

# WSL SSH In Windows 11

[How to install Linux on Windows with WSL \(Microsoft\)](#)

Connection settings for this article

	Host Name	Login Name
Server	Jump_Server	Jump_Server_Username
Client	Localhost	Local_Username

## Command install

### Check OS version

Start PowerShell or Command Prompt by selecting "Run as administrator". PowerShell or Command Prompt can also be opened in Windows Terminal. The command to check the OS version is as follows:

```
PS C:\Windows\System32> winver
```

### Select and install a Linux distribution

Linux distributions that install WSL2 online can be found with "wsl -l -o".

```
PS C:\Windows\System32> wsl -l -o
インストールできる有効なディストリビューションの一覧を次に示します。
'wsl.exe --install <Distro>' を使用してインストールします。

NAME                                FRIENDLY NAME
-----                                -
Ubuntu                              Ubuntu
Debian                              Debian GNU/Linux
kali-linux                          Kali Linux Rolling
Ubuntu-18.04                        Ubuntu 18.04 LTS
Ubuntu-20.04                        Ubuntu 20.04 LTS
Ubuntu-22.04                        Ubuntu 22.04 LTS
OracleLinux_7_9                     Oracle Linux 7.9
OracleLinux_8_7                     Oracle Linux 8.7
OracleLinux_9_1                     Oracle Linux 9.1
openSUSE-Leap-15.5                  openSUSE Leap 15.5
SUSE-Linux-Enterprise-Server-15-SP4 SUSE Linux Enterprise Server 15 SP4
SUSE-Linux-Enterprise-15-SP5       SUSE Linux Enterprise 15 SP5
openSUSE-Tumbleweed                 openSUSE Tumbleweed
```

It can also be installed from the Microsoft Store rather than by command.

[Here we install Ubuntu-22.04](#)

wsl\_install.jpg

).

```
wsl --install -d Ubuntu-22.04
```

Reboot the system as instructed.

## Ubuntu Linux startup and initial configuration

Ubuntu will start automatically after rebooting, but if it does not, start it from the menu. Enter your client username and password.

```
Enter new UNIX username: Local_Username
New password:
Retype new password:
passwd: password updated successfully
Installation successful!
...
```

Updating Ubuntu.

```
username@localhost:/etc/apt$ sudo apt update
username@localhost:/etc/apt$ sudo apt -y full-upgrade
```

Check the timezone and locale, and change them if necessary.

```
username@localhost:/etc/apt$ timedatectl
        Local time: Fri 2024-01-12 11:51:24 JST
        Universal time: Fri 2024-01-12 02:51:24 UTC
        RTC time: Fri 2024-01-12 02:51:24
        Time zone: Asia/Tokyo (JST, +0900)
System clock synchronized: yes
        NTP service: inactive
        RTC in local TZ: no
username@localhost:/etc/apt$ localectl status
System Locale: LANG=C.UTF-8
        VC Keymap: n/a
        X11 Layout: us
        X11 Model: pc105
```

## Generate an SSH Key Pair

Generate an ssh key in PowerShell. (After # are comments)

```
username@localhost:~$ ssh-keygen -t ecdsa -b 384
Generating public/private ecdsa key pair.
```

```
Enter file in which to save the key (/home/username/.ssh/id_ecdsa):
Created directory '/home/username/.ssh'.
Enter passphrase (empty for no passphrase): #Enter passphrase
Enter same passphrase again: #Enter passphrase
Your identification has been saved in /home/username/.ssh/id_ecdsa
Your public key has been saved in /home/username/.ssh/id_ecdsa.pub
The key fingerprint is:
SHA256:qI0IpGWS430BdmS8b+6ARH5JUoLj+eDZ4LD4ux8gEXA username@Win11
The key's randomart image is:
+---[ECDSA 384]---+
|+ E..+          |
| = =.          |
|o o= o.        |
|.B+ =...       |
|XoXo +o S      |
|B@o=o..o       |
|+o.o+oo        |
| . .o..        |
| o+. ..        |
+-----[SHA256]-----+
```

## Apply for a key

Please apply for registration of the created public key id\_ecdsa.pub.  
[Isee Jump\\_Server account request](#) [CIDAS System account request](#)

## Add your SSH key to the ssh-agent

Register the created private key with ssh-agent. (After # are comments)

```
username@localhost:~$ eval $(ssh-agent) # Start ssh-agent
Agent pid 658
username@localhost:~$ ssh-add ~/.ssh/id_ecdsa # Register private key
Enter passphrase for /home/username/.ssh/id_ecdsa: # pass phrase
Identity added: /home/username/.ssh/id_ecdsa (username@Win11)
```

You can check if it is registered with the following command.

```
username@localhost:~$ ssh-add -l
384 SHA256:qI0IpGWS430BdmS8b+6ARH5JUoLj+eDZ4LD4ux8gEXA username@Win11
(ECDSA)
```

## ssh 接続

下記コマンドでssh接続する。

-Aオプションは、認証エージェントを転送する、つまりログインサーバに接続後、続けて別のサーバに接続する際に、最初に使った秘密鍵をそのまま使用するためにつける。  
-Xオプションは X11のポートフォワーディングを有効にする（リモートマシンのXアプリケーションが実行できるようになる）

```
username@localhost:~$ ssh 踏み台username@踏み台サーバ -AX
The authenticity of host '踏み台サーバ' can't be established.
ED25519 key fingerprint is
SHA256:TTWvEs781VjJwKrz0LJVDtTbLUn/1Ut00asloihi5QI.
This key is not known by any other names
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added '踏み台サーバ' (ED25519) to the list of known
hosts.
```

踏み台サーバからさらに目的のサーバにssh接続する。

## X11のポートフォワーディングについて

WSL2 では、デフォルトで GUI 表示ができる。X サーバを新たにインストールする必要はない。  
[Linux 用 Windows サブシステム で Linux GUI アプリを実行する](#)

## メモ

- [便利メモはこちら](#)

- [OpenSSH on macOS 10.15](#)

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