

Quantum Networks

Switches

Quick Setup Guide

This Quick Setup Guide provides step-by-step instructions on how to set up Quantum® Networks Switches. After completing the steps described in this Guide, you will be able to install the Switch on-site.

Onboarding Quantum Networks Switches

Accessing Quantum Networks Switches requires you to have Quantum RUDDER account. So if you don't have your RUDDER account activated yet, this might as well be the right time to do so. Quantum RUDDER is a cloud-hosted controller which can be used to configure, manage & monitor devices associated with it. You can get your account created and activated by visiting <https://rudder.qntmnet.com>.

Once you have activated your RUDDER account, you can easily Configure and Onboard QN Switches on your own without requiring any additional support by following these simple steps. Before we start the configuration, you need to pre-configure the device to get to the configuration page.

Let's see the steps on how to do this.

Pre-configure:

Get the IP Address to access the Switch configuration page with any of the three methods mentioned below.

- Using Failover IP
- Using Network IP
- Using OOB IP

Let's see how to get it done using Failover IP first

The default failover IP is 169.254.x.x, where 169.254 is constant & Last 2 Digits are based on the MAC address of the Switch.

- To Get the IP Address, first note the MAC address of the Switch.
- Convert the last 4 Hex digits of the Switch MAC address into Decimal using Hex to Decimal converter.

Note: You can use any Hex to Decimal converter

like "<https://www.rapidtables.com/convert/number/hex-to-binary.html>".

For example, the MAC address of the Switch is 58:61:63:00:C5:E1, where the last four digits are "C5:E1". Now convert C5 and E1 to Decimal. C5 Decimal value will come as "197", and the value of E1 will come as "225". As per this, the switch failover IP will come as 169.254.197.225.

Now, Assign 169.254.1.20 (or any IP address of 169.254.x.x series except Switch's failover IP) static IP address to the Desktop/Laptop device LAN port.

Open the browser and browse Switch's Failover IP.

You will get to the Configuration page.

Now, let's see how to get it done using Network IP

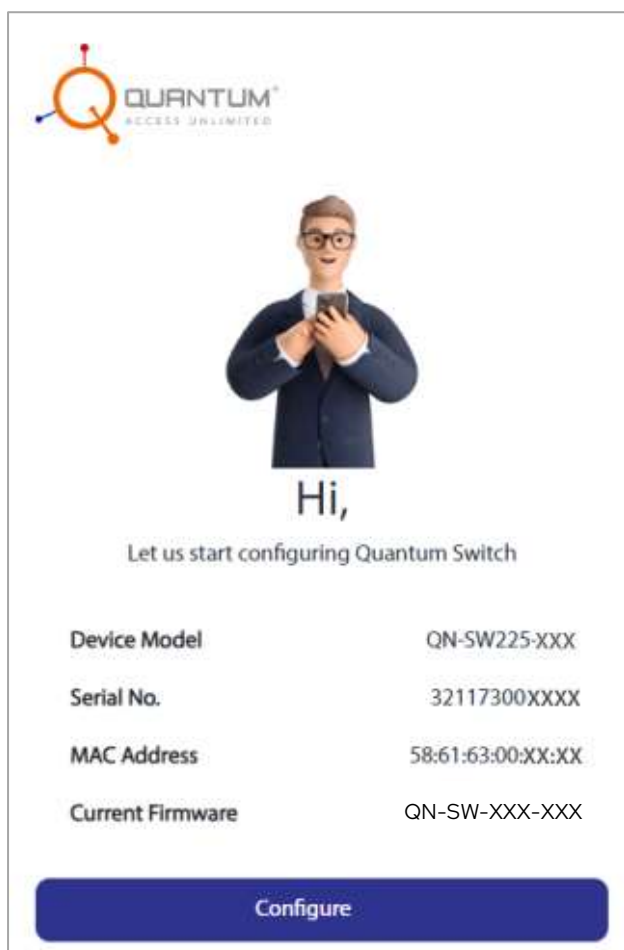
Connect the Switch in the network where the Switch can have its IP address (Having Static IP or will take with DHCP mode). Open the browser and browse Switch IP.

That will take you to the Configuration page.

Now, let's see how to get it done using OOB IP


The OOB IP is 192.168.254. 254. Now, assign 192.168.254.10 (or any IP address of 192.168.254.x series except Switch's OOB IP) static IP address with default subnet to the Desktop/Laptop and connect device to the OOB port.

Open the browser and browse Switch's OOB IP (192.168.254.254). You will be on the configuration page. The Configuration page will display details like Device model number, Serial number, MAC address, and Current firmware right in front of each field. Locate the "Configuration" option at the bottom of the page and click on it.




Set up the Device IP Address

You will see an option to choose between DHCP and Static. Select your preferred mode DHCP or Static. Assign a Local IP address to the Switch by clicking on the IP Address field. Select Management VLAN tag. VLAN will be tagged if the checkbox is checked. Otherwise, it will be untagged.




