

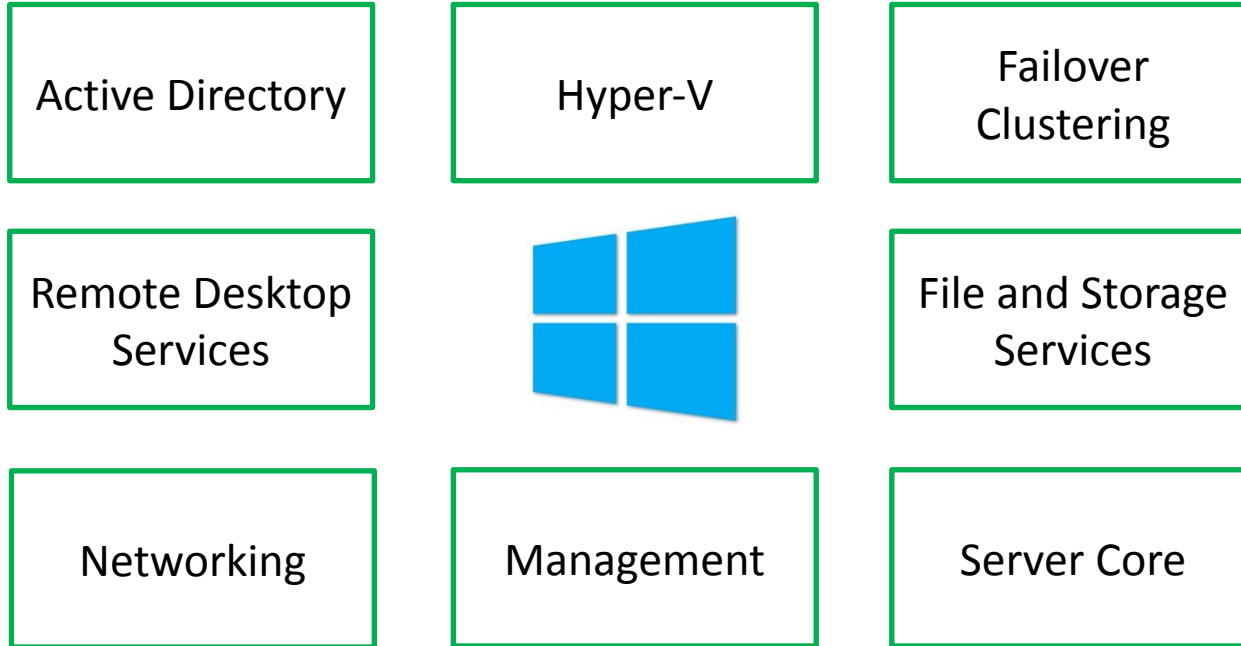


Горинов Максим: МСТ, MCITP:Enterprise Administrator

WINDOWS SERVER “8” BETA ТЕХНИЧЕСКИЙ ОБЗОР

МСР CLUB. ПЕРМЬ. АПРЕЛЬ 2012

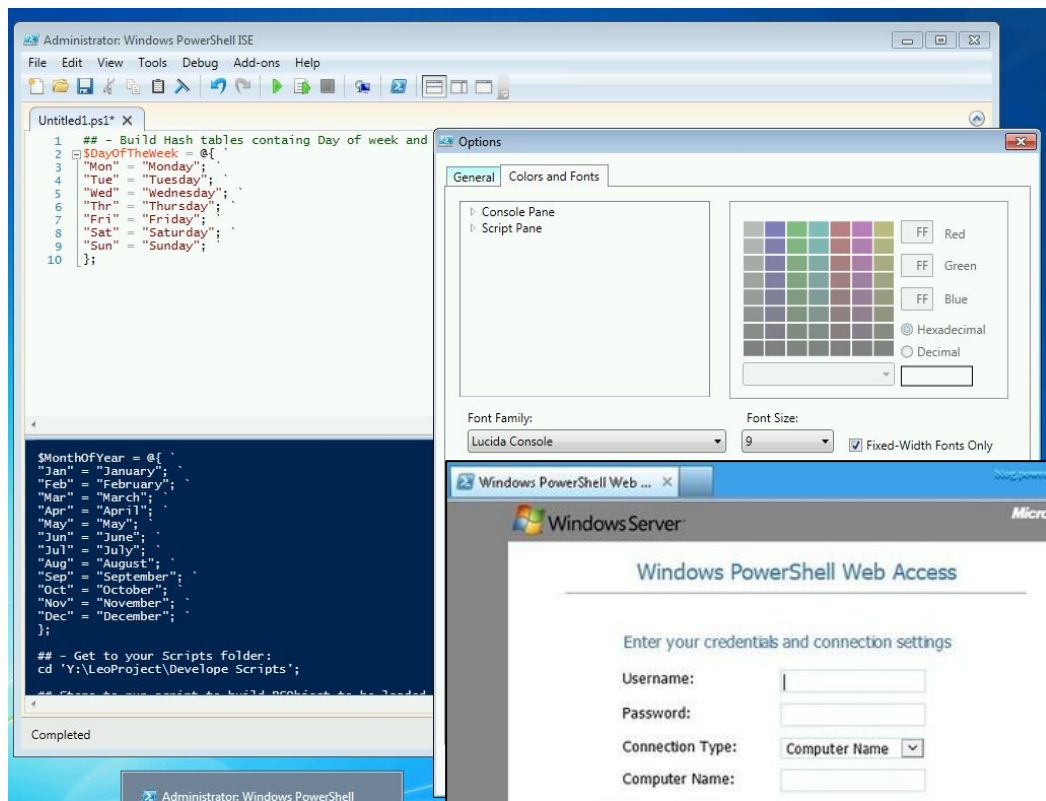
Новые и улучшенные технологии в Windows Server “8”



Windows Server “8”: Management

- PowerShell 3.0
- Server Manager
- Offline VHD Deployment

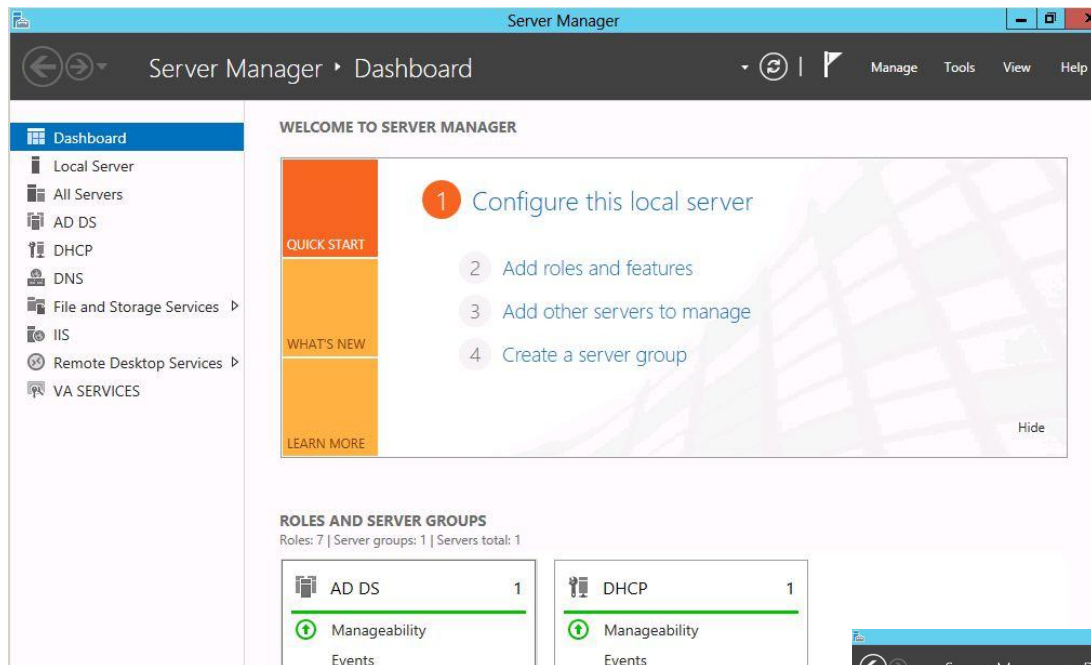
Management: PowerShell 3.0



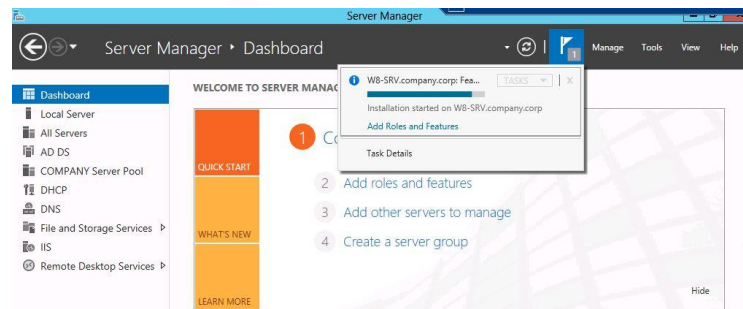
- PowerShell Workflow
- Переподключение к удаленной сессии
- PowerShell Web Access



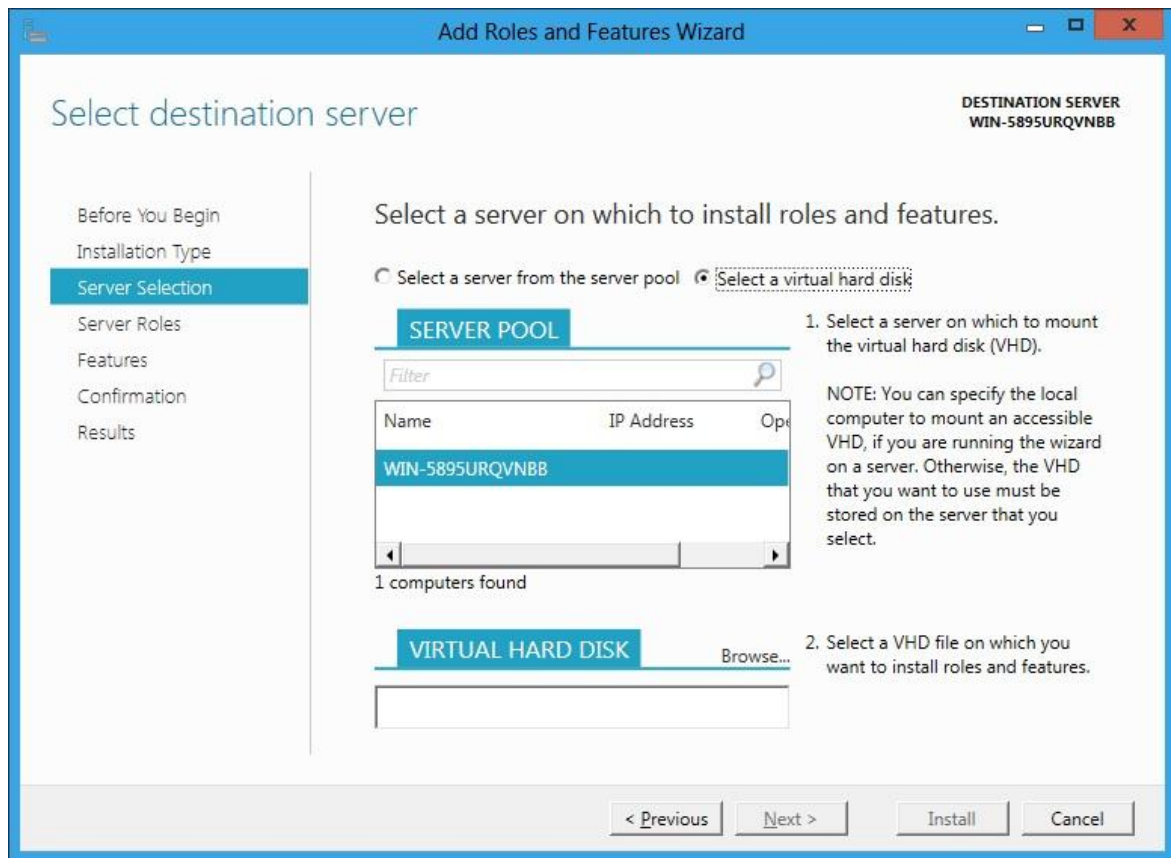
Management: Server Manager



- WPF приложение накладываемое на PowerShell
- Мультисерверное управление
 - File Storage Management
 - Remote Desktop Services
 - IP Address Management (IPAM)
- Запуск утилит управления в контексте управляемого сервера



