



Hewlett Packard
Enterprise

HPE Microsoft Windows Server 2016 OEM Licensing FAQs

Contents

Purpose of this FAQ document.....	3
What is new with Microsoft Windows Server 2016?.....	3
What editions are available in Windows Server 2016?.....	3
How is licensing changing with Windows Server 2016?.....	3
How are core licenses sold?.....	4
If cores are disabled from Windows Server 2016 use, do I still need to license the cores?.....	4
What are the differences between Standard and Datacenter Editions?.....	4
What is the difference between base licenses and additional licenses and when are those required?.....	5
What are Windows Server Standard Additional Licenses “APOS”?	5
What is Datacenter Edition with reassignment rights?.....	5
What is a CAL?.....	5
What is the difference between a Windows Server CAL and RDS CALs?.....	6
Are CALs still required for Windows Server 2016?.....	6
Is it possible to buy additional CALs after I purchase the OS license?	6
Can I use my Windows Server 2012 CALs to access Windows Server 2016?.....	6
Can I use my Windows Server 2016 CALs to access Windows Server 2012 R2?.....	6
How should I think about hyper-threading in the core-based licensing?.....	6
I read that Windows Server 2016 will support nested virtualization—a VM running inside a VM. How do you license that scenario?.....	6
How do I license Nano Server?.....	6
Where can I see a list of HPE Servers that support Windows Server 2016?.....	6
Whom do I call for service and support?.....	7
What type of support services does HPE provide beyond warranty support?	7
How do I contact HPE about support for my Windows Server 2016 product?.....	7
I've lost my media for my Windows Server OS. How can I get a replacement?.....	7
What is the Microsoft Software Assurance program?.....	7
What are my downgrade rights?.....	8
What downgrades are available for Windows Server 2016?	8

Purpose of this FAQ document

The intent of this document is to provide the answers to the most commonly asked licensing questions pertaining to Windows Server® 2016. An overview of key new features and enhancements can be found in other support documentation, such as data sheets and technical guides.

What is new with Microsoft Windows Server 2016?

Windows Server 2016 brings cloud-ready and hybrid-cloud capabilities to the data center, giving customers the platform they need to gain maintain competitive advantage and drive business value. Improvements to management capabilities, networking, storage, and security options give customers the added flexibility they need to meet ever-changing business requirements. Additional platform features, such as Windows Server Containers and Hyper-V Containers increase application, speed, agility, and further bolster security.

Nano Server is a new minimal-footprint OS deployment option, which is a more efficient data center host and also the perfect lightweight OS for native cloud applications. Some new features unique to Datacenter Edition include an Azure-optimized networking stack, storage enhancements such as Storage Spaces Direct and Storage replica, and Shielded Virtual Machines. The Standard Edition will continue to provide the core functionality of Windows Server, including up to two instances of Hyper-V or Hyper-V Containers (for unlimited VMs and Hyper-V Containers, customers will require Datacenter). Both, Standard and Datacenter Editions include unlimited Windows Server Containers.

What editions are available in Windows Server 2016?

Windows Server 2016 editions have been streamlined to better support today's changing business requirements. Windows Server 2016 is released in the following editions:

- **Windows Server 2016 Datacenter:** For companies of all sizes that have demanding IT workloads and require advanced storage, virtualization, and application deployment.
- **Windows Server 2016 Standard:** Suitable for on-premises, physical environments or minimally virtualized environments that require a flexible path toward virtualization.
- **Windows Server 2016 Essentials:** Ideal for smaller business with up to 25 users or 50 devices; companies that may only have basic IT needs or have limited IT resources. Essentials is a good option for customers currently using the Windows Server Foundation Edition, which is not available for Windows Server 2016.

How is licensing changing with Windows Server 2016?

The licensing of Datacenter and Standard Edition will shift from processors (Processor + CAL) to physical cores (Cores + CAL), aligning licensing of private and public cloud environments to a consistent currency and simplifying licensing across multi-cloud infrastructures. Windows Server 2016 customers who are licensing servers with eight cores or less per processor will pay approximately the same amount as they did when licensing 2012 R2 based on the two-processor licensing model. The Standard Edition of Windows Server 2016 will license up to two VMs or two Hyper-V containers when all of the physical cores on the server are licensed.

