



# **INSTALLATION GUIDE**

Version 5.1

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Reference: sns-en-ssl vpn installation guide-v5.1



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# Change log

Date	Description
October 22, 2025	Explanations added in the section "Specific characteristics of Stormshield SSL VPN clients" Link to the Stormshield SSL VPN client v5 administration guide added
July 29, 2025	Link to the Stormshield SSL VPN client v5 user and configuration guide added
July 22, 2025	New document



# **Getting started**

Welcome to the Stormshield Network SSL VPN Client version 5.1 installation guide.

In this guide, Stormshield Network SSL VPN Client is named "Stormshield SSL VPN client".

SSL VPN allows remote users to securely access an organization's resources - internal or otherwise - via the SNS firewall. An SSL VPN client, such as the Stormshield SSL VPN client, has to be installed on each user's workstation in order to set up an SSL VPN connection.

This guide explains how to install, update and uninstall the Stormshield SSL VPN client on Windows, Linux and macOS operating systems.



# Specific characteristics of Stormshield SSL VPN clients

This section presents some of the specific characteristics of Stormshield SSL VPN clients

#### Compatible versions and operating systems

For more information on operating systems and compatible versions, refer to the section SSL VPN Client in the Network Security & Tools Product Life Cycle document.

#### Ports and protocols

In a default configuration, the Stormshield SSL VPN client must be able to contact the following ports to set up SSL VPN connections.

Source	Destination	Protocol/Port (default)	Purpose of the connection
Client (SSLVPNService)  Stormshield mode only	OpenVPN gateway on the SNS firewall	TCP/443 (captive portal)	Retrieve SSL VPN configuration and send information to the SNS firewall to verify the compliance of the client workstation (ZTNA)
Client (OpenVPN)	OpenVPN gateway on the SNS firewall	UDP/1194 (SSL VPN)	Set up an SSL VPN connection
Client (OpenVPN)	OpenVPN gateway on the SNS firewall	TCP/443 (SSL VPN)	Set up an SSL VPN connection (compatibility)

To set up an SSL VPN connection with the SNS firewall, the Stormshield SSL VPN client always uses UDP first to ensure optimal performance. This sequence is defined in the VPN configuration file provided by the SNS firewall.

## **Running scripts**

The Stormshield SSL VPN client can automatically run scripts on the user's workstation every time an SSL VPN connection is opened or closed.

In Windows, the SNS firewall provides these scripts to the Stormshield SSL VPN client. These scripts have to be added to the configuration of the SNS firewall's SSL VPN service. For more information, refer to the SSL VPN administration guide for SNS firewalls and Stormshield SSL VPN clients.

In Linux and macOS, these scripts are used to accommodate a specific DNS configuration when OpenVPN does not manage it natively. For more information, refer to the sections Installing the Stormshield SSL VPN client for Linux and Installing the Stormshield SSL VPN client for macOS.

## Limitations and explanations on usage

For more information, refer to the section **Limitations and explanations on usage** in the SSL VPN Client release notes.





# Installing on a Windows operating system

This section explains how to install, update and uninstall the Stormshield SSL VPN client on Windows operating systems.

#### Downloading the installer for Windows

- 1. The MSI package of the Stormshield SSL VPN client can be downloaded from:
  - The Stormshield SSL VPN website,
  - Your MyStormshield area in Downloads > Downloads > Stormshield Network Security > SSL VPN.

Two MSI packages are available: one in French, and the second in English. Only the language of the installer is different. Once it has been installed, the Stormshield SSL VPN client can be used in English or French, depending on the language selected in the user's session settings.

- 2. Check the integrity of the downloaded file:
  - a. In the Windows command prompt, retrieve the hash of the MSI package with the command.

```
CertUtil -hashfile <filename> SHA256
```

Replace < filename > with the name of the downloaded MSI package.

- b. Compare the result with the visible hash from:
  - The Stormshield SSL VPN website, SHA256 button;
  - Your MyStormshield area, SHA256 column in the download table.

Hashes have to be identical.

