Technical White Paper

HP USB-C 100W G6 Dock

Table of contents

Introduction

Power every desk with the dock that redefines its class

Kickstart your day with less hassle and more hustle. The HP USB-C 100W G6 Dock boots your ecosystem as you arrive, connects instantly[1] via a single USB-C® cable, and streamlines your setup with ample ports and seamless, secure connectivity—all while staying up to date with remote manageability.

Get to work instantly with HP Quick Connect[1] that wakes your workspace as you approach. The HP USB-C 100W G6 Dock delivers fast, seamless connectivity with ample ports and up to 100W power through a single cable[2] for instant productivity without the clutter.

Cloud manageability with Poly Lens[3] unlocks hands-off manageability from anywhere. Administer automatic firmware updates anytime and easily monitor telemetry and analytics to optimize workspaces and support users effectively. Prevent potential threats with HP Wolf Security[4], interlacing HP Sure Start[5], and Zero Trust Framework to provide complete end-to-end security. Work and rest easy knowing everything from the dock to the cloud is protected.

Lastly, these docks are crafted[6] with replaceable parts to maximize your fleet's lifecycle. Built with a power consumption module to monitor your HP USB-C 100W G6 Dock energy consumption. And delivered in plastic-free packaging[7].

1. HP Quick Connect must be enabled on the PC's BIOs and on the dock. HP Quick Connect is available on select HP G11 Intel and G12 Intel and AMD PCs. Bluetooth required. Not available on TAA versions. Contact your local sales representative to learn more.
2. For full data and video capability, the PC must support either: DisplayPort alt mode, Thunderbolt 3 alt mode, or USB4 through its USB-C® port. Charging and port replication are supported on Notebooks that have implemented the USB-C® Power Delivery specifications. HP Quick Connect, Wake-on LAN from warm and cold dock, Wake-on LAN from S4/S5, and MAC Address Pass-Through, S0, S3, S4, S5 warm and cold dock features only function on HP or HP supported Notebooks. HP does not provide ethernet and audio drivers on Mac PCs. Power button to turn off or to wake the system depends on implementation of the related and optional Power Delivery specification.
3. Poly Lens is a cloud-based device management solution that provides actionable insights and analytics around unified communications endpoints like Poly voice, video, headset devices, and select HP docking stations and can be sold as a stand-alone service. Internet access is required. Not available on TAA versions. Visit lens.poly.com to set up an account.
4. HP Wolf Security for Business requires Windows 10 or 11 Pro and higher, includes various HP security features, and is available on HP Pro, Elite, RPOS, and Workstation products. See product details for included security features.
5. Based on HP's internal analysis of docking stations that are Thunderbolt™ 4, have auto validating & self-healing firmware, meet NIST 800-173 requirements, the ability to disable the RJ-45, and a BIOS MAPT authorized list. HP Sure Start on HP Thunderbolt G6 dock supports firmware integrity verification and recovery during dock start-up and disconnect. It does not include real-time and runtime protections or Microsoft SCCM integration typically found on HP Sure Start in HP Notebooks. HP Total Test Process testing is not a guarantee of future performance under these test conditions. Damage under the HP Total Test Process test conditions or any accidental damage requires an optional HP Accidental Damage Protection Care Pack.
6. HP Total Test Process testing is not a guarantee of future performance under these test conditions. Damage under the HP Total Test Process test conditions or any accidental damage requires an optional HP Accidental Damage Protection Care Pack.
7. HP packaging for this product is reported by suppliers as plastic free. Packaging refers to the primary product box and all materials inside, excluding any additional boxes provided by third parties, bulk packaging, and packaging for accessories and spare parts.

Specification summary

SKUs	HP USB-C 100W G6 Dock (9X3V1UT) HP USB-C 100W TAA G6 Dock (9X467AA)
Design	Cube modular design
Power button on dock[1]	Mechanical Power button
Cable length and AMO options	Default 1meter cable
USB-C® ports USB 3.2 Gen 2	1x data and power port (front) 1x data and power port (back)
USB-A ports USB 3.2	1x USB-A 3.2 gen 2 (10 Gbps) port with charging (right) 2x USB-A 3.2 Gen 1 (5 Gbps) with charging (back)
Video ports	2x DisplayPort 1.4 1x HDMI 2.1
Number of monitors supported[2]	Up to 3 external
Video resolutions[2]	Non-Thunderbolt™ with Multi-Function PCs[3]: 1 x 4K UHD @ 120Hz; 2 x QHD @ 120Hz; 3 x FHD @ 120Hz; 1 x FHD @ 360Hz Non-Thunderbolt™ with High-Resolution PCs[3]: 2 x 4K UHD @ 120Hz; 3 x QHD @ 120Hz; 2 x FHD @ 360Hz; 1 x QHD @ 360Hz Thunderbolt™ with dual DisplayPort™ streams[3]: 4 x 4K UHD @ 60Hz; 2 x 3K UHD @ 120Hz; 3 x QHD @ 120Hz; 2 x FHD @ 360Hz; 1 x QHD @ 360Hz Thunderbolt™ with single DisplayPort™ stream[3]: 4 x 4K UHD @ 60Hz; 2 x 4K UHD @ 120Hz; 3 x QHD @ 120Hz; 2 x FHD @ 360Hz; 1 x QHD @ 360Hz
Ethernet support[4]	Realtek 2.5 Gbps
Management software	Poly Lens[5] HP CMSL HP WMI Provider
Network manageability features	Disconnected firmware updates eTag PxE Boot Wake on LAN (from the Off, Sleep, or Hibernation state)[6] MAC address pass-through (from the On, Off, Sleep, or Hibernation state)[7] WLAN-LAN Switching Disable LAN Event messaging
System compatibility[8]	Compatible with Thunderbolt™ systems and USB-C® alt mode systems with data, power, and video
Operating Systems[9]	Windows 10, Windows 11, ChromeOS, macOS, Linux, ThinPro
Power to system thru USB-C®	Up to 100W via USB-C[10] (HP and non-HP)
Software Included	HP Quick Connect[11] myHP

1. The dock Power button may support non-HP Notebooks that have implemented USB Power Delivery specification to support Extended Alert messages.
2. Video resolution and support is dependent on the maximum capability of the Notebook.
3. Requires DisplayPort 1.4 support with Display Stream Compression.
4. To reach 2.5 Gbps speed, it requires infrastructure that supports 2.5 Gbps Ethernet speeds.
5. Poly Lens is a cloud-based device management solution that provides actionable insights and analytics around unified communications endpoints like Poly voice, video, headset devices, and select HP docking stations and can be sold as a stand-alone service. Internet access is required. Not available on TAA versions. Visit lens.poly.com to set up an account. Utilizes a Wireless 802.1 2.4/5 GHz + Bluetooth® combo card on the dock to function. This card is not available on TAA versions, and therefore Poly Lens is also not available.
6. Your computer might support Wake on LAN from the Off, Sleep, or Hibernate state, or only when the computer is in Sleep.
7. Your computer might support MAC address pass-through the On, Off, Sleep, or Hibernate state, or only when the computer is On or in Sleep. Thunderbolt™ host systems require Thunderbolt™ software (minimum SW17.x). Ethernet drivers need to be installed separately on non-HP Windows systems for headset auto switching functionality. Drivers available on HP website. For Apple PCs, HP does not provide ethernet and audio drivers.

Firmware updates on Window-based host systems or Linux host systems via Linux Vendor Firmware Service only. Certain features are not functional on non-HP supported nor non-HP Notebooks:

- Power button to turn on or wake the system unless USB Power Delivery specifications to support Extended Alert messages are enabled on the system.
- Wake on LAN from warm and cold dock.
- Wake on LAN from S4/S5.
- MAC Address pass-through S0, S3, S4, S5 warm and cold dock.

8. For full data and video capability, the PC must support either: DisplayPort alt mode, Thunderbolt 3 alt mode, or USB4 through its USB-C port. Charging and port replication are supported on Notebooks that have implemented the USB-C Power Delivery specifications. HP Quick Connect, Wake-on LAN from warm and cold dock, Wake-on LAN from S4/S5, and MAC Address Pass-Through, S0, S3, S4, S5 warm and cold dock features only function on HP or HP supported Notebooks. HP does not provide ethernet and audio drivers on Mac PCs. Power button to turn off or to wake the system depends on implementation of the related and optional Power Delivery specification.
9. Operating systems supported: Windows 10 22H2 and up, Win 10 IoT Enterprise LTSC 2021, Windows 11 23H2 and up, ChromeOS M133 and up, Ubuntu Linux 22.04 LTS with 5.15 kernel, ThinPro OS 8.0, and MacOS Sonoma 14. Not all features work with all operating systems; ask your sales representative about compatibility with your PC. Linux, ChromeOS, MacOS, and ThinPro OS testing currently underway and expected to be completed after launch.
10. Up to 100W power delivery through the Thunderbolt 4 cable.
11. HP Quick Connect must be enabled on the PC's BIOs and on the dock. HP Quick Connect is available on select HP G11 Intel and G12 Intel and AMD PCs. Bluetooth required. Not available on TAA versions. Contact your local sales representative to learn more.

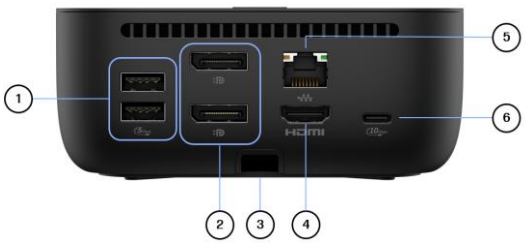
Ports

Figure A: HP USB-C 100W G6 Dock (Front, Right).

1. (1) Mechanical Power button with RGB LED[1]
2. (1) USB Type-C® 3.2 Gen 2 (10 Gbps) port with data and power out (15W)
3. (1) USB-C (10Gbs) to connect to host system
4. (1) USB Type-C® 3.2 Gen 2 (10 Gbps) port with data and power out (15W)
5. (1) Nano security lock slot

[1]The dock Power button is not functional when connected to non-supported HP Notebooks or non-HP Notebooks.

Figure B: HP USB-C 100W G6 Dock (Rear, Right).



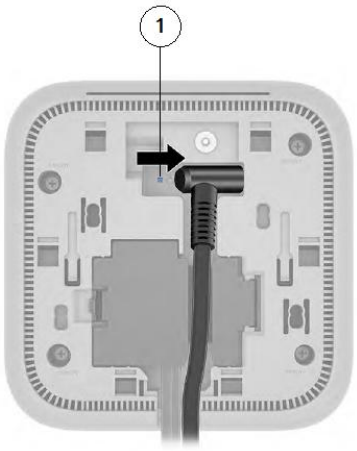
1. (2) USB 3.2 Gen 1 (5 Gbps) charging port
2. (2) DisplayPort 1.4
3. USB-C® cable connector
4. (1) HDMI 2.1
5. (1) Ethernet port (2.5 Gbps) [2]
6. (1) USB Type-C® 3.2 Gen 2 (10 Gbps) with data and power out (15W)

[2]Requires infrastructure that supports 2.5 GB Ethernet speeds.

Figure C: HP USB-C 100W G6 Dock (Bottom).

1. Cable connection port
2. Bottom cover latch lock position
3. (1) RGB LED bar
4. Bottom cover latch unlock position

Figure D: HP USB-C 100W G6 Dock (Bottom, cover removed).



1. AC adapter LED (will be ON only if supported power supply connected)

Pre-Boot Support

The HP USB-C 100W G6 Dock supports pre-OS environment only in Thunderbolt™ Security Level 0 and Security Level 1 (refer to the *Security Levels – Available Functions and Ports* section of this document for more details about Thunderbolt™ Security level settings).

Supported features

- USB peripherals (such as keyboards, mouse, and flash drives) connected to the docking station
- Pre-boot Execution Environment (PXE)*
- External displays (the internal panel must be closed for external panels to function at pre-boot)

NOTE: For any pre-boot support with the HP USB-C 100W G6 Dock and an HP Notebook, you will be required to disable FastBoot in BIOS settings (F10).

Disabling FastBoot in F10 BIOS

1. Press the **Power** button to turn on the unit.
2. At the HP logo screen, press **F10** to open the BIOS settings menu.
3. Click the Advanced tab, and select **Boot Options**.
4. Unselect the **FastBoot** option.
5. Click **Save** and the **Exit**.

NOTE: Be sure you are running the latest drivers, BIOS, and firmware to enable full functionality of all features.

Power Button Functionality and Dock LED Behaviour

Dock Power button

Pressing the dock's Power button when connected to a Notebook

On HP commercial Notebook systems, the Power button on the dock will simulate the Power button on the host system.

On non-HP Notebooks, Apple, Chrome, or non-supported HP Notebooks, the dock Power button and power LED do not control or reflect the status of the host.

