

QUANTUM[®]
NETWORKS

QNOS

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.

On boarding 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 On-board 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.

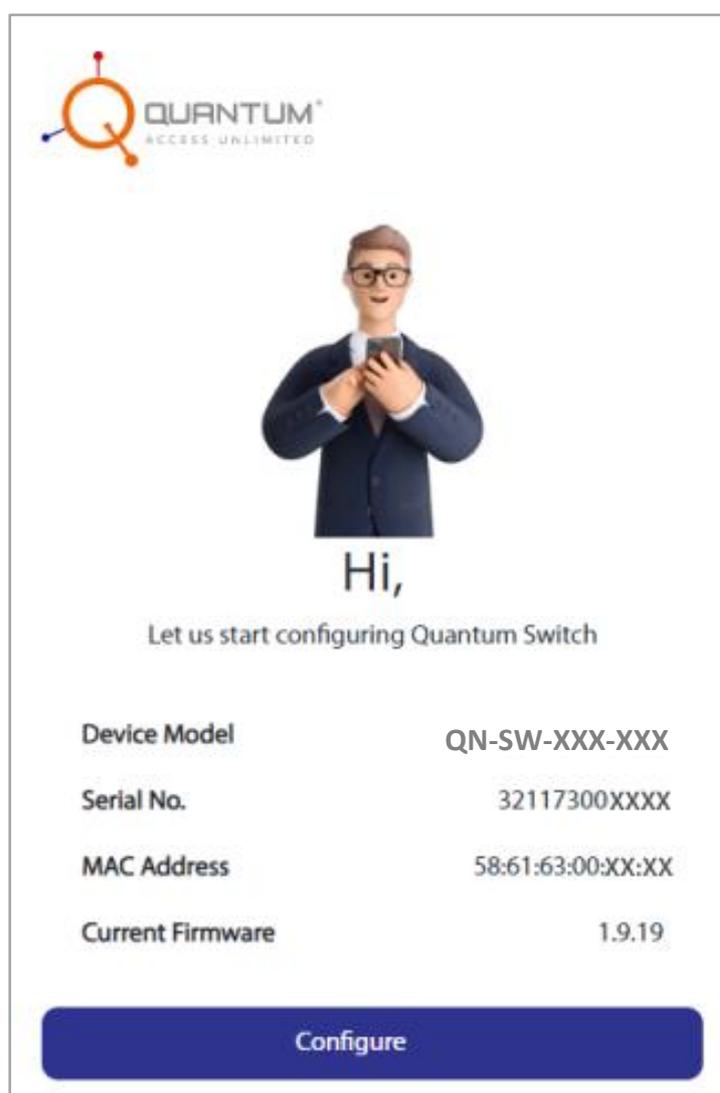
Connect the Switch in the network where the Switch can have its IP address (Having Static IP or will take with DHCP mode). Open the browser and browse Switch IP.

That will take you to the Configuration page.

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

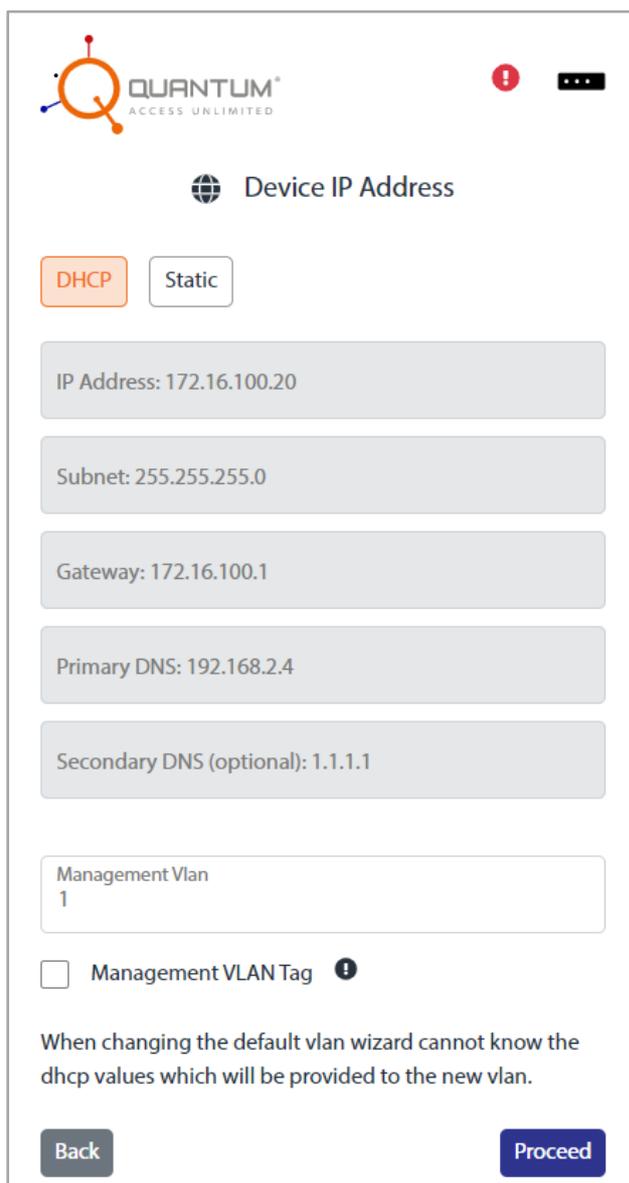
The OOB IP is 192.168.254.254. Now, Assign 192.168.254.10 (or any IP address of 192.168.254.x series except Switch's OOB IP) static IP address with default subnet to the Desktop/Laptop and connect to the device OOB port.

