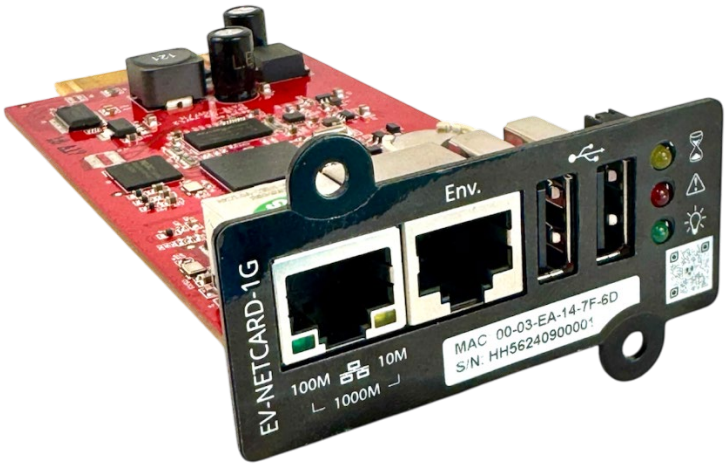
MINUTEMAN®
POWER TECHNOLOGIES
by Para Systems, Inc.

Envision Netcard

EV-NETCARD-1G

User's Manual



Technical Support and Contact Information

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Table of Contents

Chapter 1: INTRODUCTION

1.1 Features

The Envision EV-NETCARD-1G is a SNMP (Simple Network Management Protocol) card for monitoring and management of Minuteman UPS products. The EV-NETCARD-1G provides remote control of UPS as well as monitoring of its current status. It can also support connections to a compatible modem for sending SMS notification. The EV-NETCARD-1G is compatible with the EV-PROBE-TH and its sensors for monitoring ambient temperature, humidity and water status. The EV-NETCARD-1G is simple to install. Follow the directions found in the Quick Install Guide, included with your purchase. It can also be download from the Minuteman website at: https://minutemanups.com/resource-library or use the QR Code below:

For the installation of multiple EV-NETCARD-1G cards, Minuteman offers its Envision Utility software to configure IP addresses and set up configurations for central monitoring and multiple shutdowns on different operating system platforms. The Envision Utility can be downloaded from https://minutemanups.com/resource-library. Once installed, each card can be configured with advance options and settings via the Web browser interface.

Features:

(1) Provides the SNMP MIB to monitor & control UPS using any standard Network Management System, (NMS)
(2) Auto-sense 10M/100M/1000M Fast Ethernet or configure via Telnet, Web Browser or NMS
(3) Support TCP/IP, UDP, SNMP, Telnet, SNTP, PPP, HTTP, HTTPS, SMTP, FTP, Modbus, BACnet Protocols
(4) Support SSL/TLS, SSH Encryptions
(5) Provides easy setup and upgrade tools
(6) Send SNMP TRAP; E-mail and SMS for events notifications.
(7) Auto email daily UPS history report
(8) Perform graceful shutdown of networked devices with our Minuteman software
(9) Add-on optional EV-PROBE-TH for temperature, humidity monitoring and alarms. Optional, water, smoke and contact sensors are also available
(10) Can be used with an optional, third-party WiFi dongle add-on for wireless network access
(11) SMS notification capability using optional, third-party GPRS modem add-on