! ...

 Device IP Address

IP Address: 172.16.100.20


Subnet: 255.255.255.0

Gateway: 172.16.100.1

Primary DNS: 192.168.2.4

Secondary DNS (optional): 1.1.1.1

Management Vlan
1

Management VLAN Tag 

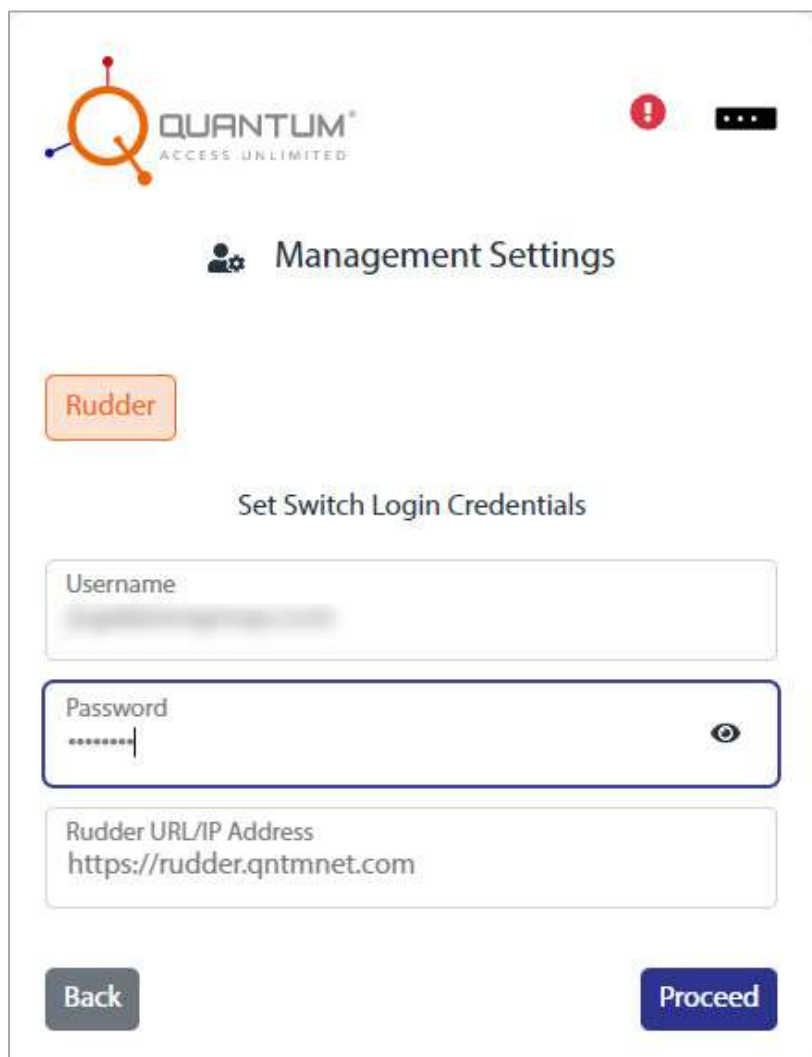
When changing the default vlan wizard cannot know the dhcp values which will be provided to the new vlan.

Click on the "Proceed" option to move to the next page.

Set the Switch Management Credentials

Set your Username and Password by clicking on the relative fields. In case, RUDDER is on-premise, mention the local server IP Address/URL assigned to RUDDER in the "Rudder URL/IP Address" field.

Once done, click on the "Proceed" option to move further.