Management: Offline VHD Deployment

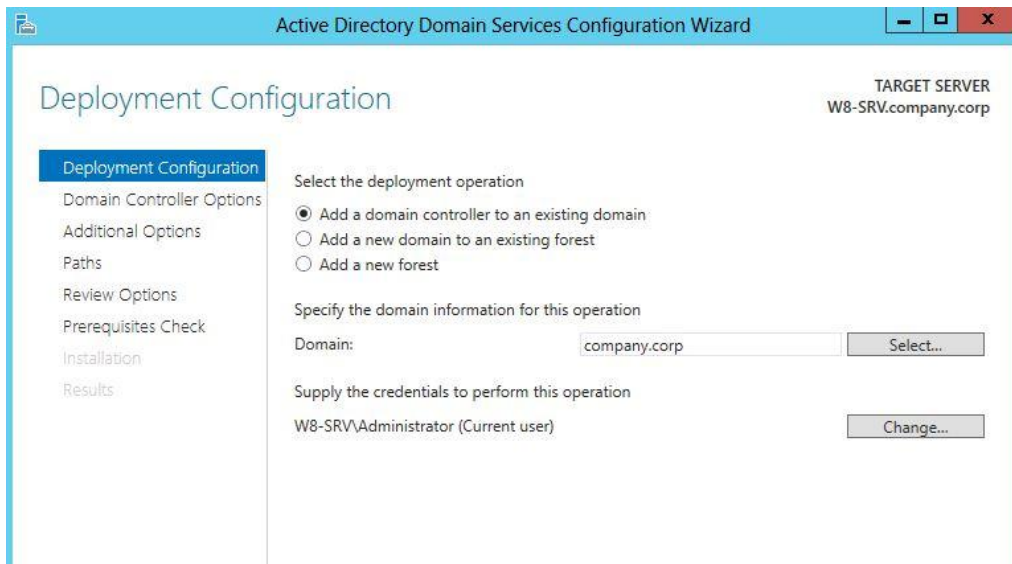


Offline Servicing для выключенных виртуальных машин

Windows Server “8”: Active Directory

- ADDS Configuration Wizard
- DC Cloning
- DC Virtualization
- Dynamic Access Control

Active Directory: ADDS Configuration Wizard

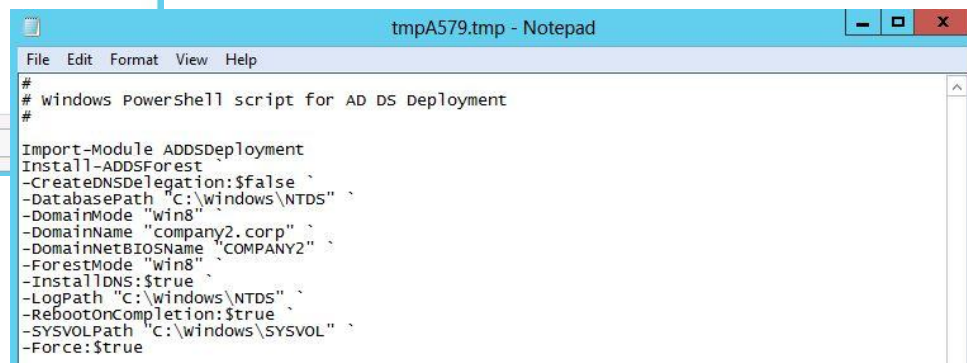


□ Интеграция в Server Manager

- DCPROMO
- ADPREP

□ Возможность запуска на удаленных серверах

□ Визард позволяет экспортировать скрипт развертывания ADDS через PowerShell



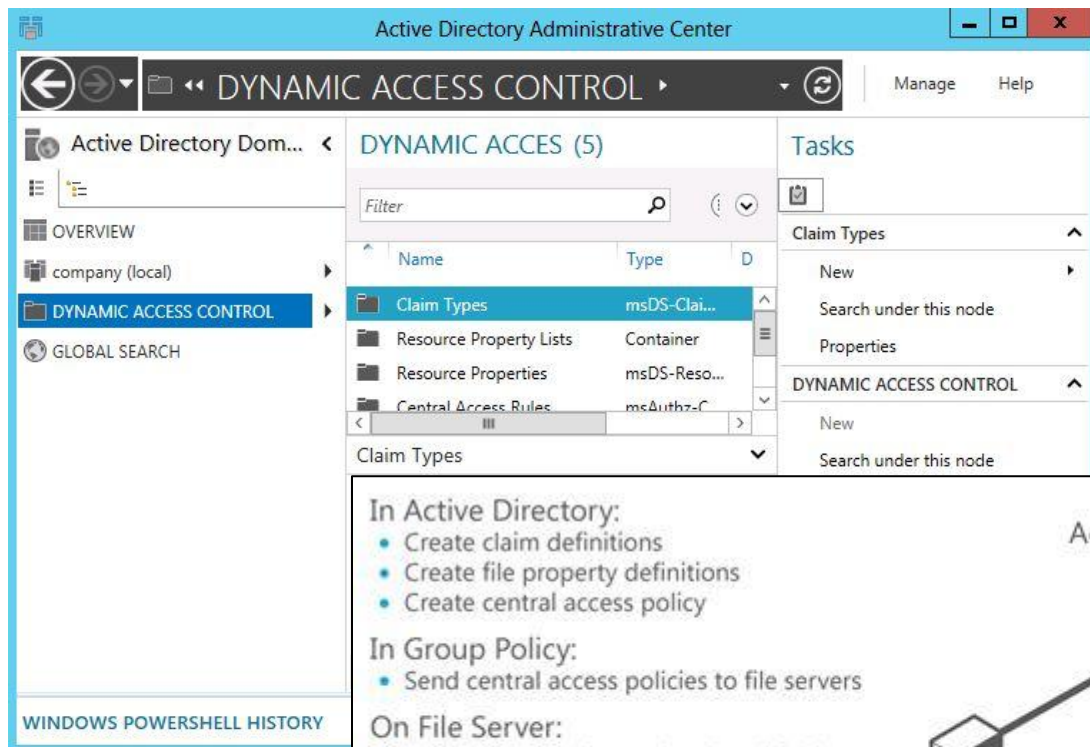


⋮ · Domain Controller cloning is at 2% completion...

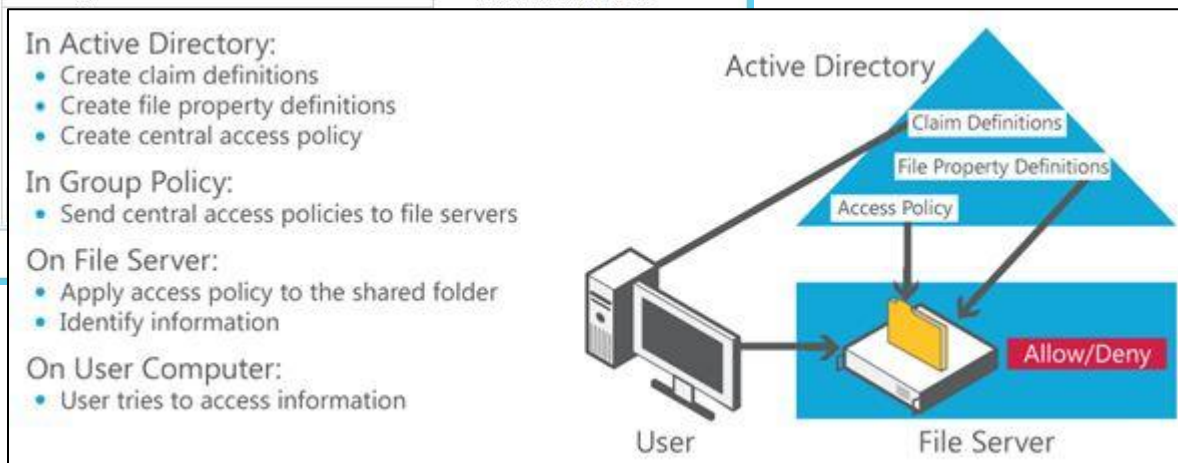
 Windows Server 8 Beta

- Возможность клонирования виртуализованного доменного контроллера
- Virtual machine Generation ID