With Windows Server 2016 Datacenter and Standard Edition:

- All physical cores in the server must be licensed. Servers are licensed based on the number of processor cores in the physical server.
- A minimum of sixteen core licenses is required for each server.
- A minimum of eight core licenses is required for each physical processor.
- Windows Server base licenses from Hewlett Packard Enterprise (HPE) cover sixteen cores, additional licenses for both Standard and Datacenter Editions are available in packs of two, four, and sixteen cores.

Windows Server 2016 Essentials Edition will continue to be licensed per server, for platforms with up to two processors and maximum of 25 users or 50 devices. No Windows Server CALs are required.

Edition	Licensing model	CAL requirement
Windows Server 2016 Datacenter	Core-based	Windows Server CAL
Windows Server 2016 Standard	Core-based	Windows Server CAL
Windows Server 2016 Essentials	Processor-based	No CAL required

How are core licenses sold?

Windows Server 2016 Base Licenses are available from HPE for sixteen cores, which is the minimum number of cores required to license one physical server, including single-processor servers. HPE offers additional licenses in packs of two, four, and sixteen cores, for both Standard and Datacenter Editions.

- Datacenter Edition provides rights to unlimited virtual Operating System Environments (OSEs) when all physical cores on a server are licensed.
- Standard Edition provides rights for up to two virtual OSEs when all physical cores on a server are licensed. For every two additional VMs, all the cores in the server must be licensed again.

If cores are disabled from Windows Server 2016 use, do I still need to license the cores?

Physical cores that are disabled for use by an operating system (OS) do not need to be licensed. For example, if eight cores in a server with 32 cores are disabled, and not available for operating system use, only 24 cores would need to be licensed. This exemption does not reduce the minimum number of core licenses required.

What are the differences between Standard and Datacenter Editions?

Features exclusive to Datacenter Edition include Shielded Virtual Machines, software-defined networking, Storage Spaces Direct and Storage Replica. Standard Edition includes the rights to two OSEs (or virtual machines) or Hyper-V containers. Datacenter Edition includes unlimited OSEs and Hyper-V containers. Both Standard and Datacenter Editions provide unlimited Windows Server Containers.

Windows Server 2016 feature differentiation

Feature	Datacenter	Standard
Core functionality of Windows Server	•	•
OSEs/Hyper-V containers	Unlimited	2
Windows Server containers	Unlimited	Unlimited
Host Guardian Service	•	•
Nano Server ¹	•	•
Storage features including Storage Spaces Direct and Storage Replica	•	
Shielded Virtual Machines	•	
Networking stack	•	

¹ Software Assurance is required to deploy and operate Nano Server in production. Nano Server is not offered in any OEM license from any server manufacture.

What is the difference between base licenses and additional licenses and when are those required?

The additional license and base license structure was introduced with Windows Server 2012. Each server requires a minimum of a single base license. This license includes the Certificate of Authenticity (COA), product key, product software, and the Microsoft® Software License Terms (previously known as End User License Agreement or EULA). HPE or HPE Resellers will affix the base license COA to the server.

The additional license is delivered as a paper license card with a COA sticker permanently affixed to the license card or packaging. Datacenter additional licenses must be purchased at the same time as the base license and HPE Server. However, Standard additional licenses can be sold After Point of Sale (APOS) and can be reassigned to another server that already has a Windows Server 2016 Standard Base License.

Starting with the Windows Server 2016 core licensing model, each additional license grants the rights for the additional cores listed on the card. HPE offers additional licenses for two, four, and sixteen cores for both Standard and Datacenter Editions. The base license and any additional licenses must be for the same edition and version of the product.