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.



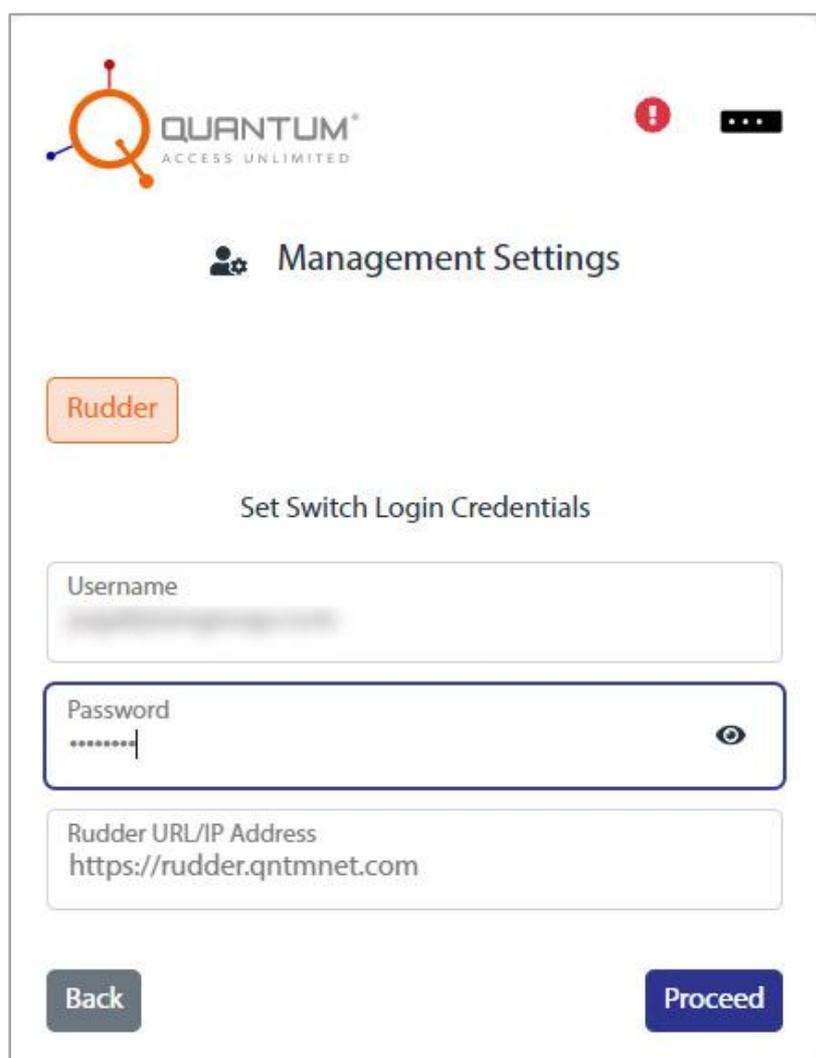
The screenshot shows the 'Device IP Address' configuration page in the Quantum Networks interface. At the top left is the Quantum Networks logo with the tagline 'ACCESS UNLIMITED'. To the right of the logo are a red warning icon and a menu icon. The page title is 'Device IP Address' with a globe icon. Below the title are two buttons: 'DHCP' (highlighted in orange) and 'Static'. There are five input fields for static IP configuration: 'IP Address: 172.16.100.20', 'Subnet: 255.255.255.0', 'Gateway: 172.16.100.1', 'Primary DNS: 192.168.2.4', and 'Secondary DNS (optional): 1.1.1.1'. Below these is a 'Management Vlan' input field containing the value '1'. A checkbox labeled 'Management VLAN Tag' with an information icon is currently unchecked. A note below the checkbox states: 'When changing the default vlan wizard cannot know the dhcp values which will be provided to the new vlan.' At the bottom are 'Back' and 'Proceed' buttons.