Active Directory: Dynamic Access Control



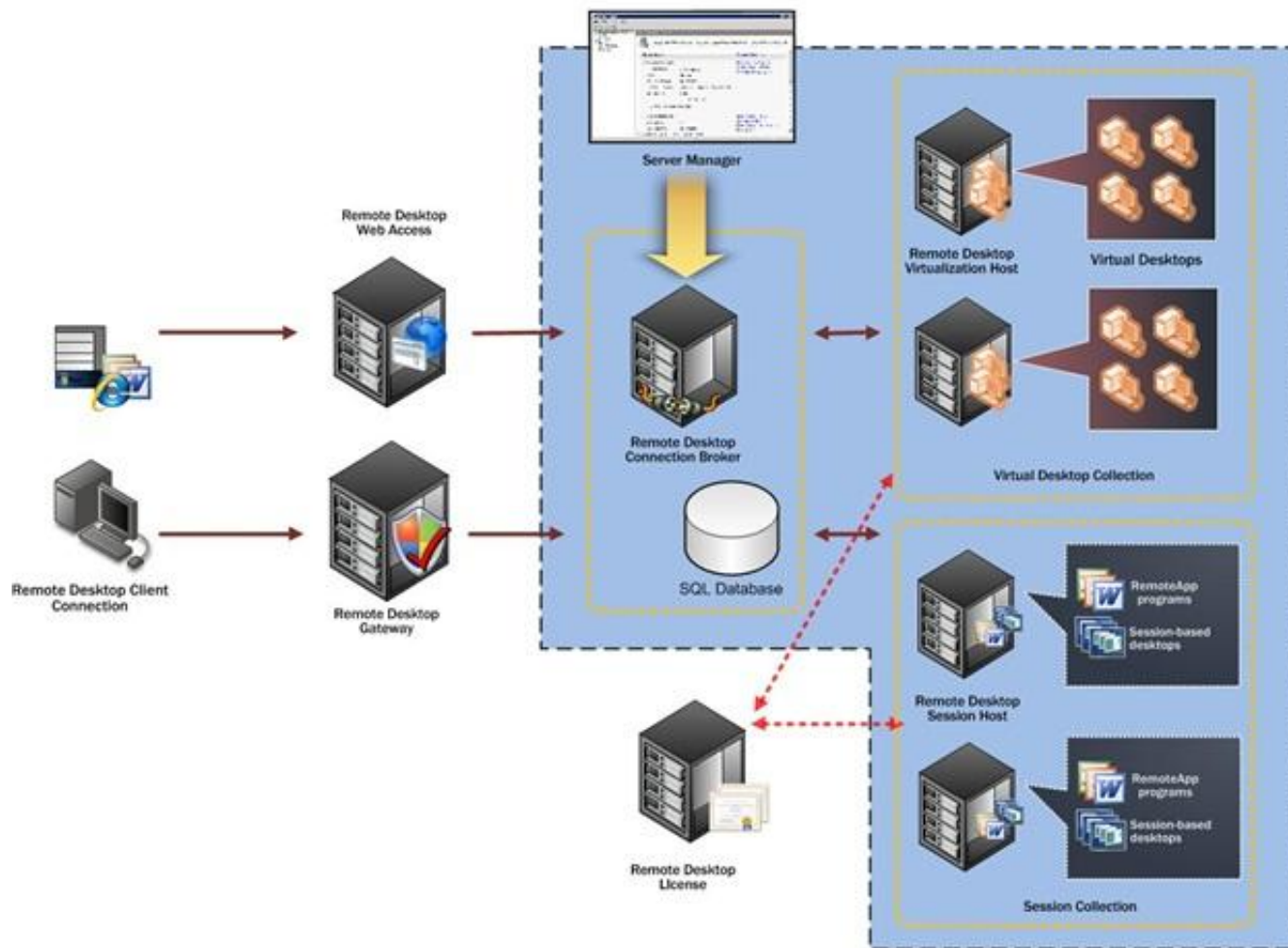
- Новый движок аудита
- Аудит доступа к файлам
- Применение RMS шаблонов к файлам



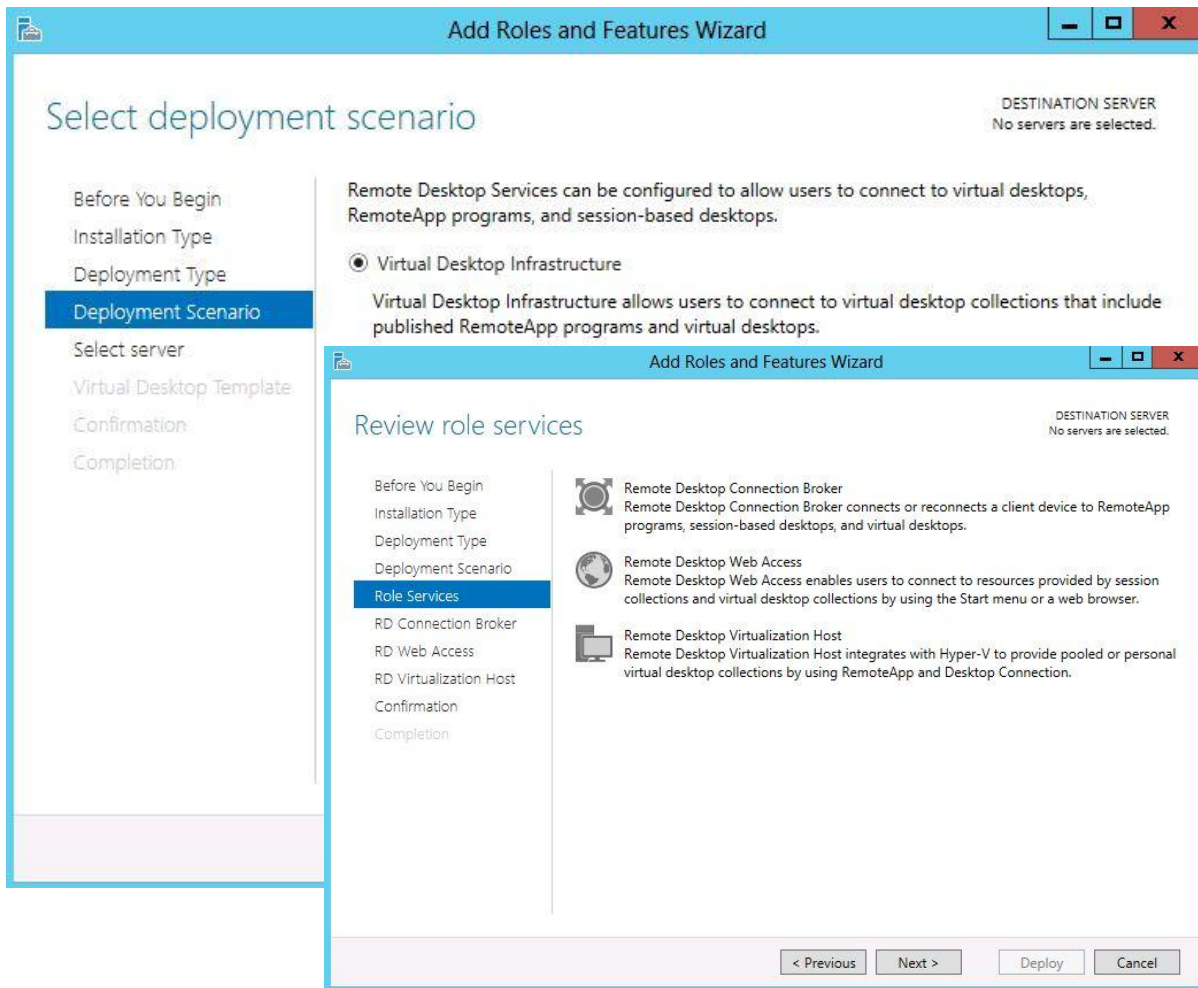
Windows Server “8”: Remote Desktop Services (RDS)

- Архитектура
- VDI Scenario-based Installation
- RDS Scenario-based Installation
- RemoteFX

RDS: Архитектура



RDS: VDI Scenario-based Installation



- Standard Deployment
- Quick Start
 - RD Connection Broker
 - RD Web Access
 - RD Virtualization Host

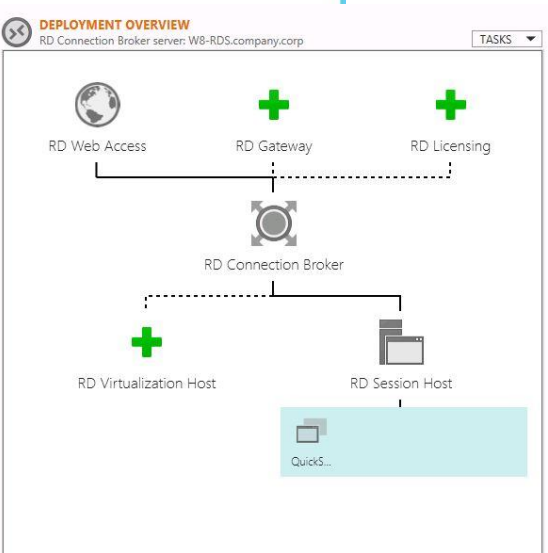
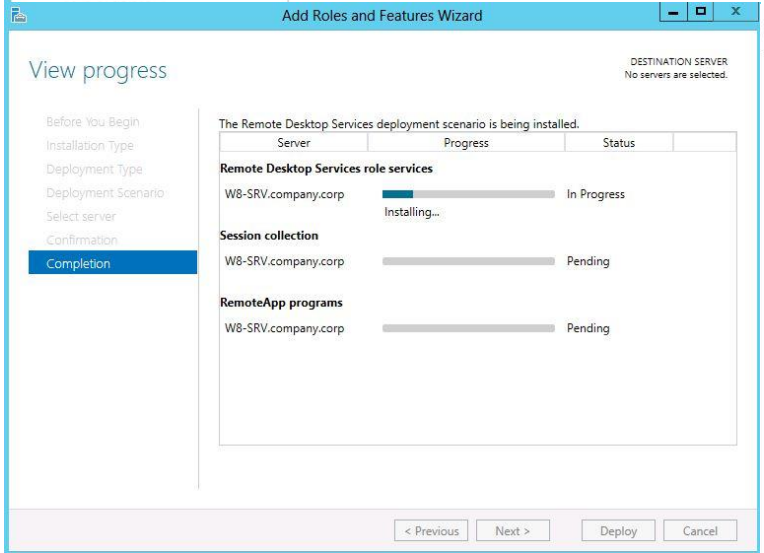
RDS: RDS Scenario-based Installation