NOTE: On non-HP Notebooks, Chrome or non-supported HP Notebooks can have the same behavior as HP-supported Notebooks if they have implemented the "Extended Alert Event Type" from the industry standard Universal Serial Bus Power Delivery Specification revision 3.1 and above, then the dock Power button and power LED will behave similarly to the power LED of the host.

The below table reflects expected behaviour when pressing the dock's Power button while attached to a Notebook.

Notebook's power state	Dock's Power button LED	Behaviour after pressing dock's Power button
OFF (S5)	OFF	Notebook will power ON*
Hibernation (S4)	OFF	Notebook will power ON and resume from Hibernation state*
Sleep (S1-S3, Modern Standby)	Breathing (white)	Notebook will resume from Sleep state*
On (S0)	ON (white)	Action will follow the operating system defined Power button setting*

* Non-HP Notebooks can support this functionality if the "Extended Alert Event Type" from the industry standard Universal Serial Bus Power Delivery Specification revision 3.1 or higher has been implemented.

Pressing the dock's Power button when not connected to a Notebook

Certain dock's functionalities, including LED behaviour on the Power button and the front base LED bar, vary based on how the Power button is pressed.

The below table below outlines the corresponding functions when not connected to a Notebook.

Pressing Power button	Functionality	Power button (behaviour and colour)	Front base LED bar (behaviour and colour)
For 5 seconds	Will set the dock as a wireless access point (for more info on using dock's access point)	Breathing blue	Breathing blue
For 15 seconds	Dock will initiate a dock reset to factory default (for more info on resetting dock to defaults)	Breathing white	Breathing white
Once	Notifies user by displaying an On-Screen Display (OSD) notification stating there's no Notebook connected (for OSD functionality and notifications, please check)	OFF, an image will appear on the external display (if attached) informing user that no Notebook is connected	OFF, an image will appear on the external display (if attached) informing user that no Notebook is connected
Twice	Will start a Single On-Boarding by PIN process to initiate provisioning to Poly Lens (for more information on manageability)	Blinking blue	Blinking blue

Dock's visual notifications

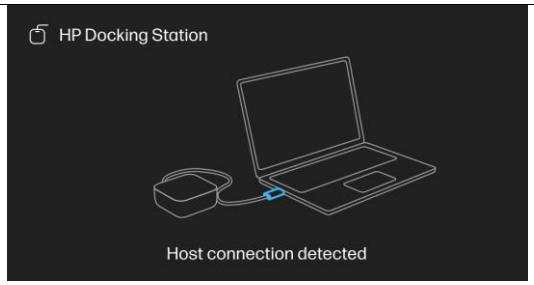
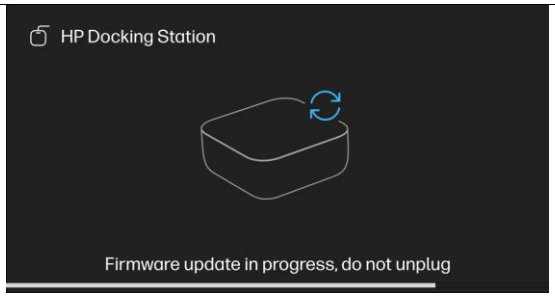
The HP USB-C 100W G6 Dock incorporates different LED blinking and breathing patterns to notify the user of different functionalities occurring on the dock depending on the usage. This behaviour also includes On-Screen Display notifications that can be displayed on an external monitor if connected.

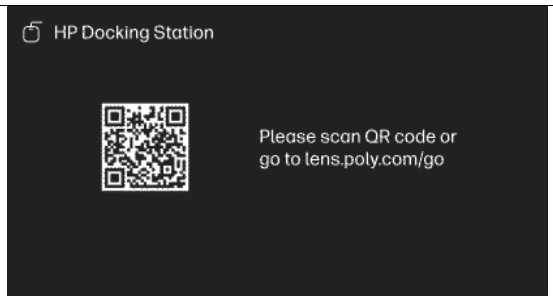
NOTE: On-Screen Display images are supported on HDMI, DisplayPort, and DisplayPort Alt mode connections. A monitor attached to the Thunderbolt™ will not support displaying an On-Screen Display notification.

The below table outlines all supported LED behaviours.

Condition	Front base LED bar (behaviour and colour)	Power button LED (behaviour and colour)
Connect or disconnect the Notebook to a dock (while in any power state)	Breathe white, one time	Breathe white, one time
Wi-Fi AP mode active	Breathe blue, until host connects to dock's SSID, then turns off	Breathe blue, until host connects to dock's SSID
Notebook connected to dock's Wi-Fi	Solid blue, for 3 seconds, then turns off	Solid blue, for 3 seconds, then turns off
Dock's Wi-Fi connecting to a router	Blink blue, until connection completed, then turns off	Blink blue, until connection completed, then turns off
Firmware update completed	Solid, green	Solid, green
Firmware update failed	Solid, red	Solid, red
HP Quick Connect – Warm up (Pre-Alert zone)	Breathe, white	Breathe, white
Device onboarding to Poly Lens	Breathe, blue	Breathe, blue
Device onboarding success	Solid, blue (3 seconds)	Solid, blue (3 seconds)
Factory reset	Blink, white (~40 seconds)	Blink, white (~40 seconds)
Catastrophic failure	Blink, red (until firmware recovery completed)	Blink, red (until firmware recovery completed)

The below table outlines all supported conditions that include LED behaviours and their current associated On-Screen Display notification.

Condition	Front base LED bar (behaviour and colour)	Power button LED (behaviour and colour)	On-Screen Display notification
Unable to detect a host attached when pressing dock's Power button	OFF	OFF	
Connect a Notebook while OFF or in Hibernation state	Breathe white, one time	Breathe white, one time	
Notebook booting up while connected to dock	Solid white	Solid white	
Firmware update in progress	Breathe, amber	Breathe, amber	
HP Quick Connect – Ready (Alert zone)	Solid, white	Solid, white	

Device onboarding fails	Solid, red (3 seconds)	Solid, red (3 seconds)	
Initiate Single-on Boarding by pressing Power button twice	Blink, blue	Blink, blue	

NOTE: On-Screen Display notifications are supported on the HDMI, DisplayPort, and DisplayPort alt mode ports. The Thunderbolt™ port is not supported.

Dock's Charging Support and Capabilities

AC adapter LED

Located under the dock bottom cover, the AC adapter LED indicates a valid adapter is connected to the dock.
The bottom white LED lights up if an HP adapter of 120w or larger is connected to the dock. Other adapters are rejected, the LED remains off, and the dock will not function.

Power to host

Type-C® power to host: 5V/3A, 9V/3A, 12V/5A, 15V/5A, 20V/5A

Power matrix per USB ports

The below tables display supported power capabilities per port.

USB-C®	Type and power output
Port (back)* See Figure D.	1 USB-C® USB 3.2 Gen 2 USB PD; 3A @ 5V (max 15W)
Port (front) See Figure A.	1 USB-C® USB 3.2 Gen 2 USB PD; 3A@ 5V (max 15W)

USB-A	Type and power output
Ports (back)	USB Type-A port 3.0 BCS1.2 (1.5A @ 5V) - CHARGING
Port (right side)	USB Type-A port 3.2 Gen 2 BCS1.2 (1.5A @ 5V) - CHARGING)

HP USB-C 100W G6 Dock power delivery

The HP USB-C 100W G6 Dock provides up to 100W power delivery to Notebooks that support PD 3.1 standards. The USB-C® cable on this version is configured and electronically marked to support video, and 5 ampere capabilities.

If the cable must be replaced, please contact HP Support for replacement. Failure to use the designated Type-C cable may result in decreased performance and capabilities.

Note for the HP EliteBook Ultra G1q and HP EliteBook Ultra G1q8 AI PC
Due to system architecture limitations, users can either enable the dock to charge the PC or allow the PC to charge external devices through USB-C® ports when in S4 (Hibernation) or S5 (Off) state. The "USB-C Charging" BIOS (F10) setting is currently set to Disabled, which allows the dock to charge the PC but disables the PC's capability to charge external devices through USB-C® ports in S4/S5. Devices can be charged via USB-A on the PC or any USB port on the dock. To change this, set the "USB-C Charging" option in F10 to Enable and then connect the PC's AC adapter to continue use with the dock.

Display Capabilities

Max number of monitors

Non-Thunderbolt™ with Multi-function PCs[3]:
1 x 4K UHD @ 120Hz; 2 x QHD @ 120Hz; 3 x FHD @ 120Hz

Non-Thunderbolt™ with High Resolution PCs[3]:
2 x 4K UHD @ 120Hz; 3 x QHD @ 120Hz

Display resolution table

Host Specification	Number of displays on dock	Resolution	Supported configuration
DP 1.2 non-DSC Multi-function host (High Res disabled)	1	(1) 2560 x 1440 @ 60Hz	1 DP or 1 HDMI
	1	(1) 4096 x 2160 @ 30Hz	1 DP or 1 HDMI
	2	(2) 1920 x 1080 @ 60Hz	All ports are non-tbt ports. 1 DP + 1 DP 1 DP + 1 HDMI
	3	(3) 1920 x 1080 @ 60Hz	All ports

Host Specification	Number of displays on dock	Resolution	Supported configuration
DP 1.4 non-DSC Multi-function host (High Res enabled)	1	(1) 3840 × 2160 @ 60Hz	1 DP or 1 *HDMI
	2	(2) 2560 x 1440 @ 60Hz (2) 4K UHD 60hz	2 DPs 1 DP + 1 HDMI
	3	(3) 1920 x 1080 @ 60Hz (3) 2560 x 1440 @ 60hz	3x ports

Host Specification	Number of displays on dock	Resolution	Supported configuration
DP 1.4 DSC Multi-function mode (High Res enabled)	3	(3) 3840 x 2160 @ 60Hz	Any 3 non-TB video port

Host Specification	Number of displays on dock	Resolution	Supported configuration
DP 1.4 DSC Multi-function mode (High Res disabled)	1		1 DP
	2	(2) 3840 x 2160 @ 60Hz	1 DP + 1 DP 1 DP + 1 HDMI
	3	(3) 2560 x 1440 @ 60Hz	All three ports

Enabling High Resolution mode in an HP Notebook system

1. Open HP BIOS Setup by pressing the **F10** key.
2. On the Advanced tab, select **System Options**.
3. Enable **High Resolution mode** when connected to a USB-C® alt mode dock option.
4. Save setting change by pressing the **F10** key again.

The HP USB-C 100W G6 Dock is DSC ready.

NOTE: To fully support DP1.4 DSC, customers must be using a host platform that fully supports the DP1.4 DSC.

HP Sure Start for Docks

HP Sure Start for Docks is a comprehensive firmware security and advanced firmware resilience solution to protect against firmware attacks and/or accidental corruption for all critical docking station firmware. HP Sure Start for Docks can automatically detect and recover from attacks or corruption without IT intervention and with little or no interruption to user productivity. Every time the Dock powers on, HP Sure Start for docks automatically validates the integrity of the firmware to help ensure that the dock is safeguarded from malicious attacks. In the case of an attack, the dock can self-heal using an isolated "golden copy" of the firmware in minutes. HP Sure Start for Dock docks are the only docking stations in the world that fully meet NIST SP 800-193 requirements.

Manageability

Firmware updates

The HP USB-C 100W G6 Dock supports different methods to update its firmware. Depending on the user environment, the HP USB-C 100W G6 Dock provides flexibility to ensure the dock's firmware can be updated accordingly.

Visual notifications while updating the firmware on the HP USB-C 100W G6 Dock
Regardless of the method used to update the firmware, the HP USB-C 100W G6 Dock provides the user with visual notifications as the firmware update is occurring, this includes the power button LED, the front base LED bar, an On-Screen Display notification on an external monitor if attached (for more information about On-Screen Display notifications).

Condition	Front base LED bar (behaviour and colour)	Power button LED (behaviour and colour)	External monitor (if attached)
Firmware update (download)	No notification, the dock is still functional	No notification, the dock is still functional	No notification, the dock is still functional
Firmware update in progress	Breathe, amber (dock becomes disconnected from host)	Breathe, amber (dock becomes disconnected from host)	"Firmware Update In progress, do not unplug" image includes progress bar
Firmware update completed	Solid, green	Solid, green	Not applicable
Firmware update failed	Solid, red	Solid, red	Not applicable

HP-One Click Installer (OCI) for Windows users
The HP One-Click Installer allows for seamless firmware update of all HP USB-C 100W G6 Docks. The HP One-Click Installer dashboard displays the existing and latest firmware version of the dock firmware for a user-friendly experience. This generation of the installer no longer requires an external display attached to flash the display hub firmware as in previous generations. There is also a "Force All" option to allow installation of older firmware, as needed.

