# Windows Server 2016

## Licensing Datasheet

## Product overview

Windows Server 2016 is the cloud-ready operating system that supports your current workloads while introducing new technologies that make it easy to transition to cloud computing when you are ready. It delivers powerful new layers of security along with Azure-inspired innovation for the applications and infrastructure that power your business.

## Editions overview

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

- **Windows Server 2016 Datacenter:** For highly virtualized datacenter and cloud environments.

- **Windows Server 2016 Standard:** For physical or minimally virtualized environments.

- **Windows Server 2016 Essentials:** For small businesses with up to 25 users and 50 devices. Essentials is a good option for customers using the Foundation edition, which is not available for Windows Server 2016.

- **Windows Server 2016 MultiPoint Premium Server:** Enables multiple users to access one computer; available only for academic licensing.

- **Windows Storage Server 2016:** For dedicated OEM storage solutions. Available in Standard and Workgroup editions through the OEM channel.

- **Microsoft Hyper-V Server 2016:** Free hypervisor download.

Features exclusive to the Datacenter edition include Shielded Virtual Machines, software-defined networking, Storage Spaces Direct and Storage Replica. Standard Edition includes rights to two Operating System Environments (OSEs, or virtual machines) or Hyper-V Containers. Datacenter Edition includes unlimited OSEs and Hyper-V Containers.

## Azure Hybrid Use Benefit

When you are ready to transition workloads to the public cloud, you can leverage your existing investment in Windows Server. The Azure Hybrid Use Benefit lets you bring your on-premises Windows Server license with Software Assurance to Azure. Rather than paying the full price for a new Windows Server virtual machine, you will pay only the base compute rate. Find more details at www.azure.com.

| Windows Server 2016 feature differentiation and core-based pricing | | |
|---|---|---|
| Feature | Datacenter | Standard |
| Core functionality of Windows Server | ● | ● |
| OSEs / Hyper-V Containers | Unlimited | 2 |
| Windows Server Containers | Unlimited | Unlimited |
| Host Guardian Service | ● | ● |
| Nano Server* | ● | ● |
| Storage features including Storage Spaces Direct and Storage Replica | ● | |
| Shielded Virtual Machines | ● | |
| Networking stack | ● | |
| Core-based pricing** | $6,155 | $882 |

*Software Assurance is required to deploy and operate Nano Server in production.
**Pricing for Open (NL) ERP license for 16 core licenses. Actual customer prices may vary.

## Windows Server 2016 licensing model

The Windows Server 2016 licensing model includes both Cores + Client Access Licenses (CALs). Each user and/or device accessing a licensed Windows Server Standard, Datacenter or Multipoint edition requires a Windows Server CAL or a Windows Server and a Remote Desktop Services (RDS) CAL. A Windows Server CAL gives a user or device the right to access any edition of Windows Server of the same or earlier version. Each Window Server CAL allows access to multiple licenses of Windows Server.

After the General Availability of Windows Server 2016, the business model for Standard and Datacenter editions will transition from processor-based to core-based licensing. Core-based licensing provides a more consistent licensing metric across multicloud environments, improves workload portability for Windows Server through benefits like Azure Hybrid Use Benefit, and helps remove friction across different licensing models.

| Editions | Licensing model | CAL requirements* |
|---|---|---|
| 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 |
| Windows Server 2016 MultiPoint Premium Server | Processor-based | Windows Server CAL+ Remote Desktop Services CAL |
| Windows Storage Server 2016 | Processor-based | No CAL required |
| Microsoft Hyper-V Server 2016 | NA | NA |

* Some additional or advanced functionality such as Remote Desktop Services or Active Directory Rights Management Services will continue to require the purchase of an additive CAL.

## Core based licensing: Windows Server 2016 Standard and Datacenter

- 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 16 core licenses is required for each server.

- A minimum of 8 core licenses is required for each physical processor.

- Core licenses will be sold in packs of two.

- Eight 2-core packs will be the minimum required to license each physical server. The 2-core pack for each edition is one-eighth the price of a 2-processor license for corresponding Windows Server 2012 R2 editions.

- Standard Edition provides rights for up to two OSEs or Hyper-V Containers when all physical cores in the server are licensed. For every two additional VMs, all the cores in the server have to be licensed again.

- The price of 16-core licenses of Windows Server 2016 Datacenter and Standard edition will be the same price as the 2-processor license of the corresponding editions of the Windows Server 2012 R2 version.

