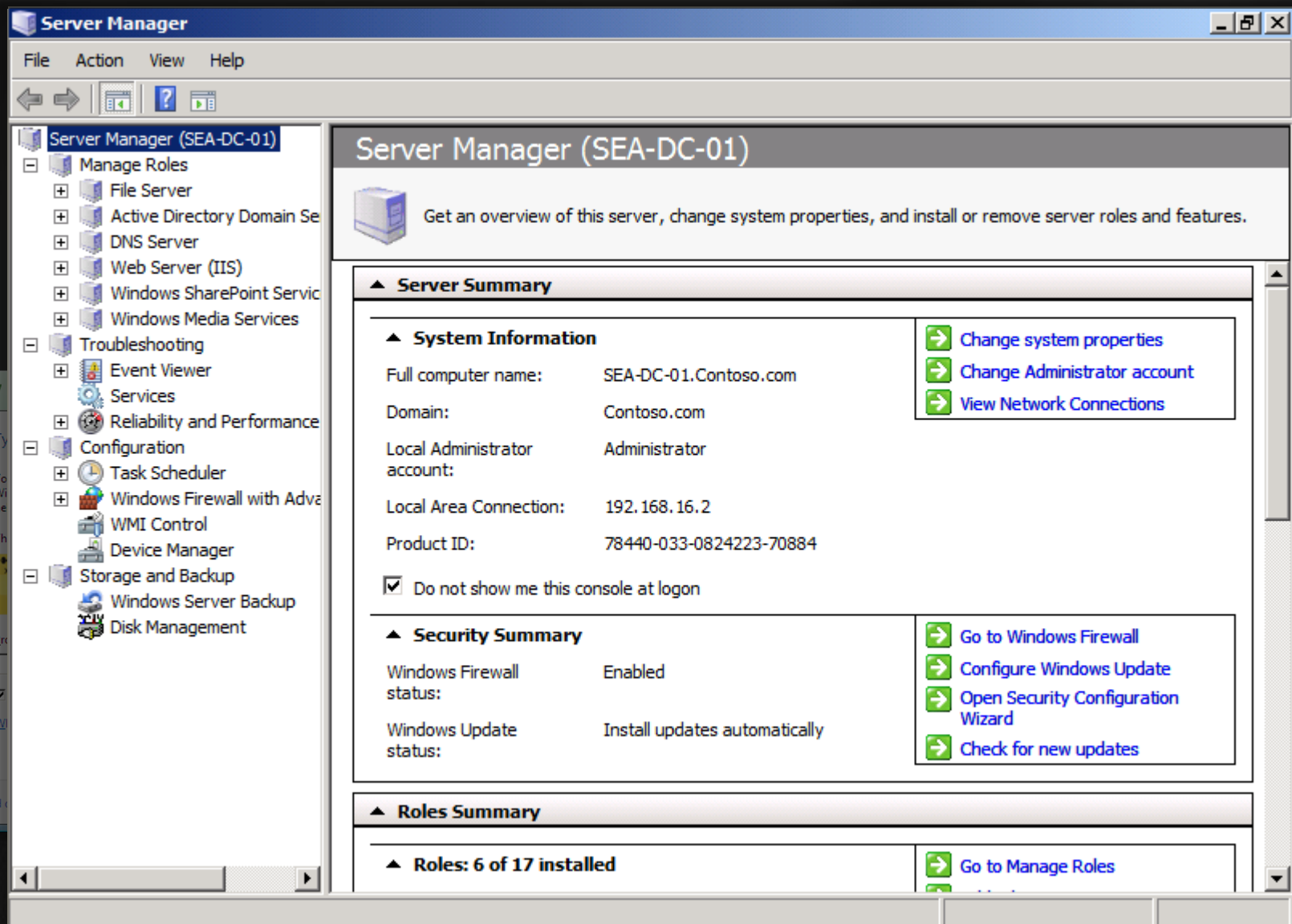
Windows Server 2008

- Image-based inštalácia
- Široké možnosti úprav pre rozsiahlejšie nasadenie
 - Ovládače, aplikácie, nastavenie...
- Nedeštruktívna inštalácia
- Základná inštalácia v niekoľkých krokoch
- Nové spôsoby základného nastavenia a sprievodcovia
- Windows Deployment Services

Inštalácia

Demo

Správa Windows Serveru 2008



Role Windows Serveru 2008



Streaming Media Services
Terminal Services (TS)
Universal Description, Discovery, and Integration
(UDDI) Services
Web Server
Windows® Deployment Services (WDS)
Windows® SharePoint® Services

Server Manager

Demo



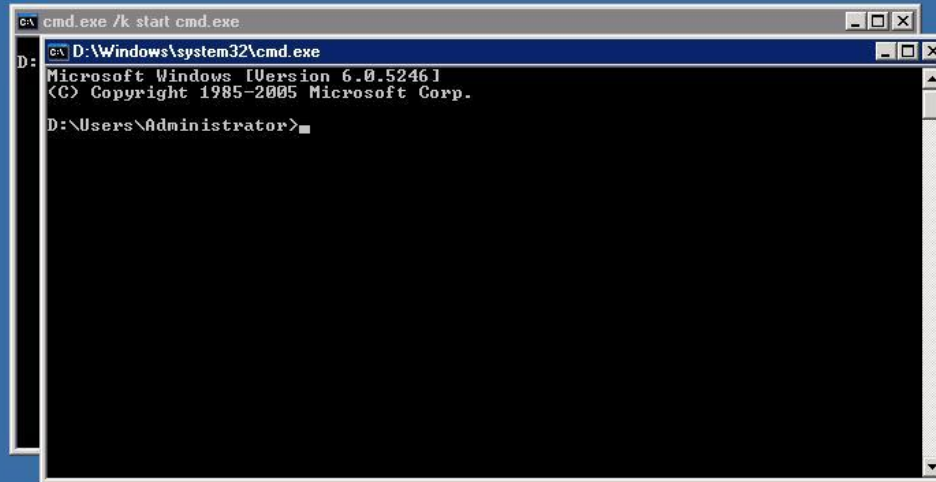
SERVER CORE

Server Core

- Verzia bez GUI, ktorá ponúka len základné serverové funkcie
- Bezpečnejšie riešenie (“reduced attack surface”)
 - Server Core znižuje celkový počet opráv o ~60%
 - Na servery nebežia procesy, ktoré nie sú nevyhnutne potrebné a vďaka tomu ponúka Server Core bezpečnejšie a výkonnejšie riešenie
- Len nová inštalácia – nie je možný upgrade!
- Umožňuje prevádzkovať niektoré z rolí WS2008:
 - Napr. AD, AD LDS, DHCP, DNS, File, Print, WMS, IIS, Virtualization
- Ponúka ďalšiu funkcionálnosť pomocou vybraných funkcií:
 - WINS, Failover Clustering, Backup, Multipath IO, Removable Storage Management, Bitlocker Drive Encryption, SNMP, Telnet Client
- Podporuje:
 - Notepad, Task Manager...
- Neumožňuje:
 - Shell, CLR, GUI, aplikácie ako IE, Windows Mail, Windows Media Player, atď.

