

Pwnie Express PULSE™ & SENSOR Quick Start Guide

Part 1 of this guide describes how to connect your sensor to your network for scanning and monitoring.

Part 2 describes how to join your sensor to the Pulse subscription service.

REQUIREMENTS FOR SUBSCRIPTION SERVICE

The following are conditions and requirements for joining your sensors to the Pulse subscription service, providing continuous monitoring and advanced device threat analytics.

1. The sensor connects to the subnet to be monitored, and its IP address is either dynamically assigned through DHCP, or assigned a static IP address that is either pre-programmed or configured locally.
2. For sensors addressed with Dynamic Host Configuration Protocol (DHCP), you need a means of identifying the IP—either through DHCP server access, or with a network discovery tool such as Network Mapper (Nmap).
3. The sensor requires the following outbound connection points:
 - TCP/443 to `yoursubdomain.pwnieexpress.net*`
 - TCP/443 to `sensors.yoursubdomain.pwnieexpress.net*`
 - TCP/443 to `updates.pwnieexpress.com`
 - TCP/443 to `kalirepo.pxinfra.net`
 - TCP/80 to `www.openvas.org†`
 - TCP/873 to `feed.openvas.org†`

* “yoursubdomain” is a unique subdomain that Pwnie Express assigns.

† Pwn Pro only.

For more information on Pulse, visit <https://www.pwnieexpress.com>.

Part 1 – Connecting to Your Sensor

The instructions you follow in this guide to connect your sensor are based on the following options:

Option A – You purchased the Pwnie Express preauthorization and configuration service.

With this option, the sensor IP address is determined in one of the following ways:

- Dynamically assigned through DHCP – the default.
- Pre-programmed with a requested static IP address -- Your sensor has been configured with data provided to Pwnie Express prior to shipment.

Option B – You did not purchase the Pwnie Express preauthorization and configuration service.

With this option, the sensor IP address is determined in one of the following ways:

- Dynamically through DHCP (the default).
- Locally configured with a static IP address.

Follow procedures for your sensor accordingly.

Note: *If your sensor has not been configured by Pwnie Express, continue to [Option B – Local Programming on page 2](#).*

Option A – Pwnie Express Preauthorization and Configuration Service

Your sensor arrives pre-programmed with data you provided to Pwnie Express prior to shipment. The sensor is either set to use DHCP, or programmed with the requested static IP address. Perform all the procedures in this section, in order.

Note: *When connected to the local network to be monitored, with proper outbound connectivity, the sensor automatically connects to Pulse, requiring approval only through the Pulse UI. Pwnie Express strongly recommends, however, that you complete this section for each sensor to ensure that the default password is changed and the sensor is up-to-date.*

POWER ON AND CONNECT THE SENSOR TO THE NETWORK

1. Plug in the sensor to AC power and press the power button to turn it on.
2. Connect the sensor into the Ethernet port on the network to be monitored.
3. On a computer connected to the same network, do one of the following:
 - **Static IP address** -- Open a web browser and navigate to port 1443 on the sensor, using the following URL:
`https://x.x.x.x:1443`
... where x.x.x.x is the programmed static IP address.
 - **DHCP IP address** -- Use Nmap or similar network scanning tool to identify the assigned IP address.

- After the IP address is identified, access the sensor at the URL specified earlier in step 3.

To connect directly to the sensor and assign a static IP, see [Option B – Local Programming](#), on page-2.

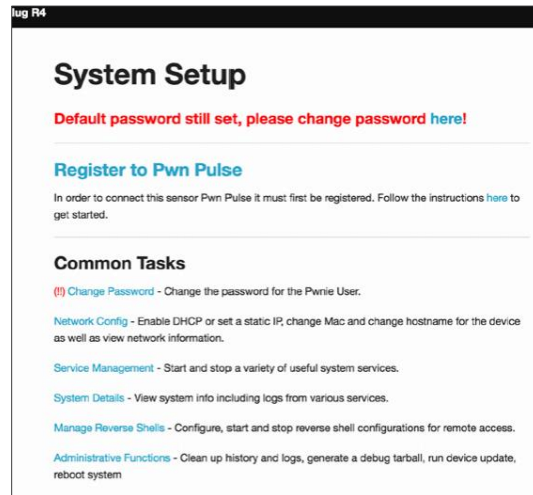
LOG INTO THE SENSOR AND CHANGE THE DEFAULT PASSWORD

- At the prompt, log in with the default credentials:

Username: pwnie

Password: pwnplug8000

The **System Setup** page appears, where **red screen text** informs you that the default password remains unchanged.

