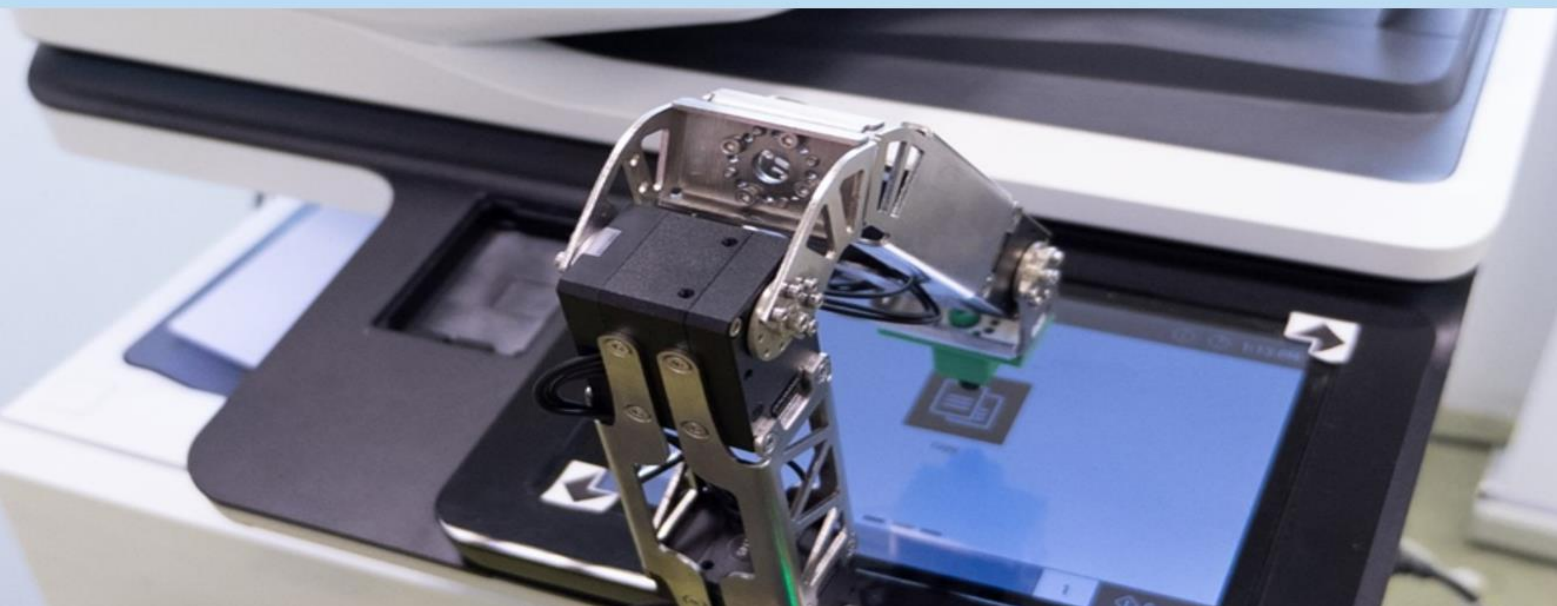


# HP Virtual Test Laboratory (VTL)



Quick Start Guide



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# Introduction

HP has a long history of developing products and services that meet the needs and requirements of its customers. To promote this strategy, HP leverages the skills, knowledge and experience of development partners and its employees. For this to happen and to maintain HP's brand specific requirements and product alignment, access to SDK's, Firmware, and technical product documentation must be available for testing on all HP devices and platforms. Furthermore, to ensure these products and services conform to HP's security requirements and application platforms, HP performs cyber security and basic application testing as part of the application publishing process.

Given the time, effort and cost required to standup and maintain a full fleet of HP devices is quite significant and not feasible for most organizations, HP has embarked on an initiative to stand up a Virtual Test Laboratory (VTL) consisting of two (2) laboratories: the **VTL Device Laboratory** and the **VTL Solutions Laboratory**.