... je obsiahnutý vo verziách Standard, Enterprise a Datacenter (x86 and x64)

Server Core Desktop



Správa Server Core

- RPC a DCOM na vzdialené použitie MMC
- CMD na lokálne spúšťanie procesov a aplikácií
- CMD cez Terminal Server
- WS-Management a Windows Remote Shell
- Task Scheduler
- Event Logging a Event Forwarding
- WMI
- SNMP

Inštalácia serverových rolí

- Len z príkazového riadku, žiadny Server Manager
 - pozor – case sensitive!
- Start /w OCSetup RolePackage
 - DHCP = DHCPServerCore
 - DNS = DNS-Server-Core-Role
 - File = File-Server-Core-Role
 - File Replication service = FRS-Infrastructure
 - Distributed File System service = DFSN-Server
 - Distributed File System Replication = DFSR-Infrastructure-ServerEdition
 - Network File System = ServerForNFS-Base
 - Media Server = MediaServer
- Active Directory
 - Dcpromo /unattend:Unattendfile
 - Na inštaláciu Active Directory nie je podporovaný OCSetup, ale DCpromo

Inštalácia systémových komponentov

- Start /w „ocsetup“ OptionalFeaturePackage
 - Failover Cluster = FailoverCluster-Core
 - Network Load Balancing = NetworkLoadBalancingHeadlessServer
 - Subsystem for UNIX-bases applications = SUA
 - Multipath IO = Microsoft-Windows-MultipathIO
 - Removable Storage Management = Microsoft-Windows-RemovableStorageManagementCore
 - Bitlocker Drive Encryption = BitLocker
 - Backup = WindowsServerBackup
 - Simple Network Management Protocol (SNMP) = SNMP-SC
 - Telnet Client = TelnetClient
 - WINS = WINS-SC

Server Core

Demo



Read only Domain Controller

Read-Only Domain Controller (RODC)

