

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

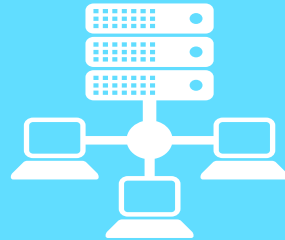


Support for a modern work style

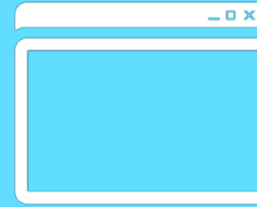
- Virtual Desktop Infrastructure (VDI): simplified management and reduced cost of implementations
- Optimized branch office WAN bandwidth use
- Ability for remote users to securely access internal resources without VPN

Windows Server capabilities

Scenario capabilities



Infrastructure



Application



Client

Technical capabilities



Virtualization

Storage

Web and application
platform

Networking

Management
and automation

VDI

Identity and access

Consistent Private Cloud Licensing

EDITIONS

PRIVATE CLOUD TECHNOLOGY OFFERED IN
TWO EDITIONS (STANDARD, DATACENTER) DIFFERENTIATED
ONLY BY VIRTUALIZATION RIGHTS

LICENSE TYPE

EACH LICENSE
COVERS UP TO
TWO PHYSICAL PROCESSORS

FEATURES

PROVIDE ALL THE CAPABILITIES
TO ENABLE ANY PRIVATE
CLOUD WORKLOAD

VIRTUALIZATION RIGHTS

TWO VIRTUAL INSTANCES

UNLIMITED

Standard

Low density or
no virtualization

**Windows Server 2012
Standard**

**Microsoft System Center 2012
Standard**

**Enrollment for Core Infrastructure (ECI) Standard
Core Infrastructure Suite (CIS) Standard**



Datacenter

High density
virtualization

**Windows Server 2012
Datacenter**

**Microsoft System Center 2012
Datacenter**

**Enrollment for Core Infrastructure (ECI) Datacenter
Core Infrastructure Suite (CIS) Datacenter**



Notes:

- Windows Server continues to require Client Access Licenses (CALs)
- Enrollment for Core Infrastructure (ECI) has a 25 license minimum and includes a 20% discount on new purchases
- Core Infrastructure Suite (CIS) has no minimum purchase and includes a 5% discount on new purchases

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	5×
	Physical memory	1 TB	4 TB	4×
	Virtual processors per host	512	1,024	2×
Virtual machine	Virtual processors per virtual machine	4	64	16×
	Memory per virtual machine	64 GB	1 TB	16×
	Active virtual machines	384	1,024	2.7×
	Virtual disk size	2 TB	64 TB	32×
Cluster	Nodes	16	64	4×
	Virtual machines	1,000	4,000	4×

Management and Automation

Management and automation



Increased management
efficiency

Simplified deployment
and virtualization

Resilient and simple
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

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

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

BYOD



Microsoft®

the vision

ANYTIME, ANYWHERE TEACHING AND LEARNING

Windows 8 Devices for Education



Windows Device Offerings



Tablets



Dockable
tablets



Convertibles



Ultrabooks



Flipbooks



Convertible
all-in-ones



Laptops



Desktops



All-in-ones

State of Learning Today

Trends

- Common core standards
- Digital textbook mandates
- Digital testing mandates
- Active + personal learning
- 1:1 initiatives

Challenges

- High costs
- Proprietary ecosystems
- Manageability
- Security
- Path to success is unclear
- Fear of time
- Fear of change
- Fear of failure