The HP USB-C 100W G6 Dock also incorporates an option to "Update on Peripheral Disconnect." By selecting this checkbox, the dock firmware will start the update process once the user disconnects the dock from the host.

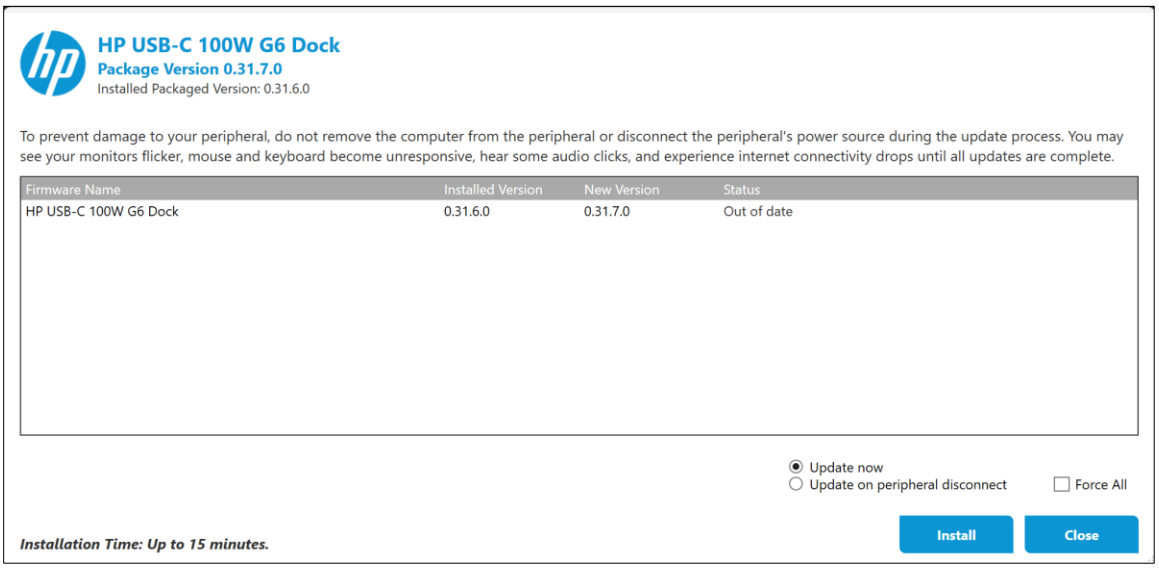
Requirements:

- Windows 10 and Windows 11
- OCI does not support ChromeOS/Linux/ThinPro/macOS
- Remove all devices connected to the USB 3.0 ports, except USB keyboard and mouse
- Net Framework 4.5 or higher installed

Supported installer modes:

- Interactive mode – User action required with UI
- Silent mode – Recommended for ITDM administrator usage
- Non-interactive mode – Suggested for SSM support (allows the user to auto-advance through the user interface)
- Without user interaction – This is like a silent install, but the user interface will display an alert that firmware is being installed

The below screen capture shows the HP One-Click Installer user interface when launched in Interactive mode.



For more details on how to run the HP One-Click Installer and option usage, refer to the *HP Firmware Installer Deployment User Guide* located at:
https://ftp.ext.hp.com/pub/caps-softpaq/cmit/whitepapers/HP_Firmware_Installer_for_Docks_L33010-004.pdf

HP Firmware Installer deployment reminder
The following two installation options are available with further customization of each:

- **Immediate installation of firmware onto the device**
  This solution requires the device to be connected to the host platform when the installer is executed. HP Firmware Installer will determine which firmware on the device is out of date and flash to the latest. This method can be run silently, loud, or non-interactively, which shows progress to the user but does not require action.

- **Staging of firmware onto the host platform**
  This solution is used to deploy to machines that may or may not be connected to the device at time of installation of the package. HP Firmware Installer will be installed onto the host platform via Windows Installer in the same manner as any other software deliverable. The software installed will also contain the latest firmware binaries. When a compatible device is connected, the software will determine if a firmware update is needed. When the firmware update is run, a user interface displays what to expect from the firmware update, as well as the option to postpone.

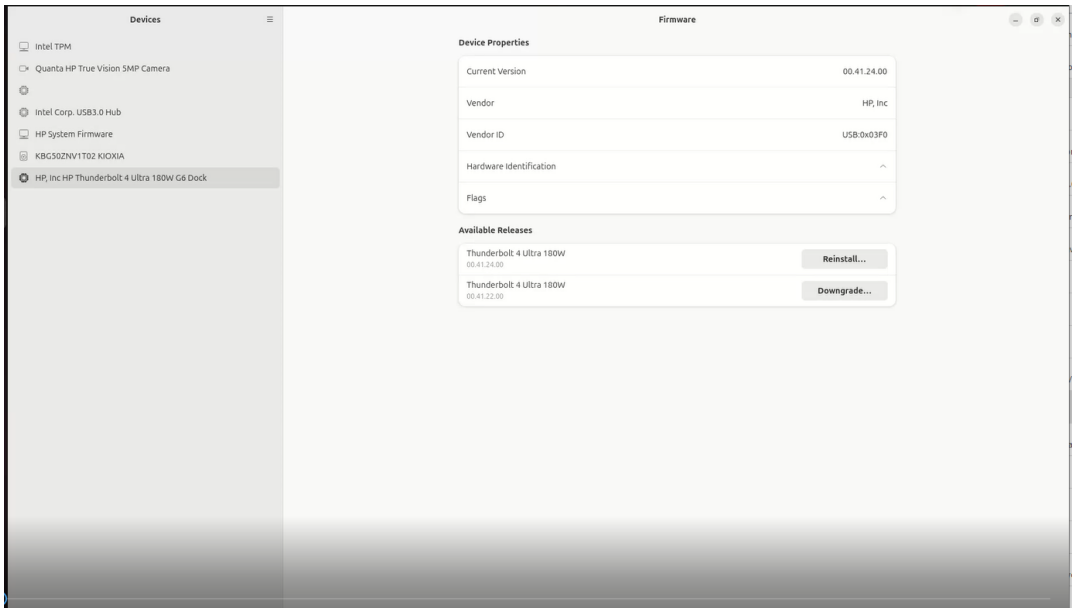
NOTE: A user must be aware and consent to a firmware update, so that they can prevent disconnection of the device during the update.

An *HP Firmware Installer Deployment User Guide* can be found at:
https://ftp.ext.hp.com/pub/caps-softpaq/cmit/whitepapers/HP_Firmware_Installer_for_Docks_L33010-004.pdf

Firmware update for Linux OS users
Linux users can update the HP USB-C 100W G6 Dock's firmware using the Linux Vendor Firmware Service (LVFS), which supports Gnome-Firmware updates.

NOTE: To be able to update the HP USB-C 100W G6 Dock's firmware, the operating system must contain the Linux Firmware Updater (Fwudp) version 2.0.2 or later.

The below screen capture shows the HP USB-C 100W G6 Dock being listed in Gnome, allowing the user to upgrade/re-install or downgrade firmware.



More information about Linux Vendor Firmware Service (LFVS) can be found at https://fwupd.org/.

Firmware update for ChromeOS users
ChromeOS users can update the HP USB-C 100W G6 Dock firmware as follows:

1. Go to **Settings** in the Chrome app.
2. Select the "About ChromeOS" option.
3. Select the "Update firmware for external devices" option.
4. Click **Update** for the "HP USB-C 100W G6" option and follow the instructions.

Firmware update will be available with ChromeOS version M133 or later. For more information on how to update firmware for devices, refer to https://lvfs.readthedocs.io/en/latest/chromeos.html.

Firmware update through the dock's wireless using Dock's Configuration web page
The HP USB-C 100W G6 Dock supports a built-in Configuration web page accessible through the dock's wireless card. The Configuration feature allows users to check for available updates, initiate firmware updates, and schedule firmware updates.

For comprehensive details on firmware Configuration settings, including firmware updates, follow this link.

Firmware updates by cloud management using Poly Lens
The dock offers functionality through wireless and NIC connections via Poly Lens, enhancing visibility into Poly devices and HP docking stations across the organization. IT professionals can remotely conduct inventory, monitor performance, update firmware, and troubleshoot Poly and HP docking devices from a centralized location.

When the dock's firmware is being managed by Poly Lens, then firmware updates via the HP One-Click Installer (OCI), LVFS, or through the Dock Configuration web page will not function.

For more detailed information about dock management interfaces, follow this link.

For comprehensive details on using the HP USB-C 100W G6 Dock with Poly Lens, including firmware updates, follow this link.

Dock eTag and dock settings

Empower your IT to manage and track your docks by product name, serial number, firmware version, and MAC Address from anywhere with the time-saving, easy-to-use Electronic Tag (eTag) asset management tool.

Information in eTag
This information is installed in the dock during HP's factory process before shipping to customers. The eTag information contains the following data:

- **Serial Number**
  Used for asset tracking and tech inventory reconciliation. Availability of this information means saving time by virtually inventorying docks.
- **Product Name**
  Identify which dock IT is managing (ex: HP USB-C 100W G6 Dock/HP Thunderbolt 4 Ultra180W G6, HP Thunderbolt 4 Ultra 280W G6 Dock). This information is helpful to customers that own a mixed fleet of docks.
- **Firmware Package Version**
  Used to identify the dock's current firmware version. This is used to determine if a firmware update is needed. In case dock support is needed for any issue, the firmware version will be useful to HP support in resolving the customer issue.
- **MAC Address**
  Provides a unique hardware address for the dock when connected on a local area network (LAN). This enables the network security team to take corrective action, if needed.
- **Dock Asset Tag**
  Allows a user to add any identifier to the dock for easier tracking and management of a dock.

Gathering eTag
The following methods can be used for eTag collection from the Dock:

- **Standalone script**: Microsoft PowerShell scripting is used by most customers versus other scripting tools.
  For example: *Get-WmiObject -Class HP_DockAccessory -Namespace root/HP/InstrumentedServices/v1 -ComputerName.*
- **Management software**: Third-party solutions can be used to send the script query to the dock to collect the ETag information. This functionality is also part of the HP Manageability Integration Kit.

For more information on how to collect eTag information, change settings, and manage the dock by creating a unique password, refer to the *Technical White Paper HP Firmware Installer for Docks*, under the "WMI Provider" section.

Changing settings on the HP USB-C 100W G6 Dock
The HP USB-C 100W G6 Dock now allows users to change settings using the HP WMI Provider. This feature enables end-users to configure the dock according to their needs and includes support for creating a Dock Firmware Password to protect these settings.

The below table shows a list of settings the HP USB-C 100W G6 Dock supports.

Setting Name	Description	Default value	Possible values	Type
Beacon Enable	Enable/Disable dock's Bluetooth beaconing	True	False/True	Boolean
Bluetooth Enable	Enable/Disable Bluetooth device	True	False/True	Boolean
InstaDock Enable	Enable/Disable HP Quick Connect	True	False/True	Boolean
Insta Notebook PowerOn	Enable/Disable Notebook PowerOn when Quick Connect with dock occurs	True	False/True	Boolean
NIC Enable	Enable/Disable dock's NIC	True	False/True	Boolean
Router Connect	Shows status if dock's wireless is connected to a router (Read only)	False	False/True	Boolean
Time Server Enable	Enable/Disable dock's time to be configured by a Timer Server	True	False/True	Boolean
WLAN Enable	Enable/Disable dock's WLAN card	True	False/True	Boolean
Asset Tag	Used to program the dock's Asset Tag	Blank	String, up to 48 characters	Text

FW Schedule	Used to schedule firmware updates	Blank	Cadence: <Daily / Weekly / Monthly> <Day of the week> Time: <xx:xx in 24 hours format> Example: “Weekly Sat 03:00	Text
FW Server	Used to select a download from firmware server	Blank	String, example: “ftp.hp.com”	Text
InstaDock	Provides HP Quick Connect status information (Read only)	Blank	String, QuickConnect information	Text
InstalDock Clear	Clears HP Quick Connect information from the docks (Write only)	False	True	Boolean
InstalDock Distance	Used to set near or far distance to save proximity and walkway threshold	Far	Far/Near	Text
RouterCA	Used to write router CA information (Write only)	Blank	Byte data	Byte
Router Cert	Used to write router certificate (Write only)	Blank	Byte data	Byte
Router Client Key	Used to write router client key information (Write only)	Blank	Byte data	Byte
Router Option	Used to select router option	Blank	Text: “NORMAL” “PEAP” “TLS” “TTLS” “FAST”	Text
Router Password	Used to provide the router password the dock will connect to Write only)	Blank	String	Text
Router PEAP ID	Used to set the Router PEAP ID	Blank	String	Text
Router PEAP Password	Used to set the router PEAP ID password (Write only)	Blank	String	Text
Router SSID	Name of the router the dock will connect	Blank	String	Text
Router Connect	Status of the dock’s connection with the router (Read only)	False	True/False	Text
Time Server	Add a time server	Blank	URL string	Text
Time Zone	Add a time zone	Blank	2-byte integer for the time zone identifier (for Time Zone identifiers)	Text
Time DST	Used to enable/disable Day Light Savings	False	True/False	Text
WLAN STA MAC	MAC address for WLAN while in Station mode	MAC Address in STA mode	Dock’s MAC address while in STA mode	Text
WLAN AP MAC	MAC address for WLAN while in Access Point mode	MAC Address in AP mode	Dock’s MAC address while in AP mode	Text
WLAN STA IP	IP Adress	Wireless IP address	Dock’s wireless IP address	Text
WLAN Mode	Refers to the WLAN mode while in use (Read only)	NONE	AP / STA / CONCURRENT / NONE	Text
Manager	Returns current Manageability owner	None	USB-C® (owned by setting password using HP WMI Provider) Cloud (owned by Poly Lens)/ None	Text

Using HP CMSL

The Client Management Script Library (CMSL) currently incorporates several modules, like BIOS, Softpaqs, and Display, among others, adding support for the HP USB-C 100W G6 Dock. The HP CMSL will also add a Docks module, which allows users to get dock information, trigger firmware updates, etc.