- Riešenie

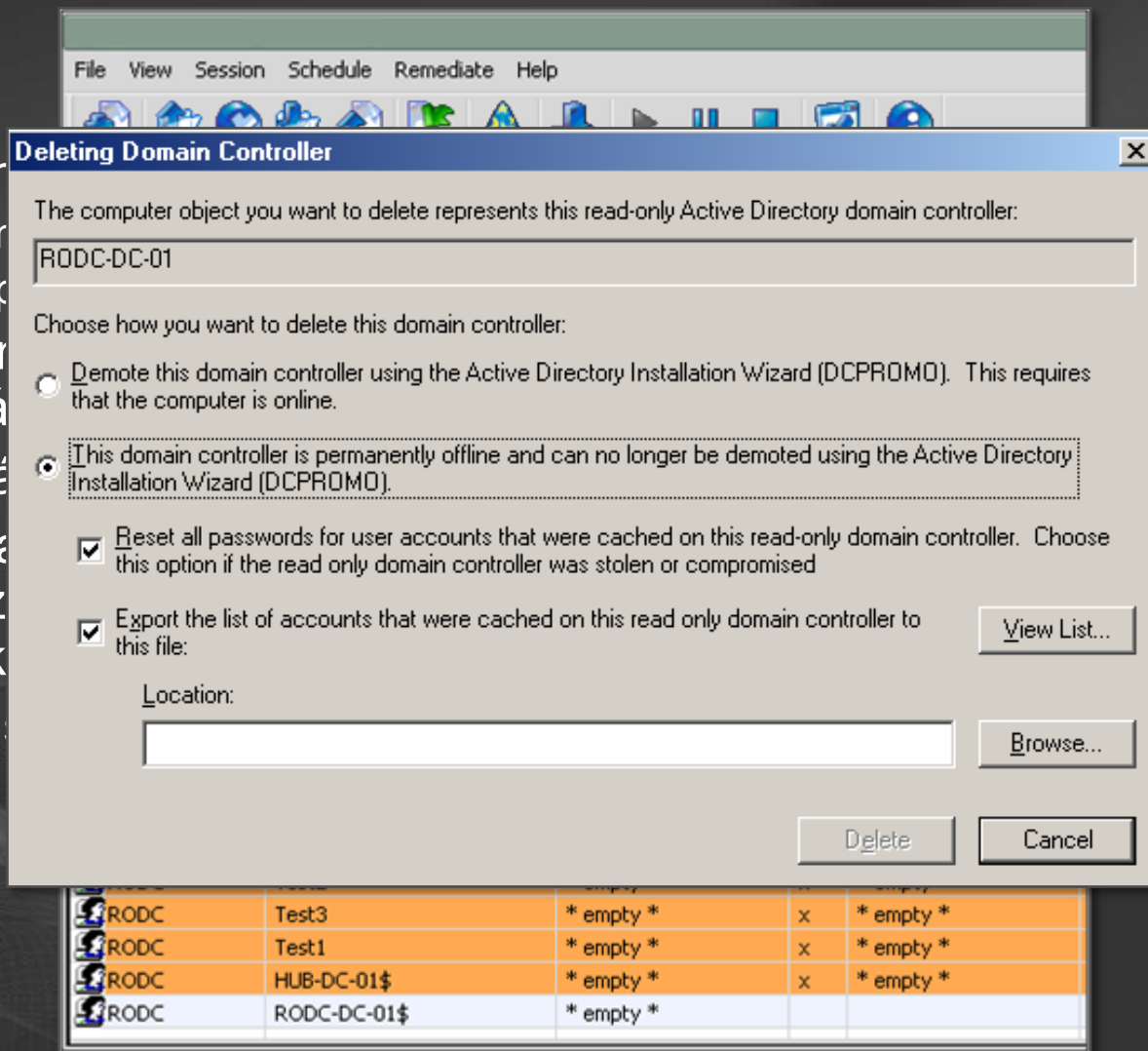
- s r
- s p

- Doménová replikácia

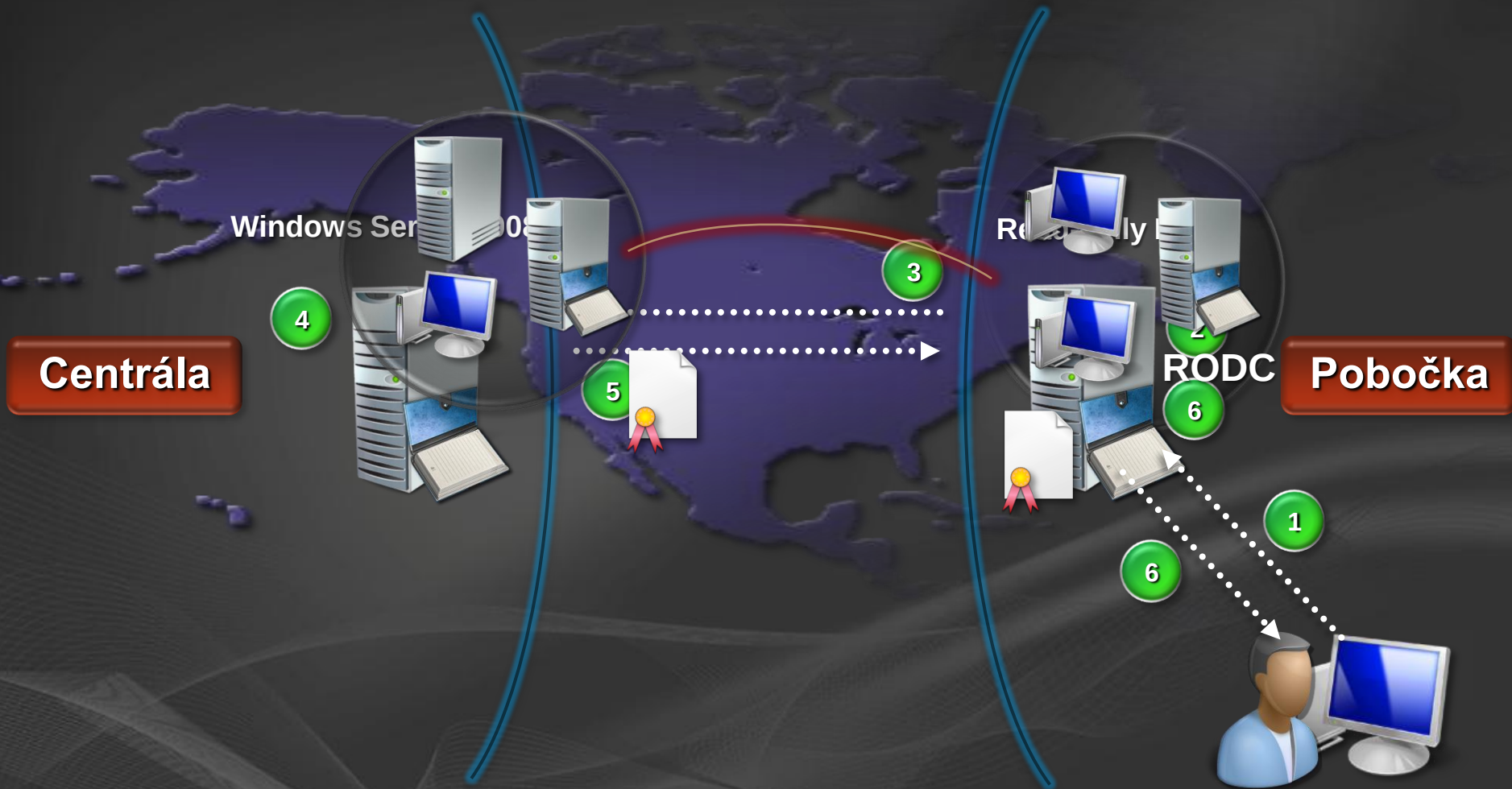
- Ukladanie

- V prípade vymazania zreplikovaných

- Na zariadení s Bitlocker, EFS a



Ako RODC funguje



RODC odovzdať klientovi žiadanú službu a potom ju uloží do svojej lokálnej kachy. Keď klient znovu požiadajú o tú istú službu, RODC ju poskytne priamo z kachy.

RODC

Demo



Network Access Protection - NAP

Sieť definuje politika, nie topológia!



Čo zákazníkov najviac trápi?

Ako vírusy najčastejšie napádajú firemné prostredie:

- Zamestnanci, ktorí sa vrátia z ciest
- Hostia pripojení do miestnej siete
- Zamestnanci používajúci VPN
- Útoky na nechránené počítače v sieti

Príčiny straty produktivity a miera finančnej straty

Rok	Vírus	WW Financial Impact (USD)
1999	Melissa	1.10 Billion
2000	Love Bug	8.75 Billion
2001	Code Red	2.75 Billion
2002	Klez	750 Million
2003	Slammer	1.25 Billion

Zdroj: Virus Attack Costs are Rising –Again. Computer Economics, Inc. Sept 2003.

Správca potrebuje nástroje, ktoré:

- Detekujú a chránia pred útokmi
- Nastavujú politiky, ktoré vyžadujú dodržať základné podmienky na pripojenie
- Udržia sieť čo najmenej napadnuteľnú
- Pomôžu pri riešení prienikov

NAP - možnosti

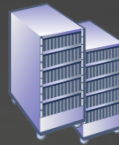
	„Zdravý“ klient	Ostatní klienti
DHCP	Priradená IP adresa, úplný prístup	Obmedzené možnosti presmerovania
VPN (MS a externé nástroje)	Úplný prístup	Vyhradená VLAN
802.1X	Úplný prístup	Vyhradená VLAN
IPsec	Môže komunikovať s dôveryhodným systémom	„Zdraví“ klienti odmietnu požiadavky na spojenie
	• Doplnenie ochrany na druhej vrstve • Pracuje s existujúcimi servermi a infraštruktúrou • Flexibilná izolácia	

NAP v praxi

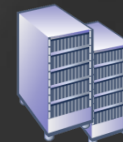
Firemná sieť

Sieť s obmedzeným prístupom

Remediation
Servers
(např. SCCM)



Windows Server 2008
System Health
Servers



Tu ju máš!

Môžem získať aktualizáciu?

Klient získava plný prístup do LAN!

Politiky aktualizujú IAS Server

Požadujem prístup.
Požadujem znovu prístup.
Tu je môj stav.
Tu je môj aktuálny stav.



Klient

Získavaš obmedzený
prístup do doby, než
splníš podmienky.



Network
Access
Device
(Switch, VPN)

Má byť tento klient
obmedzený na základe
svojho stavu?



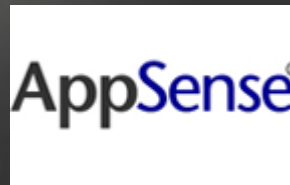
Klient je v poriadku,
daj mu prístup.
mu prístup.



IAS Policy
Server
(RADIUS)

Nasadenie NAP

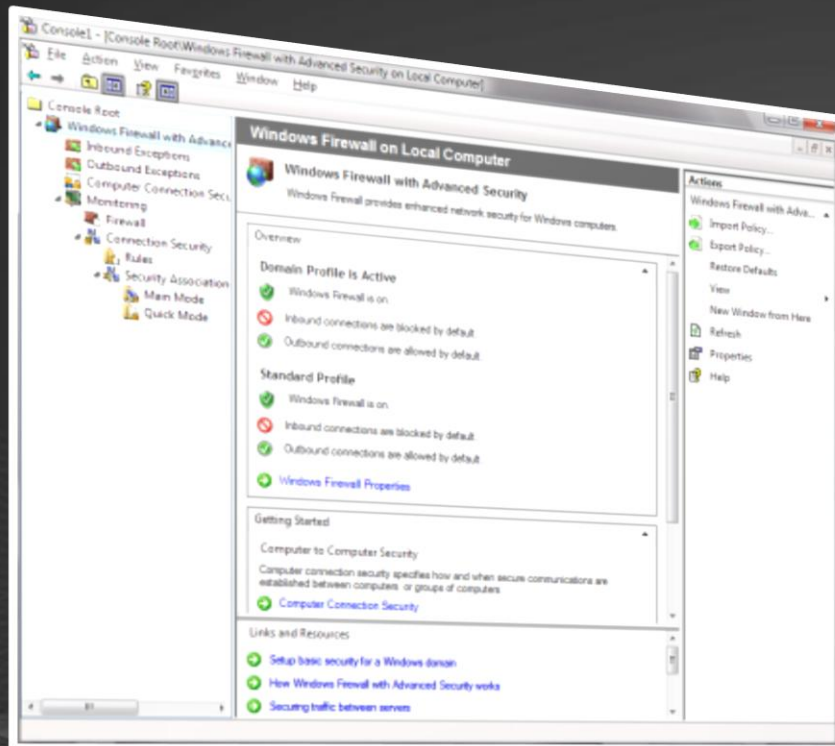
- Príprava na nasadenie NAP spočiatku znamená zvýšené úsilie a časové nároky
- Pripravte vašu sieť na tento nový model bezpečnosti
- Zaistite podporu pre NAP vo vašej spoločnosti