OEM licensing structure

Base license	Additional license
Each HPE server requires at a minimum of one base license	Additional licenses may only be added to a base license
<ul style="list-style-type: none"> • COA with product key • Product software • Software License Terms (EULA) 	<ul style="list-style-type: none"> • A paper license with self-adhesive COA • No software or product key • Software License Terms (EULA) from base license apply

What are Windows Server Standard Additional Licenses “APOS”?

After Point of Sale (APOS) Standard Additional Licenses are Windows Server licenses with expanded licensing rights:

- Available for purchase to anyone who has already purchased a Windows Server 2016 Standard Base License on an HPE server.
- The new additional license comes with re-assignment rights. This means that additional licenses can now be re-assigned to another physical server that has a Windows Server 2016 Standard Base License. This can be done once every 90 days.

Windows Server Datacenter Additional Licenses on the other hand, must be purchased at the same time as the base license and HPE Server.

What is Datacenter Edition with reassignment rights?

Datacenter with reassignment rights give customers the option for more licensing flexibility.

- These part numbers must be sold with a new HPE Server and allow customers to reassign the OS license to another server for any reason (hardware failure, maintenance, upgrade, etc.).
- The COA for these part numbers is provided on a card, not attached to the server.
- **Important:** Different from Windows Server 2012 R2, the new Windows Server 2016 Datacenter with reassignment rights licenses include Downgrade rights.

What is a CAL?

A Client Access License (CAL) is a license granting access to certain Microsoft server software. CALs are used in conjunction with Microsoft server software licenses to allow users and devices to access and utilize the services of that server software. Windows Server OS licenses only allow the OS to run on the physical server it is licensed for. To provide the rights for users or devices to access the Windows Server OS software running on the server, Windows Server CALs are required.

What is the difference between a Windows Server CAL and RDS CALs?

A Windows Server CAL is required when a user or device is directly or indirectly accessing Windows Server. A Remote Desktop Service (RDS) CAL is also required for users that need to access programs or the full desktop remotely. Both a Windows Server CAL (user or device) and a RDS CAL are required for remote desktop access. RDS CALs contain a product key for activation. As an exception to these rules, up to two users or devices may access the server software, only for server administration purposes, without requiring either a RDS CAL or a Windows Server CAL.

Are CALs still required for Windows Server 2016?

Windows Server Standard and Datacenter Editions will continue to require Windows Server CALs for every user or device accessing a server. Some additional or advanced functionality will continue to require the purchase of a RDS CAL. RDS CALs are needed in addition to the Windows Server CAL to access functionality, such as Remote Desktop Services.

Is it possible to buy additional CALs after I purchase the OS license?

Yes, customers can buy additional CALs from HPE or HPE authorized resellers at any time and do not require a new HPE server purchase. HPE currently offers one, five, ten, and fifty CAL packs (user or device) and five CAL packs for RDS CALs (user or device).

Can I use my Windows Server 2012 CALs to access Windows Server 2016?

No. CALs must be the same version as—or higher than—the server software they are accessing. In other words, users or devices accessing a server running Windows Server 2016 must have Windows Server 2016 CALs.

Can I use my Windows Server 2016 CALs to access Windows Server 2012 R2?

Yes. A Windows Server CAL permits access to all earlier versions of Windows Server.

How should I think about hyper-threading in the core-based licensing?

Windows Server 2016 is licensed by physical cores, not virtual cores. Therefore, customers only need to inventory and license the physical cores on their processors.

I read that Windows Server 2016 will support nested virtualization—a VM running inside a VM. How do you license that scenario?

Windows Server 2016 Datacenter licensing allows for unlimited virtualization and therefore would easily cover this scenario. Windows Server 2016 Standard Edition licensing is for no to low virtualization scenarios, and supports up to two virtual machines. A virtual machine running inside a virtual machine counts as two virtual machines from a licensing perspective.

How do I license Nano Server?

Nano Server is a unique deployment option within Windows Server 2016, and it is included as part of the edition from which is deployed. Though it is included within Standard and Datacenter Editions, Software Assurance is required to deploy Nano Server; therefore Nano Server is not available in any OEM Windows Server 2016 Edition. OEM versions make the purchase of Software Assurance optional, but it is not required.

