Windows Server 2016

From Wikipedia, the free encyclopedia

[Jump to navigation](https://en.wikipedia.org/wiki/Windows_Server_2016#mw-head)[Jump to search](https://en.wikipedia.org/wiki/Windows_Server_2016#p-search)

|  |  |
| --- | --- |
| **Windows Server 2016** | |
| A version of the [Windows NT](https://en.wikipedia.org/wiki/Windows_NT) operating system | |
| [Windows Server 2016 logo.svg](https://en.wikipedia.org/wiki/File:Windows_Server_2016_logo.svg) | |
| [Windows Server 2016 screenshot.png](https://en.wikipedia.org/wiki/File:Windows_Server_2016_screenshot.png)  Screenshot of Windows Server 2016 with Desktop Experience | |
| [**Developer**](https://en.wikipedia.org/wiki/Software_developer) | [Microsoft](https://en.wikipedia.org/wiki/Microsoft) |
| **OS family** | [Microsoft Windows](https://en.wikipedia.org/wiki/Microsoft_Windows) |
| **Source model** | [Closed source](https://en.wikipedia.org/wiki/Closed_source) and [shared source](https://en.wikipedia.org/wiki/Shared_source) |
| [**Released to manufacturing**](https://en.wikipedia.org/wiki/Software_release_life_cycle#RTM) | 26 September 2016; 20 months ago[[1]](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_note-rtm-date-1) |
| [**General availability**](https://en.wikipedia.org/wiki/Software_release_life_cycle#General_availability_(GA)) | 12 October 2016; 19 months ago[[2]](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_note-GA-date-2) |
| [**Latest release**](https://en.wikipedia.org/wiki/Software_release_life_cycle) | 1607 (10.0.14393.2273) / 17 May 2018; 26 days ago[[3]](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_note-3) |
| [**Latest preview**](https://en.wikipedia.org/wiki/Software_release_life_cycle) | RS4 (10.0.17046) / 5 December 2017; 6 months ago[[4]](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_note-4) |
| **Update method** | [Windows Update](https://en.wikipedia.org/wiki/Windows_Update), [Windows Server Update Services](https://en.wikipedia.org/wiki/Windows_Server_Update_Services), [SCCM](https://en.wikipedia.org/wiki/System_Center_Configuration_Manager) |
| **Platforms** | [x86-64](https://en.wikipedia.org/wiki/X86-64) |
| [**Kernel**](https://en.wikipedia.org/wiki/Kernel_(operating_system))**type** | [Hybrid](https://en.wikipedia.org/wiki/Hybrid_kernel) ([Windows NT kernel](https://en.wikipedia.org/wiki/Windows_NT_kernel)) |
| **Default**[**user interface**](https://en.wikipedia.org/wiki/User_interface) | [Windows shell](https://en.wikipedia.org/wiki/Windows_shell) ([Graphical](https://en.wikipedia.org/wiki/Graphical_user_interface)) [Microsoft PowerShell](https://en.wikipedia.org/wiki/Microsoft_PowerShell)([Command line](https://en.wikipedia.org/wiki/Command_line)) |
| [**License**](https://en.wikipedia.org/wiki/Software_license) | [Trialware](https://en.wikipedia.org/wiki/Trialware), [Volume licensing](https://en.wikipedia.org/wiki/Volume_licensing), [Microsoft Software Assurance](https://en.wikipedia.org/wiki/Microsoft_Software_Assurance), [MSDN subscription](https://en.wikipedia.org/wiki/Msdn_subscription), [Microsoft Imagine](https://en.wikipedia.org/wiki/Microsoft_Imagine) |
| **Preceded by** | [Windows Server 2012 R2](https://en.wikipedia.org/wiki/Windows_Server_2012_R2)(2013) |
| **Succeeded by** | [Windows Server 2019](https://en.wikipedia.org/wiki/Windows_Server_2019) |
| **Official website** | [microsoft.com/windowsserver](http://microsoft.com/windowsserver) |
| **Support status** | |
| * Start date: 15 October 2016[[5]](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_note-5) * Mainstream support: Until 11 January 2022 * Extended support: Until 12 January 2027 | |

**Windows Server 2016** is a server [operating system](https://en.wikipedia.org/wiki/Operating_system) developed by [Microsoft](https://en.wikipedia.org/wiki/Microsoft) as part of the [Windows NT](https://en.wikipedia.org/wiki/Windows_NT) family of operating systems, developed concurrently with [Windows 10](https://en.wikipedia.org/wiki/Windows_10). The first early preview version (Technical Preview) became available on 1 October 2014 together with the first technical preview of [System Center](https://en.wikipedia.org/wiki/System_Center).[[6]](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_note-announce-6) Windows Server 2016 was released on 26 September 2016 at Microsoft's Ignite conference[[1]](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_note-rtm-date-1) and became generally available on 12 October 2016.[[2]](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_note-GA-date-2) It has two successors: [Windows Server 2019](https://en.wikipedia.org/wiki/Windows_Server_2019), and the Windows Server Semi-Annual Channel, which excludes the [graphical user interface](https://en.wikipedia.org/wiki/Graphical_user_interface) and many older components.

**Contents**

  [hide]

* [1Features](https://en.wikipedia.org/wiki/Windows_Server_2016#Features)
  + [1.1Networking features](https://en.wikipedia.org/wiki/Windows_Server_2016#Networking_features)
  + [1.2Hyper-V](https://en.wikipedia.org/wiki/Windows_Server_2016#Hyper-V)
  + [1.3Nano Server](https://en.wikipedia.org/wiki/Windows_Server_2016#Nano_Server)
* [2Development](https://en.wikipedia.org/wiki/Windows_Server_2016#Development)
  + [2.1Preview releases](https://en.wikipedia.org/wiki/Windows_Server_2016#Preview_releases)
  + [2.2Public release](https://en.wikipedia.org/wiki/Windows_Server_2016#Public_release)
* [3Version history](https://en.wikipedia.org/wiki/Windows_Server_2016#Version_history)
  + [3.1Technical Preview](https://en.wikipedia.org/wiki/Windows_Server_2016#Technical_Preview)
  + [3.2Technical Preview 2](https://en.wikipedia.org/wiki/Windows_Server_2016#Technical_Preview_2)
  + [3.3Technical Preview 3](https://en.wikipedia.org/wiki/Windows_Server_2016#Technical_Preview_3)
  + [3.4Technical Preview 4](https://en.wikipedia.org/wiki/Windows_Server_2016#Technical_Preview_4)
  + [3.5Technical Preview 5](https://en.wikipedia.org/wiki/Windows_Server_2016#Technical_Preview_5)
  + [3.6Release to manufacturing](https://en.wikipedia.org/wiki/Windows_Server_2016#Release_to_manufacturing)
* [4Version 1709](https://en.wikipedia.org/wiki/Windows_Server_2016#Version_1709)
* [5See also](https://en.wikipedia.org/wiki/Windows_Server_2016#See_also)
* [6References](https://en.wikipedia.org/wiki/Windows_Server_2016#References)
* [7External links](https://en.wikipedia.org/wiki/Windows_Server_2016#External_links)

Features[[edit](https://en.wikipedia.org/w/index.php?title=Windows_Server_2016&action=edit&section=1)]

