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QUANTUM NETWORKS QN-I-220 Quantum Wireless Access Point User Guide

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Contents

Copyright Information

This Quick Setup Guide provides step-by-step instructions on how to set up Quantum Networks Access Point. After completing the steps described in this Guide, you will be able to install the Access Point (AP) on-site and provide wireless network access to users

Glossary

Feature	Description
Management Mode	**Standalone:** In this mode, each device is configured and managed individually. It can be useful in scenarios with few devices or sites with limited Internet access and basic features. **Cloud:** In this mode, devices are configured and managed from a central controller hosted in the cloud. It offers many more sets of features as compared to the Standalone mode.
Operation Mode	**Bridge:** In this mode, the device connects to a network over an ethernet cable and extends the coverage over wireless. **Router:** In this mode, the device connects to Internet Service Provider directly using DHCP / Static IP / PPPoE protocols and shares Internet access over a wired or wireless network tousers.
Quantum Rudder	**Quantum Rudder** is a cloud-hosted controller which can be used to configure, manage & monitor devices associated withit. It can be accessed from **https://rudder.qntmnet.com**

Icon description

Icon on GUI	Description
![info icon]	Click to get the option for the firmware update.
![home icon]	Click to get back to the home page.
![help icon]	Click to check the documentation.
![wifi icon]	Click to check device information.

Before you begin

Your Quantum Networks Access Point can work in "Standalone Mode" or can be managed by "Rudder".

Package contents

- Access Point.
- Mounting kit

Prerequisites

- nternet access.
- Desktop / Laptop / Handheld device.
- 802.3af / 802.3at PoE Switch / PoE Injector.
- 12V, 2A DC power adapter.

Network requisites

The listed ports must be opened or allowed in the network firewall.

- **TCP:** 80, 443, 2232, 1883.
- **UDP:** 123, 1812, 1813.
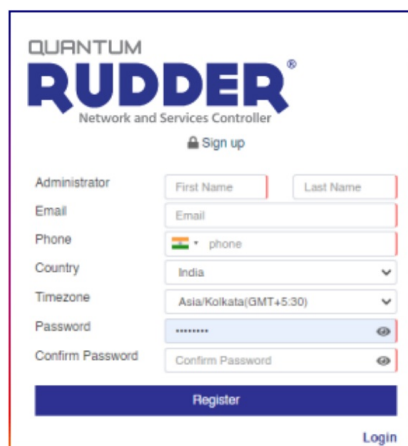- Allow rudder.qntmnet.com and reports.qntmnet.com in the destination field.

Connect Access Point

- After unpacking Access Point, connect it to an Internet source.
- Plug-in Ethernet cable of Access Point.
- Power on Access Point by using 802.3af / 802.3at PoE Switch / PoE Injector.

Note: Access Point must have Internet access during initial setup for the first time to activate the device, warranty and support.

Step 1 – Create new account on Quantum Rudder

- Browse **https://rudder.qntmnet.com**.
- Click "Create New Account" to sign up for a new account.

Figure 1

- Follow the steps as guided on the screen for Registration.
- Verify Quantum Rudder account from registered email id. (you will get)
- Once the account gets validated, it turns the page to "Add License Key" (User will get the license key from respective (Partner / Resource))
- Account on Quantum Rudder (Quantum Networks Cloud Controller) is now ready to use.

Step 2 – Basic setup

- Connect the WAN port of the Access Point to the network with Internet access.
- You should see a new wireless network with SSID QN_XX:XX (where XX:XX are the last four digits of Access Point MAC Address).
- Connect to QN_XX:XX SSID and browse Access Point's default IP "169.254.1.1".
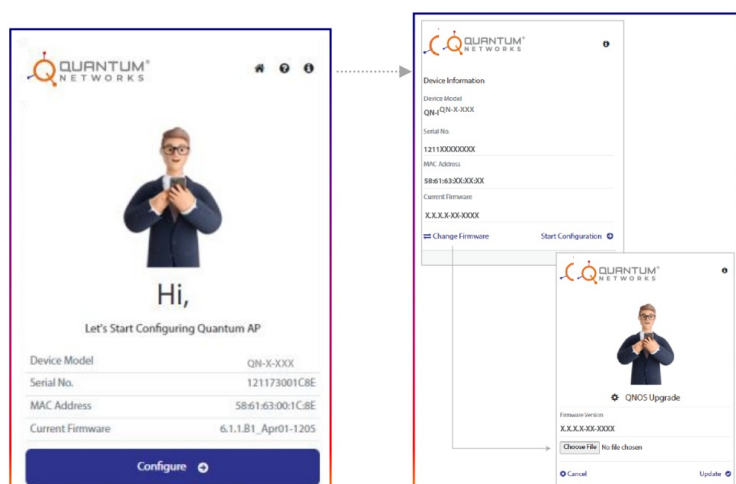
Figure 2