1.2 Applications

- **EV-NETCARD-1G allows UPS to be monitored over a network**
  When the EV-NETCARD-1G is installed in a UPS, the IT/Network Manager can monitor each and every UPS condition via a networked computer using an industry-standard Web Browser or NMS.
  Using a standard Web Browser, simply type the IP address of the EV-NETCARD-1G card into the URL field to access the User Interface of the card. When integrated into an NMS, the EV-NETCARD-1G will issue a trap alarm when an abnormal power abnormal condition occurs. Management Information Base, (MIB), and Object information Database, (OID), files used for integrating the EV-NETCARD-1G card into a SNMP network can be found, and downloaded, from the Minuteman website at: https://minutemanups.com/resource-library
- **Envision Provides Shutdown Utilities**
  During an AC failure event, or when a UPS is in a Low-battery condition, the Envision software, when loaded on a networked computer that is connected to the EV-NETCARD-1G card, can be configured to save and close all open files and applications before gracefully shutting down the operating system and powering off the computer. This feature can be critical in avoiding system corruption when a power anomaly occurs.
- **EV-NETCARD-1G for Environmental Monitoring**
  The EV-NETCARD-1G card, with its USB ports, can be connected to an optional environmental sensor/hub, the EV-PROBE-TH, to provide ambient temperature/humidity/smoke/fire alarms. These alarms can also be received on the Envision web page. When used with an NMS, and an abnormal condition happens, an alarm trap can be sent to the IT/Network Manager.

Chapter 2: EV-NETCARD-1G CARD

2.1 EV-NETCARD-1G LED Indicator

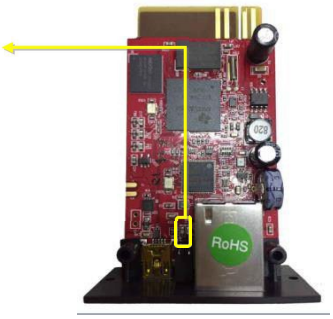
Green	
On	**Flashing**
100 Mbps	Sending/ Receiving Data

Yellow	
On	**Flashing**
10 Mbps	Sending/ Receiving Data

When Green and Yellow LED are both ON, the card is operating in 1000M mode

Status	Power On	Communication Lost	Updating Firmware
Yellow  SNMP-XX-X	ON	ON	OFF
Red  UPS Communication	OFF	Flashing	Flashing
Green  Power	ON	ON	ON

D5		D4
Green 		Blue 
Power		Communication
On	Off	Flashing
Normal	No Power	Sending/Receiving Data



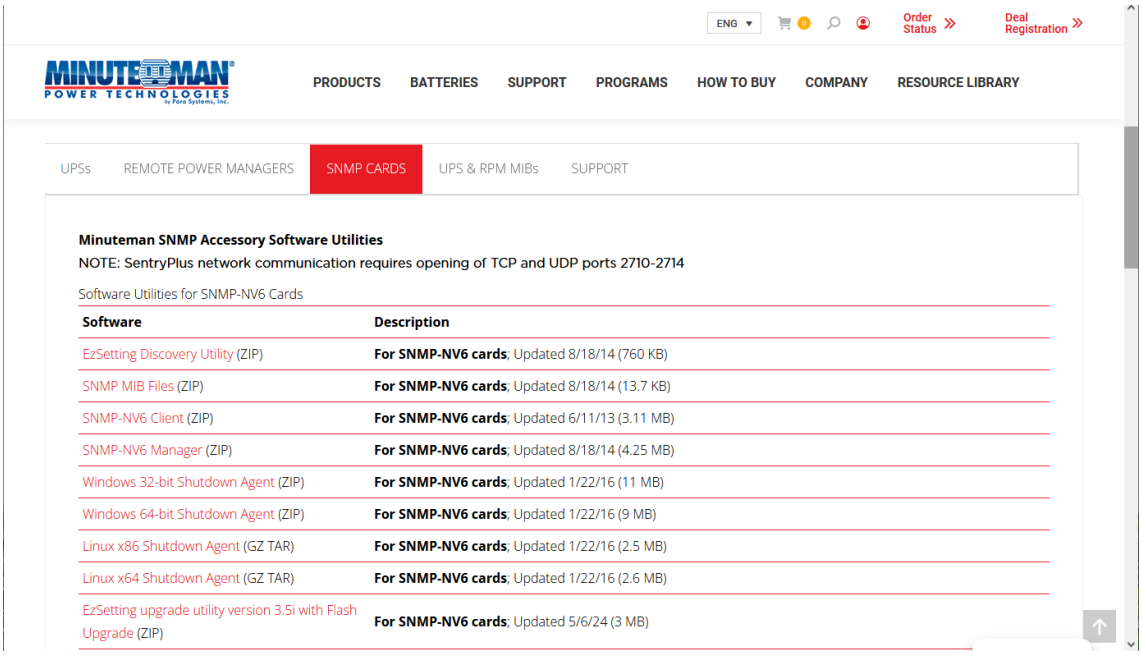
NOTE : When the RED LED is flashing, the card is updating firmware. DO NOT remove power until the update is complete.

