SparqLinq

Quick Installation Guide

Version 2.0 February 2024

System Configuration and Monitoring

The *SparqLinq* is a communication gateway that uses Zigbee™ wireless mesh networking with the *QUAD* Microinverter(s). If it is connected to the internet (through Wi-Fi or wired connection), it can automatically upload performance information to the SPARQ cloud-based monitoring system called *SparqVu* (http://sparqvu.com). The *SparqLinq* internal web server and *SparqVu* cloud-based server enable an installer or system owner to quickly view the performance of every component of their SPARQ energy system via a web browser on their smart device or computer.

A setup wizard walks the installer through the simple configuration procedure for the *SparqLinq* and microinverter system. Once configured, the *SparqLinq* automatically collects data from each PV module and reports it to *SparqVu*, allowing a detailed real-time view of performance information from any PV module in the system. Information such as energy production, operational status, and power output can be easily reviewed at a glance.

This guide is primarily designed for setting up the *SparqLinq* itself. For full instructions on the system please see the complete SPARQ Installation Manual.

SparqLinq Setup

> **NOTE**:
> DHCP is used to automatically configure the SparqLinq to connect to the installation's network. DHCP must be configured on the router or cable/DSL/fiber modem to be able to connect to the internet.
> It is also **required** to connect the SparqLinq to the internet at least once before or immediately after installation so that it can set the internal clock and perform any software updates before completing the installation.
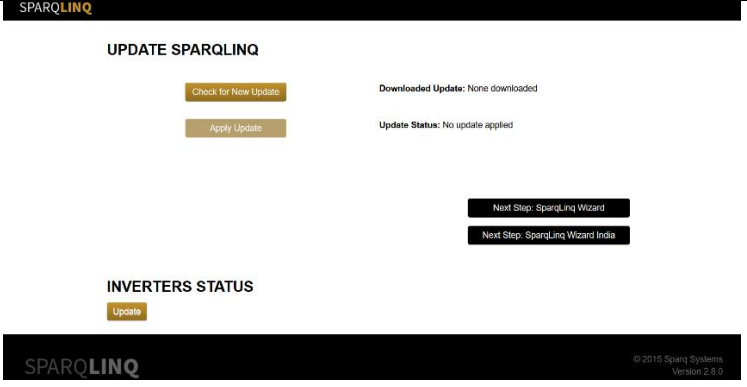
A technician can start setting for when SparqLinq gateway for the site at any time, but QUAD inverters can only be scanned for, when DC power (from PV module) is available.
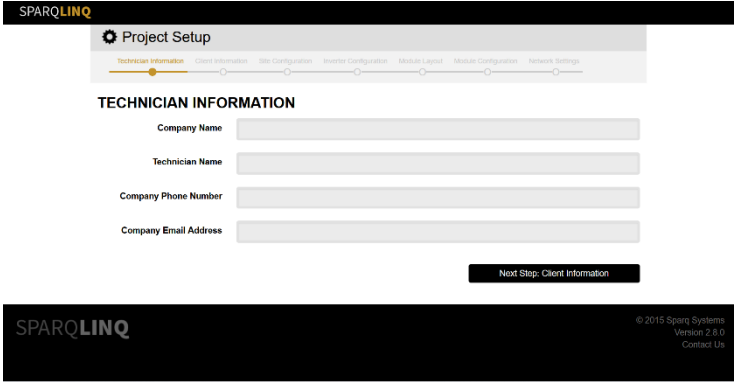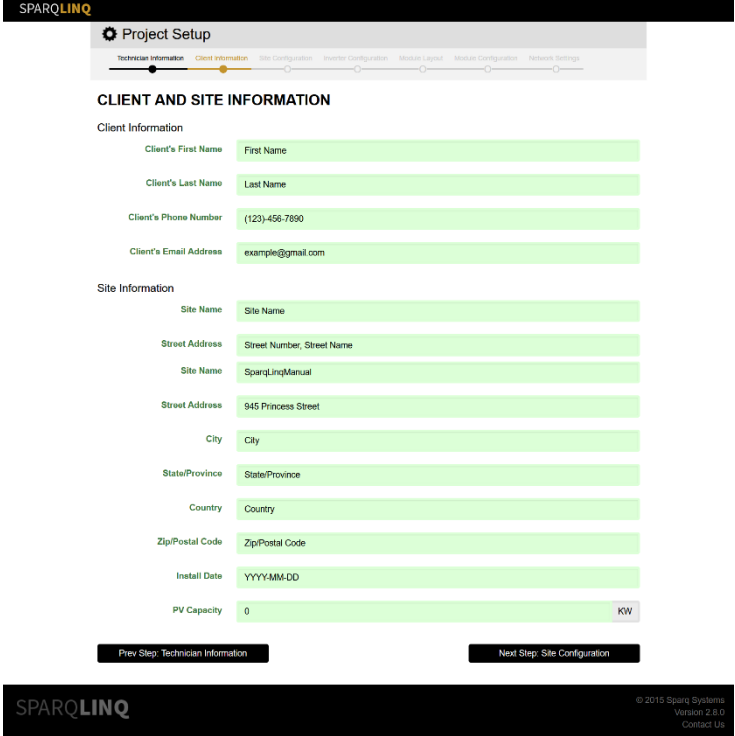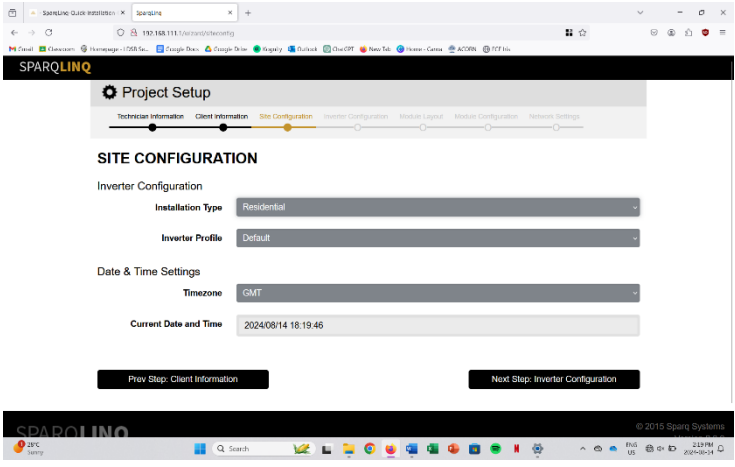
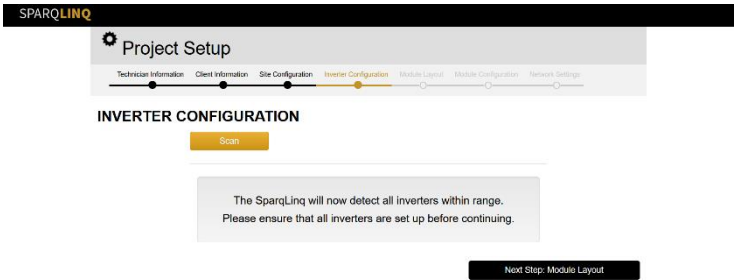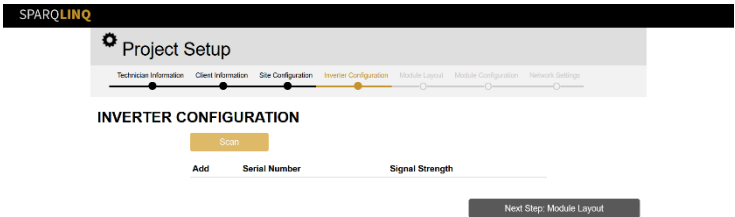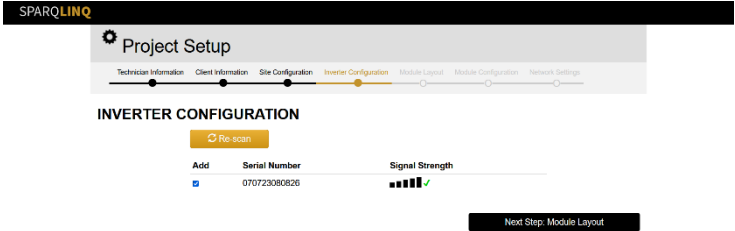## Preferred SparqLinq Setup using Wired Ethernet Cable and Wi-Fi Adapter:

