# Manage Surface UEFI settings

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Surface PC devices are designed to utilize a unique Unified Extensible Firmware Interface (UEFI) engineered by Microsoft specifically for these devices. Surface UEFI settings provide the ability to enable or disable built-in devices and components, protect UEFI settings from being changed, and adjust the Surface device boot settings.

## Supported products

UEFI management is supported on the following:

- Surface Pro 4, Surface Pro (5th Gen), Surface Pro 6, Surface Pro 7, Surface Pro 7+ (commercial SKUs only), Surface Pro 8 (commercial SKUs only), Surface Pro 9 & Surface Pro 9 with 5G (commercial SKUs only), Surface Pro X
- Surface Laptop (1st Gen), Surface Laptop 2, Surface Laptop 3 (Intel processors only), Surface Laptop Go, Surface Laptop 4 (commercial SKUs only), Surface Laptop 5 (commercial SKUs only), Surface Laptop SE, Surface Laptop Go 2 (commercial SKUs only)
- Surface Studio (1st Gen), Surface Studio 2, Surface Studio 2+
- Surface Book (all generations)
- Surface Laptop Studio (commercial SKUs only)
- Surface Go, Surface Go 2[1], Surface Go 3 (commercial SKUs only)

> 💡 **Tip**
>
> Commercial SKUs (aka Surface for Business) run Windows 10 Pro/Enterprise or Windows 11 Pro/Enterprise; consumer SKUs run Windows 10/Windows 11 Home. In UEFI, commercial SKUs are the only models to feature the **Devices page** and **Management page**. To learn more, see **View your system info** .

## Support for cloud-based management

With Device Firmware Configuration Interface (DFCI) profiles built into Microsoft Intune (now available in public preview), Surface UEFI management extends the modern management stack down to the UEFI hardware level. DFCI supports zero-touch

provisioning, eliminates BIOS passwords, provides control of security settings -- including boot options and built-in peripherals -- and lays the groundwork for advanced security scenarios in the future.

DFCI is currently available for Surface Studio 2+, Surface Pro 9, Surface Pro 9 with 5G, Surface Laptop 5, Surface Laptop 4, Surface Laptop 3, Surface Laptop Studio, Surface Book 3, Surface Laptop SE, Surface Laptop Go 2, Surface Laptop Go, Surface Pro 8, Surface Pro 7+, Surface Pro 7, Surface Pro X, and Surface Go 3. For more information, refer to Manage DFCI on Surface devices.

# Open Surface UEFI menu

To adjust UEFI settings during system startup:

1. Shut down your Surface and wait about 10 seconds to make sure it's off.
2. Press and hold the **Volume-up** button and - at the same time - press and release the **Power button.**
3. As the Microsoft or Surface logo appears on your screen, continue to hold the **Volume-up** button until the UEFI screen appears.

# UEFI PC information page

The PC information page includes detailed information about your Surface device:

- **Model** – Your Surface device's model will be displayed here, such as Surface Book 2 or Surface Pro 7. The exact configuration of your device is not shown (such as processor, disk size, or memory size).

- **UUID** – This Universally Unique Identification number is specific to your device and is used to identify the device during deployment or management.

- **Serial Number** – This number identifies this specific Surface device for asset tagging and support scenarios.

- **Asset Tag** – The asset tag is assigned to the Surface device with the Asset Tag Tool.

You will also find detailed information about the firmware of your Surface device. Surface devices have several internal components that each run different versions of firmware. The firmware version of each of the following devices is displayed on the **PC information** page (as shown in Figure 1):

