Windows 11 System Requirements

At EuroPC, your trusted authorised reseller of vendor-certified refurbished IT hardware, we're here to help you navigate the transition to Windows 11. This guide outlines the system requirements for Windows 11, including support for virtual machines (VMs). If you're unsure about compatibility or need assistance, please reach out to EuroPC at enquiries@europc.co.uk, or call us directly on 0333 400 6000.

Minimum Hardware Requirements

To install or upgrade to Windows 11, your device must meet the following minimum hardware specifications:

- Processor: 1 gigahertz (GHz) or faster with two or more cores on a <u>compatible 64-bit</u>
 <u>processor</u> or system on a chip (SoC).
- Memory: 4 gigabytes (GB) or greater.
- Storage: 64 GB or more of available disk space. (Note: Storage requirements may
 increase over time for updates and additional features. For details, refer to the <u>Windows</u>
 11 specifications.)
- Graphics Card: Compatible with DirectX 12 or later, with a WDDM 2.0 driver.
- System Firmware: UEFI, Secure Boot capable.
- TPM: Trusted Platform Module (TPM) version 2.0.
- Display: High-definition (720p) display, 9" or larger, with 8 bits per colour channel.
- Internet Connection: Required for updates and certain features.
 - Windows 11 Home edition requires internet connectivity and a Microsoft Account for initial setup.

For further details, read the <u>Windows Insider blog post on minimum system</u> requirements and learn how to <u>determine eligibility</u>.

Operating System Requirements

Eligible Windows 10 devices must meet these criteria to upgrade directly to Windows 11:

- Current OS Version: Windows 10, version 2004 or later.
- Security Updates: Installed the September 14, 2021 security update or later.

Important Notes:

- S mode is only supported on the Home edition of Windows 11. For other editions,
 you'll need to <u>switch out of S mode</u> before upgrading.
- Switching out of S mode requires an internet connection and is irreversible.

Feature-Specific Requirements

Some features in Windows 11 require hardware or configurations beyond the minimum specifications:

- 5G Support: Requires a 5G-capable modem.
- Auto HDR: Requires an HDR monitor.
- BitLocker to Go: Requires a USB flash drive (available in Pro editions and above).
- DirectStorage: Requires an NVMe SSD and a DirectX12 GPU with Shader Model 6.0 support.
- DirectX 12 Ultimate: Available with supported games and graphics chips.
- Multiple Voice Assistant & Voice Typing: Require a microphone and speaker.
- Windows Hello: Requires a camera with infrared (IR) imaging or a fingerprint reader.
 Devices without biometric sensors can use Windows Hello with a PIN or portable
 Microsoft compatible security key. For more information, see <u>IT tools to support</u>
 Windows 10, version 21H1.

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• Xbox Game Pass: Requires a subscription.

For a comprehensive list, refer to Microsoft's **hardware requirements**.

Virtual Machine Support

Windows 11 is compatible with virtual machines, but specific configuration requirements apply:

- Generation: 2
 - (In-place upgrades of generation 1 VMs to Windows 11 are not supported.)
- Storage: 64 GB or greater.
- Security:
 - Azure: <u>Trusted launch</u> with vTPM enabled.

- Hyper-V: **Secure boot and TPM enabled**.
- Memory: 4 GB or more.
- Processor: Two or more virtual processors (host processor must meet Windows 11 requirements).

For guidance on VM settings for various hosts, including Hyper-V, visit <u>Windows 11 and Mac compatibility options</u>.

If you're unsure whether your devices are ready for Windows 11, please reach out to EuroPC. We're here to help assess compatibility and provide the right solutions to meet your needs.

Windows 11 Requirements

This article lists the system requirements for Windows 11. Windows 11 is also <u>supported on a virtual machine (VM)</u>.

Hardware requirements

To install or upgrade to Windows 11, devices must meet the following minimum hardware requirements:

- Processor: 1 gigahertz (GHz) or faster with two or more cores on a <u>compatible 64-bit</u>
 <u>processor</u> or system on a chip (SoC).
- Memory: 4 gigabytes (GB) or greater.
- Storage: 64 GB or greater available disk space.

Note

There might be more storage requirements over time for updates, and to enable specific features within the OS. For more information, see <u>Windows 11 specifications</u>.

- Graphics card: Compatible with DirectX 12 or later, with a WDDM 2.0 driver.
- System firmware: UEFI, Secure Boot capable.
- TPM: Trusted Platform Module (TPM) version 2.0.
- Display: High definition (720p) display, 9" or greater monitor, 8 bits per colour channel.
- Internet connection: Internet connectivity is necessary to perform updates, and to download and use some features.
 - Windows 11 Home edition requires an internet connection and a Microsoft Account to complete device setup on first use.

For more information, see the following Windows Insider blog post: <u>Update on Windows 11</u> <u>minimum system requirements</u>.

For more information about tools to evaluate readiness, see Determine eligibility.

OS requirements

To upgrade directly to Windows 11, eligible Windows 10 devices must meet both of the following criteria:

- Running Windows 10, version 2004 or later.
- Installed the September 14, 2021 security update or later.

Note

- S mode is only supported on the Home edition of Windows 11.
- If you're running a different edition of Windows in S mode, before upgrading to Windows 11, first switch out of S mode.
- To switch a device out of Windows 10 in S mode also requires internet connectivity. If you switch out of S mode, you can't switch back to S mode later.

Feature-specific requirements

Some features in Windows 11 have requirements beyond the minimum <u>hardware</u> requirements.