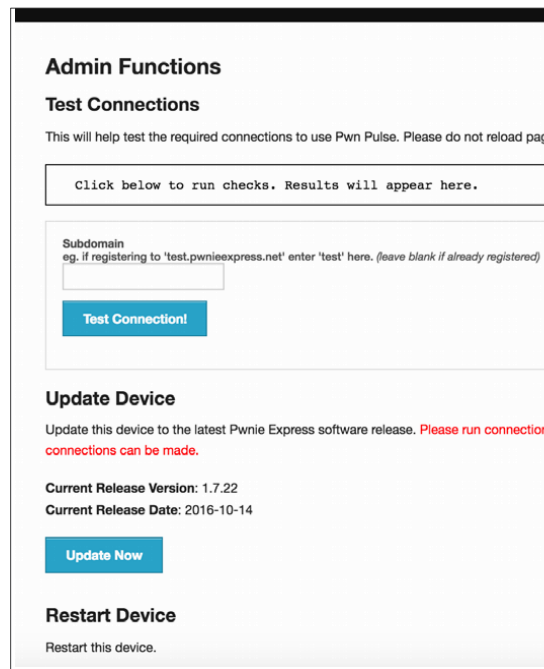


- Change the sensor's default password as follows:
 - Click the link in the warning text, and enter the current (default) password.
 - Enter a new password.

For subsequent password changes, go to the **System Setup** page. click **Change Password** from the **Common Tasks** drop-down menu, and follow the on-screen instructions.

TEST OUTBOUND CONNECTIVITY AND UPDATE SENSOR

- Use the new password to log into **System Setup** again.
- Do one of the following:
 - If you are registering the sensor to Pulse, click **Register to Pwn Pulse**.
 - Otherwise, navigate to the **Admin Functions** page.
- From the **Register to Pwn Pulse** page, click **Registration step 3 – Test connection to pulse here**.



- On the **Admin Functions** page, enter the subdomain assigned to your Pulse instance by Pwnie Express, and click **Test Connection!**
- Verify that output connection checks indicate **Valid** or **Success**.

If any checks fail, ensure that the firewall is configured to allow outbound connectivity to each of the ports and domains listed in the requirements section.

- Update the sensor to ensure that the sensor is running the most current firmware, do the following:
 - From the **Register to Pwn Pulse** page, click **Registration step 4 – Update sensor here**.
 - On the **Admin Functions** page, click **Update Now**.

NEXT STEPS

To connect the sensor to Pulse, proceed to [Part 2 – Joining Your Sensor to Pulse](#) on page 3.

For guidance on local use of the sensor for penetration testing, consult the user manual for your sensor, located at <https://www.pwnieexpress.com/support>.

Option B – Local Programming

The Pwnie Express preauthorization and programming service has not been ordered. The sensor will be programmed locally. Perform all the procedures in this section, in order.

POWER ON AND CONNECT THE SENSOR TO THE NETWORK

- Plug in the sensor to AC power and press the power button to turn it on.
- Do one of the following:
 - If connecting to the sensor with DHCP, go to the procedure [SET THE SENSOR'S NETWORK CONFIGURATION USING A DHCP IP ADDRESS](#) on page 3.
 - If setting a static IP address on the sensor, continue to the next step in this procedure.

3. Use an Ethernet cable to connect a computer directly to the sensor.
4. Set a temporary local IP address of the computer to the following (the method varies by OS):
IP address: 192.168.9.11
Netmask: 255.255.255.0
Default Gateway: 192.168.9.1
5. Using computer's web browser, navigate to port 1443 on the sensor by entering the following URL:
`https://192.168.9.10:1443`
6. Complete the procedure [LOG INTO THE SENSOR AND CHANGE THE DEFAULT PASSWORD](#) on page 2.
7. Complete the procedure to [TEST OUTBOUND CONNECTIVITY AND UPDATE SENSOR](#) on page 2.

SET THE SENSOR'S NETWORK CONFIGURATION USING A STATIC IP ADDRESS

1. Use the new password to log into the sensor.
2. Do one of the following:
 - If you are registering the sensor to Pulse, click **Register to Pwn Pulse**.
 - Otherwise, navigate to the **Network Config** page under **Common Tasks**.
3. Set sensor's network configuration, including static IP address, as follows:
 - a. Click **Registration step 2 – Confirm Network Configuration here**.
The **Network Config** page appears.
 - b. Click the **eth0** link.
 - c. Under **Configure eth0 Settings**, select the **Static Config** tab.
 - d. Fill out the table as required.
 - e. Click **Apply Static IP Settings**.

4. Unplug the direct Ethernet connection from the computer and connect the sensor directly into the network to be monitored via Ethernet.
Ensure that it is connected and able to route traffic to all segments of the network to be monitored.
5. Restore the computer's network settings and connect to the network. Log into the sensor at the new static IP address on port 1443 by entering the following URL into a web browser:
`https://x.x.x.x:1443`
... where x.x.x.x is the programmed static IP address.
6. Complete the procedure [LOG INTO THE SENSOR AND CHANGE THE DEFAULT PASSWORD](#) on page 2.
7. Complete the procedure to [TEST OUTBOUND CONNECTIVITY AND UPDATE SENSOR](#) on page 2.