- System UEFI

- SAM Controller

- Intel Management Engine

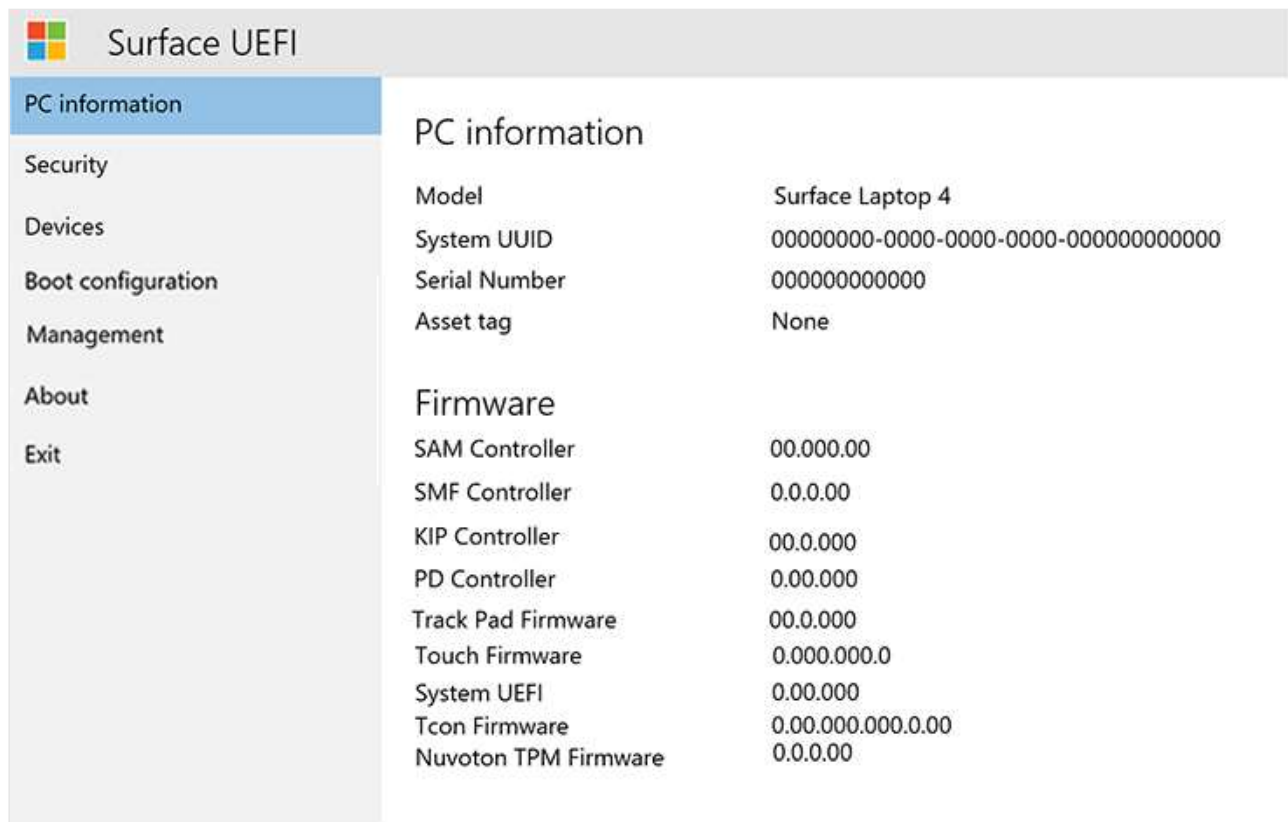- System Embedded Controller

- Touch Firmware



*Figure 1. System information and firmware version information*

You can find up-to-date information about the latest firmware version for your Surface device in the Surface Update History     for your device.
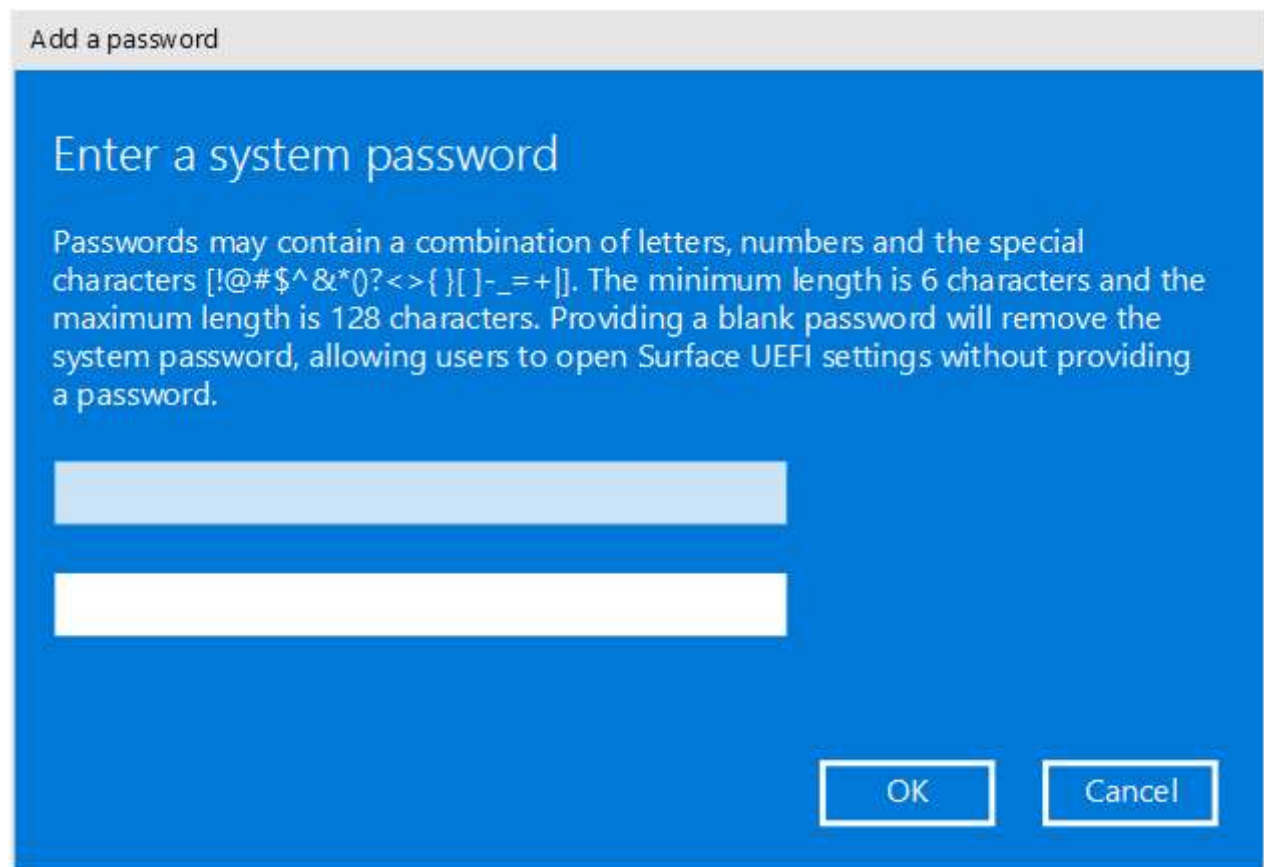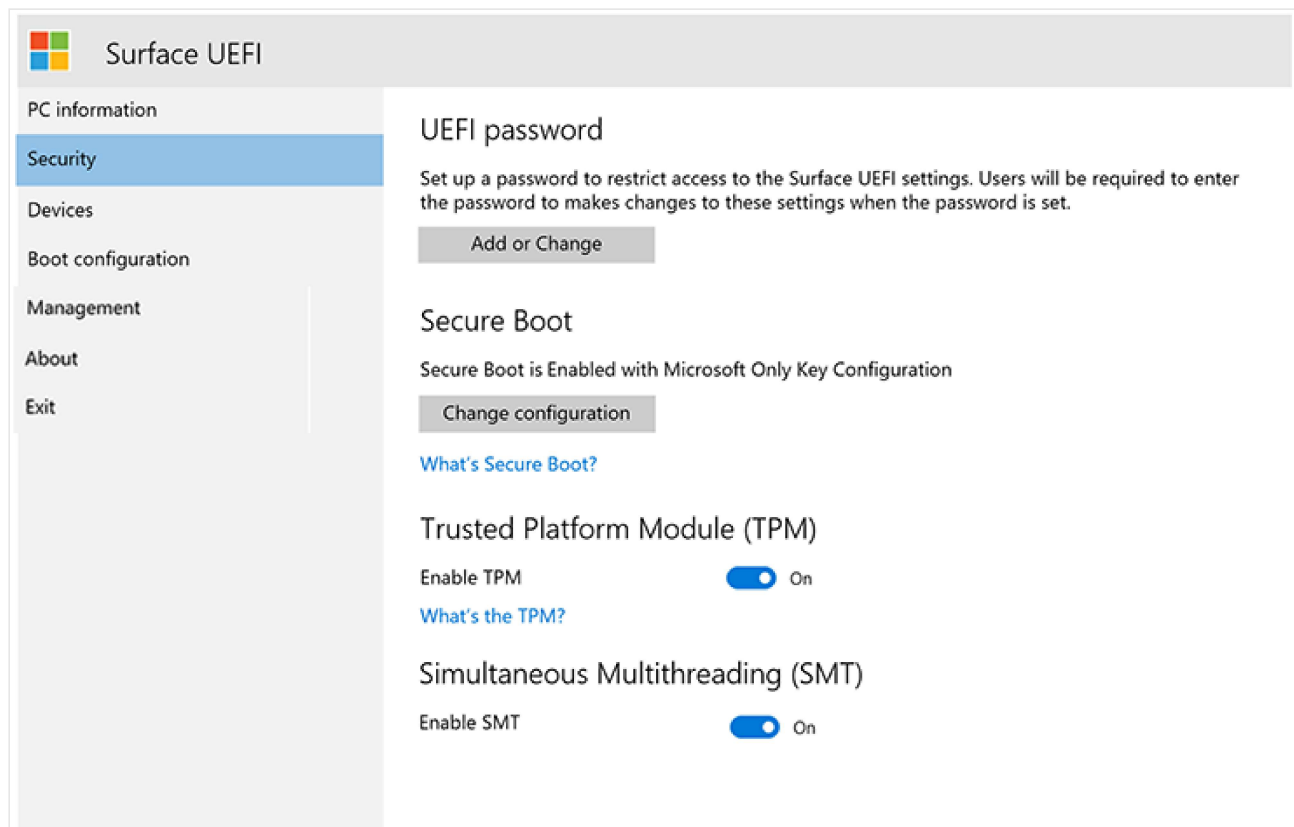
# UEFI Security page

