

Quick Setup Guide

Model: QN-I-490

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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 to users.
Quantum Rudder	Quantum Rudder is a cloud-hosted controller which can be used to configure, manage & monitor devices associated with it. It can be accessed from https://rudder.qntmnet.com

Icon description

Icon on GUI	Description
	Click to get the option for the firmware update.
	Click to get back to the home page.
	Click to check the documentation.
	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

- Internet 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.



The image shows the registration form for Quantum Rudder. The form is titled "QUANTUM RUDDER Network and Services Controller" and includes a "Sign up" link. The form fields are: Administrator (First Name, Last Name), Email, Phone (with a country code dropdown), Country (dropdown), Timezone (dropdown), Password (with a strength indicator), and Confirm Password. A "Register" button is at the bottom, and a "Login" link is in the bottom right corner.

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".

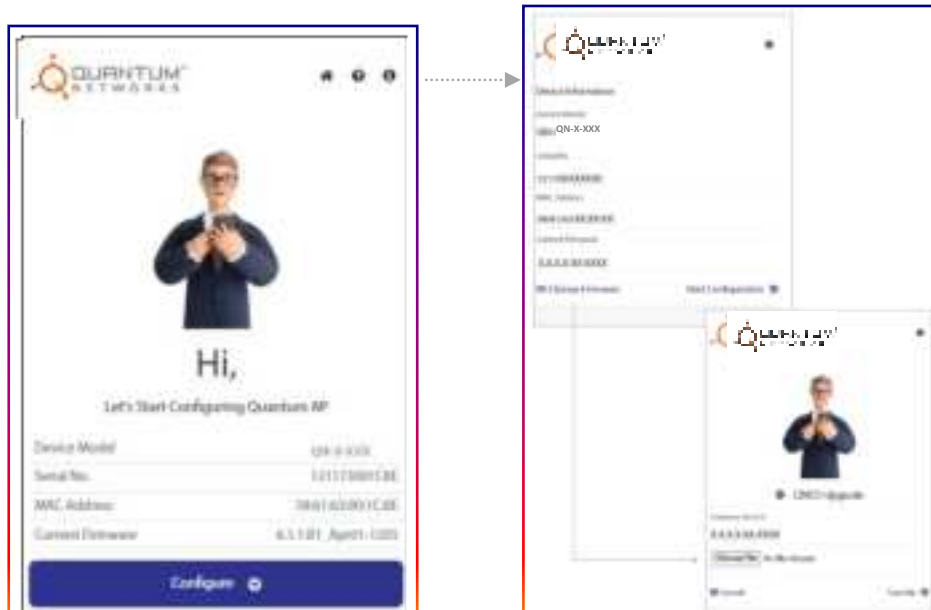


Figure 2

Let's start the configuration.

