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# Windows Server 2012 Overview

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# Why Windows Server 2012?

## TOP BENEFITS OF WINDOWS SERVER 2012



Comprehensive  
cloud platform

- Complete, built-in virtualization platform
- Industry-leading scalability and performance, so you can virtualize every application
- Ability to achieve business continuity with inbox disaster recovery solutions
- Best-in-class hybrid cloud experience with a common set of technologies



Cost savings and  
increased  
efficiencies

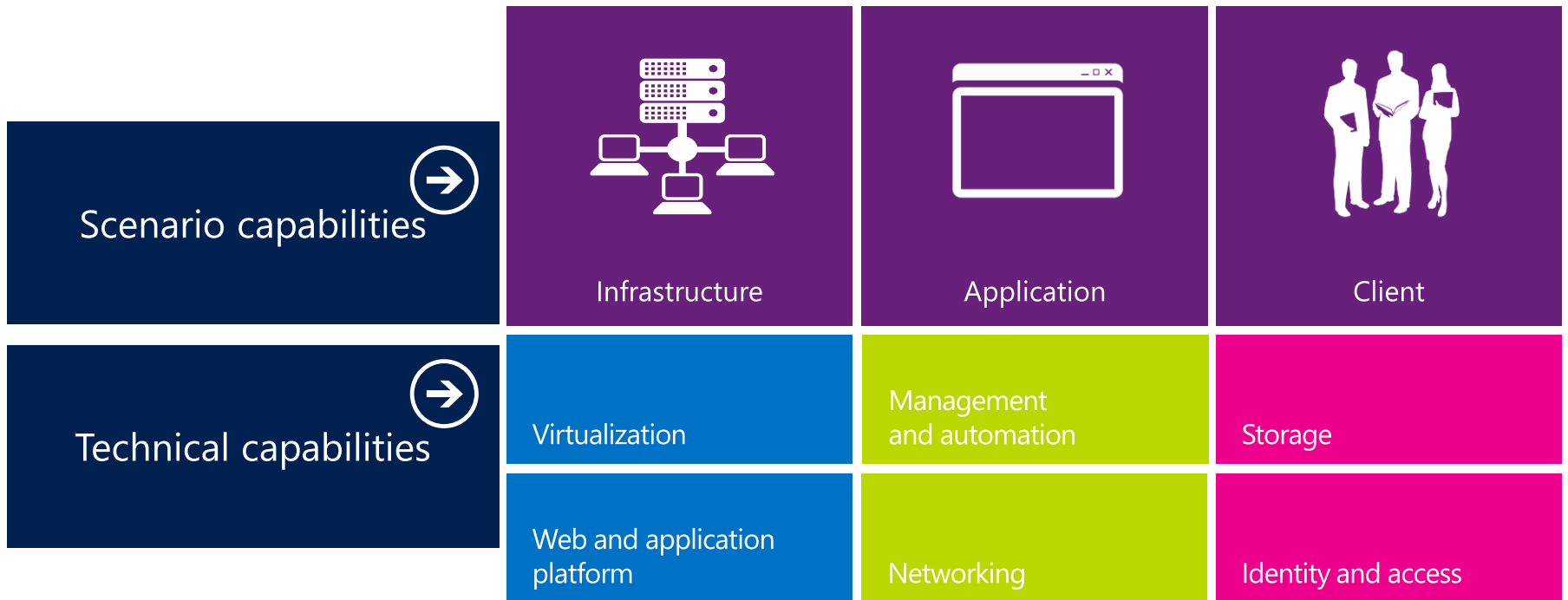
- Reduced storage costs with storage spaces and other storage enhancements
- Increased server/administrator ratio through Windows PowerShell and multi-machine management
- Increased uptime with cluster-aware updates and transparent failover



Support for a  
modern work style

- Virtual Desktop Infrastructure (VDI): simplified management and reduced cost of implementations
- Optimized branch office WAN bandwidth use
- Ability for remote users to securely access internal resources without VPN