*Figure 2. Configure Surface UEFI security settings*

The Security page allows you to set a password to protect UEFI settings. This password must be entered when you boot the Surface device to UEFI. The password can contain the following characters (as shown in Figure 3):

- Uppercase letters: A-Z

- Lowercase letters: a-z

- Numbers: 1-0

- Special characters: !@#$%^&*()?<>{}[]-_=+|.,;:'`"

The password must be at least six characters and is case-sensitive.

*Figure 3. Add a password to protect Surface UEFI settings*

On the Security page, you can also change the configuration of Secure Boot on your Surface device. Secure Boot technology prevents unauthorized boot code from booting on your Surface device, which protects against bootkit and rootkit-type malware infections. You can disable Secure Boot to allow your Surface device to boot third-party operating systems or bootable media. You can also configure Secure Boot to work with third-party certificates, as shown in Figure 4. To learn more, see Secure Boot.
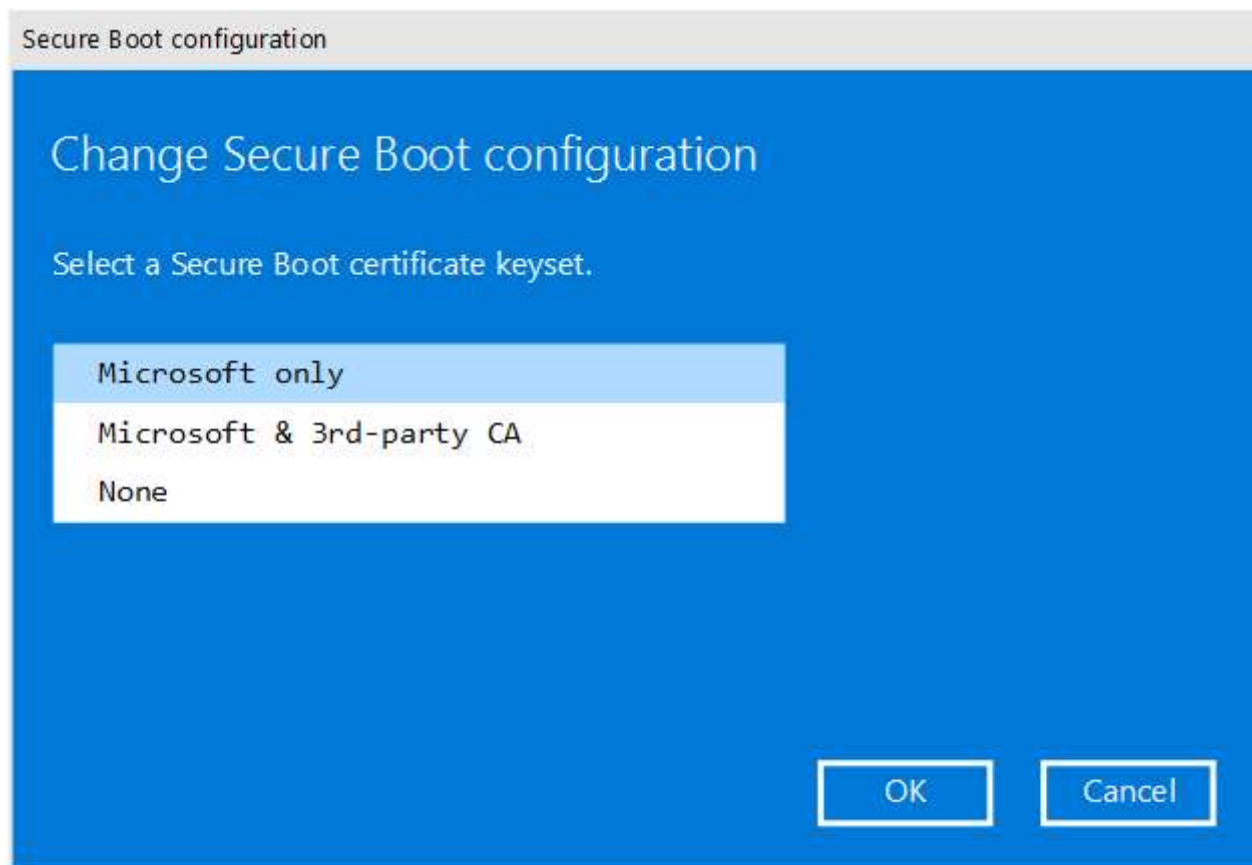
*Figure 4. Configure Secure Boot*

