Commercial Licensing Reference Guide

Windows Server 2012 R2

Microsoft

Introduction

This guide can help Microsoft Commercial Licensing customers understand how Windows Server 2012 R2 is licensed through Microsoft Commercial Licensing programs.

In addition, this guide is for informational purposes and does not supersede or replace any documentation covering Windows Server 2012 R2 licensing. Specific product license terms are defined in the product's Retail Software License Terms, the Microsoft Commercial Licensing agreement under which it was acquired, and/or the Microsoft Commercial Licensing Product Terms.

For information on Windows Server 2016, including the change to the per core licensing model, visit Microsoft's licensing website at https://www.microsoft.com/en-us/licensing/product-licensing/windows-server-2016.aspx.

You can also download the licensing guide for Windows Server 2016.

Commercial Licensing reference guide for Windows Server 2012 R2

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Product Overview

Windows Server 2012 R2 captures Microsoft's experience of delivering global-scale cloud services to provide an enterprise-class server and cloud platform. It lets you optimize performance for your most important workloads and helps protect against service outages with robust recovery options. It reduces complexity and cost with comprehensive automation plus storage and networking virtualization solutions based on industry-standard hardware. It lets you build, run, and scale applications that can move between your datacenter and the cloud, and it allows you to provide your users with flexible remote access from virtually anywhere and any device while helping protect corporate information.

Edition Overview

The Windows Server 2012 R2 product is streamlined and simple, making it easy for customers to choose the edition that is right for their needs.

- **Datacenter edition** for highly virtualized private cloud environments.
- **Standard edition** for non-virtualized or lightly virtualized environments.
- **Essentials edition** for small businesses with up to 25 users running on servers with up to two processors.
- **Foundation edition** for small businesses with up to 15 users running on single processor servers.

Edition	Virtualization Rights	Licensing Model	Server Pricing*
Datacenter	Unlimited virtual OSE	Processor + CAL**	$6,155
Standard	Two virtual OSE	Processor + CAL**	$882
Essentials	One OSE***	Server, up to 2 processors 25 user limit	$501
Foundation	No Virtualization Rights	Server, up to 1 processor 15-user limit	OEM only

OSE: Operating System Environment
*Open No Level (NL) ERP. Two processors (For specific pricing, contact your Microsoft reseller. Microsoft does not determine pricing or payment terms for licenses acquired through resellers.)
**Client Access Licenses (CALs) are required for every user or device accessing a server. See the [Product Terms](#) for details.
***The Windows Server Essentials edition allows one OSE to run the Windows Server Essentials software only.

Licensing Overview

The packaging and licensing structure for Windows Server 2012 R2 editions remain unchanged.

Datacenter and Standard editions provide:

- ▶ **Differentiation only by virtualization rights:** Two virtual instances for Standard edition and unlimited virtual instances for Datacenter edition.

- ▶ **A consistent processor-based licensing** model that covers up to two physical processors on a server.

Essentials and Foundation editions provide:

- ▶ **A server-based licensing model:** Foundation is for single processor servers and Essentials is for either one or two processor servers.

- ▶ **CALs not required for access:** Foundation comes with 15 user accounts and Essentials comes with 25 user accounts.

Client Access License (CAL)

Windows Server Standard and Datacenter editions will continue to require Windows Server CALs for every user or device accessing a server. (See the Product Terms for exceptions and the Multiplexing — Client Access License (CAL) Requirements licensing brief for indirect-access licensing information.)

Some additional or advanced functionality will continue to require the purchase of an additive CAL. These are CALs that you need in addition to the Windows Server CAL to access functionality, such as Remote Desktop Services or Active Directory Rights Management Services. (To learn more about these CALs, see the Base and Additive Client Access Licenses licensing brief.)

Note: Windows Server 2012 CALs are used to access Windows Server 2012 and Windows Server 2012 R2.

Determining the Number of Licenses for Datacenter and Standard Editions

Licensing Examples	Datacenter Licenses Required	Standard Licenses Required
One 1-processor, non-virtualized server	1	1
One 4-processor, non-virtualized server	2	2
One 2-processor server with three virtual OSEs	1	2
One 2-processor server with 12 virtual OSEs	1	6

Planning for Windows Server 2012 R2

If you are planning to deploy Windows Server 2012 R2, remember:

Select the edition of Windows Server 2012 R2 based on your virtualization needs and edition features:

▶ Datacenter edition for highly virtualized private clouds.

