



STORMSHIELD



TECHNICAL NOTE

STORMSHIELD NETWORK SECURITY

UPDATING THE TPM VERSION ON SNS FIREWALLS

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Reference: [sns-en-updating_tpm_technical_note](#)



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Change log

Date	Description
May 21, 2025	New document



Getting started

This document describes the processes involved in updating the TPM version on SNS firewalls. The process varies according to the TPM model in question.

List of TPM models

The table below lists the TPM model for each SNS firewall, and its latest available version.

SNS firewall models	TPM module	Latest TPM version available
<ul style="list-style-type: none">• SN-XS-Series-170,• SN-S-Series-220 and SN-S-Series-320,• SN-M-Series-520,• SN-L-Series-2200 and SN-L-Series-3200,• SN-XL-Series-5200 and SN-XL-Series-6200,• SNI10.	TPM 9672	16.24

i NOTE

If an SNS firewall model does not appear in the table above, this means that it does not embed a TPM, or that there have been no new available versions for the TPM that it embeds since the first time it became available.



Required equipment

This section presents the equipment that is required to update the TPM version on an SNS firewall.

- A computer with a terminal emulator installed, e.g., Putty, and the [PL23XX USB-to-Serial driver](#) installed if the SNS firewall is connected over a USB-C port.
- A blank USB flash drive formatted to FAT32,
- A USB-A to USB-C cable provided with the SNS firewall,
- For SN-L-Series-2200 and SN-L-Series-3200 firewalls: a BIOS in version R1.02 or higher.

i NOTE

On some SNS firewalls, this operation can also be performed directly on a screen. Connectors vary according to the SNS firewall model:

- SN-L-Series-2200 and SN-L-Series-3200 firewalls: HDMI connectors,
- SN-XL-Series-5200 and SN-XL-Series-6200 firewalls: VGA connectors.

A USB keyboard must also be connected to the SNS firewall.



Preparing the USB flash drive

This section explains how to prepare the USB flash drive to update the TPM.

Downloading the update archive

1. In your [MyStormshield](#) personal area, go to **Downloads > Downloads**.
2. Select **STORMSHIELD NETWORK SECURITY > TOOLS > STORMSHIELD NETWORK SECURITY - TOOLS** from the suggested categories.
3. Click on the update archive to download it (zip format). Its name contains the TPM model and the version of the update [e.g., *TPM9672_16.24*].
4. Enter one of the following commands to check the integrity of the zip file:

- Linux operating systems:

```
sha256sum <filename>
```

- Windows operating systems:

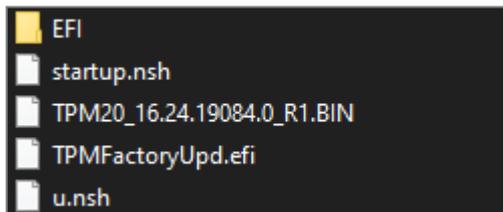
```
CertUtil -hashfile <filename> SHA256
```

The SHA256 hash of the zip file in question has to match the hash indicated below:

ZIP file name	SHA256 hash of the zip file
TPM9672_16.24	4b9c31f821518140e037df71bdd75938ecb56aa6e70a991bc6760c732080e584

Copying files to a USB drive

1. Unzip the update archive **to the root folder** of your USB flash drive.
2. Verify the root folder of your USB flash drive. You should find several files in it, including the update binary file, and a folder. For example:



3. Enter one of the following commands to check the integrity of the update binary file:

- Linux operating systems:

```
sha256sum <filename>
```

- Windows operating systems:

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

The SHA256 hash of the BIN file in question has to match the hash indicated below:

BIN file name	SHA256 hash of the BIN file
TPM20_16.24.19084.0_R1	e0dd1333804a684dd9bcb1a6a5870679345156762fcfb5c9d728db7b195644ea

The USB flash drive is ready to update the TPM. Follow the relevant procedure:

- [Updating TPM 9672.](#)



Updating TPM 9672

This section explains how to update the version on TPM 9672.