Depending on your device, you may also be able to see if your TPM is enabled or disabled. If you do not see the **Enable TPM** setting, open tpm.msc in Windows to check the status, as shown in Figure 5. The TPM is used to authenticate encryption for your device's data with BitLocker. To learn more, see BitLocker overview.
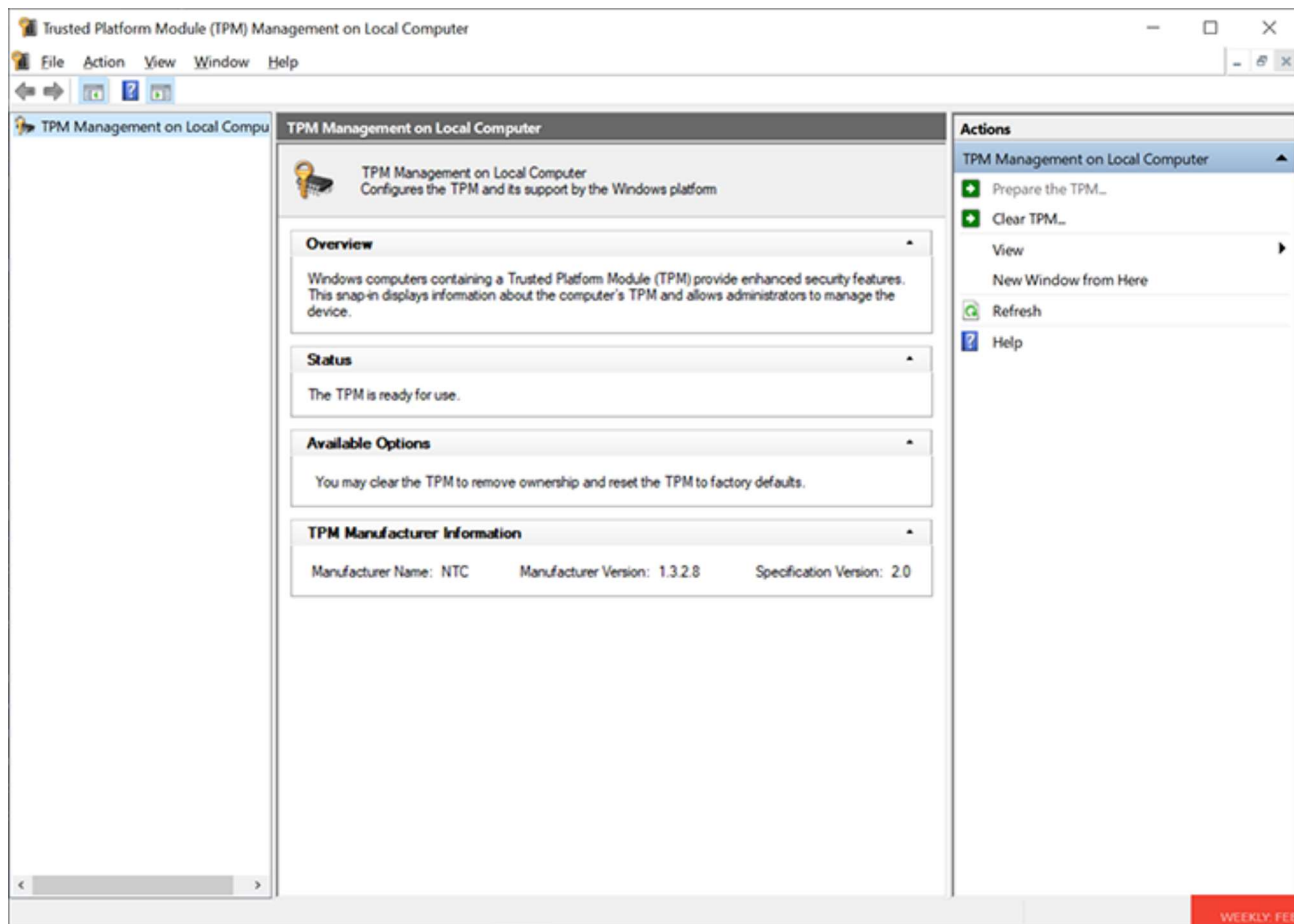
*Figure 5. TPM console*

