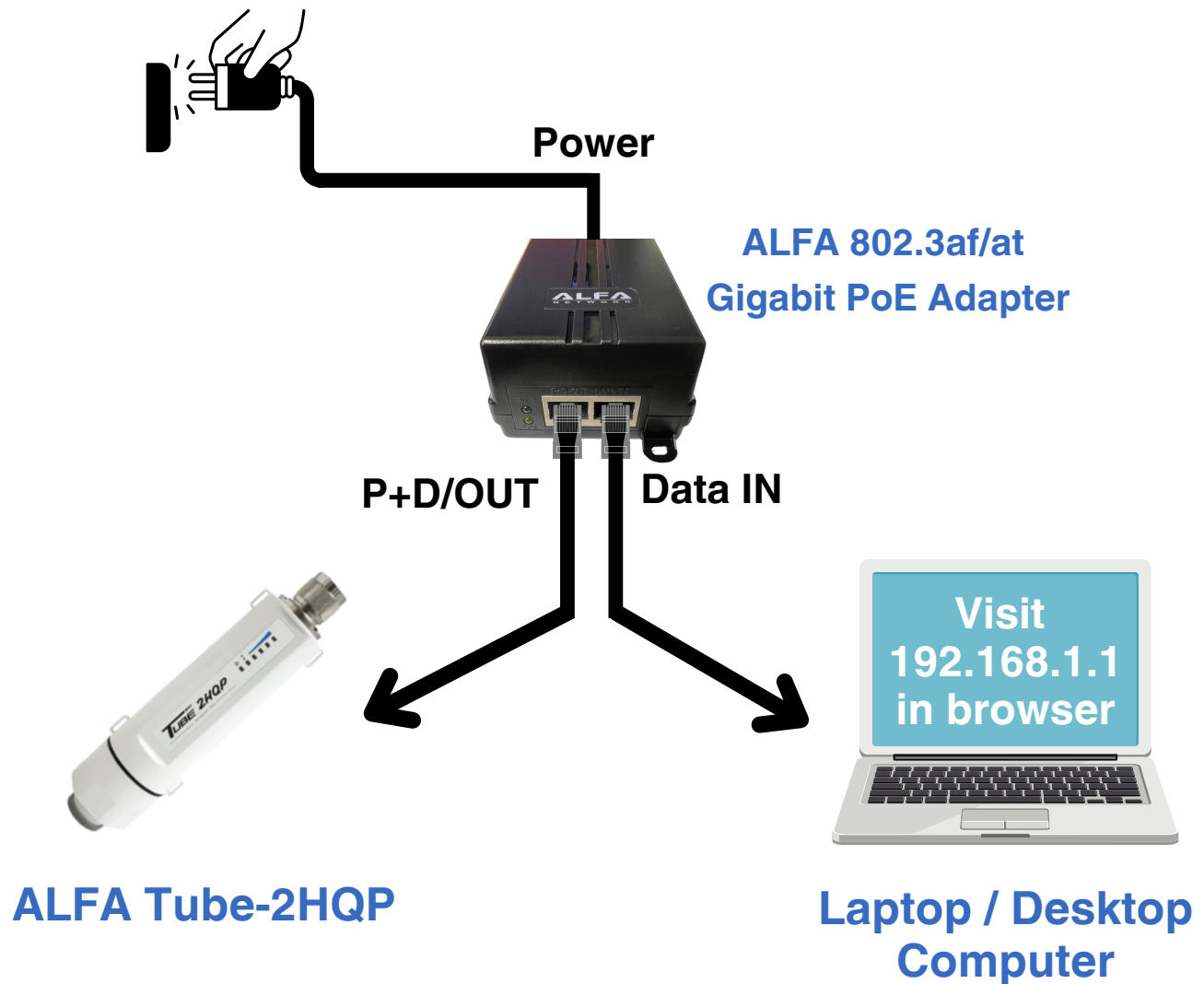**ALFA Tube 2HQP**
2.4 GHz Long Distance Outdoor
Wi-Fi PoE AP/CPE IP68

Client Mode - Quick Guide

Power

**ALFA 802.3af/at
Gigabit PoE Adapter**

P+D/OUT   **Data IN**

Visit
192.168.1.1
in browser

ALFA Tube-2HQP

**Laptop / Desktop
Computer**

Tube-2HQP Configuration
Hardware Setup

- Using a PoE compatible ethernet cables connect the Tube-2HQP to the P+D/OUT port and a Computer to the Data IN port on the on the PoE Adapter.
- Connect the ALFA 802.3af/at Gigabit PoE Adapter to a power source.
- On the computer that is connected to the PoE adapter, open a browser and type 192.168.1.1 into the address bar.

There is no password set, so just click Login.

Click the Network Tab.

Click the Wireless option within the dropdown menu.

Click Scan.

- Search for desired network.
- Note the Channel, BSSID, Encryption for later.
- Click Join Network.