CMSL is supported on 64-bit PowerShell 5.1 and higher. It supports Windows 10 version 1809 and higher, and Windows 11.

For more information on using HP CMSL, visit Client Management Script Library | HP's Developer Portal and go to the "Dock's" section.

Resetting dock to factory defaults

The HP USB-C 100W G6 Dock allows user to reset the dock to factory defaults settings, returning to its original state.

After resetting defaults, the following parameters will be cleared:

- Passwords
- HP Quick Connect registrations
- Wi-Fi and network related setting
- Dock Asset Tag
- Provisioning settings

After resetting defaults, the following parameters will be restored to their default values:

- Dock settings
- Dock time

Upon resetting defaults, the following will occur:

- The Power button LED and the front base LED bar will blink white for around 40-45 seconds, which is the amount of time it takes to complete this process.
- Until completion, the dock will not be accessible/usable; once blinking has stopped, the dock will be usable again.

Methods to trigger a reset to factory defaults

1. Manually (requires user's physical presence)
    a. Unplug AC from dock and make sure it is not connected to any Notebook.
    b. Press the **Power** button on the dock.
    c. While pressing the Power button, apply AC to the dock.
    d. Keep pressing the Power button for around 15 seconds
    e. When the Power button LED and the front base LED bar start to blink white, release the Power button. At this time, the dock is resetting to factory defaults settings
    f. The blinking pattern will last for around 30 seconds. Once it stops, the reset to defaults action has completed.

2. Using the Dock Configuration web page
    a. Access the Dock Configuration web page (follow link for instructions).
    b. In main menu, select "Factory Restore" and follow the instructions.

Wired manageability

MAC Address Pass Through (MAPT)

The HP USB-C 100W G6 Dock supports MAC Address Pass Through with select Notebooks, which allows the Notebook to override the dock's NIC factory MAC address with a "host-based" unique MAC address (HBMA). This allows the Notebook to be uniquely identified on the network when it is using the HP USB-C 100W G6 Dock's NIC to connect to the network using just the HBMA address.

There is also a user defined "custom" MAC address that can be used for MAC Address Pass Through address purposes instead of the system's HBMA address. Optionally, on systems that have an embedded LAN, the user can choose to "Reuse the embedded LAN Address" instead of the system and custom HBMA addresses. This allows the same MAC address to be used if either the embedded LAN or the HP USB-C 100W G6 Dock is connected to the network. The MAC Address Pass Through address is stored in BIOS at the factory and is configurable in F10, BIOS Settings.

The MAC Address Pass Through feature supports UEFI PXE boot, Legacy PXE boot, Windows PE, Windows 10, and Windows 11. However, it is not supported on macOS, ChromeOS, or any Linux-supported distribution.

The MAC Address Pass Through is supported when the Notebook is On and the dock is attached and transitions to a Sleep, Hibernate, or Off state, and when the dock is attached after the Notebook is already in the Sleep, Hibernate, or Off state.

The *MAC Address Pass Through Technical White Paper* is located at:
http://h20195.www2.hp.com/v2/GetDocument.aspx?docname=4AA7-0690ENW

Ethernet Driver installation
Both, the host and the dock, must be ON and attached to be able to install the dock Ethernet Driver. Windows OS carries the Realtek Ethernet driver.

NOTES:
- For supported HP systems, PXE boot will be supported regardless of the NIC being used from the dock.
- For Apple systems, PXE boot (referred to by Apple as "BSDP") will work if using the Realtek NIC from the dock.
- For Chromebook systems, there is no PXE boot support.

Wake-on-LAN
The HP USB-C 100W G6 Dock supports Wake-on-LAN (WOL) with select Notebooks from all the system sleep states (Sleep, Modern Standby, Hibernate, and Off) with the MAC Address Pass Through feature enabled or disabled.

Wake-on-Lan is supported regardless of whether the dock connection with the host is Thunderbolt™/USB4 or Multi-function mode.

Both the NIC network adapter and the Wake-on-LAN parameter need to be configured to enable WoL.

From Windows Device Manager and within the NIC network adaptor properties dialog box, the "Allow the device to wake the computer" option must be checked under Power Management option. The BIOS Wake-on-LAN parameter is located under the Built-in Device BIOS F10 menu. By default, WoL is enabled and set to "Boot to Hard Drive."

On Modern Standby enabled Notebooks, there is no traditional Sleep state; however, WoL will continue to work when those Notebooks are in Hibernate or Off state.

NOTE: For non-HP systems, the Wake-on-Lan feature has the following limitations:
- For Apple systems, Wake on Lan will only work from the Standby state, if the system enters Standby while attached to the dock with a network cable connected.
- For Chromebook systems, Wake on LAN is not supported.

Management via the Dock Configuration web page

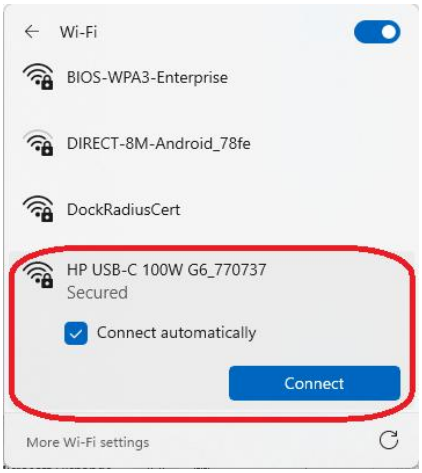
The HP USB-C 100W G6 Dock supports a built-in web page that allows user to configure and change settings, set passwords, and schedule firmware updates, among other features.

Launching the Dock Configuration web page and first-time connection
With any host that can run a web browser, a user can access the Dock Configuration web page by following these steps:

1. Before starting, remove button cover for the HP Thunderbolt Ultra dock and locate the dock's service tag. Make a note of the dock's serial number and WIFI password.

   NOTE: When reading the service tag, be careful not to press the top of the dock to avoid accidentally hitting the Power button.

2. Ensure the dock has power and is not connected to any host by the dock's type-C® connection.
3. Press and hold the **Power button** on the dock for around 5 seconds, until the Power button and the front base LED bar start to breathe blue. This sets the dock to enter the Wi-Fi AP mode,
4. From the host, scan for wireless networks. Your dock's wireless SSID name will be "HP USB-C 100W G6 + Last 6 digits of the dock's serial number." Once located in the list, select to connect to it.



The above screen capture shows the Dock's SSID listed in the available wireless networks. This interface might vary depending on the operating system used by the host.

5. Provide the **WIFI password** obtained from the service tag and continue to connect.
6. Once the host connects to the dock's wireless network, the Dock Configuration web page will launch automatically in the host's web browser.

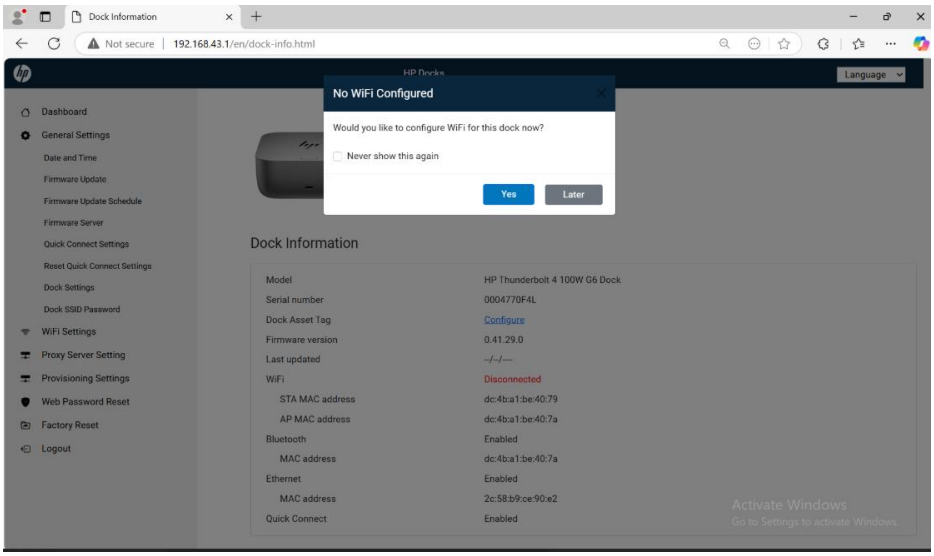
   NOTE: If the Dock Configuration web page does not launch automatically, open the web browser manually, and type http://hpdock/local/ in the address bar to launch the page.

7. When first connecting, you will be prompted to create a login password.

HP recommends the following strong password guidelines:

- At least one uppercase and one lowercase letter
- At least one number
- At least one special character
- A length of at least 12 characters

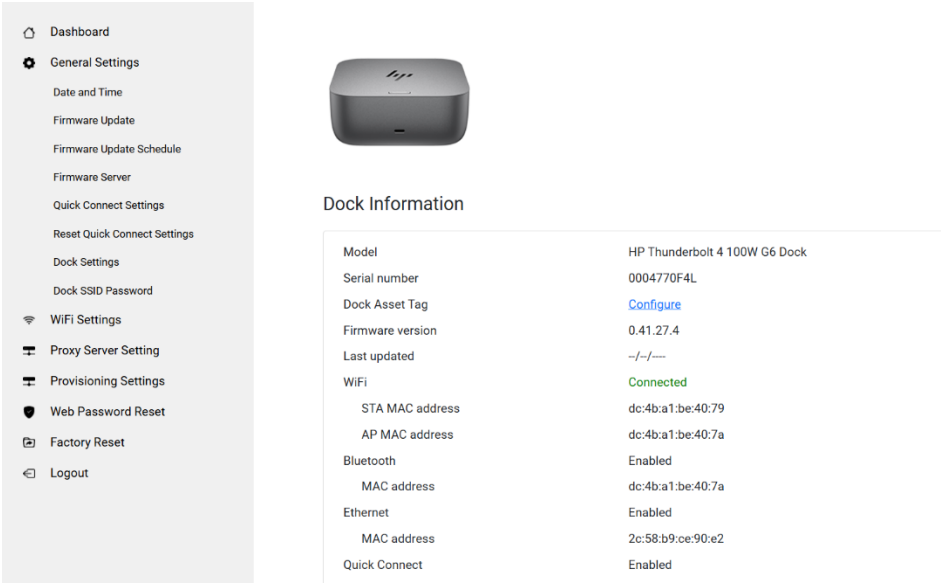
8. Upon first logon, the Dock Configuration web page will prompt for configuring dock's Wi-Fi to connect to a router and to schedule firmware updates. This is optional and can be done later.



9. Once completed, it is recommended that the user disconnect the host from the dock's SSID, by selecting it from the wireless network list, and then selecting **Disconnect**.

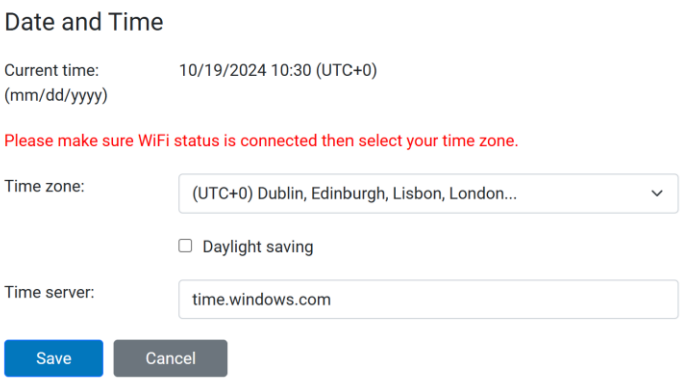
Navigating the Dock Configuration Web Page and functionality
The Dock Configuration web page allows the following dock features to be managed:

Dashboard:
Users can view the dock's system information, which includes Serial Number, Dock Asset Tag, Firmware Version, Last Firmware Update, Wi-Fi MAC, Bluetooth MAC, and HP Quick Connect status.



