









# Licensing Windows Server 2012 R2

## Volume Licensing

### WINDOWS SERVER® 2012 R2 EDITIONS

There are 4 editions of Windows Server 2012 R2:

	Windows Server 2012 R2 <b>Datacenter</b>	Windows Server 2012 R2 <b>Standard</b>	Windows Server 2012 R2 <b>Essentials</b>	Windows Server 2012 R2 <b>Foundation</b>
				
Licensing Model	Processor-based and CAL 	Processor-based and CAL 	Per Server 	Per Server 
Virtualization rights	License the physical server with Datacenter edition for unlimited virtualization	1 processor-based license allows the running of 2 virtual machines and licenses can be stacked to gain rights to run extra virtual machines	Host virtualization rights and rights to run in a single physical or virtual OSE	No host virtualization rights and can only be run in the physical OSE
Notes	<ul style="list-style-type: none"> <li>Same functionality as Standard edition</li> </ul>	<ul style="list-style-type: none"> <li>Same functionality as Datacenter edition</li> <li>A Step Up License to Datacenter is available for customers with Software Assurance on Windows Server 2012 R2 Standard</li> </ul>	<ul style="list-style-type: none"> <li>Only runs on servers with up to 2 processors</li> <li>Restricted to 25 user accounts and 50 devices</li> </ul>	<ul style="list-style-type: none"> <li>Available through the OEM channel only</li> <li>Runs on single processor servers only</li> <li>Restricted to 15 user accounts</li> </ul>
options for medium and large organizations			options for small organizations	

### PROCESSOR-BASED AND CAL LICENSING

Purchase Processor-based licenses for the server on the basis that 1 license covers up to 2 physical processors, and then purchase Windows Server 2012 Client Access Licenses (CALs) for either users or devices.

**A Device CAL** is assigned to the device and allows multiple users to use that device



**A User CAL** is assigned to the user and allows that user to use multiple devices

The Processor-based and CAL licensing model applies to the Standard and Datacenter editions of Windows Server 2012 R2. Note that Windows Server 2012 CALs may be used with a Windows Server 2012 or Windows Server 2012 R2 server.

### LICENSING EXTERNAL USERS

External users can be licensed with either individual User or Device CALs or with a Windows Server 2012 External Connector license:

- A physical server must be licensed appropriately with Windows Server 2012 R2 Standard or Datacenter licenses and then a single External Connector license is assigned to the server. There is just one edition of the External Connector license used regardless of whether the underlying server is licensed with Standard or Datacenter edition
- The External Connector license allows unlimited external users to connect to and use the services of the physical server and any virtual machines running on the server
- If an organization has more than approximately 70 external users it is likely to be most cost effective to use an External Connector license to license those users

### WINDOWS SERVER SERVICES

#### Remote Desktop Services

- Remote Desktop Services (RDS) makes it possible to run an application or an entire desktop in one location, but have it be controlled in another. In addition to the traditional session virtualization scenario (formerly known as "Terminal Services"), RDS provides an extensible platform for a Virtual Desktop Infrastructure (VDI)
- RDS must be activated on the Windows Server, and users need licenses for all software they are using, plus an RDS CAL as well as a Windows Server CAL
- An RDS External Connector is available as an option for non-employees

#### Active Directory Rights Management Services

- Windows® Rights Management Services is a security technology that works with RMS-enlightened applications (such as Microsoft® Office 2013 and Microsoft® Office 2010) to help safeguard digital information from unauthorized use
- Within the organization, users must have ADRMS CALs, and an ADRMS External Connector is available as an option for non-employees

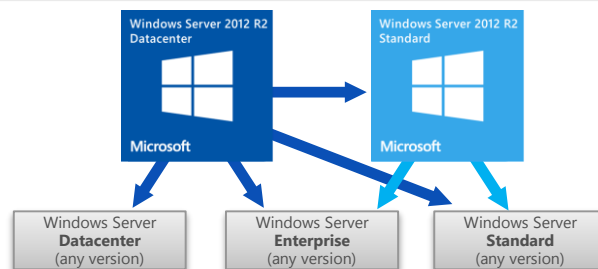
### LICENSE MOBILITY

License Mobility is not available for Windows Server 2012 R2. Licenses can be reassigned to servers no more frequently than once every 90 days.