Joining Network: "WiFi-Arris"

Replace wireless configuration	☐
	❓ Check this option to delete the existing networks from this radio.
Name of the new network	wwan
	❓ The allowed characters are: A-Z , a-z , 0-9 and _
WPA passphrase	[ ] ∗
	⚠ Expecting: non-empty value key here.
Lock to BSSID	☐
	❓ Instead of joining any network with a matching SSID, only connect to the BSSID F8:A0:97:02:1C:76 .
Create / Assign firewall-zone	wan *(empty)* ▾
	❓ Choose the firewall zone you want to assign to this interface. Select *unspecified* to remove the interface from the associated zone or fill out the *custom* field to define a new zone and attach the interface to it.

Cancel **Submit**

- Enter the WPA passphrase for the selected network.
- Click Submit.

Wireless Network: Client "WiFi-Arris" (radio0.network2)

Device Configuration

General Setup | Advanced Settings

Status	📶 **Mode: Client | SSID:** WiFi-Arris — dBm *Wireless is not associated*
Wireless network is enabled	**Disable**
Operating frequency	Mode [N ▾] Channel [auto ▾] Width [20 MHz ▾]
Allow legacy 802.11b rates	☐
	❓ Legacy or badly behaving devices may require legacy 802.11b rates to interoperate. Airtime efficiency may be significantly reduced where these are used. It is recommended to not allow 802.11b rates where possible.
Maximum transmit power	[driver default ▾] - Current power: *unknown*
	❓ Specifies the maximum transmit power the wireless radio may use. Depending on regulatory requirements and wireless usage, the actual transmit power may be reduced by the driver.

- In the Device Configuration section under the General Setup Tab change the Operating frequency - Channel to auto.
- (Selecting the previously noted Channel will only work if the source signal is not configured for dynamic channel switching.)

Wireless Network: Client "WiFi-Arris" (radio0.network2)

Device Configuration

General Setup | Advanced Settings

Country Code | US - United States

Coverage cell density | Disabled
⊘ Configures data rates based on the coverage cell density. Normal configures basic rates to 6, 12, 24 Mbps if legacy 802.11b rates are not used else to 5.5, 11 Mbps. High configures basic rates to 12, 24 Mbps if legacy 802.11b rates are not used else to the 11 Mbps rate. Very High configures 24 Mbps as the basic rate. Supported rates lower than the minimum basic rate are not offered.

Distance Optimization | auto
⊘ Distance to farthest network member in meters.

Fragmentation Threshold | off

RTS/CTS Threshold | off

Force 40MHz mode | ☐
⊘ Always use 40MHz channels even if the secondary channel overlaps. Using this option does not comply with IEEE 802.11n-2009!

Beacon Interval | 100

- In the Device Configuration section select the Advanced Settings Tab.
- Change the Country Code to the US - United States or the Country in which you are operating from.

Interface Configuration

General Setup | Wireless Security | Advanced Settings

Mode | Client

ESSID | WiFi-Arris

BSSID |

Network | wwan: 📶
⊘ Choose the network(s) you want to attach to this wireless interface or fill out the *custom* field to define a new network.

Dismiss | Save

- In the Interface Configuration section select the General Setup Tab.
- Confirm the Mode is set to Client.
- (Optional) Enter previously noted BSSID.

Interface Configuration

General Setup | **Wireless Security** | Advanced Settings

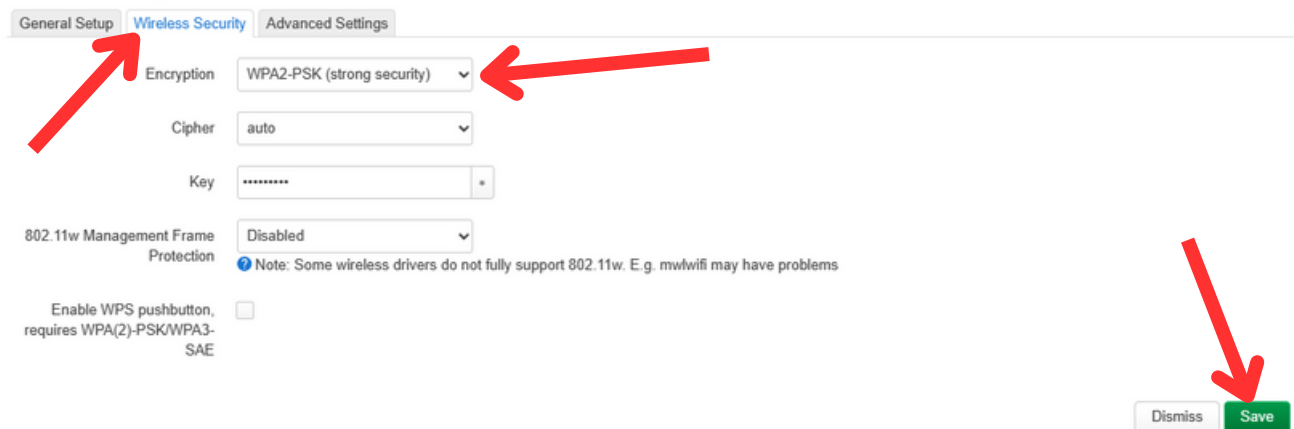Encryption: WPA2-PSK (strong security)

Cipher: auto

Key: ·········

802.11w Management Frame Protection: Disabled

ⓘ Note: Some wireless drivers do not fully support 802.11w. E.g. mwlwifi may have problems

Enable WPS pushbutton, requires WPA(2)-PSK/WPA3-SAE: ☐

Dismiss | Save

- In the Interface Configuration section select the Wireless Security Tab.
- Confirm the Encryption matches the previously noted Encryption type.
- Click Save.