Windows Server 2016 has a variety of new features, including

* [Active Directory Federation Services](https://en.wikipedia.org/wiki/Active_Directory_Federation_Services): It is possible to configure AD FS to authenticate users stored in non-AD directories, such as X.500 compliant Lightweight Directory Access Protocol (LDAP) directories and SQL databases.[[7]](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_note-7)
* [Windows Defender](https://en.wikipedia.org/wiki/Windows_Defender): Windows Server Antimalware is installed and enabled by default without the GUI, which is an installable Windows feature.[[8]](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_note-8)
* [Remote Desktop Services](https://en.wikipedia.org/wiki/Remote_Desktop_Services): Support for [OpenGL](https://en.wikipedia.org/wiki/OpenGL) 4.4 and [OpenCL](https://en.wikipedia.org/wiki/OpenCL) 1.1, performance and stability improvements; MultiPoint Services role (see [Windows MultiPoint Server](https://en.wikipedia.org/wiki/Windows_MultiPoint_Server))[[9]](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_note-9)
* Storage Services: Central Storage QoS Policies; Storage Replicas (storage-agnostic, block-level, volume-based, synchronous and asynchronous replication using [SMB3](https://en.wikipedia.org/wiki/Server_Message_Block#SMB_3.0) between servers for [disaster recovery](https://en.wikipedia.org/wiki/Disaster_recovery)).[[10]](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_note-10) Storage Replica replicates blocks instead of files; files can be in use. It's not multi-master, not one-to-many and not transitive. It periodically replicates snapshots, and the replication direction can be changed.
* [Failover Clustering](https://en.wikipedia.org/wiki/High-availability_cluster): Cluster operating system rolling upgrade, Storage Replicas[[11]](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_note-11)
* [Web Application Proxy](https://en.wikipedia.org/wiki/Web_Application_Proxy): Preauthentication for [HTTP Basic](https://en.wikipedia.org/wiki/Basic_access_authentication) application publishing, wildcard domain publishing of applications, HTTP to HTTPS redirection, Propagation of client IP address to backend applications[[12]](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_note-12)
* [IIS 10](https://en.wikipedia.org/wiki/Internet_Information_Services): Support for [HTTP/2](https://en.wikipedia.org/wiki/HTTP/2)
* [Windows PowerShell 5.1](https://en.wikipedia.org/wiki/PowerShell#PowerShell_5.0)[[13]](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_note-13)
* Windows Server Containers [[14]](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_note-14)

**Networking features**[[edit](https://en.wikipedia.org/w/index.php?title=Windows_Server_2016&action=edit&section=2)]

* [DHCP](https://en.wikipedia.org/wiki/DHCP): As [Network Access Protection](https://en.wikipedia.org/wiki/Network_Access_Protection) was deprecated in Windows Server 2012 R2, in Windows Server 2016 the DHCP role no longer supports NAP[[15]](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_note-15)
* [DNS](https://en.wikipedia.org/wiki/Domain_Name_System):
  + DNS client: Service binding – enhanced support for computers with [more than one network interface](https://en.wikipedia.org/wiki/Multihoming)[[16]](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_note-16)
  + [DNS Server](https://en.wikipedia.org/wiki/Microsoft_DNS): DNS policies, new DDS record types (TLSA, SPF, and unknown records), new PowerShell cmdlets and parameters[[17]](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_note-17)
* Windows Server Gateway now supports [Generic Routing Encapsulation](https://en.wikipedia.org/wiki/Generic_Routing_Encapsulation) (GRE) tunnels[[18]](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_note-18)
* [IP address management](https://en.wikipedia.org/wiki/IP_address_management) (IPAM): Support for /31, /32, and /128 subnets; discovery of file-based, domain-joined DNS servers; new DNS functions; better integration of DNS, DHCP, and IP Address (DDI) Management[[19]](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_note-19)
* Network Controller: A new server role to configure, manage, monitor, and troubleshoot virtual and physical network devices and services in the datacentre[[20]](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_note-20)
* Hyper-V [Network virtualization](https://en.wikipedia.org/wiki/Network_virtualization): Programmable Hyper-V switch (a new building block of Microsoft's [software-defined networking](https://en.wikipedia.org/wiki/Software-defined_networking) solution); [VXLAN](https://en.wikipedia.org/wiki/Virtual_Extensible_LAN) encapsulation support; Microsoft Software Load Balancer interoperability; better IEEE Ethernet standard compliance.[[21]](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_note-21)

**Hyper-V**[[edit](https://en.wikipedia.org/w/index.php?title=Windows_Server_2016&action=edit&section=3)]

* Rolling [Hyper-V](https://en.wikipedia.org/wiki/Hyper-V) cluster update: Unlike upgrading clusters from Windows 2008 R2 to 2012 level, Windows Server 2016 cluster nodes can be added to a Hyper-V Cluster with nodes running Windows Server 2012 R2. The cluster continues to function at a Windows Server 2012 R2 feature level until all of the nodes in the cluster have been upgraded and the cluster functional level has been upgraded.[[22]](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_note-22)
* Storage quality of service (QoS) to centrally monitor end-to-end storage performance and create policies using Hyper-V and Scale-Out File Servers
* New, more efficient binary virtual machine configuration format (.VMCX extension for virtual machine configuration data and the .VMRS extension for runtime state data)
* Production checkpoints
* Hyper-V Manager: Alternate credentials support, down-level management, [WS-Management](https://en.wikipedia.org/wiki/WS-Management) protocol
* Integration services for Windows guests distributed through [Windows Update](https://en.wikipedia.org/wiki/Windows_Update)
* Hot add and remove for network adapters (for generation 2 virtual machines) and memory (for generation 1 and generation 2 virtual machines)
* Linux [secure boot](https://en.wikipedia.org/wiki/Secure_boot)
* [Connected Standby](https://en.wikipedia.org/wiki/Connected_Standby) compatibility
* Storage Resiliency feature of [Hyper-V](https://en.wikipedia.org/wiki/Hyper-V) is formed for detecting transitory loss of connectivity to VM storage. VMs will be paused until connectivity is re-established.[[23]](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_note-23)
* [RDMA](https://en.wikipedia.org/wiki/Remote_direct_memory_access) compatible Virtual Switch[[24]](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_note-24)

**Nano Server**[[edit](https://en.wikipedia.org/w/index.php?title=Windows_Server_2016&action=edit&section=4)]

Microsoft announced a new installation option, Nano Server, which offers a minimal-footprint headless version of Windows Server. It excludes the graphical user interface, [WoW64](https://en.wikipedia.org/wiki/WoW64)(support for 32-bit software) and [Windows Installer](https://en.wikipedia.org/wiki/Windows_Installer). It does not support [console](https://en.wikipedia.org/wiki/System_console) [login](https://en.wikipedia.org/wiki/Login), either locally or via [Remote Desktop Connection](https://en.wikipedia.org/wiki/Remote_Desktop_Connection). All management is performed remotely via [Windows Management Instrumentation](https://en.wikipedia.org/wiki/Windows_Management_Instrumentation) (WMI), [Windows PowerShell](https://en.wikipedia.org/wiki/Windows_PowerShell) and Remote Server Management Tools (a collection of web-based GUI and command line tools).[[25]](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_note-25) However, in Technical Preview 5, Microsoft has re-added the ability to administer Nano Server locally through PowerShell. According to Microsoft engineer Jeffrey Snover, Nano Server has 93% lower [VHD](https://en.wikipedia.org/wiki/VHD_(file_format)) size, 92% fewer critical security advisories, and 80% fewer reboots than Windows Server.[[26]](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_note-26)[[27]](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_note-27)

Nano Server is only available to [Microsoft Software Assurance](https://en.wikipedia.org/wiki/Microsoft_Software_Assurance) customers[[2]](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_note-GA-date-2) and on cloud computing platforms such as [Microsoft Azure](https://en.wikipedia.org/wiki/Microsoft_Azure) and [Amazon Web Services](https://en.wikipedia.org/wiki/Amazon_Web_Services).