The **VTL Device Laboratory (VTL-DL)** is the world' first robot aided printer test laboratory and was implemented to provide development partners and HP teams access to a greater number of HP devices. The VTL Device Laboratory consists of a collection of printing and scanning devices set up to be accessed remotely via a secure network connection. Robots and real time cameras are set up at each device, to allow for real-time viewing and controlling of the devices from the developers' local workstation. Card readers are also available upon request during the booking process. It includes the necessary software to reserve and manage each device. Once a developer is connected to the VTL-DL, they will be able to locally control and view what is occurring in the remote laboratory. The VTL-DL allows for compatibility testing by making it possible to test a given development effort using different versions of firmware.

It also allows for manual testing where the developers can manipulate the controls on the device using the camera and robot, automated testing using testing tools and standard test scripts, or connection to devices via Embedded Web Services (EWS). Test engineers will be available to promote a seamless testing experience using the VTL.

The **VTL Solution Lab (VTL-SL)** is a virtual lab which enables Partners and technical consultants (TCs) to remotely access various virtually hosted software suites (HP and 3rd party solutions) to perform demonstrations for clients, provide training and test using HP physical devices.

The VTL-SL has been set up as a cloud-based infrastructure on AWS and has several unique advantages such as a dynamic and constantly available solution portfolio environment, pre-configured to be easily scaled and will save time and lower cost. It was built for HP Pre-Sales Technical Consultants to perform product demonstrations, new feature and functionality training and testing.

# VTL Access & Control

## How to access the VTL

To access the VTL-DL or the VTL-SL you can execute the link for the VTL Booking Portal ( <https://hpvlt.net/Bookings> ) to display the login page indicated below. The HP Virtual Test Laboratory is a multi-tenant system that allows multiple parties to simultaneously and remotely use a variety of HP devices or solutions to test and develop their applications in a safe and having a secure single tenant experience.

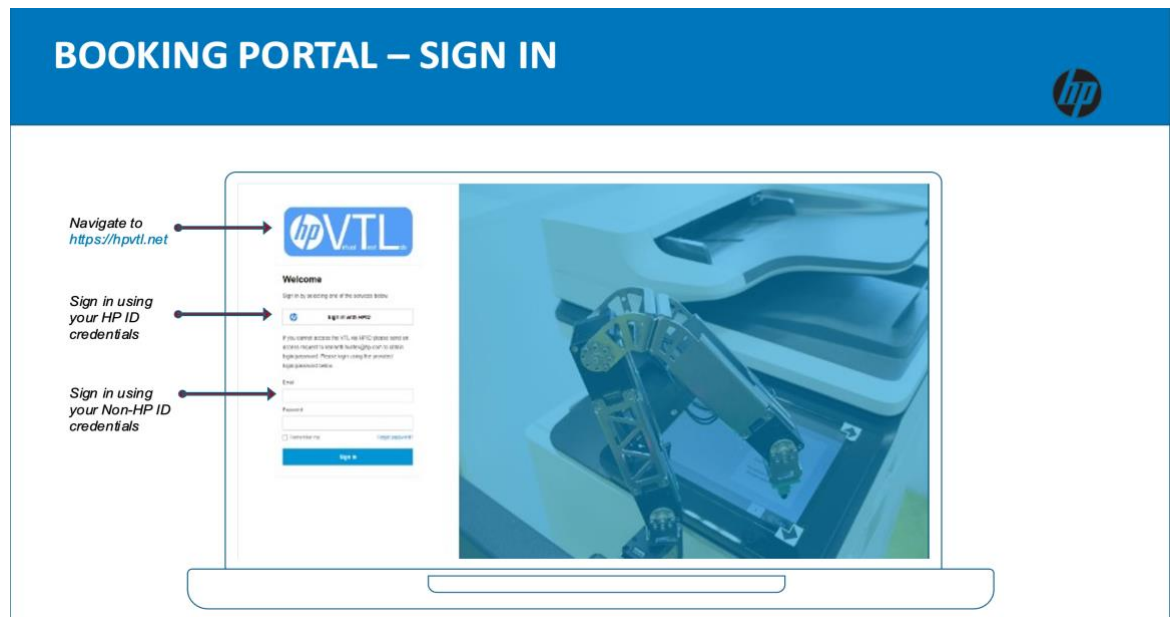
### For Workpath Apps Developers

- VTL users must have a registered App Center account.
- The ISVs must have a minimum of one published Workpath App. If you meet those requirements, please log in with your HP-ID credentials.
- To verify your App center account or create an App Center’s organization’s account go to <https://appcenter.smartcloudprint.com>.
- Ensure that the VTL testers name is added to the organization’s account.