1. A Zigbee antenna is provided separately in the SparqLinq box. Screw in the Zigbee antenna securely. Please tighten by hand. Plug in the included Ethernet cable to a Home Internet Router if the system will utilize a wired internet connection.
2. Plug in the SparqLinq power adapter. It will take approximately one minute for the SparqLinq to fully boot.
3. On a smart phone, tablet or PC, open Wi-Fi application to display available Network SSIDs.
4. The SparqLinq will create a Wi-Fi access point with SSID "SparqLinq". Select it for connection.
5. Enter the password "SparqLinq 80211" and make sure to include the space in the middle but without the quotes. Tick "Connect Automatically" on your device if the option is available. Your device may indicate "No Internet Access" which is OK. Do not connect to home network at this time.
6. Open a web browser (we recommend Chrome or Firefox) and enter the web address http://192.168.111.1/ to open the SparqLinq configuration wizard page.
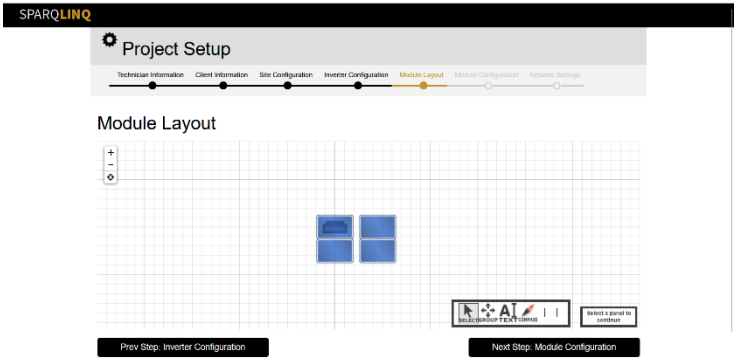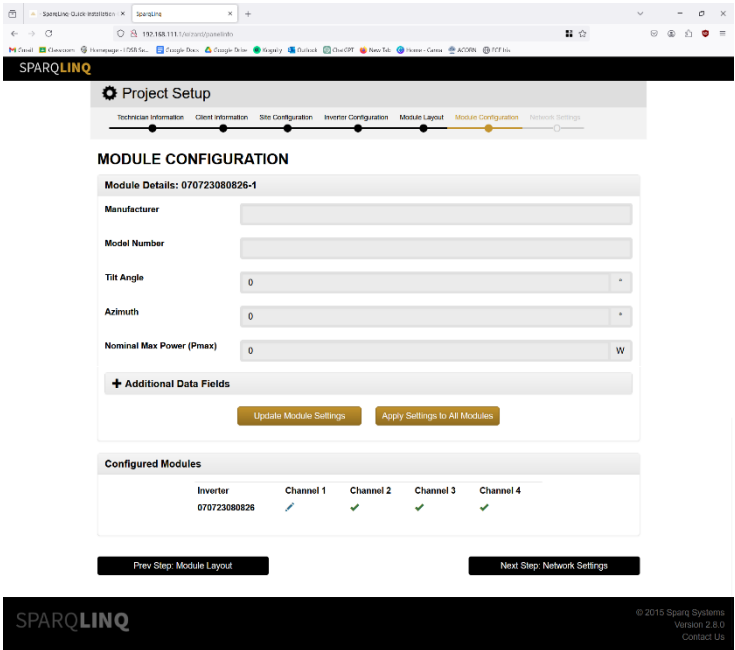
System Update & Setup Wizard

The following pages are displayed in sequence. Follow the on-screen instructions to complete the setup procedure.

1	**Software Update** • Press "Check for new Update". • If the "Apply Update" button is highlighted, press, and wait until complete. • Press "Next Step" to continue.	
2	**Technician Information** • Enter Technician as requested. • If some information is not known at this time, it can	

	be updated after the wizard is complete.	
3	**Client and Site Information** • Enter the site information as requested. • All fields are required • If some information is not known at this time, it can be updated after the wizard is complete. • Click "Next Step" to continue. **Note**: Make sure the date is formatted correctly. If this is not set accurately, data will not be recorded correctly.	
4	**Site Configuration** • Enter the site configuration information as requested. • If some information is not known at this time, it can be updated after the wizard is complete. • Click "Next Step" to continue.	

	Note: Make sure the time is displayed correctly. Also, ensure that you choose the correct time zone. If this is not set accurately, data will not be recorded correctly.	

4.	**Inverter Configuration**
	
	• Ensure that all inverters are powered up and each LED is lit. Note that inverters do not need AC to complete this step. A single DC channel is sufficient.
	
	• Click "Scan" and the *SparqLinq* will begin scanning for inverters.
	
	• It may take up to one minute to complete the scan.
	
	• Once scanning is complete, check to see if all the expected inverters are listed.
	   ○ If one or more inverters are missing, click "Re-scan".
	   ○ If several attempts to scan fail to locate all inverters, try relocating the *SparqLinq* closer to the inverters.
	