NOTE: Most Dashboard information is display-only. However, users are allowed to modify the Dock Asset Tag.

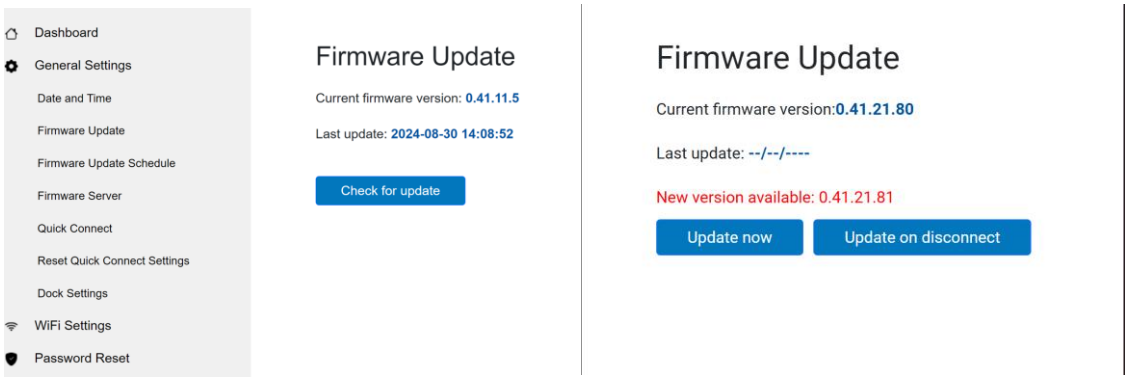
Date and Time:
Users can manually set the date and time, or choose to use an Internet time server.



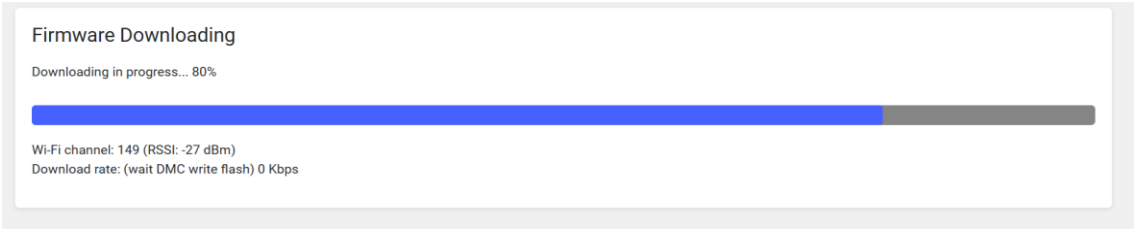
NOTE: When setting the time manually, if dock's power is disconnected or lost, then the dock time will go back to default (12:00:00, 1/1/2001).

Firmware Update:
Users can check if dock's firmware is up to date or not, and upgrade if needed.

Users can choose "Update now" to immediately start a firmware update, or to update the dock's firmware once the dock is disconnected from the host.



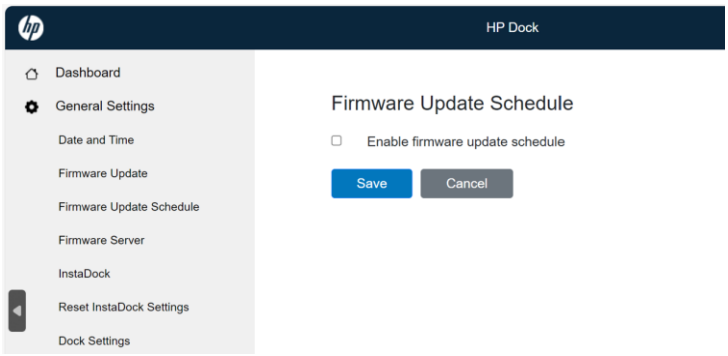
If a user chooses to update the dock's firmware, the below screen will appear indicating update progress.

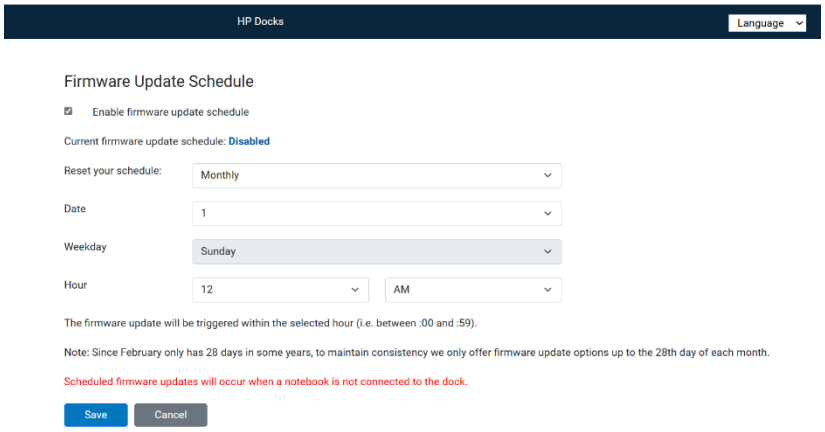


NOTE: While the dock is updating the firmware, the dock is not usable until the firmware update is completed. To use this functionality, the dock's wireless must be configured to be connected to a router with internet connection

Firmware Update Schedule:
Users have the flexibility to configure and schedule firmware updates; this includes Monthly/Daily and time choices.

Scheduled firmware updates will occur when a Notebook is not attached to the dock; thus, it is recommended is to use a day/time that the dock is not normally in use.

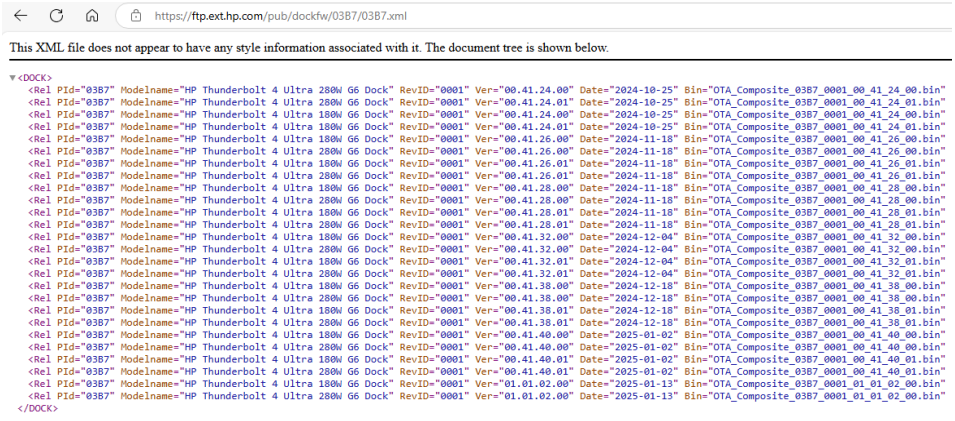


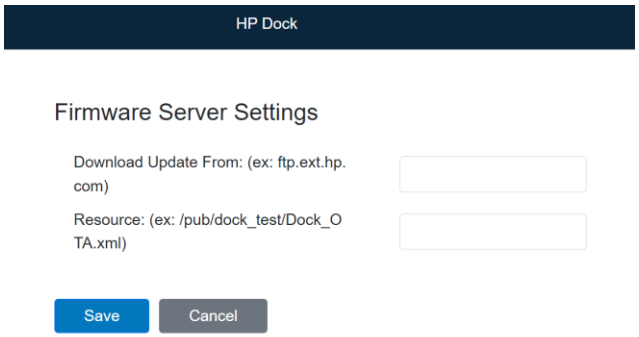


Firmware Server:
For all firmware releases, HP will upload all the binaries to a dedicated HP server, and by default the HP Dock will search the HP server for firmware updates.

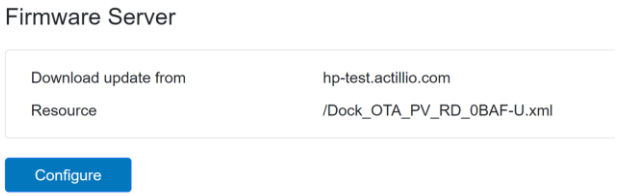
If the user wishes to use their own server to host the dock's firmware binaries, they can use the Dock's Configuration web page. This allows customization of the server's name and path where the binaries will be located for their environment.

For reference only, below is the current XML file for the "HP Thunderbolt 4 Ultra G6 Dock" and its default location.





Below is a sample of a customized server/path location.

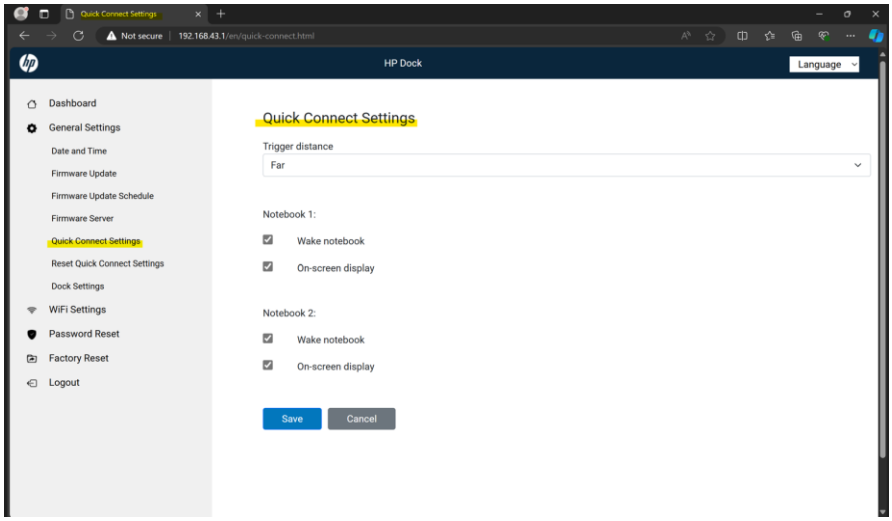


Customized server and resource path requirements are as follows:

- If a user chooses to use their own server, make sure the server can provide HTTP or FTP access.
- The resource path must be a valid location in the server pointing to the dock's XML file to use. All the firmware binaries should be located in the same path as the XML file, (the dock's XML and binaries can always be downloaded from the HP server default location).
- Users can use the same XML file and binaries from the HP default location and copy to their customized resource path.

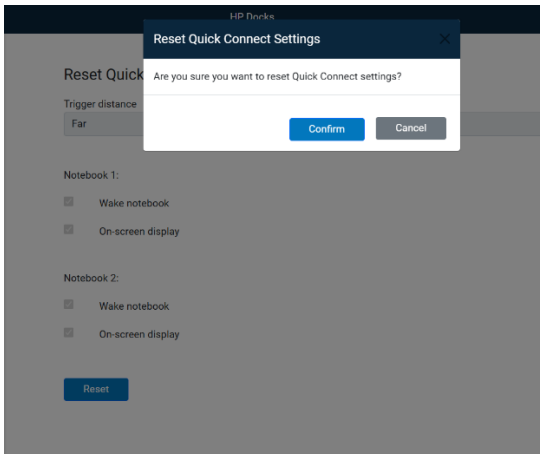
NOTE: When triggering or scheduling a firmware update, the dock will automatically choose the latest firmware version, as reported in the XML file.

HP Quick Connect Settings:
Users can configure HP Quick Connect related settings. This includes trigger distance, enable/disable Wake Notebook, and enable/disable On-Screen Display.



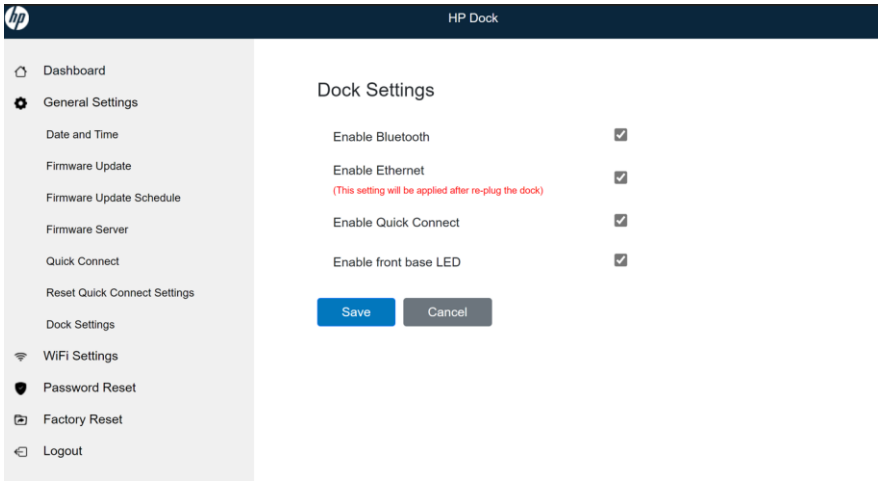
For more information on HP Quick Connect, follow the link.