# UEFI Devices page

The Devices page allows you to enable or disable specific components on eligible devices. Components consist of the following:

- Docking USB port

- MicroSD or SD Card Slot

- Rear Camera

- Front Camera

- Infrared (IR) Camera

- Wi-Fi and Bluetooth

- Onboard Audio (Speakers and Microphone)

Each device is listed with a slider button that you can move to **On** (enabled) or **Off** (disabled) position, as shown in Figure 6.
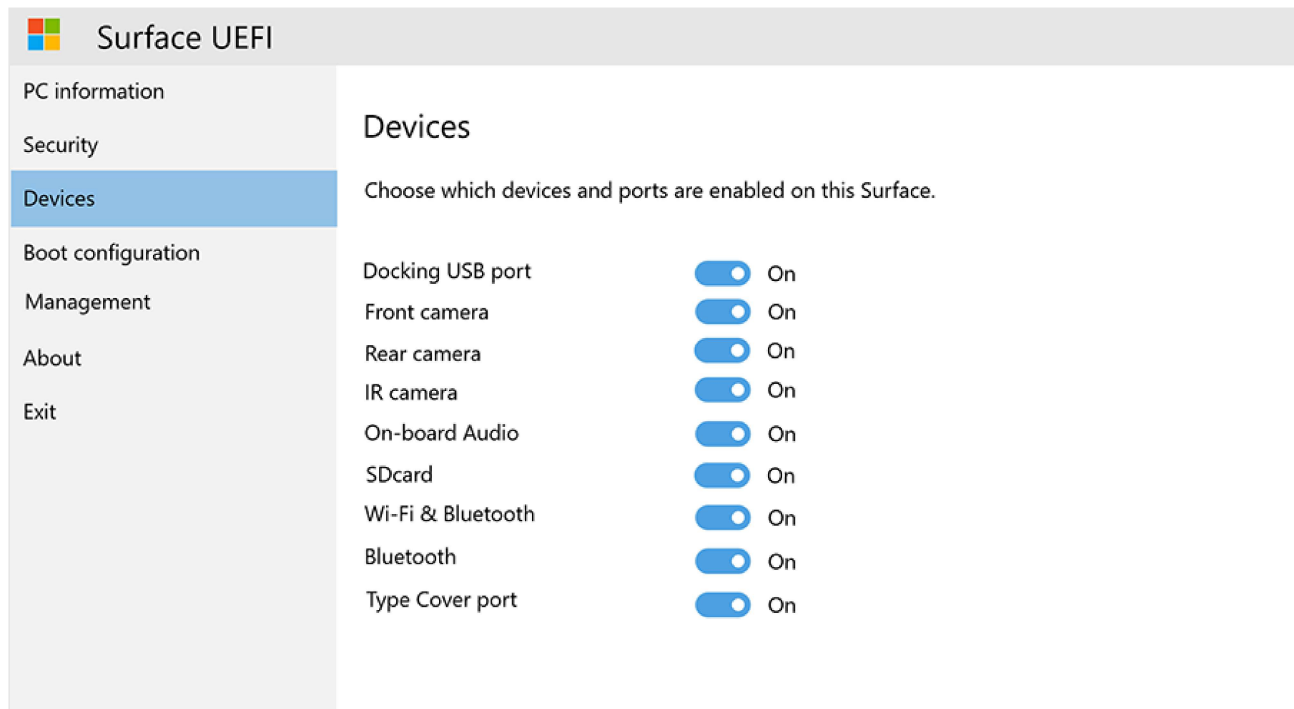


*Figure 6. Enable and disable specific devices*

# UEFI Boot configuration page

The Boot Configuration page allows you to change the order of your boot devices as well as enable or disable the boot of the following devices:

- Windows Boot Manager

- USB Storage

- PXE Network

- Internal Storage

You can boot from a specific device immediately, or swipe left on that device's entry in the list using the touchscreen. You can also boot immediately to a USB device or USB Ethernet adapter when the Surface device is powered off by pressing the **Volume Down** button and the **Power** button simultaneously.

For the specified boot order to take effect, you must set the **Enable Alternate Boot Sequence** option to **On**, as shown in Figure 7.
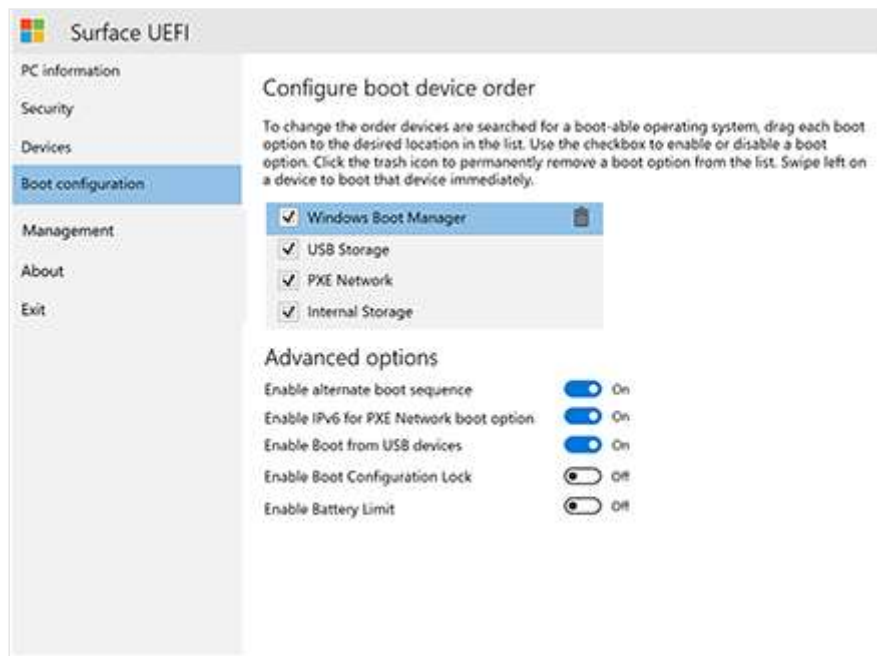
*Figure 7. Configure the boot order for your Surface device*