	• Once all inverters are listed, click "Next Step" to continue.	
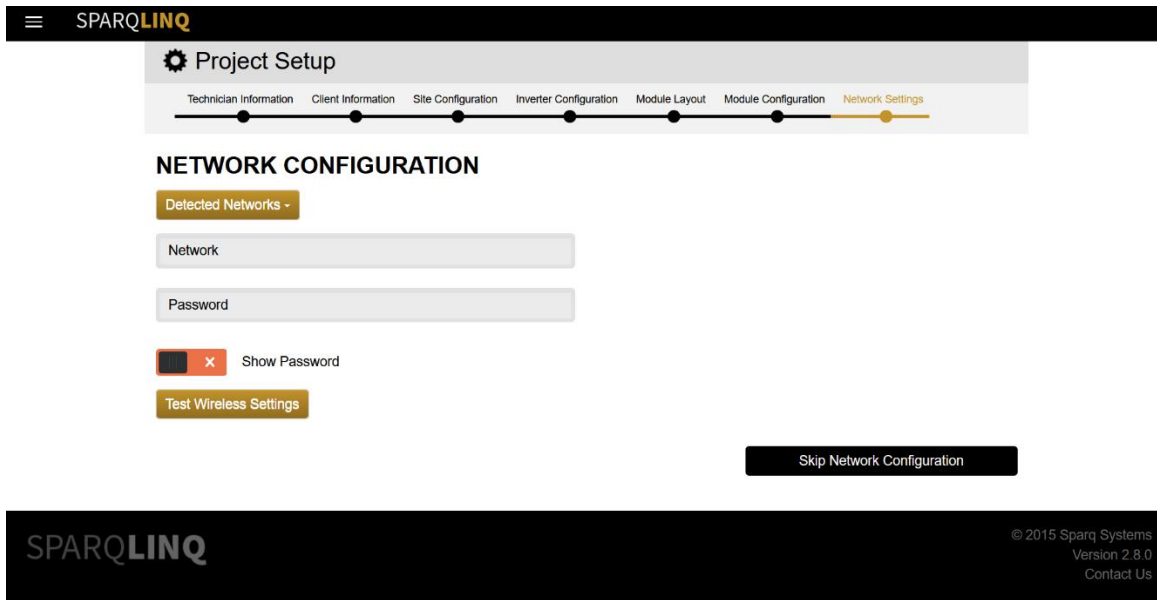
5.	**Module Layout** • Using the sticker map made during installation of the inverter, draw the layout as desired. • You may add text, shift the position of modules, and rotate modules. • Click on Next Step once you are happy with the layout.	
6.	**Module Details** • This screen allows you to enter the details of all the modules that are attached to each Quad microinverter. The modules are listed by inverter at the top of the page. • Click "Update Module Settings" once complete and select the next module by clicking on the check mark below the desired channel. • **Note**: If all modules are identical, you can click "Apply Settings to All modules" to save the same details for all modules. • Once complete, click "Next Step".	

Network Configuration:

If network communication is to be done using a wired Ethernet connection or if Wi-Fi settings are not known at this time, then this screen can be bypassed and filled in later.
If the SparqLinq will be connecting to the internet through Wi-Fi, then follow these steps:

1. Click the "Detected Networks" button to find the desired access point (consult with the site owner), to type in the SSID of the desired network in the "Network" text box
2. If required, enter the homeowner's Wi-Fi password (You may press "Show Password" to display the text)
3. Press the "Test Wireless Settings" button.

The following screen will be displayed as the network settings are being tested.

The SparqLinq will take down its Wi-Fi access point and attempt to connect to the wireless network selected using the credentials provided. After testing, it will re-enable its Wi-Fi access point. The installer may need to re-connect to the SparqLinq access point unless "Connect Automatically" was set on the installer's device.

Once the following screen appears, reconnect to the SparqLinq network on your device.