Where can I see a list of HPE Servers that support Windows Server 2016?

HPE has certified Windows Server 2016 for most HPE ProLiant Gen10 and Gen9 Servers and other HPE Server lines. This list may change over time, so always check the latest updates on the HPE Windows Server support matrix at hpe.com/servers/wincert.

For further information regarding the Windows® OS Certification provided by Microsoft, visit windowsservercatalog.com.

Whom do I call for service and support?

Customers who purchase Microsoft server operating systems from HPE, or HPE Resellers can call HPE for both operating system and server support. Technical support is available from the HPE website or by telephone for 90 days from the date of purchase.

Initial setup support includes the following:

- Answering installation questions (how-to, first steps, and prerequisites)
- Setting up and configuring software and options supplied or purchased with HPE hardware products (how-to and first steps)
- Interpreting system error messages
- Isolating system problems
- Obtaining support pack information or updates for software purchased or supplied with HPE hardware products

Initial setup support does not include assistance with:

- Generation or diagnosis of user-generated programs or source codes
- Installation of non-HPE products
- System optimization, customization, and network configuration

HPE ProLiant global limited warranty and technical support terms can be found at hpe.com/servers/warranty.

What type of support services does HPE provide beyond warranty support?

HPE has a full range of support and consulting services for your product that can be purchased locally. However, some support and related products may not be available in all countries. For information on availability and cost of these services, refer to the HPE website at hpe.com/services/foundationcare.

How do I contact HPE about support for my Windows Server 2016 product?

You can locate the phone number for the nearest HPE Support Team or HPE Call Center via the worldwide contact numbers (hpe.com/contact). Follow the prompts for service for your HPE ProLiant Server.

I've lost my media for my Windows Server OS. How can I get a replacement?

HPE has created a customer support website for downgrade and replacement media. You will need to place a request at ebiz3.mentormediacorp.com/HPEDGRCR/. A media kit for replacement may only be requested from HPE for a Microsoft Server license purchased from HPE or an HPE authorized reseller. For an updated list of available replacement media kits, refer to the link listed above. Replacement kits do not include the license key. Allow between one and two weeks for delivery (depending on customs requirements and shipping method). Upon order fulfillment, you will receive an email with shipment tracking number and expected delivery details.

What is the Microsoft Software Assurance program?

Microsoft Software Assurance (SA) helps you get the most from your software investment by combining the latest software with 24x7 phone support, partner services, training, and IT tools. SA is only available for purchase within the first 90 days of your HPE OEM license purchase, with SA your license is transitioned to a volume license with benefits that may enhance your software investment lifecycle. For more information visit microsoft.com/sa.

You can purchase SA directly from HPE Software Licensing Management Services ([HPE SLMS](#)) or your local HPE authorized reseller. SA is only available for the latest version of Microsoft products.

What are my downgrade rights?

Many Microsoft software products include the right to use an earlier version of the software in place of the version you licensed. For information on the downgrade rights for your Microsoft product, refer to the end-user license terms of your Microsoft software license. Additional information about downgrade rights may be available at the Microsoft website for each product family microsoft.com/oem/en/licensing/sblicensing/pages/downgrade_rights.aspx.

What downgrades are available for Windows Server 2016?

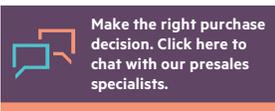
Windows Server 2016 Standard and Datacenter editions include the right to downgrade the software to use prior versions or lower editions. The ability to downgrade does not change the licensing or support terms for using the product; the purchased product rights still apply.

Most common Downgrade options are available from the factory at the time of the server purchase. Please refer to the Downgrade rights information at h41112.www4.hp.com/wsdowngrade/DG_INFOGRAPHIC.pdf to learn about options that can be fulfilled by Hewlett Packard Enterprise.

Other downgrade options are also available for HPE customers at the HPE fulfillment website for [Windows Server Media and Downgrade](#). Proof of purchase is required. Downgrade media and keys are delivered via mail.

Learn more at

hpe.com/servers/ws2016



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