▶ Standard edition for lightly or non-virtualized environments.

▶ Essentials edition for small businesses with up to 25 users, running on servers with up to two processors.

▶ Foundation edition for small businesses with up to 15 users buying single processor servers from OEMs.

Renewing Software Assurance is the best way to protect investments while gaining access to new versions, technical assistance, and Deployment Planning Services.

The Microsoft Core Infrastructure Suite (CIS) will continue to offer the best value for private cloud and datacenter management pricing.

Core CAL and Enterprise CAL Suites will continue to be the most cost-effective way to purchase Windows Server CALs to access workloads running on Windows Server 2012 R2 Standard and Datacenter editions.

Find out how flexible payments can help you get the IT you need and stay on budget. Visit www.microsoft.com/financing for program details, or to learn more contact your Microsoft Solution Partner directly or call (800) 936-3500 in the United States and Canada.

Edition Comparisons

Edition Comparison by Running Instances

Running instances can exist in either a physical operating system environment (POSE) or a virtual operating system environment (VOSE).

Edition	Running Instances in POSE	Running Instances in VOSE
Datacenter	1	Unlimited
Standard	1[1]	2
Essentials	1[1]	1[2]
Foundation	1	0

[1]When a customer is running all allowed virtual instances, the physical instance may be used only to manage and service the virtual instances. For information about licensing in virtual environments, see the _Licensing Microsoft server products for use in virtual environments_ licensing brief.

[2]Essentials is the only edition that can run in the VOSE

Edition Comparison by Server Roles

Server Role	Datacenter and Standard	Essentials	Foundation
AD Certificate Services	●	■[1]	◐[1]
AD Domain Services	●	■[3]	●[3]
AD Federation Services	●	●	●
AD lightweight Directory Services	●	●	●
AD RMS[4]	●	●	●
Application Server	●	●	●
DHCP Server	●	●	●
DNS Server	●	■	●
Fax Server	●	●	●
File Services	●	■[5]	◐[5]
Hyper-V	●	●	○
Network Policy & Access Services	●	■	○
Print & Doc Services	●	●	●
Remote Access	●	■[6]	◐[6]
Remote Desktop Services	●	■[8]	◐[9]
UDDI Services	●	●	●
Web Server (IIS)	●	■	●
Windows Deploy Services	●	●	●
Windows Server Essentials Experience	●	■	○
Windows Server Update Services (WSUS)	●	●	○

● *Full*

◐ *Partial/Limited*

■ *Automatically Installed/Configured*

○ *Not Available*

AD = Active Directory
RMS = Rights Management Service
DNS = Domain Name System
[1] *Limited to creating Certificate Authorities—there are no other Active Directory Certificate Services features (Network Device Enrollment Services, Online Responder Service). See ADCS role documentation on TechNet for more information.*
[2] *Must be root of ADDS forest and domain and have all FSMO roles.*
[3] *If ADDS role is installed, must be root of forest and domain and have all FSMO roles.*
[4] *Requires an additive AD RMS CAL for access.*
[5] *The data de-duplication feature is not available.*
[6] *Limited to 50 RRAS connections, 10 IAS connections; DirectAccess and VPN are supported.*
[7] *Requires an additive RDS CAL for access, with the exception of using the Remote Web Access feature of the Essentials edition.*
[8] *Only the RD Gateway role service is installed and configured, other RDS role services including RD Session Host are not supported.*
[9] *Limited to 50 Remote Desktop Services connections.*

Software Assurance Benefits

Microsoft Commercial Licensing customers with active Software Assurance get more out of their Microsoft software and services investments with access to a unique set of technologies, services, and license rights to help use Microsoft products efficiently.

Here is a list of just a few of the benefits that you can receive with Software Assurance for Windows Server:

- **New Version Rights:** Upgrade each product license covered by active Software Assurance to the most recent version when available.

- **Planning Services:** Get in-depth planning assistance from qualified Microsoft partners or Microsoft Services to help evaluate and create a structured plan to deploy Microsoft solutions. Private Cloud, Management & Virtualization Deployment Planning Services (PVDPS) provides the fundamental analysis, business case, process, and technical procedures that you need to optimize your datacenter.