If the test is successful, the following screen will be displayed:

If the Wi-Fi connection was not successful, you will see this screen. Try unplugging and moving the SparqLinq to a different location and re-run the test from the Settings menu.
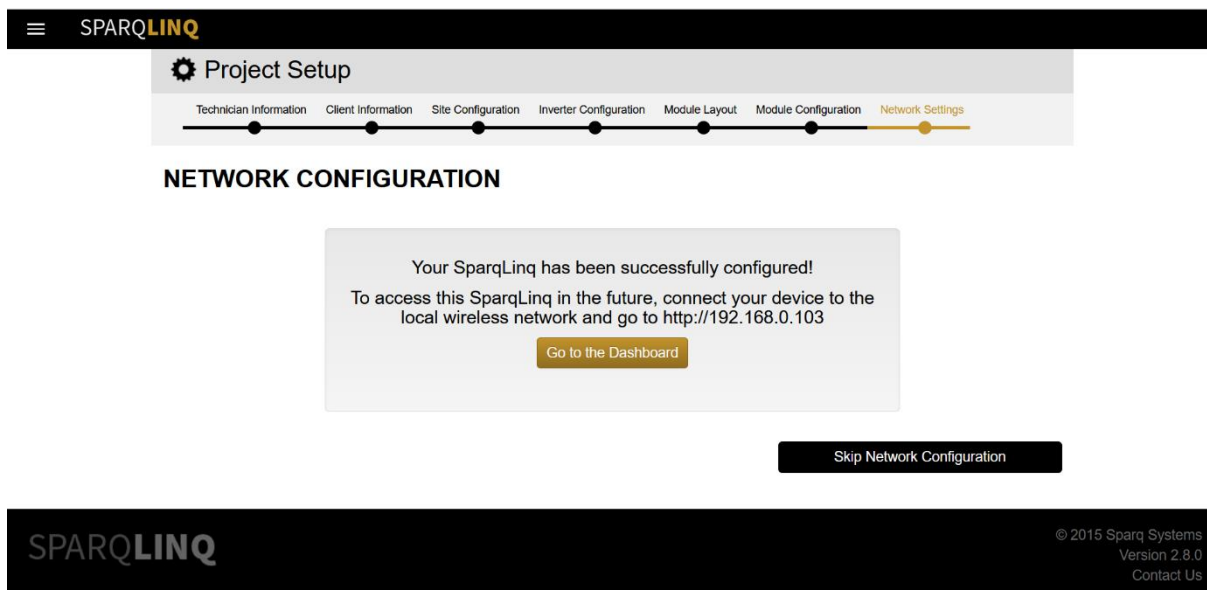

Once the network has been tested successfully, click on the "Apply Network Settings" button and the following screen should appear.
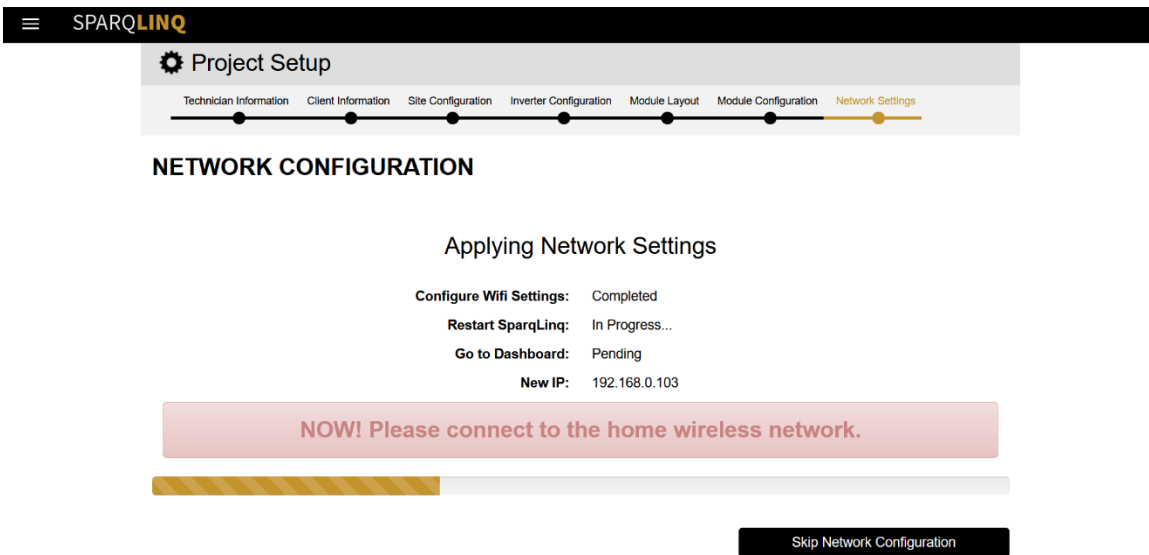
At this time, you must connect the device which has been used to set up the SparqLinq to your home wireless network.

Once the setup is complete, the following screen will be displayed. Click on the "Go to the Dashboard" button.

