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PLX35-NB2

Network Bridge

March 15, 2019

USER MANUAL

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PLX35-NB2 User Manual

March 15, 2019

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Important Installation Instructions

Power, Input, and Output (I/O) wiring must be in accordance with Class I, Division 2 wiring methods, Article 501-4 (b) of the National Electrical Code, NFPA 70 for installation in the U.S., or as specified in Section 18-1J2 of the Canadian Electrical Code for installations in Canada, and in accordance with the authority having jurisdiction. The following warnings must be heeded:

WARNING - EXPLOSION HAZARD - SUBSTITUTION OF COMPONENTS MAY IMPAIR SUITABILITY FOR CLASS I, DIV. 2;

WARNING - EXPLOSION HAZARD - WHEN IN HAZARDOUS LOCATIONS, TURN OFF POWER BEFORE REPLACING OR WIRING MODULES

WARNING - EXPLOSION HAZARD - DO NOT DISCONNECT EQUIPMENT UNLESS POWER HAS BEEN SWITCHED OFF OR THE AREA IS KNOWN TO BE NON-HAZARDOUS.

Class 2 Power

Agency Approvals and Certifications

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1 Start Here

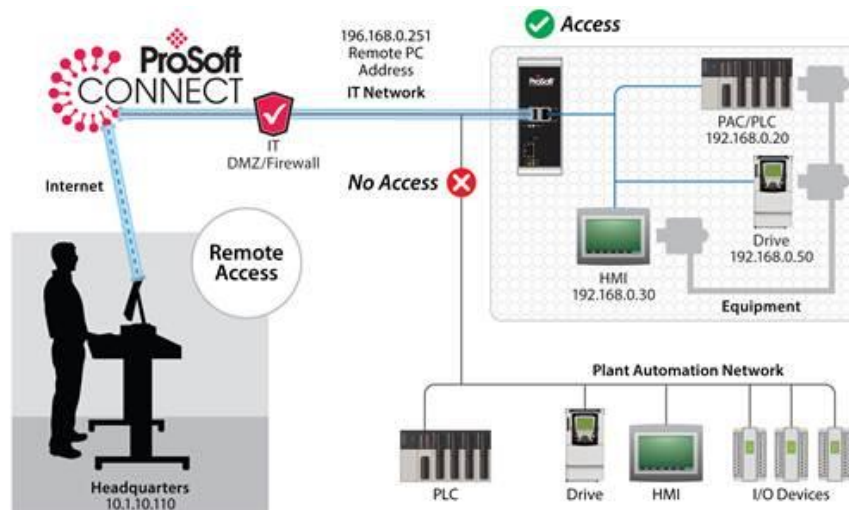
1.1 About the PLX35-NB2 Network Bridge

The PLX35-NB2 Network Bridge is the ideal solution for system integrators, machine builders, and OEMs requiring remote system access for commissioning, troubleshooting, or network maintenance.

During the commissioning phase, a network bridge is deployed on site with automation equipment. Once the equipment is installed and ready for configuration and programming, the bridge allows the user to remotely access the network to commission, maintain, and troubleshoot the system, thereby reducing travel time costs.

By deploying a network bridge to an existing network, the network bridge allows access from anywhere by authorized personnel. In the event of unscheduled downtime, an authorized user can connect to the network to minimize downtime and loss of profit.

Module configuration and remote connections are accomplished through ProSoft Connect, ProSoft Technology's secure, cloud-native platform for the Industrial Internet of Things (IoT).



The PLX35-NB2 allows users to:

- Securely connect to remote devices from any PC without having to use a 3rd-party software application
- Locally control the VPN connection through an EtherNet/IP® message.

The PLX35-NB2 provides 2 Ethernet ports. One port is used for the local network requiring remote access. The second port is used to connect to the internet.

1.1.1 Specifications

Power

Power	24 VDC nominal, 10 to 36 VDC allowed, Positive, Negative, and GND terminals
Power Connector	Three pin, screw terminal, screw retention, black
Current Load	24 VDC nominal @300 mA

Internal Specs

EtherNet/IP	Supports local control of VPN access through MSG instruction.
Network Ports	HTTP or HTTPS ports 8080

Physical

Enclosure	Extruded aluminum with DIN clip
Dimensions (H x W x D)	5.52 x 2.06 x 4.37 in 14.01 x 5.24 x 11.09 cm
Shock	IEC 60068-2-27; 20G @ 11ms (Operational) IEC 60068-2-27; 30G @ 11ms (Non-Operational)
Vibration	IEC 60068-2-6; 10G, 10 to 150 Hz
Ethernet Port	(2) 10/100 Base-T, RJ45 connector

Environmental

Operating Temperature	IEC 60068; -22°F to +158°F (-30°C to +70°C)
Humidity	IEC 60068-30; 5% to 95%, with no condensation
External Power	10 to 30 VDC
Peak Power Consumption	< 6W

Agency Approvals & Certifications

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1.2 PLX35-NB2 Package Contents

The following components are included with the PLX35-NB2 and are required for installation and configuration.

Important: Before beginning the installation, please verify all of the following items are present.

Qty.	Part Name	Part Number	Part Description
1	PLX35-NB2 Network Bridge	PLX35-NB2	2-port Network Bridge
1	2-pin Power Connector	002-0116	Power Connector

If any of these components are missing, please contact ProSoft Technology Technical Support for replacement parts. See [Contacting Technical Support](#) (page 51).

1.3 Jumper Information

The module has one visible set of jumper pins on the back of the gateway. These pins should only be jumped/shunted when resetting the gateway back to factory defaults.

To perform a factory reset:

- 1 Set the jumper on both pins and power-cycle the module.
- 2 Wait until the FLT, CFG and ERR LED's flash in a reverse-clockwise direction (the gateway should boot twice by then).
- 3 You will notice all the LED's flashing twice (except interface LED's).
- 4 Remove the jumper and wait for the gateway to finish the power-cycle.
- 5 When the factory reset has finished, the CFG LED flashes.

1.4 Failover and Automatic Backup & Factory Reset

1.4.1 Failover

The Failover process provides a recovery mechanism whenever a serious malfunction renders the main filesystem inoperable.

If the system fails to boot up (all LEDs are solid on) 4 times in a row, on the 5th boot up the gateway will enter a failover state (the FLT LED is solid red and the CFG LED blinks amber). While in this state, the PLX35-NB2 can be accessible using its default configuration. A new upgrade can be performed on the gateway which should fix the serious malfunction that led to the failover state.

1.4.2 Automatic Backup & Factory Reset

If the system fails to boot up (all LEDs are solid on) 10 times in a row, on the 11th boot up the gateway tries to restore the backup firmware and configuration. The backup firmware and configuration are in place before the last upgrade was performed.

If the backup restore procedure has performed correctly, only the PWR LED will be lit upon boot up.

The automatic factory reset process takes place when the PLX35-NB2 needs to return to the default configuration. This is because the backup restore process has not succeeded. After this process is completed, it will run the factory default image with the default configuration, in an out-of-the-box condition. In this case, there is no need to use a jumper to perform a factory reset.

If the factory reset has performed correctly, the CFG LED will blink amber.

2 Quick Start

2.1 Local Configuration

Task	Page
Install the module	13
Connect to the PLX35-NB2 webpage	17
Set gateway configuration parameters	19
Configure login credentials	22
Update firmware	26

At this point, your gateway is configured. You can now perform a number of other functions to customize and use the gateway. This manual describes all of the functions and features available to you.

2.2 ProSoft Connect Setup and Configuration

You can configure, maintain, and troubleshoot the gateway through ProSoft Connect.

Task	Page
Obtain an activation key and login to ProSoft Connect	29
Create a VPN client	32
Establish a VPN Connection	36
Perform configuration functions in ProSoft Connect	39
Add Team Members	42
Change Firmware if required	44

ProSoft Connect allows you to remotely perform all available features and functions. These features and functions are described within this document.

3 Installing the PLX35-NB2

Mount the PLX35-NB2 such that:

- There is easy access for the cables to ensure that they are not bent, constricted, in close proximity to high amperage, or exposed to extreme temperatures.
- The LEDs on the front panel are visible for troubleshooting and verifying the gateway status.
- There is adequate airflow around the gateway, but also protected from direct exposure to the elements, such as sun, rain, and dust.

Caution: The PLX35-NB2 is in a hardened case, and is designed for use in industrial and extreme environments; however, unless you are using cables expressly designed for such environments, the cables can fail if exposed to the same conditions the PLX35-NB2 can withstand.

3.1 LED Indicators

The following tables describe the diagnostic LEDs on the front of the PLX35-NB2.

LED	State	Description
MGMT	Off	The module cannot reach the internet and is not managed by ProSoft Connect (default).
	Flashing Green	The module can reach the internet.
	Solid Green	The module is managed by a ProSoft Connect account.
	Solid Red	N/A
	Flashing Red	The module is configured to be managed by ProSoft Connect but cannot reach ProSoft Connect.
	Alternating Red/Green	N/A
VPN	Off	ProSoft Connect is not enabled (default).
	Flashing Green	VPN is possible (normal).
	Solid Green	A VPN tunnel is established.
	Solid Red	The module is managed by ProSoft Connect and EIP has disabled VPN tunneling.
	Flashing Red	VPN connection failed.
	Alternating Red/Green	N/A
PWR (Power)	Off	Power is not connected to the power terminals or source is insufficient to properly power the module.
	Solid Green	Sufficient power is connected to the power terminals.
FLT (Fault)	Off	Normal operation
	Solid Red	A critical error has occurred. Program executable has failed or has been user-terminated and is no longer running. Press the <i>Reset</i> button or cycle power to clear the error.
CFG	Off	Normal operation
	Flashing Amber	The module has no configuration.
	Solid Amber	The module is in configuration mode. Either a configuration error exists, or the configuration file is currently being downloaded or read. After power-up or after the <i>Reset</i> button is pressed, the configuration is read and the module implements the configuration values and initializes the hardware.
ERR	Off	Normal operation
	Flashing Amber	An error condition has been detected and is occurring on one of the application ports. Check configuration and troubleshoot for communication errors.
	Solid Amber	The ERR LED is cleared on receipt of a well-formed allowed packet. On receipt of data packet containing an unsupported protocol, the LED is lit. If the LED is solid, a large number of errors are occurring on one or more ports (network communication errors).