Windows Intune

System Center 2012 Configuration Manager

System Center 2012 Endpoint Protection

Windows Intune

Cloud management for Mobile Devices & PC's

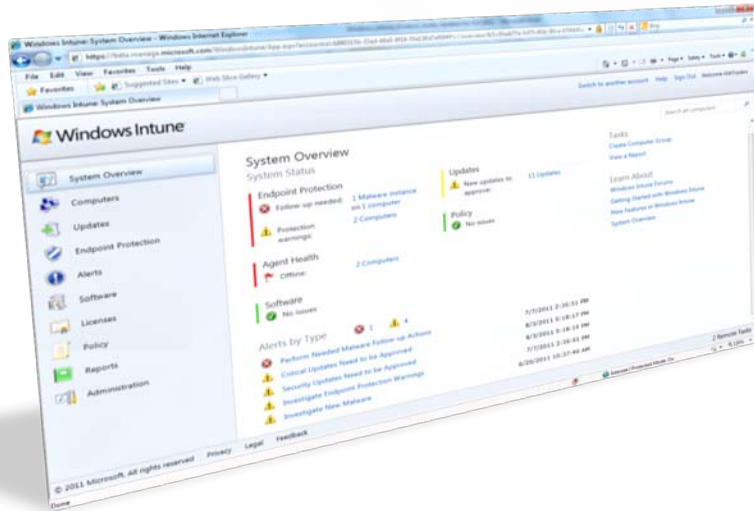


BENEFITS

- No on-premise infrastructure required
- You always have the latest capabilities
- Manage from virtually anywhere
- Can compliment existing on-premises infrastructure
- Cross-platform support

Manage, Secure PCs And Devices Anywhere

Simple Web-Based Administration Console and a friendly IW experience



- ✓ Help protect PCs from malware
- ✓ Manage updates
- ✓ Distribute and consume software
- ✓ Proactive monitoring and alerts
- ✓ Provide remote assistance
- ✓ Inventory hardware and software
- ✓ Monitor & track licenses
- ✓ Increase insight with reporting
- ✓ Set security policies

Enabling Flexible Workstyles

- ✓ Users can be managed from the office, branch office, or on the road
- ✓ IT and partners can work from virtually anywhere

InTune Supported Devices

- PCs
 - Windows XP Professional, Service Pack (SP) 3 (x86 only)
 - Windows Vista Enterprise, Ultimate, or Business editions
 - Windows 7 Enterprise, Ultimate, or Professional editions
- Mobile
 - Exchange ActiveSync (support for each setting differs per device)
 - Line-of-business software deployment
 - iOS 4.0 or later
 - Android 2.1 or later



Microsoft® System Center 2012



Endpoint
Protection



Operations
Manager



Orchestrator



Service Manager



Configuration
Manager



Virtual Machine
Manager



App Controller



Data Protection
Manager

System Center 2012

Microsoft System Center
2012 Service Pack 1 (SP1)

Windows Server
2012

Microsoft
SQL Server
2012

Manages

Windows 8

Windows 7

and
Mac!

Windows XP

Windows Server 2012

Windows Server 2008 R2

Linux

UNIX[®]