Chapter 3: Software Installation

3.1 Envision Software Installation

- **Free download**

  The Envision installation utility software is available, free of charge, from the minuteman.com Resource Library. Go to: https://minutemanups.com/resource-library and choose the **Network Accessories & Software** tab from the menu options. Select: **Envision Utility Software** and follow the download instructions



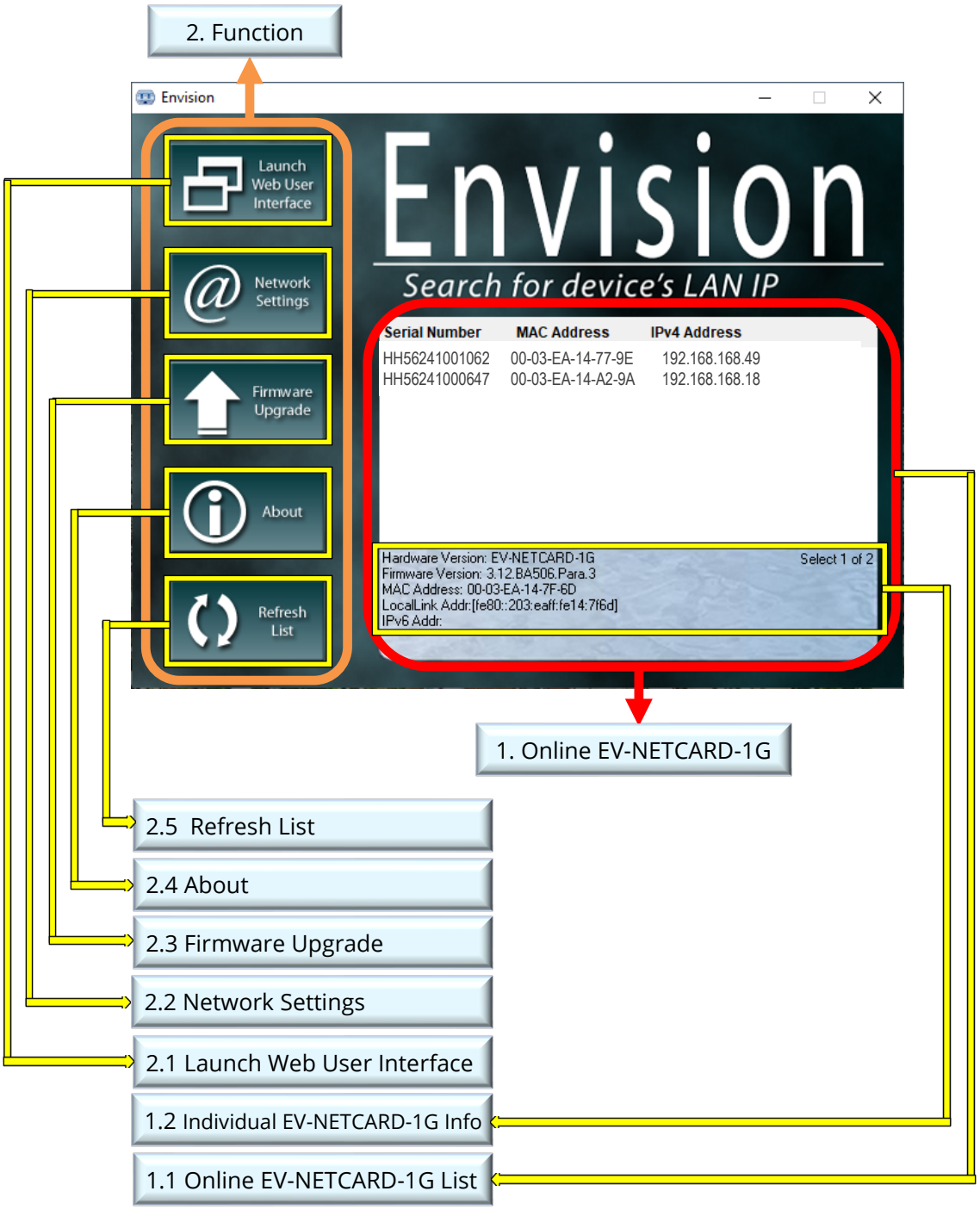
Chapter 4: ENVISION OPERATION AND SETTINGS