### For non-Workpath Apps developers (OXPd)

- Send an email to [vsl@hp.com](mailto:vsl@hp.com) to request a temporary password.

Within 24 hours you will receive an email containing a temporary password, you will have to reset the temporary password to a permanent one of your choosing.



After entering and authenticating your credentials the booking portal-devices page will appear. This page shows a list of all the devices in the VTL, and their status. If this page does not appear click on the “Device” option located in the sidebar. After locating the device, you wish to book, click on the “Create New Booking” button located on the right of each device listing.

## BOOKING PORTAL – DEVICES PAGE

The screenshot shows the HP Booking Portal interface. The left sidebar contains navigation options: Devices, Solutions, Bookings, Reports, Price List, Services, Link Management, Configurations, Role Management, and Help. The main content area displays a table of devices with columns for Model, Device Name, Life, Attached Robot, Location, Printer ID, AWA Robot Enabled, and Current Status. A search bar and a 'Refresh device list' button are at the top right. A 'Filter/search devices' input field is also present. A green box highlights the first few rows of the device list. A mouse cursor is hovering over the 'Create New Booking' button for the device with Model 'HP Color Laser Jet MFP E8545'.

| Model                                    | Device Name | Life       | Attached Robot | Location | Printer ID | AWA Robot Enabled | Current Status |
|--|-------------|------------|----------------|----------|------------|-------------------|----------------|
| HP Color Laser Jet 5300                  | MF65731     | AVA, HPVTL | 30             | OC75     | pm691      | Enabled           | Available      |
| HP Color Laser Jet M405dn/CF384A         | BOQLM452    | HPN4TCs    |                | 2CB      | pm691      | NO                | Available      |
| HP Color Laser Jet Managed Flow MFP E877 | MF65950     | AVA, HPVTL | 17             | 089      | pm692      | Enabled           | Available      |
| HP Color Laser Jet Managed Flow MFP E877 | MF65950A    | AVA, HPVTL | 19             | 0811     | pm690      | Enabled           | Available      |
| HP Color Laser Jet Managed Flow MFP E877 | MF64725     | AVA, HPVTL | 25             | OC8      | pm698      | Enabled           | Available      |
| HP Color Laser Jet MFP 5800              | MF8EAC5     | AVA, HPVTL | 30             | OC8      | pm694      | Enabled           | Available      |
| HP Color Laser Jet MFP 6800              | MF8FK3B     | AVA, HPVTL | 33             | OC74     | pm693      | Enabled           | Available      |
| HP Color Laser Jet MFP E8760             | BOE8760     | HPN4TCs    |                | 0F2      | pm695      | NO                | Available      |
| HP Color Laser Jet MFP M8760             | MF43EDK0    | AVA, HPVTL | 29             | OC70     | pm690      | Enabled           | Available      |
| HP Color Laser Jet M8545                 | MF888BC0    | AVA, HPVTL | 26             | 1C7      | pm692      | Enabled           | Available      |

Annotations:

- Devices Page
- List of available devices
- Expand to display additional device information
- Minimize sidebar
- Refresh device list
- Filter/search devices
- Click to book device

## How to create a device booking

After clicking on the Device option, a detail page for the device will appear. Use this page to select the desired booking dates and other parameters you wish to use for testing session. Review notes in the image below to identify various functions on the form.

To add additional devices to your testing session, click the “Add Device” button. Please note the same Start and End date will apply to all devices booked. You may have to adjust your desired dates to ensure all the devices you wish to use are available.

The VTL is setup to be single tenant, meaning that only one person can access a given device at one time. However, it is possible to allow others on your team to do testing on your booked devices. To do this enter the email address for each person you wish to share your booking with, in the “Share Booking” field. Only persons having a registered VTL account will be authorized to access or share your booking.

# CREATE A NEW BOOKING

The screenshot shows the 'Create new booking' form in a web browser. The form includes a sidebar with navigation options (Devices, Settings, Bookings, Reports, Help), a main content area with a 'Create new booking' header, and a footer with a URL. The main content area contains a 'Selected items' section, a 'Services' section, a 'Start date' and 'End date' selector, a 'Booking length' dropdown, a 'Calendar Timeline' showing a grid of dates for September 2024, a 'Share booking' field, an 'Additional request' text area, a 'Pricing' table, and a 'Submit Request' section with 'Save as draft' and 'Close' buttons. Red arrows point from text annotations to these specific form elements.