Ethernet Port LEDs

LED	State	Description
100 Mbit	Off	No activity on the port
	Flashing Amber	The Ethernet port is actively transmitting or receiving data.
LNK/ACT	Off	No physical connection is detected. No Ethernet communication is possible. Check wiring and cables.
	Solid Green	Physical network connection detected. This LED must be ON (solid) for Ethernet communication to be possible.

4 Local Configuration using the PLX35-NB2 Configuration Webpage

The PLX35-NB2 contains a browser-based configuration webpage used for configuration. The following sections describe the configuration process.

4.1 Connecting to the PLX35-NB2 Webpage

- 1 Ensure that the module is connected to the network through the LAN port.
- 2 Apply power to the module.
- 3 To log into the PLX35-NB2 configuration webpage through the network, your PC must be able to connect to the PLX35-NB2. The default IP address of the PLX35-NB2 is 192.168.0.250. If your PC is on a different subnet, temporarily set the IP address of your PC to 192.168.0.xxx with a subnet of 255.255.255.0 (where xxx is an available address on the network).

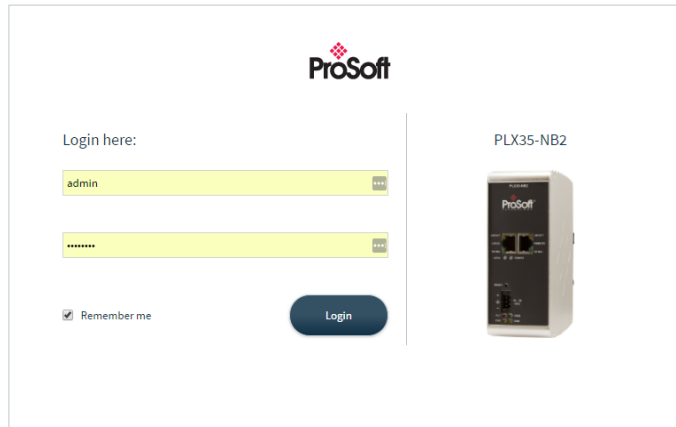
IP address:

Subnet mask:

Note: You can also use ProSoft Discovery Service to discover the IP address. You can download and install ProSoft Discovery Services from the ProSoft website at www.prosoft-technology.com.

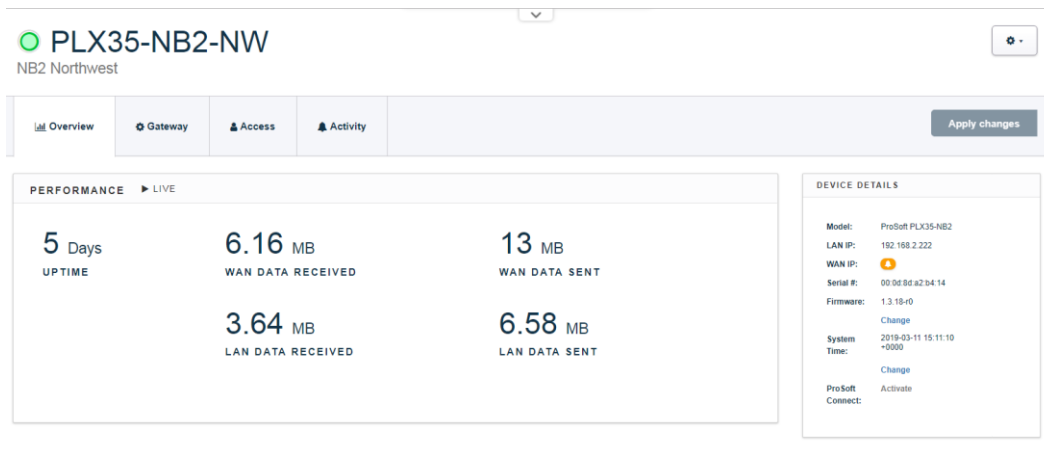
- 4 Open a web browser on your PC and enter the PLX35-NB2 default address of: **192.168.0.250:8080**. Minimum browser requirements include Chrome 58, Firefox 54, and Internet Explorer 10.

- 5 Once the PLX35-NB2 configuration webpage opens, enter the **USERNAME** and **PASSWORD** to log in. The default **USERNAME** is *admin* and the default **PASSWORD** is *password*.



Note: For security purposes, be sure to change the default user name and password after you log in. See Configuring Login and Access Control on page 22.

- 6 After you successfully log in, the configuration webpage displays the **OVERVIEW** tab.



This page allows you to:

- View Performance Information
- View Device Details
- Update Firmware
- Manually enter a custom date and time

4.2 Using the Overview Tab

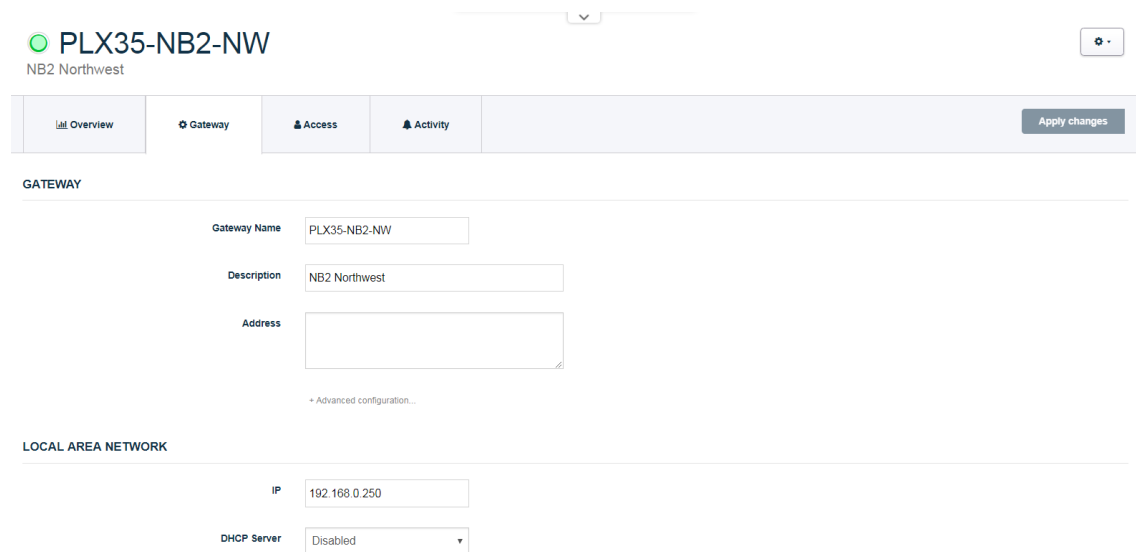
The *Overview* tab contains performance information as well as device details, access information, and module location information.

In addition, this page allows you to make firmware updates to the gateway. You can view this tab at any time by simply clicking on the *Overview* tab.

Tip: This tab provides an *Activation Code* that allows you to take advantage of configuring and maintaining your gateway using ProSoft Connect. See *Cloud-based Maintenance using ProSoft Connect* on page 29 for details on using this code.

4.3 Setting Gateway Configuration Parameters

- 1 Click on the **Gateway** tab.



The screenshot shows the configuration interface for the PLX35-NB2-NW device. At the top, the device name 'PLX35-NB2-NW' and description 'NB2 Northwest' are displayed. Below this is a navigation bar with tabs: Overview, Gateway (selected), Access, and Activity. An 'Apply changes' button is on the right. The main content area is divided into two sections: 'GATEWAY' and 'LOCAL AREA NETWORK'. The 'GATEWAY' section contains fields for 'Gateway Name' (PLX35-NB2-NW), 'Description' (NB2 Northwest), and 'Address' (empty). Below these is a link for '+ Advanced configuration...'. The 'LOCAL AREA NETWORK' section contains fields for 'IP' (192.168.0.250) and 'DHCP Server' (Disabled).

2 Use the following tables to enter the appropriate parameters:

Gateway

Parameter	Description
Gateway Name	Enter a name for this gateway.
Description	Enter a description to describe the gateway. For example, <i>Network Bridge - Bakersfield</i> .
Address	Enter the street address of the gateway (i.e., where the gateway resides)
Advanced configuration (link)	This link allows you to provide GPS coordinates of the gateway's location.

Local Area Network

Parameter	Description
IP	Enter the IP address of the gateway. This is a static IP address. The default IP address is 192.168.0.250. (The netmask is always 255.255.255.0).
DHCP Server	Use this parameter to enable or disable DHCP. The default is Disabled . If you want to use a DHCP server to select an IP, select Enabled .

Selecting **Enabled** displays a number of additional DHCP-related parameters

DHCP Server

DHCP Lease Time

DHCP Lease Units

DHCP Pool Low

DHCP Pool High

NTP

DHCP Lease Time - Allows you to select lease times in hour, minutes, or seconds. This is the amount of time an IP address remains available on a particular device before releasing the IP address for use by another device.

DHCP Lease Units - Allows you to specify Hours and Minutes and works in conjunction with *DHCP Lease Time*.

DHCP Pool Low - DHCP uses a pool of assigned addresses that are available to requests. *DHCP Pool Low* allows you to set the last octet to the low end number of the pool. (See example below)

DHCP Pool High - DHCP uses a pool of assigned addresses that are available for use. *DHCP Pool High* allows you to specify the high-end last octet of the pool

For example:

DHCP Pool Low

DHCP Pool High

This example specifies that the range of addresses that may be used is between 192.168.72.100 through 192.168.72.249.

NTP	This parameter specifies whether or not the Network Time Protocol (NTP) is enabled or disabled. The default is Enabled . If Disabled , the following two parameters are not present.
NTP Server 1	Default set to: 0.us.pool.ntp.org . If you wish to use a different NTP server, enter it here.
NTP Server 2	Default set to: 1.us.pool.ntp.org . If you wish to use a different NTP server, enter it here.
NTP Server 3	Default set to: 2.us.pool.ntp.org . If you wish to use a different NTP server, enter it here.
NTP Mode	Default is Client . You can change this to Client/Server mode.

Wide Area Network (WAN)

Parameter	Description
DHCP Client	<p>This is set to Enabled by default. If your administrator wants to assign a static IP, this should be set to Disabled.</p> <p>If Disabled, you must supply the following information:</p> <p>IP - The IP address assigned to the WAN port.</p> <p>Subnet - Enter the subnet address.</p> <p>Gateway - Enter the gateway address for this subnet.</p> <p>DNS 1 - Enter the Domain Name Server IP provided to your system.</p> <p>DNS 2 - Enter the backup Domain Name Server IP provided to your system.</p>
VLAN ID	If the gateway is part of a VLAN, enter the VLAN ID.