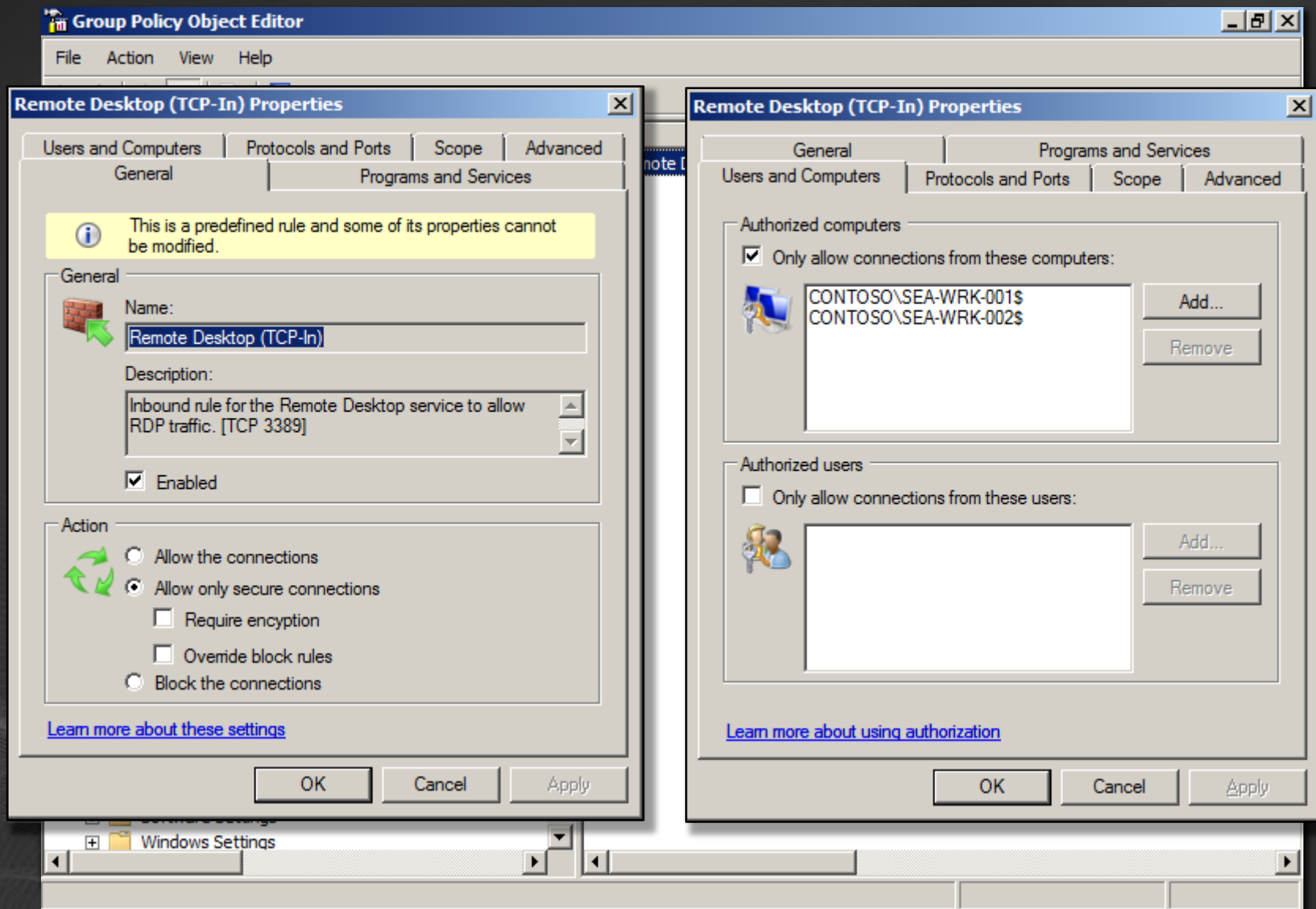
Windows Firewall

Nový Windows Firewall



- Inbound and Outbound Filtering
- New Management Console
- Integrated Firewall and IPsec Policies
- Rule Configuration on Active Directory Groups and Users
- Support for IPv4 and IPv6
- Advanced Rule Options
- On by Default