Reset HP Quick Connect Settings
Users can reset HP Quick Connect settings to defaults.



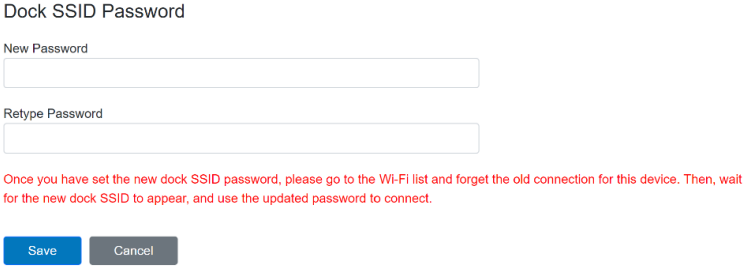
For more information on HP Quick Connect, follow the link.

Dock Settings:
Users can enable/disable dock features: Bluetooth, Ethernet, HP Quick Connect, and Front Base LED.



Dock SSID password:
Users can change the dock's SSID password.

NOTE: When changing the dock's SSID password, be sure to "forget" this network in the Wi-Fi list on your host. This is to avoid your host automatically attempting to connect to the dock's SSID using the previous SSID password.

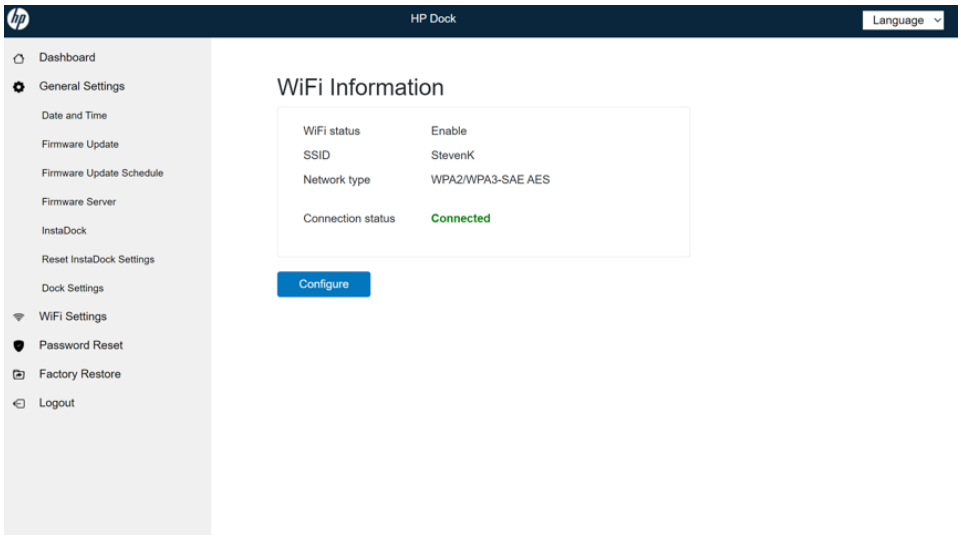


Wi-Fi settings:
Users can configure the dock's Wi-Fi to connect to a router.

The following type of connections are supported:

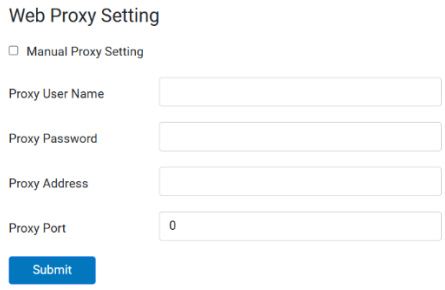
- WPA2-Personal
- WPA2 enterprise limit support
  - Dock can support the following EAP security types: EAP-FAST, EAP-TLS, PEAPv0/EAP-MSCHAPv2, EAP-TTLS/MSCHAPv2.
- WPA3-Personal

Once the Wi-Fi has been configured, the status will be displayed.



NOTE: While the dock's Wi-Fi is connecting to the router, the connection from the host to the Dock Configuration web page will be interrupted. Depending on the host settings, it will re-connect automatically; if this does not occur, follow steps to connect to the dock's SSID again.

Web Proxy Settings:
Users can configure Web proxy settings for their network environment.



NOTE: PAC file processing is currently under development and will be released after product launch.

Web Password Reset:
Users can reset/change the Dock Configuration web page password.

Factory Reset:
Users can reset dock settings to HP factory defaults.

After resetting defaults, the following parameters will be cleared:

- Passwords
- HP Quick Connect registrations

- Wi-Fi and network-related setting
- Dock Asset Tag
- Provisioning settings

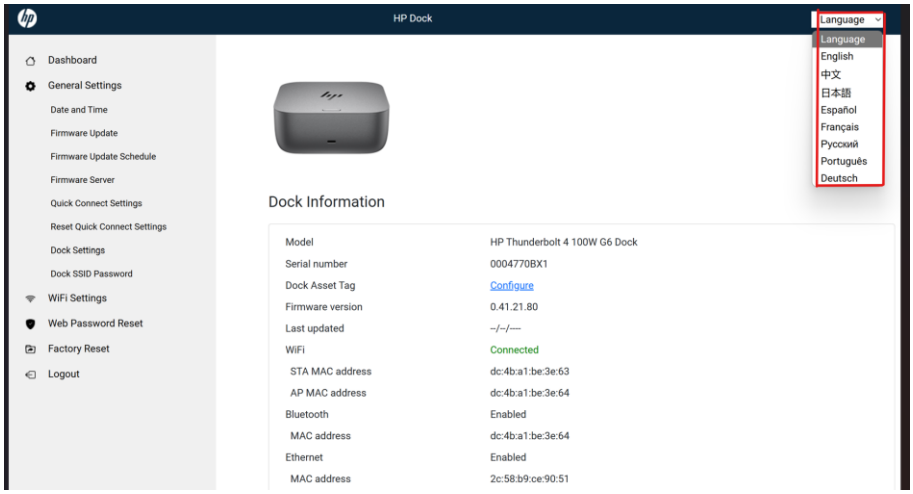
After resetting defaults, the following parameters will be restored to their default values:
- Dock settings
- Dock time

Upon resetting defaults, the following will occur:
- The Power button LED and the front base LED bar will blink white for around 40-45 seconds, which is the amount of time it takes to complete this process.
- Until completion, the dock will not be accessible/usable. Once blinking has stopped, the dock will be usable again.

Logout:
After a user logs out, the browser will go back to the Login page.

NOTE: After a logout, it is recommended to disconnect the host from the Dock's SSID.

Language:
Users can select a preferred language for the Dock Configuration web page.



Dock manageability priority

The HP USB-C 100W G6 Dock can be managed through three different interfaces:
- Poly Lens
- Dock Configuration web page
- Dock's HID interface using the HP WMI Provider

When any interface manages the dock, users will have limited or no control when using any of the other interfaces to manage the docks.

Table with interface priorities and limitations

Starting managed state	Can Poly Lens start to manage dock or change settings?	Can HID interface (using HP WMI Provider) start to manage dock or change settings?	Can Dock Configuration web page start to manage dock or change settings?
Non-managed	Yes	Yes	Yes
Poly Lens*	Yes	No (Read only)	No (Read only)
HID interface**	Yes (Poly Lens will start to manage the dock)	Yes	No (Read only)
Dock Configuration web page***	Yes (Poly Lens will start to manage the dock)	Yes	Yes

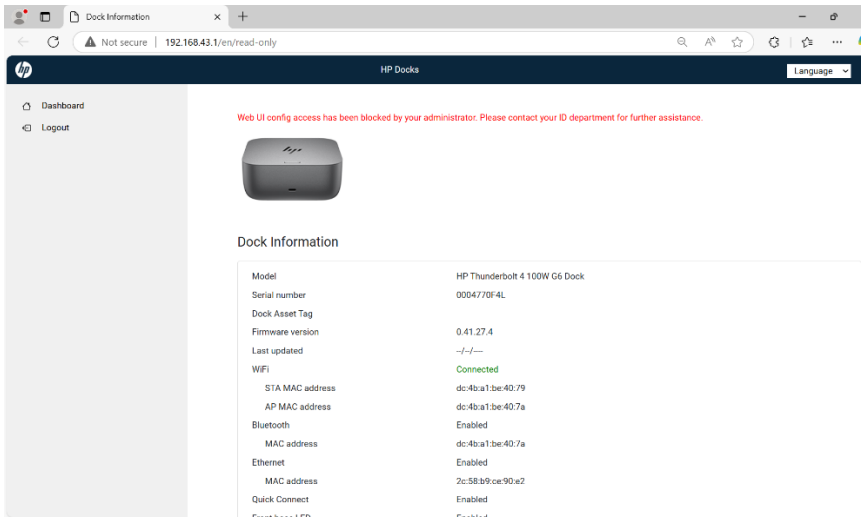
* For more Poly Lens management information, refer to this link.
** For dock management by WMI Provider, refer to his link.
*** For Dock Configuration web page management, refer to this link.

Table with transitions between managed interfaces

Starting managed state	To non-managed	To Poly Lens managed	To HID managed (using HP WMI Provider)	To Dock Configuration web page
Non-managed	NA	Provisioning*	Set Authentication to take ownership	There is no setting that makes it Web UI-only. This only means that Web UI login is created, which is needed anyway for accessing the Dock Configuration web page.
Poly Lens*	Dock Factory Reset	NA	-	-
HID (WMI Provider) **	Dock Factory Reset	Provisioning*	NA	-
Dock Configuration web page***	Dock Factory Reset	Provisioning*	Set Authentication to take ownership	NA

* For more Poly Lens management information, refer to this link.
** For dock management by WMI Provider, refer to this link.
*** For Dock Configuration web page management, refer to this link.

As per the above table, when the dock is managed by Poly Lens or by HID interface (setting password/credentials using the HP WMI Provider), then the Dock Configuration web page will be displayed in Read-only mode. Only the Dashboard screen becomes accessible.



Firmware updates while dock is being managed
HP One-Click Installer and firmware updates using the Dock Configuration web page will not be allowed. This gives the ITDM administrator control of when firmware updates can occur.

NOTE: Future dock firmware releases will add support to allow firmware updates on Poly Lens managed docks by HP One-Click Installer, if defined by Poly Lens policy usage.

Dock manageability using Poly Lens

Poly Lens allows users to make the most of their workspace and use the basic service for free. Users can self-enroll and begin using the service immediately.

Visit Poly Lens Help to get an overall understanding of Poly Lens support, features, and functionality.

Create an account with Poly Lens
To use Poly Lens, you must set up an account and log in to the application.

- Create an account
- Log in
- Permissions

Network requirements, support, and limitations

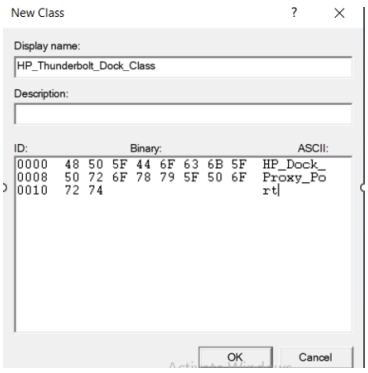
- Ports and Protocols
- Limitations:
  - A dock can only be Poly Lens managed by the dock's wireless LAN or NIC (using the Realtek NIC); it cannot be managed by both simultaneously.
  - If a dock is Poly Lens managed by the NIC, then if a host is attached to the dock, the NIC will be used by the host and not the dock for manageability. A provisioning policy to allow the dock to keep using the NIC for manageability while docked will be added in a future maintenance release.
  - 802.1x network: Supported by wireless only; NIC (RJ-45) to be supported by maintenance release.
  - SCEP authentication is not supported.
  - Web Proxy:
    - IOT service support over Web-Proxy will be available with the first maintenance release.
    - PAC file support to be available by future maintenance release (see provisioning by DHCP server for alternative options).

Onboarding
Onboard HP Docking Station Devices via the DHCP Auto Discovery

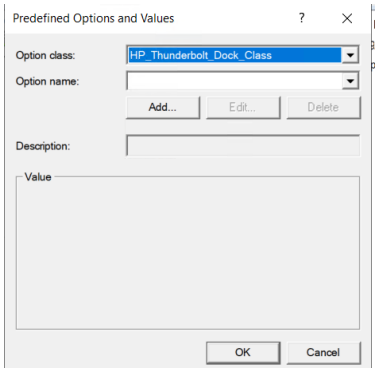
Configuring Web Proxy while onboarding using DHCP Auto Discovery
Through the same DCHP Auto Discovery step, the Web Proxy settings of a network environment can be provided to the dock as the dock is being provisioned, by using options in the DHCP server described below.

