# Hub Local Interface Guide

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Introduction
The OvrC Pro Hub local interface allows you to access most of the features available from an OvrC Pro-enabled web account, as well as other, more advanced tools that we don’t yet offer on the web. This guide will help you get familiar with finding and using all of the tools at your disposal.

Accessing the Local Interface
You can access the interface using the following methods:

- **OvrC Web App Web Connect** – the easiest way, just click the Web Connect button and select whether you are local or remote.
- **Local IP address** – Only works when you are on the same LAN as the Hub. Navigate to the IP address of the Hub using a web browser.
- **Remote Address** – Requires setup of port forwarding (and optionally, DDNS). Navigate to your network’s WAN address and the forwarded port using a web browser.

Logging In
Use the default credentials to log in for the first time. We recommend changing the password to avoid unwanted access; see the Account section on page 14 for instructions.

**Default Login Credentials**

<table>
<thead>
<tr>
<th>Username</th>
<th>Password (case sensitive)</th>
</tr>
</thead>
<tbody>
<tr>
<td>OvrC</td>
<td>OvrC</td>
</tr>
</tbody>
</table>

When you log in, you are taken to the system page, which displays the system settings for the Hub and the device list, along with several menus to access additional tools and settings.

Logging Out
Click the X button in the top-right corner of the screen.

**Note: Auto Log Out**
You will be logged automatically out after 30 minutes of inactivity. Any unsaved settings will be lost.
Navigating the Interface

Using the local interface is similar to the OvrC web app. The main navigation is at the top of the page.

1. **OvrC Hub Logo** – Click to return to the main page at any time.
2. **Tools Menu** – Select a network diagnostic tool from the drop-down to use. See the Table of Contents for more information.
3. **Settings Menu** – Select a menu item from the drop-down to configure settings for the Hub and the tests it performs. See the Table of Contents for more information.
4. **Menu Name** – Displays the name of the current menu or page.
5. **System Uptime** – Amount of time since the Hub last rebooted. Refreshes any time the page is loaded or refreshed.
6. **Online/Offline** – Displays the current number of online and offline devices in the list. Click from any screen to return to the device list/main page.
7. **Update** – Click to access the menu for applying firmware updates or resetting the Hub to factory defaults.
8. **Reboot** – Click to reboot the Hub.
9. **Logs** – Click to view a log of recorded Hub events.
System Page
This area displays general information about the Hub as well as the device list, which displays all network equipment the Hub has detected.

System Settings
Displays general information about the Hub. Click the pencil button in the top-right corner to update the Hub's system name and network connection settings.

![Hub Local Interface Guide](image)

<table>
<thead>
<tr>
<th>System Settings</th>
<th>System Name</th>
<th>Model</th>
<th>Serial Number</th>
<th>MAC Address</th>
<th>IP Address</th>
<th>Firmware Version</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>OvRc-Hub</td>
<td></td>
<td>1428743</td>
<td>8E:7E:8C:07</td>
<td>192.168.1.125</td>
<td>3.2.0.5</td>
</tr>
</tbody>
</table>

Devices (Network Device List)
Displays network devices discovered by the Hub's network scanning feature.

Device List Pro Tip: press keys Ctrl + F to search the page for a device with ease. For example, if you know part of the MAC address or the IP address you can search for that value.

![Devices](image)