- **Step-up Licenses:** Customers with active Software Assurance can migrate from a lower- to higher-level edition of certain products (for example, from Windows Server 2012 R2 Standard to Windows Server 2012 R2 Datacenter) at a low cost. Note that the Step-up license option is not available through the Open License or Microsoft Products and Services Agreement (MPSA) programs.

- **24x7 Problem Resolution Support:** Includes around-the-clock phone support for business critical issues, or business hours phone support for non-critical issues. In addition, unlimited email support is available for non-critical problems.

- **Enterprise Source Licensing Program:** Access Microsoft Windows source code for internal development and support purposes when you have Software Assurance coverage for 10,000 or more licensed desktop PCs in the systems pool.

- **Back-up for Disaster Recovery:** Provides additional licenses for servers used as offline ("cold") backups, to help you recover in case of a catastrophic event.

Disaster Recovery Rights

For each instance of eligible server software you run in a physical or virtual OSE on a licensed server, you may temporarily run a backup instance in a physical or virtual OSE on either (a) servers dedicated to disaster recovery and to your use, or (b) for instances of eligible software other than Windows Server, on Microsoft Azure Services, provided the backup instance is managed by Azure Site Recovery to Azure. The license terms for the software and the following limitations apply to your use of the backup instance.

The backup instance can run only during the following exception periods:

- For brief periods of disaster recovery testing within one week every 90 days.

- During a disaster, while the production server being recovered is down.

- Around the time of a disaster, for a brief period, to assist in the transfer between the primary production server and the disaster recovery server.

In order to use the software under disaster recovery rights, you must comply with the following terms:

- The OSE on the disaster recovery server must not be running at any other times except as above.

- The OSE on the disaster recovery server may not be in the same cluster as the production server.

- Other than backup instances running on Microsoft Azure Services, a Windows Server license is not required for the disaster recovery server if the Hyper-V role within Windows Server is used to replicate virtual OSEs from the production server at a primary site to a disaster recovery server.

- The disaster recovery server may be used only to run hardware virtualization software (such as Hyper-V), provide hardware virtualization services, run software agents to manage the hardware virtualization software,

serve as a destination for replication, receive replicated virtual OSEs, test failover, and/or await failover of the virtual OSEs.
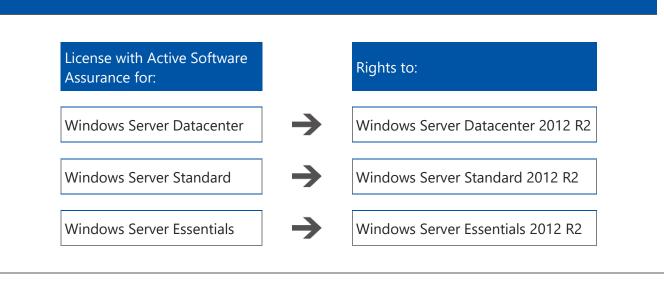
► Run disaster recovery workloads as described above.

► The disaster recovery server may not be used as a production server.

► Use of the software backup instance should comply with the license terms for the software.

► After the disaster recovery process is complete and the production server is recovered, the backup instance must not be running at any other times except those times allowed here.

► Maintain Software Assurance coverage for all CALs, External Connector licenses and Server Management Licenses under which you access the backup instance and manage the OSEs in which that software runs.

► Your right to run the backup instances ends when your Software Assurance coverage ends.

Your specific Software Assurance benefit eligibility can vary by Commercial Licensing program (such as an Enterprise Agreement or Open Value Agreement) and product, as well as the number of qualifying licenses you have enrolled in Software Assurance. Visit www.microsoft.com/licensing/software-assurance/check-your-benefits.aspx for more information.

Version Migration Under New Product Versions Benefit

Commercial Licensing customers with active Software Assurance coverage on Windows Server at the time of General Availability will receive an upgrade to the latest version based on their New Version Rights benefit.* Each Windows Server licenses with Software Assurance will receive one license for the corresponding edition of Windows Server 2012 R2.

*Commercial License program rules apply; see the Product Terms for details.