Let's start the configuration.

On the configuration start page, it will display,

- Device model number
- Serial number

- MAC address
- Current firmware

Note:

- Click button to get the option to "change the firmware" if required.
- Click Change Firmware to update firmware if required. Select the firmware file from the respective location and update it.

Step 3 – Setting up device IP address

Click **"Configure"** and set the device IP address by selecting the required options.

- Connectivity Mode – Select the connectivity mode.
- Protocol – DHCP, Static or PPPoE
- Interface – Select interface
- VLAN Assignment- Enable parameter. Enter VLAN ID and click "Fetch IP Address" to get the respective IP in case of VLAN setup is required.

Figure 3

Click "Proceed" to apply configuration and turn to the next page.

Step 4 – Set the management mode
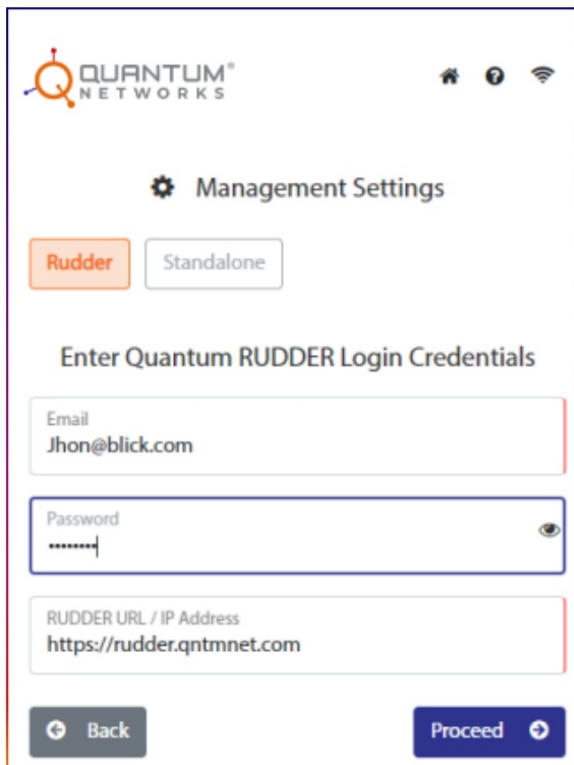
Management Mode

Quantum Networks Access Point can be configured in two modes:

Rudder (on cloud / on-premise)

Standalone

Independent management of each Access Point
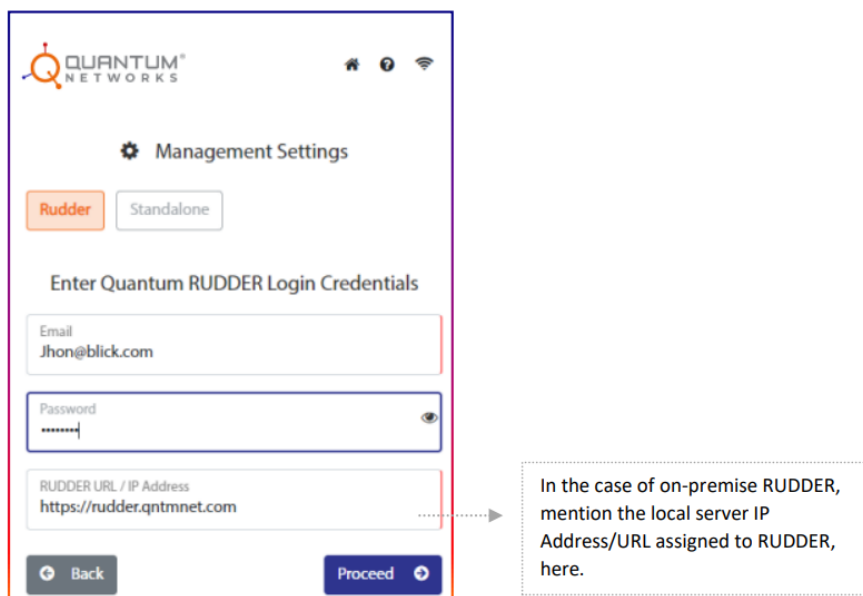
Figure 4