1. **Filter** – Filter device list by manufacturer, type, or protocol (filter for any devices detected using the selected protocol).
2. **Start Scan** – Manually start a network scan for new devices. Button remains grayed out while a scan is in progress.
3. **Sync Database** – Updates the local Hub database with changes you’ve made in the cloud, such as host name updates. It grays out when a sync is in progress.
4. **Add Device** – Enter an IP address to manually scan and add a device that was not found by scanning.
5. **Download (CSV)** – Download all device list entries to a comma-separated-values file that may be opened using a spreadsheet program.
6. **Toggle** – Control the auto-refresh function for the device list:
   - Slide left (gray) to turn off auto-refresh.
   - Slide right (blue) to run auto-refresh every 30 seconds.
7. **List Order Filters** – Click a column heading to order the list by the selected value.
   - **UP/DOWN Filter Note** – The number displayed in the UP/DOWN column indicated how long the device has been up or down depending on the color of the logo in the Status column at the far left. Blue logo: the device has been online for the displayed amount of time; gray logo: the device has been offline for the displayed amount of time.
8. **Device Entry** – Click an entry to see the details of the selected device. See the Device Pages section on page 18 for more information about the device pages.
Tools Menu

Speed Test
Displays the last test data by default. Includes Latency, Download Speed, and Upload Speed. You can also run a test on demand. Results will populate as the data is returned. All tests are run against the same speed test server for consistent benchmarking.

Understanding Speed Test Results
The speed test feature uses three basic metrics to determine the speed of your Internet connection:

- **Latency** – The amount of time it takes for a packet to be sent and returned between the Hub and the ISP server. The lower the value, the better. High latency can be due to problems on or off the network. You can move the Hub to a different cable or port to help determine if the problem lies inside the LAN. Contact your ISP for help understanding latency issues outside the LAN.

- **Download Speed** – The amount of data capable of being downloaded each second from your Internet connection. The higher the value, the better. The maximum speed is generally capped by the ISP, so you should see similar results unless speeds have slowed significantly. Download speed directly affects your ability to access content from the Internet such as websites, streaming video, and online gaming. Contact the ISP for help diagnosing problems or discussing what speed is best for the location. Most ISPs offer several packages with differing speeds and price points.

- **Upload Speed** – The amount of data capable of being uploaded each second from your Internet connection. The higher the value, the better. Upload speeds are less important for most home networks, so they may be lower on average. Low upload speeds can cause issues if you are trying to access media from your network remotely, such as if you have a website or media server hosted from your home Internet connection. Contact the ISP for help if you believe low upload speeds are affecting your network's performance. Most ISPs offer several packages with differing speeds and price points.
Telnet

Create a direct Telnet connection with the provided IP address and port. Enter information of the device you’re trying to Telnet to and click Connect. If no port is entered, the default port 23 will be used.

Using Telnet

1. Enter the IP address and Telnet port for the device you wish to connect to, then click Connect. Most equipment is set to listen for Telnet commands on port 23, so if you don’t know what port to use, try that one first.

2. The console screen will appear next. If the connection is not successful, an error message will be displayed next. Otherwise, after a moment, the page will refresh again, asking for login credentials.

3. Once prompted for a username, enter the credentials for the device, and you will be granted telnet access. The image below is typical of what you will see after successfully logging in.

4. Use the tools as desired, then click the Exit button to close the connection once you are finished.

Telnet Errors

- Connection Timed Out – The device is not listening for Telnet commands on the port. Ensure the device is Telnet-capable, then double-check the port in use.

- Connection Refused – The device is actively refusing Telnet commands. Enable Telnet in the device and confirm what port to use.
SSH
Create a direct SSH connection with the provided user and IP address. Enter the information of the device you’re trying to SSH to and click connect. If no user is entered, root is used.

SSH Note: Third-Party Certificates Are Not Supported
Some SSH connections require a third-party certificate for authorized access. Unfortunately, at this time, the Hub cannot be used to initiate an SSH session with these devices. Email techsupport@ovrc.com for more information.

Using SSH
1. Enter the SSH username (usually root) and IP address of the device, then click Connect.

2. The console screen will appear next. If the connection is not successful, an error message will be displayed next. Otherwise, after a moment, the page will refresh again, asking for login credentials.

3. Once prompted for a user name, enter the credentials for the device, and you will be granted SSH access. The image below is typical of what you will see after successfully logging in.