You may change information about your site and update network settings at any time using the SparqLinq dashboard by clicking on the hamburger bar in the top right corner, followed by pressing "Settings" as shown below.
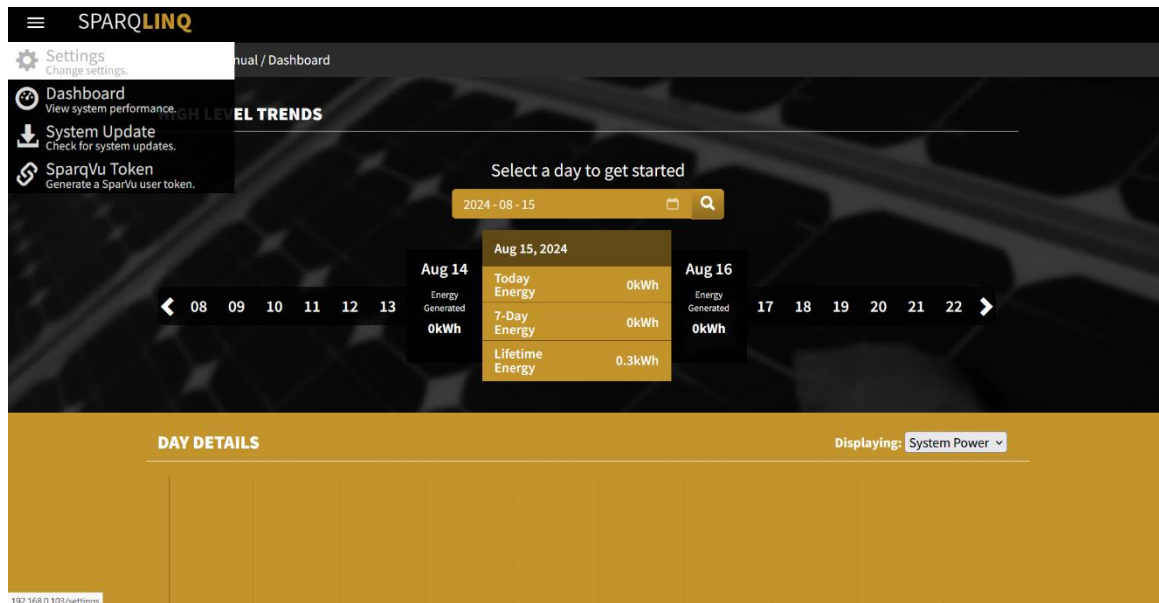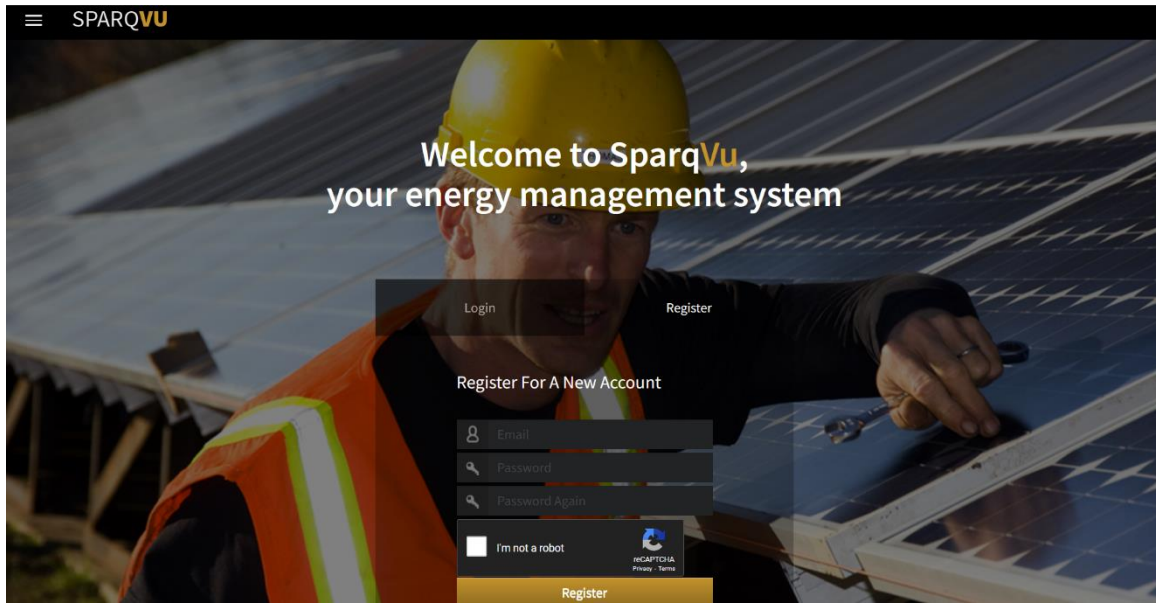
SparqVu

SPARQ offers complete system management for initial installation, as well as ongoing monitoring of the SPARQ's System performance. The live monitoring system is called "SparqVu", and it offers a mobile friendly, easy to use solution for installers and the end customer.