Microsoft
Hyper-V Server 2012

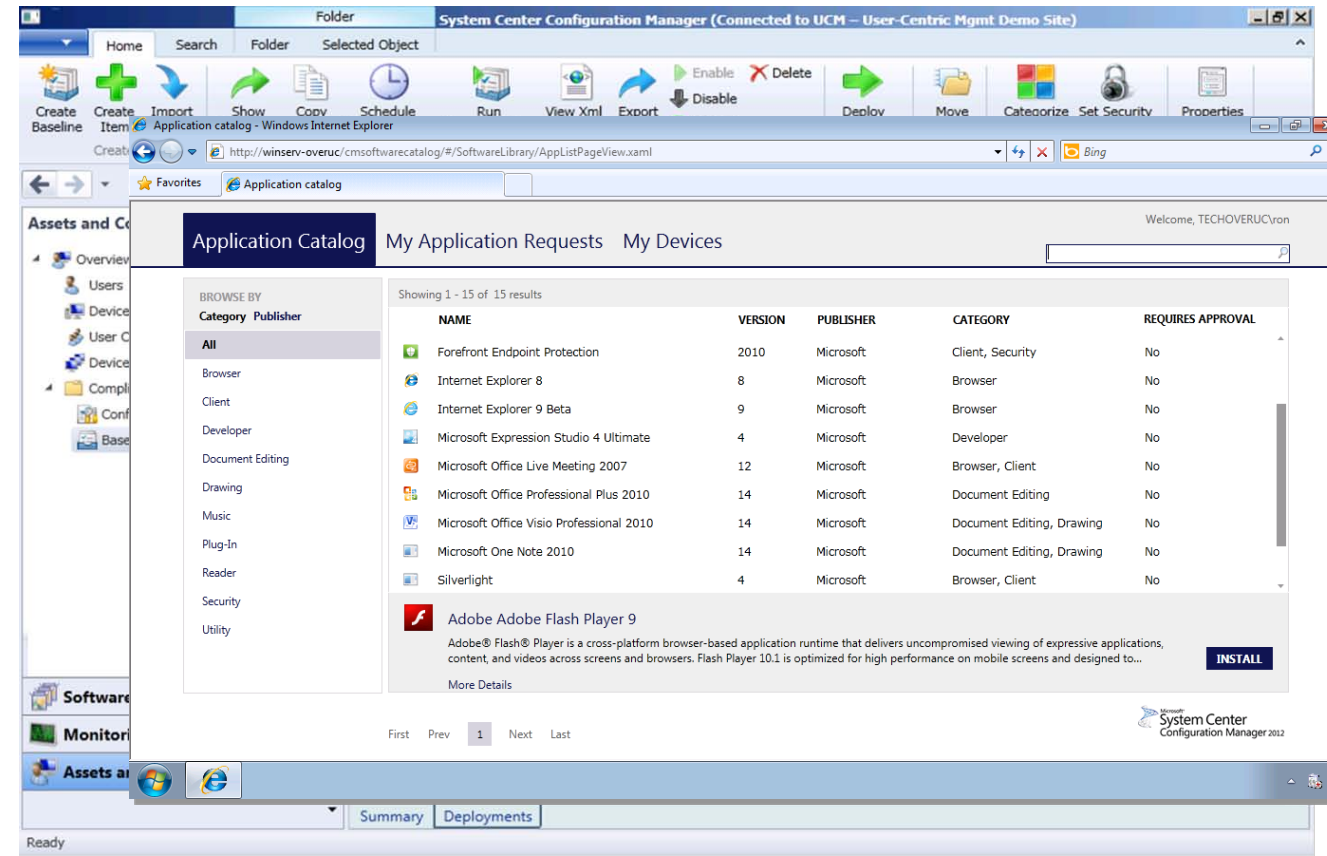
Microsoft
Hyper-V Server 2008 R2

CITRIX[®]

vmware[®]

System Center Configuration Manager 2012

- **Simplified Interface**
- **Traditional server provisioning**
 - Server and in-guest provisioning
- **User Centric Model**
- **Desired Configuration Management**
 - In-guest DCM
 - Drive compliance by managing configuration drift
- **Mobile Management**
 - Windows Phone 7, iOS, Android
 - EAS-based policy delivery
 - Discovery and inventory, Settings policies, Remote Wipe



ConfigMgr 2012 SP1 Mac support

Features :

- **Discovery** – Find Mac's in Active Directory and the Network
- **Hardware Inventory** – Inventory and audit Mac OS X machines
- **Software Inventory** – Determine list of installed software
- **Settings Mgmt** - Ensure Mac OS X machines comply with company policies
- **Application Deployment**- required/push software distribution via app model
- **Software Updates Mgmt** – via Software Distribution and Settings mgmt.



Microsoft® System Center 2012



Endpoint
Protection



Operations
Manager



Orchestrator



Service Manager



Configuration
Manager



Virtual Machine
Manager



App Controller



Data Protection
Manager

Common Antimalware Platform

- Common platform for all of Microsoft's antimalware clients.
- Security Essentials alone has over 100 million users (#1 in North America).
- 660 million executions of Malicious Software Removal Tool per month
- All of these clients service Microsoft's protection services research and response