4. Use the tools as desired, then click the Exit button to close the connection once you are finished.

SSH Errors
• Connection Timed Out – The device is not listening for SSH commands. Ensure the device is SSH-capable.
• Connection Refused – The device is actively refusing SSH commands. Enable SSH in the device and confirm what user value to enter.
Ping
Runs a network scan against one or more devices and displays results. Only online devices will be displayed. Large ranges of devices will increase the time to process.

![Ping Interface](image)

Using Ping
1. Enter one of the following destination types:
   - **Host Name** – Enter a local device's host name, usually found in the device's network settings. **Example:** WIN3411
   - **Website** – Enter the domain name of a local or remote website. **Example:** google.com
   - **IP Address** – Enter a single IP address. **Example:** 192.168.1.100
   - **IP Address Range** – Enter a range of IP addresses using the following structure. Do not use spaces. **Example:** 192.168.1.100-110

2. Click **Ping** and wait for the results.

Understanding Ping Results
- **Unsuccessful ping** – A result beginning with Host seems down indicates there was no response from the pinged device. Check the device for proper connection and operation. Confirm that you are pinging the correct address.

```
Output
Host seems down.
Device done: 1 IP address (0 hosts up) scanned in 0.88 seconds
```

- **Successful Ping** – A successful result will appear as seen below.

```
Output
Device scan report for 192.168.1.112
Host is up (0.32s latency).
Not shown: 997 closed ports
PORT STATE SERVICE
22/tcp open ssh
23/tcp open telnet
80/tcp open http
MAC Address: D4:6A:19:12:70:0E (Unknown)
Device done: 1 IP address (1 host up) scanned in 11.66 seconds
```
Web Connect

Use the Web Connect feature to easily access the web interface of any local network device.

Using Web Connect

To access a device from the Web Connect menu, enter the IP address and HTTP port of the device, then click the blue button to the right. Once the new page loads, log into the device like normal.

Important Note: Web Connect Ease-of-Use

While you can use the Web Connect feature from its dedicated location in the Tools menu, the easiest way is to find the device in the device list page, then click the Web Connect button from the Open Ports menu as shown in the example below: Using this method, you avoid needing to know the IP address and port to enter for connection.
Traceroute

This diagnostic tool displays the route and measures transit delays of packets to an IP typically outside your network. The history of the route is recorded as the round-trip times of the packets received from each successive host (remote node) in the route (path). Use Traceroute to track down bottle necks on the route between your network and places on the web.

Using Traceroute

1. Enter a URL or WAN IP address, then click Traceroute.
2. Once the test is complete, review the results to determine issues.

Understanding Traceroute Results

A traceroute tells you how long it takes a packet to jump between each device connected between your Internet connection and the destination address.

Each entry includes the following information. An entry with an asterisk (*) indicates that the hop timed out.

- **Hop Count ID** – (1-30) A single traceroute can only track up to thirty hops. This number indicates which hop is described on that line.
- **IP Address** – Displays the IP address of the device at each hop. The first hop will always be the IP address of the router (in this case, 192.168.1.1). All subsequent hops will be public WAN IP addresses unless there are other routers between the ISP and the router controlling your LAN.
- **RTT (Round Trip Time)** – Time it takes for the packet to get to the destination and receive an acknowledgment of delivery.
Settings Menus

LAN
Configure the network settings and system name of the Hub.

Important Note: DHCP vs Static IP Address
While the Hub can function correctly using a statically assigned IP address, it can also cause avoidable issues. We strongly recommend leaving the Hub set to DHCP mode. Use the DHCP reservation feature in the router if a specific IP address is desired.