Windows Firewall w/ Advanced Security



Policy-based networking pre intelligent

NAP a IPsec

Demo



Internet information services (IIS) 7

Všeobecne o IIS 7.0



Prispôsobenie

Riešenie problémov

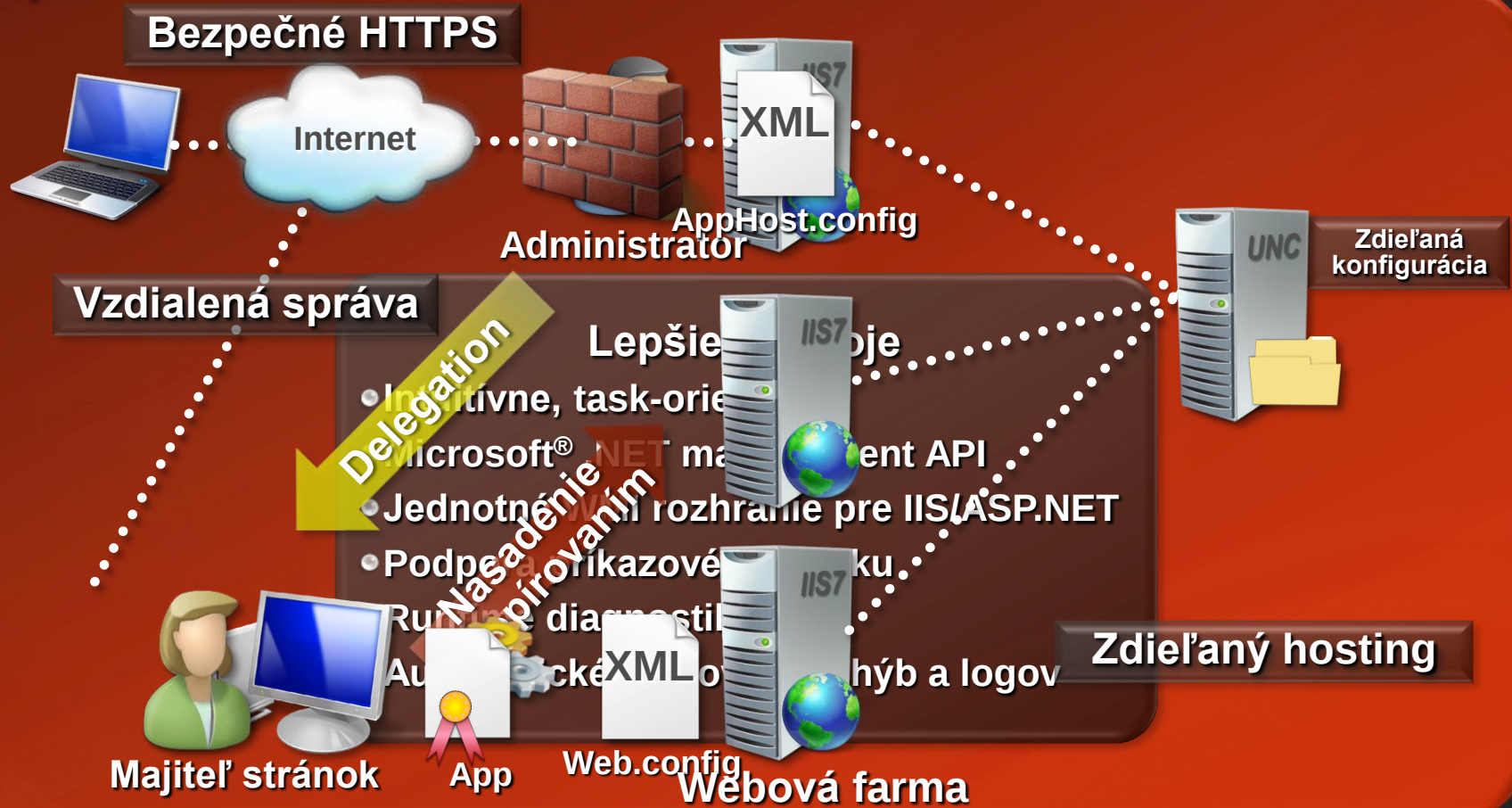
Administrácia

**Vylepšená bezpečnosť a
obmedzený priestor na útoky**

Nasadenie aplikácií

**Aplikačný management pre
Windows Foundation Classes
(WFC) services**

Správa webu s IIS 7.0

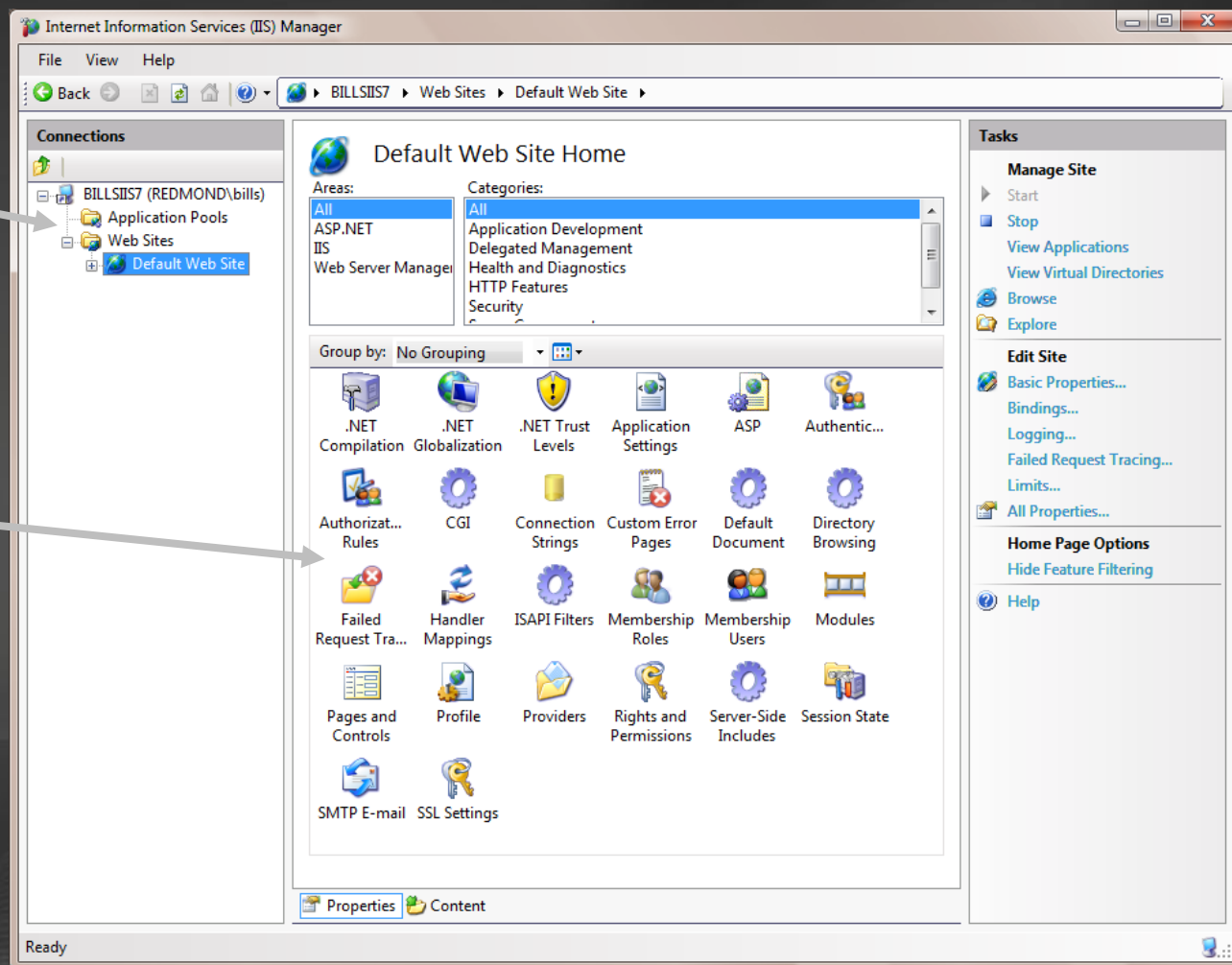


- Veľa nástrojov na správu
- Bezpečná vzdialená správa
- Delegácia správy
- Zdieľaná konfig. pre web farmy

IIS7 Administrácia

Vzdialená
správa cez
HTTPS

IIS/ASP.NET
funkcie prehľadne
usporiadané na
ľahšiu navigáciu



Delegovaná správa umožňuje majiteľom stránok či vývojárom pohodlne spravovať ich aplikácie a weby

IIS 7.0 konzola, Feature Delegation

Demo



Terminal Services

Novinky v Terminal Services

- **TS Easy Print**

- Jednotný tlačový ovládač!