Connecting devices to the SNS firewall

1. Shut down the SNS firewall, then unplug its electrical power supply (or both, if it has redundant power supply modules).
2. Plug the USB drive that was [prepared earlier](#) into the SNS firewall.
3. Connect the computer to the SNS firewall using the USB-A to USB-C cable.

Disabling the TPM and Secure Boot on the SNS firewall

1. Open the terminal emulator and enter the serial port and baud rate (115200).
2. Plug in the electrical power cord(s) to start the SNS firewall, and immediately press **[Del]** several times to stop its startup sequence.

i NOTE

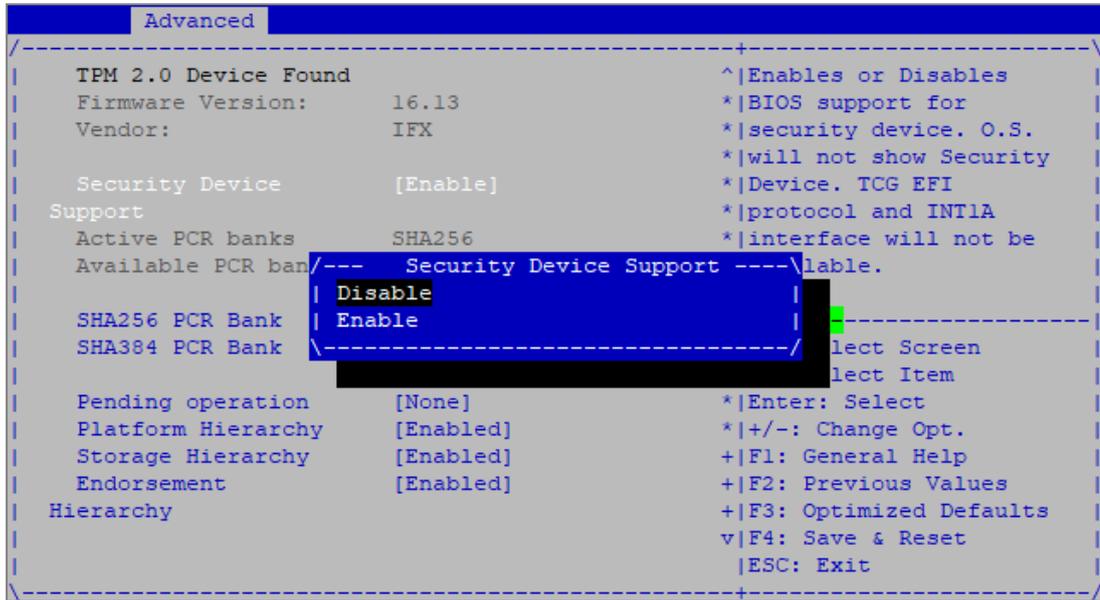
If the startup sequence is not stopped quickly enough, the SNS firewall will start up on the USB drive, and the update process will immediately fail. In order to continue, you have to restart the SNS firewall with the command `reboot` once you have authenticated with the *admin* account, and stop its startup sequence at the right moment.

3. In the UEFI control panel, go to the **Advanced** tab by using the arrows on the keyboard.
4. Select **Trusted Computing** and press **[Enter]**.

```
  Main  Advanced  Chipset  Security  Boot  Save & Exit
-----
|> CPU Configuration          |Trusted Computing
|> Power & Performance       |Settings
|> PCH-FW Configuration      |
|> Trusted Computing        |
|> SMART Settings           |
|> NCT5585D Super IO Configuration
|> NCT5585D Hardware Monitor
|> Serial Port Console Redirection
|> SDIO Configuration       |
|                             |
|                             |><: Select Screen
|                             |^v: Select Item
|                             |Enter: Select
|                             |+/-: Change Opt.
|                             |F1: General Help
|                             |F2: Previous Values
|                             |F3: Optimized Defaults
|                             |F4: Save & Reset
|                             |ESC: Exit
|                             |
```