Starting with the new feature release of Windows Server version 1709, Nano Server can only be installed inside a [container host](https://en.wikipedia.org/wiki/Operating-system-level_virtualization).[[28]](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_note-28)

Development[[edit](https://en.wikipedia.org/w/index.php?title=Windows_Server_2016&action=edit&section=5)]

Microsoft has been reorganized by [Satya Nadella](https://en.wikipedia.org/wiki/Satya_Nadella), putting the Server and [System Center](https://en.wikipedia.org/wiki/Microsoft_Servers#Microsoft_System_Center) teams together. Previously, the Server team was more closely aligned with the Windows client team. The [Azure](https://en.wikipedia.org/wiki/Microsoft_Azure) team is also working closely with the Server team.[[29]](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_note-Networkworld-29)

In March 2017, Microsoft demonstrated an internal version of Server 2016 running on the [ARMv8-A](https://en.wikipedia.org/wiki/ARM_architecture#ARMv8-A) architecture. It was reported that Microsoft was working with [Qualcomm](https://en.wikipedia.org/wiki/Qualcomm) [Centriq](https://en.wikipedia.org/wiki/Qualcomm_Centriq)and [Cavium](https://en.wikipedia.org/wiki/Cavium) [ThunderX2](https://en.wikipedia.org/wiki/Cavium#ThunderX2_SoCs) chips. According to James Vincent of *The Verge*, this decision endangers [Intel](https://en.wikipedia.org/wiki/Intel)'s dominance of the server CPU market.[[30]](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_note-30)[[31]](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_note-31)[[32]](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_note-32) However, later inquiry from Microsoft revealed that this version of Windows Server is only for internal use and only impacts subscribers of [Microsoft Azure](https://en.wikipedia.org/wiki/Microsoft_Azure) service.[[33]](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_note-33)

**Preview releases**[[edit](https://en.wikipedia.org/w/index.php?title=Windows_Server_2016&action=edit&section=6)]

*Main article:*[*Windows Insider*](https://en.wikipedia.org/wiki/Windows_Insider)

A [public beta](https://en.wikipedia.org/wiki/Public_beta) version of Windows Server 2016 (then still called *vNext*) branded as "Windows Server Technical Preview" was released on 1 October 2014; the technical preview builds are aimed toward enterprise users. The first Technical Preview was first set to expire on 15 April 2015 but[[34]](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_note-34) Microsoft later released a tool to extend the expiry date, to last until the second tech preview of the OS in May 2015.[[35]](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_note-35) The second beta version, "Technical Preview 2", was released on 4 May 2015. Third preview version, "Technical Preview 3" was released on 19 August 2015. "Technical Preview 4" was released on 19 November 2015. "Technical Preview 5" was released on 27 April 2016.

Windows Server 2016 Insider Preview Build 16237 was released to Windows Insiders on 13 July 2017.[[36]](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_note-36)[[37]](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_note-37)

**Public release**[[edit](https://en.wikipedia.org/w/index.php?title=Windows_Server_2016&action=edit&section=7)]

Windows Server 2016 was officially released at Microsoft's Ignite Conference on September 26, 2016. Unlike its predecessor, Windows Server 2016 is licensed by the number of [CPU cores](https://en.wikipedia.org/wiki/CPU_core) rather than number of [CPU sockets](https://en.wikipedia.org/wiki/CPU_socket)—a change that has similarly been adopted by [BizTalk Server 2013](https://en.wikipedia.org/wiki/Microsoft_BizTalk_Server) and [SQL Server 2014](https://en.wikipedia.org/wiki/Microsoft_SQL_Server).[[38]](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_note-ars-2016license-38) The new licensing structure that has been adopted by Windows Server 2016 has also moved away from the Windows Server 2012/2012R2 CPU socket licensing model in that now the amount of cores covered under one license is limited. Windows Server 2016 Standard and Datacenter core licensing now covers a minimum of 8 core licenses for each physical processor and a minimum of 16 core licenses for each server. Core licenses are sold in packs of two with Standard Edition providing the familiar rights to run 2 virtualized OS environments. If the server goes over 16 core licenses for a 2 processor server additional licenses will now be required with Windows Server 2016. [[39]](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_note-39)

Version history[[edit](https://en.wikipedia.org/w/index.php?title=Windows_Server_2016&action=edit&section=8)]

**Technical Preview**[[edit](https://en.wikipedia.org/w/index.php?title=Windows_Server_2016&action=edit&section=9)]

Windows Server 2016 Technical Preview, released on 1 October 2014, was the first beta version of the operating system made publicly available. Its version number was 6.4.9841.[[6]](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_note-announce-6)

**Technical Preview 2**[[edit](https://en.wikipedia.org/w/index.php?title=Windows_Server_2016&action=edit&section=10)]

Windows Server 2016 Technical Preview 2 was made available on 4 May 2015. Its version number was 10.0.10074. (A similar jump in the most significant part of the version number from 6 to 10 is seen in Windows 10.) Highlights of this version include:[[40]](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_note-40)

* Nano Server installation option[[41]](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_note-RegisterTP2-41)[[42]](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_note-TP2-42)
* Hyper-V: hot add and remove memory and NIC; resilient virtual machines to keep running even when their cluster fabric fails[[43]](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_note-TeamBlogTP2-43)
* Rolling upgrades for Hyper-V and Storage clusters[[41]](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_note-RegisterTP2-41)[[43]](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_note-TeamBlogTP2-43)
* Networking: Converged NIC across tenant and RDMA traffic; PacketDirect on [40G](https://en.wikipedia.org/wiki/40_Gigabit_Ethernet)[[43]](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_note-TeamBlogTP2-43)
* Storage: Virtual Machine Storage Path resiliency; Storage Spaces Direct to aggregate Storage Spaces across multiple servers; Storage Replica[[43]](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_note-TeamBlogTP2-43)
* Security: Host Guardian Service, helping to keep trust and isolation boundary between the cloud infrastructure and guest OS layers; Just Enough Administration, restricting users to perform only specific tasks[[43]](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_note-TeamBlogTP2-43)
* Management: PowerShell Desired State Configuration; PowerShell Package Manager; Windows Management Framework 5.0 April Preview and DSC Resource Kit[[43]](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_note-TeamBlogTP2-43)
* Other: Conditional access control in AD FS; application authentication support for OpenID Connect and OAuth; full OpenGL support with RDS for VDI; Server-side support for [HTTP/2](https://en.wikipedia.org/wiki/HTTP/2), including header compression, connection multiplexing and server push[[43]](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_note-TeamBlogTP2-43)
* Installation options: Minimal Server Interface was made default and renamed the Server installation option to “Server with local admin tools”.[[44]](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_note-IOChanges-44)

**Technical Preview 3**[[edit](https://en.wikipedia.org/w/index.php?title=Windows_Server_2016&action=edit&section=11)]

The third technical preview of Windows Server 2016 was made available on 19 August 2015. Its version number was 10.0.10514. Highlights of this version include:

* Windows Server Containers[[45]](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_note-technet.microsoft.com-45)
* Active Directory Federation Services (AD FS): authentication of users stored in Lightweight Directory Access Protocol (LDAP) directories[[45]](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_note-technet.microsoft.com-45)
* Installation options: The Server installation option had been renamed to “Server with Desktop Experience” having the shell and Desktop Experience installed by default. Due to the structural changes required to deliver the Desktop Experience on Server, it is no longer possible to convert from Server with Desktop Experience to Server Core or to convert Server Core up to Server with Desktop Experience.[[44]](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_note-IOChanges-44)

**Technical Preview 4**[[edit](https://en.wikipedia.org/w/index.php?title=Windows_Server_2016&action=edit&section=12)]

The fourth technical preview of the operating system was made available on 19 November 2015, one year and one month after the initial technical preview. Its version number was 10.0.10586. Its highlights include:

* Nano Server supports the DNS Server and IIS server roles, as well as MPIO, VMM, SCOM, DSC push mode, DCB, Windows Server Installer, and the WMI provider for Windows Update. Its Recovery Console supports editing and repairing the network configuration. A Windows PowerShell module is now available to simplify building Nano Server images.[[46]](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_note-WinBetaTP4-46)
* Hyper-V Containers encapsulates each container in a light weight virtual machine.[[46]](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_note-WinBetaTP4-46)

**Technical Preview 5**[[edit](https://en.wikipedia.org/w/index.php?title=Windows_Server_2016&action=edit&section=13)]

The last technical preview of Windows Server 2016 was made available on 27 April 2016. Its version number was 10.0.14300. Its highlights include:[[47]](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_note-47)

* Mostly general refinements. Greater time accuracy in both physical and virtual machines
* Container support adds performance improvements, simplified network management, and support for Windows containers on Windows 10
* Nano Server: an updated module for building Nano Server images, including more separation of physical host and guest virtual machine functionality as well as support for different Windows Server editions. Improvements to the Recovery Console, including separation of inbound and outbound firewall rules as well as the ability to repair configuration of WinRM
* Networking: traffic to new or existing virtual appliances can now be both mirrored and routed. With a distributed firewall and Network security groups, this enables dynamically segmented and secure workloads in a manner similar to [Azure](https://en.wikipedia.org/wiki/Microsoft_Azure). One can deploy and manage the entire Software-defined networking (SDN) stack using System Center Virtual Machine Manager. Docker can be used to manage Windows Server container networking, and associate SDN policies not only with virtual machines but containers as well
* Remote Desktop Services: a highly available RDS deployment can leverage Azure SQL Database for the RD Connection Brokers in high availability mode
* Management: ability to run PowerShell.exe locally on Nano Server (no longer remote only), new Local Users & Groups cmdlets to replace the GUI, added PowerShell debugging support, and added support in Nano Server for security logging & transcription and JEA (Just Enough Administration)
* Shielded Virtual Machines:
  + New "Encryption Supported" mode that offers more protections than for an ordinary virtual machine, but less than "Shielded" mode, while still supporting vTPM, disk encryption, Live Migration traffic encryption, and other features, including direct fabric administration conveniences such as virtual machine console connections and Powershell Direct
  + Full support for converting existing non-shielded Generation 2 virtual machines to shielded virtual machines, including automated disk encryption
  + Shielded virtual machines are compatible with Hyper-V Replica

**Release to manufacturing**[[edit](https://en.wikipedia.org/w/index.php?title=Windows_Server_2016&action=edit&section=14)]

Windows Server 2016 was released to manufacturing on 26 September 2016, bearing the version number of 10.0.14393. (Same version number as [Windows 10 Anniversary Update](https://en.wikipedia.org/wiki/Windows_10_Anniversary_Update).) Microsoft added the following final touches:

* Available for a 180-day evaluation
* Fixed [Start menu](https://en.wikipedia.org/wiki/Start_menu) corruptions
* Improved user experience and performance
* [Windows Store apps](https://en.wikipedia.org/wiki/Windows_Store_apps) have been removed
* Login screen now has a background
* The [Windows Hello](https://en.wikipedia.org/wiki/Windows_Hello) feature has been added
* Dark theme has been added

Version 1709[[edit](https://en.wikipedia.org/w/index.php?title=Windows_Server_2016&action=edit&section=15)]

**Windows Server, version 1709** was released on 17 October 2017. The release has dropped the Windows Server 2016 name and is just called Windows Server by Microsoft.[[48]](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_note-48) It is offered to the [Microsoft Software Assurance](https://en.wikipedia.org/wiki/Microsoft_Software_Assurance) customers who have an active Windows Server 2016 license and has the same system requirements. This is the first Windows Server product to fall under the ["Semi-Annual Channel" (SAC) release cadence](https://en.wikipedia.org/wiki/Windows_10_editions#Release_branches)[[49]](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_note-49). This product only features the Server Core and the Nano Server modes. Of the two, only the Server Core mode of the OS can be installed on a bare system. The Nano Server mode is only available as an operating system [container](https://en.wikipedia.org/wiki/Container_(virtualization)).[[50]](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_note-ws1709-50)

See also[[edit](https://en.wikipedia.org/w/index.php?title=Windows_Server_2016&action=edit&section=16)]

* ***https://upload.wikimedia.org/wikipedia/commons/thumb/9/94/M_box.svg/28px-M_box.svg.png***[***Microsoft portal***](https://en.wikipedia.org/wiki/Portal:Microsoft)
* ***[icon](https://en.wikipedia.org/wiki/File:Crystal_Clear_device_cdrom_unmount.png)***[***Software portal***](https://en.wikipedia.org/wiki/Portal:Software)
* [Microsoft Servers](https://en.wikipedia.org/wiki/Microsoft_Servers)
* [Comparison of Microsoft Windows versions](https://en.wikipedia.org/wiki/Comparison_of_Microsoft_Windows_versions)
* [History of Microsoft Windows](https://en.wikipedia.org/wiki/History_of_Microsoft_Windows)
* [Comparison of operating systems](https://en.wikipedia.org/wiki/Comparison_of_operating_systems)
* [List of operating systems](https://en.wikipedia.org/wiki/List_of_operating_systems)

References[[edit](https://en.wikipedia.org/w/index.php?title=Windows_Server_2016&action=edit&section=17)]