- 3 Click the **Apply Changes** button when complete.

4.4 Configuring Login Credentials

The gateway is shipped with the following login defaults:

User: **admin**

Password: **password**

The **Access** tab allows you to change the defaults.

- 1 Click on the **Access** tab to view the **Access** page.

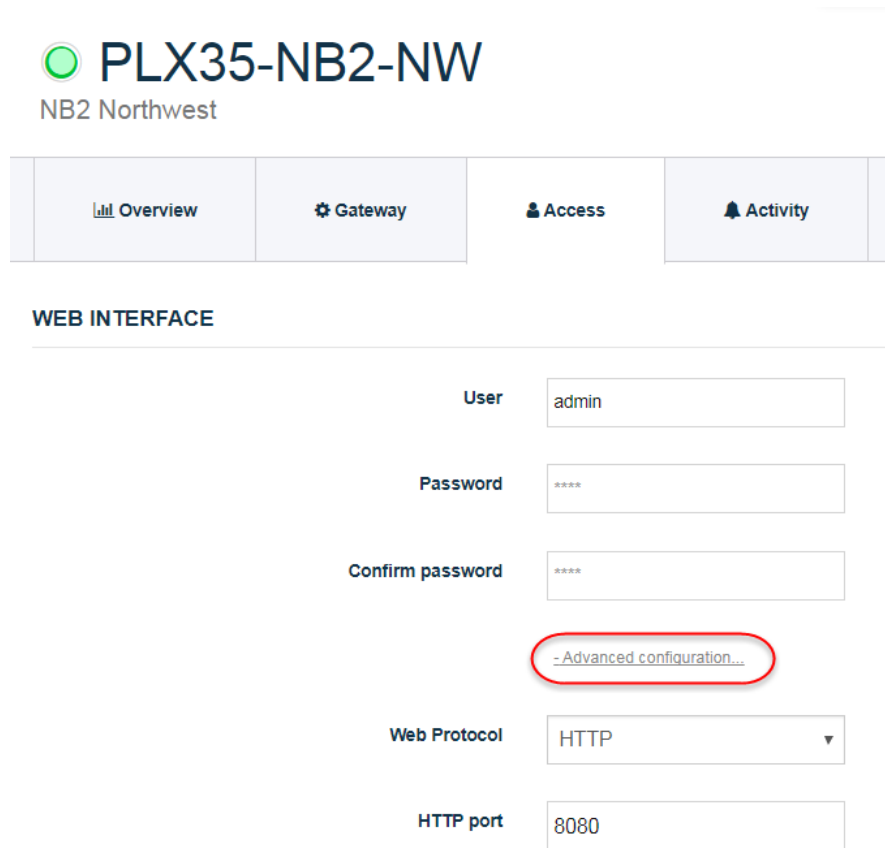
The screenshot shows the configuration interface for the PLX35-NB2-NW gateway. At the top, there is a header with a green circle icon, the text "PLX35-NB2-NW", and "NB2 Northwest". Below this is a navigation bar with four tabs: "Overview", "Gateway", "Access", and "Activity". The "Access" tab is currently selected. Below the navigation bar, the section "WEB INTERFACE" is visible. It contains three input fields: "User" with the value "admin", "Password" with masked characters "****", and "Confirm password" with masked characters "****". At the bottom of this section, there is a link that says "+ Advanced configuration...".

This page allows you to set up the users that can manage and configure this gateway. The *Advanced Configuration* link allows you to restrict access based on user.

- 2 Enter a user name.
- 3 Enter a password.
- 4 Confirm the password by retyping it.

Advanced configuration

- 1 Click on the *Advanced Configuration* link.

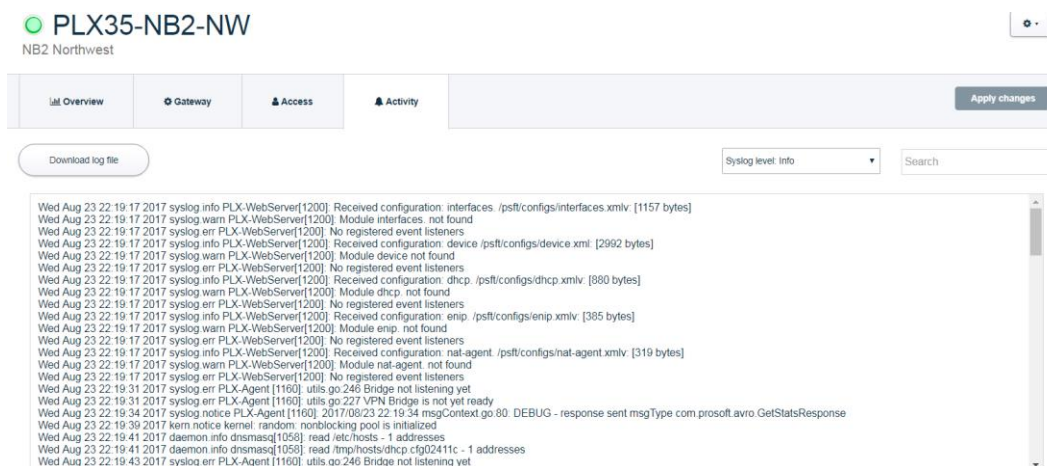


The screenshot shows the configuration interface for PLX35-NB2-NW (NB2 Northwest). At the top, there is a navigation bar with four tabs: Overview, Gateway, Access, and Activity. Below the navigation bar, the section is titled "WEB INTERFACE". The form contains several fields: "User" with the value "admin", "Password" and "Confirm password" both masked with asterisks, a link labeled "- Advanced configuration..." which is circled in red, "Web Protocol" set to "HTTP" with a dropdown arrow, and "HTTP port" set to "8080".

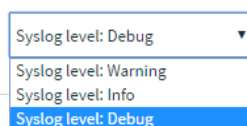
- 2 Select the *Web Protocol*. Select **HTTP** or **HTTPS**.
- 3 Choose the port depending on what protocol is selected.
- 4 Click **APPLY CHANGES** when complete.

4.5 Viewing Gateway Log file Activity

- 1 Click on the **ACTIVITY** tab.



Options on this page include search, search filter options, and a Download log file option.

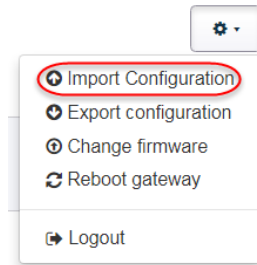


- 2 Click on the **DOWNLOAD LOG FILE** button to download a .txt file to the download folder of your PC or laptop.

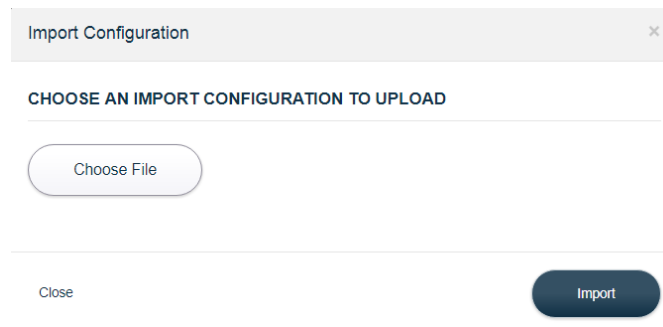
Note: Some options that appear in the configuration UI may not be available during management or configuration options within ProSoft Connect.

4.6 Importing a Configuration File

- 1 Select **IMPORT CONFIGURATION** from the setup icon located in the upper-right corner of any configuration page.

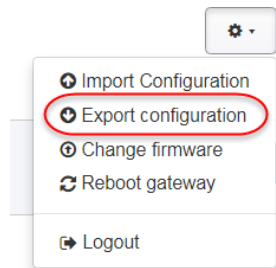


- 2 Locate and select a configuration file to import and then click the **Import** button.



4.7 Exporting a Configuration File

- 1 Select **Export Configuration** from the setup icon located in the upper-right corner of any configuration page.

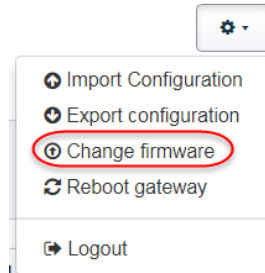


- 2 The gateway downloads a **tar.gz** file to your PC or laptop. Do not modify this file.

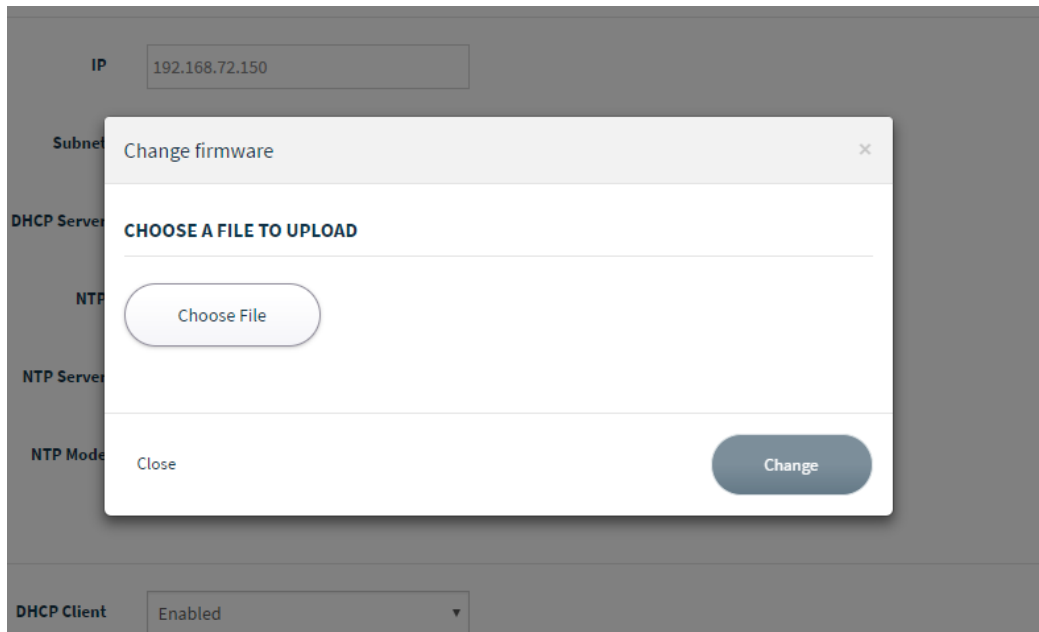
4.8 Updating the Gateway's Firmware (NB2)

Note: ProSoft Connect can easily schedule updates to the latest firmware for multiple PLX35-NB2 gateways.