You can also turn on and off IPv6 support for PXE with the **Enable IPv6 for PXE Network Boot** option, for example, when performing a Windows deployment using PXE where the PXE server is configured for IPv4 only.

# UEFI Management page

The Management page allows you to manage the use of Zero Touch UEFI Management and other features on eligible devices.
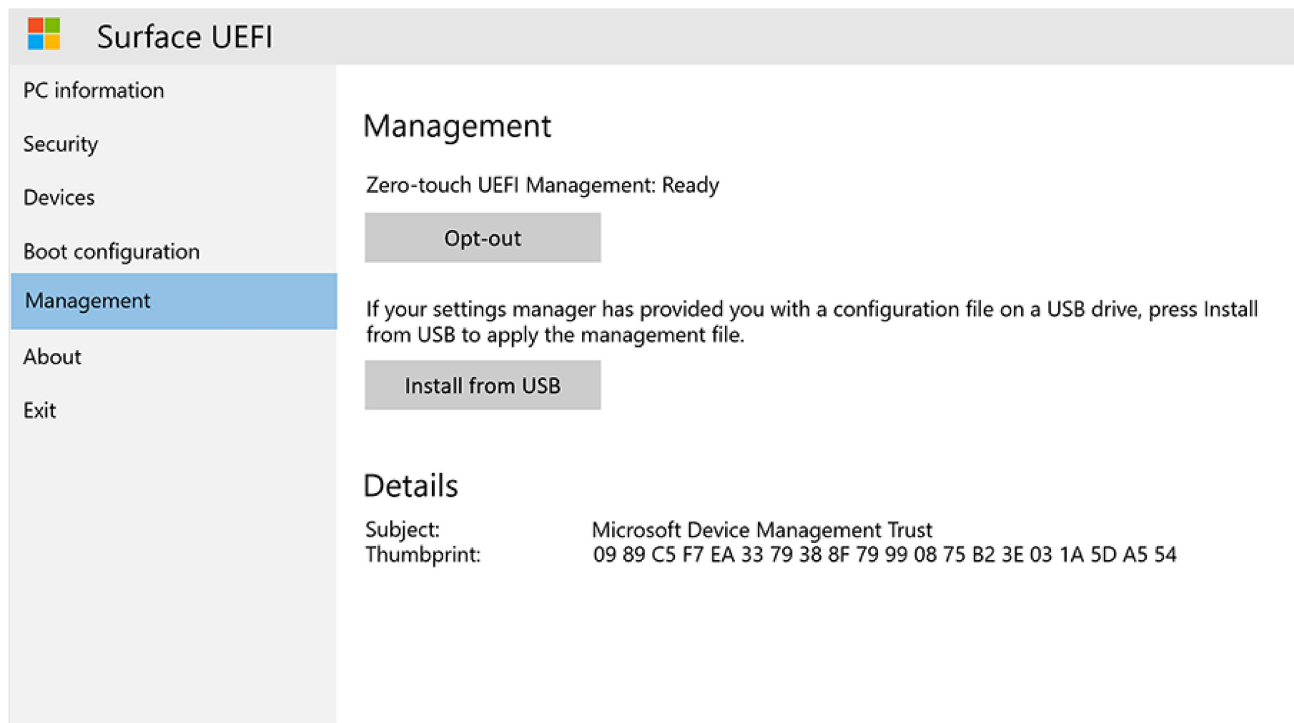
*Figure 8. Manage access to Zero Touch UEFI Management and other features*

Zero Touch UEFI Management lets you remotely manage UEFI settings using a device profile within Intune called Device Firmware Configuration Interface (DFCI). If you do not configure this setting, the ability to manage eligible devices with DFCI is set to **Ready**. To prevent DFCI, select **Opt-Out**.