On the configuration start page, it will display,

- Device model number
- Serial number
- MAC address
- Current firmware

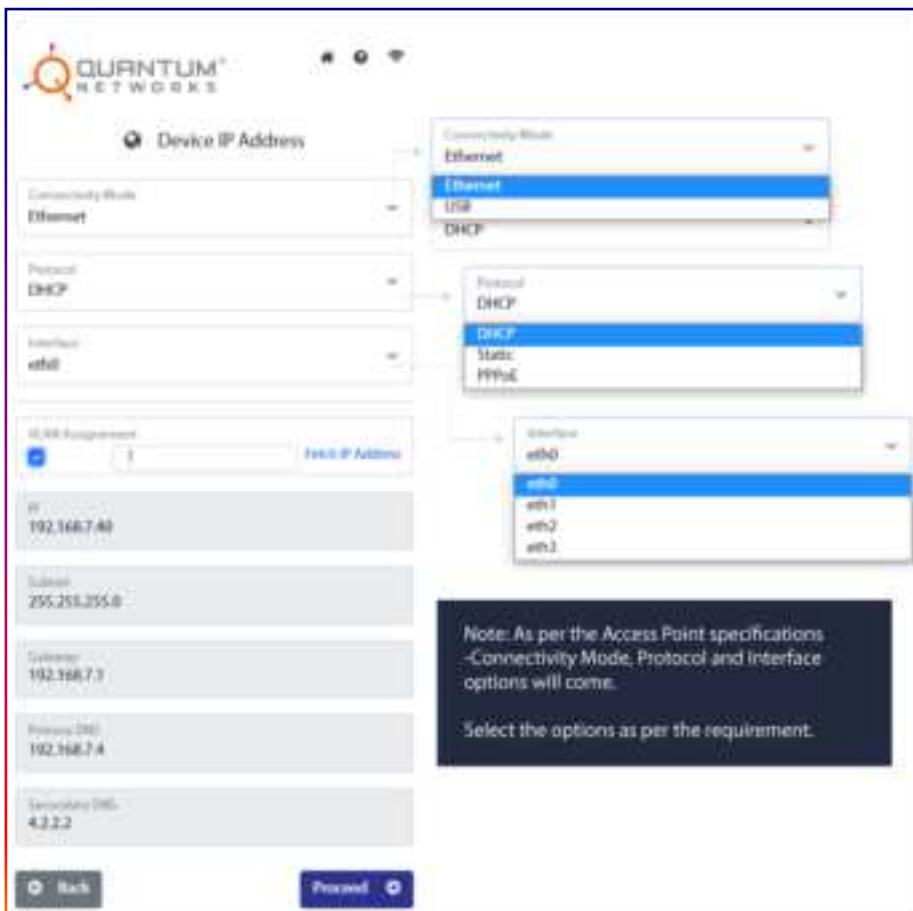
Note:

- 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.



Quantum Networks

Device IP Address

Connectivity Mode: **Ethernet**

Protocol: **DHCP**

Interface: **eth0**

VLAN Assignment: ☒ [Fetch IP Address](#)

IP: 192.168.7.40

Subnet: 255.255.255.0

Gateway: 192.168.7.1

Primary DNS: 192.168.7.4

Secondary DNS: 4.2.2.2

[Back](#) [Proceed](#)

Note: As per the Access Point specifications -Connectivity Mode, Protocol and interface options will come. Select the options as per the requirement.

Figure 3

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

Step 4 – Set the management mode

Management Mode

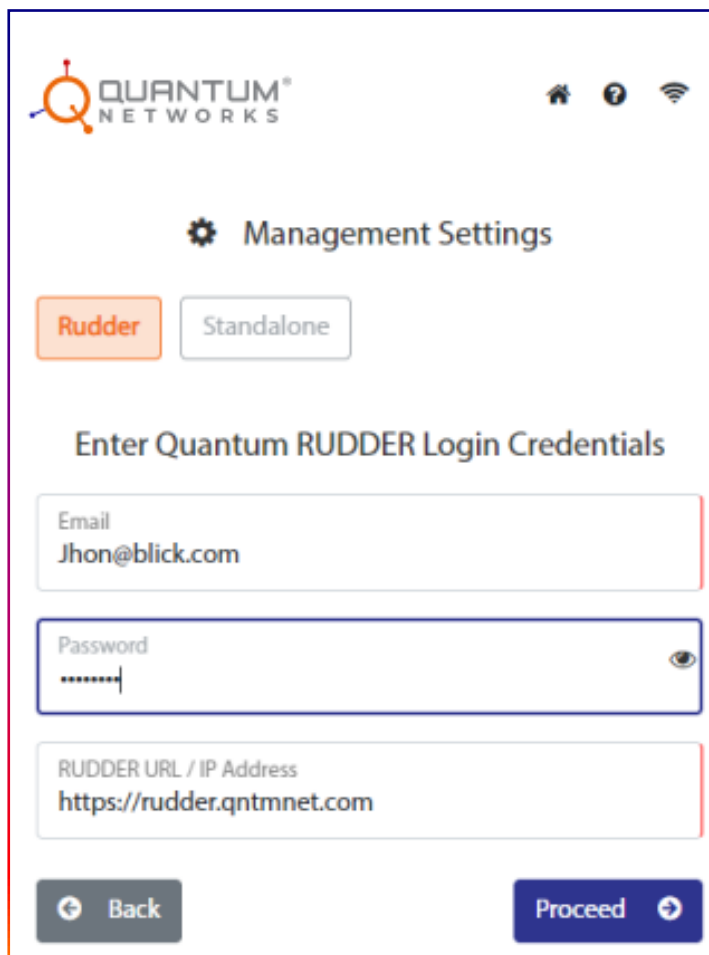
Quantum Networks Access Point can be configured in two modes:

Rudder (on cloud / on-premise)

Centralized management of Access Points using Quantum Rudder

Standalone

Independent management of each Access Point



Quantum Networks

Management Settings

Rudder Standalone

Enter Quantum RUDDER Login Credentials

Email
Jhon@blick.com

Password
.....

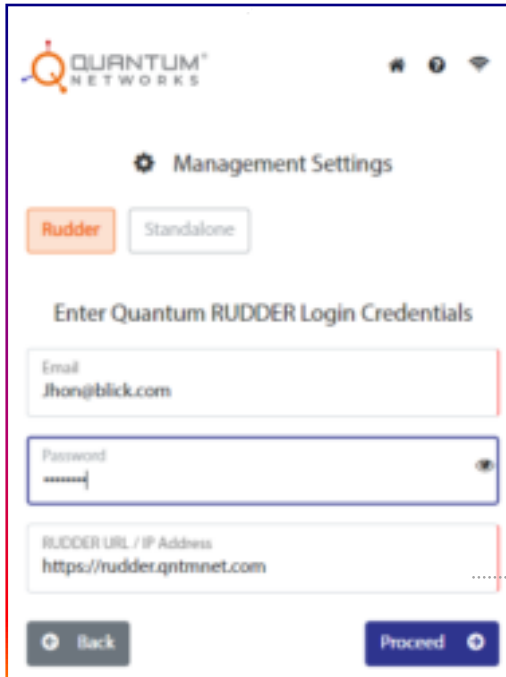
RUDDER URL / IP Address
https://rudder.qntmnet.com

Back Proceed

Figure 4

Step 5 - Access Point quick setup in Rudder Mode

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



In the case of on-premise RUDDER, mention the local server IP Address/URL assigned to RUDDER, here.

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.

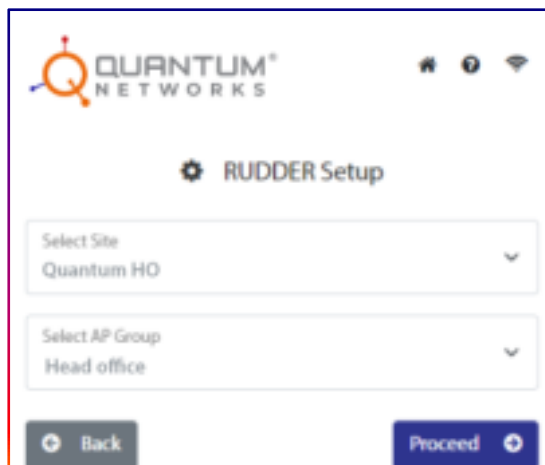


Figure 7

- 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)

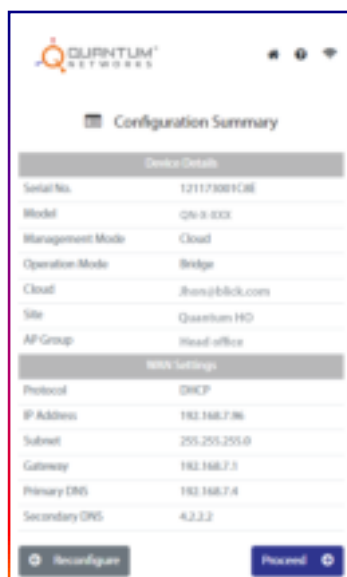


Figure 8



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



Configuration

WLAN

WLAN Name: jhon

SSID: Demo1

Passphrase: *****

Local Subnet

IP Address: 192.168.7.60

Subnet: 255.255.255.0

Back Skip Proceed

Figure 12



Configuration Summary

Device Details	
Serial No.	121173001CBE
Model	QN-X-XXX
Management Mode	Cloud
Operation Mode	Router
Cloud	jhon@blick.com
Site	Quantum HQ
AP Group	Head office

