Power IQ Device Quick Setup Guide

Rack-Mounting Power IQ

The rack mount kit contains two pairs of rack rails. Each pair consists of two sections: an inner rail that attaches to the Power IQ device, and an outer rail that attaches to the rack. A sliding rail guide is positioned between the inner and outer rails. The sliding rail guide should remain attached to the outer rail.

Install Inner Rails onto Power IQ Device

Slide the inner rail out from the outer rail as far as it can go. Press the locking tab to release the inner rail from the outer rail and then pull the inner rail completely out. Do this for both pairs of rack rails.

There are five holes on each inner rail that correspond to the five rail hooks on each side of the Power IQ device.

1. Align each inner rail's holes with the rail hooks, and then press each rail against the device to attach it.
2. Slide each rail toward the front of the device until you hear a click.
3. Attach the inner rails to the Power IQ device with short screws.

Install Outer Rails onto Rack

The outer rails attach to the rack. The outer rails fit racks that are 28-32 inches deep.

1. Attach the short front brackets to each outer rail with short screws.
2. Slide each long rear bracket into the opposite end of each outer rail. Attach the long rear brackets to the outer rails with short screws.
3. Adjust the entire rail unit length to fit the rack depth.
4. Attach each bracketed end of the outer rail to the rack with washers and long screws.

Install Power IQ into the Rack

Once the rails are attached to both the Power IQ device and the rack, install Power IQ into the rack.

1. Fully extend the rack rails, and then line up the rear of the inner rails with the front of the rack rails.
2. Slide the Power IQ device into the rack until you hear a click. You may have to depress the locking tabs when inserting the Power IQ device into the rack.

Locking Tabs

Both inner rails have a locking tab to lock the Power IQ device into place when pushed fully into the rack and to lock the Power IQ device into place when extended from the rack.

Configure Network Access

After installing the application, you must configure it for access over your network.

1. Access the local port from the Console tab of the hypervisor manager or serial console.
2. When prompted to log in, enter the username *config* and the password *sunbird*. The configuration page opens.

```
+-Network Configuration: Main Menu----------------------------------
|
|
|   +--Appliance Configuration--+     LAN 0:   192.168.42.107
|   |                           |       MAC:   00:0C:29:12:E8:29
|   | Networking Setup >>       |
|   | Security Setup >>         |     Domain:  raleigh.raritan.com
|   | Ping Network Test         |     Gateway: 192.168.42.1
|   | Routing Network Test      |     Gateway:
|   | Restart Appliance         |     DNS 1:   192.168.42.10
|   | Shutdown Appliance        |     DNS 2:
|   | Support Connection        |     DNS 3:
|   | Exit                      |     IPACL:   Enabled
|   |                           |     Tunnel:  Support Disabled
|   |                           |
|   +---------------------------+
|
|
|
|  5.0.0.103.  Copyright 2007-2015 Sunbird Software All Rights Reserved.
|
```

3. Select `Networking Setup`, then select `Setup LAN 1` to configure the primary Ethernet port.
4. Press the Space bar to select "`Enable this LAN Port`".
5. To manually assign the network settings to the application:
   - Deselect "Use DHCP".
   - Type the IP address and network masks into the appropriate fields.
   - Select `Accept` to reset the network interface.
6. To setup the gateway IP address, select `Setup IPv4 Network Routes` and type the appropriate IP address in the Default Gateway Route field.
7. Select `Accept` to reset the network interface.
   - If using DHCP, note the address. There must be a DHCP server available on the LAN.
8. If you are using a second network interface, configure it by selecting `Setup LAN 2` from the Network Configuration menu, then perform the same steps as you did for LAN 1.
9. **Optional** Select `Ping Network Test` to ensure the application is communicating over the network.

10. Select `Name Servers` under Network Configuration to setup the server names.

    Optional If server names are not set up, DNS names cannot be resolved.

    Note: Failing to configure DNS servers causes LDAP integration issues.

11. **Optional** To increase security, it is advisable to disable SSH remote access.
12. Select `/Networking Setup/Setup Access Controls`.
13. Enable `Block SSH`. By default, the config account has access to the application. SSH is re-enabled if a support connection is created.
14. Select `Exit` from the main menu. You can now access the application from any client on the network.