Changing Network Settings
By default, the only value that may be changed is the System Name. If you wish to change the IP address information, click the Disable button and change the desired settings. See warning above the screenshot for important note about not using DHCP. Click Save once the desired changes have been made.
VLAN

By default, the Hub can only scan for devices on the VLAN it is connected to. Using this menu, along with proper configuration of network equipment, you can scan for equipment on additional VLANs. General guidelines for implementing this feature:

- The switch or router port that the Hub is connected to must be set up as a trunk port to see all VLANs being scanned.
- The Hub will always scan the VLAN its IP address is a part of. Only configure this menu for additional VLANs you want to scan.
- After setup, the Hub will scan VLANs first, followed by the VLAN it is on.
- The Hub must be issued a unique, static IP address on each VLAN it will scan. Ensure these addresses are not in use or able to be used by other equipment, or else an IP address conflict will occur.

Setting up VLAN Scanning

1. Connect the Hub to a managed switch or router port and configure the port as a trunk for each desired VLAN.

2. For each VLAN being scanned, enter the following information in the Hub's VLAN Settings menu, then click Add. In our example, we will configure the Hub to scan VLAN 2:
   - **VLAN ID** – Enter the VLAN ID to be scanned. For our example, this will be set to 2 since we are scanning VLAN 2.
   - **Hub VLAN Static IP** – Enter the static IP address for the Hub on this VLAN. For our example, this will be 192.168.2.200. This address is above our set DHCP range, and there is no possibility of another device receiving this address.
   - **Subnet Mask** – Enter the subnet mask of the scanned VLAN. In most cases this will be 255.255.255.0.

3. Click Save once the desired changes have been made. Saving VLANs settings will cause the Hub to reboot so that the new settings can take effect.

4. After the Reboot, if a scan has not begun, click Start Scan on the home page, then check to confirm that devices on the newly added VLANs appear.
Account
Change the default username and password used to access this web interface.

Important Note: Local GUI Vs Cloud
The login credentials in this menu are only used for logging into the local interface of the Hub. These settings have no effect on the OvrC cloud app login credentials.

Changing Hub Local Interface Account Information
To update the login credentials for the Hub local interface, enter a new username and password into the fields, then click Save. You will be required to log in using the new credentials once the changes are complete.
Port Scan
Specify which open ports the Hub scans for when doing a network device scan. The default values were selected because they are so commonly used.

Important Notes
• Default Port Scan Settings – Removing the default ports may result in undesired behavior. We strongly recommend scanning for the default values unless you have a specific reason for changing them.
• The web ports listed will be scanned to see if they are open and accessible on each device found. This is only scanning for ports that have a web server running (HTTP or HTTPS for secure).
• The more ports you add to this list, the longer a scan will take.
• You may scan for a maximum of 16 ports.
• To see which ports are open for a particular device, select it from the device list on the main page, then view the Open Ports tab for the device.

Setting Ports to Check for Web Services
• Delete An Entry – Click the button.
• Add an Entry – Enter the description, port number, and the protocol type (HTTP/HTTPS), then click the button.
• Restore Default Values – Click the Restore Default Port List button.
Devices
Configure the default view for the main device list page.

- **Sorting Method**
  Change the way devices are sorted by default in the Device List.
  - **Direction** – Select whether the primary column for the Device List is sorted in ascending or descending order.
  - **Column** – Select which column the Device List is sorted by when the page loads.
  - Click **Apply** to save new settings.
  - Click **Reset to Default** to return to the default settings.

- **Scan Options**
  Select whether or not protocols-in-use are scanned for during a device scan.
  - **Protocols** – Select whether or not to scan for in-use protocols on each detected device. Set which protocols are searched for in the **Port Scan section on page 15**.
  - Click **Apply** to save new settings.
  - Click **Reset to Default** to return to the default settings.
Services
Set if and when Hub services run.