License with Active Software Assurance for:	Rights to:
Windows Server Datacenter	Windows Server Datacenter 2012 R2
Windows Server Standard	Windows Server Standard 2012 R2
Windows Server Essentials	Windows Server Essentials 2012 R2

Software Assurance Migration Paths

Enrollment of Original Equipment Manufacturer Licenses into Software Assurance

Software Assurance is available for the latest version** of the software: Windows Server 2012 R2. You must acquire Software Assurance within 90 days of your purchase (see the Product Terms for details). If you acquire Software Assurance for an OEM license, your use of the software becomes subject to the Product Terms for that product and the terms and conditions or your organization's Commercial Licensing agreement.

**The latest version is determined by the most recent version available on the Volume Licensing Service Center.

Availability Through Commercial Licensing Programs

Licenses for Windows Server 2012 R2 editions are available in the following Microsoft Commercial Licensing programs.

Edition	Commercial Licensing Program				
	Enterprise Agreement (and Subscription)	Microsoft Products and Services Agreement (MPSA)*	Open Value (and Subscription)	Open License	Enrollment for Education Solutions
Datacenter	●	●	●	●	●
Standard	●	●	●	●	●
Essentials			●	●	
Foundation	Available through OEMs only; not available through Commercial Licensing.				

Effective July 1, 2016, in markets where the MPSA is available, Microsoft will stop accepting new orders and Software Assurance renewals through existing commercial Select Plus agreements at your next agreement anniversary date. This retirement does not apply to government and academic Select Plus agreements. More information is at www.microsoft.com/selectfaq.

Volume Activation

A number of technologies are available in Windows Server 2012 R2 to simplify the task of configuring the distribution and management of an organization's volume software licenses. These technologies include:

- ▶ **The Volume Activation Services server role:** Volume Activation Services is a server role in Windows Server 2012 (or later editions) that enables you to automate and simplify the issuance and management of Microsoft software volume licenses for a variety of scenarios and environments. With Volume Activation Services, you can install and configure the Key Management Service (KMS) and enable Active Directory-based Activation.

- ▶ **Key Management Service (KMS):** KMS is a role service that allows organizations to activate systems within their network from a server where a KMS host has been installed. With KMS, IT pros can complete activations on their local network, eliminating the need for individual computers to connect to Microsoft for product activation. KMS does not require a dedicated system, and it can be cohosted on a system that provides other services. By default, volume editions of Windows 8 (or later editions) and Windows Server 2012 (or later editions) connect to a system that hosts the KMS service to request activation. No action is required from the user.

- ▶ **Active Directory-based Activation:** Active Directory-based Activation is a role service that allows you 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.

Any computers running Windows 8 (or later editions) and Windows Server 2012 (or later editions) with a Generic Volume License Key (GVLK) that are connected to the domain will activate automatically and transparently. They will stay activated as long as they remain members of the domain and maintain periodic contact with a domain controller. Activation takes place after the licensing service starts. When this service starts, the computer running Windows 8 (or later editions) and Windows Server 2012 (or later editions) RD contacts AD DS automatically, receives the activation object, and activates without user intervention.

Review this TechNet article for further details.

Frequently Asked Licensing Questions (FAQ)

1. **How are Windows Server 2012 R2 Standard and Datacenter editions licensed?**

Windows Server 2012 R2 Standard and Datacenter editions will continue to have the same licensing model as Windows Server 2012 Standard and Datacenter editions. The editions are differentiated by virtualization rights only (two OSEs for Standard and unlimited OSEs for Datacenter). A single license covers up to two physical processors.

Client Access Licenses (CALs) are required for each user or device accessed. The Windows Server 2012 related CALs provide entitlement to access and use Windows Server 2012 R2 functionality.

2. **What is the difference between Windows Server 2012 R2 Standard edition and Windows Server 2012 R2 Datacenter edition?**

Both Standard and Datacenter editions provide the same set of features; the differentiator is the number of Virtual Operating System Environments (VOSE). A Standard edition license entitles up to two VOSEs on up to two processors (subject to the VOSE use rights outlined in the Product Terms document for Commercial Licensing or End User License Agreement for other channels). A Datacenter edition license entitles an unlimited number of VOSEs on up to two processors.

3. **Will the Windows Server 2012 R2 and System Center 2012 R2 licensing models continue to be aligned?**

Yes. Both Windows Server 2012 R2 and System Center 2012 R2 have similar licensing structures. These include two editions: Standard and Datacenter.