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.

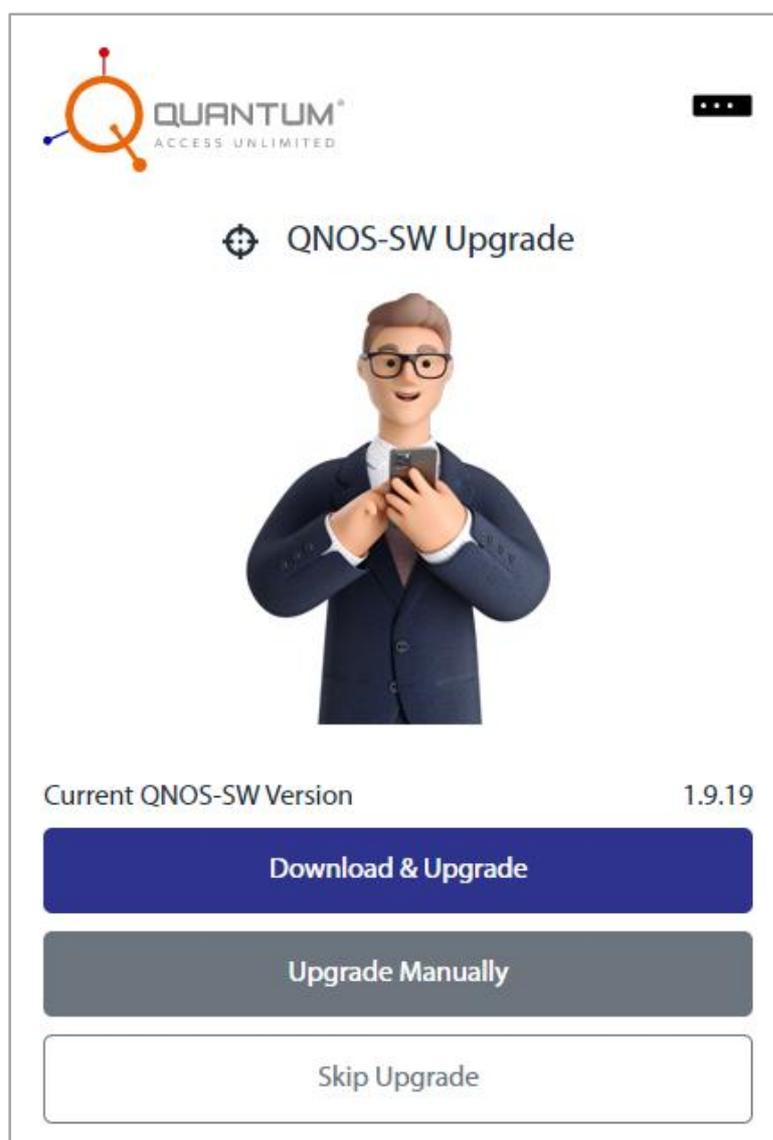


The screenshot displays the Quantum Networks Management Settings interface. At the top left is the Quantum Networks logo with the tagline 'ACCESS UNLIMITED'. A red notification icon and a menu icon are in the top right. The main heading is 'Management Settings' with a gear icon. Below it is a 'Rudder' button. The section title is 'Set Switch Login Credentials'. There are three input fields: 'Username' (with a blurred value), 'Password' (with a masked value and a toggle icon), and 'Rudder URL/IP Address' (with the value 'https://rudder.qntmnet.com'). At the bottom are 'Back' and 'Proceed' buttons.