<table>
<thead>
<tr>
<th>Service</th>
<th>Frequency</th>
<th>Enabled</th>
</tr>
</thead>
<tbody>
<tr>
<td>Device Discovery</td>
<td>1 Hour</td>
<td></td>
</tr>
<tr>
<td>Speed Test</td>
<td>1 Hour</td>
<td></td>
</tr>
<tr>
<td>Automated Device Status Check</td>
<td>5 Minutes</td>
<td></td>
</tr>
</tbody>
</table>

Setting Up Services
- **Device Discovery** – Select how often the Hub looks for new devices on the network.
- **Speed Test** – Select how often the Internet speed will be tested and reported to the cloud for reporting.
- **Automated Device Status Check** – Select how often devices the Hub has already found are scanned for status and information changes. The more devices you have on the network, the longer this takes. Recommended interval settings:
  - 1-20 devices – 1 minute
  - 21-100 devices – 5 minutes
  - 100+ devices – 1 hour

NTP
Configure accurate time tagging for logged events. Time zone information is handled by the cloud.

| NTP

Setting Up NTP Settings
The default NTP settings are recommended unless you have your own servers configured. Click **Update** to save new settings or **Reset to Default** to use the original, recommended settings.
Device Pages
Clicking on a device in the main list will take you to a status page containing more details for the specified device. This section summarizes the areas that may be found on a particular device page. The options that appear will differ depending on the brand, type of device, and supported protocols in use by the device.

Use the search feature in your PDF reader utility to easily find more information in this document about a specific product’s device page. The example page shown below is typical of the view seen on a device page.

Device Page Layout
Device Page Header

- **Device Name** – Every Device Page begins with the host name of the specified device, in this case, **AN-30-AP-I-N**.
- **Back** – Return to the main device list page.
- **Refresh** – Click to force the Hub to scan the current state of the device again.
- **Status Bar** – Beneath the device name, specifies whether the device is on- or offline, how long it’s been up or down, latency and its VLAN ID (if applicable).
- **General Information** – Displays generic information for the device such as the name, manufacturer, and network settings.
- **Tabs** – Any services or protocols that are found will be listed as tabs in this area. The number of tabs available will depend on the device selected. See the following sections for specific information.
Device Page SNMP Tab

### General
Returns basic information such as the SNMP name, description, contact, location and device-reported uptime.

### Interfaces
Shows a graphic of all the network ports the device reports, the port name, whether it's active, speed, and in/out data. All data is returned from the device, so if the ports or their information is not correct, the Hub will display what is returned.

### OSI Layers
The active OSI layer information is also reported from a networking perspective:

- **Physical (1)** – Transmission and reception of raw bit streams.
- **Data Link (2)** – Reliable transmission of data frames between two nodes connected by a physical layer.
- **Network (3)** – Structuring and managing a multi-node network, including addressing, routing and traffic control.
- **Transport (4)** – Reliable transmission of data segments between points on a network, including segmentation, acknowledgment and multiplexing.
- **Session (5)** – Managing communication sessions, i.e. continuous exchange of information in the form of multiple back-and-forth transmissions between two nodes.
- **Presentation (6)** – Translation of data between a networking service and an application; including character encoding, data compression and encryption/decryption.
- **Application (7)** – High-level APIs, including resource sharing, and remote file access.
Device Page Layout, Open Ports Tab

- **Protocols** – Shows any found open ports/services based on the settings in the Services tool menu. Any applicable ports will also display a button to use a particular service with ease, if applicable:
  - **HTTP** and **HTTPS** ports offer quick access to Web Connect. Click the button to begin a session. If you have logged into the Hub interface remotely via Web Connect, your session with the Hub will end and switch to the new device login page.
  - **Telnet** and **SSH** ports offer quick access to the in-browser console. Click the button to begin a session. For more information on using these features, see the following sections:
    - Telnet section on page 7
    - SSH section on page 8

Device Page Properties Tab

The properties tab displays different information depending on what device is selected, so no reference screenshot is provided.

**Community** – By default, the Hub looks for a community string of “public”. If your SNMP device does not show up, please change the SNMP community string on the device to “public”. Then, refresh the device status page so it is discovered. At that point you can use the properties to change the community string to something different. Change it back on the device so it matches the new setting in the Hub.