- 5G support: requires 5G capable modem.
- Auto HDR: requires an HDR monitor.
- BitLocker to Go: requires a USB flash drive. This feature is available in Windows Pro and above editions.
- Client Hyper-V: requires a processor with second-level address translation (SLAT)
 capabilities. This feature is available in Windows Pro editions and greater.
- DirectStorage: requires an NVMe SSD to store and run games that use the Standard
 NVM Express Controller driver and a DirectX12 GPU with Shader Model 6.0 support.
- DirectX 12 Ultimate: available with supported games and graphics chips.
- Presence: requires sensor that can detect human distance from device or intent to interact with device.
- Intelligent Video Conferencing: requires video camera, microphone, and speaker (audio output).
- Multiple Voice Assistant: requires a microphone and speaker.
- Snap: three-column layouts require a screen that is 1920 effective pixels or greater in width. Windows 11 Requirements 3
- Mute and unmute: from Taskbar requires video camera, microphone, and speaker
 (audio output). App must be compatible with feature to enable global mute/unmute.
- Spatial Sound: requires supporting hardware and software.
- Microsoft Teams: requires video camera, microphone, and speaker (audio output).
- Touch: requires a screen or monitor that supports multi-touch.
- Two-factor authentication: requires use of PIN, biometric (fingerprint reader or illuminated infrared camera), or a phone with Wi-Fi or Bluetooth capabilities.

- Voice Typing: requires a PC with a microphone.
- Wake on Voice: requires Modern Standby power model and microphone.
- Wi-Fi 6E: requires new WLAN IHV hardware and driver and a Wi-Fi 6E capable AP/router.
- Windows Hello: requires a camera configured for near infrared (IR) imaging or fingerprint reader for biometric authentication. Devices without biometric sensors can use Windows Hello with a PIN or portable Microsoft compatible security key. For more information, see <u>IT tools to support Windows 10</u>, version 21H1.
- Windows Projection: requires a display adapter that supports Windows Display Driver
 Model (WDDM) 2.0 and a Wi-Fi adapter that supports Wi-Fi Direct.
- Xbox app: requires an Xbox Live account, which isn't available in all regions. Go to the
 Xbox Live Countries and Regions page for the most up-to-date information on
 availability. Some features in the Xbox app require an active Xbox Game Pass
 subscription.

Virtual machine support

The following configuration requirements apply to VMs running Windows 11.

• Generation: 2

Note

In-place upgrade of existing generation 1 VMs to Windows 11 isn't possible.

- Storage: 64 GB or greater disk space.
- Security:
 - Azure: <u>Trusted launch</u> with vTPM enabled.
 - Hyper-V: <u>Secure boot and TPM enabled</u>.
 - General settings: Secure boot capable, virtual TPM enabled.
- Memory: 4 GB or greater.
- Processor: Two or more virtual processors.
 - The VM host processor must also meet Windows 11 processor requirements.

Note

There may be some instances where this requirement for the VM host doesn't apply. For more information, see Options for using Windows 11 with Mac computers.

 Procedures to configure required VM settings depend on the VM host type. For example, VM hosts running Hyper-V, virtualization (VT-x, VT-d) must be enabled in the BIOS. Virtual TPM 2.0 is emulated in the guest VM independent of the Hyper-V host

Of course, if you need help assessing which of your devices are compatible, <u>please reach out to EuroPC and we'll be glad to help</u>.

Appendices

supported on a virtual machine (VM)

https://learn.microsoft.com/en-us/windows/whats-new/windows-11-requirements#virtual-machine-support

compatible 64-bit processor

https://learn.microsoft.com/en-us/windows-hardware/design/minimum/windows-processor-requirements

Windows 11 specifications

https://www.microsoft.com/en-gb/windows/windows-11-specifications?r=1

Trusted Platform Module

https://learn.microsoft.com/en-us/windows/security/hardware-security/tpm/trusted-platform-module-overview

Update on Windows 11 minimum system requirements

https://blogs.windows.com/windows-insider/2021/06/28/update-on-windows-11-minimum-system-requirements/

Determine eligibility

https://learn.microsoft.com/en-us/windows/whats-new/windows-11-plan#determine-eligibility

switch out of S mode

https://learn.microsoft.com/en-us/previous-versions/windows/it-pro/windows-10/deployment/s-mode/switch-edition-from-s-mode

hardware requirements

https://learn.microsoft.com/en-us/windows/whats-new/windows-11-requirements#hardware-requirements

IT tools to support Windows 10, version 21H1

https://techcommunity.microsoft.com/blog/windows-itpro-blog/it-tools-to-support-windows-10-version-21h1/2365103

Xbox Game Pass subscription

https://www.xbox.com/en-GB/xbox-game-pass

Trusted launch

https://learn.microsoft.com/en-us/azure/virtual-machines/trusted-launch

Secure boot and TPM enabled

https://learn.microsoft.com/en-us/windows-server/virtualization/hyper-v/learn-more/Generation-2-virtual-machine-security-settings-for-Hyper-V#secure-boot-setting-in-hyper-v-manager

processor requirements

https://learn.microsoft.com/en-us/windows-hardware/design/minimum/windows-processor-requirements

Options for using Windows 11 with Mac computers

https://support.microsoft.com/en-gb/windows/options-for-using-windows-11-with-mac-computers-with-apple-m1-m2-and-m3-chips-cd15fd62-9b34-4b78-b0bc-121baa3c568c

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- **DirectX 12 Ultimate:** Available with supported games and graphics chips.
- Multiple Voice Assistant & Voice Typing: Require a microphone and speaker.
- Windows Hello: Requires a camera with infrared (IR) imaging or a fingerprint reader.

For a comprehensive list, refer to Microsoft's IT tools and resources.

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