* 1. ^ [Jump up to:***a***](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_ref-rtm-date_1-0) [***b***](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_ref-rtm-date_1-1) *Chapple, Erin (26 September 2016).*[*"Announcing the launch of Windows Server 2016"*](https://blogs.technet.microsoft.com/hybridcloud/2016/09/26/announcing-the-launch-of-windows-server-2016/)*. Hybrid Cloud.*[*Microsoft*](https://en.wikipedia.org/wiki/Microsoft)*.*
  2. ^ [Jump up to:***a***](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_ref-GA-date_2-0) [***b***](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_ref-GA-date_2-1) [***c***](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_ref-GA-date_2-2) *Foley, Mary Jo (12 October 2016).*[*"Microsoft's Windows Server 2016 hits general availability"*](http://www.zdnet.com/article/microsofts-windows-server-2016-hits-general-availability/)*.*[*ZDNet*](https://en.wikipedia.org/wiki/ZDNet)*.*[*CBS Interactive*](https://en.wikipedia.org/wiki/CBS_Interactive)*.*
  3. [**Jump up^**](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_ref-3) [*"May 17, 2018—KB4103720 (OS Build 14393.2273)"*](https://support.microsoft.com/en-us/help/4103720)*. Microsoft Help.*[*Microsoft*](https://en.wikipedia.org/wiki/Microsoft)*. Retrieved June 11, 2018.*
  4. [**Jump up^**](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_ref-4) [*"Announcing Windows Server Insider Preview Build 17046"*](https://blogs.windows.com/windowsexperience/2017/12/05/announcing-windows-server-insider-preview-build-17046/)*. Windows Blog.*[*Microsoft*](https://en.wikipedia.org/wiki/Microsoft)*.*
  5. [**Jump up^**](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_ref-5) [*"Microsoft Product Lifecycle"*](https://support.microsoft.com/en-us/lifecycle/search?alpha=Windows%20Server%202016)*. Microsoft Support. Microsoft. Retrieved 7 December 2016.*
  6. ^ [Jump up to:***a***](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_ref-announce_6-0) [***b***](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_ref-announce_6-1) [*"Announcing availability of Windows Server Technical Preview and System Center Technical Preview"*](https://blogs.technet.microsoft.com/hybridcloud/2014/10/01/announcing-availability-of-windows-server-technical-preview-and-system-center-technical-preview/)*. Hybrid Cloud.*[*Microsoft*](https://en.wikipedia.org/wiki/Microsoft)*. 17 March 2015. Retrieved 1 April 2015.*
  7. [**Jump up^**](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_ref-7) *Mathers, Bill; Poggemeyer, Liza; Tobin, John (8 September 2017).*[*"What's new in Active Directory Federation Services for Windows Server 2016"*](https://docs.microsoft.com/en-us/windows-server/identity/ad-fs/overview/whats-new-active-directory-federation-services-windows-server)*. Microsoft Docs. Windows Server, Identity and access.*
  8. [**Jump up^**](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_ref-8) [TechNet: Windows Server Antimalware Overview for Windows Server Technical Preview (Updated: 19 February 2015)](https://technet.microsoft.com/en-us/library/dn765478.aspx?f=255&MSPPError=-2147217396)
  9. [**Jump up^**](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_ref-9) [TechNet: What's New in Remote Desktop Services in the Windows Server Technical Preview (Updated: 1 October 2014)](https://technet.microsoft.com/en-us/library/dn765476.aspx)
  10. [**Jump up^**](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_ref-10) [TechNet: What's New in Storage Services in Windows Server Technical Preview (Updated: 1 October 2014)](https://technet.microsoft.com/en-us/library/dn765475.aspx?f=255&MSPPError=-2147217396)
  11. [**Jump up^**](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_ref-11) [TechNet: What's New in Failover Clustering in Windows Server Technical Preview (Updated: 1 October 2014)](https://technet.microsoft.com/en-us/library/dn765474.aspx)
  12. [**Jump up^**](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_ref-12) [TechNet: What's New in Web Application Proxy in Windows Server Technical Preview (Updated: 1 October 2014)](https://technet.microsoft.com/en-us/library/dn765473.aspx?f=255&MSPPError=-2147217396)
  13. [**Jump up^**](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_ref-13) *O'Shea, Mark (4 September 2016).*[*"What's New In Windows Server 2016 Standard Edition Part 9 – Management And Automation"*](https://blogs.technet.microsoft.com/ausoemteam/2016/09/04/whats-new-in-windows-server-2016-standard-edition-part-9-management-and-automation/)*. Microsoft Australia OEM Team blog.*[*Microsoft*](https://en.wikipedia.org/wiki/Microsoft)*.*
  14. [**Jump up^**](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_ref-14) [*"About Windows Containers"*](https://msdn.microsoft.com/en-us/virtualization/windowscontainers/about/about_overview/)*. Retrieved 1 November 2016.*
  15. [**Jump up^**](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_ref-15) [TechNet: What's New in DHCP in Windows Server Technical Preview (Updated: 1 October 2014)](https://technet.microsoft.com/en-us/library/dn765482.aspx)
  16. [**Jump up^**](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_ref-16) [TechNet: What's New in DNS Client in Windows Server Technical Preview (Updated: 1 October 2014)](https://technet.microsoft.com/en-us/library/dn765479.aspx?f=255&MSPPError=-2147217396)
  17. [**Jump up^**](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_ref-17) [TechNet: What's New in DNS Server in Windows Server Technical Preview (Updated: 1 October 2014)](https://technet.microsoft.com/en-us/library/dn765484.aspx)
  18. [**Jump up^**](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_ref-18) [TechNet: GRE Tunneling in Windows Server Technical Preview (Updated: 1 October 2014)](https://technet.microsoft.com/en-us/library/dn765485.aspx?f=255&MSPPError=-2147217396)
  19. [**Jump up^**](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_ref-19) [TechNet: What's New in IPAM in Windows Server Technical Preview (Updated: 6 February 2015)](https://technet.microsoft.com/en-us/library/dn765487.aspx)
  20. [**Jump up^**](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_ref-20) [TechNet: Network Controller (Updated: 18 December 2014)](https://technet.microsoft.com/en-us/library/dn859239.aspx?f=255&MSPPError=-2147217396)
  21. [**Jump up^**](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_ref-21) [TechNet: What's New in Hyper-V Network Virtualization in Windows Server Technical Preview (Updated: 11 March 2015)](https://technet.microsoft.com/en-us/library/dn931986.aspx?f=255&MSPPError=-2147217396)
  22. [**Jump up^**](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_ref-22) [TechNet: What's New in Hyper-V in Technical Preview (Updated: 12 November 2014)](https://technet.microsoft.com/en-us/library/dn765471.aspx#BKMK_hot)
  23. [**Jump up^**](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_ref-23) [TechNet Wiki: Hyper-V Features in Windows Server 2016](http://social.technet.microsoft.com/wiki/contents/articles/33635.hyper-v-aspects-in-windows-server-2016.aspx)
  24. [**Jump up^**](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_ref-24) [*"Remote Direct Memory Access (RDMA) and Switch Embedded Teaming (SET)"*](https://technet.microsoft.com/en-us/library/mt403349.aspx)*. Microsoft. 17 May 2016. Retrieved 6 July 2016.*
  25. [**Jump up^**](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_ref-25) *Jindal, Kriti (9 February 2016).*[*"Introducing Server management tools"*](https://blogs.technet.microsoft.com/nanoserver/2016/02/09/introducing-server-management-tools/)*. Nano Server Blog. Microsoft.*
  26. [**Jump up^**](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_ref-26) *Neil, Mike (8 April 2015).*[*"Microsoft Announces New Container Technologies for the Next Generation Cloud"*](https://blogs.technet.microsoft.com/hybridcloud/2015/04/08/microsoft-announces-new-container-technologies-for-the-next-generation-cloud/)*. Server & Cloud Blog.*[*Microsoft*](https://en.wikipedia.org/wiki/Microsoft)*.*
  27. [**Jump up^**](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_ref-27) *Snover, Jeffrey; Mason, Andrew; Back, Alan (8 April 2015).*[*"Microsoft Announces Nano Server for Modern Apps and Cloud"*](https://blogs.technet.microsoft.com/windowsserver/2015/04/08/microsoft-announces-nano-server-for-modern-apps-and-cloud/)*. Windows Server Blog.*[*Microsoft*](https://en.wikipedia.org/wiki/Microsoft)*.*