Connecting to Power IQ

1. Connect to Power IQ using a web browser on any machine on the network.
2. In the browser's address bar, enter the IP address or hostname assigned to Power IQ. For example: https://192.168.1.10
3. Answer yes to any security alerts and accept all certificates. If this is your first time connecting to Power IQ, you must upload your license and accept the End User Licensing Agreement before logging in. If this is not your first time connecting to Power IQ, skip to step 4.

    Licenses are .LIC files. Repeat this step to add incremental licenses if needed.

    Note: You will receive an email with your license from Sunbird.

4. Log in with the default username admin and password sunbird.

    The Power IQ dashboard opens.

Configuring the System Clock

Power IQ uses the system clock to time-stamp events and data records. Set the system clock as soon as possible to keep an accurate record of events.

Using an NTP server is recommended to keep the system clock synchronized between Power IQ and the PDUs it manages.

Configuring NTP Server Settings

The Configure Time Servers table lists the NTP servers Power IQ contacts to get date and time information. NTP must be enabled first.

1. In the Settings tab, click Application Settings in the Appliance Administration section.
2. In the Time Settings box, click the arrow to expand the NTP Settings
3. Select the Enable NTP checkbox.
4. Click Add.
5. Type the time server's IP address in the Time Server field then click OK.
6. Click Save Time Settings.

Configuring Polling Intervals

At each polling interval Power IQ collects data from PDUs under its management.

1. In the Settings tab, click Power IQ Settings in the Appliance Administration section.
2. In the Polling Settings box, select a time period from the "Polling interval" drop-down list. The time period indic-
    ates how much time passes before Power IQ starts a new polling cycle
3. Click Save Poller Settings.

*Note: When managing a large number of PDUs you may need to configure a longer time period for the polling interval.
Setting a longer time period helps ensure that all PDUs are polled within a given cycle. A warning message appears if
Power IQ is unable to poll all PDUs within the configured time period. See Recommended Polling Intervals for details
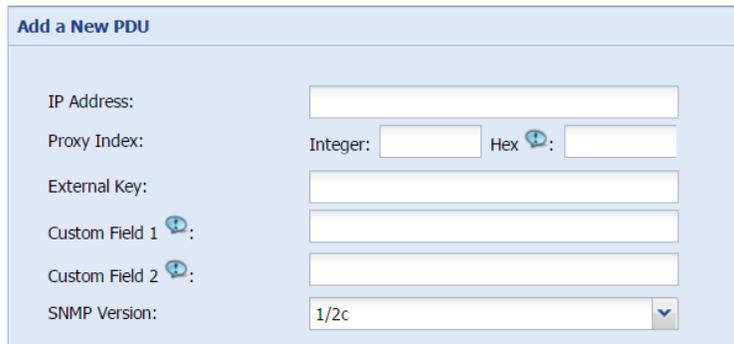on settings that help Power IQ poll faster.*

Autodiscover PDUs on the Network

1. Click the Facility Items tab in Power IQ to open the Facility Items List.
2. Click the Add icon under Facility Items List.

3. On the Add PDUs page, click the "discover PDUs on the network" link to open the PDU Autodiscovery page.

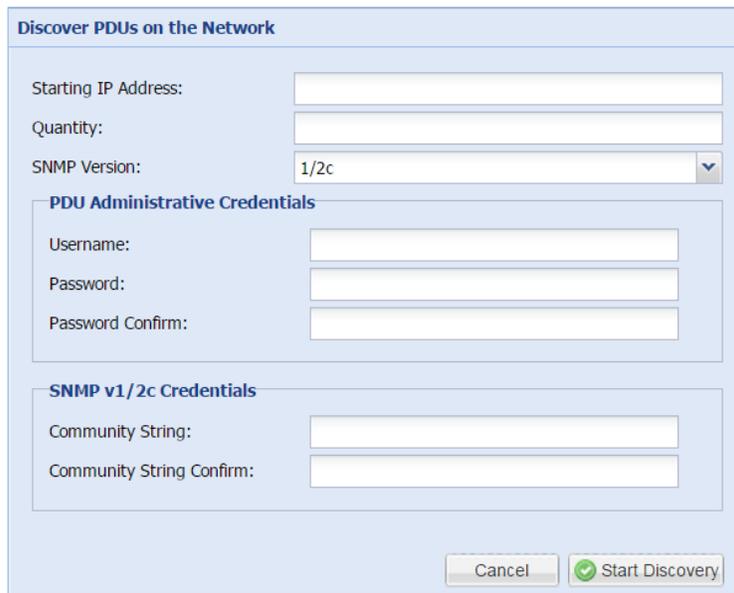**Add a New PDU**

IP Address:

Proxy Index: Integer: [ ] Hex 💬 : [ ]

External Key:

Custom Field 1 💬 :

Custom Field 2 💬 :

SNMP Version: 1/2c

ADD MULTIPLE PDUS
If you have a lot of PDUs to add, you can import multiple PDUs and their credentials from a CSV file or you can discover PDUs on the network

4. The Discover PDUs on the Network page displays. Enter the required information.

Discover PDUs on the Network

Starting IP Address:

Quantity:

SNMP Version: 1/2c

PDU Administrative Credentials

Username:

Password:
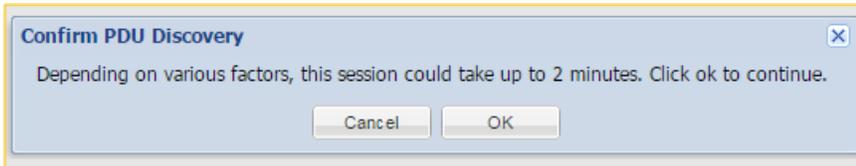
Password Confirm:

SNMP v1/2c Credentials

Community String:

Community String Confirm:

Cancel   ✔ Start Discovery

You can monitor the progress of the discovery session from **Settings** > Audit Log.

Note: All scheduled and running discovery sessions will be lost on a poller restart and will need to be recreated.

5. Enter the Starting IP Address.
6. Enter the Quantity. This is the number of PDUs on the specific string that you want to discover.
7. Select the SNMP version.
8. Enter PDU access credentials.
9. Enter the community string of the PDUs, if applicable.
10. Click Start Discovery.
11. When prompted, confirm you want to begin.

Confirm PDU Discovery   ✕

Depending on various factors, this session could take up to 2 minutes. Click ok to continue.

Cancel   OK

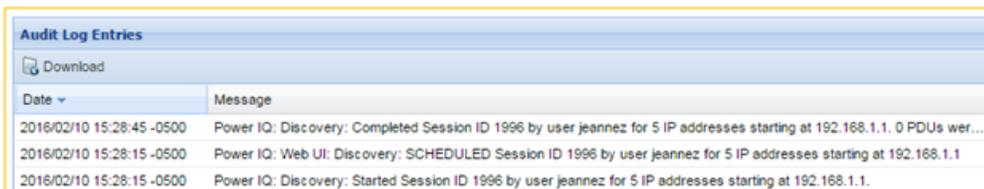*Note: To stop autodiscovery once it has begun, you must restart the poller.*

Note: If the autodiscovery process is interrupted, the event is recorded in the audit log.

Autodiscovery runs in the background and you can work in other screens while it runs.

PDUs located by autodiscovery are listed on the PDUs page.

Audit Log Entries

Download

Date ▾	Message
2016/02/10 15:28:45 -0500	Power IQ: Discovery: Completed Session ID 1996 by user jeannez for 5 IP addresses starting at 192.168.1.1. 0 PDUs wer...
2016/02/10 15:28:15 -0500	Power IQ: Web UI: Discovery: SCHEDULED Session ID 1996 by user jeannez for 5 IP addresses starting at 192.168.1.1
2016/02/10 15:28:15 -0500	Power IQ: Discovery: Started Session ID 1996 by user jeannez for 5 IP addresses starting at 192.168.1.1.

Adding PDUs in Bulk with CSV Files

You can add PDUs in bulk by uploading a CSV file.

Power IQ does not check the credentials of the PDU while adding it during a CSV import. If the credentials are incorrect, an event called PDUCredentialsInvalid is logged.