□ Standard Deployment

□ Quick Start

- RD Connection Broker
- RD Web Access
- RD Session Host
- RemoteAPP Publishing



- ❑ RemoteFX USB Redirection RDSH

 - All-in-One Printer

 - Scanner

 - Biometric

 - Webcam

 - VoIP

- ❑ Оптимизированная производительность для WAN

 - RemoteFX Autodetect

 - RemoteFX Progressive Download

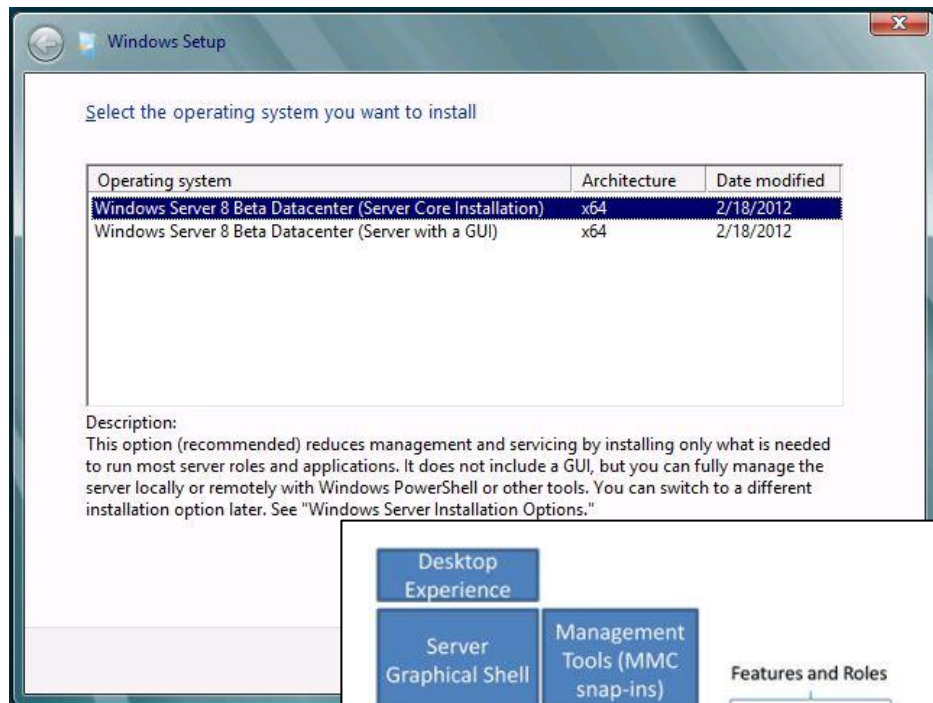
 - RemoteFX Media Streaming

- ❑ Multitouch Redirection

Windows Server “8”: Server Core

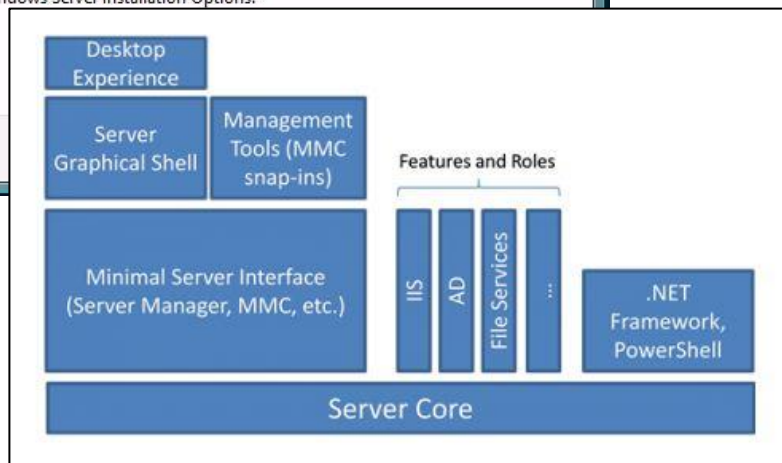
- Архитектура
- Поддерживаемые роли
- Minimal Server Interface
- Переключение между GUI / Core
- Переключение между GUI / Core через PS
- Переключение между Core / GUI

Server Core: Архитектура



□ Server Core:

- Минимальная общая база для всех редакций Windows Server
- Рекомендуемая по умолчанию опция установки ОС



Server Core: Поддерживаемые роли

ADDS /ADCS / ADLDS /
ADRMS

DHCP

DNS

File and Storage Services

Hyper-V

RRAS

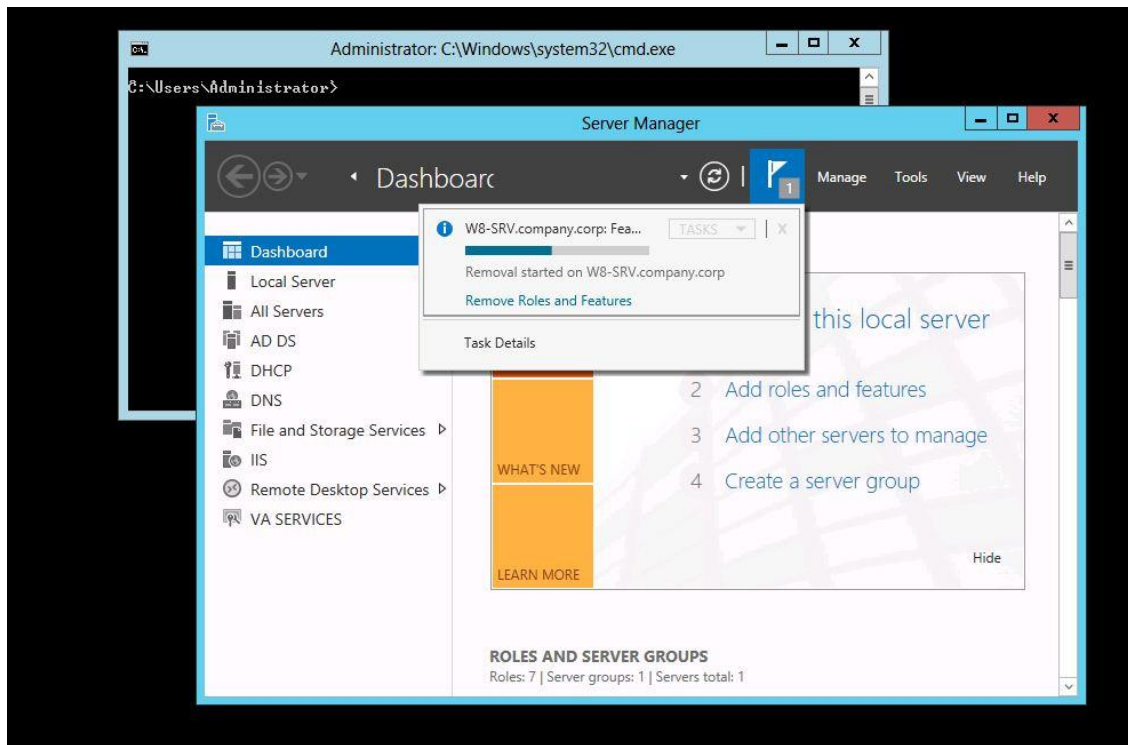
Streaming Media Server

Web Server

WSUS

Print and Document
Services

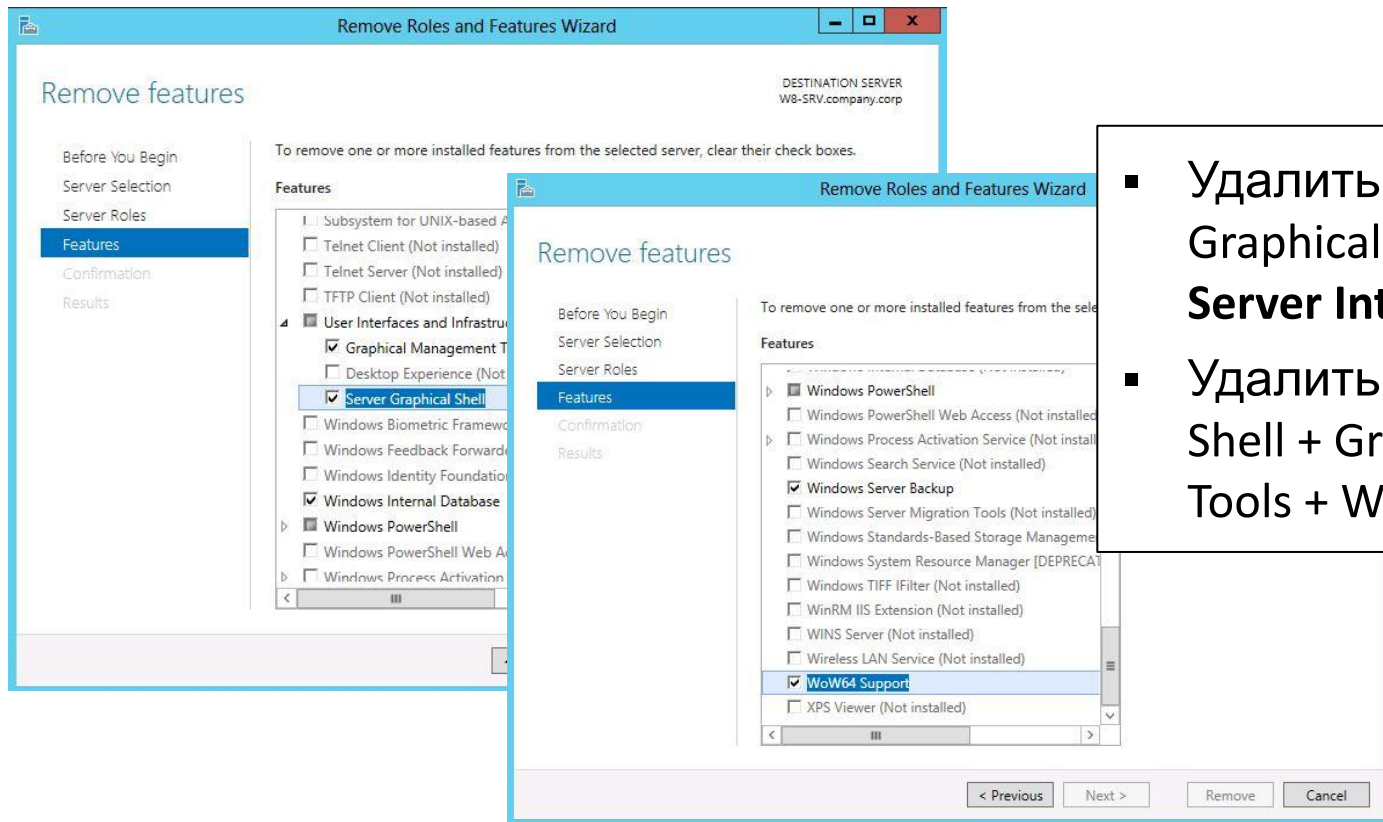
Server Core: Minimal Server Interface



Minimal Server Interface (исключает):

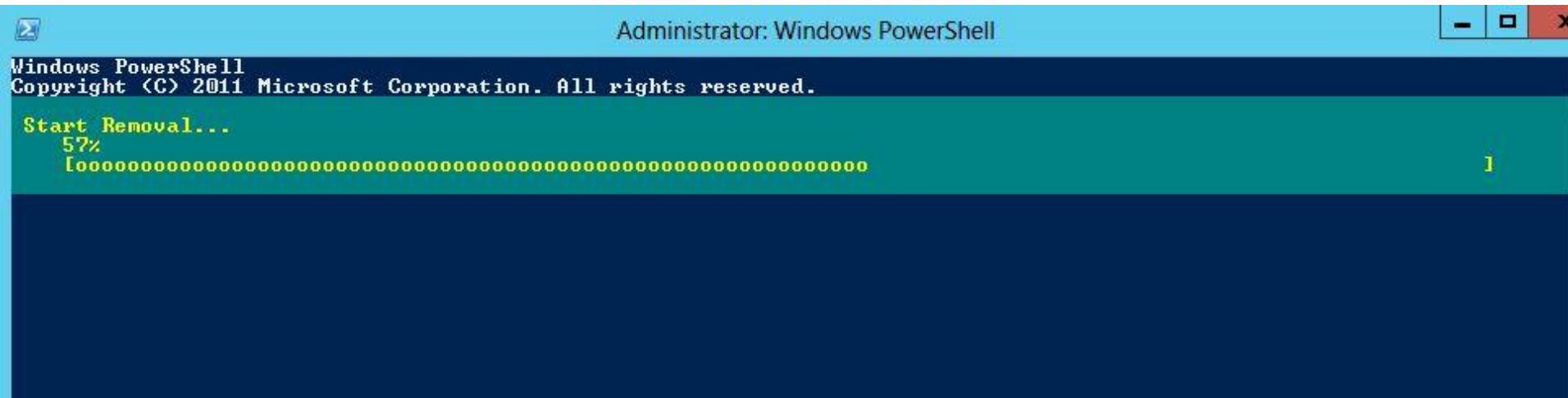
- IE
- Desktop
- Explorer
- Metro Apps support
- Multimedia support
- Desktop Experience

