

Hardware requirements for Windows Server

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To install Windows Server correctly, your computer must meet the minimum hardware requirements outlined in this article. If your computer falls short of these requirements, the product might not install properly. Actual requirements vary based on your system configuration, applications, and features that are installed.

Unless otherwise specified, these minimum hardware requirements apply to all installation options (Server Core and Server with Desktop Experience) for both Windows Server Standard and Windows Server Datacenter editions.

Important

The highly diverse scope of potential deployments makes it unrealistic to state recommended hardware requirements that would be generally applicable. Consult documentation for each of the server roles you intend to deploy for more details about the resource needs of particular server roles. For the best results, conduct test deployments to determine appropriate hardware requirements for your particular deployment scenarios.

Components

CPU

Processor performance depends not only on the clock frequency of the processor, but also on the number of processor cores and the size of the processor cache. The following are the processor requirements.

Minimum:

- 1.4 GHz 64-bit processor
- Compatible with x64 instruction set
- Support for NX and DEP
- Support for CMPXCHG16b, LAHF/SAHF, and PrefetchW instructions
- Support for Second Level Address Translation (EPT or NPT)

Windows Server 2025 and later requires processors that support the following features:

- Support for the SSE4.2 (Streaming SIMD Extensions 4.2) instruction set
- Support for the POPCNT instruction

You can utilize [Coreinfo](#), which is a tool included in Windows Sysinternals, to verify the capabilities of your CPU.

Other requirements

There are other hardware requirements to consider depending on your scenario:

- DVD drive (if you intend to install the operating system from DVD media)

The following items are only required for certain features:

- UEFI 2.3.1c-based system and firmware that supports secure boot
- Trusted Platform Module (TPM)
- Graphics device and monitor capable of Super VGA (1024 x 768) or higher-resolution
- Keyboard and Microsoft mouse (or other compatible pointing device)
- Internet access (fees might apply)

ⓘ Note

A TPM chip is required in order to use certain features such as **BitLocker Drive Encryption**. If your computer has a TPM, it must meet these requirements:

- Hardware-based TPMs must implement version 2.0 of the TPM specification.
- TPMs that implement version 2.0 must have an EK certificate that is either pre-provisioned to the TPM by the hardware vendor or be capable of being retrieved by the device during the first boot.
- TPMs that implement version 2.0 must ship with SHA-256 PCR banks and implement PCRs 0 through 23 for SHA-256. It is acceptable to ship TPMs with a single switchable PCR bank that can be used for both SHA-1 and SHA-256 measurements.

Feedback

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Yes



No