

Windows 10 licensing for Virtual Desktops

This brief applies to all Microsoft Licensing programs.

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Summary

Windows 10 can be used to deploy secure and centrally managed virtual desktops to workers at scale. Customers looking to virtualize Windows 10 have a variety of ways to deploy and license their virtual machines (VMs). This brief describes how to license Windows 10 running on VMs.

Notes:

- This brief addresses Windows 10 licensing for Microsoft Commercial Licensing customers only. For the
 purposes of this brief, Commercial Licensing programs include all Volume License programs, CSP, and the
 Microsoft Customer Agreement. Windows 10 licensed solely through your OEM device generally does not
 include virtualization entitlements, with some exceptions. Please see your OEM license agreement for more
 details.
- This brief solely addresses Windows 10 virtualization. It does not cover virtualized Windows Server sessions, or the licenses needed to access virtualized Windows Server sessions (e.g. Windows Server CALs & RDS CALs).

Generally, and with limitations found below, you must have one of the following licenses to run and access a virtual machine running Windows 10:

- Windows 10 Enterprise E3/E5
- Windows 10 Education A3/A5
- Windows 10 Education Student Use Benefit
- Windows 10 Enterprise per device with Software Assurance
- Windows VDA E3/E5
- Windows VDA per device
- Microsoft 365 F3/E3/E5
- Microsoft 365 A3/A5
- Microsoft 365 Business Premium

User licenses allow licensed users to access Windows 10 VMs from any device. **Device licenses** allow any user of the device to access Windows 10 VMs from the licensed device.

Virtualization Methods

How you can virtualize Windows 10 depends on your license, your licensing program, and the means of virtualization. Different licenses and licensing programs confer different virtualization entitlements. The below sections explain which licenses and Commercial Licensing programs offer which virtualization entitlements.

Windows 10 can be virtualized using three primary methods:

- Windows Virtual Desktop
- On-premises server or server dedicated to the customer, including those managed by an outsourcer
- Azure or Qualified Multitenant Hosting (QMTH) partner infrastructure

Windows Virtual Desktop

Windows Virtual Desktop (WVD) is a comprehensive desktop and app virtualization service running on Azure. It's the only virtual desktop infrastructure (VDI) that delivers simplified management, multi-session Windows 10, optimizations for Microsoft 365 Apps for enterprise, and support for Remote Desktop Services (RDS) environments. WVD allows you to deploy and scale your Windows 10 desktops and apps on Azure in minutes with built-in security and compliance features.

- To use and access WVD desktops, users must be licensed with an eligible user license. Per device licenses are not eligible for WVD running Windows 10.
- Eligible licenses acquired through all Commercial Licensing programs include the entitlement to virtualize on WVD.

License (any Commercial Licensing program)	Windows Virtual Desktop (WVD) entitlement
Windows 10 Enterprise E3/E5	•
Windows 10 Education A3/A5	•
Windows 10 Education/Microsoft 365 Education Student Use Benefit	•
Windows 10 Enterprise per device with Software Assurance	
Windows VDA E3/E5	•
Windows VDA per device	
Microsoft 365 E3/E5	•
(user has a Qualifying Operating System)	
Microsoft 365 E3/E5	•
(user does not have a Qualifying Operating System) *	
Microsoft 365 F3	•
(user has a Qualifying Operating System)	
Microsoft 365 F3	•
(user does not have a Qualifying Operating System) *	
Microsoft 365 A3/A5	•
(user has a Qualifying Operating System)	
Microsoft 365 A3/A5	•
(user does not have a Qualifying Operating System) *	
Microsoft 365 Business Premium	•
(user has a Qualifying Operating System)	
Microsoft 365 Business Premium	•
(user does not have a Qualifying Operating System) *	

^{*} Users licensed with Microsoft 365 can use and access WVD VMs even if they aren't the primary user of a device with a Qualifying Operating System (QOS). A QOS is a device licensed for and running Windows Pro/Enterprise.

On-premises server or outsourcer server virtualization

You can run Windows 10 virtual machines on your own on-premises server or on a server dedicated to you that is managed by an outsourcer. However, if the outsourcer is not deemed an Authorized Outsourcer (see definition below), only Windows VDA E3/E5 licenses confer virtualization entitlements. Eligible licensed users or devices may access up to four virtual machines.

Authorized Outsourcers are 3rd parties designated by Microsoft as qualified to host and manage virtualized instances of your software on servers that are dedicated to you. Authorized Outsourcers are all 3rd party hosters that are not designed as "Listed Providers" in the document found here: https://aka.ms/ListedProviders.

To use and access Windows 10 virtual machines via this method,

- 1) Users or devices must be licensed with an eligible license,
- 2) Licensed users or devices must have a Qualifying Operating System (QOS) or be licensed with VDA, and
- 3) Your licenses must have been acquired through an eligible Commercial Licensing program.