   ▶ Single licenses that cover up to two physical processors.

   ▶ Editions differentiated by virtualization rights only (two for Standard; unlimited for Datacenter).

(Client Access Licenses [CALs] will continue to be required for access to Windows Server 2012 R2 servers and management access licenses continue to be required for endpoints being managed by System Center.)

4. **What are some of the features available in Windows Server 2012 R2 Datacenter and Standard editions?**

There are a variety of new features in Windows Server 2012 R2 Datacenter and Standard editions. Here are just a few examples:

   ▶ Enterprise-class virtual machine density, performance, and mobility with best-in-class performance and scale for Microsoft workloads

   ▶ High-performance file-based storage on cost-effective, industry-standard hardware with inbox storage virtualization and tiering

   ▶ Highly available, in-box hybrid networking for bridging physical and virtual networks in a multi-tenant environment and across premises

   ▶ Protection and recovery of assets for all your workloads with simple and affordable disaster recovery options

   ▶ Flexible remote access to corporate resources from virtually anywhere and on any device while helping protect corporate information

5. **How do I determine which Windows Server 2012 R2 edition is right for me?**

Because there is feature parity between Windows Server 2012 R2 Standard and Datacenter editions, your decision will be based on your virtualization strategy; virtualization rights are the only differentiator between editions. If your strategy calls for a highly virtualized environment, Datacenter edition will provide you with optimum flexibility because it allows for unlimited virtualization. This edition allows you the elasticity to add and move virtual OSEs across Datacenter licensed servers without needing to track the virtual OSE count on that server. If you do not plan on a highly virtualized environment,

Standard edition is the right product for your needs. If you purchase Standard edition today but find you need to expand the virtualization capacity of your licensed server, you can do one of the following:

1. Purchase additional Standard edition licenses and assign them to the same physical server giving you the rights to run additional instances of Windows Server. The server must have the appropriate number of licenses assigned to it to ensure coverage of all of the virtual OSEs that are running at any given time.

2. Purchase a Software Assurance Step-up license to Datacenter edition, changing the license to a higher edition that allows unlimited virtual OSEs. To use this benefit, your underlying license must have Software Assurance.

6. If I have a Windows Server 2012 R2 Standard edition license, how can I increase my virtualization rights?

With the Windows Server 2012 R2 Standard edition licensing model, you can grow your virtualization environment by either buying a step-up license to Datacenter edition if you have Software Assurance, or by simply buying additional Standard edition licenses and assigning them to the same physical server. The server must have the appropriate number of licenses assigned to it to ensure coverage of all of the virtual OSEs that are running at any given time. For example, if you have a two-processor server and want to run a total of four VOSEs, you can purchase two Standard edition licenses and assign them to the same server. Additional examples are shown in the following table.

Number of Standard Edition Licenses on a Single Server	Total Number of VOSEs
1	2
2	4
3	6
4	8

7. How do I calculate the number of licenses I need for a server?

The number of licenses you will need depends on the number of physical processors on the server and the number of server instances that you will be running. (This applies only for Standard edition because Datacenter edition allows for unlimited VOSEs.) The larger of these two numbers determines the number of total licenses required.

First, determine the number of physical processor licenses:

Each license covers up to two physical processors, so to determine the number of licenses needed to fully license a physical server, just count the number of physical processors in the server and divide that number by two. This tells you the number of licenses that you will need. (Note: The number of cores on the physical processor is irrelevant.)

Here are some examples:

Two-processor server: 2 physical processors / 2 (number of processors covered by a license) equals 1. You will need one license to cover a two-processor server.

Four-processor server: 4 physical processors / 2 (number of processors covered by a license) equals 2. You will need two licenses to cover a four-processor server.

Eight-processor server: 8 physical processors / 2 (number of processors covered by a license) equals 4. You will need four licenses to cover an eight-processor server.

Second, determine the number of virtual instances running:

You can either count the number of VOSEs that are running and determine the number of Standard edition licenses (one license covers up to two VOSEs), or you can purchase Datacenter, which enables unlimited VOSEs on the server.

Each Standard edition license provides you with the rights to run up to two VOSEs. To determine the number of Windows Server Standard edition licenses you need, count the total number of total VOSEs that you will run on the server; divide that number by two, and round up to the nearest whole number.