**Select start and end dates (Full days only)**

**Share Booking**

**Specify additional requirements. E.g., firmware, finisher, card reader, etc.**

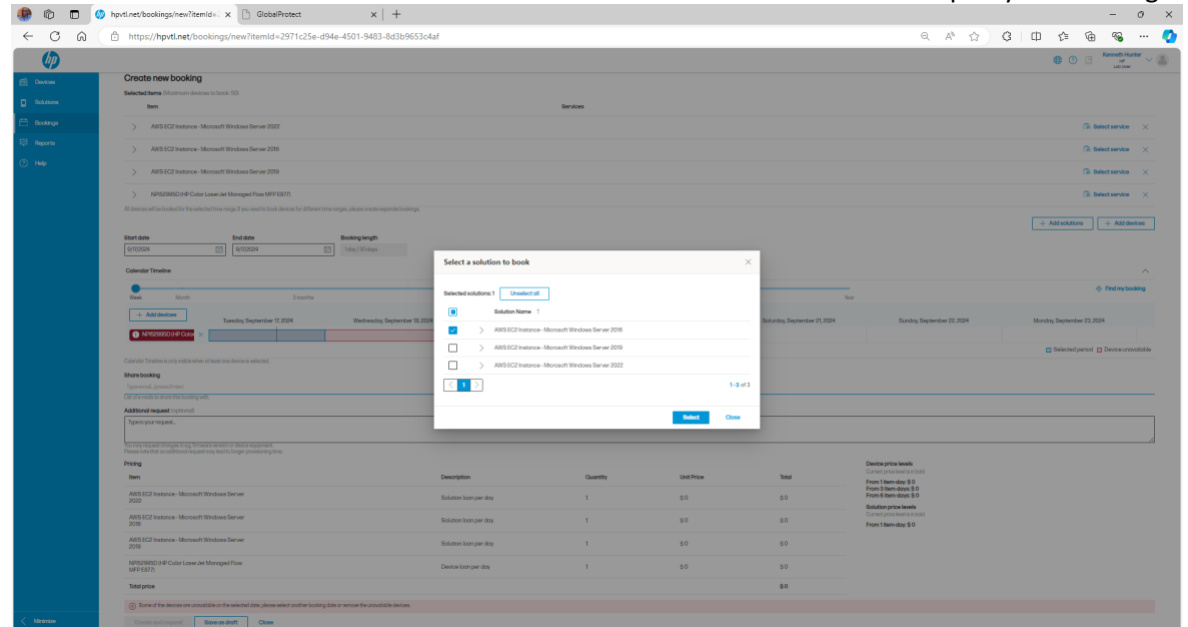
**Submit Request**

**Close and cancel the booking request**

**Save as draft**

| Item                              | Description          | Quantity | Unit Price | Total | Device price limits   |
|-----------------------------------|----------------------|----------|------------|-------|---|
| NP45239 (HP Color Laser Jet 3500) | Device lease per day | 1        | \$ 0       | \$ 0  | Print 1 item/day \$ 0<br>Print 2 item/day \$ 0<br>Print 6 item/day \$ 0 |
| Total price                       |                      |          |            | \$ 0  | Submit price limits<br>Cancel price limits<br>Print 1 item/day \$ 0     |

To add a solution to your testing session, click the “Add Solution” button. Upon clicking the “Add Solution” button, a dialog screen will appear listing all the available solutions. Click the check box in front of each solution option to select. Click the “Select” option button to save your selection. You will then return to the main screen and the selected solutions will be at the top of your booking.



If you wish to close and cancel your reservation, click on the “Close” button. All information you entered for the booking will be deleted and the booking will be cancelled.