1. Ensure the DHCP server is configured as in this link.
2. The DHCP server changes must also be made, if needed, to support Web Proxy:
   a. Create a Vendor Class for HP Thunderbolt dock.

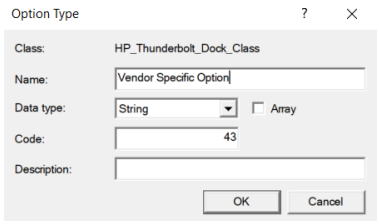
      NOTE: The class must be called "HP_Thunderbolt_Dock_Class," with the added identifier "HP_Dock_Proxy_Port." This is a string value.



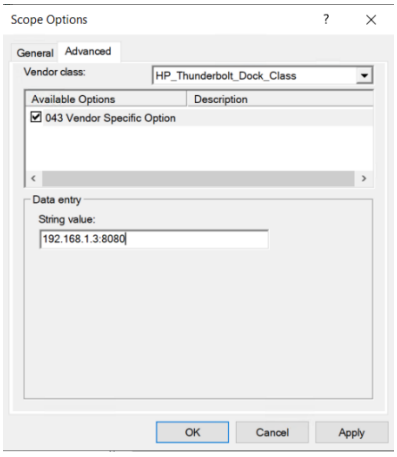
   b. Add option **43** for the new created class "HP_Thunderbolt_Class." This option will have the proxy address and the port number for the network environment.
   c. On the IPv4 node, right-click and select **Set Predefined Options**.
   d. Select the newly added class **HP_Thunderbolt_Class**.
   e. Click **Add**.



f. Provide **43** for Code, **String** as Data type, and then click **OK**.



g. Add the value of option **43** in the DHCP Scope.
h. Go to Scope Options > Configure Options > Advanced Tab, and then select **HP_Thunderbolt_Dock_Class**.
i. Select **43 Vendor Specific Option**.
j. Add the String value <proxy ip address>:<port> ; for example, 192.168.1.3:8080
OR
Add the String value <FQDN>:<port> ; for example, www.myproxy.com:8080



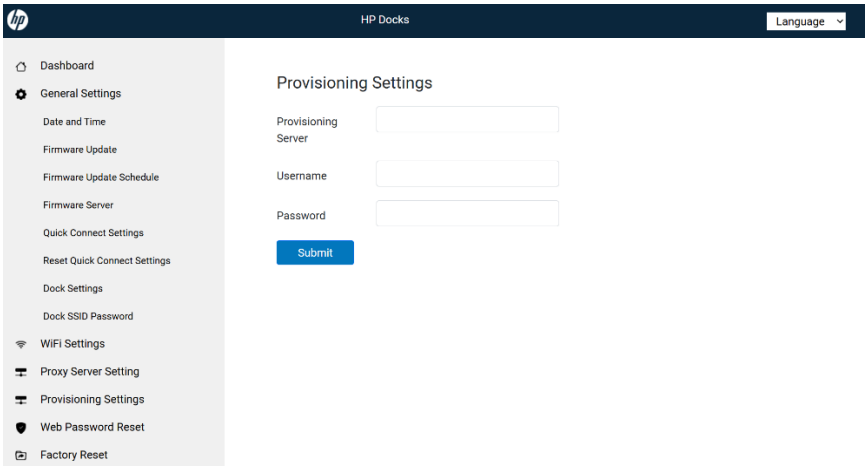
This completes configuring Web Proxy on a dock using the DHCP Auto Discovery process.

Onboard a single sock device using Provisioning through the Dock Configuration web page
Users can also use the Dock Configuration web page to onboard the dock as follows:

1. Launch the Dock Configuration web page (for steps, follow instructions).
2. Enter the login password.

   NOTE: Before providing Provisioning Settings, be sure to configure dock's WLAN router connection under "Wi-Fi settings" and "Proxy Server Setting," if needed.

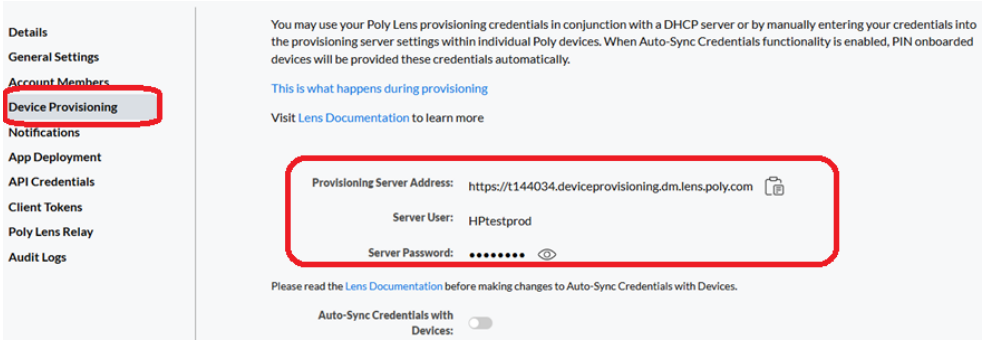
3. Go to **Provisioning Settings**.



4. Add the Provisioning Server, Username, and Password. Then click **Submit**.

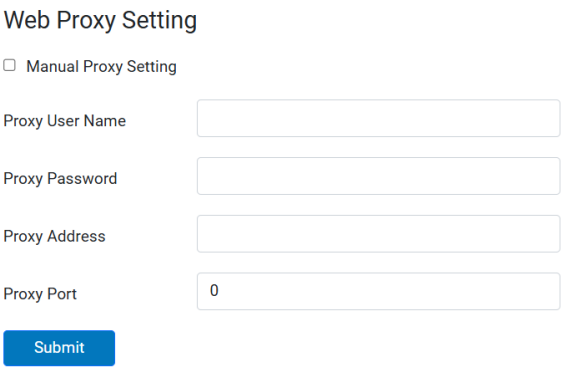
   NOTE: This information is available at Poly Account Settings > Device Provisioning.

5. Once the dock onboarding process starts, LED notifications will occur as described in this document.



Configuring Web Proxy while using Dock Configuration web page
Users can configure the Web Proxy settings prior on-boarding, using the Dock Configuration web page or DHCP Auto Discovery.

1. Launch the Dock Configuration web page (for steps, follow instructions).
2. Enter login password.
3. Go to **Proxy Server Settings**.



4. Enable **Manual Proxy Setting**, and then enter Proxy Address, Proxy Port, Proxy Username, and Proxy Password, if applicable.

NOTE: IOT service support over Web-Proxy will be available with the first maintenance release. PAC file support will also be available by first maintenance release (see provisioning by DHCP server for alternative options).

Onboard a HP Docking Station Device with a PIN Code

NOTE: In a Web Proxy environment, onboarding by PIN is not supported. Support will be added by first maintenance release. For a single onboarding alternative, follow the Doc Configuration web page to "Onboard a Single Dock Device using Provisioning."

Poly Lens Home page
Manage Accounts
Inventory
Device Details – Docking Stations
Settings – Docking Stations
Actions
Policies
Sites
Rooms
Device Groups
Device Users
Software Download
Insights
FAQ (Note: certain topics apply to Device Docks)
Troubleshooting (Note: certain topics apply to Device Docks)

HP Quick Connect

Reduce latency time when connecting to your Notebook with HP Quick Connect. When enabled, HP Quick Connect on the docking station pre-emptively wakes your Notebook, connected accessories, and displays so that your entire workspace is ready before you sit down. All you need to do is plug in and resume your workflow.

When HP Quick Connect is set up with a host, the dock's Bluetooth will detect the Notebook nearby, powering it On or resuming from Hibernation. The dock's monitor will then wake up, displaying an OSD, accelerating the dock's readiness. and starting the host Boot process earlier.

Supported models
HP Quick Connect is only supported on HP Commercial Notebooks; this implementation requires the Notebook to use its built-in Bluetooth device. This feature is only supported by Windows OS. The following generations will support HP Quick Connect:

- HP Notebooks G11 with Intel chipsets or newer generations
- HP Notebooks G12, G1ix Intel and AMD chipsets or newer generations.

The below table shows supported Notebooks available by HP USB-C 100W G6 Dock launch date, and provides minimum firmware and driver requirements. Visit www.hp.com and download required firmware/software to support the HP Quick Connect feature.

Product name	Minimum BIOS version	Minimum Bluetooth driver version	Support available date
HP EliteBook 860/840/830 G11 HP EliteBook x360 830 G11 HP ZBook Firefly 14/16-inch G11	01.05.00	Intel: 23.60.0.1	2/20/2025
HP ProBook 460 14/16-inch G11	01.05.00	Intel: 23.60.0.1 Realtek: 1.10.1061.3021	2/20/2025
HP EliteBook 660/640/630 G11	01.05.00	Intel: 23.60.0.1	2/20/2025
HP ZBook Power 16-inch G11	01.05.00	Intel: 23.70.0.2	2/20/2025
HP EliteBook X Flip G1i 14 HP EliteBook X G1i 14 inch	01.01.08	Intel: 23.110.1.2	2/27/2025
HP Elite x360 1040 14-inch G11 HP EliteBook 1040 14-inch G11	01.05.00	Intel: 23.60.0.1	2/20/2025
HP EliteBook X G1a 14	01.01.03	Mediatek: 2.22.0.68	2/28/2025

Setting up HP Quick Connect (manually)

Host preparation:

1. Ensure your Notebook is part of the supported list and is up to latest firmware and drivers.
2. Enable HP Quick Connect in the Notebook via the BIOS F10 setup.
   a. Boot up the Notebook and tap the **F10** key.
   b. The BIOS F10 setup will appear.
   c. Go to Advanced >Built-In device options, and enable **HP Quick Connect** and **HP Quick Connect Notebook Wake**.
   d. Save and exit.

Dock preparation (if needed):
Out of the factory, HP Quick Connect is enabled by default in the dock's firmware. In case this feature has been disabled in the dock, follow these steps.

1. Using the Dock Configuration web page:
   a. Connect and login to the Dock Configuration web page (link for steps).
   b. Go to the "HP Quick Connect Settings," and enable **HP Quick Connect**.
2. Using the HP WMI Provider:
   - Refer to HP WMI Provider usage to enable HP Quick Connect from the command line using a host attached to the dock.

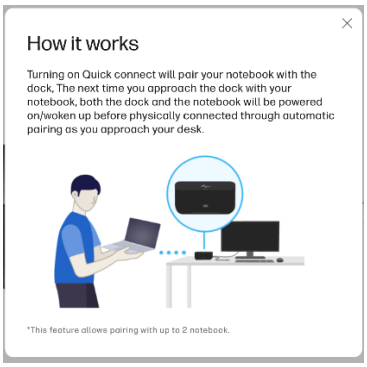
HP Quick Connect registration
In the Windows OS, hot plug the HP dock to the supported host. The Notebook will be automatically registered on the dock with no needed intervention.

A dock can support up to two hosts simultaneously, and a host can be registered for up to two different docks.

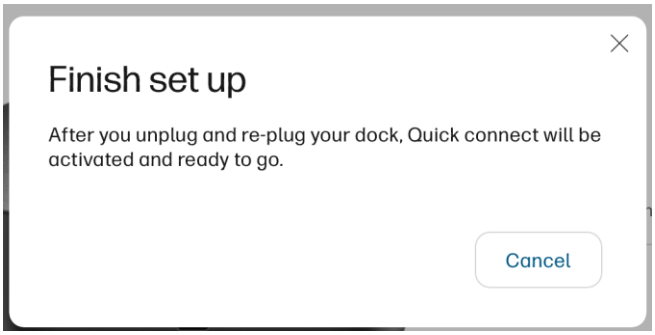
Setting up HP Quick Connect using myHP application
Users can also use the myHP application to enable HP Quick Connect in their Notebook.

1. Launch myHP (for more information about myHP follow link).
2. From the Main menu, go to **Dock Station**, select the "HP USB-C 100W G6 Dock."