Step 5 – Access Point quick setup in Rudder Mode

- Select "Management Mode" as "Rudder", enter Quantum Rudder login credentials and click "Proceed".

Figure 5

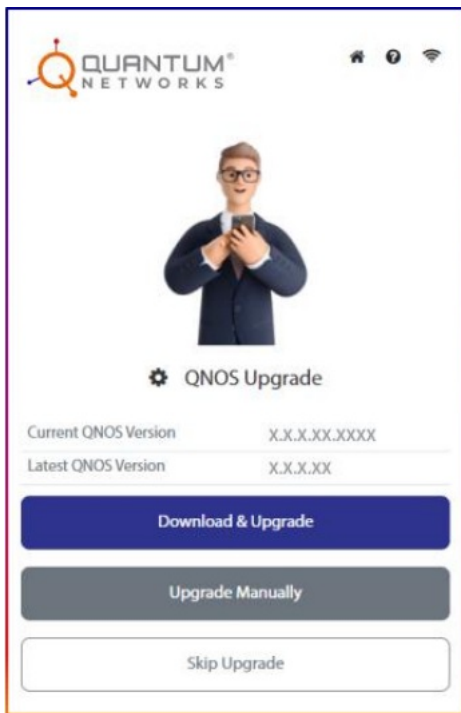- It will verify the credentials, and turn to a next page

Figure 6

- Upgrade QNOS version by either downloading from the cloud or by selecting manually from respective location and upgrade or click "Skip Upgrade" to move further.
- The user will turn to a page where the user has to select the site and AP group.
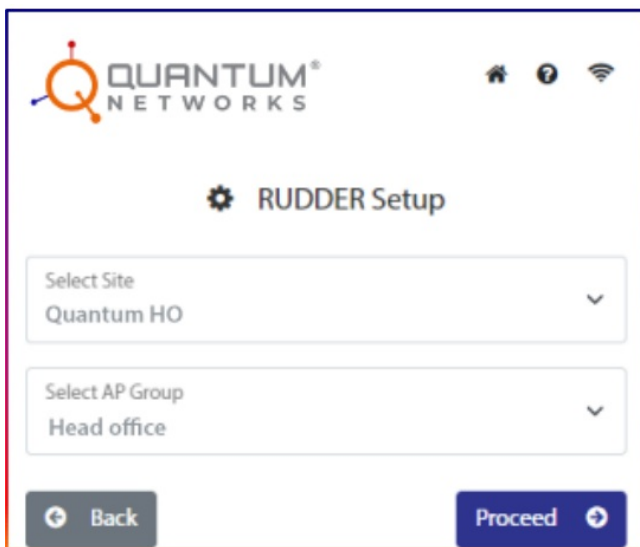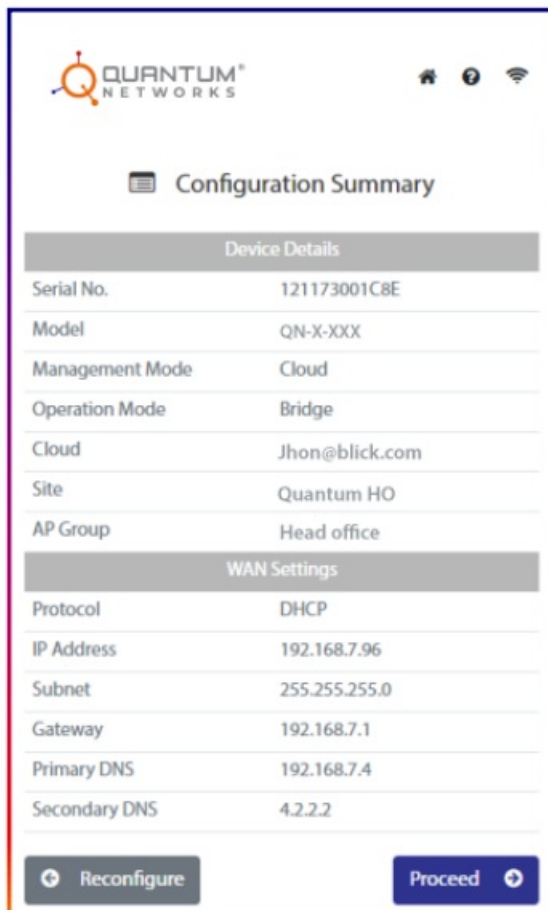
Figure 7