SET THE SENSOR'S NETWORK CONFIGURATION USING A DHCP IP ADDRESS

1. Plug the sensor into the Ethernet port on the network to be monitored.
Ensure that it is connected and able to route traffic to all segments of the network to be monitored.
2. Determine the assigned IP address of the sensor by using Nmap or similar network scanning tool with a computer on the network.
For more details, see the user manual for your sensor, located at <https://www.pwnieexpress.com/support>.
3. Using a web browser on a computer connected to same network, navigate to port 1443 on the sensor by entering the following URL:
`https://x.x.x.x:1443`
... where x.x.x.x is the assigned IP address.

4. Complete the procedure to [LOG INTO THE SENSOR AND CHANGE THE DEFAULT PASSWORD](#) on page 2.
5. Complete the procedure to [TEST OUTBOUND CONNECTIVITY AND UPDATE SENSOR](#) on page 2.

NEXT STEPS

To connect the sensor to Pulse, go to [Part 2 – Joining Your Sensor to Pulse](#) on page 3.

For guidance on local use of the sensor for penetration testing, consult the user manual for your sensor, located at <https://www.pwnieexpress.com/support>.

Part 2 – Joining Your Sensor to Pulse

Part 2 of this guide assumes the following:

- The Pulse subscription has been purchased.
- The *Launch Form* has been filled out and sent to Pwnie Express
- You have received your login email from Pulse.
- Sensors have been installed and programmed as described in *Part 1* of this guide.

Note: If your sensors are preauthorized by Pwnie Express, proceed to the procedure to [APPROVE YOUR SENSOR](#) on page 4.

REGISTER YOUR SENSOR

1. Log into the local interface of the sensor as described in the procedure to [POWER ON AND CONNECT THE SENSOR TO THE NETWORK](#) on page 1.
2. On the **System Setup** page, select **Register to Pwn Pulse**.

3. Ensure that you have completed the following tasks, as described in *Part 1* of this guide.
 - Change default password.
 - Confirm network configuration.
 - Test connection to Pulse.
 - Update sensor.
4. Under **Sensor Name**, enter the name for your sensor – this is typically chosen based on location, for example, *Akron, OH - North Branch*.
5. For dispatch hostname and port, enter the URL for your Pulse instance provided by Pwnie Express, for example, *yourbusiness.pwnieexpress.net*.
6. Enter admin contact.
7. Click **Connect to Dispatch**.

Pwn Plug R4

Register this sensor

Before registering this device to PwnPulse be sure to do the following steps:

1. Change password from default [here](#).
2. Confirm network configuration [here](#).
3. Test connection to pulse [here](#).
4. Update sensor [here](#).

Once you have gone through the above steps fill out this form with registration information including a recognizable name for the sensor and your contact information.

Dispatch Hostname & Port

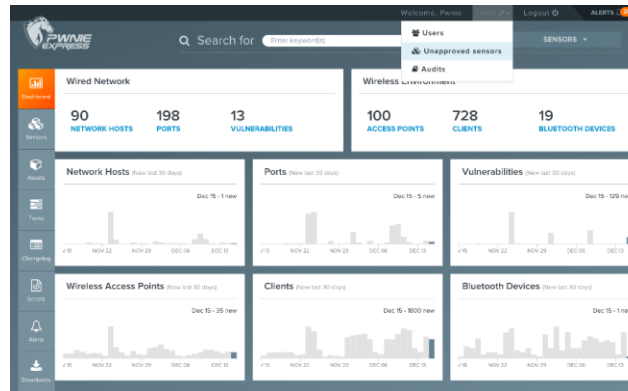
Sensor Name

Contact (optional)

Connect to Dispatch

APPROVE YOUR SENSOR

1. Log in to Pulse at the hostname requested and assigned by Pwnie Express, for example, <https://yourbusiness.pwnieexpress.net>.
2. From the **Tools** menu at the top of the page, select **Unapproved Sensors**.



3. Choose the sensor you are authorizing, and select **Approve**.
4. Repeat for each sensor to be joined to Pulse.

BEGIN SCANNING WIRED AND WIRELESS NETWORKS

To begin scanning wired and wireless networks (it may take several minutes for services to become available following approval):

- **Wireless scanning** – In Pulse, select the sensor and click **Services**. Start the **Realtime wireless discovery service** to begin Wi-Fi scanning.
- **Wired scanning** – In Pulse, select the sensor and click **Services**. Click **PwnScan automated scanner service**. Devices or networks that you do not want scanned can be added to the blacklist in CIDR notation. The local_scanning targets will autopopulate. Save settings, and start the **PwnScan automated scanner service**.

- Bluetooth scanning – In Pulse, select the sensor and click **Services**. Start the **Blue Hydra Bluetooth Scanner** to begin Bluetooth device discovery.

NEXT STEPS

- View instructional videos on the Pulse Support Videos page at <https://www.pwnieexpress.com/support/support-video-pulse>.
- Go to the *Pulse User Guide*, available at <https://pwnieexpress.com/support> for more information on using Pulse, setting tasks and alerts, and managing services.

Note: To ensure proper operation, do not enable tasks before consulting the manual or working with the Pwnie Express team