Importing more than 100 PDUs at a time causes polling to suspend while the import is in progress.

You can download a step-by-step CSV template file from the Support portal. See **http://support.sunbirddcim.com/support/solutions/articles/6000055029-tools**.

See Structure of the Add PDUs CSV File for file requirements.

1. In the Facility Items tab, choose Activities > Import PDUs from CSV file. The Import PDUs page opens.
2. Click Browse and select the CSV file.
3. Select "View progress of the import as each PDU is discovered" to view the discovery progress and the resulting status. Optional.
4. Click Begin Import.

Adding PDUs to Power IQ

Once Power IQ is configured, add PDUs. Power IQ can then gather data from these PDUs. If you're adding a PDU that uses a custom dynamic plugin, see *Adding PDUs with Custom Dynamic Plugins* in the online help or user guide.

You can also add PDUs to Power IQ by uploading a CSV file containing the information. See *Adding PDUs in Bulk with CSV Files*.

1. In the Facility Items tab, click the Add link.
2. Enter the IP address of the PDU.
3. Optional: If the PDU is in a daisy-chained configuration or console server configuration, enter the PDU's position number in the chain or serial port number in the Proxy Index fields.
   For PDUs that use the MAC address as a proxy index, enter the last six digits of the address separated by a colon (for example: 01:89:ab).

   You can also specify branch circuit monitors using the Proxy Index field.

   Leave this value blank if the PDU does not support or is not using this configuration.

Note: As a best practice when renaming outlets and other objects in the EDM in Power IQ, Sunbird recommends exporting the current data to a CSV file that you can edit and then import. This will ensure that the Proxy Index value corresponds to the correct integer representation for the MAC.

4. Enter an asset tag number or other asset management code in the External Key field. Optional.
5. Enter data in Custom Field 1 and Custom Field 2. Optional. The labels may have been changed in Power IQ to identify these fields.
6. If the PDU is a Raritan PX-series or Server Technology PDU, enter a valid Username and Password for the PDU in the PDU Administrative Credentials section. Re-enter the password in the Password Confirm field. Optional.
7. Select the SNMP Version.

- For SNMP version 1/2c PDUs, enter an SNMP Community String that has at least READ permissions to this PDU. This enables polling the PDU for data. Enter an SNMP community string that has both READ and WRITE permissions to the PDU to enable power control, outlet naming, sensor naming, and buffered data retrieval.
- For SNMP version 3 PDUs, enter the Username and select an Authorization Level. The authorization levels are:
    - noAuthNoPriv - No Authentication Passkey, No Encoding Passkey
    - authNoPriv - Authentication Passkey, No Encoding Passkey
    - authPriv - Authentication Passkey, Encoding Passkey

a. Depending on the Authorization Level selected, you must enter additional credentials for Authorization and Privacy.
b. Authorization Protocol: Select MD5 or SHA.
c. Enter the PDU's Authorization Passkey, then re-enter the passkey in the Authorization Passkey Confirm field.
d. Privacy Protocol: Select DES or AES.
e. Enter the PDU's Privacy Passkey, then re-enter the passkey in the Privacy Passkey Confirm field.

Note: You must enable the SNMP agent on all PDUs added to Power IQ.

8. Select "Validate and wait for discovery to complete before proceeding" to check credentials and view the discovery process status as you add this PDU. Optional.

Note: When Power IQ discovers a master Server Technology PDU, its daisy-chained PDUs will also be discovered and added to the Facility Items list. If the daisy-chained PDUs are already in Power IQ, those PDUs will not be rediscovered and will retain their PDU IDs.

9. Click Add.

Note: PDU discovery is complete once the PDU model type is determined. SNMP fields such as contact or location values are not determined until this device is polled for the first time.

Once added, the PDU appears in the Facility Items List. Power IQ begins polling the PDU for sensor data. You can configure how often Power IQ polls PDU.

Note: If you change the administrator password used by Power IQ for a Server Technology PDU through the PDU UI, you must restart the PDU to ensure that the Server Technology SNAP API will correctly authenticate requests from Power IQ. However, if you change the administrator password through the Power IQ UI, Power IQ will restart the PDU without any additional action by the user.