WAN Settings	
Protocol	DHCP
IP Address	192.168.7.96
Subnet	255.255.255.0
Gateway	192.168.7.3
Primary DNS	192.168.7.4
Secondary DNS	4.2.2.2

Local Subnet	
Name	Default
IP	192.168.7.60
Subnet	255.255.255.0

WLAN Details	
WLAN	jhon
SSID	Demo1
Radio	2.4 GHz/5 GHz
Encryption	WPA2
Algorithm	AES
Passphrase	*****

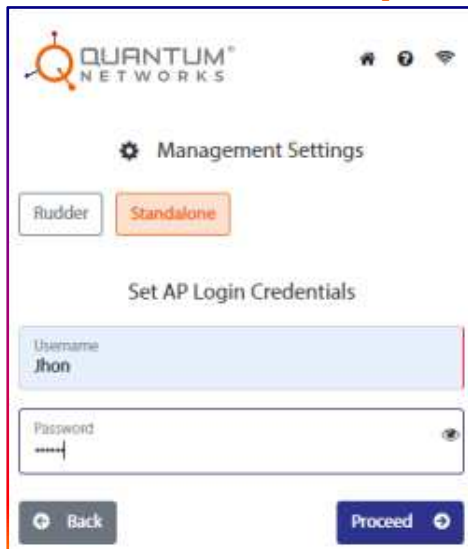
Reconfigure Proceed

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



The screenshot shows the 'Management Settings' page for a Quantum Networks device in 'Standalone' mode. The 'Rudder' button is disabled, and the 'Standalone' button is active. Below this, the 'Set AP Login Credentials' section has a 'Username' field containing 'Jhon' and a 'Password' field with masked characters. At the bottom, there are 'Back' and 'Proceed' buttons.

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**.



The screenshot shows the 'Operation Mode' page. The 'Bridge' button is active, and the 'Router' button is disabled. Below the buttons, a text description states: 'In Bridge Mode, device connects to the network by ethernet cable and extends the wireless coverage of existing network.' A network diagram shows a globe connected to a router, which is connected to an access point, which is then connected to a laptop. At the bottom, there are 'Back' and 'Proceed' buttons.

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.



Quantum Networks Configuration

General

Country: India

Timezone: Asia/Kolkata

WLAN

WLAN Name: Jhon

SSID: Demo

Passphrase: *****

Back Proceed

Figure 16



Quantum Networks Configuration Summary

Device Details

Serial No: 121170887C8E

Management Mode: Standalone

Operative Mode: Bridge

Host Settings

Protocol: DHCP

IP Address: 192.168.7.96

Subnet Mask: 255.255.255.0

Gateway: 192.168.0.1

Primary DNS: 192.168.7.4

Secondary DNS: 8.8.8.8

WLAN Details

WLAN: Jhon

SSID: Demo

Radio: 2.4 GHz, 5 GHz

Passphrase: *****

Client Details

Username: Jhon

Password: *****

Reconfigure Proceed

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.
Timezone	Select timezone 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.



Quantum Networks Configuration

General

Country: India

Timezone: Asia/Kolkata

WLAN

WLAN Name: Jhon

SSID: Demo

Password: [Masked]

Local Subnet

IP Address: 192.168.1.1

Subnet Mask: 255.255.255.0

Back Proceed

Figure 18



Quantum Networks Configuration Summary

General Details

Serial No.: 12117001C0E

Management Mode: Standalone

Operation Mode: Router

WLAN Settings

Protocol: DHCP

IP Address: 192.168.2.96

Subnet Mask: 255.255.255.0

Gateway: 192.168.2.1

Primary DNS: 192.168.2.9

Secondary DNS: 4.2.2.2

Access Point

Name: LAN

IP: 192.168.1.1

Subnet: 255.255.255.0

WLAN Details

WLAN: Jhon

SSID: Demo

Radio: 2.4 GHz, 5 GHz

Passphrase: [Masked]

User Details

Username: Jhon

Password: [Masked]

Reconfigure Proceed

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: qntmnet.com/resource-library