After you determine the number of licenses needed to cover physical processors and/or VOSEs, the higher of those two numbers represents the total number of licenses required. Remember that the server must have the appropriate number of licenses assigned to it to ensure coverage of all of the virtual OSEs that are running at any given time

For example, if you are running three virtual machines (VOSEs) on a two-processor server, you will require two licenses to cover the three virtual machines.

If you assign two Standard edition licenses to a single server, you will be able to run a total of four VOSEs on that server. If you add additional Standard edition licenses to that server, the number of allowed VOSEs on that particular server will increase by two for a total of six VOSEs on that server.

8. Can I use one Standard license to cover a one-processor server?

Yes. The Standard edition license will allow you to license up to two physical processors on a single server; however, it does not require the server to have two physical processors.

9. Can I split my Windows Server 2012 R2 license across multiple servers?

No. Each license can be assigned only to a single physical server.

10. Can I assign a Windows Server 2012 R2 license to a virtual machine?

No. A license is assigned to the physical server. Each license will cover up to two physical processors. After assigning the license(s) to a physical server, you now have the rights to use the VOSE on that server.

11. Can I mix Datacenter and Standard licenses on the same server?

No. All of the processors on a given server must be licensed with the same version and edition. You can run different editions or older versions of Windows Server software as guests within VOSEs, but you are not allowed to assign multiple licenses of different versions or editions to the same physical server to license the processors on the server.

12. If I want to use the software from an earlier Windows Server version or edition, what are my options?

If you have Windows Server 2012 R2 Datacenter edition, you have the right to downgrade software bits to any prior version or lower edition. If you have Windows Server 2012 R2 Standard edition, you have the right to downgrade the software to use any prior version of Enterprise, Standard, or Essentials editions.

The ability to downgrade does not change the licensing or support terms in which you can use the product; the purchased product (Windows Server 2012 R2) rights apply. This means that the license will continue to cover two physical processors, and the virtualization rights do not change. In addition, the Client Access License (CAL) corresponding to the purchased version will apply, as an exception; if you are running a previous version of one of the eligible downgrades, you can use the corresponding CAL version if one exists. Here are a few examples.

Purchased License	Downgraded Version or Edition	Bit Rights that Apply	Licensing Rights that Apply
Datacenter 2012 R2	Datacenter 2008	Datacenter 2008	Datacenter 2012 R2[1]
Standard 2012 R2	Enterprise 2008 R2	Enterprise 2008 R2	Standard 2012 R2[1,2]
Standard 2012 R2	Standard 2008	Standard 2008	Standard 2012 R2[1,2]
Standard 2012 R2	Essentials 2012	Essentials 2012	Standard 2012 R2[1,2]

[1] The license covers up to two processors.
[2] The license entitles up to two virtual machines.

13. If I have Software Assurance in place at the time that Windows Server 2012 R2 is generally available, will my grant be reflected in my licensing records?

Yes. You will see your grant in the Volume Licensing Service Center (VLSC) in addition to immediately being able to use the new product and own the perpetual rights (based on your underlying license) to the edition of Windows Server 2012 R2 that you are entitled to receive.

14. If I have Datacenter edition with Software Assurance when Windows Server 2012 R2 is released, which edition will I be entitled to use?

If you have Software Assurance on Datacenter edition, you will be entitled to Windows Server 2012 R2 Datacenter edition. For every Windows Server 2012 Datacenter license with Software Assurance, you will receive one Windows Server 2012 R2 Datacenter edition license.

15. If I have Standard edition with Software Assurance when Windows Server 2012 R2 is released, which edition will I be entitled to receive?

If you have Software Assurance on Standard edition, you will be entitled to Windows Server 2012 R2 Standard edition. For every Windows Server 2012 Standard license with Software Assurance, you will receive one Windows Server 2012 R2 Standard edition license.

16. What are my Software Assurance migration rights by Microsoft purchase program?

Each Microsoft purchase program has different rules for your Software Assurance migration entitlement at the end of your enrollment. See the chart below.