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

• QNOS-SW Upgrade

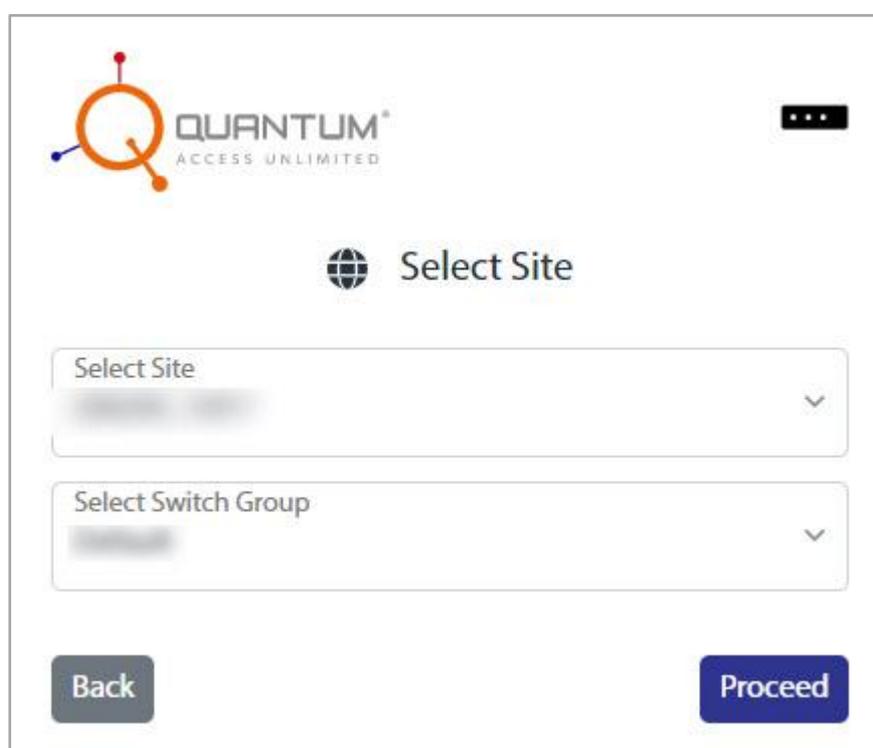
Click on the “Download & Upgrade” option to upgrade the QNOS-SW version from the cloud. You can also upgrade manually by clicking on the “Upgrade Manually” option and selecting it manually from the respective location. Click on the “Skip Upgrade” option to skip and move further.



- **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.

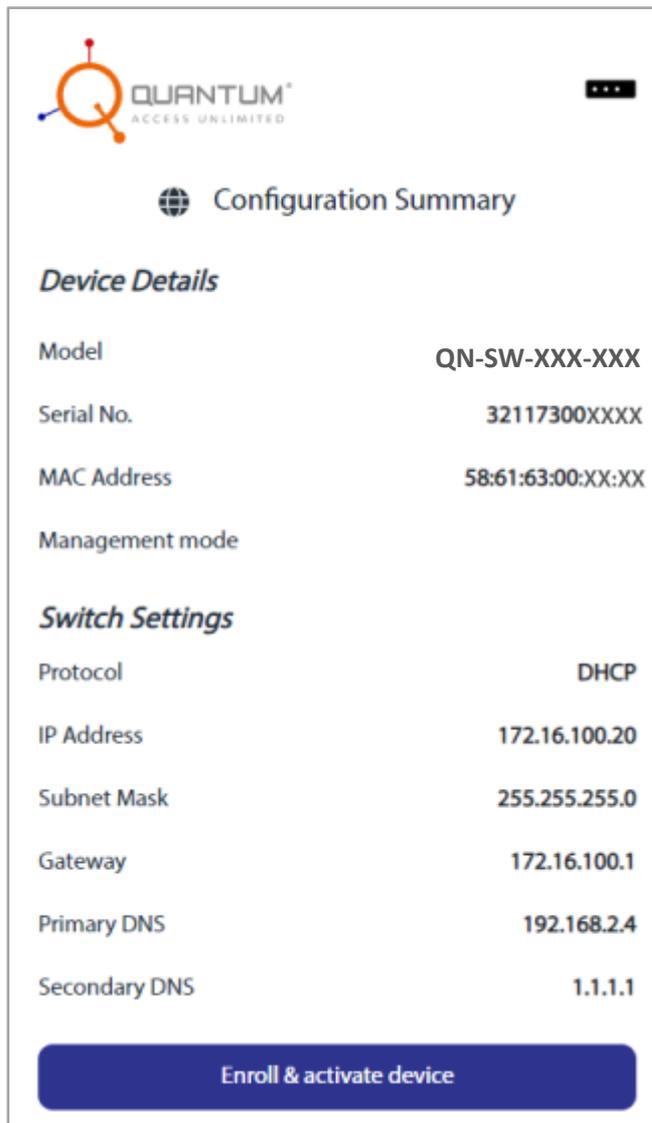
Note: If any Site/Group is already defined in RUDDER, the admin can select an option from the dropdown accordingly, or it will take the default Site/Group.