Server Core: Переключение между GUI / Core



- Удалить ТОЛЬКО Server Graphical Shell = **Minimal Server Interface**
- Удалить Server Graphical Shell + Graphical Management Tools + WoW64 = **Server Core**

Server Core: Переключение между GUI / Core через PS



The screenshot shows a Windows PowerShell window titled "Administrator: Windows PowerShell". The command prompt displays the following text:

```
Windows PowerShell  
Copyright (C) 2011 Microsoft Corporation. All rights reserved.  
  
Start Removal...  
57%  
[ooooooooooooooooooooooooooooooooooooooooooooooooooooooooooooooooooooo 1
```

- `Uninstall-WindowsFeature Server-Gui-Mgmt-Infra -Restart`

- Обзор новых возможностей
- Обзор улучшенных возможностей
- PowerShell Automation
- Dynamic Memory
- Hyper-V Replica
- Virtual Machine Storage Migration
- Virtual Machine Mobility

Hyper-V: НОВЫЕ ВОЗМОЖНОСТИ

Hyper-V module
PowerShell

Hyper-V Replica

Resource Metering

Simplified Authorization

SR-IOV

Storage Migration

SMB v2 File Share
Storage

Virtual Fibre Channel

Storage Deduplication

Offloaded Data Transfer

Dynamic Memory

Virtual Machine Mobility

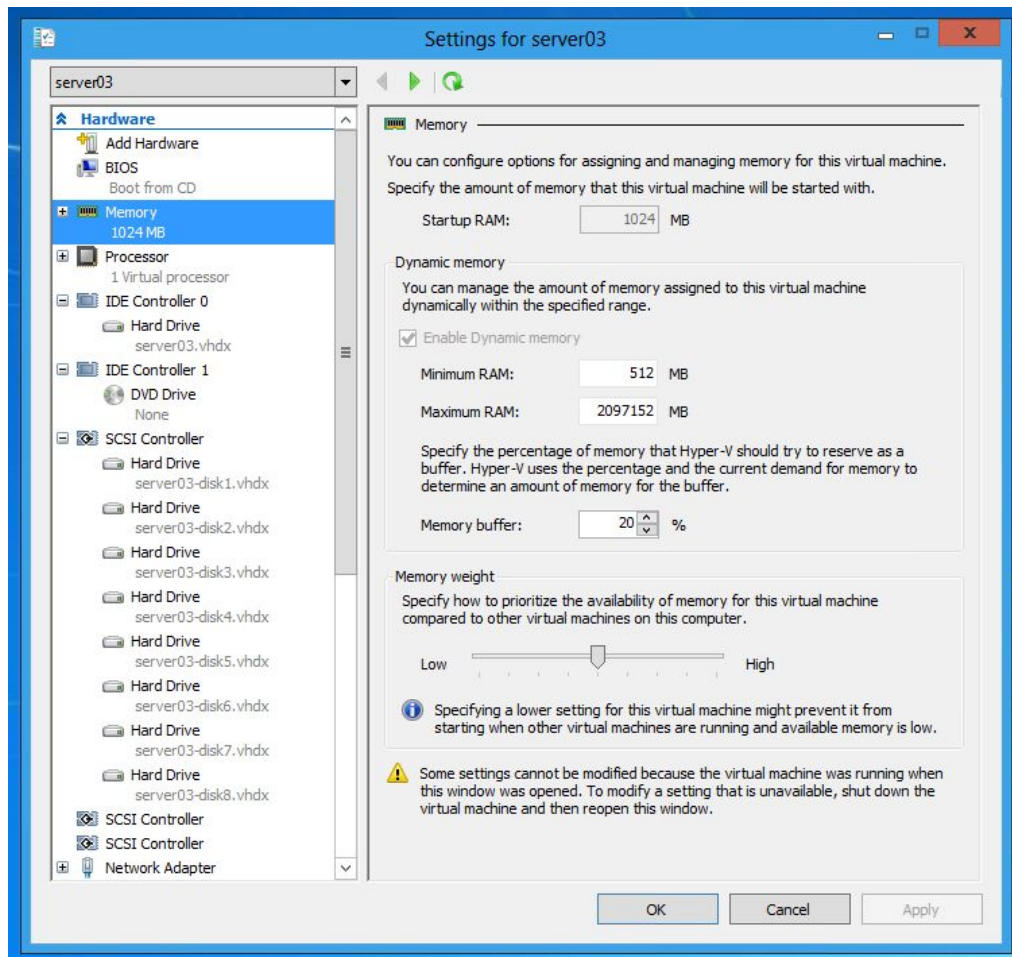
Live Migration

VHDX / Large Sector Disk

Virtual Switch

Масштабируемость

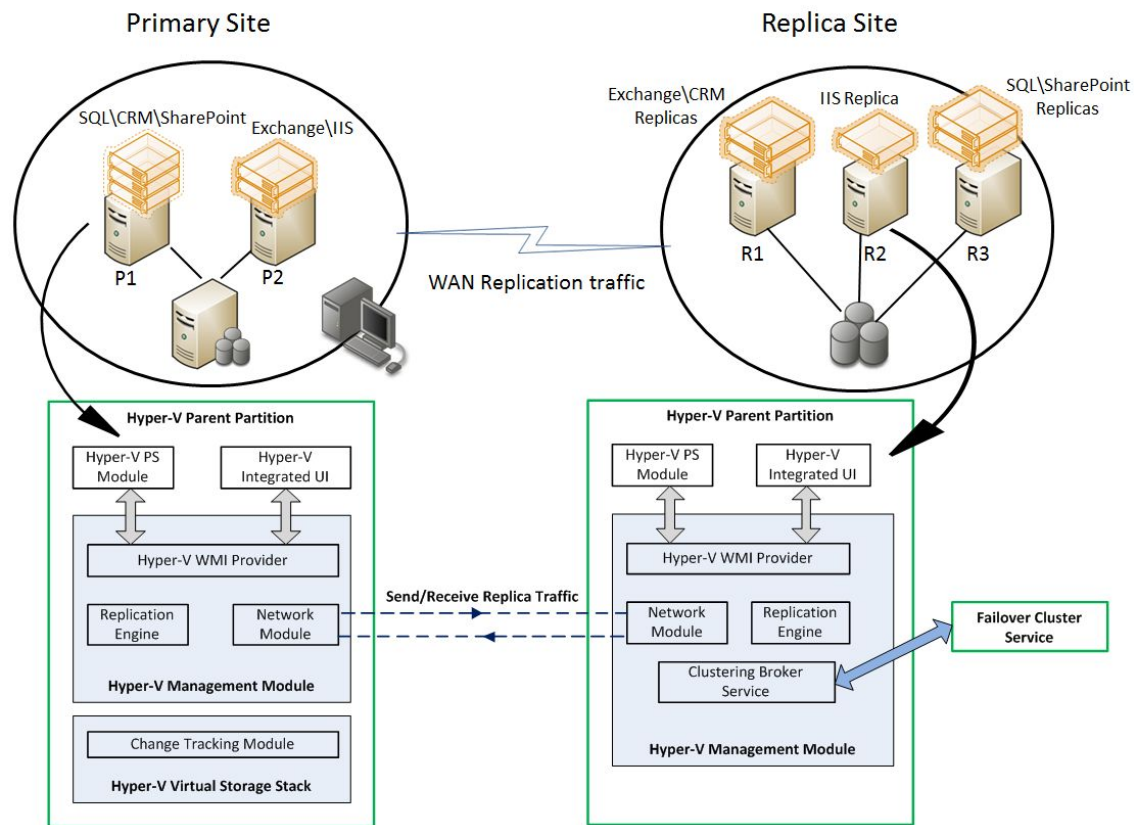
Hyper-V: Dynamic Memory



□ Minimum RAM

□ Smart Paging

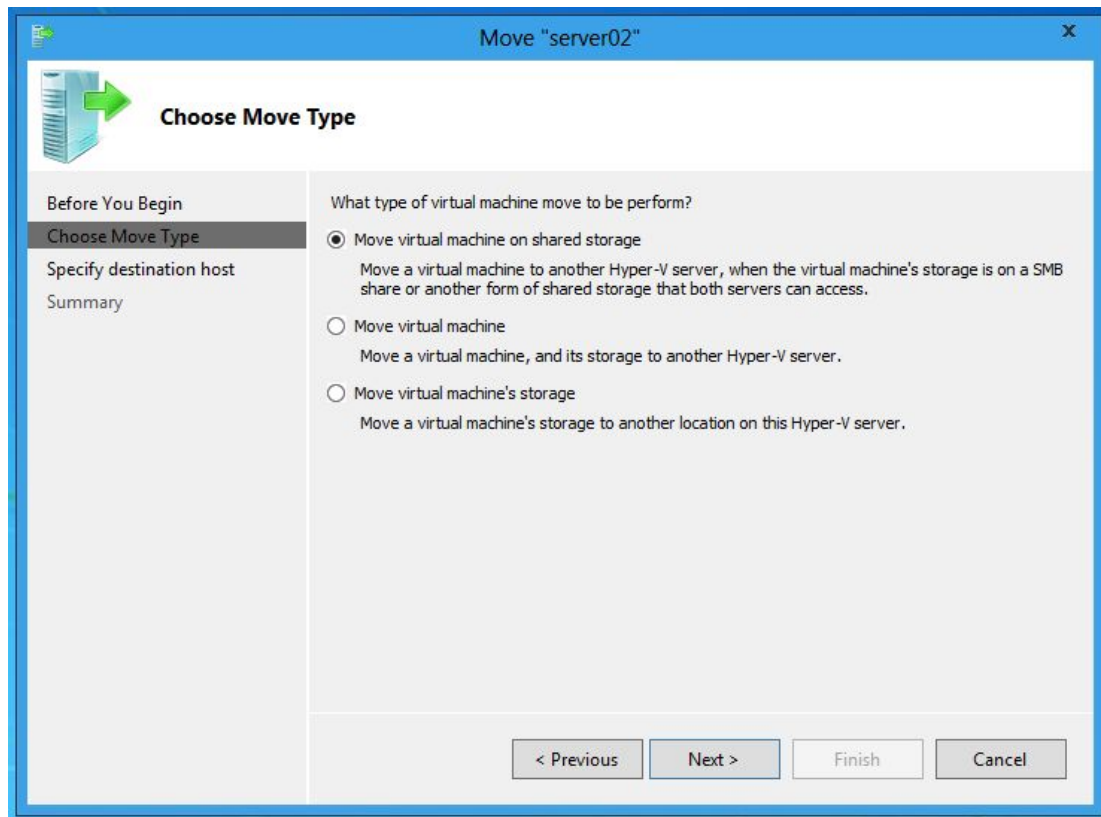
Hyper-V: Hyper-V Replica



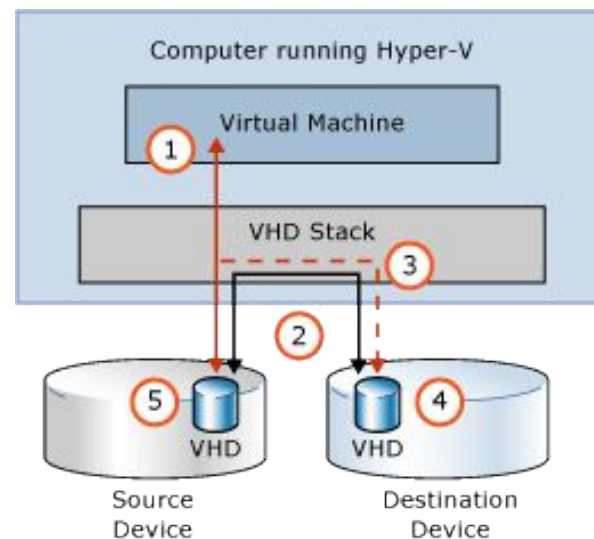
□ Асинхронная репликация

- Kerberos / Cert Auth
- HTTP + шифрация

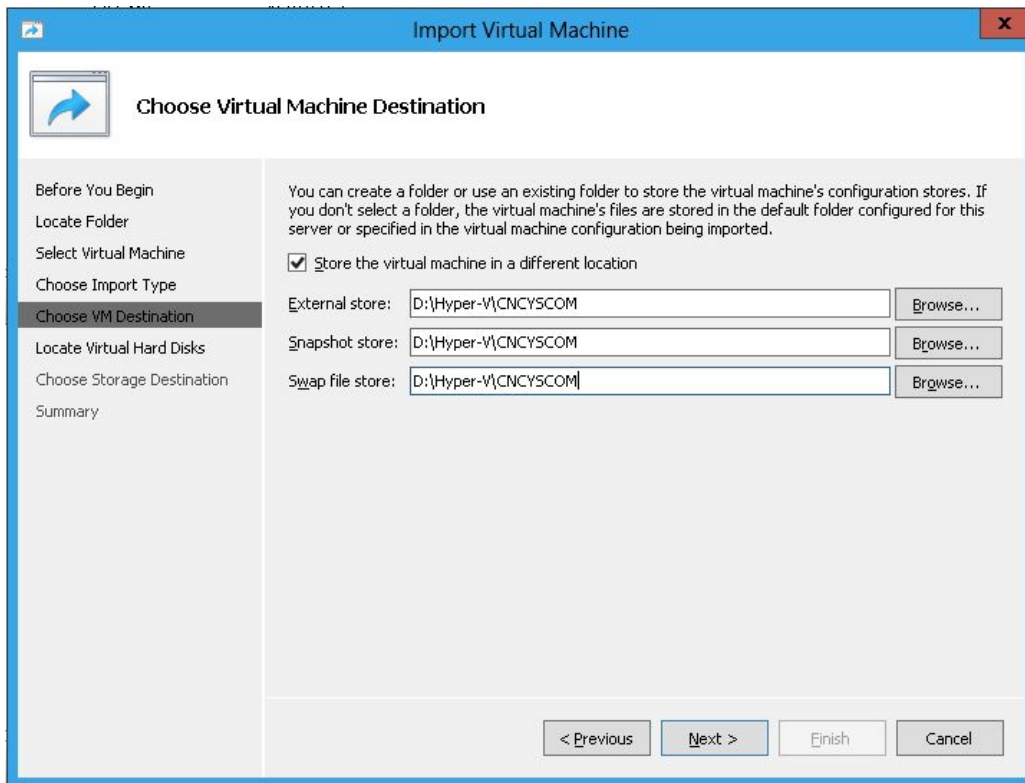
Hyper-V: Virtual Machine Storage Migration