# Windows Server capabilities



# Server Virtualization

# Server virtualization



Complete virtualization platform

Increased scalability and performance

Elastic and flexible—  
from the datacenter to the cloud

## TOP FEATURES OF SERVER VIRTUALIZATION TO MEET CUSTOMER CHALLENGES

1

Hyper-V Network Virtualization

2

Shared-nothing live migration

3

Massive scale

4

Cluster enhancements

5

Hyper-V Replica

6

Hardware offloading

7

Virtual Fibre Channel

8

Guest NUMA support

9

Runtime memory configuration

10

Hyper-V network switch

# Scale enhancements

System	Resource	Maximum number		Improvement factor
		Windows 2008 R2	Windows Server 2012	
Host	Logical processors on hardware	64	320	5x
	Physical memory	1 TB	4 TB	4x
	Virtual processors per host	512	2048	4x
	Virtual processors per virtual machine	4	64	16x
Virtual machine	Memory per virtual machine	64 GB	1 TB	16x
	Active virtual machines	384	1,024	2.7x
	Virtual disk size	2 TB	64 TB	32x
Cluster	Nodes	16	64	4x
	Virtual machines	1,000	8,000	8x

# Management and Automation



# Management and automation



Increased management efficiency

Simplified deployment and virtualization

Resilient and simple automation

## TOP FEATURES FOR MANAGEMENT AND AUTOMATION TO MEET CUSTOMER CHALLENGES

1

Multiserver management

2

Role and feature deployment

3

Integrated console

4

2,400 cmdlets

5

Disconnected Sessions

6

Windows PowerShell Workflow

7

Windows PowerShell Web Access

8

Windows PowerShell ISE

9

Script Sharing

10

Syntax Simplification and IntelliSense

Storage

# Storage



Efficiency, performance, and innovation through diverse storage choices

Continuous availability through new features that preserve uptime

Cost efficiency through storage, management, and other capabilities

## TOP FEATURES OF STORAGE TO MEET CUSTOMER CHALLENGES

1

Storage spaces

2

File system improvements

3

Thin provisioning

4

Cluster Shared Volume

5

SMB 3.0 for workloads

6

Offloaded data transfer

7

Transparent failover

8

NFS support

9

iSCSI target

10

Storage management

# Web and Application Platform

# Web and application platform



Flexibility through hybrid and symmetrical applications

Increased scalability and elasticity for applications

Enhanced support for open frameworks and open source

## TOP FEATURES OF WEB AND APPLICATION PLATFORM TO MEET CUSTOMER CHALLENGES

1

Website density and multitenancy

2

Application Initialization

3

Dynamic IP Restrictions

4

CPU Throttling

5

NUMA-Aware Scalability

6

Centralized SSL management

7

"Just works" with PHP and node.js

8

Embracing web standards

9

Application symmetry

10

Common Development Platform

Networking

# Networking



Easy to connect users to IT resources

Efficient management of datacenters and private clouds

Ability to link your infrastructure with Public Cloud Services

## TOP FEATURES OF NETWORKING TO MEET CUSTOMER CHALLENGES

1

NIC Teaming

2

Network virtualization

3

DHCP server failover

4

Single Root I/O Virtualization (SR-IOV)

5

Resource Metering

6

Dynamic Virtual Machine Queue

7

IP Address Management (IPAM)

8

Quality of Service (QoS)

9

BranchCache

10

SMB Direct and Multichannel

# Identity Access



# Security and access



Protection of corporate resources

Data access management and protection

Simplified deployment and management of identity infrastructure

## TOP FEATURES FOR SECURITY & ACCESS

1

Dynamic Access Control

2

Classification

3

DirectAccess

4

Simpler deployment of Active Directory

5

Domain Name System Security Extensions

6

Active Directory virtualization

7

Active Directory cloning

8

Kerberos constrained delegation

9

Private virtual LAN (PVLAN)

10

Multitenant security and isolation

# Windows Server 2012:

Cloud optimize your IT

Beyond virtualization



Scale and secure workloads, cost-effectively build a private cloud, and securely connect to cloud services

The power of many servers, the simplicity of one



Efficiently manage infrastructure while maximizing uptime and minimizing failures and downtime

Every app, any cloud



Build on an open and scalable web platform that supports applications across premises

Modern workstyle, enabled



Support a mobile and flexible work style



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