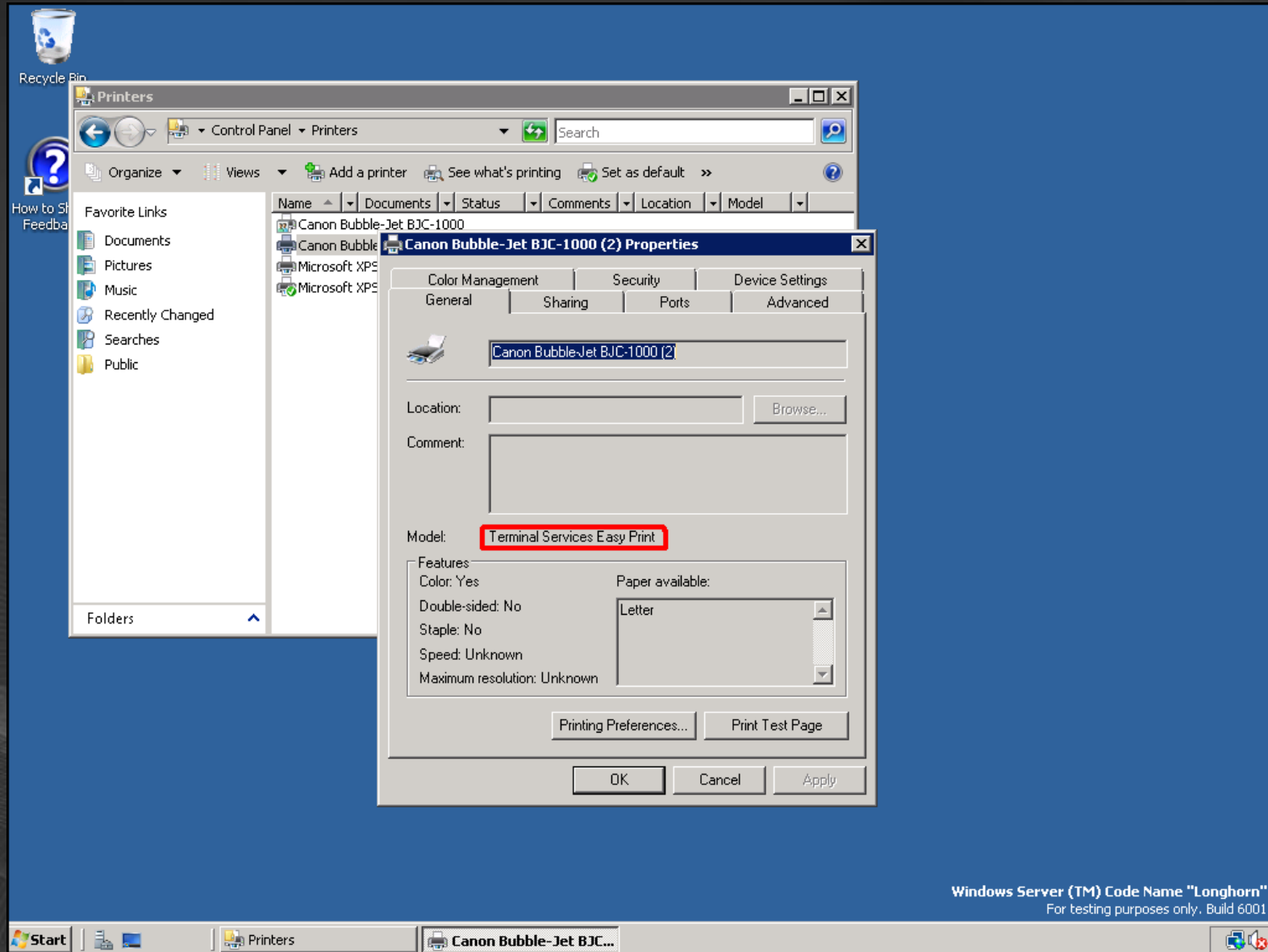
- **TS Gateway**

- Zabalí RDP spojenie do HTTPS na jednoduchšiu dostupnosť cez firewall

- **TS Remote Application**

- Nasadenie vzdialených aplikácií, nie kompletného vzdialeného prostredia
- Vyžaduje Remote Desktop klienta (XPSP2/Vista)
- Podporovaná 32-bit farebná škála
- Možnosti kopírovania a vloženia dát medzi klientom a TS