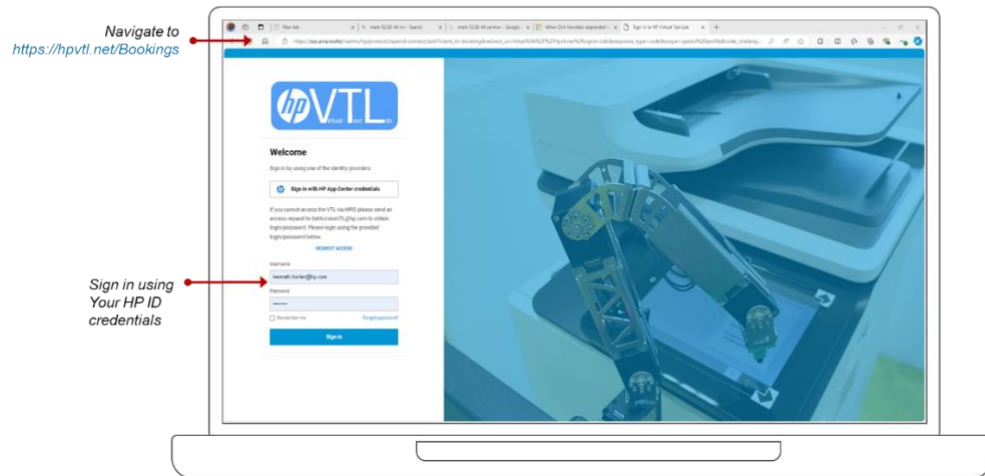
If you begin a booking and wish to complete it later, click the “Save As Draft” button. Your incomplete booking will be saved for 24 hours. However, it will not progress to provisioning process and the devices in your booking are still available for others to book. At the conclusion of 24 hours, it will be deleted, and you will have to rebook the devices as a new booking.

If you wish to save your booking, click the “Submit” button. It will be saved and the status will be changed to “**Requested**”. The VTL Engineers will begin the provisioning process and will contact you regarding next steps.

After submitting your booking, the Approval and Provisioning processes begin. During Approval process the booking will be checked and verified and the status will be changed to “**Approved**”. Then the latest firmware versions will be loaded onto each printer, the card readers will be attached and the VPN access credentials will be created. After these tasks have been completed, the status will change to “**Provisioned**”. Although all the tasks to provision your booking have been completed, you will not be able to access the printers until the status changes to “**In Use**”. This occurs automatically when your booking is set to begin. An email confirmation will be sent whenever there is a change in status.

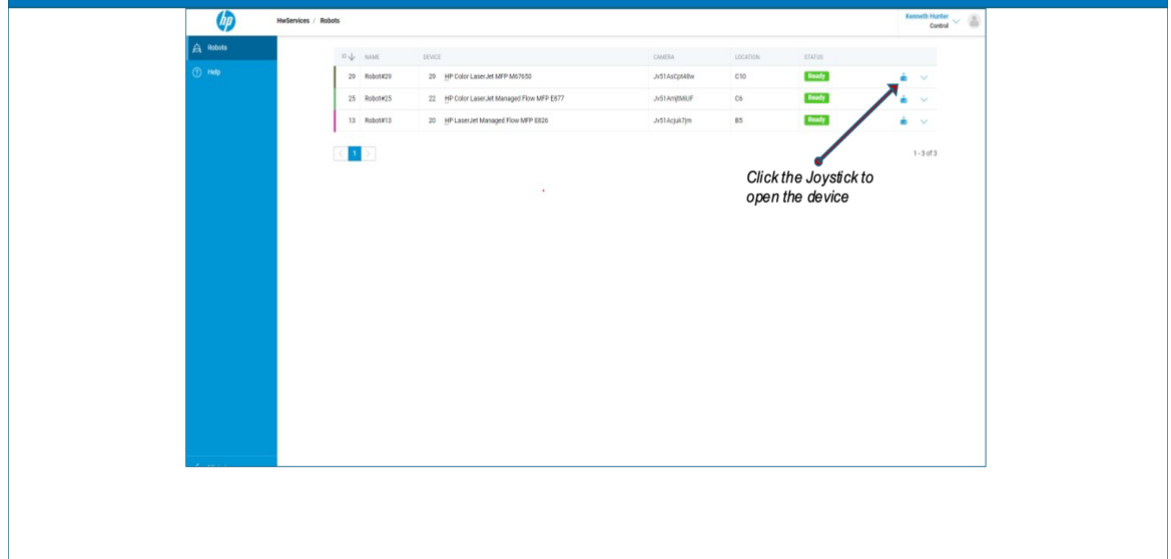
After the status has changed to **In Use**, login into the Device Control Portal using this link: <https://aiva.hpvtl.net/HwServices/Robots> . The Device Control Portal – Sign In page appears. Enter your login credentials into the form as indicated.