Program	Software Assurance at Time of Release
Enterprise Agreement	You will receive perpetual rights to the current edition (Windows Server 2012 R2). These rights are conditional on you and your Affiliates continued compliance with the terms of this agreement, including payment for the Products.
Enterprise Agreement Subscription	You will be able to use the Windows Server 2012 R2 edition of your license during your enrollment. At the end of your enrollment, you will have the option to buy out the new Windows Server 2012 R2 product at the buy-out price on your customer price sheet or based on the price on your reseller's channel price sheet, or renew your enrollment at the new Windows Server 2012 R2 annual subscription price.
Enrollment for Education Solutions	You will be able to use the Windows Server 2012 R2 edition of your license during your enrollment. At the end of your enrollment, you will have the option to buy out the new Windows Server 2012 R2 product at the buy-out price, provided you have licensed Windows Server under one or more Enrollments (including extensions) for at least 36 full calendar months immediately preceding your enrollment expiration, or renew your enrollment at the new Windows Server 2012 R2 annual subscription price.
Microsoft Products and Services Agreement	You will receive perpetual rights to the current edition (Windows Server 2012 R2). These rights are conditional on you and your Affiliates continued compliance with the terms of this agreement, including payment for the Products.
Open Value	You will receive rights to the current edition (Windows Server 2012 R2). These rights are conditional on you and your Affiliates continued compliance with the terms of this agreement, including payment for the Products.

Open Value Subscription	You will be able to use the Windows Server 2012 R2 edition of your license during your enrollment. At the end of your enrollment you will have the option to buy out the new Windows Server 2012 R2 product at the buy-out price or renew your enrollment at the new Windows Server 2012 R2 annual subscription price. Refer to the terms of your contract for details.
Select Plus* and Open License	You will receive rights to the current Windows Server 2012 R2 edition. These rights are conditional on you and your Affiliates continued compliance with the terms of this agreement, including payment for the Products.

*Effective July 1, 2016, in markets where the MPSA is available, Microsoft will stop accepting new orders and Software Assurance renewals through existing commercial Select Plus agreements at your next agreement anniversary date. This retirement does not apply to government and academic Select Plus agreements. More information is at www.microsoft.com/selectfaq.

17. How much will Windows Server 2012 R2 Standard and Datacenter editions cost?

Pricing levels vary. For your specific pricing, contact your Microsoft reseller. Microsoft does not determine pricing or payment terms for licenses acquired through resellers.

Windows Server Edition	Commercial Licensing Open No Level ERP
Datacenter	$6,155
Standard	$882

18. Why is the price of Windows Server Datacenter 2012 R2 changing?

Microsoft takes pricing and licensing decisions very seriously. All pricing decisions take into account changing product value, customer and partner feedback, and market conditions. Windows Server Datacenter edition is optimized for highly virtualized environments and includes unlimited virtualization rights. This provides flexibility to add and move virtual OSEs across licensed servers without needing to track the virtual OSE counts on your servers.

Over the past few releases, Windows Server has added in a tremendous amount of new features and enhancements, as well as significant performance and capacity improvements, to support highly virtualized datacenter and cloud environments. A few of these examples include:

High-scale performance enhancements, including support for:

- ▶ 320 logical processors on hardware
- ▶ 4 TB physical memory
- ▶ 64 virtual processors per virtual machine
- ▶ 1 TB memory per virtual machine
- ▶ 1,024 active virtual machines per host
- ▶ Live migration enhancements including cross-version live migration, live migration compression, and live migration with RDMA.
- ▶ The ability to grow or shrink VHDXs with no downtime.
- ▶ Hyper-V Replica enhancements, including tertiary site support and sync intervals as low as 30 seconds.

And much more.

On servers that are not expected to be highly virtualized, Windows Server Standard is optimal, providing two instances per license, with an ability to assign multiple licenses to a single server to increase the allowed virtual OSE densities on that server. Keep in mind that servers licensed with Windows Server Standard will need to have the appropriate number of licenses assigned to that server to ensure coverage of all of the virtual OSEs that are running at any given time.

19. Which Client Access Licenses (CALs) do I use to access Windows Server 2012 R2?

Your Windows Server 2012 Client Access License (CAL) is used to access Windows Server 2012 and Windows Server 2012 R2. You do not need to have Software Assurance on your Windows Server 2012 CAL in order to use it to access Windows Server 2012 R2.

20. Do I still need a separate CAL to access Remote Desktop Services (RDS) and Active Directory Rights Management Service (ADRMS)?

