

# Windows 11

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- Windows 11 was released in October and computers operating with Windows 11 are now becoming available.
  - Windows 11 is an optional upgrade for anyone on existing desktops and laptops that are eligible for it.
  - The Update feature of Windows 10 now gives guidance as to whether the PC supports updating to Windows 11.
  - Windows 11 is only available as 64-bit.
  - Two retail versions are offered, Home and Pro.
  - It is still possible to update to Windows 10 from Win 7 and 8.1 for free but it is most unlikely that a PC with either of those versions will be capable of further upgrade to Windows 11.
  - Windows 10 will continue with full support, including annual 'feature' updates until October 2025.

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- It is a refinement of Windows 10 and should be easy to adjust to.
- It has much stricter hardware requirements than Windows 10.
- Windows 11 Home users will need a Microsoft account.
- The revised Microsoft software tool, to allow users to check whether their systems would meet the requirements for Windows 11, is now accessible through the update checker.
- Minimum requirements are:
  - 8th-generation or newer 64-bit processors from Intel, and Zen 2 or newer from AMD,
  - 4GB of RAM (a bare minimum, at least 8GB is recommended),
  - 64GB drive,
  - UEFI with Secure Boot,
  - and TPM 2.0 (Trusted Platform Module).

## What is UEFI?

- Unified Extensible Firmware Interface (UEFI) is a specification for a software program that connects a computer's firmware to its operating system (OS).
- UEFI is expected to eventually replace basic input/output system (BIOS) but is compatible with it. The specification is most often pronounced by naming the letters U-E-F-I.
- UEFI functions via special firmware installed on a computer's motherboard. Like BIOS, UEFI is installed at the time of manufacturing and is the first program that runs when booting a computer. It checks to see which hardware components are attached, wakes up the components and hands them over to the OS. The new specification addresses several limitations of BIOS, including restrictions on hard disk partition size and the amount of time BIOS takes to perform its tasks.

## What is TPM 2.0?

- TPM is short for Trusted Platform Module, and TPM 2.0 is the latest version of it. TPM is a particular type of processor that has a clear purpose. It'll perform hardware-based cryptographic operations to secure encryption and prevent malicious attacks from attacking your hardware and the boot process.
- TPM comes in two versions, 1.2 and 2.0. The latter is the more secure one, and that's the kind of TPM processor you'll need for Windows 11.
- You can purchase a TPM separately if your desktop PC doesn't have one but has a connector for it. That's not the kind of upgrade notebook owners can go for. Most Intel and AMD chips released in the past 5-7 years should support a firmware version of TPM, but not always by that name!
- Some PCs may have TPM 2.0 but it may not be enabled in the BIOS or UEFI. BIOS updates may be offered with the required features already enabled.

- You have to enable TPM 2.0 on your current Windows 10 installation before installing Windows 11. Enabling TPM 2.0 has nothing to do with the Windows version running on your machine. You need to turn it on in BIOS before the computer boots.
- Intel and AMD added TPM technology to many of the CPUs released after 2013, and they support TPM 2.0. But they have specific names for each platform. Intel calls it Intel Platform Trust Technology (Intel PTT). AMD has its own name for it: AMD Platform Security Processor (AMD PSP fTPM).
- In the BIOS section of your PC, and search for TPM under the names above. The setting is usually found in the advanced settings or security settings. Whether it's Intel PTT or AMD PSP fTPM, turning them on, and enabling 'secure boot', should fix your Windows 11 upgrade problems.
- After you enable TPM 2.0 settings in BIOS, save the changes, reboot, and try the PC Health Check tool again. If the Windows 11 upgrade error persists, you might have a different problem. Otherwise, you'll be installing Windows 11 in no time.
- Or wait until you replace your PC! You've got 4 years!

- Although Windows 11 is not supported on older processors, it is still possible to install the OS.
- If you have an unsupported device, you'll need to sign an agreement accepting risks associated with Windows 11. The pop-up notification, which appears during the installation of Windows 11, warns of 'damages', including an increased likelihood of bugs and limited updates.
- Previously, Microsoft suggested that users who install Windows 11 on ineligible devices wouldn't receive important updates, and there may be other "damages".
- Windows 10 is a perfectly fine operating system, but if you choose to install Windows 11 on an unsupported PC, you may not receive security updates from the company. In a new support document, Microsoft confirmed that devices failing to meet these requirements will not be guaranteed to receive updates.