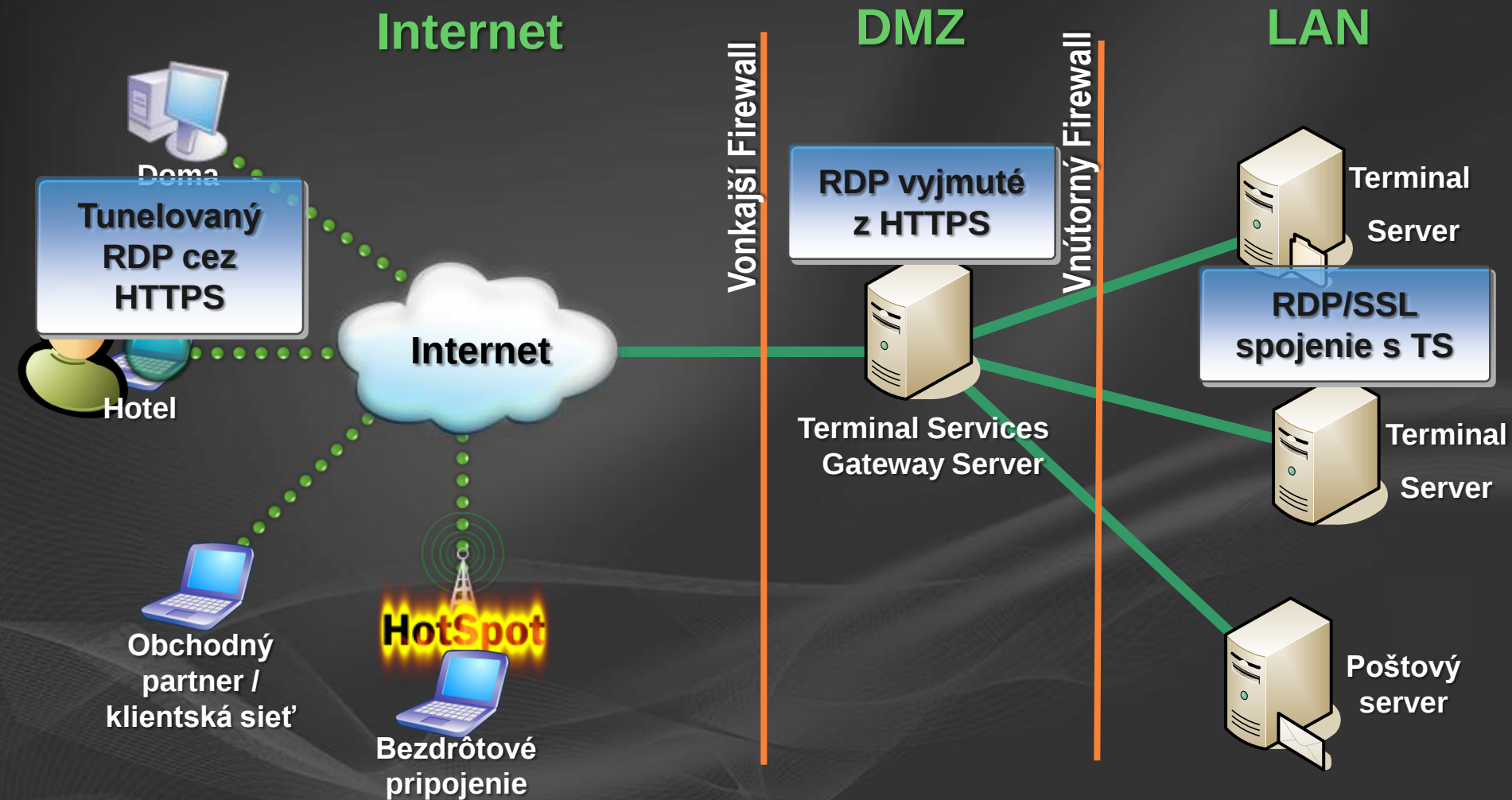
Terminal Services Easy Print



Novinky v Terminal Services

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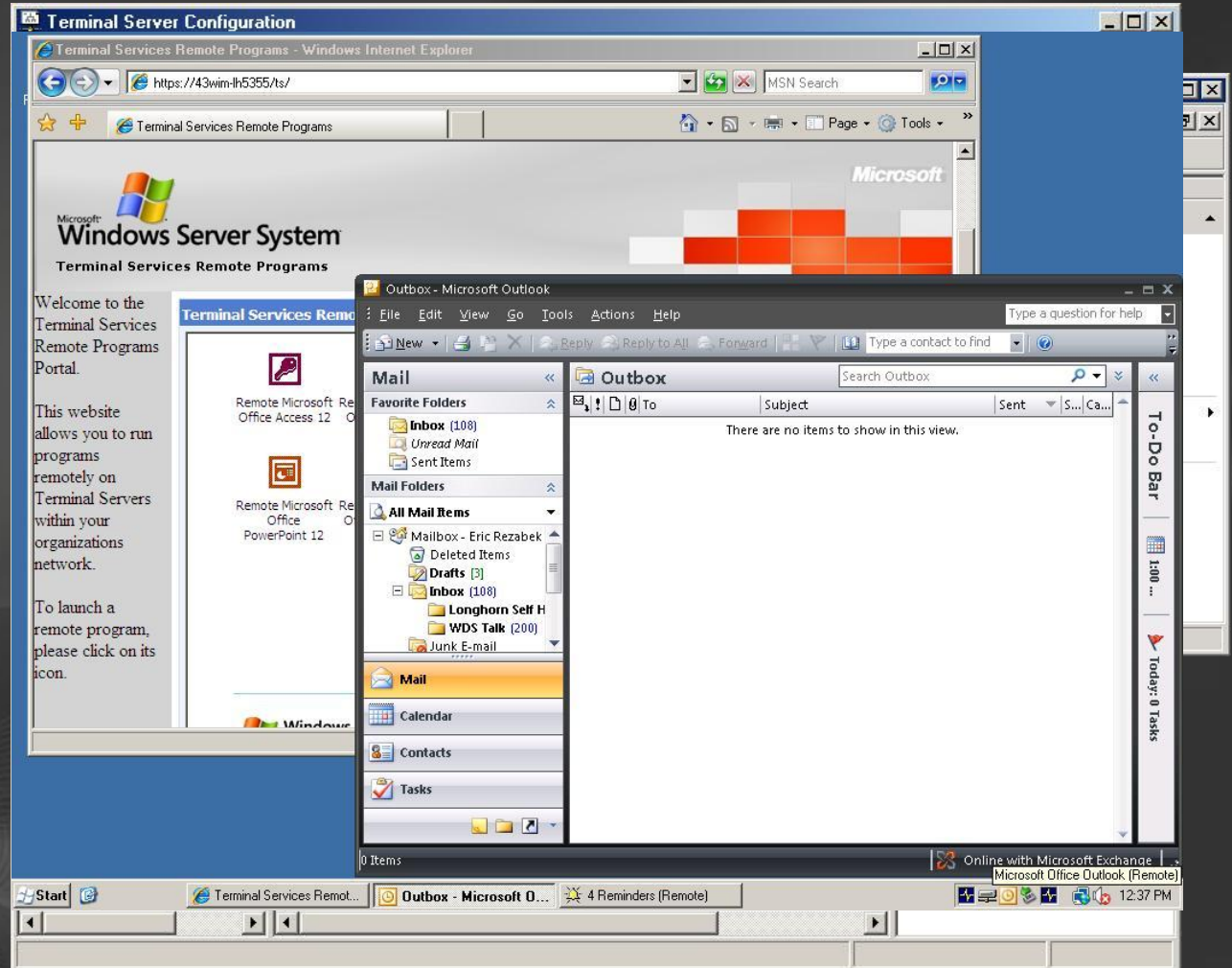
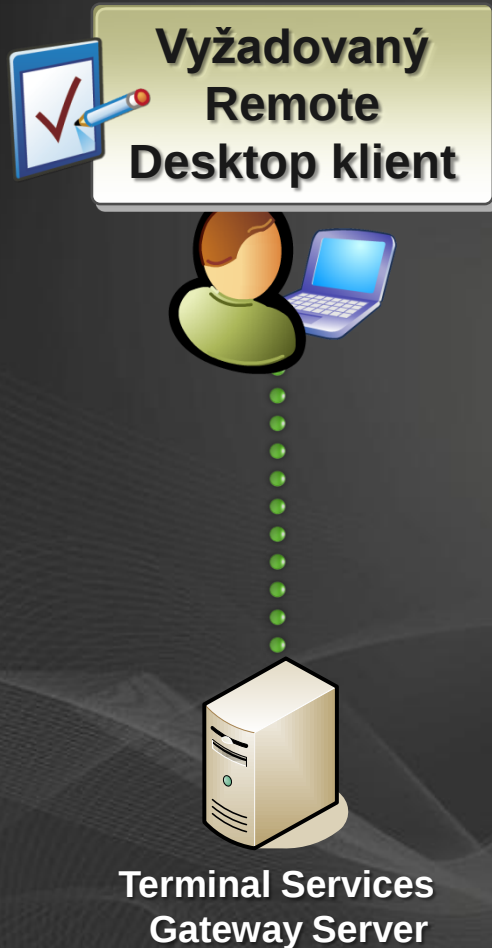
Terminal Services Gateway



Novinky v Terminal Services

- TS Easy Print
 - Jednotný tlačový ovládač!
- TS Gateway
 - Zabalí RDP spojenie do HTTPS na jednoduchšiu dostupnosť cez firewall
- **TS Remote Application**
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Terminal Services Remote Apps



Terminal Services

Demo

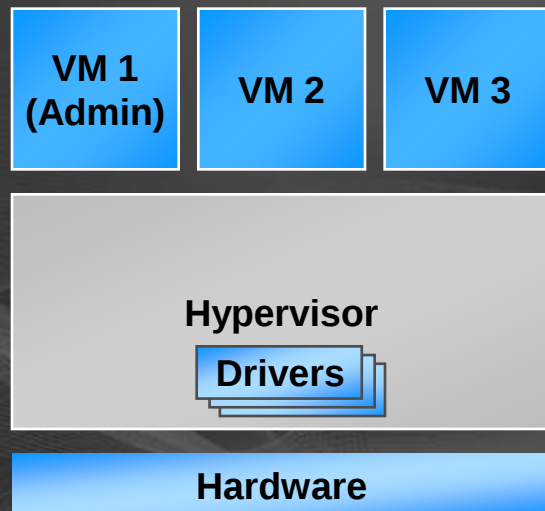


Hyper-V

Monolithic vs. Microkernelized

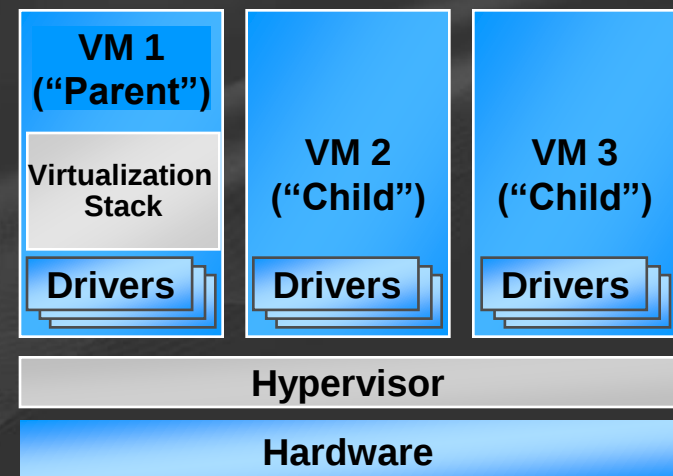
- Monolithic hypervisor

- Simpler than a modern kernel, but still complex
- Contains its own drivers model



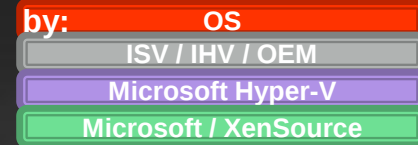
- Micro-kernelized hypervisor

- Simple partitioning functionality
- Increase reliability and minimize TCB
- No third-party code
- Drivers run within guests