□ SMB2.2 file share



Hyper-V: Virtual Machine Mobility



□ Улучшенный визард импорта и экспорта VM

Windows Server “8”: Failover Clustering

- Обзор НОВЫХ ВОЗМОЖНОСТЕЙ
- Cluster-Aware Updating
- File Share Storage

Clustering: Новые возможности

- 4000 VMs per cluster

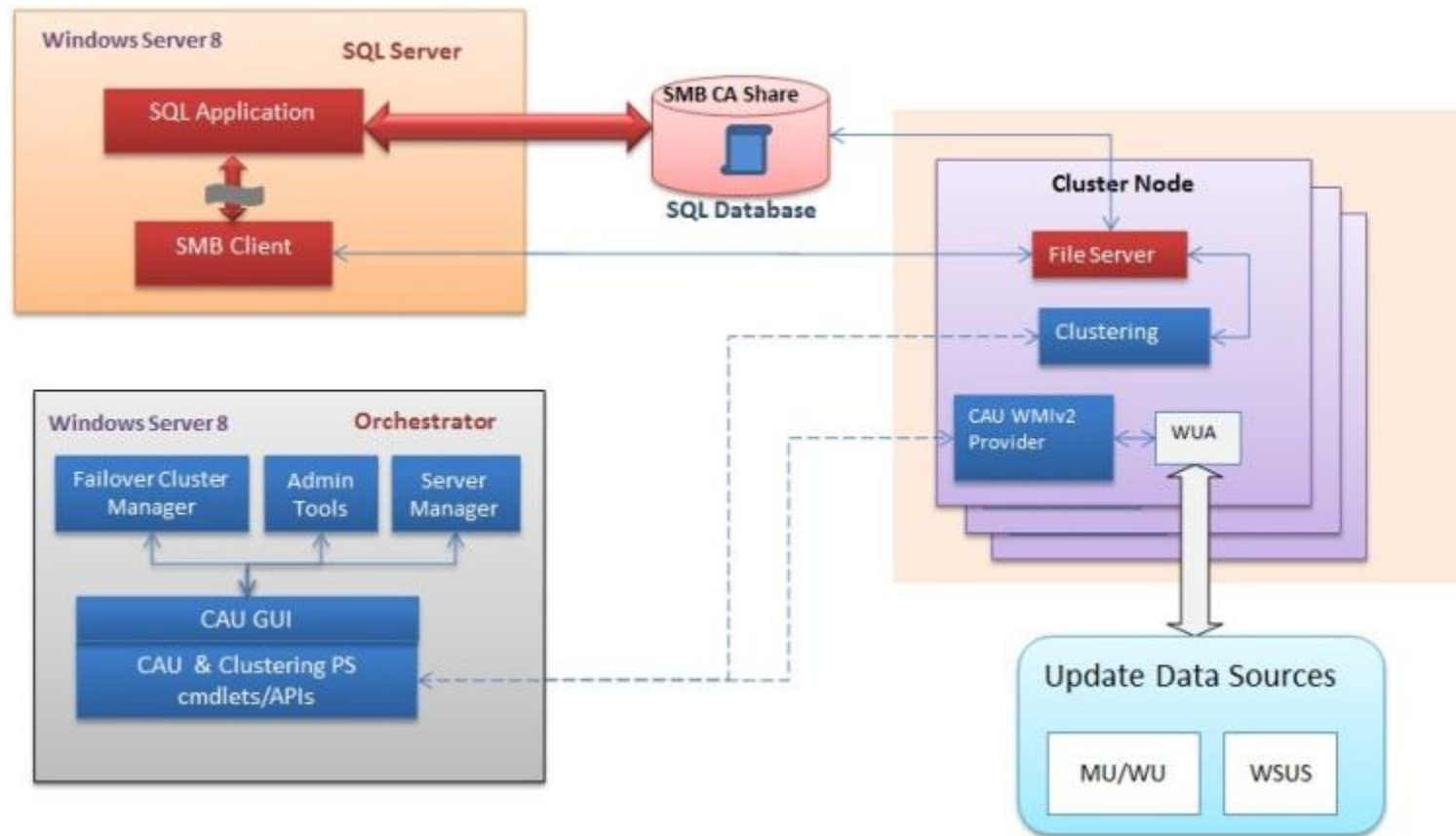
- 64 Cluster nodes

- Cluster Aware Updating

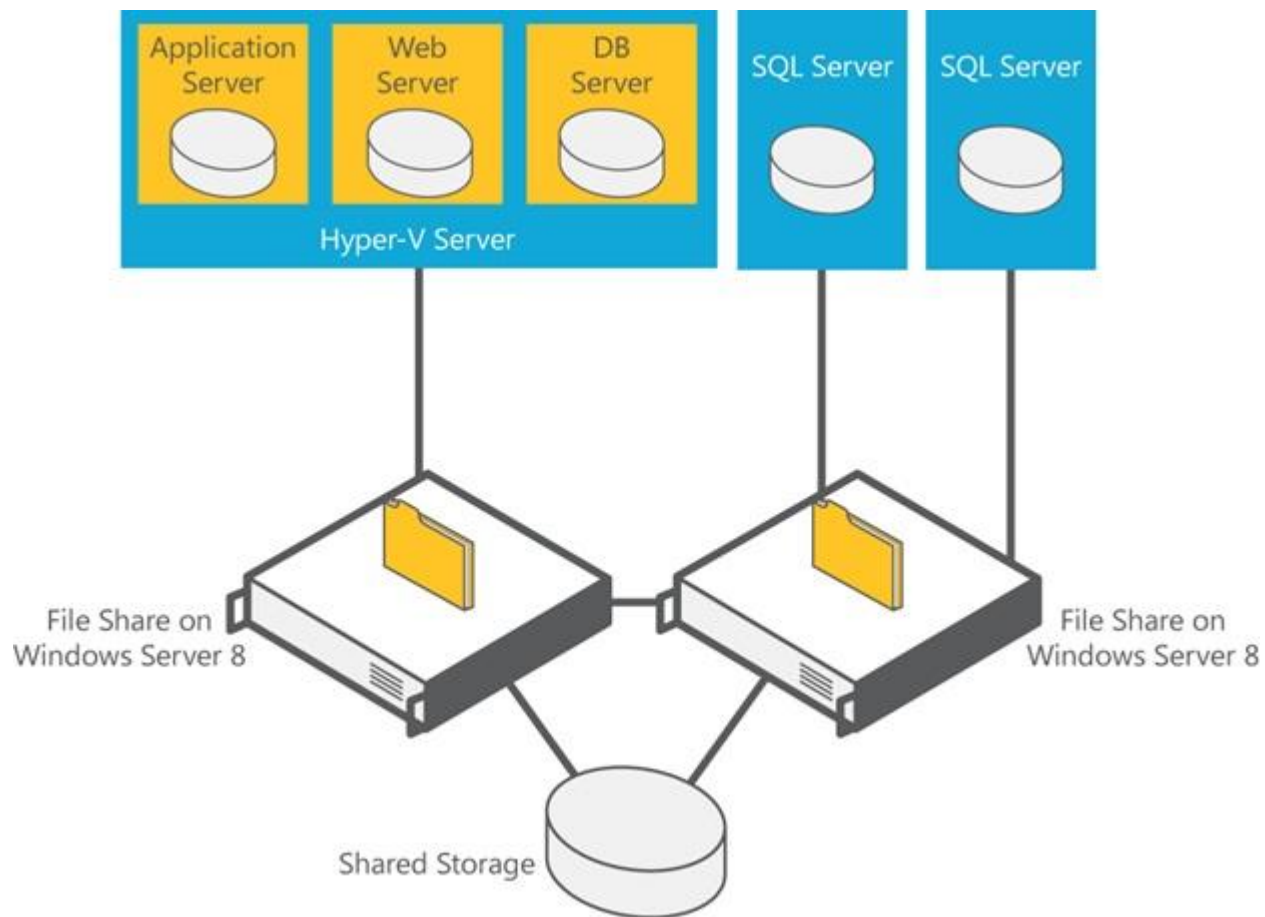
- Queuing Live Migrations

- CSV Bitlocker Support

Failover Clustering: Cluster Aware Updating



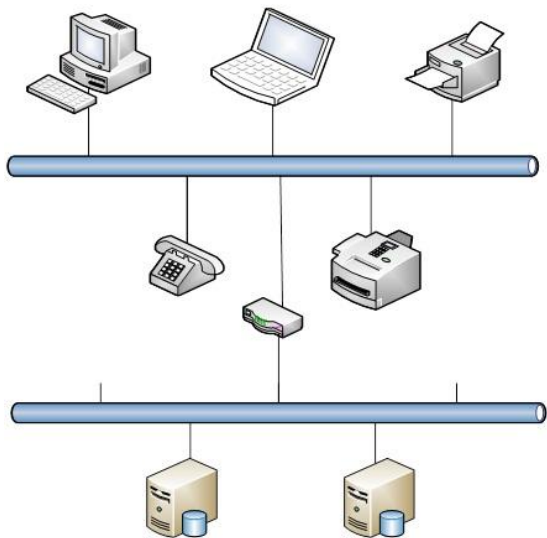
Failover Clustering: File Share Storage