- 1 Click the **SETUP** icon in the top-right corner of the page and then click **CHANGE FIRMWARE**.



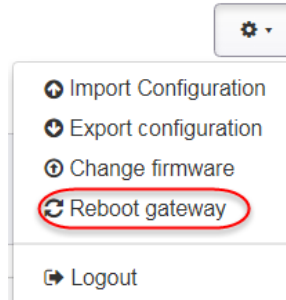
This opens the *Change firmware* dialog.



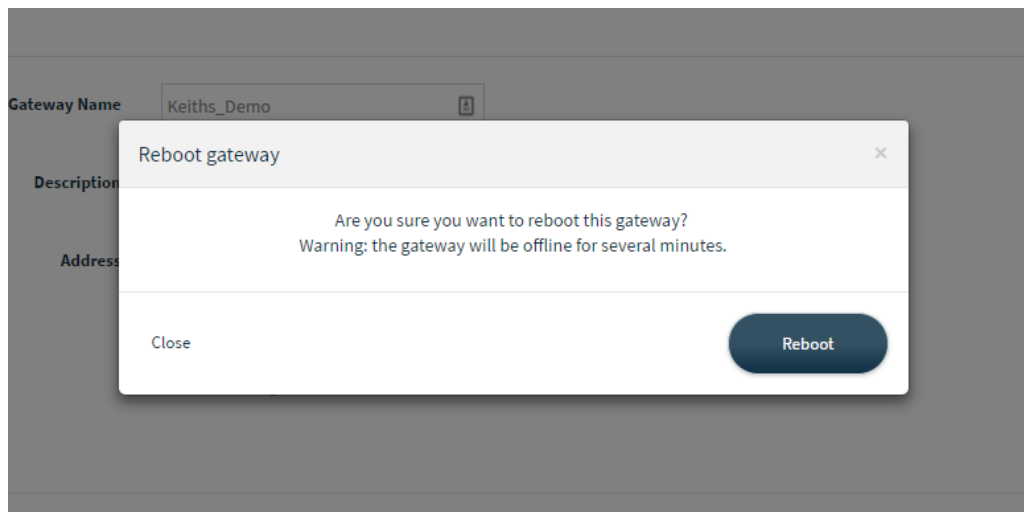
- 2 Click the **CHOOSE FILE** button and locate the firmware file.
- 3 Select the file and click **OPEN**.
- 4 Click the **CHANGE** button to load the new firmware.

4.9 Rebooting the Gateway

- 1 Click the **SETUP** icon in the upper-right corner of the page and then click **REBOOT GATEWAY**.



This opens the *Reboot gateway* dialog.



- 2 Click the **REBOOT** button when ready.

5 Cloud-based Management using ProSoft Connect

ProSoft Connect allows you to manage multiple gateways on the network through a secure VLAN tunnel via a webpage. You can perform multiple tasks, including activating, setting up VPN clients, perform configuration and maintenance, and invite team members.

5.1 Login and Activate ProSoft Connect

Obtaining the Activation Key

ProSoft Connect requires that you activate the PLX35-NB2 the first time you use it. You must obtain an activation key from the gateway.

- 1 Connect your gateway WAN port to a network that can reach the internet. The MGMT LED will flash GREEN if the PLX35-NB2 can reach the internet and is not yet activated.
- 2 Log in to the module from the LAN port as described in the section entitled "Connecting to the PLX35-NB2 Webpage" (page 17). This takes you to the *Overview* tab.
- 3 Under *Device Details*, click the **ACTIVATE** link to the right of the *ProSoft Connect* label.

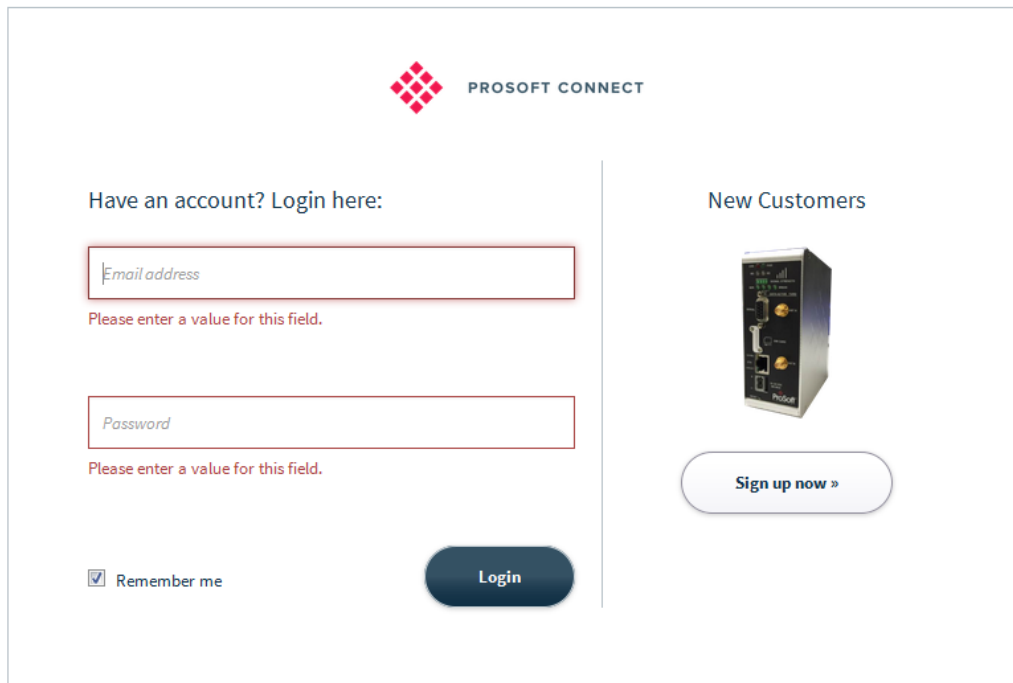
Note: If the gateway is already connected to a ProSoft Connect account, the link reads "Deactivate".

- 4 The gateway securely retrieves an alphanumeric activation key from ProSoft Connect that is only valid for three (3) hours. Record this activation key.

Note: The module must be connected to the internet through the WAN port in order for the module to retrieve an activation key.

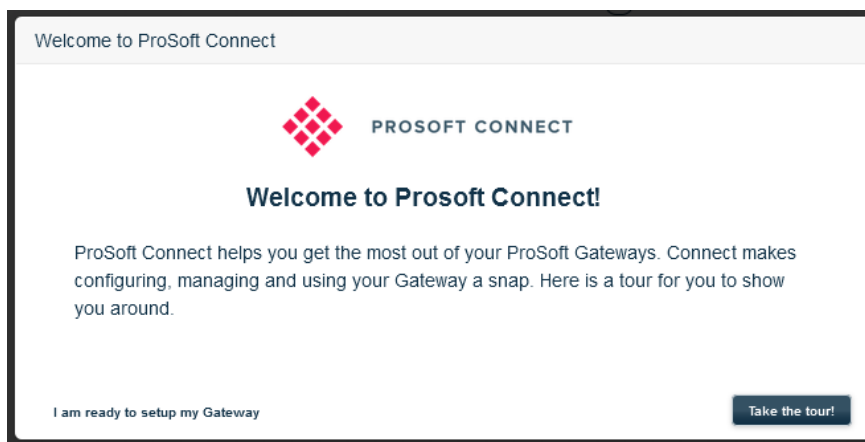
- 5 Click the www.prosoft.io link, or open a new tab in your web browser, enter **www.prosoft.io** in the address bar, and then press **ENTER**.

- 6 In the *ProSoft Connect Login* screen, enter your ProSoft Connect login email and password and click **LOGIN**, or click **SIGN UP NOW** to create a new account. Login credentials are not interchangeable between ProSoft Connect and the local interface.



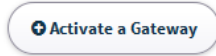
The image shows the ProSoft Connect login interface. At the top center is the ProSoft Connect logo, which consists of a red diamond shape made of smaller diamonds, followed by the text "PROSOFT CONNECT". Below the logo, the page is divided into two main sections. The left section is titled "Have an account? Login here:". It contains two input fields: "Email address" and "Password". Below each field is a red error message: "Please enter a value for this field." Below the password field is a checkbox labeled "Remember me". At the bottom of this section is a dark blue "Login" button. The right section is titled "New Customers". It features an image of a ProSoft Network Bridge device. Below the image is a light blue button with the text "Sign up now »".

- 7 After you are logged in, you can take a tour of the features of ProSoft Connect by clicking **TAKE THE TOUR**.



The image shows the ProSoft Connect welcome screen. At the top, it says "Welcome to ProSoft Connect". Below this is the ProSoft Connect logo. The main heading is "Welcome to Prosoft Connect!". Below the heading is a paragraph of text: "ProSoft Connect helps you get the most out of your ProSoft Gateways. Connect makes configuring, managing and using your Gateway a snap. Here is a tour for you to show you around." At the bottom left, there is a link that says "I am ready to setup my Gateway". At the bottom right, there is a dark blue button with the text "Take the tour!".

- 8 When ready, activate the PLX35-NB2 within the tour, or you can click on the **ACTIVATE A GATEWAY** button at the top of the page. ProSoft Connect prompts you for the activation key that you recorded earlier in these steps.