  28. [**Jump up^**](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_ref-28) [Changes to Nano Server in the next release of Windows Server](https://docs.microsoft.com/en-us/windows-server/get-started/nano-in-semi-annual-channel)
  29. [**Jump up^**](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_ref-Networkworld_29-0) *Patrizio, Andy (10 February 2015).*[*"Microsoft to release next generation of Windows Server in 2016"*](http://www.networkworld.com/article/2882020/microsoft-subnet/microsoft-to-release-next-generation-of-windows-server-in-2016.html)*.*[*Network World*](https://en.wikipedia.org/wiki/Network_World)*.*[*IDG*](https://en.wikipedia.org/wiki/IDG)*.*
  30. [**Jump up^**](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_ref-30) *Vincent, James (9 March 2017).*[*"Microsoft unveils new ARM server designs, threatening Intel's dominance"*](https://www.theverge.com/2017/3/9/14867310/arm-servers-microsoft-intel-compute-conference)*.*[*The Verge*](https://en.wikipedia.org/wiki/The_Verge)*.*[*Vox Media*](https://en.wikipedia.org/wiki/Vox_Media)*.*
  31. [**Jump up^**](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_ref-31) *Foley, Mary Jo (8 March 2017).*[*"Windows Server on ARM: It's happening"*](http://www.zdnet.com/article/windows-server-on-arm-its-happening/)*.*[*ZDNet*](https://en.wikipedia.org/wiki/ZDNet)*.*[*CBS Interactive*](https://en.wikipedia.org/wiki/CBS_Interactive)*.*
  32. [**Jump up^**](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_ref-32) *Bright, Peter (8 March 2017).*[*"Microsoft's latest open source servers shown off with Intel, AMD, and even ARM chips"*](https://arstechnica.com/information-technology/2017/03/microsoft-latest-open-source-servers-shown-off-with-intel-amd-and-even-arm-chips/)*.*[*Ars Technica*](https://en.wikipedia.org/wiki/Ars_Technica)*.*[*Condé Nast*](https://en.wikipedia.org/wiki/Cond%C3%A9_Nast)*.*
  33. [**Jump up^**](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_ref-33) [*Foley, Mary Jo*](https://en.wikipedia.org/wiki/Mary_Jo_Foley)*(10 March 2017).*[*"Microsoft's Windows Server on ARM move: More questions and answers"*](http://www.zdnet.com/article/microsofts-windows-server-on-arm-move-more-questions-and-answers/)*.*[*ZDNet*](https://en.wikipedia.org/wiki/ZDNet)*.*[*CBS Interactive*](https://en.wikipedia.org/wiki/CBS_Interactive)*.*
  34. [**Jump up^**](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_ref-34) [Windows IT Pro: Windows Server Technical Preview expires 15 April 2015](http://windowsitpro.com/windows-server/windows-server-technical-preview-expires-15-april-2015)
  35. [**Jump up^**](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_ref-35) [Neowin: Second tech preview of Windows Server 2016 coming next month](http://www.neowin.net/news/second-tech-preview-of-windows-server-2016-coming-next-month)
  36. [**Jump up^**](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_ref-36) [RedmondMag: Windows Server 'Insider' Testing Program Coming This Summer](https://redmondmag.com/articles/2017/05/11/windows-server-insider-testing-program.aspx)
  37. [**Jump up^**](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_ref-37) [*"Announcing Windows Server Insider Preview Build 16237"*](https://blogs.windows.com/windowsexperience/2017/07/13/announcing-windows-server-insider-preview-build-16237/)*. Windows Blog.*[*Microsoft*](https://en.wikipedia.org/wiki/Microsoft)*.*
  38. [**Jump up^**](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_ref-ars-2016license_38-0) *Bright, Peter (December 4, 2015).*[*"Windows Server 2016 moving to per core, not per socket, licensing"*](https://arstechnica.com/information-technology/2015/12/windows-server-2016-moving-to-per-core-not-per-socket-licensing/)*.*[*Ars Technica*](https://en.wikipedia.org/wiki/Ars_Technica)*.*[*Condé Nast*](https://en.wikipedia.org/wiki/Cond%C3%A9_Nast)*. Retrieved December 5, 2015.*
  39. [**Jump up^**](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_ref-39) *Microsoft (2017).*[*"Windows Server 2016 Licensing Datasheet - Microsoft"*](https://download.microsoft.com/download/7/2/9/7290EA05-DC56-4BED-9400-138C5701F174/WS2016LicensingDatasheet.pdf)*(PDF). Microsoft. Retrieved October 8, 2017.*
  40. [**Jump up^**](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_ref-40) *Berkouwer, Sander (May 5, 2015).*[*"Windows Server 2016 Technical Preview 2 now available"*](https://dirteam.com/sander/2015/05/05/windows-server-2016-technical-preview-2-now-available/)*. The things that are better left unspoken.*
  41. ^ [Jump up to:***a***](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_ref-RegisterTP2_41-0) [***b***](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_ref-RegisterTP2_41-1) [The Register: Try to contain your joy: Microsoft emits Windows Server 2016 with nano-services](https://www.theregister.co.uk/2015/05/04/windows_server_preview_2/)
  42. [**Jump up^**](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_ref-TP2_42-0) [WinBeta: Microsoft shows off what's new in Windows Server 2016 Technical Preview 2](http://www.winbeta.org/news/microsoft-shows-whats-new-windows-server-2016-technical-preview-2)
  43. ^ [Jump up to:***a***](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_ref-TeamBlogTP2_43-0) [***b***](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_ref-TeamBlogTP2_43-1) [***c***](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_ref-TeamBlogTP2_43-2) [***d***](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_ref-TeamBlogTP2_43-3) [***e***](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_ref-TeamBlogTP2_43-4) [***f***](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_ref-TeamBlogTP2_43-5) [***g***](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_ref-TeamBlogTP2_43-6) [Windows Server Blog: What’s new in Windows Server 2016 Technical Preview 2](http://blogs.technet.com/b/windowsserver/archive/2015/05/04/what-s-new-in-windows-server-2016-technical-preview-2.aspx)
  44. ^ [Jump up to:***a***](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_ref-IOChanges_44-0) [***b***](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_ref-IOChanges_44-1) [Windows Server Blog: Windows Server 2016 Installation Option Changes](https://blogs.technet.microsoft.com/windowsserver/2015/08/27/windows-server-2016-installation-option-changes/)
  45. ^ [Jump up to:***a***](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_ref-technet.microsoft.com_45-0) [***b***](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_ref-technet.microsoft.com_45-1) [TechNet: What's New in Windows Server 2016 Technical Preview 3](https://technet.microsoft.com/en-us/library/dn765472.aspx)
  46. ^ [Jump up to:***a***](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_ref-WinBetaTP4_46-0) [***b***](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_ref-WinBetaTP4_46-1) *Anderson, Kareem (19 November 2015).*[*"Microsoft has released Windows Server 2016 Technical Preview 4"*](http://www.winbeta.org/news/microsoft-has-released-windows-server-2016-technical-preview)*. WinBeta.*
  47. [**Jump up^**](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_ref-47) [TechNet: What's New in Windows Server 2016 Technical Preview 5](https://technet.microsoft.com/en-us/library/dn765472(v=ws.12).aspx)
  48. [**Jump up^**](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_ref-48) [Windows Server, version 1709 available for download](https://blogs.technet.microsoft.com/windowsserver/2017/10/17/windows-server-version-1709-available-for-download/)
  49. [**Jump up^**](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_ref-49) *Jawad, Usama (September 25, 2017).*[*"Microsoft launches Windows Server version 1709"*](https://www.neowin.net/news/microsoft-launches-windows-server-version-1709)*. Neowin. Retrieved March 12, 2018.*
  50. [**Jump up^**](https://en.wikipedia.org/wiki/Windows_Server_2016#cite_ref-ws1709_50-0) [*"Introducing Windows Server, version 1709"*](https://docs.microsoft.com/en-us/windows-server/get-started/get-started-with-1709)*. Microsoft Docs.*[*Microsoft*](https://en.wikipedia.org/wiki/Microsoft)*. Windows Server.*