## DOWNGRADING VERSIONS AND EDITIONS

- ▶ Windows Server 2012 R2 **Datacenter** may be downgraded to any version of Windows Server Datacenter, Enterprise or Standard
- ▶ Windows Server 2012 R2 **Standard** may be downgraded to any version of Windows Server Enterprise, Standard or Essentials
- ▶ Windows Server 2012 R2 **Essentials** may be downgraded to any previous version of Windows Server Essentials



## MIGRATING TO WINDOWS SERVER 2012 R2

### Windows Server 2008 R2 License with SA

		Migrates to Windows Server 2012 R2
Datacenter	2:1	Datacenter
Standard	1:1	Standard
Enterprise	1:2	Standard
Web Server	2:1	Standard
Itanium-Based Systems	1:1	Datacenter
HPC Server Suite	1:1	Standard
HPC Edition	2:1	Standard
HPC Pack Enterprise	2:1	Standard

### Small Business Server 2011 License with SA

		Migrates to Windows Server 2012 R2
Small Business Server 2011 Essentials	1:1	Essentials
Small Business Server 2011 Standard	1:1	Standard + Exchange Server 2010 Standard
Windows SBS 2011 CAL Suite	1:1	Windows Server 2012 Standard CAL + Exchange Server 2010 Standard CAL
Windows SBS 2011 Premium Add-on	1:1	Standard + SQL Server 2012 Standard
Windows SBS 2011 Premium Add-on CAL Suite	1:1	SQL Server 2012 Standard CAL

## CORE INFRASTRUCTURE SERVER SUITES

These suites provide a cost effective way for organizations to purchase licenses for Windows Server and System Center. There are two suites available:

### ▶ Core Infrastructure Server Suite Standard:

- System Center 2012 R2 Standard
- Windows Server 2012 R2 Standard

*1 license covers 2 physical processors or the management of 2 OSEs*

### ▶ Core Infrastructure Server Suite Datacenter:

- System Center 2012 R2 Datacenter
- Windows Server 2012 R2 Datacenter

*1 license covers 2 physical processors. License all physical processors and manage unlimited OSEs*



Windows Server



Microsoft System Center

## VOLUME ACTIVATION



Product activation is the process of validating software with the manufacturer.

Activation confirms the genuine status of a product and that the product key has not been compromised. It establishes a relationship between the software's product key and a particular installation of that software on a device.

A **Multiple Activation Key (MAK)** is a volume license key that is used for one-time activation with activation services that are hosted by Microsoft. There are two ways to use MAK to activate computers:

### ▶ MAK independent activation

Each computer must independently connect and be activated by Microsoft over the Internet or by telephone.

### ▶ MAK proxy activation

A computer that is acting as a MAK proxy gathers activation information from multiple computers on the network, and then sends a centralized activation request to Microsoft on their behalf. MAK proxy activation is configured by using the Volume Activation Management Tool (VAMT).

MAK activation is useful when not all of an organization's computers are conveniently located on the organization's networks.

**Key Management Service (KMS)** activation is done against a service hosted within an organization, and not with Microsoft, thus enabling organizations to activate systems within their network, eliminating the need for individual computers to connect to Microsoft for product activation. KMS is the default key for volume activation clients.

**Active Directory-based Activation** is a role service that allows organizations to use Active Directory Domain Services (AD DS) to store activation objects, which can further simplify the task of maintaining volume activation services for a network. With Active Directory-based Activation, no additional host server is needed, and activation requests are processed during computer startup.

Further Microsoft Licensing handouts and exams: [GetLicensingReady.com](http://GetLicensingReady.com)