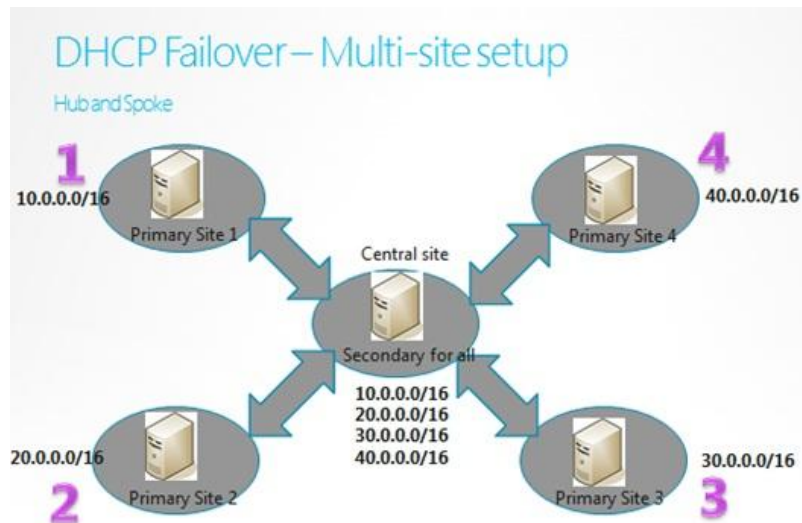
Windows Server “8”: Networking

- DHCP High Availability
- IP Address Management
- Hyper-V Network Virtualization
- Hyper-V Virtual Switch
- Network Adapter Teaming

Networking: DHCP High Availability

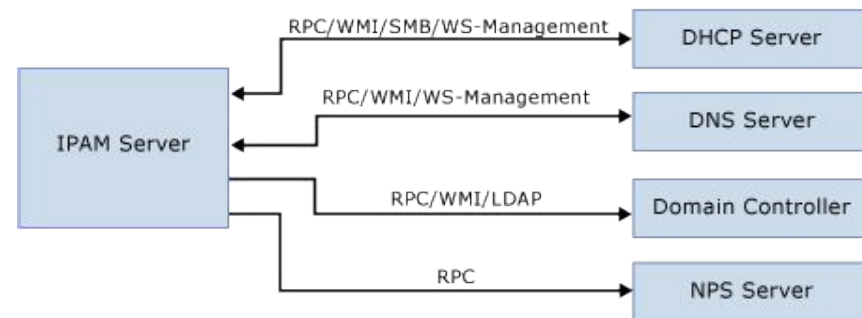
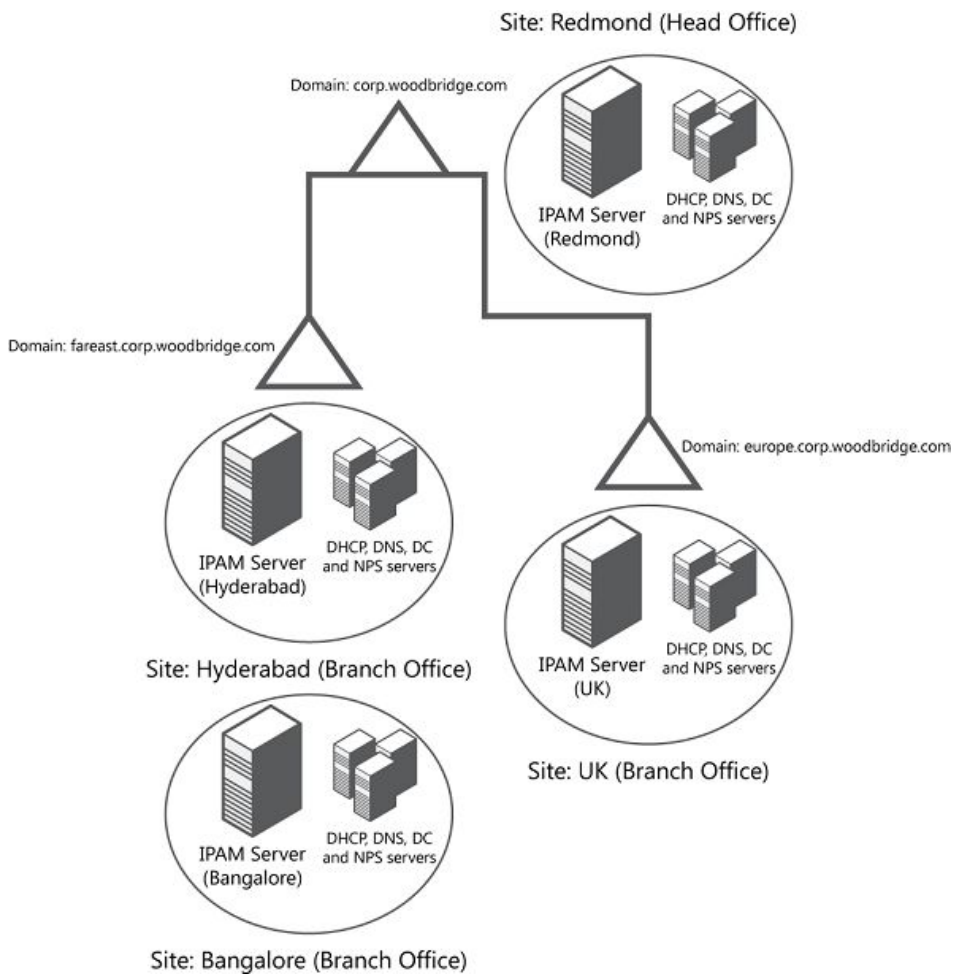


Legend	
DHCP Failover – Single Subnet	
Symbol	Description
	Ethernet
	PC
	DHCP Server
	IP Phone
	Multi-function device
	Laptop computer
	DHCP Relay
	Printer



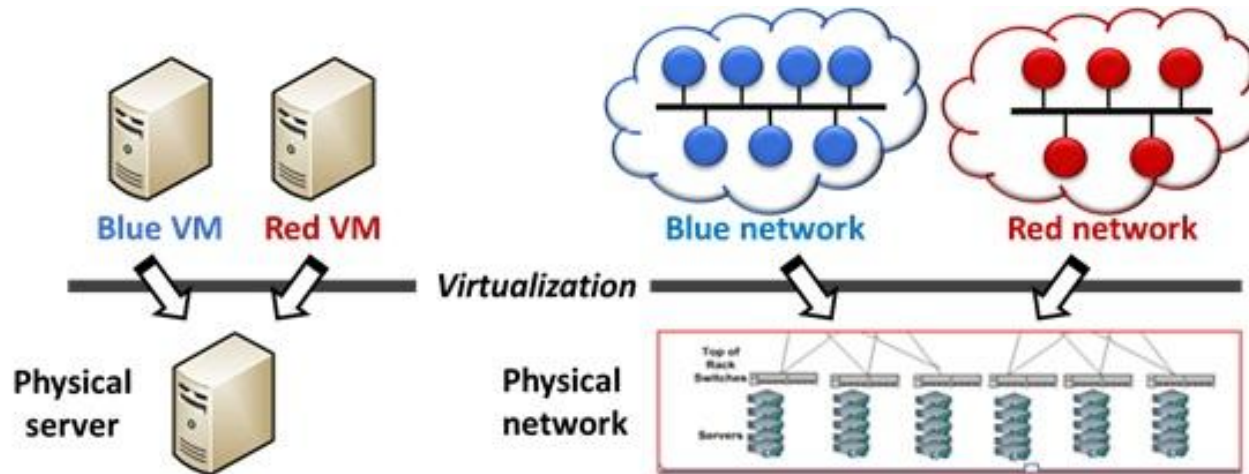
- DHCP Load Sharing Mode
- Hot Standby Mode

