

Discover V Product documentation V Development languages V Topics V

Sign in

Windows Server

Get started Failover clustering Management Identity and access Networking Troubleshooting Related products V

🔽 Filter by title

Management

- > Overview
- > Azure Arc enabled server
- > Windows Server Azure Arc Management
- > Windows Admin Center
- > System Center
- → Built-in management tools
 - > What is the Server Core installation option?
 - > Manage on-premises systems with Server Manager
 - Manage Server Core and remote systems Remote Server Administration Tools
 - ✓ Manage Windows with OpenSSH
 - What is OpenSSH for Windows?

Get started with OpenSSH for Windows

Server configuration options

Key-based authentication

Manage OpenSSH with Group Policy

- > Windows Server Update Services (WSUS) Windows Console behavior in Windows Server
- > Collect information about your environment and systems
- > Tune your Windows Server performance
- > Windows Server on Azure
- > Command line and scripting
- > Microsoft Learn

Learn / Windows Server /

Get started with OpenSSH for Windows

Article • 11/01/2024 • 23 contributors •

Applies ☑ Windows Server 2025, ☑ Windows Server 2022, ☑ Windows Server 2019, ☑ Windows

Server 2016 to:

Choose your product version:

Windows Server 2025

Windows Server 2022

Windows Server 2019

In this article

Prerequisites

Enable OpenSSH for Windows Server 2025

Connect to OpenSSH Server

Uninstall OpenSSH for Windows

Next steps

OpenSSH is a connectivity tool for remote sign-in that uses the SSH protocol. It encrypts all traffic between client and server to eliminate eavesdropping, connection hijacking, and other attacks.

An OpenSSH-compatible client can be used to connect to Windows Server and Windows client devices.

(i) Important

If you downloaded the OpenSSH beta from the GitHub repo at PowerShell/Win32- OpenSSH ☑, follow the instructions listed there, not the ones in this article. Some information in the Win32-OpenSSH repository relates to prerelease product that may be substantially modified before it's released. Microsoft makes no warranties, express or implied, with respect to the information provided there.

Prerequisites

Before you start, your computer must meet the following requirements:

- A device running at least Windows Server 2019 or Windows 10 (build 1809).
- PowerShell 5.1 or later.
- An account that is a member of the built-in Administrators group.

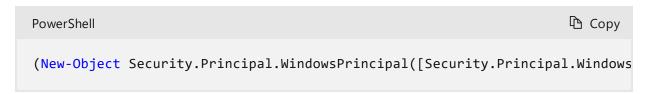
Prerequisites check

To validate your environment, open an elevated PowerShell session and do the following:

• Enter winver.exe and press enter to see the version details for your Windows device.

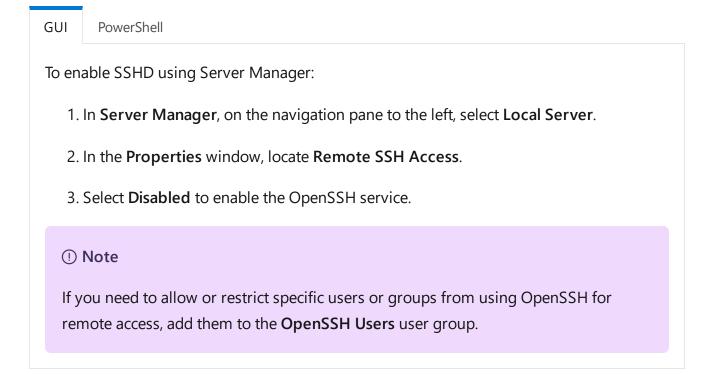
Download PDF

- Run \$PSVersionTable.PSVersion. Verify your major version is at least 5, and your minor version at least 1. Learn more about installing PowerShell on Windows.
- Run the following command. The output shows True when you're a member of the built-in Administrators group.



Enable OpenSSH for Windows Server 2025

Starting with Windows Server 2025, OpenSSH is now installed by default. You can also enable or disable the sshd service in Server Manager.



Connect to OpenSSH Server

Once installed, you can connect to OpenSSH Server from a Windows or Windows Server device with the OpenSSH client installed. From a PowerShell prompt, run the following command.



Once connected, you get a message similar to the following output.

```
PowerShell

The authenticity of host 'servername (10.00.00.001)' can't be established.

ECDSA key fingerprint is SHA256:(<a large string>).

Are you sure you want to continue connecting (yes/no)?
```

Entering yes adds that server to the list of known SSH hosts on your Windows client.

At this point, the service prompts you for your password. As a security precaution, the characters of your password aren't displayed as you enter them.

Once connected, you should see the following Windows command shell prompt:

domain\username@SERVERNAME C:\Users\username>

Uninstall OpenSSH for Windows

GUI

PowerShell

To uninstall OpenSSH using Windows Settings:

- 1. Open **Settings**, select **System**, then select **Optional Features** (also referred to as Manage optional features).
- 2. In the list, select **OpenSSH Client** or **OpenSSH Server**.
- 3. Select Uninstall.

If the service was in use when you uninstalled it, you should restart Windows.

Next steps

Now that you're done installing OpenSSH Server for Windows, here are some articles that can help you learn how to use it:

- Learn more about using key pairs for authentication in OpenSSH key management
- Learn more about the OpenSSH Server configuration for Windows

Feedback

Was this page helpful?



∇ No

Additional resources

Training

Module

Develop on a remote machine using SSH with Visual Studio Code - Training

In this module, you'll learn how to seamlessly develop on a remote machine using the Visual Studio Code Remote - SSH extension. We'll explore how to run and debug code located on a remote machine, while locally using Visual Studio Code's full feature set.

Microsoft Certified: Windows Server Hybrid Administrator Associate - Certifications

As a Windows Server hybrid administrator, you integrate Windows Server environments with Azure services and manage Windows Server in on-premises networks.

States)

✓ Your Privacy Choices

☼ Theme ∨

Manage cookies **Previous Versions** Blog ☑

Contribute

Terms of Use Trademarks ☑

© Microsoft 2024