# UEFI Exit page

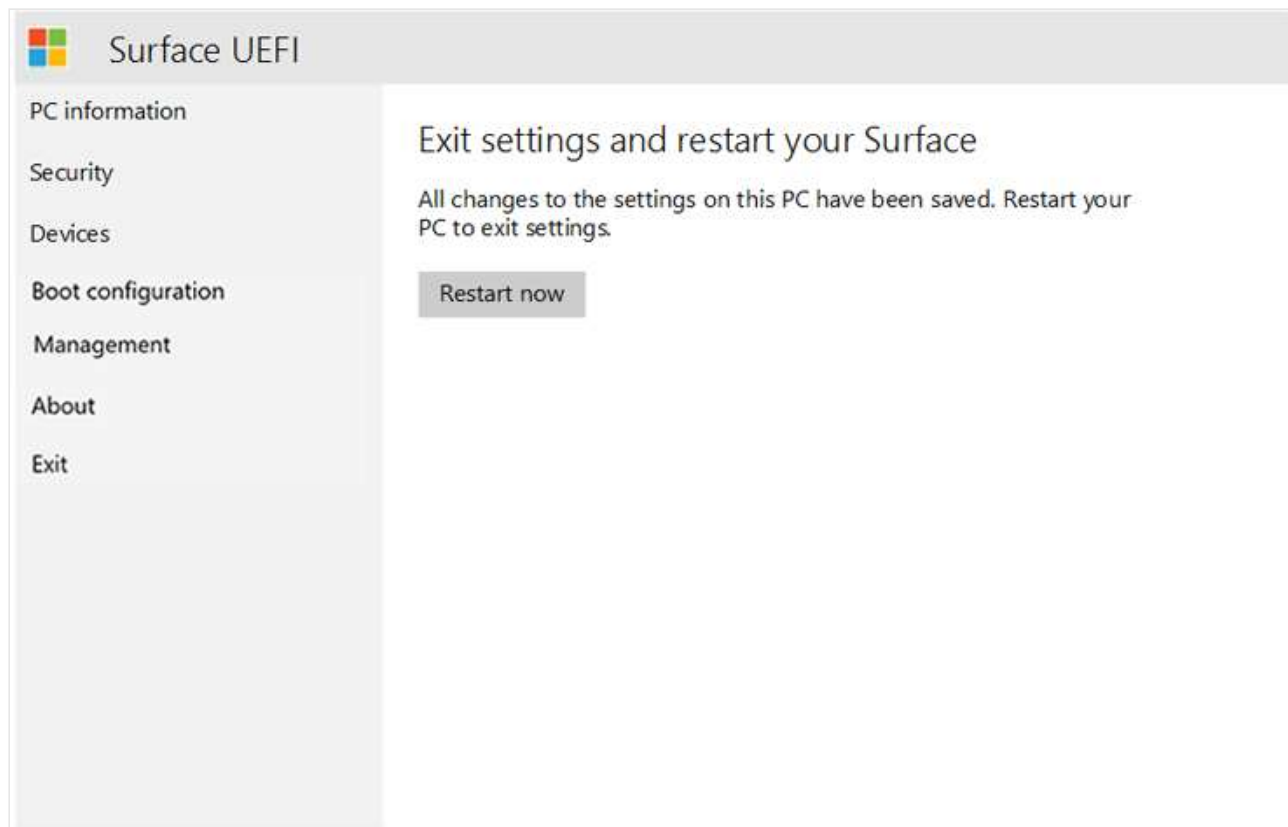Use the **Restart Now** button on the **Exit** page to exit UEFI settings, as shown in Figure 9.

*Figure 9. Click Restart Now to exit Surface UEFI and restart the device*

# Surface UEFI boot screens

When you update Surface device firmware using either Windows Update or manual installation, the updates are not applied immediately to the device but during the next reboot cycle. You can learn more about the Surface firmware update process in Manage and deploy Surface driver and firmware updates. The firmware update progress is displayed on a screen with progress bars of different colors to indicate the firmware for each component. Each component's progress bar is shown in Figures 9 through 18.