## Installing the Stormshield SSL VPN client



D NOTE

The Stormshield SSL VPN client is now installed for all users on the workstation.

#### Manual installation with the MSI package

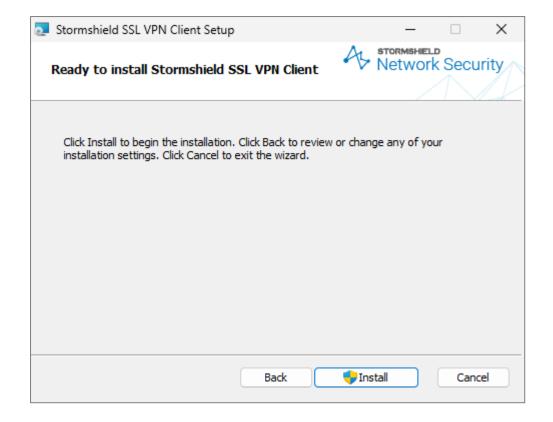
You must be the local workstation administrator or enter the login and password of an administrator account in order to install the Stormshield SSL VPN client.

- 1. Run the MSI package that was downloaded earlier.
- 2. Follow the steps in the installation wizard.

Once it is installed, the Stormshield SSL VPN client will automatically start.







#### Deployment via a group policy (GPO)

- 1. Run the server manager on the domain controller.
- 2. In the upper menu bar, click on Tools > Group Policy Management.
- 3. In the list on the left, right-click on the Microsoft Active Directory domain name and select Create a GPO in this domain, and link it here...
- Name the GPO and click on OK.
- 5. Right-click on the name of the GPO that you have just created, and select Edit.
- 6. In the window to edit the GPO, expand the menu on the left **Computer Configuration > Policies > Software Settings**.
- Right-click on Software installation and select New > Package. Select the MSI package that was downloaded earlier.
- 8. Select Advanced deployment mode and click on OK.
- 9. Right-click on the package that you have just added, and select **Properties**.
- 10. If you wish to do so, you can rename this package installation instance in the General tab.
- 11. In the **Deployment** tab, click on **Advanced options...** and select **Ignore language when deploying this package**. Click on **OK**.
- 12. Click on OK.

The deployment will automatically run when a workstation connects to the corporate network. Once it is deployed, the Stormshield SSL VPN client will automatically start.

#### Deployment through command line

- 1. Open the Windows command prompt as an administrator.
- 2. Go to the folder containing the MSI package that was downloaded earlier.





3. Run this command to start the deployment:

msiexec /i <filename> /qn

- Replace < filename > with the name of the downloaded MSI package.
- Keep the /qn options in order for the deployment to take place silently without showing the progress bar. Use /qb! options to show the progress bar.

Once it is deployed, the Stormshield SSL VPN client will automatically start.

#### Updating the Stormshield SSL VPN client

#### Matrix of updates to version 5

Original version	Information to take into account when updating to version 5
Version 2 Version 3	The Stormshield SSL VPN client must be uninstalled before the update Address book entries are added to saved connections Imported connection profiles (.ovpn files) will be lost
Version 4	<ul> <li>✓ Possibility of updating without uninstalling the Stormshield SSL VPN client in advance</li> <li>✓ Address book entries are added to saved connections</li> <li>✓ Imported connection profiles (.ovpn files) will be lost</li> </ul>
Version 5	<ul> <li>Possibility of updating without uninstalling the Stormshield SSL VPN client in advance</li> <li>Saved connections retained</li> </ul>

(\*) As of version 5, the "Address book" is named "Saved connections".

During an update from version 4 or lower to version 5, address book entries are added to saved connections, either automatically, or by entering the address book password the first time that the Stormshield SSL VPN client starts up, if the address book is protected. The original address book is not modified, and will be kept at its original location.



Downgrades to a lower version are not supported. If you still wish to go back to an earlier version, you must first uninstall the version that is currently installed, then install the desired version.