- Click Save & Apply.
- (The client interface should automatically Enable, but if it doesn't click Enable and re-click Save & Apply.)

Continue to the Post-Configuration hardware setup.

Power

**ALFA 802.3af/at
Gigabit PoE Adapter**

P+D/OUT **Data IN**

ALFA Tube-2HQP

**Device Requiring
Network Access**
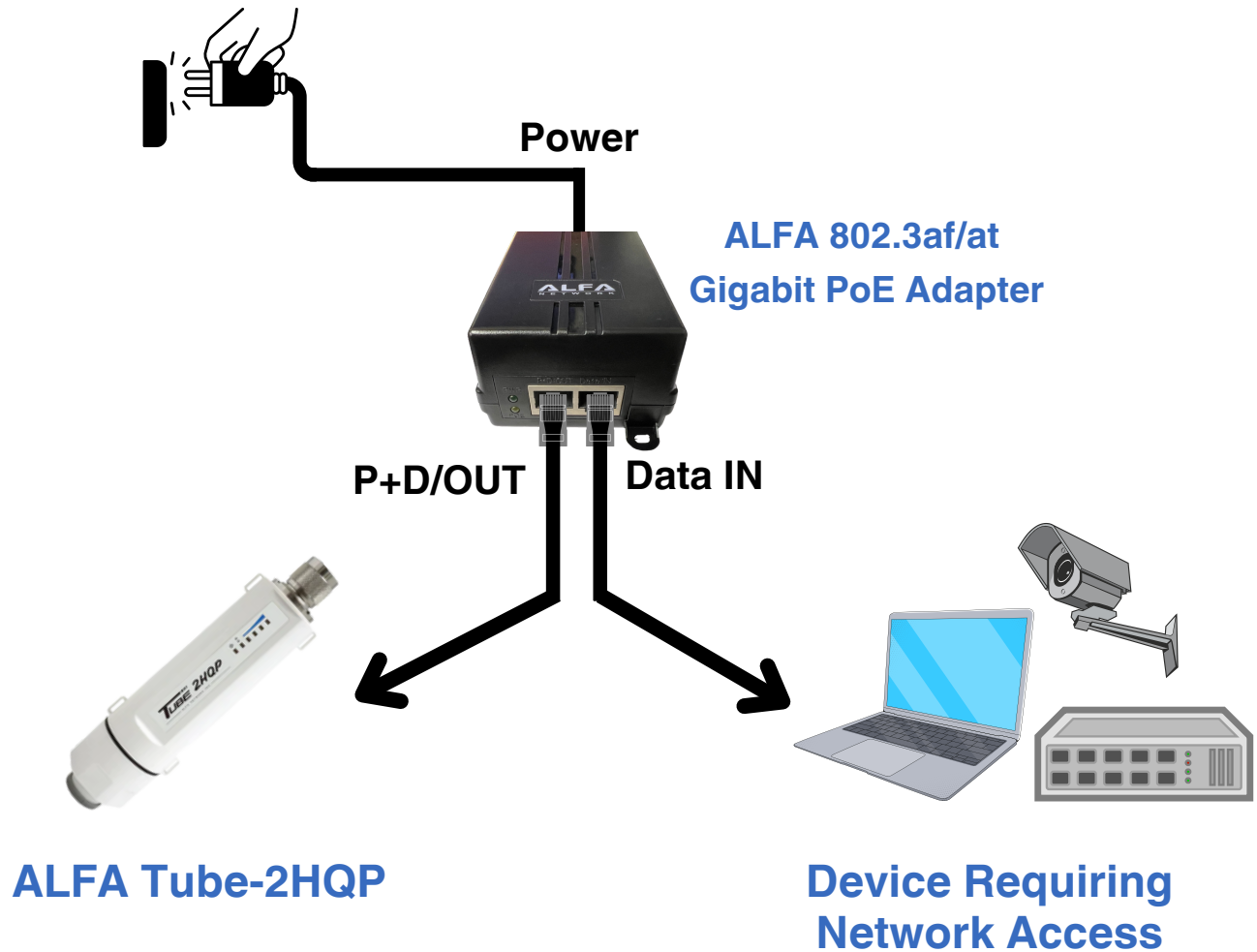
Tube-2HQP Post-Configuration Hardware Setup

- Using a PoE compatible ethernet cable connect the Tube-2HQP to the P+D/OUT port
- Using a PoE compatible ethernet cable connect the device requiring network connectivity to the Data IN port on the on the PoE Adapter.
- Connect the ALFA 802.3af/at Gigabit PoE Adapter to a power source.