- Select Rudder site and AP Group where Access Point's needs to be added and click "Proceed".
- If the selected site is already having another Access Point, it will automatically configure AP in a bridge mode and will turn the user on the summary page after clicking "Proceed". **(Figure 8)**

- If this is the first Access Point for the selected site – the user will turn on the page, where the user can select Access Point Operation mode as Bridge or Router. **(Figure 9)**

Bridge

- Select option **Bridge** and click **"Proceed".**
- Configure **WLAN (SSID)** parameters and click **"Proceed".**

Parameter	Value
WLAN Name	Define a name for the network
SSID	Define visible wireless network name
Passphrase	Configure a passphrase for SSID

Figure 10

Note: If you do not want to create WLAN (SSID)/LAN now, click the Skip option. It will turn to Configuration Summary.

Review the Configuration Summary. Click "Reconfigure" if any changes are required or click "Proceed" to complete the configuration.

Figure 11

Router

- Select option Router and click "Proceed".
- Configure WLAN (SSID) and Local subnet parameters and click "Proceed"

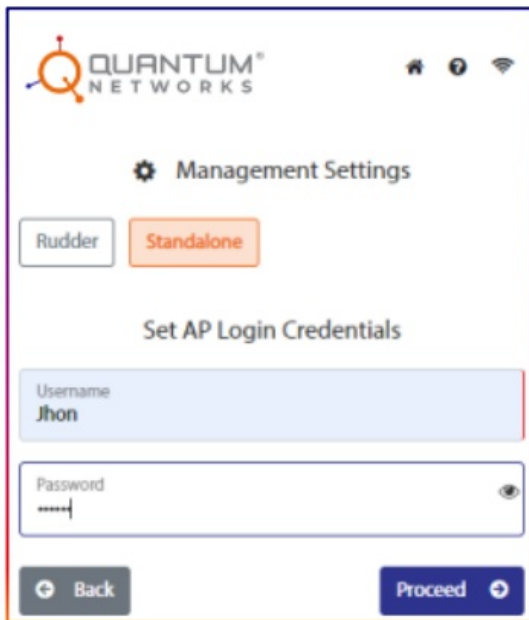| Parameter	Value
WLAN	
WLAN Name	Define a name for the network
SSID	Define visible wireless network name
Password	Configure passphrase for SSID
Local Subnet	
IP Address	LAN IP address. This IP address can be used for accessing this Access Point
Subnet Mask	LAN Subnet mask

Figure 12

Figure 13

Note: If you do not want to create WLAN (SSID)/LAN now, click the Skip option. It will turn to Configuration Summary.

- Review the Configuration Summary. Click "Reconfigure" if any changes are required or click "Proceed" to complete the configuration.

Step 6 – Access Point quick setup in standalone mode

Figure 14

- Select "Management Mode" as "Standalone" if each Access Point is to be configured and managed individually. Define username and password for the device and click "Proceed".
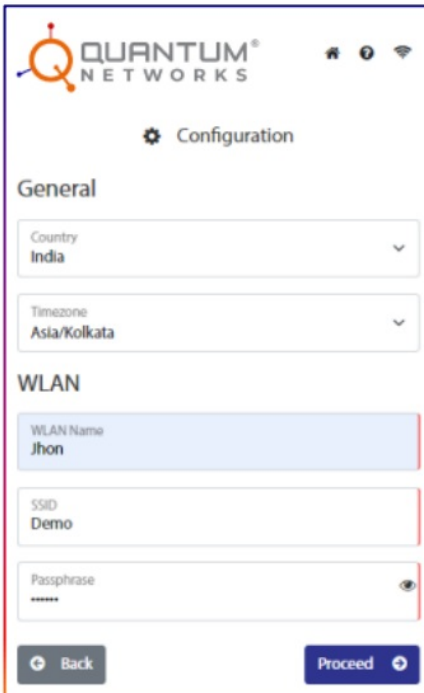- User can select Access Point Operation mode as Bridge or Router.