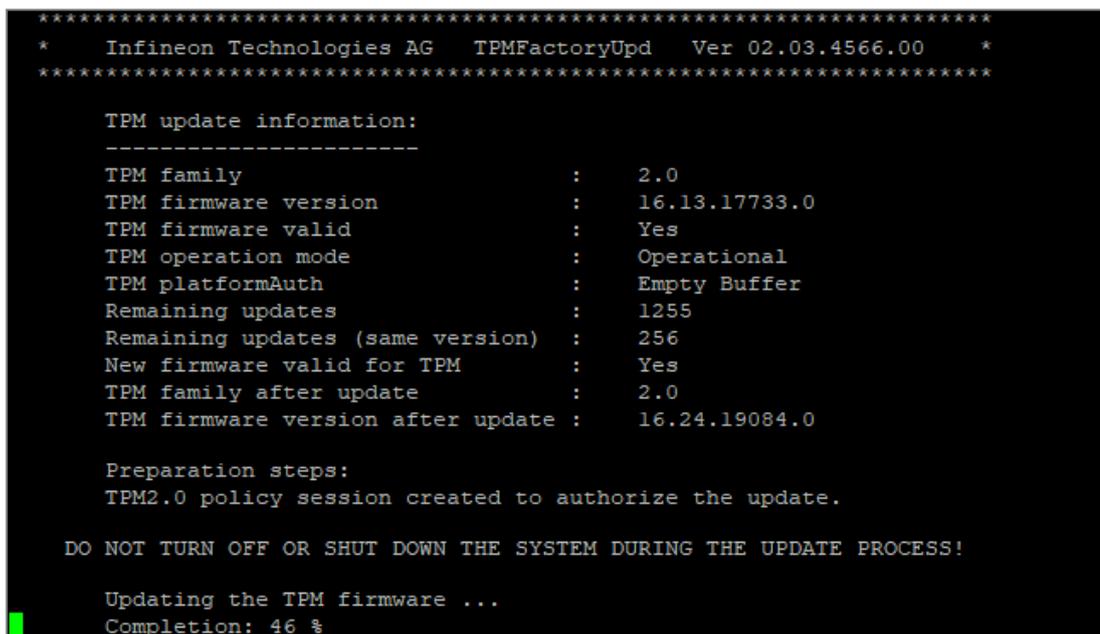
5. Change the status of the **Security Device Support** parameter to **Disabled**.



6. Press **[Esc]** and go to the **Security** tab.
7. Disable Secure Boot. To do so, go to the technical note [Managing Secure Boot in SNS firewalls' UEFI](#), by specifically following the steps regarding the **Security** tab on your SNS firewall model.
Once you have completed the steps regarding the **Security** tab, resume the steps below.
8. Press **[Esc]** and go to the **Save & Exit** tab.
9. Select **Save Changes and Reset** and press **[Enter]**.
10. In the *Save & Reset* window, select **Yes** then press **[Enter]**.

Updating the TPM version

1. The SNS firewall will start up automatically on the USB drive, and the update process begins.





2. Wait several moments.
3. Once the update is complete, run this command to stop the SNS firewall:

```
reset -s
```

Do not remove the USB drive.

```
Updating the TPM firmware ...
Completion: 100 %
TPM Firmware Update completed successfully.

A system restart is required before the TPM can enter operational mode again.
FS0:\> reset -s
```

4. Unplug the SNS firewall's electrical power supply (or both if the SNS firewall has redundant power supply modules).
5. Wait 10 seconds, then plug in the electrical power cord(s) to start the SNS firewall.
6. The command `u.nsh` will be automatically run. Ensure that the TPM has been updated by checking the version number indicated next to the **TPM firmware version**.

NOTE

If the console display remains frozen, quit the session on the terminal emulator, and open a new one. If the problem persists, quit and open a session again until the display recovers.