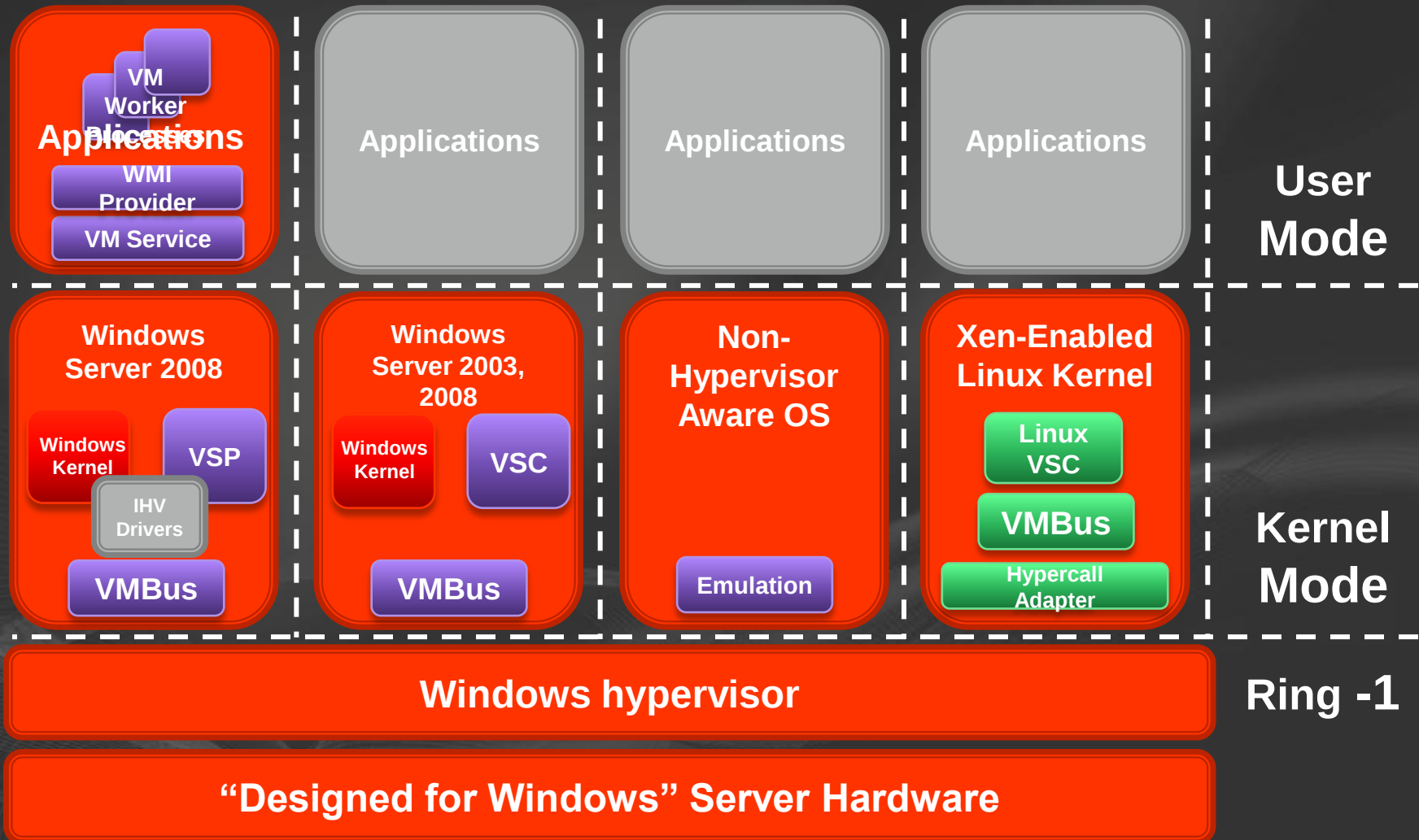
Hyper-V Architecture

Provided



Parent
Partition

Child Partitions



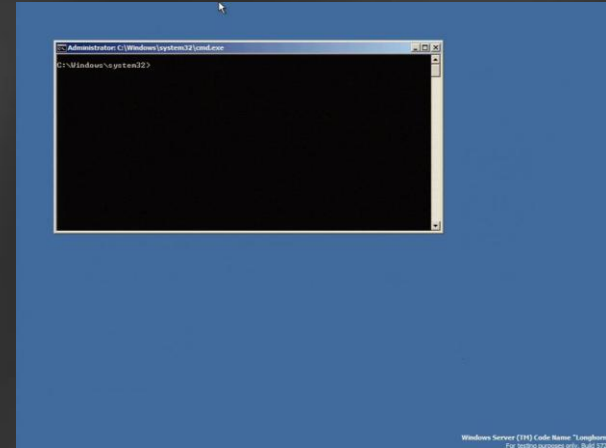
Hyper-V

- Capabilities

- 32-bit (x86) & 64-bit (x64) VMs
- Large memory support (64 GB) *per* VM
- SMP VMs (up to 4 cores)
- Integrated cluster support for HA & Quick Migration
- Live Backup: Volume Shadow Service integration
- Pass-through disk access for VMs
- Virtual Machine snapshots
- New hardware sharing architecture (VSP/VSC/VMBus)
 - Disk, networking, input, video
- Robust networking: VLANs and NLB
- DMTF standard for WMI management interface
- Support for Full or Server Core installations

Windows Server Core

- Windows Server frequently deployed for a single role
 - Must deploy and service the entire OS in earlier Windows Server releases
- Server Core a new minimal installation option
 - Provides essential server functionality
 - Command Line Interface only, no GUI Shell
- Benefits
 - Fundamentally improves availability
 - Less code results in fewer patches and reduced servicing burden
 - Low surface area server for targeted roles
 - More secure and reliable with less management



Security

- Isolation

- No sharing of virtualized devices
- Separate VMBus per vm to the parent
- No sharing of memory
 - Each has its own address space
- VMs cannot communicate with each other, except through traditional networking
- Guests can't perform DMA attacks because they're never mapped to physical devices
- Guests cannot write to the hypervisor
- Parent partition cannot write to the hypervisor



Záver

Ďalšie zdroje informácií

- <http://www.microsoft.com/slovakia/windowsserver2008>
- <http://www.microsoft.com/windowsserver2008>
- <http://www.spravnyserver.sk>

The screenshot shows the Microsoft Windows Server 2008 website in Slovak. The header includes the text "Slovenská republika" and navigation links: "Mapa serveru", "SR Hlavná", and "Worldwide". Below the header is a search bar with the text "Vyhľadávanie na Microsoft.com:" and an "OK" button. The main content area is divided into two tabs: "Technické informácie" (selected) and "Obchodné informácie". Under the "Technické informácie" tab, there is a sidebar with links: "Základný prehľad", "Vlastnosti (.CZ)", "Scenáre použitia (.CZ)", "FAQ", "Semináre a školenia", "Zdroje informácií" (with a dropdown arrow), "Microsoft Servery", and "Kontakt". The main content area features a large banner with two men and the text "Microsoft Windows Server 2008". Below the banner is a "Novinky" (News) section with three items: "Rok 2008 bude rokom veľkej vlny nových serverových produktov", "Základný prehľad", and "Najčastejšie otázky". At the bottom left, there are two promotional banners: "Windows Server 2008 RC1 Na prevzatie" and "Objednajte si DVD zdarma".

The image features the Microsoft logo and tagline centered on a dark, textured background. The background consists of subtle, overlapping wavy lines that create a sense of depth and movement. The logo is in a bold, italicized sans-serif font, and the tagline is in a smaller, italicized sans-serif font.

Microsoft®

Your potential. Our passion.™