*Figure 10. The Surface UEFI firmware update displays a blue progress bar*



*Figure 11. The System Embedded Controller firmware update displays a green progress bar*
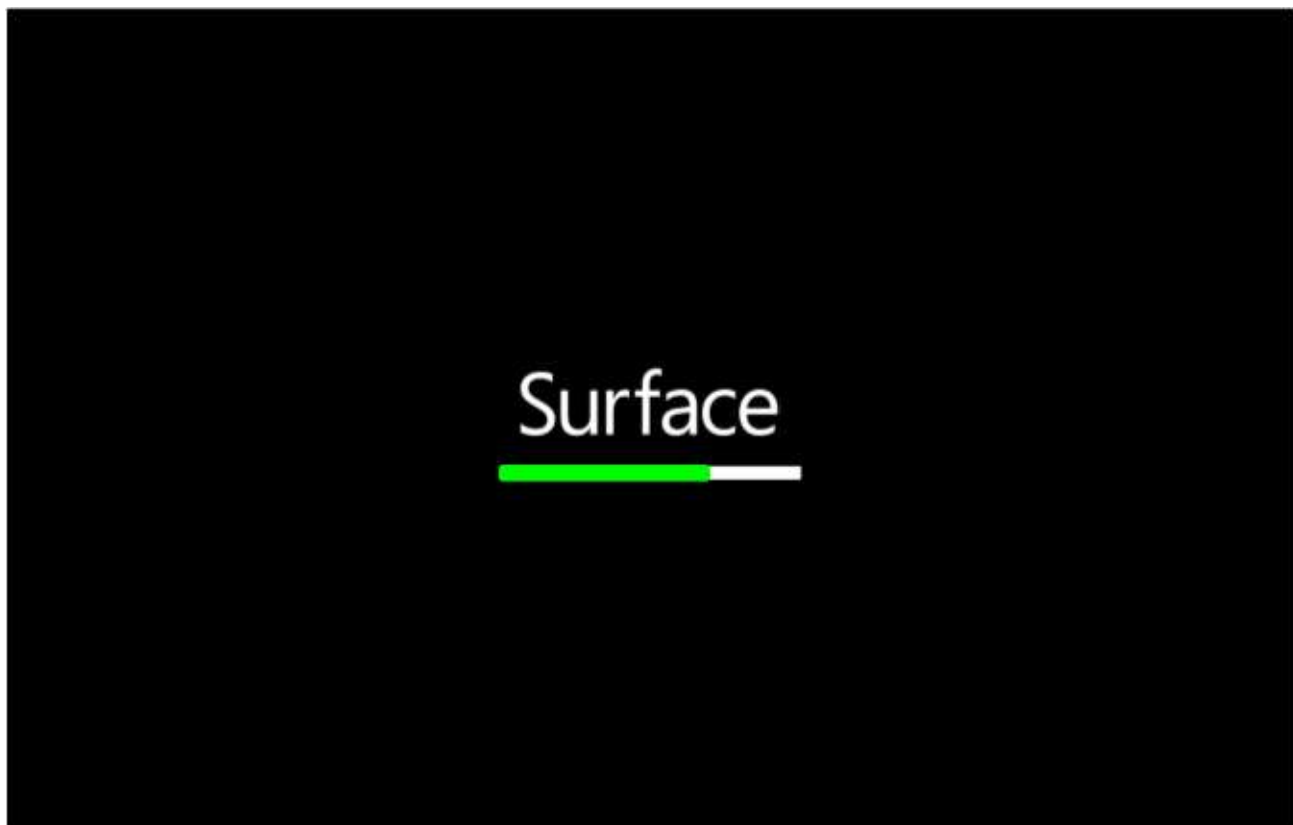
*Figure 12. The SAM Controller firmware update displays an orange progress bar*
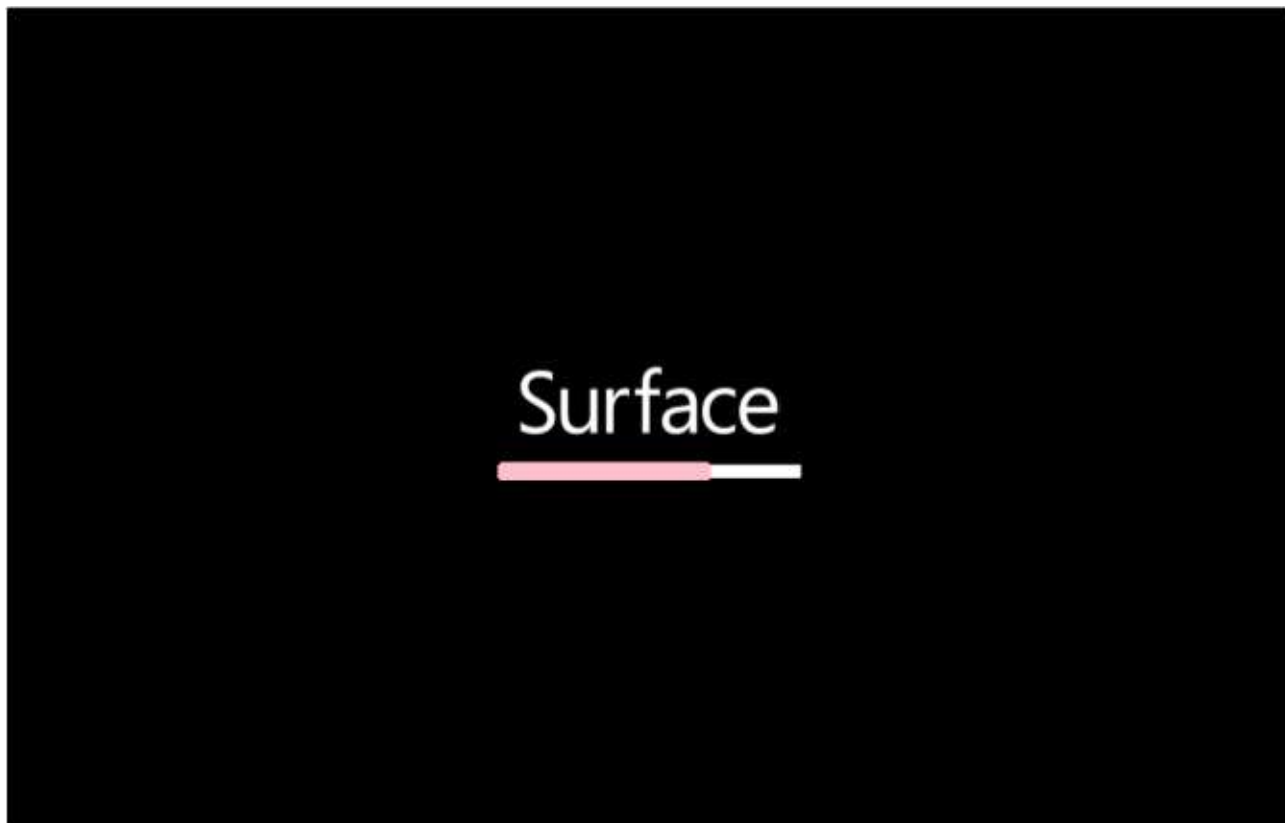


*Figure 13. The Intel Management Engine firmware update displays a red progress bar*

*Figure 14. The Surface touch firmware update displays a gray progress bar*



*Figure 15. The Surface KIP firmware update displays a light green progress bar*

*Figure 16 The Surface ISH firmware update displays a light pink progress bar*



*Figure 17. The Surface Trackpad firmware update displays a pink progress bar*

*Figure 18. The Surface TCON firmware update displays a light gray progress bar*



*Figure 19. The Surface TPM firmware update displays a purple progress bar*

> ⊙ **Note**
>
> An additional warning message that indicates Secure Boot is disabled is displayed, as shown in Figure 19.



*Figure 20. Surface boot screen that indicates Secure Boot has been disabled in Surface UEFI settings*

# References

1. Surface Go and Surface Go 2 use a third-party UEFI and do not support DFCI. DFCI is currently available for Surface Studio 2+, Surface Pro 9 & Surface Pro 9 with 5G, Surface Laptop 5, Surface Laptop 4, Surface Laptop 3, Surface Laptop Studio, Surface Book 3, Surface Laptop SE, Surface Laptop Go 2, Surface Laptop Go, Surface Pro 8, Surface Pro 7+, Surface Pro 7, Surface Pro X, and Surface Go 3.

# Related topics

- Intune management of Surface UEFI settings

- Surface Enterprise Management Mode