Other Device Details

The following devices have specific details reported about them on the device page.

**WattBox**

Additional information about the WattBox is returned including its model, serial number, voltage, current and power values. You are also able to view whether it’s pinging a particular address, it’s response time and timeout percentage. Status and labels of the outlets are shown on the Outlets tab.

**Properties**

- Optional username and password field. If you’ve changed the username and password, please use these fields to provide proper credentials.

**Binary Matrix Switches**

View the current firmware version and Input/Output mapping table.

**Actions**

- Turn the system On, Off, or Factory Default

**Properties**

- Optional username and password field. If you’ve changed the username and password, please use these fields to provide proper credentials.
- If the unit is not properly detected as a Binary Matrix switch, you may have to reset the username and password to their defaults, re-scan the device manually with the Hub, and then you can update the password on the device and in the Hub properties.
ONVIF
Supports any ONVIF compliant camera. View the current snapshot if the camera supports that information from ONVIF. To see an updated screenshot, simply refresh the page.
Device info includes host name, manufacturer, model, serial number, and firmware version. We also display stream URLs for easy entry into a 3rd party NVR or control system. Enabled protocols and their ports, Time info, and User Accounts are returned if available.

Properties
Optional username and password field. If you’ve changed the username and password, please use these fields to provide proper credentials.

Episode Amplifiers
View name, model, firmware, serial and service tag information as well as any System faults, line voltage, and temperature values.

Routing Tab
Displays inputs, their names, gain settings and output bindings. Output status includes name, volume, mute status, bass, and treble values for each.

Control4
View current Memory Usage, CPU Usage, and Network Settings.

Action
• Reboot

ZigBee
A table showing the ZigBee product, ID, Status, Last Contact, Version and node type is displayed for any controller that has ZigBee nodes attached.

Zwave
A table showing Zwave Node ID, Search type, Status, Device state, Security status, and Power is displayed for any controller that has Zwave nodes attached.

Properties
• Optional username and password field. If you’ve changed the username and password for telnet access to the controller, please use these fields to provide proper credentials.

Sonos
Returns data including Name, Model Number, version information, serial number and Room Name.
View options/configuration/diagnostic information including:
• Upnp, api, cloud, topology, controllers, shares, alarm, tracks, Ethernet port stats, radio logs, performance logs, temperatures, time info, upgrade and memory logs.

Actions
• Reboot

Advanced Configuration
• Add/update custom service descriptors
• Configure region
Roku
Displays Device info such as serial number, model, name, software versions, and network info. Installed Apps also appear with the App name, App Artwork, and version.

Actions
• Ability to launch an app directly from the page: click the Launch button and it will start that app on the Roku.

Crestron
View the Name, Version and Date of the processor, Network information, Hardware configuration including slot populations and capabilities, System information such as Web and FTP enablement, NVRAM Size, USB status, PnP, SSL, RConsole, RTJI, and Core3 UI Level support.

Actions
• Reboot processor

Nuvo Media Player
View device info such as version, zone name, currently playing title, subtitle, description, creator, shuffle/repeat, volume, and now playing album artwork.

Actions:
• Reboot

LIFX
Display current brightness, wireless data input/output, hardware name, model and firmware build.

Elk Alarm Panel
View Panel information, versions, all trouble event status’, Areas and their armed/alarm states, active zones and their state/voltages, outputs and their states, temperatures, and thermostat data.

Advanced Troubleshooting

Restore Factory Default Settings
Browse to the Firmware Update page by clicking the Update icon at the top of a page, then selecting the Restore button. This will restore the default network and configuration settings.

Hub Not Found on Network
If the Hub cannot be found on the network, follow these steps to reset the network settings to default:
1. Create a blank text file named restore.txt on a USB thumb drive formatted as FAT or FAT32.
2. Plug the USB into the Hub and power cycle it. When it reboots, the Hub will detect that file name and restore the default network and configuration settings.

Technical Support
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