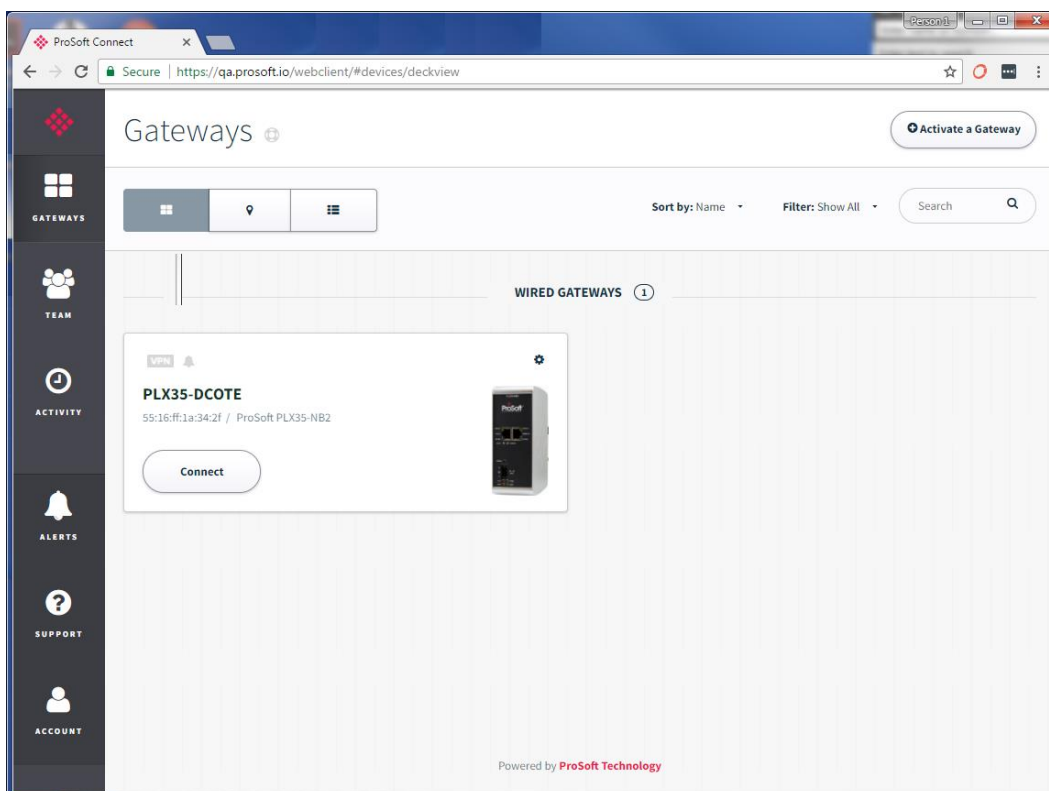
- 9 Enter the activation key you recorded earlier. Upon successful activation, the PLX35-NB2 appears on the *Gateways* page.

5.2 Create a new VPN Client

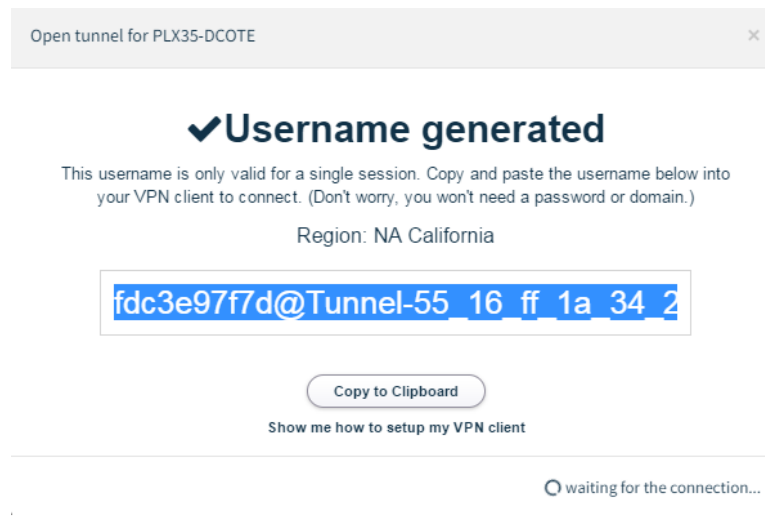
ProSoft Connect uses your native Windows VPN client for secure remote access.

The first time you intend to establish a VPN connection, you must set up the client and then connect to it. Initial VPN client configuration is only done once and is described in the following steps. If you already have a ProSoft Connect VPN Client established in your Network Connections folder, you do not need to perform these steps.

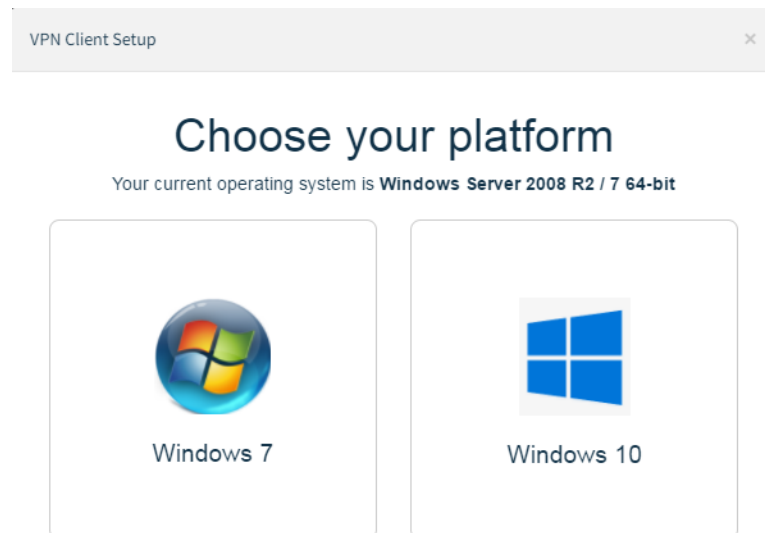
Once your PLX35-NB2 is activated, the gateway is displayed on the *Gateways* page. ProSoft Connect uses the OS native VPN client. The first time you attempt to create a VPN tunnel, you'll need to set up this VPN client to work with the ProSoft Connect Server. This is a one-time setup and will not need to be repeated for additional gateways.



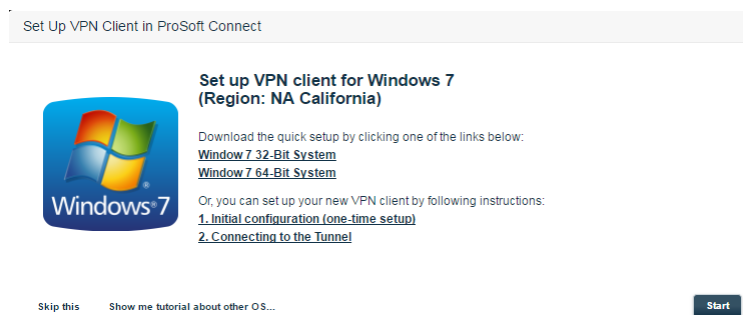
- 1 Click on the **CONNECT** button. The system generates a unique secure one-time use username.



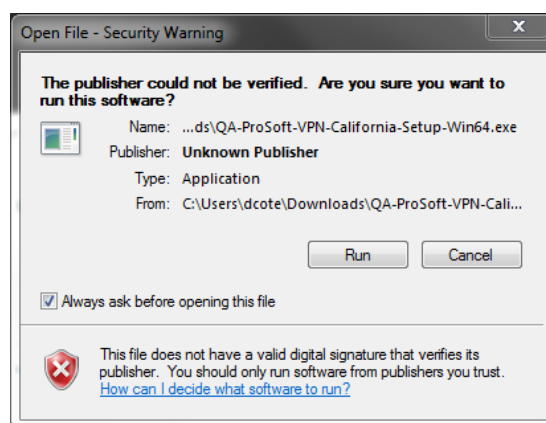
- 2 Click the **COPY TO CLIPBOARD** button to save this username.
- 3 Click "**SHOW ME HOW TO SETUP MY VPN CLIENT.**" This opens the *VPN Client Setup* dialog.



- 4 Choose your platform by clicking on the appropriate platform icon. This displays script download instructions. The script sets up your VPN client automatically.



- This dialog allows you to perform an automatic quick setup (requires download of a setup script) or provides instructions on manually performing the initial configuration. If you want to configure the VPN manually, click on the **INITIAL CONFIGURATION (ONE TIME SETUP)** link.
- If you want to run the quick setup script, click on the appropriate download link. Once the setup script downloads, run the script to install it.

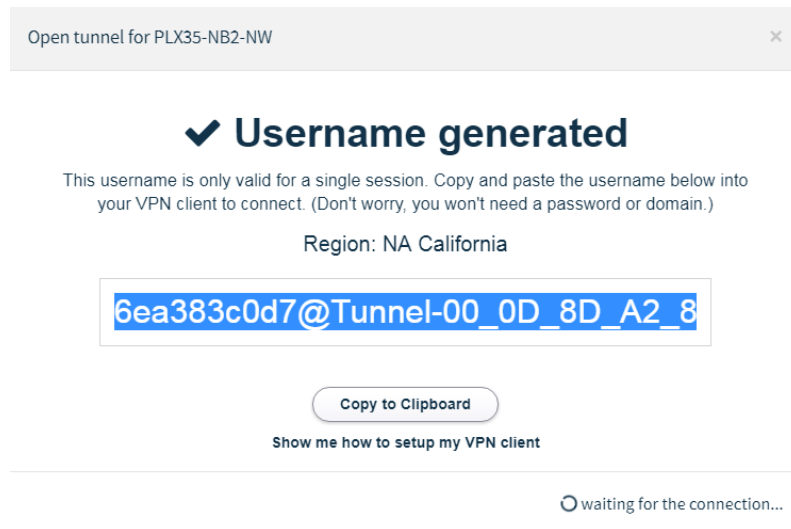


- 5 Click **YES** at the next prompt.
- 6 Click **YES** to accept the *End User License Agreement*.
- 7 At the next prompt, select **ALL USERS** or **MY USE ONLY**. This connection will be placed in the *Network Connections* folder on your PC or Laptop. You can also add a shortcut on the desktop. Click **OK**.

- 8 Once set up, you are prompted to enter your *User name*.



- 9 Paste the user name from your clipboard.



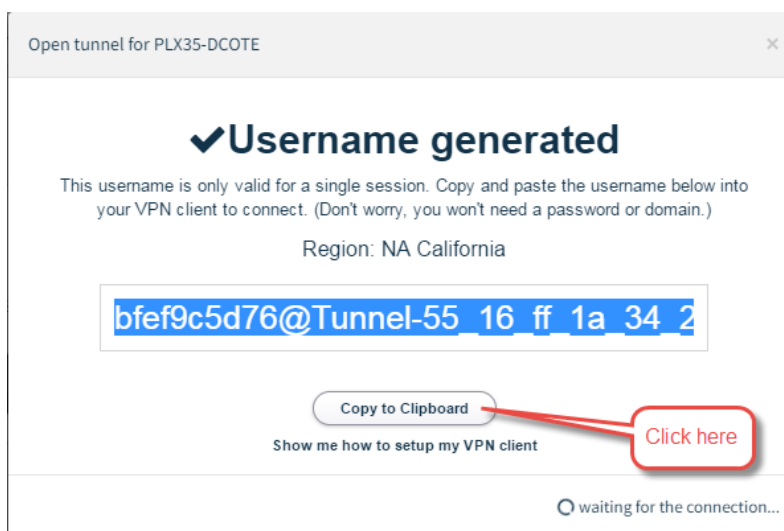
Note: If you have lost the key, simply disconnect and then connect again to retrieve a new key.