External links[[edit](https://en.wikipedia.org/w/index.php?title=Windows_Server_2016&action=edit&section=18)]

* [Official website](http://windowsserver.com/)
* [PluralSight: Windows Server vNext First Look – An introduction to the new features of the Windows Server vNext operating system](http://www.pluralsight.com/courses/windows-server-vnext-first-look)
* [Our Server Journey – video session describing the path that Windows Server has taken from its creation to the current day and where it is going from here](http://channel9.msdn.com/events/Future-Decoded-Tech-Day-2014/TechDays-Online-2015/Microsoft-Corporate-Keynote-and-Interview-Jeffrey-Snover)
* [Michael Pietroforte: Nano Server – Goodbye Windows Server?](https://4sysops.com/archives/nano-server-goodbye-windows-server/)
* [Microsoft Windows Nano Server, the future of Windows Server?](https://hyperv.veeam.com/blog/what-is-microsoft-windows-nano-server/)

|  |  |  |
| --- | --- | --- |
| hide   * [v](https://en.wikipedia.org/wiki/Template:Microsoft_Windows_family) * [t](https://en.wikipedia.org/wiki/Template_talk:Microsoft_Windows_family) * [e](https://en.wikipedia.org/w/index.php?title=Template:Microsoft_Windows_family&action=edit)   [**Microsoft Windows**](https://en.wikipedia.org/wiki/Microsoft_Windows)**family** | | |
| * [Components](https://en.wikipedia.org/wiki/List_of_Microsoft_Windows_components) * [History](https://en.wikipedia.org/wiki/History_of_Microsoft_Windows) * [Timeline](https://en.wikipedia.org/wiki/Timeline_of_Microsoft_Windows) * [Criticism](https://en.wikipedia.org/wiki/Criticism_of_Microsoft_Windows) | | |
| [**DOS**](https://en.wikipedia.org/wiki/DOS)**-based** | * [Windows 1.0](https://en.wikipedia.org/wiki/Windows_1.0) * [Windows 2.0](https://en.wikipedia.org/wiki/Windows_2.0) * [Windows 2.1x](https://en.wikipedia.org/wiki/Windows_2.1x) * [Windows 3.0](https://en.wikipedia.org/wiki/Windows_3.0) * [Windows 3.1x](https://en.wikipedia.org/wiki/Windows_3.1x) | https://upload.wikimedia.org/wikipedia/commons/thumb/e/ee/Windows_logo_%E2%80%93_2012_%28dark_blue%29.svg/65px-Windows_logo_%E2%80%93_2012_%28dark_blue%29.svg.png |
| [**Windows 9x**](https://en.wikipedia.org/wiki/Windows_9x) | * [Windows 95](https://en.wikipedia.org/wiki/Windows_95) ([Development](https://en.wikipedia.org/wiki/Development_of_Windows_95)) * [Windows 98](https://en.wikipedia.org/wiki/Windows_98) * [Windows ME](https://en.wikipedia.org/wiki/Windows_ME) |
| [**Windows NT**](https://en.wikipedia.org/wiki/Windows_NT) | |  |  | | --- | --- | | * [Windows NT 3.1](https://en.wikipedia.org/wiki/Windows_NT_3.1) * [Windows NT 3.5](https://en.wikipedia.org/wiki/Windows_NT_3.5) * [Windows NT 3.51](https://en.wikipedia.org/wiki/Windows_NT_3.51) * [Windows NT 4.0](https://en.wikipedia.org/wiki/Windows_NT_4.0) * [Windows 2000](https://en.wikipedia.org/wiki/Windows_2000) | | | **Client versions** | * [Windows XP](https://en.wikipedia.org/wiki/Windows_XP)   + [editions](https://en.wikipedia.org/wiki/Windows_XP_editions)   + [x64](https://en.wikipedia.org/wiki/Windows_XP_Professional_x64_Edition)   + [Media Center](https://en.wikipedia.org/wiki/Windows_XP_Media_Center_Edition)   + [Fundamentals](https://en.wikipedia.org/wiki/Windows_Fundamentals_for_Legacy_PCs)   + [Development of XP](https://en.wikipedia.org/wiki/Development_of_Windows_XP)      * [Windows Vista](https://en.wikipedia.org/wiki/Windows_Vista)   + [editions](https://en.wikipedia.org/wiki/Windows_Vista_editions)      * [Windows 7](https://en.wikipedia.org/wiki/Windows_7)   + [editions](https://en.wikipedia.org/wiki/Windows_7_editions)      * [Windows 8](https://en.wikipedia.org/wiki/Windows_8)   + [editions](https://en.wikipedia.org/wiki/Windows_8_editions)   + [RT](https://en.wikipedia.org/wiki/Windows_RT)      * [8.1](https://en.wikipedia.org/wiki/Windows_8.1) * [Windows 10](https://en.wikipedia.org/wiki/Windows_10)   + [editions](https://en.wikipedia.org/wiki/Windows_10_editions)   + [version history](https://en.wikipedia.org/wiki/Windows_10_version_history) | | [**Windows Server**](https://en.wikipedia.org/wiki/Windows_Server) | * [Server 2003](https://en.wikipedia.org/wiki/Windows_Server_2003)   + [Home Server](https://en.wikipedia.org/wiki/Windows_Home_Server)      * [Server 2008](https://en.wikipedia.org/wiki/Windows_Server_2008)   + [EBS 2008](https://en.wikipedia.org/wiki/Windows_Essential_Business_Server_2008)   + [HPC Server 2008](https://en.wikipedia.org/wiki/Windows_HPC_Server_2008)      * [Server 2008 R2](https://en.wikipedia.org/wiki/Windows_Server_2008_R2)   + [Home Server 2011](https://en.wikipedia.org/wiki/Windows_Home_Server_2011)      * [Server 2012](https://en.wikipedia.org/wiki/Windows_Server_2012) * [Server 2012 R2](https://en.wikipedia.org/wiki/Windows_Server_2012#Windows_Server_2012_R2) * Server 2016 * [Server 2019](https://en.wikipedia.org/wiki/Windows_Server_2019) * [MultiPoint Server](https://en.wikipedia.org/wiki/Windows_MultiPoint_Server) * [Server Essentials](https://en.wikipedia.org/wiki/Windows_Server_Essentials) | | **Specialized** | * [Windows Preinstallation Environment](https://en.wikipedia.org/wiki/Windows_Preinstallation_Environment) | |
| [**Windows Embedded**](https://en.wikipedia.org/wiki/Windows_Embedded) | * [Embedded Compact](https://en.wikipedia.org/wiki/Windows_Embedded_Compact)   + [CE 5.0](https://en.wikipedia.org/wiki/Windows_CE_5.0)   + [Embedded CE 6.0](https://en.wikipedia.org/wiki/Windows_Embedded_CE_6.0)   + [Embedded Compact 7](https://en.wikipedia.org/wiki/Windows_Embedded_Compact_7)      * [Embedded Automotive](https://en.wikipedia.org/wiki/Windows_Embedded_Automotive) * [Embedded Industry](https://en.wikipedia.org/wiki/Windows_Embedded_Industry) |
| [**Windows Mobile**](https://en.wikipedia.org/wiki/Windows_Mobile) | * [Pocket PC 2000](https://en.wikipedia.org/wiki/Pocket_PC_2000) * [Pocket PC 2002](https://en.wikipedia.org/wiki/Pocket_PC_2002) * [Mobile 2003](https://en.wikipedia.org/wiki/Windows_Mobile_2003) * [Mobile 5.0](https://en.wikipedia.org/wiki/Windows_Mobile_5.0) * [Mobile 6.0](https://en.wikipedia.org/wiki/Windows_Mobile_6.0) * [Mobile 6.1](https://en.wikipedia.org/wiki/Windows_Mobile_6.1) * [Mobile 6.5](https://en.wikipedia.org/wiki/Windows_Mobile_6.5) |
| [**Windows Phone**](https://en.wikipedia.org/wiki/Windows_Phone) | * [Phone 7](https://en.wikipedia.org/wiki/Windows_Phone_7) * [Phone 8](https://en.wikipedia.org/wiki/Windows_Phone_8) * [Phone 8.1](https://en.wikipedia.org/wiki/Windows_Phone_8.1) * [Windows 10 Mobile](https://en.wikipedia.org/wiki/Windows_10_Mobile) |
| **Cancelled** | * [Cairo](https://en.wikipedia.org/wiki/Cairo_(operating_system)) * [Nashville](https://en.wikipedia.org/wiki/Windows_Nashville) * [Neptune](https://en.wikipedia.org/wiki/Microsoft_Neptune) * [Odyssey](https://en.wikipedia.org/wiki/Windows_Odyssey) |
| **Related** | * New Features   + [XP](https://en.wikipedia.org/wiki/Features_new_to_Windows_XP)   + [Vista](https://en.wikipedia.org/wiki/Features_new_to_Windows_Vista)   + [7](https://en.wikipedia.org/wiki/Features_new_to_Windows_7)   + [8](https://en.wikipedia.org/wiki/Features_new_to_Windows_8)   + [10](https://en.wikipedia.org/wiki/Features_new_to_Windows_10)      * Removed Features   + [XP](https://en.wikipedia.org/wiki/List_of_features_removed_in_Windows_XP)   + [Vista](https://en.wikipedia.org/wiki/List_of_features_removed_in_Windows_Vista)   + [7](https://en.wikipedia.org/wiki/List_of_features_removed_in_Windows_7)   + [8](https://en.wikipedia.org/wiki/List_of_features_removed_in_Windows_8)   + [10](https://en.wikipedia.org/wiki/List_of_features_removed_in_Windows_10)      * [Criticism of Windows](https://en.wikipedia.org/wiki/Criticism_of_Windows)   + [XP](https://en.wikipedia.org/wiki/Criticism_of_Windows_XP)   + [Vista](https://en.wikipedia.org/wiki/Criticism_of_Windows_Vista)   + [10](https://en.wikipedia.org/wiki/Criticism_of_Windows_10) |
| * List-Class article [List of versions](https://en.wikipedia.org/wiki/List_of_Microsoft_Windows_versions) * List-Class article [Comparison](https://en.wikipedia.org/wiki/Comparison_of_Microsoft_Windows_versions) * https://upload.wikimedia.org/wikipedia/commons/thumb/9/92/Open_book_nae_02.svg/16px-Open_book_nae_02.svg.png [*Book*](https://en.wikipedia.org/wiki/Book:Microsoft_Windows) * Category [Category](https://en.wikipedia.org/wiki/Category:Microsoft_Windows) | | |