The screenshot shows a web interface for configuring a switch. At the top left is the Quantum Networks logo with the tagline 'ACCESS UNLIMITED'. In the top right corner, there are three dots indicating a menu. The main heading is 'Select Site' with a globe icon. Below this, there are two dropdown menus. The first is labeled 'Select Site' and the second is labeled 'Select Switch Group'. At the bottom of the form, there are two buttons: a grey 'Back' button on the left and a blue 'Proceed' button on the right.

- **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 screen. At the top left is the Quantum Networks logo with the tagline "ACCESS UNLIMITED". To the right of the logo is a three-dot menu icon. Below the logo is a globe icon followed by the text "Configuration Summary".

Device Details

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

Switch Settings

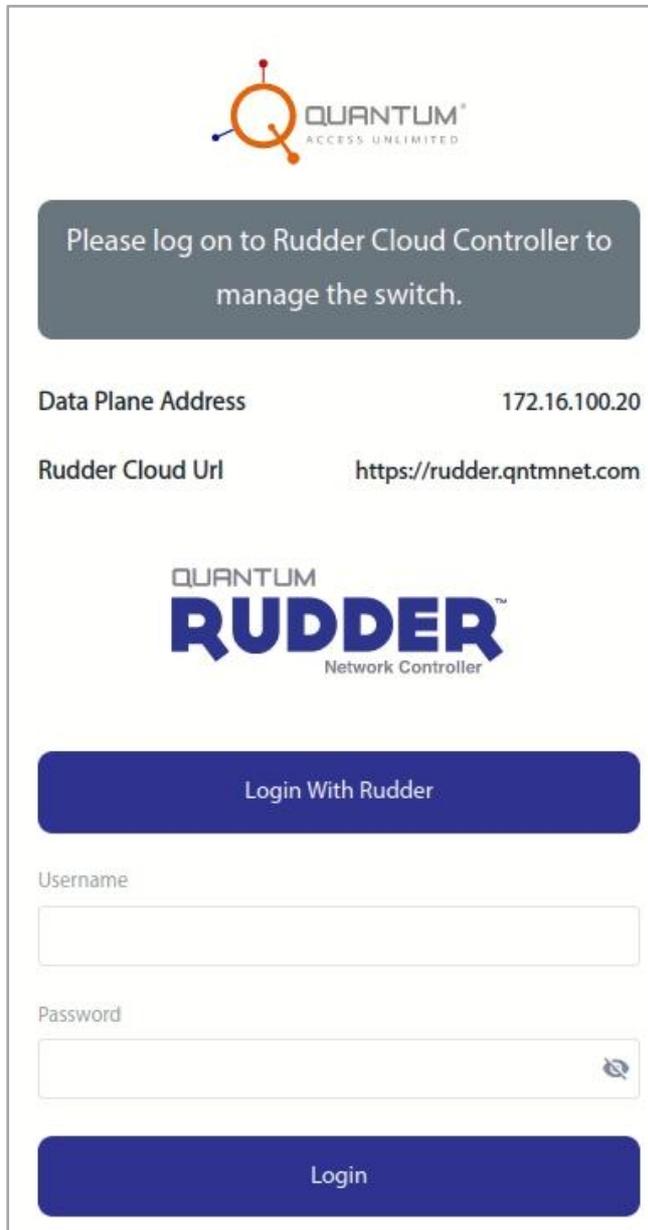
Protocol	DHCP
IP Address	172.16.100.20
Subnet Mask	255.255.255.0
Gateway	172.16.100.1
Primary DNS	192.168.2.4
Secondary DNS	1.1.1.1

At the bottom of the screen is a blue button with the text "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 Onboarding process!

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



The screenshot shows the Quantum Rudder Network Controller login interface. At the top is the Quantum logo with the tagline 'ACCESS UNLIMITED'. Below it is a dark grey box with the text: 'Please log on to Rudder Cloud Controller to manage the switch.' Underneath, the 'Data Plane Address' is listed as '172.16.100.20' and the 'Rudder Cloud Url' is 'https://rudder.qntmnet.com'. The main heading is 'QUANTUM RUDDER Network Controller'. A blue button labeled 'Login With Rudder' is positioned above two input fields: 'Username' and 'Password'. The 'Password' field includes a toggle icon for visibility. At the bottom is a large blue button labeled '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.*