The first step is to create your SparqVu account.

To create an account:

1. Go to http://sparqvu.com/ and click on "Register"
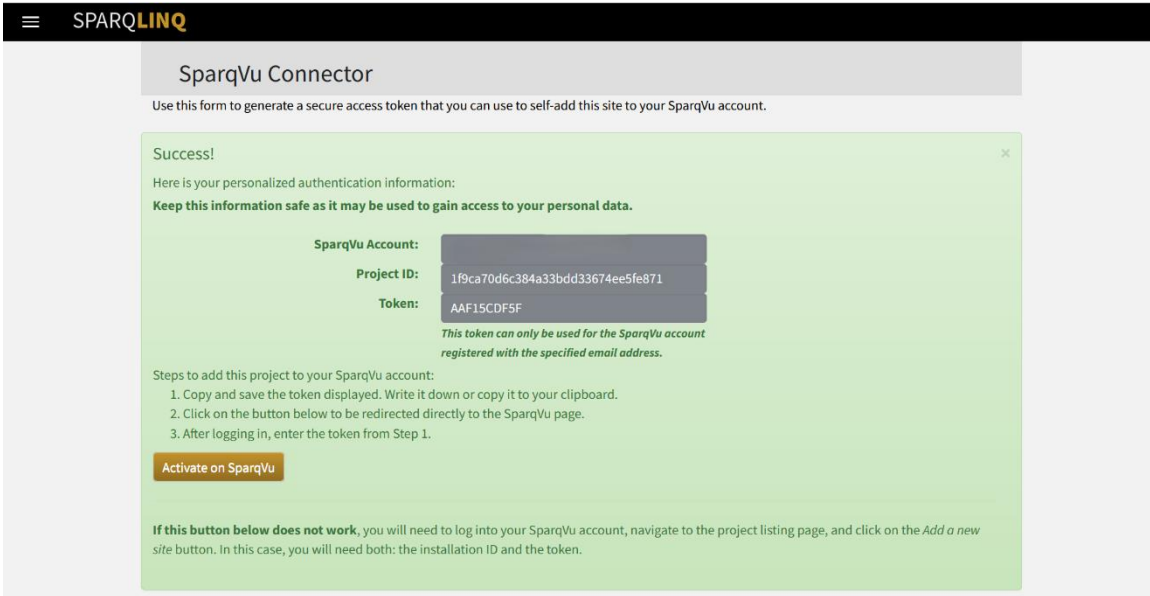2. Enter your email address and password.

3. Click on the link sent by Sparqvu to your email account to verify your account.

Adding a SparqLinq to your SparqVu account:

On the SparqLinq dashboard click on the menu icon (three horizontal bars) in the top left corner of the dashboard page then select the SparqVu Token option. Enter the full email address that was used to create your SparqVu account and click "Generate Access Token".
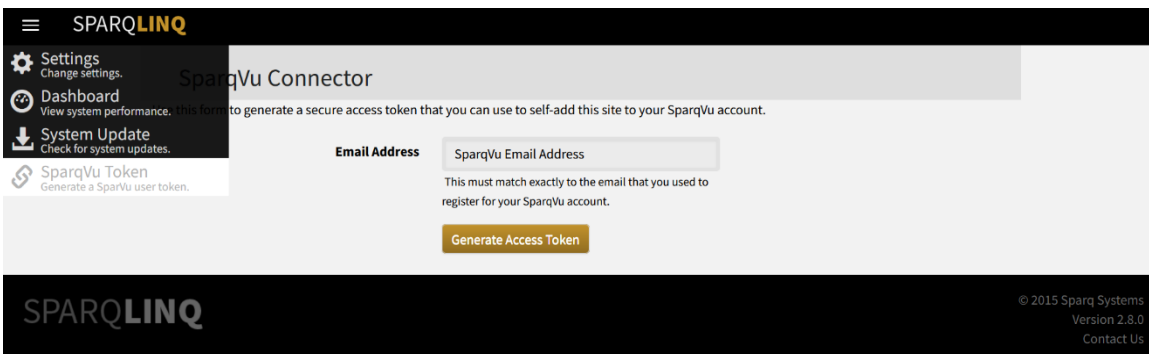
The screen below will appear, showing the SparqVu Account, Project ID, and the Token. Copy and save the Project ID and Token values. Click on "Actiate on SparqVu" to go to the SparqVu login page.