#### Manual update with the MSI package

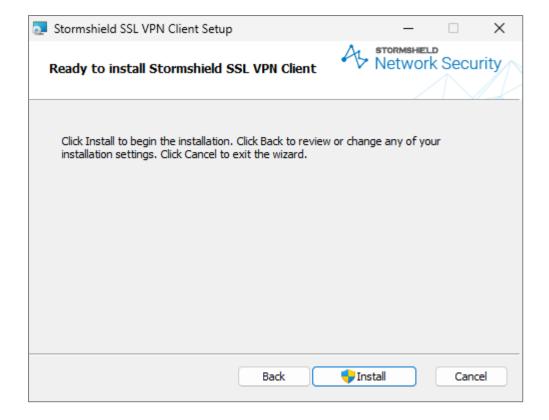
You must be the local workstation administrator or enter the login and password of an administrator account in order to install the Stormshield SSL VPN client update.

- 1. Run the MSI package of the new version that was downloaded earlier.
- Follow the steps in the installation wizard.

Once it has been updated, the Stormshield SSL VPN client will automatically start.







#### Deployment of the update via a group policy (GPO)

- 1. Run the server manager on the domain controller.
- In the upper menu bar, click on Tools > Group Policy Management.
- 3. In the list on the left, right-click on the name of the GPO in question and select Edit.
- 4. In the window to edit the GPO, expand the menu on the left **Computer Configuration > Policies > Software Settings**.
- Right-click on Software installation and select New > Package. Select the new MSI package that was downloaded earlier.
- Select Advanced mode and click on OK.
- 7. Right-click on the package that you have just added, and select Properties.
- In the General tab, rename this installation instance if necessary, by adding the Stormshield SSL VPN client version number, for example.
- 9. In the **Deployment** tab, click on **Advanced options...** and select **Ignore language when deploying this package**. Click on **OK**.
- 10. In the Upgrades tab:
  - a. The installation instance of the previous package is shown with the caption Upgrade.
     Select it and click on Remove. This property has to be changed in order for the update to be launched correctly.
  - b. Click on **Add...**, select the update package, et select **Uninstall the existing package, then** install the upgrade package. Click on **OK**.

The installation instance of the previous package is now associated with the **Replace** operation.

11. Click on OK.





The update package is now ready to be deployed. The deployment will automatically run when a workstation connects to the corporate network. Once the update has been deployed, the Stormshield SSL VPN client will automatically start.

#### Deployment through command line

- 1. Open the Windows command prompt as an administrator.
- 2. Go to the folder containing the MSI package that was downloaded earlier.
- 3. Run this command to start the update:

```
msiexec /i <filename> /qn
```

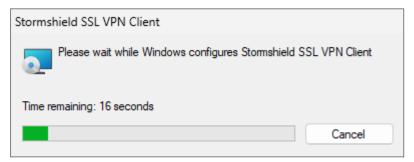
- Replace < filename > with the name of the downloaded MSI package.
- Keep the /qn options in order for the deployment to take place silently without showing the progress bar. Use /qb! options to show the progress bar.

Once the update has been deployed, the Stormshield SSL VPN client will automatically start.

#### Uninstalling the Stormshield SSL VPN client

You must be the local workstation administrator or enter the login and password of an administrator account in order to uninstall the Stormshield SSL VPN client.

- 1. Ensure that the Stormshield SSL VPN client is no longer running.
- 2. Go to the Windows Start menu and open Settings.
- 3. In Windows 11, go to Applications > Installed applications. In Windows 10, go to Applications > Applications and features.
- 4. In Windows 11, locate Stormshield SSL VPN Client and click on ... > Uninstall. In Windows 10, select Stormshield SSL VPN Client and click on Uninstall.
- Click once again on Uninstall to start uninstalling.
- 6. Wait while the Stormshield SSL VPN client uninstalls.



The Stormshield SSL VPN client is now uninstalled for all users on the workstation.





# Installing on a Linux operating system

This section explains how to install and uninstall the Stormshield SSL VPN client on Linux operating systems.

#### Downloading the installer for Linux

- 1. The installation package of the Stormshield SSL VPN client can be downloaded from:
  - The Stormshield SSL VPN website,
  - Your MyStormshield area in Downloads > Downloads > Stormshield Network Security > SSL VPN.