	On-prem server or dedicated server managed by Authorized Outsourcer	Dedicated server managed by non- Authorized Outsourcer			
License	Program				
	Open License, Select/Select Plus, Microso Open Value, Enterprise Agreement, Enroll				
Windows 10 Enterprise E3/E5	•				
Windows 10 Education A3/A5	•				
Windows 10 Education/Microsoft 365 Education Student Use Benefit					
Windows 10 Enterprise per device with Software Assurance	•				
Windows VDA E3/E5	•	•			
Windows VDA per device	•				
Microsoft 365 F3/E3/E5	•				
(user has a Qualifying Operating System)					
Microsoft 365 F3/E3/E5					
(user does not have a Qualifying Operating System)					
Microsoft 365 A3/A5	•				
(user has a Qualifying Operating System)					
Microsoft 365 A3/A5					
(user does not have a Qualifying Operating System)					
Microsoft 365 Business Premium					
(user has a Qualifying Operating System)					
Microsoft 365 Business Premium					
(user does not have a Qualifying Operating System)					

Azure or Qualified Multitenant Hosting Partner Infrastructure

You can run Windows 10 Semi-Annual Channel virtual machines on Azure infrastructure (dedicated or multitenant) or servers provided by a <u>Qualified Multitenant Hosting (QMTH) Partner</u>. Each eligible licensed user is entitled to access up to four virtual machines.

License (any Commercial Licensing program)	Azure infrastructure/QMTH Partner
Windows 10 Enterprise E3/E5	•
Windows 10 Education A3/A5	•
Windows 10 Education/Microsoft 365 Education Student Use Benefit	
Windows 10 Enterprise per device with Software Assurance	
Windows VDA E3/E5	•
Windows VDA per device	
Microsoft 365 F3/E3/E5	•
(user has a Qualifying Operating System)	
Microsoft 365 F3/E3/E5	
(user does not have a Qualifying Operating System)	
Microsoft 365 A3/A5	•
(user has a Qualifying Operating System)	
Microsoft 365 A3/A5	
(user does not have a Qualifying Operating System)	
Microsoft 365 Business Premium	
(user has a Qualifying Operating System)	
Microsoft 365 Business Premium	
(user does not have a Qualifying Operating System)	

Scenarios

The following examples illustrate how you can license Windows 10 virtual machines in different environments.

Scenario	Description	Licensing Solution	
Mixed Windows 10 and Windows Server session desktops	Users access both Windows 10 virtual machines and Windows Server sessions (apps or desktops).	Users or devices accessing Windows 10 virtual machines and Windows Server sessions will need both an eligible Windows 10 license and Windows Server access licenses (Windows Server CAL and RDS CAL).	
Bring Your Own Device (BYOD)	Users bring their own devices to work and access Windows 10 virtual machines. These brought devices do not have qualifying operating systems (for example, Windows 10 Home).	Because these users do not have qualifying operating systems on their primary devices, they need a Windows VDA license to access Windows 10 virtual machines (aside from WVD). To solely access WVD virtual machines, these users will need either a Windows VDA license or a qualifying Microsoft 365 license.	
Contractor PCs	You provide Windows 10 virtual machines for your contractors/vendors to acess via their own devices.	You must license your contractors/vendors with a qualifying Windows or Microsoft 365 license to access your Windows 10 virtual machines. For all virtualization aside from WVD, you must assign your contractors/vendors a Windows VDA license if they do not have a qualifying operating system on their device (for example, Windows 10 Home). (For reference, Windows 10 Pro is a qualifying operating system).	
Local Windows Virtual Machines	An organization has a group of developers who need to test an application across multiple Windows 10 images running in local virtual machines.	Windows 10 Enterprise per device with SA, Windows 10 Enterprise E3/A3/E5/A5, and Microsoft 365 F3/E3/A3/E5/A5 licensed through an eligible program (Open License, Select/Select Plus, Microsoft Products and Services Agreement, Open Value, Enterprise Agreement, Enrollment for Education Solutions) include a local virtualization entitlement to run up to four local virtual machines. Users or devices must have a qualifying license through a qualifying program to run local Windows 10 virtual machines.	

Summary Table

	Windows Virtual Desktop	Azure infra /QMTHP server	On-prem server or dedicated server managed by Authorized Outsourcer		Dedicated server managed by non-Authorized Outsourcer	
License	Program	Program	Program	Program	Program	Program
	(all)	(all)	Open License, Select/Select Plus, Microsoft Products and Services Agreement, Open Value, Enterprise Agreement, Enrollment for Education Solutions	Microsoft Cloud Agreement, Microsoft Customer Agreement, Cloud Solution Provider program	Open License, Select/Select Plus, Microsoft Products and Services Agreement, Open Value, Enterprise Agreement, Enrollment for Education Solutions	Microsoft Cloud Agreement, Microsoft Customer Agreement, Cloud Solution Provider program
Windows 10 Enterprise E3/E5	•	•	•			
Windows 10 Education A3/A5	•	•	•			
Windows 10 Education/Microsoft 365 Education Student Use Benefit	•					
Windows 10 Enterprise per device with Software Assurance			•			
Windows VDA E3/E5	•	•	•		•	
Windows VDA per device			•			
Microsoft 365 F3/E3/E5	•	•	•			
(user with a Qualifying Operating System)						
Microsoft 365 F3/E3/E5	•					
(user without a Qualifying Operating System)						

	Windows Virtual Desktop	Azure infra /QMTHP server	On-prem server or dedicated server managed by Authorized Outsourcer		Dedicated server managed by non-Authorized Outsourcer	
License	Program	Program	Program	Program	Program	Program
Microsoft 365 A3/A5	•	•	•			
(user with a Qualifying Operating System)						
Microsoft 365 A3/A5	•					
(user without a Qualifying Operating System)						
Microsoft 365 Business Premium	•					
(user with a Qualifying Operating System)						
Microsoft 365 Business Premium	•					
(user without a Qualifying Operating System)						

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