[Categories](https://en.wikipedia.org/wiki/Help:Category):

* [2016 software](https://en.wikipedia.org/wiki/Category:2016_software)
* [Windows Server](https://en.wikipedia.org/wiki/Category:Windows_Server)
* [X86-64 operating systems](https://en.wikipedia.org/wiki/Category:X86-64_operating_systems)

Navigation menu

* Not logged in
* [Talk](https://en.wikipedia.org/wiki/Special:MyTalk)
* [Contributions](https://en.wikipedia.org/wiki/Special:MyContributions)
* [Create account](https://en.wikipedia.org/w/index.php?title=Special:CreateAccount&returnto=Windows+Server+2016)
* [Log in](https://en.wikipedia.org/w/index.php?title=Special:UserLogin&returnto=Windows+Server+2016)
* [Article](https://en.wikipedia.org/wiki/Windows_Server_2016)
* [Talk](https://en.wikipedia.org/wiki/Talk:Windows_Server_2016)
* [Read](https://en.wikipedia.org/wiki/Windows_Server_2016)
* [Edit](https://en.wikipedia.org/w/index.php?title=Windows_Server_2016&action=edit)
* [View history](https://en.wikipedia.org/w/index.php?title=Windows_Server_2016&action=history)

**Search**

Top of Form



Bottom of Form

* [Main page](https://en.wikipedia.org/wiki/Main_Page)
* [Contents](https://en.wikipedia.org/wiki/Portal:Contents)
* [Featured content](https://en.wikipedia.org/wiki/Portal:Featured_content)
* [Current events](https://en.wikipedia.org/wiki/Portal:Current_events)
* [Random article](https://en.wikipedia.org/wiki/Special:Random)
* [Donate to Wikipedia](https://donate.wikimedia.org/wiki/Special:FundraiserRedirector?utm_source=donate&utm_medium=sidebar&utm_campaign=C13_en.wikipedia.org&uselang=en)
* [Wikipedia store](https://shop.wikimedia.org/)

Interaction

* [Help](https://en.wikipedia.org/wiki/Help:Contents)
* [About Wikipedia](https://en.wikipedia.org/wiki/Wikipedia:About)
* [Community portal](https://en.wikipedia.org/wiki/Wikipedia:Community_portal)
* [Recent changes](https://en.wikipedia.org/wiki/Special:RecentChanges)
* [Contact page](https://en.wikipedia.org/wiki/Wikipedia:Contact_us)

Tools

* [What links here](https://en.wikipedia.org/wiki/Special:WhatLinksHere/Windows_Server_2016)
* [Related changes](https://en.wikipedia.org/wiki/Special:RecentChangesLinked/Windows_Server_2016)
* [Upload file](https://en.wikipedia.org/wiki/Wikipedia:File_Upload_Wizard)
* [Special pages](https://en.wikipedia.org/wiki/Special:SpecialPages)
* [Permanent link](https://en.wikipedia.org/w/index.php?title=Windows_Server_2016&oldid=845459415)
* [Page information](https://en.wikipedia.org/w/index.php?title=Windows_Server_2016&action=info)
* [Wikidata item](https://www.wikidata.org/wiki/Special:EntityPage/Q19754851)
* [Cite this page](https://en.wikipedia.org/w/index.php?title=Special:CiteThisPage&page=Windows_Server_2016&id=845459415)

Print/export

* [Create a book](https://en.wikipedia.org/w/index.php?title=Special:Book&bookcmd=book_creator&referer=Windows+Server+2016)
* [Download as PDF](https://en.wikipedia.org/w/index.php?title=Special:ElectronPdf&page=Windows+Server+2016&action=show-download-screen)
* [Printable version](https://en.wikipedia.org/w/index.php?title=Windows_Server_2016&printable=yes)

In other projects

* [Wikimedia Commons](https://commons.wikimedia.org/wiki/Category:Windows_Server_2016)

Languages

* [Deutsch](https://de.wikipedia.org/wiki/Windows_Server_2016)
* [Español](https://es.wikipedia.org/wiki/Windows_Server_2016)
* [Français](https://fr.wikipedia.org/wiki/Windows_Server_2016)
* [한국어](https://ko.wikipedia.org/wiki/%EC%9C%88%EB%8F%84%EC%9A%B0_%EC%84%9C%EB%B2%84_2016)
* [Bahasa Indonesia](https://id.wikipedia.org/wiki/Windows_Server_2016)
* [Italiano](https://it.wikipedia.org/wiki/Windows_Server_2016)
* [Русский](https://ru.wikipedia.org/wiki/Windows_Server_2016)
* [Tiếng Việt](https://vi.wikipedia.org/wiki/Windows_Server_2016)
* [中文](https://zh.wikipedia.org/wiki/Windows_Server_2016)

13 more

[Edit links](https://www.wikidata.org/wiki/Special:EntityPage/Q19754851#sitelinks-wikipedia)

* This page was last edited on 11 June 2018, at 23:08.
* Text is available under the [Creative Commons Attribution-ShareAlike License](https://en.wikipedia.org/wiki/Wikipedia:Text_of_Creative_Commons_Attribution-ShareAlike_3.0_Unported_License); additional terms may apply. By using this site, you agree to the [Terms of Use](https://wikimediafoundation.org/wiki/Terms_of_Use) and [Privacy Policy](https://wikimediafoundation.org/wiki/Privacy_policy). Wikipedia® is a registered trademark of the [Wikimedia Foundation, Inc.](https://www.wikimediafoundation.org/), a non-profit organization.
* [Privacy policy](https://wikimediafoundation.org/wiki/Privacy_policy)
* [About Wikipedia](https://en.wikipedia.org/wiki/Wikipedia:About)
* [Disclaimers](https://en.wikipedia.org/wiki/Wikipedia:General_disclaimer)
* [Contact Wikipedia](https://en.wikipedia.org/wiki/Wikipedia:Contact_us)
* [Developers](https://www.mediawiki.org/wiki/Special:MyLanguage/How_to_contribute)
* [Cookie statement](https://wikimediafoundation.org/wiki/Cookie_statement)
* [Mobile view](https://en.m.wikipedia.org/w/index.php?title=Windows_Server_2016&mobileaction=toggle_view_mobile)
* [Wikimedia Foundation](https://wikimediafoundation.org/)
* [Powered by MediaWiki](https://www.mediawiki.org/)