System Center
2012 Endpoint
Protection

Windows Intune

Forefront Endpoint
Protection 2010

Windows Azure
Endpoint
Protection

Microsoft
Security
Essentials

Windows
Defender in
Windows 8

Diagnostics and
Recovery
Toolkit

Malicious
Software
Removal Tool

Windows
Defender
Offline

Protect Clients With Reduced Complexity

Simple interface

- Minimal, high-level user interactions

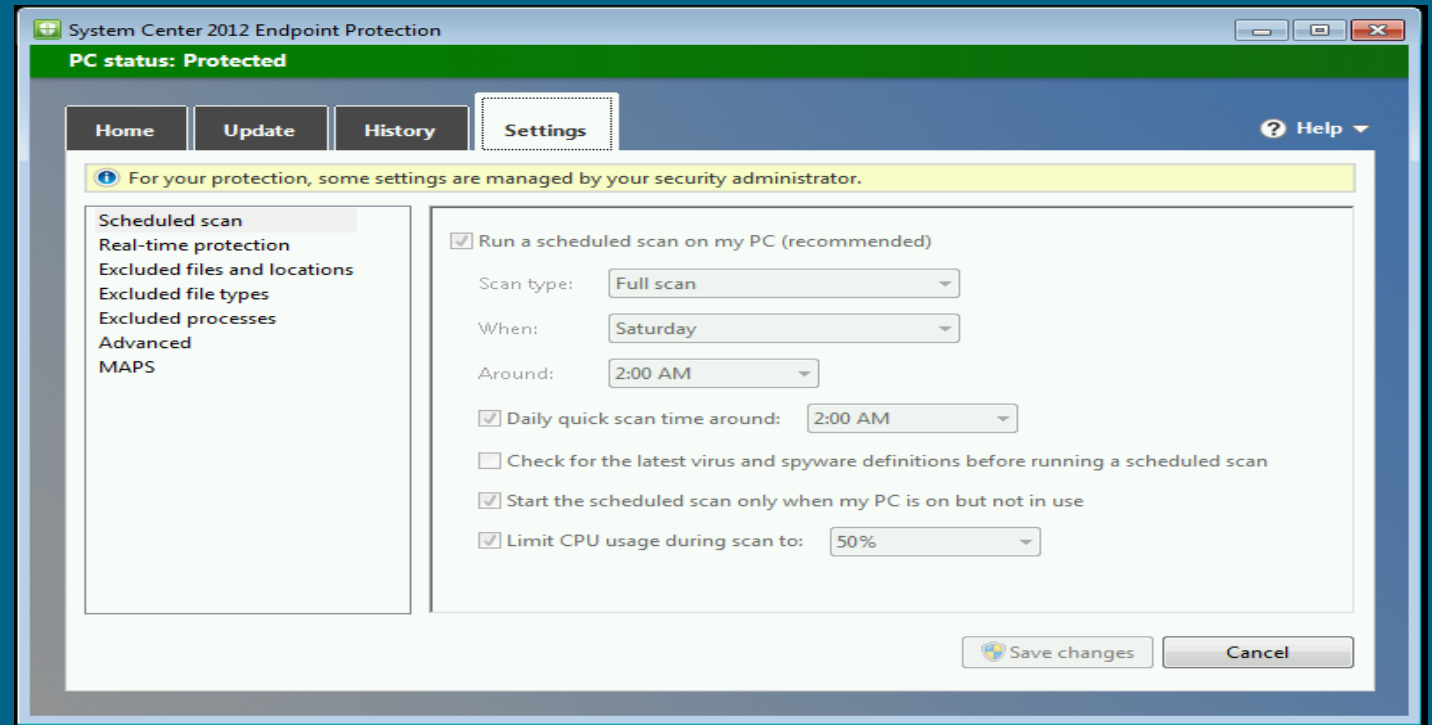
Administrative Control

- User configurability options
- Central policy enforcement
- UI Lockdown

Maintains high productivity

- CPU throttling during scans
- Faster scans through advanced caching

Minimal network and client impact of definition updates



Binary delta signature update 3 times per day (<.5MB)



Delta signature update (missed 3 days of delta, <5MB)



Full update (new machine, or not updated in 31 days, <80MB)



Heterogeneous Antimalware Clients

Features:

- Anti-virus and Anti-malware support
- Machines connect directly to internet service for security content
- Client UI for user visibility and control
- SCOM monitoring pack for Linux with management control

Platforms:

- Apple Mac (10.6-10.7).
- Linux Server: Redhat Enterprise 6
SuSE Linux 11