- 10 Click the **CONNECT** button to open the VPN tunnel.

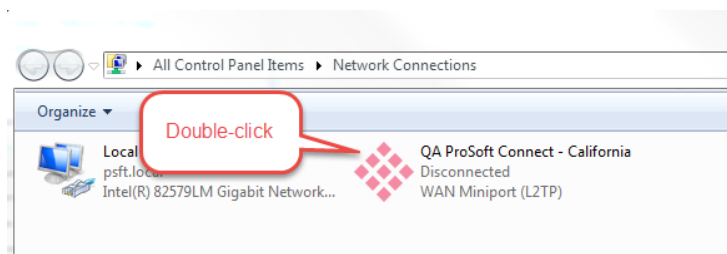
The *Disconnect* button indicates that you have a VPN connection in progress.

5.3 Establish a VPN Connection

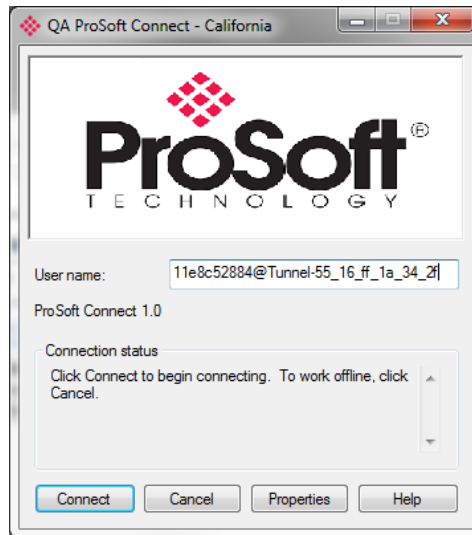
- 1 Access and login to ProSoft Connect.
- 2 Click the **CONNECT** button.
- 3 Copy the generated User name to the clipboard.



- 4 Navigate to your *Network Connections* folder and double-click on the **PROSOFT CONNECT VPN CLIENT**. (See note below.)

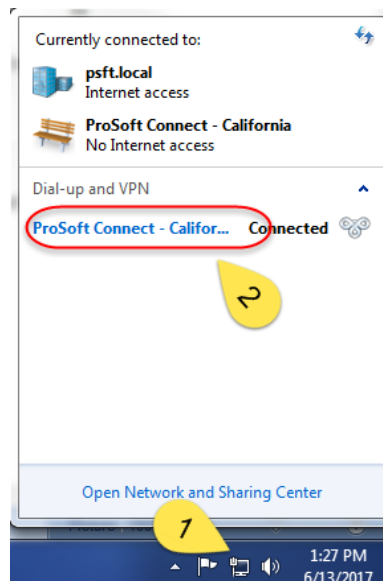


- 5 Paste the clipboard contents into the *User name* field of the *Connection* dialog.



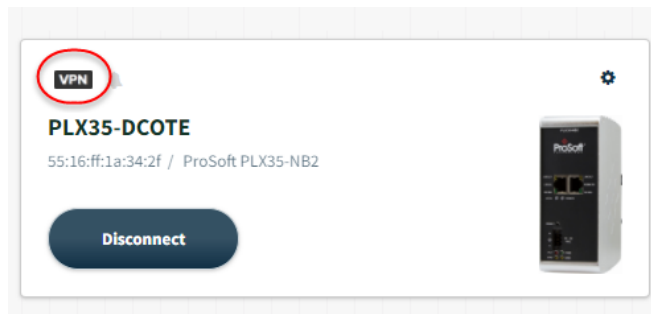
- 6 Click the **CONNECT** button, this creates a VPN tunnel.

Note: You can get to the Network Connections folder by clicking on the Open Network and Sharing Center icon to display connected (or non-connected) items. Under Dial-up and VPN, double click on ProSoft Connect.



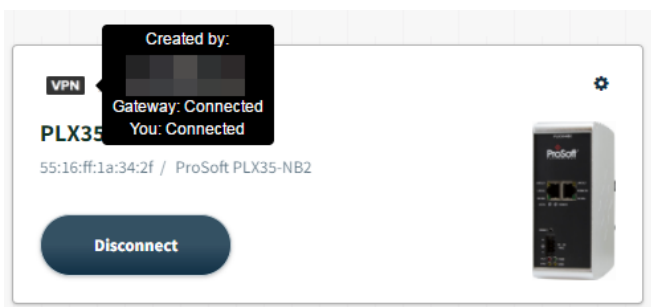
5.3.1 Verifying the VPN Connection

The module on the Gateways page of ProSoft Connect provides a VPN indicator as shown:



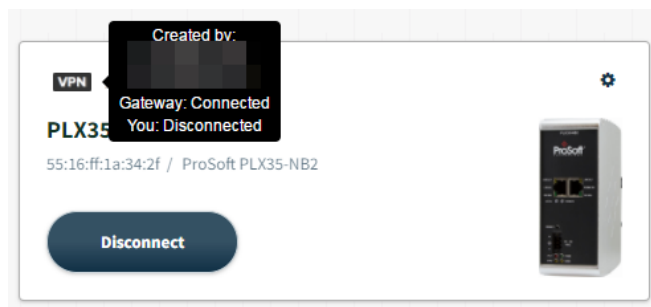
You can view the connection status by hovering over the VPN icon or by hovering over the status at the top of the page. See the next section for more details.

This indicator is grayed out if there is no connection established. However, you can hover over this indicator to obtain more information about the connection.



This example shows that the gateway is connected to the cloud server and the user is connected to the gateway.

If only one part of the tunnel connection is established, the indication may appear as shown below:

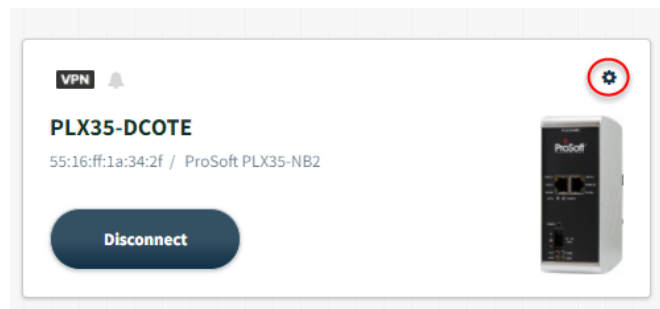


The example above shows that there is a connection between the gateway and the cloud server. However, it shows the user as "Disconnected". In this case, ProSoft Connect may be waiting for the user to provide a generated User name in order to login to the gateway.

5.4 Using ProSoft Connect to Configure the PLX35-NB2

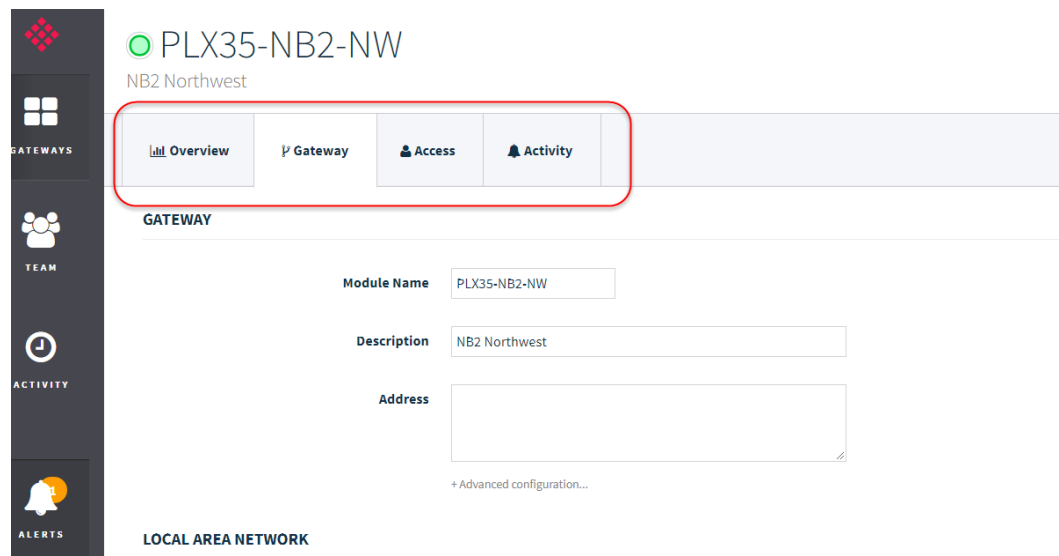
All configuration tasks may be performed using ProSoft Connect. That is, you do not need to use the module's internal web server to configure the module or edit existing configurations.

To access configuration parameters, click on the setup icon or click on the module name.



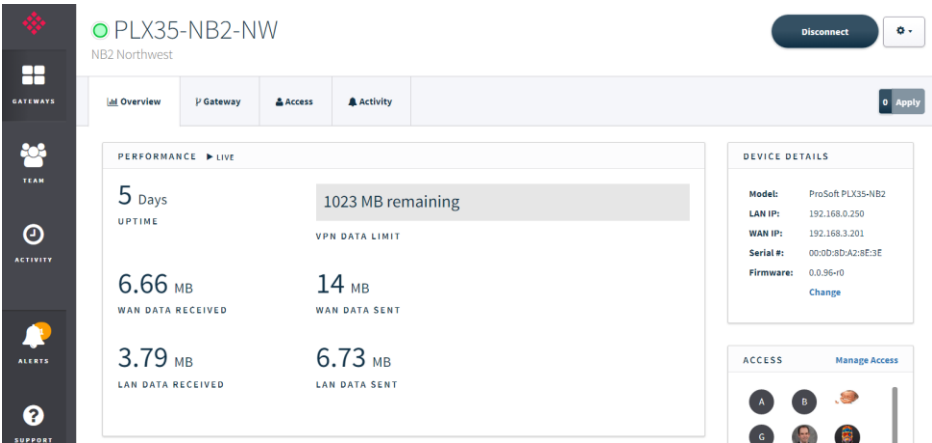
This opens the gateway's configuration pages.