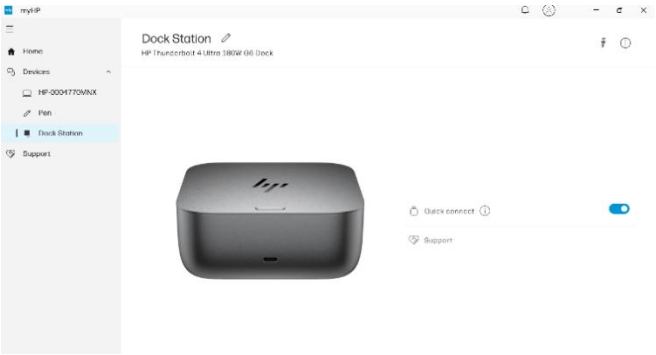
3. If the Notebook supports HP Quick Connect, then the option to enable HP Quick Connect will be listed.
   (If this option is still missing, ensure the latest version of myHP is downloaded and installed from hp.com.)
4. Enable it by sliding switch to the right (you can also refer to the **Help** icon for more information).



5. A prompt will appear asking to disconnect and re-connect the dock.



6. Once dock is plugged back in, the HP Quick Connect registration will be completed, and the user can now start using HP Quick Connect.



Using HP Quick Connect

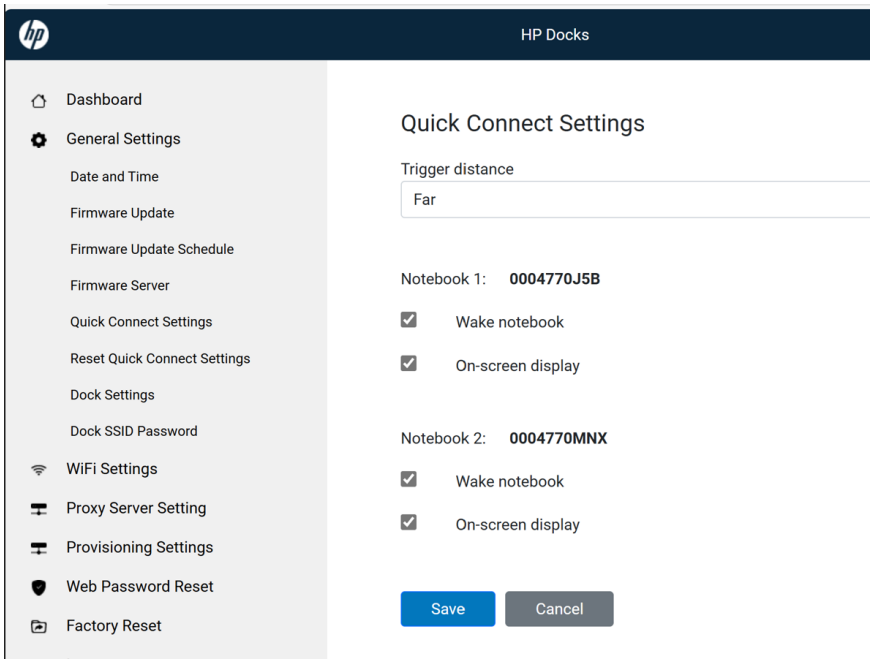
The next time user approaches the dock, the dock will recognize the Notebook as a registered host and will send a signal to the Notebook to turn ON (or resume from Hibernation). In parallel, the monitor attached to the dock will turn ON and display and OSD image. This helps to ensure monitor is already awake when the Notebook is attached to the dock, thus accelerating docking effort and improving reliability as well.

Configuring and managing HP Quick Connect

Certain environmental factors may impact the Wake-up action on HP Quick Connect. For example, heavy foot traffic of other Bluetooth® devices or heavy walls around the dock's location could delay Wake-up timing of the dock and PC. To address this issue, users can configure HP Quick Connect settings via the Dock Configuration web page. This adjustment will help tailor the experience to better suit the user's environment, and it extends to each Notebook (up to two Notebooks) registered to the dock.

The below listed settings are configurable under the HP Quick Connect menu.

Trigger Distance:
User can select Far or Near as a trigger distance. The exact distance cannot be determined since each environment is different, thus user can select what works best to improve their experience.
Wake Notebook:
Allows user to disable or enable "Wake Notebook" when in proximity to the dock (default is enable); this can be configured by the registered host.
On-Screen Display:
Allows user to disable or enable displaying an "On-Screen Display" when the Notebook is in proximity; this can be configured by the registered host.
Enable/Disable HP Quick Connect (under "Dock Settings"):
Listed under the "Dock Settings" menu, user can enable/disable the HP Quick Connect feature.
Reset HP Quick Connect settings (under "Reset HP Quick Connect Settings"):
Allows user to clear all hosts registrations in the dock.



The above screen shot shows configurable HP Quick Connect settings for Notebooks that have been registered to the dock.

Troubleshooting Issues

Each troubleshooting topic may have more than one recovery method. Walk through recommended each step until the issue is resolved.

Cannot enable HDR mode on a display if connected to a host in Multi-function mode, monitor will turn OFF
This issue can reproduce on a non-DSC monitor attached to the Thunderbolt™ port of the dock using a non-Thunderbolt™ host (Multi-function host). This is as designed due to data limitation on this type of connection.

To resolve, do the following:
- Connect monitor to the DP Alt mode port (Type-C®), DP or HDMI port of the dock

No display on monitor attached to the Thunderbolt™ port on the HP USB-C 100W G6 Dock
On a dual monitor setup, the monitor attached to the Thunderbolt™ Type-C® port will not light up. If the dock is connected to a Multi-function host (non-Thunderbolt host), the HDMI/DP or Type-C® alt mode ports will remain working when this issue occurs.

To resolve, do the following:

- Connect failing monitor to any of the non-Thunderbolt available ports in the dock; this can be the DP Alt mode port, DP, or HDMI port.

Monitor cannot display or reach 4K by 60Hz resolution when connected to the dock by using a DP to HDMI passive dongle

To resolve, follow these steps:

1. Reduce the monitor resolution to 4K by 30Hz.
2. Switch to an active dongle.

Intermittently, DP 1.4 monitor might not display after hot plugging a host to the dock

To resolve, follow these steps:

1. Set the monitor to DP 1.2 using the monitor's built-in menu.
2. Un-plugging the host from the dock, and re-plugging it could solve issue.

NOTE: HP is investigating the issue, and a solution could become available on maintenance release.

The dock or peripherals connected to the dock do not appear in the OS

To resolve, do any of the following:

- Ensure the dock is authenticated properly.
- Unplug and re-plug the dock.
- Restart your Notebook or mobile workstation.
- Reset hardware (see description below for more details).

Thunderbolt™ Controller and/or Intel® USB 3.1 Host controller has an error code in Device Manager

This could be the result of reinserting the dock too quickly without full de-enumeration of the dock.

To resolve, follow these steps:

1. To work around this issue, simply unplug the Thunderbolt™ dock from the system. Wait 20 seconds and then re-dock the system.
2. In some rare cases, if the first recover method doesn't work, you can undock and then reboot the system.

In some cases, you may notice that the HP USB-C 100W G6 Dock power LED may not be in sync with the system Power button LED after resuming from Standby state

Functionally there is no impact, but the LEDs maybe out of sync. The LEDs on the system and the dock are working as expected, just out of sync.

Customers using Windows 10 build 10586 or earlier may experience a BSOD when resume from standby or hibernation with HP USB-C 100W G6 Dock attached:

Windows 10 revision 10586 or earlier does not have full support of the USB Type-C® Connector System Software Interface. You must disable the USB Type-C® Connector System Software Interface in the HP BIOS.

To resolve, follow these steps:

1. Go to F10 BIOS setup.
2. Go to the Advanced tab and select System Options.
3. Disable the USB Type-C® Connector System Software Interface.
4. Save and exit.

Internal display corruption when cold boot with VGA monitor attached via USB-C® to VGA dongle

This known issue may occur on HP Thunderbolt platforms with Intel graphics running Windows 10 in legacy boot mode.

To avoid this issue, change the boot mode to UEFI in the F10 BIOS as follows:

1. Go to F10 BIOS setup.
2. Go to the Advanced tab and select Option ROM Launch Policy.
3. Change boot mode to All UEFI.
4. Save and exit.

Thunderbolt™ 3 storage device disappears from "My computer" after restart with device attached:

To work around this issue, enable FastBoot in the BIOS as follows:

1. Go to F10 BIOS setup.
2. Go to the Advanced tab and select Boot Options.

3. Unselect FastBoot.
4. Save and exit.

Intermittently USB displays may not appear after restart
To work around this issue, do either of the following:

- Re-plug the display.
  OR
- Toggle the display modes from Duplicate to Extended.

USB Type-C® Connector System driver may have error code in Windows 10 build 16299
To work around this issue, do either of the following:

- Unplug the HP USB-C 100W G6 Dock and restart.
  OR
- Reload the USB Type-C® Connector System driver in Device Manager.

Intel® Collage mode may not persist after resuming from Standby or Hibernation
This is due to a latency issue after resuming from a Sleep state. The issue can be resolved by re-enabling Intel® Collage mode from the Intel® Display Control panel.

HP Thunderbolt Notebooks that have Native PCIe hot plug enabled may encounter an issue where the HP USB-C 100W G6 Dock may not fully enumerate when resuming from a warm dock state.
To work around this issue, do the following:

- Unplug and re-plug the HP USB-C 100W G6 Dock.

USB device connected to the dock stops functioning
To resolve, follow these steps:
1. Unplug and re-plug the USB device.
2. Unplug and re-plug the dock.
3. Restart your Notebook or mobile workstation.
4. Reset hardware (see description below for more details).

Monitors connected to the HP USB-C 100W G6 Dock don't wake from a Sleep state or on a hot plug with HP display
Some HP displays have a known issue of waking from a "Low power" state.

To work around this issue, change the option to "Always Active" on the On-Screen Display menu as follows.
1. Open the On-Screen Display menu on the monitor.
2. Select the Menu option.
3. Select "Input Control."
4. Select "DP Hot-Plug Detection."
5. Select the "Always active" option and save.

To perform a hardware reset of your Notebook or mobile workstation, follow ALL the steps below. A hardware reset temporarily disconnects the internal battery to fully reset the system.
1. Power OFF the Notebook or mobile workstation
2. Remove the AC power cord and all USB cables or devices from the Notebook or mobile workstation.
3. Press and hold the Power button for 15 seconds.

To perform a hardware reset of your dock, do the following:
1. Undock the HP USB-C 100W G6 Dock from your Notebook.
2. Unplug the power cable from your dock for 5 seconds.

Unable to view video on 4K HDMI/DP monitor when connected to the USB Type-C® of the HP USB-C 100W G6 Dock by using a HDMI/DP to Type-C® dongle
This is a known limitation, with the following workarounds:

- Plug the monitor directly into the DP/HDMI port of the dock, instead of the Type-C® port.
  OR
- Plug the monitor to the Thunderbolt™ port of the dock.

On Non-Thunderbolt™ host, 4k Resolution @60hz is unavailable when computer is docked with 4K monitor attached.
This is a known limitation when the dock is working in Multi-function mode.

To mitigate this issue, enable High Resolution mode in the BIOS F10 setup as follows:
1. Enter HP BIOS Setup (F10).
2. In the Advanced menu, select System Options.
3. Enable "High Resolution mode when connected to a USB-C® alt mode dock option."
4. Save settings by pressing the F10 key again.

The system might take around 1 minute to enumerate the HP USB-C 100W G6 after resuming from Hibernation:
To prevent this issue from happening:

- As a short-term solution, allow the system to resume from Hibernation first, and then plug the dock after around 30 seconds.
  OR
- For long term solution, upgrade to latest version of Windows 11 version 21H2.

System audio abnormal behaviour when connected to certain monitors, such as HP Z34C G3 or HP Z24m, while running Win10 OS
The symptoms include:

- Takes a long time (over 10s) to open Camera App.
- Click the Volume icon under task bar and the response is slow.
- Audio output responses slow when switching between Z34C G3 monitor and HDMI monitors.
- F6 and F7 keys are unable to control the volume of the Notebook.

To resolve, do the following:

- Download the latest Intel® SST driver from HP.com for your system.

System cannot display on two monitors running at 4K resolution and 144hz frequency.
The symptoms include one of the monitors will not display image.

To resolve, do the following:

- Ensure monitors are not connected to bottom DP port and Type-C® display port, since they are mutually exclusive.
  - Scenario 1 (Recommended): Connect one monitor to the Thunderbolt port and the 2nd monitor to any other port. The resolution will remain at 4K and 144hz in the Thunderbolt port.
  - Scenario 2: Connect both monitors to the DP ports of the dock. The resolution will remain at 4K, but frequency will drop to 60hz.

Cannot get image on both displays when the HP USB-C 100W G6 Dock is connected to a MacBook Pro 2018
To resolve, do the following:

- Avoid connecting both monitors to any of the DP/HDMI/Type-C® ports. Instead connect one monitor to the Thunderbolt port and the 2nd monitor to any of the DP/HMDMI or Type-C port.

MacBook Pro (2018) shows power received from the HP USB-C 100W G6 Dock to be 75W instead of 100W
This is as expected for this model. The system should still charge.

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