Now, log into SparqVu. Click on the "Add a new site to your account" button and paste the Project ID copied from the SparqLinq into the Project ID field on SparqVu. Then select the "Go to Security Check" button. This will verify that the SparqLinq is registered to your account and add it to the customer profile. The SparqLinq should now show up on the customer's login page on SparqVu.
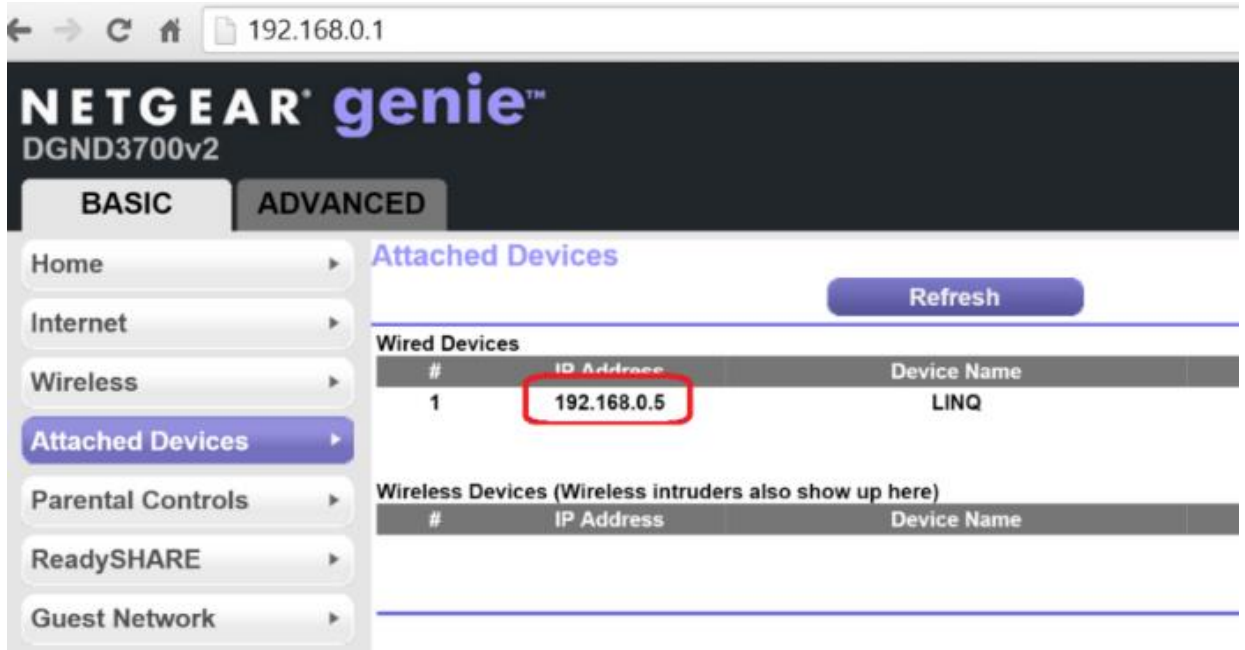

Additional SparqLinqs can be added to a SparqVu account by repeating these steps for each additional SparqLinq.

Connecting to the SparqLinq Using a Wired Ethernet Connection

Use a browser on a device connected to the local network to access the Router's administration page. For example, for a Netgear router (below), enter http://192.168.0.1/ in the browser address bar. This is the default IP address for Netgear and Cisco branded routers. You will then be asked for an administrator ID and password. Many devices use the ID "admin" and password

left blank or set to "admin" or "password". Contact the system owner or look at the label on the router for more the correct password.

After connecting to the router go to the routers "Attached Devices" table to determine the SparqLinq's local IP address (circled in red in image below). Illustration below is just an example of a Netgear router. Actual router used maybe different. Once you have determined the SparqLinq's local IP address, type it in the browsers address bar to connect to the Dashboard or Wizard. In the example below you would type in the following: http://192.169.0.5/