In addition to the normal features of ProSoft Connect, these configuration pages are exclusive to the PLX35-NB2. All configuration fields are accessible via the tabs located at the top of the page.

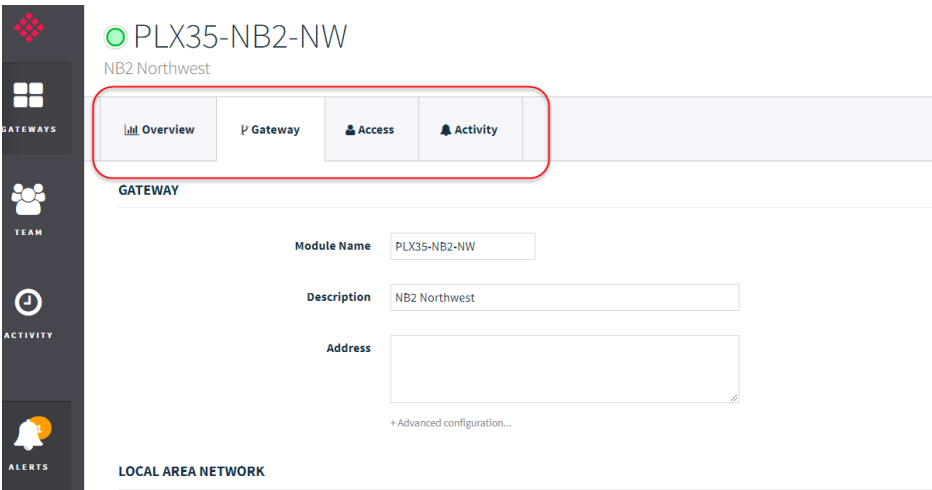


The configuration parameters are the same as those described under "Local Configuration using the Gateway's Configuration Webpage (page 16)".

Parameter	Description
Overview tab	This tab provides performance information as well as general overall device health and identification information. See "Viewing the Overview Page (page 19)" for additional information.



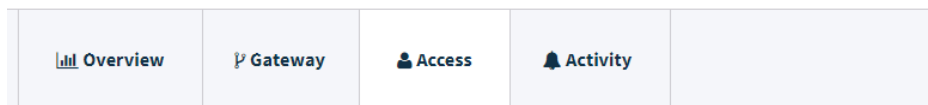
Gateway tab	This tab provides gateway identification information as well as specifics about LAN settings and WAN settings. See "Setting Gateway Configuration Parameters (page 19)"
-------------	---



Access tab

This tab allows you to set a user and password in place of the default. See "Configuring User Access (page 22)".

NB2 Northwest



WEB INTERFACE

User

Password

Confirm Password

[+ Advanced configuration...](#)

TUNNELED CLIENT IP

IP Address

Activity tab

This tab allows you to view system activity. See "Viewing Gateway Logfile Activity (NB2) (page 24)"

● PLX35-NB2-NW

NB2 Northwest



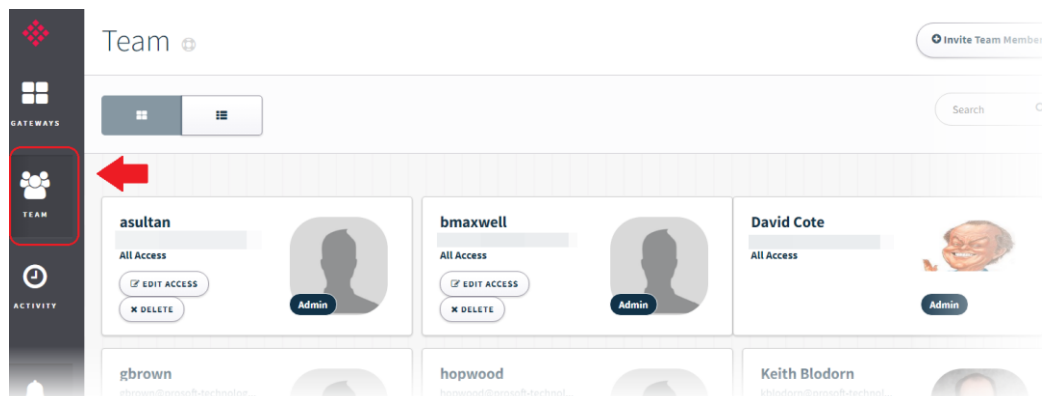
[Export Activity](#)

Event	Description	Comments	User	
Tunnel	Tunnel has been opened for region NA California		 dcote@prosoft-technology.com	5 minutes ago

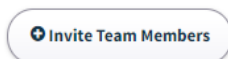
5.5 Adding Team Members

Within ProSoft Connect, you can invite team members to your account. This allows others to securely access the remote site and perform maintenance and configuration functions on the gateway once invites are accepted.

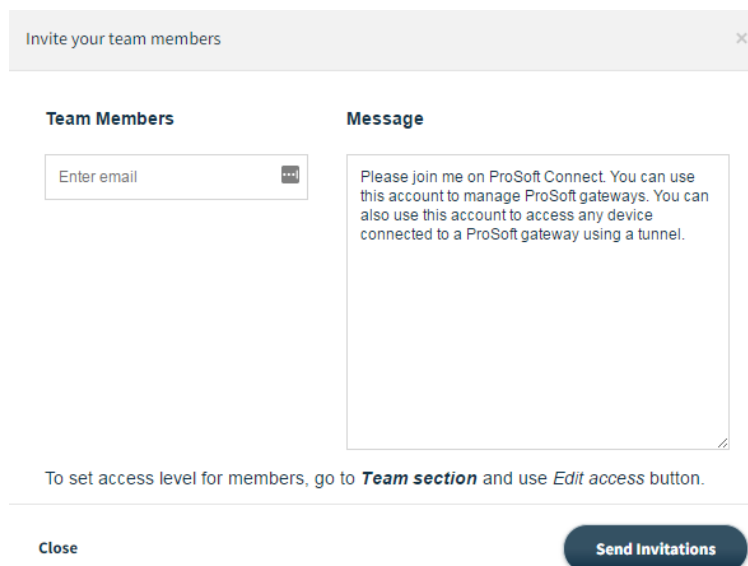
- 1 Click on the *Team* icon.



- 2 Click on the **INVITE TEAM MEMBERS** button located in the upper-right hand corner of the page.



The Invite dialog opens.



Invite your team members

Team Members

Enter email

Message

Please join me on ProSoft Connect. You can use this account to manage ProSoft gateways. You can also use this account to access any device connected to a ProSoft gateway using a tunnel.

To set access level for members, go to **Team section** and use **Edit access** button.

Close Send Invitations

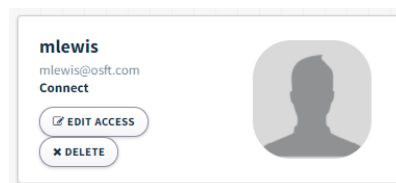
- 3 Enter the email address of the person you want to invite. You can enter multiple team members.

Note: An email address can only be associated with one ProSoft Connect account at a time.

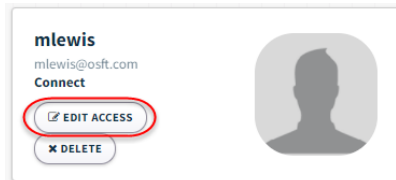
- 4 Modify the *Message* dialog to send a unique message to the invitees.
- 5 When you are done, click the **SEND INVITATIONS** button. You should receive an “invitation sent successfully” message if the email address was valid. You can edit a member’s access rights once the invite is sent.

5.5.1 Editing Team Member Access

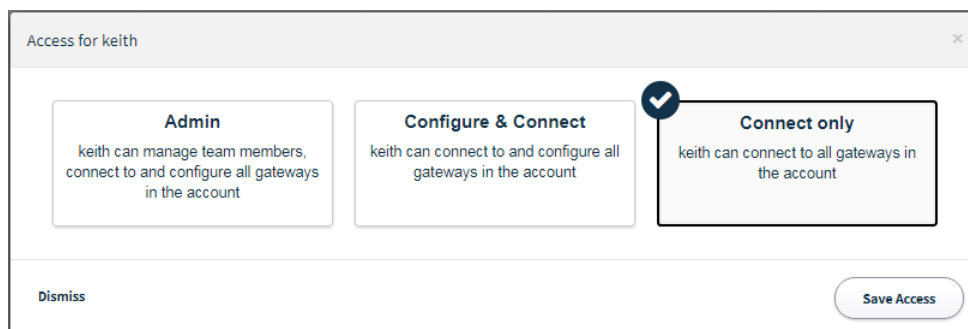
As an administrator, you can control the type of access rights assigned to your team members. When a team member accepts an invitation, a card appears on the *Team* page of ProSoft Connect.



- 1 Click on the **EDIT ACCESS** button located on the card.



This opens the access dialog for the new team member. Initially, access defaults to "Connect only" which means that that user is allowed to create a tunnel, but is not allowed to configure a gateway.



- 2 Change this user's access rights by clicking on any of the first 3 access selections and then click the **SAVE ACCESS** button.

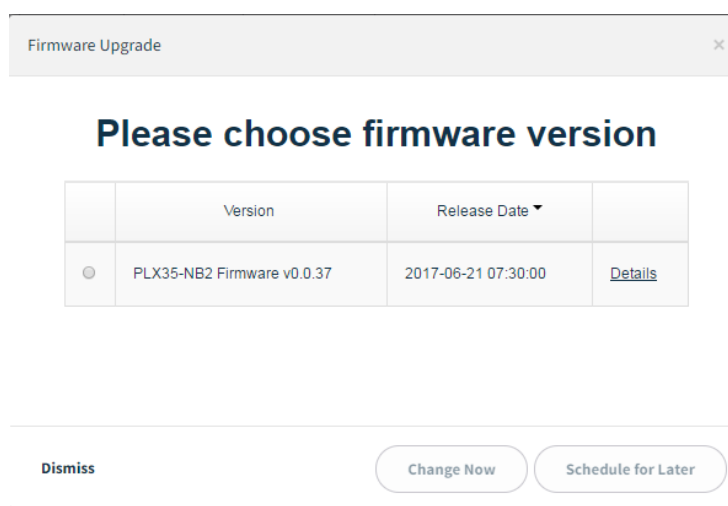
5.6 Changing Firmware

You can schedule a firmware change for multiple gateways or a single gateway through ProSoft Connect. There are two ways to start the firmware change process:

- Click the firmware **CHANGE** hyperlink in the *Device Details* block
- Select **CHANGE FIRMWARE** from the setup icon in the top-right corner of every configuration page.