The installation package is available in .deb format for Ubuntu distributions, and .rpm format for Red Hat Enterprise Linux (RHEL) distributions.

- 2. Check the integrity of the downloaded file:
  - a. In a terminal, retrieve the hash of the installation package with the command:

```
sha256sum <filename>
```

Replace *<filename>* with the name of the .deb or .rpm installation package that was downloaded.

- b. Compare the result with the visible hash from:
  - The Stormshield SSL VPN website, SHA256 button;
  - Your MyStormshield area, SHA256 column in the download table.

Hashes have to be identical.

## Installing the Stormshield SSL VPN client

This section explains how to install the Stormshield SSL VPN client for Linux in command line interface. Adapt the commands below if you are using a different package manager.

Continue based on the relevant Linux distribution.

#### Installing in Ubuntu

1. Install the Stormshield SSL VPN client:

```
sudo apt install ./<filename>
```

- Replace < filename > with the name of the .deb package downloaded in advance.
- With the apt tool, you have to provide the file path of the package to be installed. In the example, ./ indicates that the package is available in the current folder.
- 2. Ensure that the icon of the Stormshield SSL VPN client appears in the system tray. With the default desktop environment, the icon automatically appears once the Stormshield SSL VPN client is running. If you have changed the configuration of the default desktop environment, or if you are using a different environment, you will need to enable certain options or install an additional package to display the icon. For more information, refer to the documentation on the selected desktop environment.





 If the OpenVPN gateway on the SNS firewall provides a specific DNS configuration to use, the configuration is not natively applied by OpenVPN under Linux. You will need a local solution that can apply it.

For example, if you use the default DNS resolution manager systemd-resolved:

a. Install the package openvpn-systemd-resolved:

```
sudo apt install openvpn-systemd-resolved
```

b. Create symbolic links so that the Stormshield SSL VPN client can use the script contained in this package when opening and closing SSL VPN connections. Comply with the location and script names specified in the commands below.

sudo In -s /etc/openvpn/update-systemd-resolved /opt/stormshield/sslvpnclient/modules/ssl-vpn/etc/sslvpn\_connect.sh sudo In -s /etc/openvpn/update-systemd-resolved /opt/stormshield/sslvpnclient/modules/ssl-vpn/etc/sslvpn disconnect.sh

#### Installing in RHEL

 Manually add a repository to provide the openvpn dependency, which is not available by default in RHEL. For example, you can add the EPEL (Extra Packages for Enterprise Linux) repository:

sudo dnf install https://dl.fedoraproject.org/pub/epel/epel-release-latest-9.noarch.rpm sudo dnf update -y

2. Install the Stormshield SSL VPN client:

```
sudo dnf install ./<filename>
```

- Replace < filename > with the name of the .rpm package downloaded in advance.
- With the dnf tool, you have to provide the file path of the package to be installed. In the example, \( \textit{ indicates that the package is available in the current folder.} \)
- 3. Ensure that the icon of the Stormshield SSL VPN client appears in the system tray. With the default desktop environment, you need to install and configure a package that allows the icon to be displayed, such as the **gnome-shell-extension-appindicator** package. If you are using a different desktop environment, refer to its documentation on how to display the icon.
- 4. If the OpenVPN gateway on the SNS firewall provides a specific DNS configuration to use, the configuration is not natively applied by OpenVPN under Linux. You will need a local solution that can apply it.

You can, for example, use a script equivalent to the one in the **openvpn-systemd-resolved** package on Ubuntu.

Once you have the script, you need to create symbolic links so that the Stormshield SSL VPN client can use it when opening and closing SSL VPN connections. Stormshield SSL VPN client scripts have to be placed in the location below and named as follows:

/opt/stormshield/sslvpnclient/modules/ssl-vpn/etc/sslvpn\_connect.sh /opt/stormshield/sslvpnclient/modules/ssl-vpn/etc/sslvpn disconnect.sh

### Uninstalling the Stormshield SSL VPN client

This section explains how to uninstall the Stormshield SSL VPN client for Linux in command line interface. Adapt the commands below if you are using a different package manager.