Yes. The licensing requirements for Remote Desktop Services (RDS) and Active Directory Rights Management Service (ADRMS) have not changed with Windows Server 2012 R2. Customers are still required to purchase an ADRMS and/or RDS CAL in addition to a Windows Server CAL to access ADRMS and/or RDS functionality, respectively. For example, to access RDS functionality in Windows Server 2012 R2, you need Windows Server 2012 CALs and Windows Server 2012 RDS CALs along with the server software.

21. What is the price of running Windows Server 2012 R2 on Windows Azure under "preview" and "general availability"?

During Preview, VOSEs running Windows Server 2012 R2 will be charged at the same rate as those running Linux. During generally availability, VOSEs running Windows Server 2012 R2 will be charged the same rate as those running Windows Server 2012.

22. Can I move Windows Server 2012 R2 licenses and images between Hyper-V and Azure?

Windows Server 2012 R2 licenses, just like Windows Server 2012, are not eligible for the License Mobility through Software Assurance benefit. You can continue to take advantage of the license mobility rights for other server applications; however, Windows Server will continue to be purchased separately from the service provider or Azure.

23. What are the System Center license requirements for managing Windows Server 2012 R2 instances running on Azure?

You can use the License Mobility through Software Assurance to assign your System Center 2012 R2 license to a Windows Server instance running on Azure.

24. How do I license Windows Server 2012 R2 on Core Infrastructure Suite to run some instances on Azure?

You are not able to run your Core Infrastructure Suite (CIS) Windows Server license in Azure because Windows Server does not offer mobility right as a standalone license or as a component product within the Core Infrastructure Suite product purchased.

25. Are there any changes to the licensing model for Windows Server 2012 R2 Essentials?

Windows Server 2012 R2 Essentials will continue to have a license that covers a single server with up to two physical processors. It does not require CALs, but is limited to 25 user accounts.

With previous versions of the Windows Server Essentials edition, it was necessary to obtain a hypervisor separately in order to run as a virtual machine—options included the free Microsoft Hyper-V Server or using Windows Server Standard edition to run Hyper-V. With Windows Server 2012 R2 Essentials, the product licensing terms have been expanded to enable you to run one operating system instance on the physical server for Hyper-V, plus a second Operating System Environment on that server in order to run Essentials as a virtual machine. Installation wizards have also been created to simplify the process of deploying as a virtual machine by automating the steps necessary to set up and configure the host server environment. This makes it easier than ever before to take advantage of Hyper-V and its features, such as Live Migration and Hyper-V Replica.

26. What are some of the features that are now available in Windows Server 2012 R2 Essentials?

Windows Server 2012 R2 Essentials incorporates best-of-breed capabilities to deliver a server environment well suited for the vast majority of small businesses, enabling you to:

- ▶ Protect your data
- ▶ Provide secure remote access
- ▶ Integrate cloud services

Customers can use Windows Server 2012 R2 Essentials as a platform to run critical line-of-business applications and other on-premises workloads. It can also provide an integrated management experience when running cloud-based applications and services, such as email, collaboration, online backup, and more.

27. What are the different editions available with Windows Server 2012 R2 Essentials?

There is only one edition: Windows Server 2012 R2 Essentials. It is a flexible offering that provides a platform for running on-premises or cloud-based workloads.

28. How much will Windows Server Essentials cost?

For your specific pricing, contact your Microsoft reseller. Actual prices may vary. Microsoft does not determine pricing or payment terms for licenses acquired through resellers.

Edition	Commercial Licensing Open No Level Estimated Retail Price
Essentials	$501
Foundation	OEM only

29. Are there any licensing changes happening to the Foundation edition as part of Windows Server 2012?

There are no changes to the Foundation edition licensing or pricing model.

For More Information

- ▶ **Windows Server 2012 R2 Licensing:** www.microsoft.com/licensing/about-licensing/windowsserver2012-r2.aspx
- ▶ **Microsoft Commercial Licensing:** www.microsoft.com/licensing
- ▶ **Volume Licensing Service Center (VLSC):** www.microsoft.com/licensing/servicecenter/
- ▶ **Microsoft License Advisor:** www.microsoft.com/licensing/mla
- ▶ **Volume Activation:** www.microsoft.com/licensing/existing-customers/product-activation.aspx