Use one of the above methods and perform the following steps.

- 1 Click on the **Change** link to open the Firmware Upgrade dialog.



The dialog box is titled "Firmware Upgrade" with a close button (X) in the top right corner. Below the title bar, the text "Please choose firmware version" is displayed in a large, bold, dark blue font. Underneath this text is a table with four columns. The first column contains a radio button. The second column is labeled "Version" and contains the text "PLX35-NB2 Firmware v0.0.37". The third column is labeled "Release Date" with a dropdown arrow and contains the text "2017-06-21 07:30:00". The fourth column contains a link labeled "Details". Below the table, there are three buttons: "Dismiss" on the left, and "Change Now" and "Schedule for Later" on the right.

	Version	Release Date ▼	
<input type="radio"/>	PLX35-NB2 Firmware v0.0.37	2017-06-21 07:30:00	Details

Dismiss Change Now Schedule for Later

This dialog lists the most recent firmware versions and details about this version.

- 2 Select the version that you want to install by clicking the correct version's radio button.



The dialog box is titled "Firmware Upgrade" with a close button (X) in the top right corner. Below the title bar, the text "Please choose firmware version" is displayed in a large, bold, dark blue font. Underneath this text is a table with four columns. The first column contains a radio button. The second column is labeled "Version" and contains the text "PLX35-NB2 Firmware v1.0.0". The third column is labeled "Release Date" with a dropdown arrow and contains the text "2017-08-24 18:58:00". The fourth column contains a link labeled "Details".

	Version	Release Date ▼	
<input type="radio"/>	PLX35-NB2 Firmware v1.0.0	2017-08-24 18:58:00	Details

At this point, you have two options:

- **Change Now** - Allows you select additional gateways for upgrade and then immediately performs the upgrade.
- **Schedule for Later** - Allows you to select additional gateways for upgrade and then allows you to schedule a date and time for the upgrade to occur.

Change Now

- 1 With the correct firmware version selected, click the **CHANGE NOW** button. You are prompted as to whether or not you want to upgrade other gateways.

	Name	Serial Number	Version
<input type="checkbox"/>	ProSoft_Fremont	55:2f:1c:52:47:48	v.00.0.06-r0
<input type="checkbox"/>	ProSoft_Mexico	55:2f:1c:0d:60:c0	v.00.0.06-r0

Dismiss Apply only to this gateway Apply to this gateway and selected

- 2 Choose any available gateways that you want to upgrade, if applicable.
- 3 Click the **APPLY ONLY TO THIS GATEWAY** button if you have do not need to upgrade additional gateways or click the **APPLY TO THIS GATEWAY AND SELECTED** button to upgrade firmware on the current gateway and any selected gateways.

The firmware upgrade starts immediately.

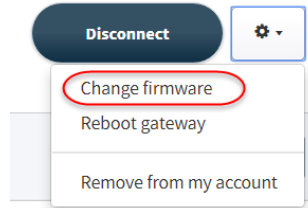
- 1 With the correct firmware version selected, click the **SCHEDULE FOR LATER** button. You are prompted as to whether or not you want to schedule upgrades for other gateways.

2 If you don't want to schedule upgrades for other gateways, click the **APPLY ONLY TO THIS GATEWAY** button to schedule the upgrade.

Cancel Schedule

- 3 Schedule the date and time for the firmware change to occur.
- 4 Click the **SCHEDULE** button.
- 5 If you want to schedule changes for other gateways, use the **APPLY TO THIS GATEWAY AND SELECTED** button and follow the same procedure.

Note: You can also access the *Change firmware* function using the setup options cogwheel drop-down located in the upper-right portion of any configuration page.



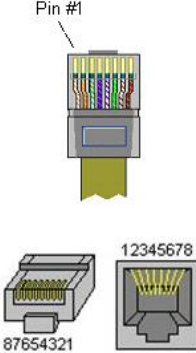
6 Ethernet Cable Specifications

ProSoft recommends using using a category 5 (or better) Ethernet cable with the PLX35-NB2. A category 5 cable has four twisted pairs of wire that are color-coded and cannot be swapped. The gateway only uses two of the four pairs when running at 10 MBit or 100 MBit speeds.

The Ethernet port on the gateway automatically detects the network speed and cable type and use the appropriate pins to send and receive Ethernet signals. Use either a standard Ethernet straight-through cable or a crossover cable when connecting the gateway to an Ethernet hub, a 10/100/1000 Base-T Ethernet switch, or directly to a PC.

6.1 Ethernet Cable Configuration

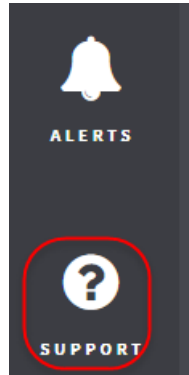
Note: The standard connector view shown is color-coded for a straight-through cable.

Crossover cable		Pin #1	Straight- through cable	
RJ-45 PIN	RJ-45 PIN		RJ-45 PIN	RJ-45 PIN
1 Rx+	3 Tx+		1 Rx+	1 Tx+
2 Rx-	6 Tx-		2 Rx-	2 Tx-
3 Tx+	1 Rx+		3 Tx+	3 Rx+
6 Tx-	2 Rx-		6 Tx-	6 Rx-

7 Support, Service & Warranty

7.1 Contacting Technical Support

With ProSoft Connect, you may click on the Support link at any time to initiate a chat with Support about issues in ProSoft Connect, or gateways managed by ProSoft Connect.



ProSoft Technology, Inc. is committed to providing the most efficient and effective support possible. Before calling, please gather the following information to assist in expediting this process:

- 1 Product Version Number
- 2 System architecture
- 3 Network details

If the issue is hardware related, we will also need information regarding:

- 1 Module configuration and associated ladder files, if any
- 2 Module operation and any unusual behavior
- 3 Configuration/Debug status information
- 4 LED patterns
- 5 Details about the serial, Ethernet or Fieldbus devices interfaced to the module, if any.

Note: For technical support calls within the United States, ProSoft's 24/7 after-hours phone support is available for urgent plant-down issues. Detailed contact information for all our worldwide locations is available on the following page.

Asia Pacific	Europe / Middle East / Africa
<p>Regional Office Phone: +603.7724.2080 asiapc@prosoft-technology.com Languages spoken: Bahasa, Chinese, English, Japanese, Korean REGIONAL TECH SUPPORT support.ap@prosoft-technology.com</p> <p>North Asia (China, Hong Kong) Phone: +86.21.5187.7337 china@prosoft-technology.com Languages spoken: Chinese, English REGIONAL TECH SUPPORT support.ap@prosoft-technology.com</p> <p>Southwest Asia (India, Pakistan) Phone: +91.98.1063.7873 india@prosoft-technology.com Languages spoken: English, Hindi, Urdu</p> <p>Australasia (Australia, New Zealand) Phone: +603.7724.2080 pacific@prosoft-technology.com Language spoken: English</p> <p>Southeast Asia (Singapore, Indonesia, Philippines) Phone: +603.7724.2080 seasia@prosoft-technology.com Languages spoken: English, Bahasa, Tamil</p> <p>Northeast & Southeast Asia (Japan, Taiwan, Thailand, Vietnam, Malaysia) Phone: +603.7724.2080 neasia@prosoft-technology.com Languages spoken: English, Chinese, Japanese</p> <p>Korea Phone: +603.7724.2080 korea@prosoft-technology.com Languages spoken: English, Korean</p>	<p>Regional Office Phone: +33.(0)5.34.36.87.20 europe@prosoft-technology.com Languages spoken: French, English REGIONAL TECH SUPPORT support.emea@prosoft-technology.com</p> <p>Middle East & Africa Phone: +971.4.214.6911 mea@prosoft-technology.com Languages spoken: Hindi, English REGIONAL TECH SUPPORT support.emea@prosoft-technology.com</p> <p>North Western Europe (UK, IE, IS, DK, NO, SE) Phone: +44.(0)7415.864.902 nweurope@prosoft-technology.com Language spoken: English</p> <p>Central & Eastern Europe, Finland Phone: +48.22.250.2546 centraleurope@prosoft-technology.com Languages spoken: Polish, English, Russian & CIS Phone: +7.499.704.53.46 russia@prosoft-technology.com Languages spoken: Russian, English</p> <p>Austria, Germany, Switzerland Phone: +33.(0)5.34.36.87.20 germany@prosoft-technology.com Language spoken: English, German</p> <p>BeNeLux, France, North Africa Phone: +33(0)5.34.36.87.27 france@prosoft-technology.com Languages spoken: French, English</p> <p>Mediterranean Countries Phone: +39.342.8651.595 italy@prosoft-technology.com Languages spoken: Italian, English, Spanish</p>

Latin America	North America
<p>Regional Office Phone: +52.222.264.1814 support.la@prosoft-technology.com Languages spoken: Spanish, English REGIONAL TECH SUPPORT support.la@prosoft-technology.com</p> <p>Brazil Phone: +55.11.5084.5178 brasil@prosoft-technology.com Languages spoken: Portuguese, English REGIONAL TECH SUPPORT support.la@prosoft-technology.com</p> <p>Mexico Phone: +52.222.264.1814 mexico@prosoft-technology.com Languages spoken: Spanish, English REGIONAL TECH SUPPORT support.la@prosoft-technology.com</p> <p>Andean Countries, Central America & Caribbean Phone: +507.6427.48.38 andean@prosoft-technology.com Languages spoken: Spanish, English</p> <p>Southern Cone (Argentina, Bolivia, Chile, Paraguay & Uruguay) Phone: +54.911.4565.8119 scone@prosoft-technology.com Languages spoken: Spanish, English</p>	<p>Regional Office Phone: +1.661.716.5100 info@prosoft-technology.com Languages spoken: English, Spanish REGIONAL TECH SUPPORT support@prosoft-technology.com</p>

7.2 Warranty Information

For complete details regarding ProSoft Technology's TERMS & CONDITIONS OF SALE, WARRANTY, SUPPORT, SERVICE AND RETURN MATERIAL AUTHORIZATION INSTRUCTIONS, please see the documents at:

www.prosoft-technology.com/legal

Documentation is subject to change without notice.

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