Networking: IP Address Management



- Distributed IPAM
- Centralized IPAM

Networking: Hyper-V Network Virtualization



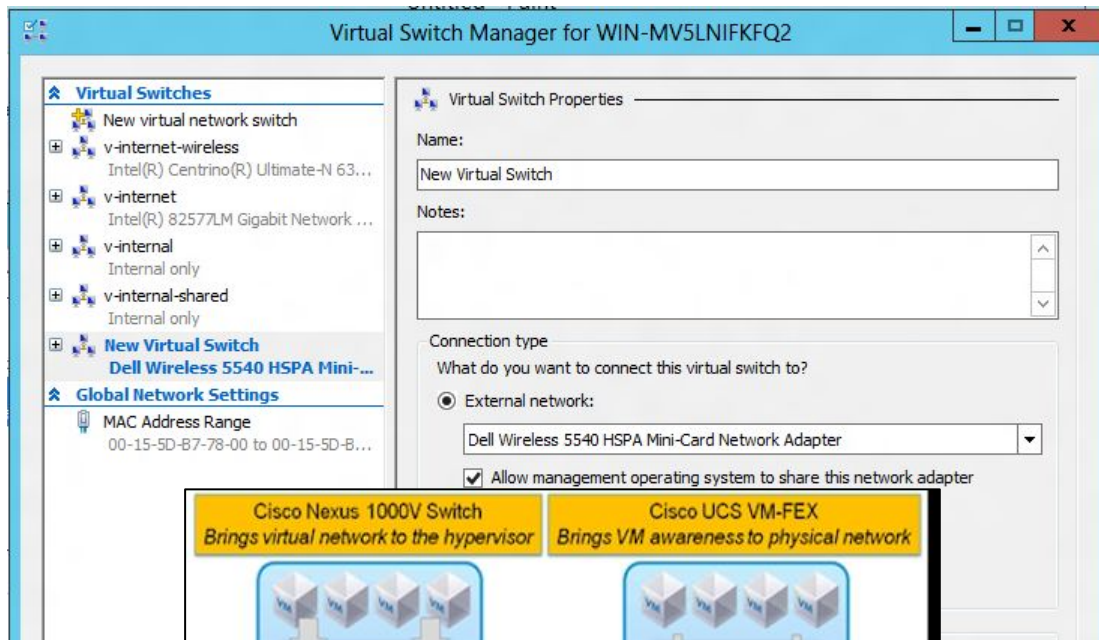
Server virtualization

- Run multiple virtual servers on a physical server
- Each VM has illusion it is running as a physical server

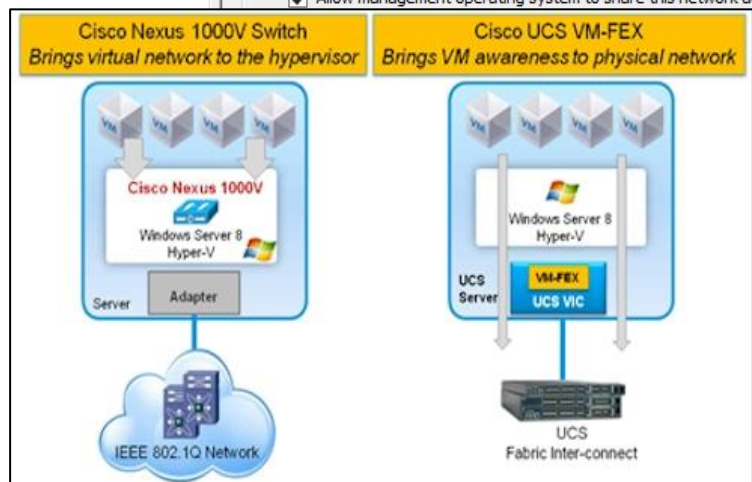
Network virtualization

- Run multiple virtual networks on a physical network
- Each virtual network has illusion it is running as a physical fabric

Networking: Hyper-V Virtual Switch



- Open Platform
- Запись событий в EventLog
- Возможность установки расширений
 - Cisco Nexus 1000V



Networking: Network Adapter Teaming

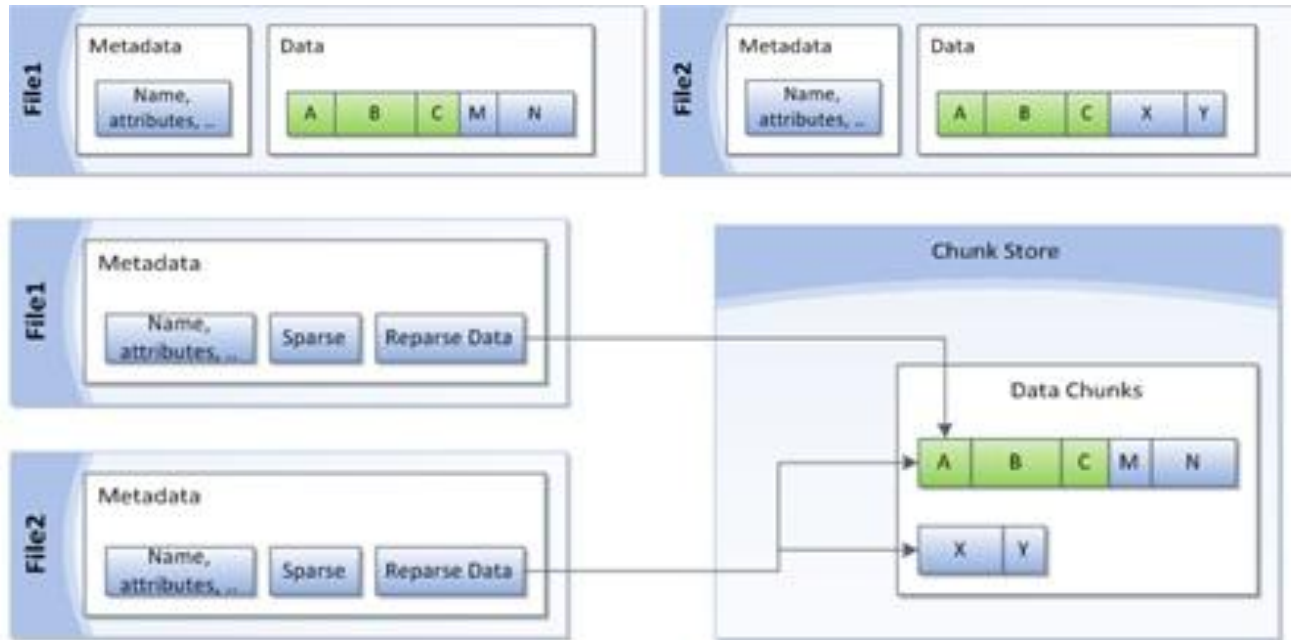
The screenshot shows the Windows Server Manager interface for a local server named 'Server01'. The left-hand navigation pane includes 'Dashboard', 'Local Server', 'All Servers', and 'File and Storage Services'. The main area displays the 'PROPERTIES' for 'Server01'. A table lists various system settings, with 'Network adapter teaming' highlighted by a red rectangular box. The value for this property is 'Disabled'. Other visible properties include computer name, workgroup, firewall status, remote management, and hardware information.

PROPERTIES For Server01			
Computer name	Server01	Last installed updates	Today at 2:
Workgroup	WORKGROUP	Windows Update	Never chec
		Last checked for updates	Today at 2:
Windows Firewall	Public: On	Windows Error Reporting	On
Remote management	Enabled	Customer Experience Improvement Program	Participatin
Remote Desktop	Enabled	IE Enhanced Security Configuration	Off
Network adapter teaming	Disabled	Time zone	(UTC+08:00
Wired Ethernet Connection	IPv4 address assigned by DHCP, IPv6 enabled	Product ID	00133-300
Wired Ethernet Connection 2	192.168.1.15, IPv6 enabled		
Operating system version	Microsoft Windows NT 6.2.8250.0	Processors	Intel(R) Coi
Hardware information	System manufacturer System Product Name	Installed memory (RAM)	12 GB

Windows Server “8”: File and Storage Services

- Data Deduplication
- Multiterabyte Volume
- User Device Affinity

File and Storage Services: Data Deduplication



- 2:1 для файловых данных
- 20:1 для виртуальных машин

File and Storage Services: Multiterabyte Volume

CHKDSK – Runtime Improvements

HOURS TO SECONDS

Time in minutes for CHKDSK to complete on a volume with one corruption

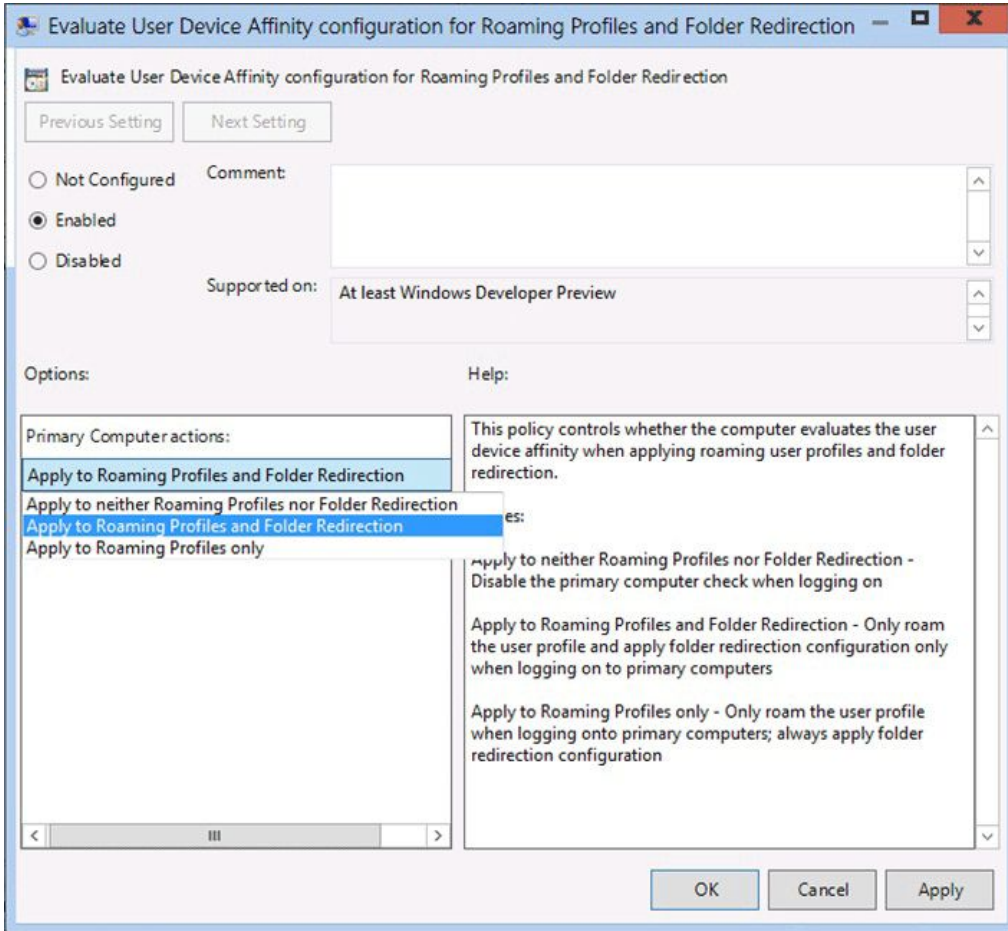


In this benchmark, "Windows Server 8" execution time <8 seconds

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vNext TAP Summit

File and Storage Services: User Device Affinity



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- Skype
 - [mgorinov59](https://www.skype.com/people/mgorinov59)