If the result of the `u.nsh` command fails to appear, you can manually run this command in the console.

```
FS0:\> u.nsh
FS0:\> TPMFactoryUpd -update tpm20-emptyplatformauth -firmware TPM20_16.24.19084
.O R1.BIN
*****
* Infineon Technologies AG TPMFactoryUpd Ver 02.03.4566.00 *
*****

TPM update information:
-----
TPM family          : 2.0
TPM firmware version : 16.24.19084.0
TPM firmware valid  : Yes
TPM operation mode  : Operational
TPM platformAuth    : Empty Buffer
Remaining updates   : 1254
Remaining updates (same version) : 256
New firmware valid for TPM : Yes

The current TPM firmware version is already up to date!
FS0:\>
```

Enabling the TPM and Secure Boot on the SNS firewall

1. Run this command to restart the SNS firewall:

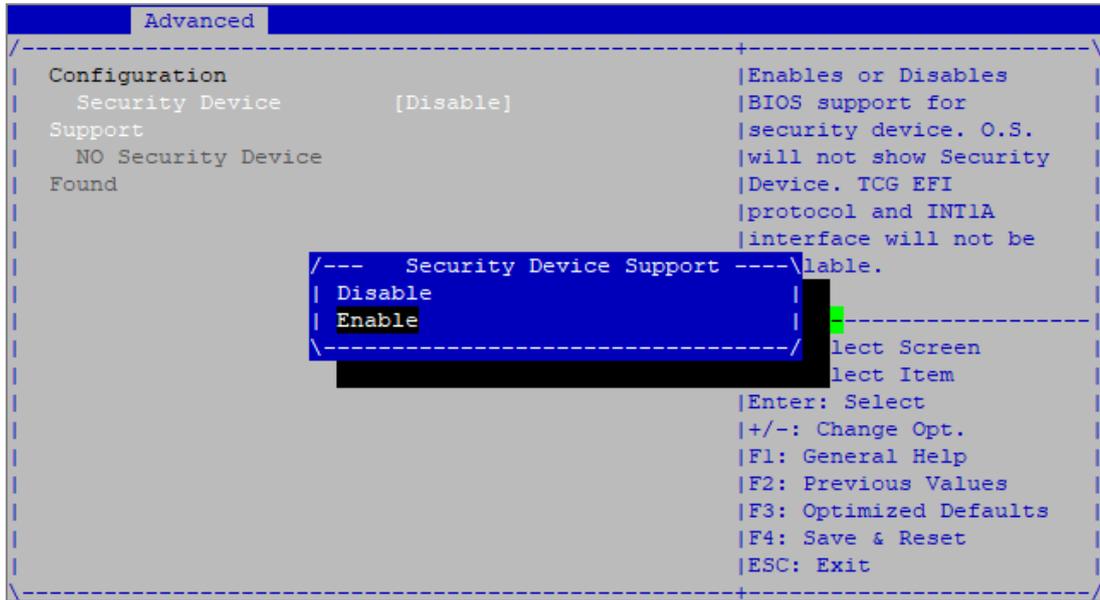
```
reset
```

Unplug the USB drive once the SNS is powered off.

2. Once the SNS firewall starts up, immediately press **[Del]** several times to stop its startup sequence.
3. In the **Advanced** tab, select **Trusted Computing** and press **[Enter]**.



4. Change the status of the **Security Device Support** parameter to **Enabled**.



5. Press **[Esc]** and go to the **Security** tab.
6. Enable Secure Boot. To do so, go to the technical note [Managing Secure Boot in SNS firewalls' UEFI](#), by specifically following the steps regarding the **Security** tab on your SNS firewall model.

! IMPORTANT

If an *Install factory defaults* window appears while these steps are being executed, select **No** and press **[Enter]**. Otherwise, changes to the **Security Device Support** parameter will be lost, and the TPM will remain disabled.

Once you have completed the steps regarding the **Security** tab, resume the steps below.

7. Press **[Esc]** and go to the **Save & Exit** tab.
8. Select **Save Changes and Reset** and press **[Enter]**.
9. In the *Save & Reset* window, select **Yes** then press **[Enter]**.



Further reading

Additional information and answers to some of your questions may be found in the [Stormshield knowledge base](#) (authentication required).



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