## **Uninstalling in Ubuntu**

- 1. Ensure that the Stormshield SSL VPN client is no longer running.
- 2. Uninstall the Stormshield SSL VPN client:

sudo apt remove sslvpnclient

## **Uninstalling in RHEL**

- 1. Ensure that the Stormshield SSL VPN client is no longer running.
- 2. Uninstall the Stormshield SSL VPN client:

sudo dnf remove sslvpnclient



# Installing on a macOS operating system

This section explains how to install and uninstall the Stormshield SSL VPN client on macOS operating systems.

#### Downloading the installer for macOS

- The installation package (.pkg file) of the Stormshield SSL VPN client can be downloaded from:
  - The Stormshield SSL VPN website,
  - Your MyStormshield area in Downloads > Downloads > Stormshield Network Security > SSL VPN.
- 2. Check the integrity of the downloaded file:
  - a. In a terminal, retrieve the hash of the installation package with the command:

```
shasum -a 256 <filename>
```

Replace < filename > with the name of the downloaded .pkg file.

- b. Compare the result with the visible hash from:
  - The Stormshield SSL VPN website, SHA256 button;
  - · Your MyStormshield area, SHA256 column in the download table.

Hashes have to be identical.

#### Installing the Stormshield SSL VPN client

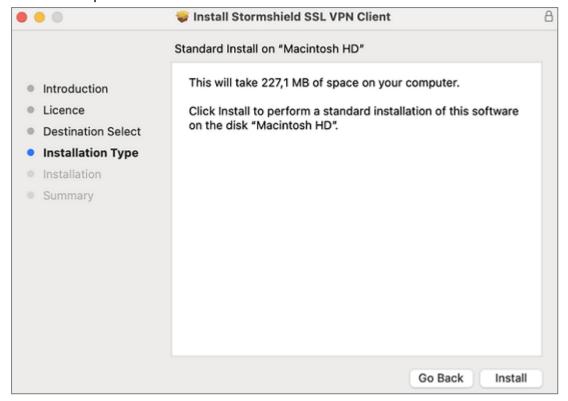
This section explains how to install the Stormshield SSL VPN client for macOS with the .pkg file. A mobile device management (MDM) solution can also be used to deploy the Stormshield SSL VPN client, but such solutions are not covered in this section.

You must be the local workstation administrator in order to install the Stormshield SSL VPN client.





- 1. Run the installation package (.pkg file) that was downloaded earlier.
- 2. Follow the steps in the installation wizard.



3. If the OpenVPN gateway on the SNS firewall provides a specific DNS configuration to use, the configuration is not natively applied by OpenVPN under macOS. You will need a local solution that can apply it, such as a third-party script.

Once you have the script, you need to create symbolic links so that the Stormshield SSL VPN client can use it when opening and closing SSL VPN connections. Stormshield SSL VPN client scripts have to be placed in the location below and named as follows:

/Applications/Stormshield/SSL VPN Client.app/Contents/MacOS/Modules/ssl-vpn/etc/sslvpn\_connect.sh /Applications/Stormshield/SSL VPN Client.app/Contents/MacOS/Modules/ssl-vpn/etc/sslvpn\_disconnect.sh

## Uninstalling the Stormshield SSL VPN client

You must be the local workstation administrator in order to uninstall the Stormshield SSL VPN client.

- 1. Ensure that the Stormshield SSL VPN client is no longer running.
- 2. Go to the Finder, then go to the Applications folder.
- 3. Right-click on the Stormshield SSL VPN client icon, and click on Send to Recycle bin.
- 4. Empty the bin to delete the application.





# Further reading

To configure and use the Stormshield SSL VPN client, refer to the Stormshield SSL VPN client v5 user and configuration guide.

To configure the SSL VPN service on SNS firewalls and monitor connected users, refer to the SSL VPN administration guide for SNS firewalls and Stormshield SSL VPN clients.

Additional information and responses to questions you may have about the Stormshield SSL VPN client are available in the **Stormshield knowledge base** (authentication required).





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