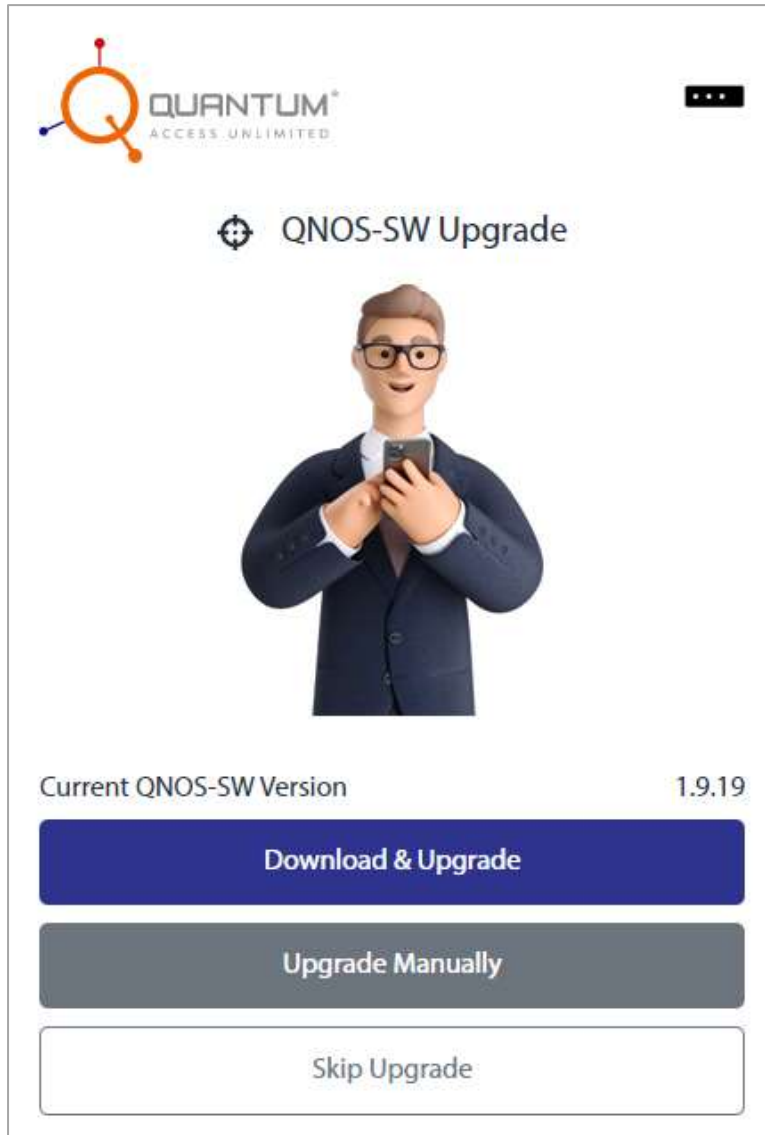


The screenshot shows the 'Management Settings' page for 'Rudder'. The page title is 'Set Switch Login Credentials'. There are three input fields: 'Username' (empty), 'Password' (masked with dots), and 'Rudder URL/IP Address' (containing 'https://rudder.qntmnet.com'). At the bottom, there are 'Back' and 'Proceed' buttons.

Click on the "Proceed" option to move to the next page.

QNOS-SW Upgrade

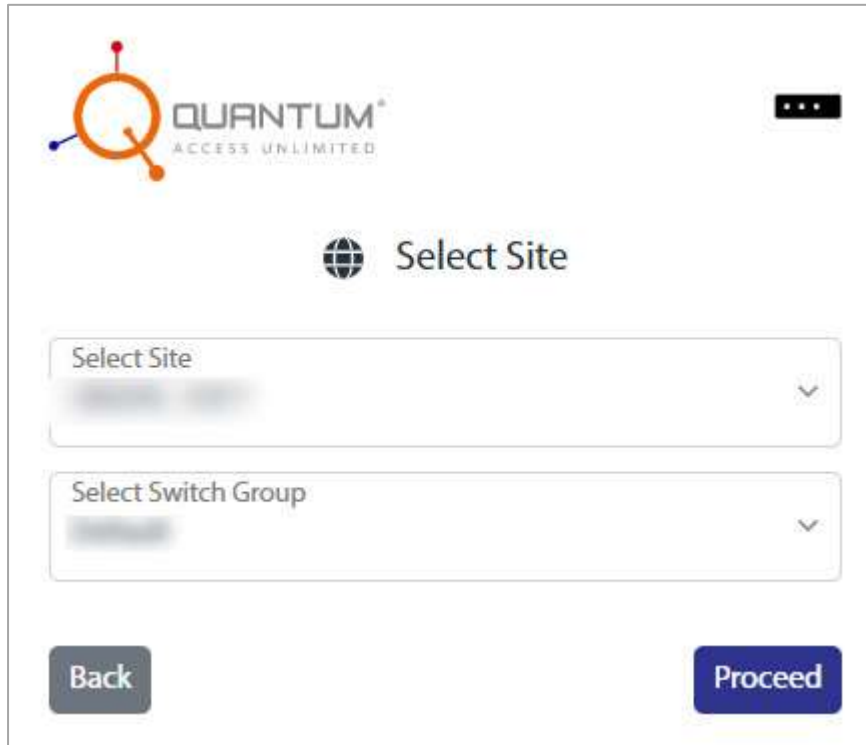
Click on the "Download & Upgrade" option to upgrade the QNOS-SW version from the cloud. You can also upgrade manually by clicking on the "Upgrade Manually" option and selecting it manually from the respective location. Click on the "Skip Upgrade" option to skip and move further.



Assign Site and Group

Assign Site and Group to the Switch by clicking on the "Select Site" and "Select Switch Group" options respectively. Click on the "Proceed" option to move further.

Note: If any Site/Group is already defined in RUDDER, the admin can select an option from the dropdown accordingly, or it will take the default Site/Group.