Figure 15

Bridge

- Select option Bridge and click "Proceed".
- Configure WLAN (SSID) parameters and click "Proceed".

Parameter	Value
Country	Select country for radio management.
Timezone	Select timezone for Rudder management.
WLAN Name	Define a name for the network.
SSID	Define visible wireless network name.
Passphrase	Configure a passphrase for SSID.

- Review the Configuration Summary. Click "Reconfigure" if any changes are required or click "Proceed" to complete the configuration.
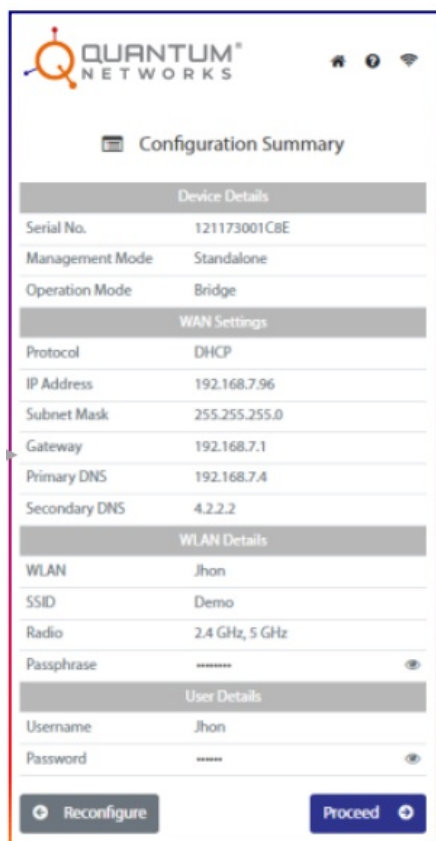

Figure 16

Figure 17

Router

- Select option Router and click "Proceed".
- Configure WLAN (SSID) and Local subnet parameters and click "Proceed".

Parameter	Value
WLAN	
Country	Select country for radio management.
Time zone	Select time zone for Rudder management.
WLAN Name	Define a name for the network.
SSID	Define visible wireless network name.
Password	Configure a passphrase for SSID.
Local Subnet	
IP Address	LAN IP address. This IP address can be used for accessing this Access Point.
Subnet Mask	LAN subnet mask.

- Review the Configuration Summary. Click "Reconfigure" if any changes are required or click "Proceed" to complete the configuration.

Figure 18

Figure 19

Reset Access Point to factory defaults

- Power on the Access Point

- Push the reset button on the back panel and hold it for 10 seconds.

- Access Point would restart with factory defaults

Access Point default login detail

With standalone mode:

User Name: Created while doing "Quick Setup"
Password: Created while doing "Quick Setup"

With Rudder mode:

User Name: Auto Generated, administrator can change from site settings.
Password: Auto Generated, administrator can change from site settings.

If you encounter problems while installing or using this product, please browse **www.qntmnet.com** for:

- Direct contact with the support center.
    - **Contact:** 18001231163
    - **Email:** support@qntmnet.com
- For the latest software, user documentation and product updates browse: q**ntmnet.com/resource-library**

Documents / Resources

	QUANTUM NETWORKS QN-I-220 Quantum Wireless Access Point [pdf] User Guide QN-I-220 Quantum Wireless Access Point, QN-I-220, Quantum Wireless Access Point, Wireless Access Point, Access Point

References

- ⊙ **Resource Library | Quantum Networks**
- ⊙ **Welcome to nginx!**
- ⊙ **Quantum Network**
- ⊙ **Quantum Networks | Reinventing Networks**

- <Q> **Quantum Networks | Reinventing Networks**
- <Q> **Resource Library | Quantum Networks**
- 🌐 **Quantum Network**
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- **User Manual**