# VTL BOOKING PORTAL – SIGN IN



After your credentials have been entered and validated the Devices Control Page will appear. This page shows a list of all the devices which have been approved and available to use for testing. To select a device, locate and select the joystick on the right side of each device listed

## Device Control PORTAL



## How To Use the Robot

After selecting the desired device, the following screen will appear. This screen is an image of the control panel located on the physical device. A camera is setup at each device to show the actions occurring on the device's screen. Use your computer's mouse to manipulate the screen as you would with your finger as if you are standing in front of the device. This includes initiating a print cycle, scanning, faxing and changing options on the device.



## HOW TO CONTROL THE DEVICE REMOTELY



The screenshot shows the HP MFP M631h remote control interface. A central window displays the device's screen with icons for Copy, Scan, Print, and Fax. A 'How-to guide' icon is in the top right. A 'Select Action' dropdown menu is open, showing 'Emulate Card' and 'Papers sensor'. A 'HOME' button is at the bottom left. Annotations include:

- Click on the stream window to control the robotic arm**: Points to the central device screen.
- Single tap: Click**: Points to a mouse cursor clicking a button.
- Long tap: Hold the click for the desired time**: Points to a mouse cursor holding a button.
- Swipe: Click and drag**: Points to a mouse cursor dragging across the screen.
- Pause video stream**: Points to a pause icon.
- Control physical buttons**: Points to the 'HOME' button.
- List of additional control actions**: Points to the 'Select Action' dropdown menu.
- Right-click to open a list of configurable actions**: Points to a right-click icon over a button.
- Fill the stream window with the device's screen**: Points to a full-screen icon.
- Press to move the robotic arm out of the frame**: Points to a button with a robot arm icon.

## Additional Control Actions

To use a card reader, click the Select Option drop down to display card reader dialog box

## ADDITIONAL CONTROL ACTIONS



The screenshot shows the HP MFP M631h remote control interface with the 'Papers sensor' dialog box open. The dialog box has a title bar 'Papers sensor' and a close button. It contains a table for selecting paper size and a 'FETCH' button. Annotations include:

- Enter the card number to be sent to the card reader. (Min. 16 Characters)**: Points to the 'NUMBER' input field in the table.
- If Papers Sensor is selected, click on Fetch to detect the paper size coming through.**: Points to the 'FETCH' button.

| TYPE OF PAPER | NUMBER               |
|---------------|----------------------|
| A4 Simplex    | <input type="text"/> |
| A4 Duplex     | <input type="text"/> |
| A3 Simplex    | <input type="text"/> |
| A3 Duplex     | <input type="text"/> |

## Additional Information

### Example Copy of Provisioned Email:

Your booking has changed from state: Provisioning to state: Provisioned

Your booking is now PROVISIONED. This means that the operator has finished any work that may have been required to prepare the device(s). Please wait for the approved start time of the booking, at which time you will receive another notification. Alternatively, you could ask the operator to start the booking prematurely.

## Available Support & Assistance

The Virtual Test Lab will be staffed by **VTL Test Engineers** to perform:

- Device setup and configuration
- Verification of document outputs
- Local and remote management of the devices and connectivity
- Clearing paper jams
- Replacing toner cartridges
- Replenishing paper in empty paper trays
- Break-fix of equipment needing to be repaired.

To contact the VTL engineer you will need to send an email to [vtl@hp.com](mailto:vtl@hp.com). The VTL engineer will retrieve the email and address any issue related to the booking process, the booking portal, the robots, cameras, card readers, printers and scanners physically located in the VTL.

Any support going beyond the above will happen through the HP Developer Support Forum. Depending on your privileges, it will provide support related to:

- SDKs
- Firmware
- Testing Tools
- HPID

To access the Developer Support, click: <https://jetadvantage.zendesk.com/>.

This document provides a quick overview of how to begin using the VTL, book devices for testing and using the robot control program.

You are encouraged to read the complete user guide to gain a better understanding of the full capabilities of the VTL and policies covering its use.

If you have problems signing up to use the VTL please contact: [vsl@hp.com](mailto:vsl@hp.com)