Review Configuration Summary

It will take you to the "Configuration Summary" page. You will see Device details and Switch setting details on this page. Review the Configuration Summary. Once done, click on "Enroll & activate device".



The screenshot shows the Quantum Networks configuration summary page. At the top left is the Quantum Networks logo with the tagline 'ACCESS UNLIMITED'. To the right of the logo is a hamburger menu icon. Below the logo is a globe icon followed by the text 'Configuration Summary'. The page is divided into two main sections: 'Device Details' and 'Switch Settings'. Under 'Device Details', there are four rows of information: Model (QN-SW-XXX-XXX), Serial No. (32117300XXXX), MAC Address (58:61:63:00:XX:XX), and Management mode. Under 'Switch Settings', there are five rows of information: Protocol (DHCP), IP Address (172.16.100.20), Subnet Mask (255.255.255.0), Gateway (172.16.100.1), and Primary DNS (192.168.2.4). At the bottom of the screen is a large blue button with the text 'Enroll & activate device'.

Device Details	
Model	QN-SW-XXX-XXX
Serial No.	32117300XXXX
MAC Address	58:61:63:00:XX:XX
Management mode	

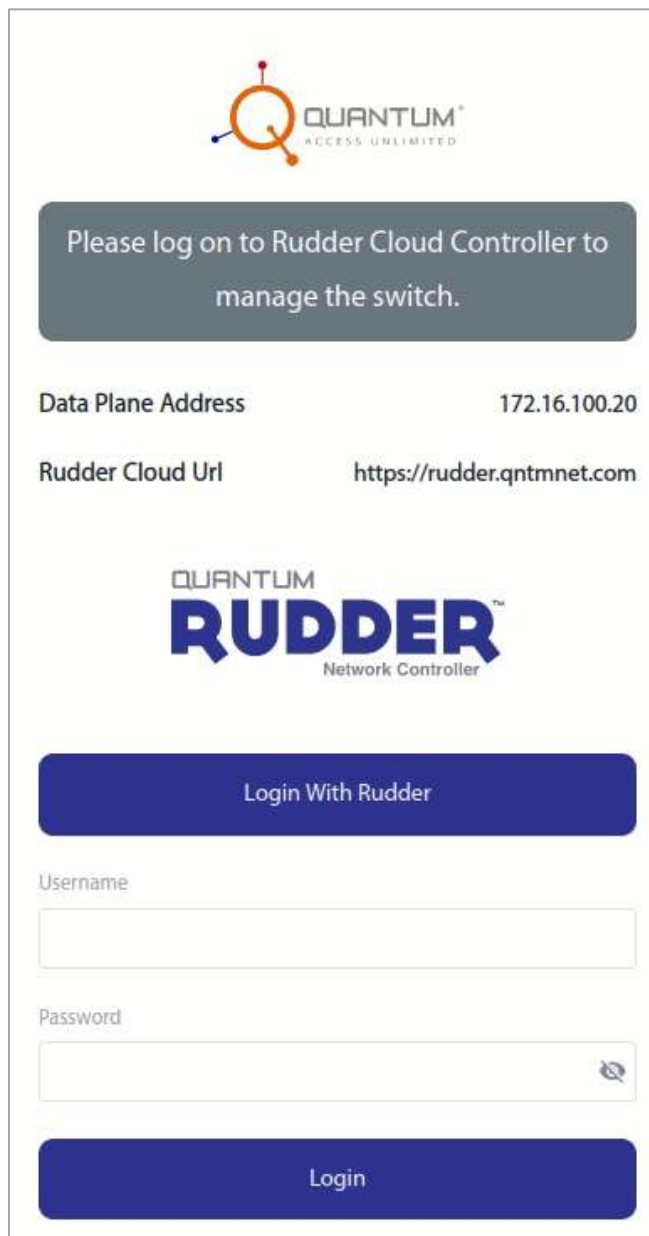
Switch Settings	
Protocol	DHCP
IP Address	172.16.100.20
Subnet Mask	255.255.255.0
Gateway	172.16.100.1
Primary DNS	192.168.2.4
Secondary DNS	1.1.1.1


[Enroll & activate device](#)

Finish

A "Success" message will appear on the screen. You will also see the Warranty Details of the device on this page. Click on the "Finish" option at the bottom of the page to complete the On-boarding process!

Now that you've successfully configured and enrolled your Switch, you can enjoy the features and benefits offered by Quantum Networks.




QUANTUM
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Please log on to Rudder Cloud Controller to manage the switch.

Data Plane Address 172.16.100.20

Rudder Cloud Url <https://rudder.qntmnet.com>

QUANTUM
RUDDER[™]
Network Controller

Login With Rudder

Username

Password

Login

*Note: In case you have to **reset** the switch;
 Turn on the Switch. Push the reset button on the back panel and hold it for 15 to 20 seconds. The switch would restart with factory defaults.*