- Existing customers' servers under Software Assurance will receive core grants as required, with documentation.

## Number of 2-core pack licenses needed

(Minimum 8 cores/processor; 16 cores/server)

| Processors per server | Physical cores per processor | | | | |
|---|---|---|---|---|---|
| | 2 | 4 | 6 | 8 | 10 |
| 1 | 8 | 8 | 8 | 8 | 8 |
| 2 | 8 | 8 | 8 | 8 | 10 |
| 4 | 16 | 16 | 16 | 16 | 20 |

■ Licensing costs
■ Additional licensing required
Standard Edition may need additional licensing.

## Moving to core-based licensing

After the General Availability of Windows Server 2016, the transition from processor-based licensing to core-based licensing will not affect customers with Software Assurance until renewal of the agreement.

## Processor to core conversion: Core grants

- After Windows Server 2016 General Availability and prior to renewal of the agreement, licenses with Software Assurance may upgrade to Windows Server 2016 at any time.

- After Windows Server 2016 General Availability and at renewal of the agreement, licenses with Software Assurance will transition to core-based licensing.

- On-premises customers with Software Assurance will be granted a minimum of 8 cores per processor and 16 cores per server licenses for each 2-processor license at renewal of the agreement. Service providers will be granted a minimum of 8 core licenses for each 1-processor license with Software Assurance at renewal of the agreement.

To support the transition of customers with Software Assurance to Windows Server 2016, core grants will be provided for existing licensed servers.

| For servers with ≤8 cores per processor and 16 cores per server: | For servers with >8 cores per processor and 16 cores per server: |
| --- | --- |
| • Customers will receive a minimum of 8 cores per processor and 16 cores per server.<br><br>• There will be no impact on price compared to the Windows Server 2012 R2 2-processor price. The price of 16-core licenses of Windows Server 2016 Datacenter and Standard editions will be the same price as the 2-processor license of the corresponding editions of the Windows Server 2012 R2 version. | • Customers will receive core grants for servers with greater than 8 cores per processor and 16 cores per server.<br><br>• Customers pay Software Assurance on incremental cores. |

## How core grants work

- Customers will receive core grants at the time of renewal after Windows Server 2016 General Availability.

- Core grants will be provided for servers with greater than 8 cores per processor and 16 cores per server.

- At the end of the current agreement term Microsoft recommends customers inventory their environment using appropriate tools, including Software Inventory Logging (SIL), or third-party inventory tools and share the inventory data with Microsoft. Inventory data to be shared with Microsoft should include date-stamped documentation of servers, processors, and cores for all production hardware on which Windows Server is installed.

- Customers who do not perform the self-inventory will receive 8 core licenses per processor and 16 cores per server for each Standard and Enterprise edition license for servers they currently own.

### General Availability

| Before Windows Server 2016 GA | | After Windows Server 2016 GA | |
| --- | --- | --- | --- |
| Renewals | True-up | Renewals | True-up |
| On processor-based licensing:<br><br>• Renewals prior to Windows Server 2016 will stay on the processor-based model for the life of the agreement. | On processor-based licensing:<br><br>• True-ups before Windows Server 2016 GA will be processor-based until the next renewal. | On core-based licensing:<br><br>• Customers will transition to core-based licensing. | **Before renewal:** True-ups will be processor-based and will continue to be processor-based until the next renewal.<br><br>**After renewal:** True-ups will be core-based after renewals that take place after Windows Server 2016 GA. |

## Servicing guidelines for Windows Server 2016

The servicing model depends on the installation option the customer selects. Customers who choose the Nano Server installation option will opt into a more active servicing model similar to the experience with Windows 10. Specifically, these periodic releases are known as Current Branch for Business (CBB) releases. This approach supports customers who are moving at a "cloud cadence" of rapid development lifecycles and wish to innovate more quickly. Since this type of servicing continues to provide new features and functionality, Software Assurance is required to deploy and operate Nano Server in production.

Customers who choose to install Windows Server 2016 with Desktop Experience or Server Core will be on the Long Term Servicing Branch (LTSB) model, which comes with 5 years of mainstream support and 5 years of extended support.

| Installation Option | LTSB servicing model | CBB servicing model |
|---|---|---|
| Server with Desktop Experience | Yes | No |
| Server Core | Yes | No |
| Nano Server | No | Yes |

For more information about Windows Server 2016, visit http://www.microsoft.com/windowsserver2016

■■ Microsoft