- **Introduction**

  Once the Envision utility is installed and running, it can be used to discover, access and provide firmware updates to all the EV-NETCARD-1G cards on the connected network.

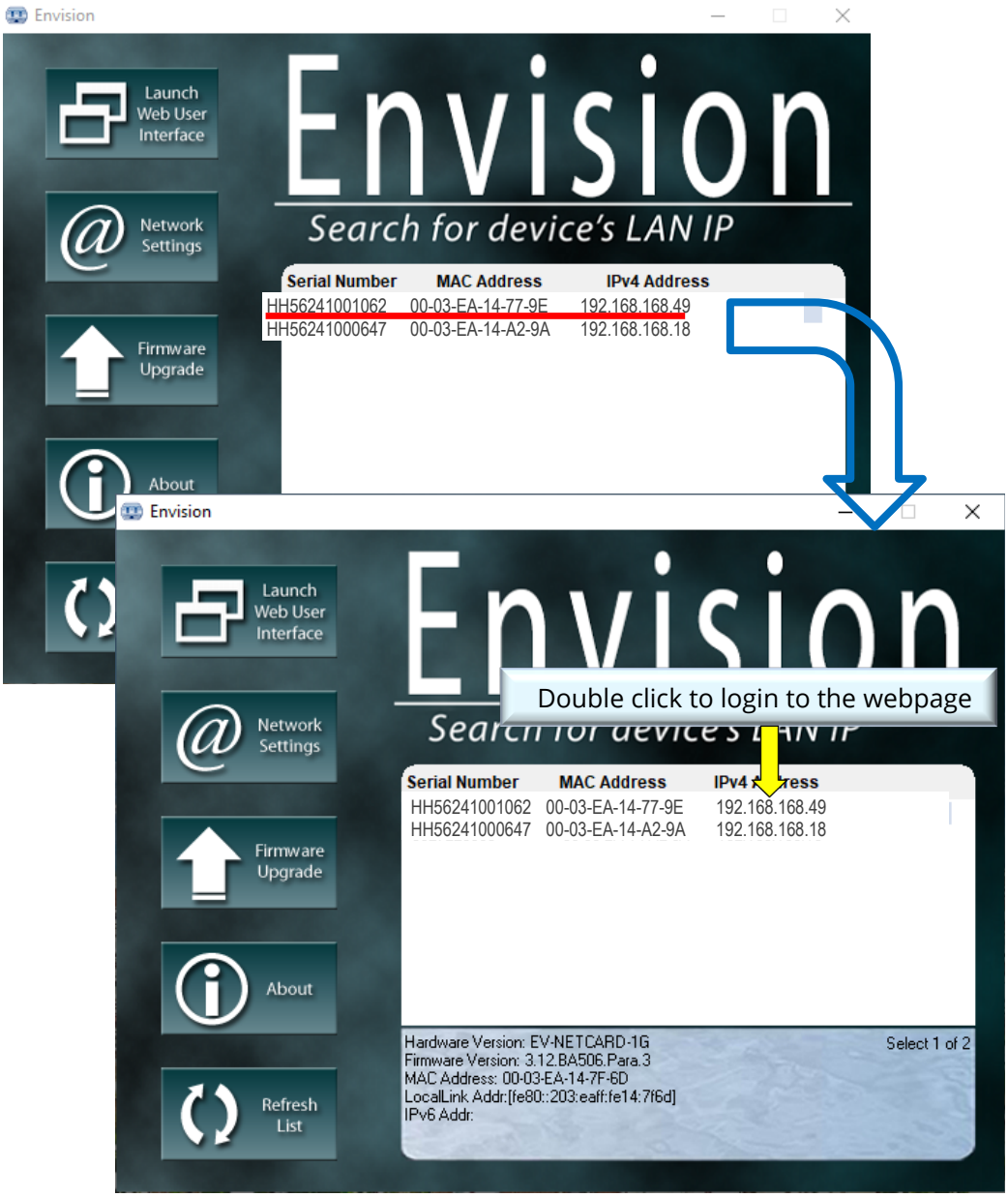
The Envision utility main page is divided into 2 sections:

1. Online EV-NETCARD-1G List **2. Function Selection**



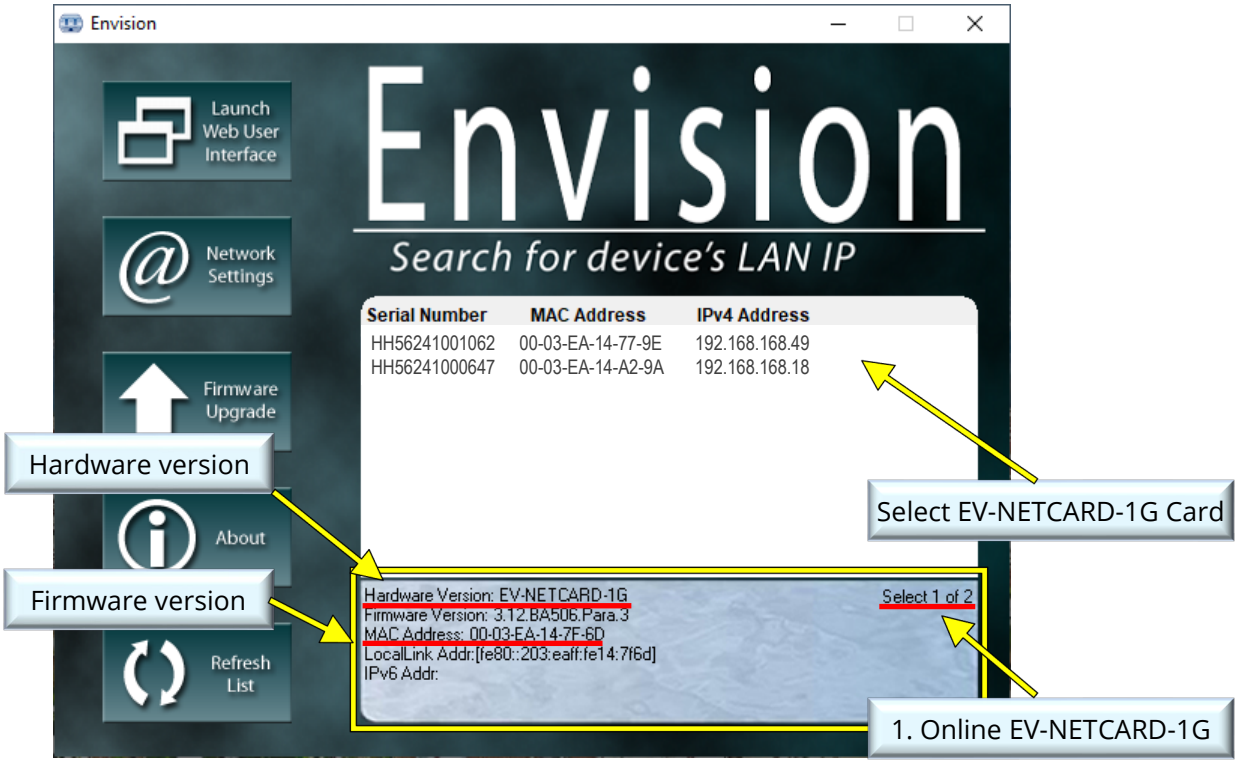
4.1 Online EV-NETCARD-1G Discovery

When the Envision utility software is opened, it automatically searches all the available online EV-NETCARD-1G cards within the network, displaying the serial number, IP address, MAC address. Double click on the specific EV-NETCARD-1G card with a valid IP address and it will open that card's webpage. (The list automatically refreshes every 2 minutes.)



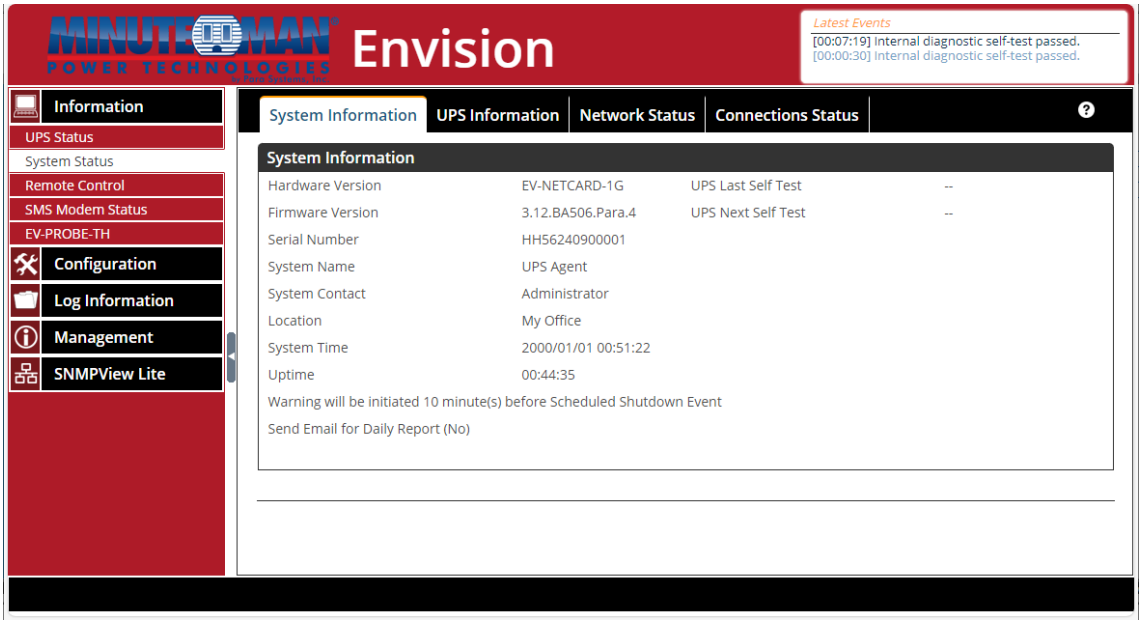
■ Individual EV-NETCARD-1G Info

Click on any specific EV-NETCARD-1G card and the bottom section will show its hardware and firmware version as well as the MAC address. It also identifies the total number of EV-NETCARD-1G cards found by Envision on the network and number of selected cards.



■ Launch Web User Interface

Select the specific EV-NETCARD-1G card from the list and click on Launch Web User Interface to login to the EV-NETCARD-1G card's webpage.



■ Network Settings

When connecting the EV-NETCARD-1G card for the first time, ensure the IP-address and other network settings are entered correctly in order to login to the EV-NETCARD-1G card's webpage via a web browser or HyperTerminal.

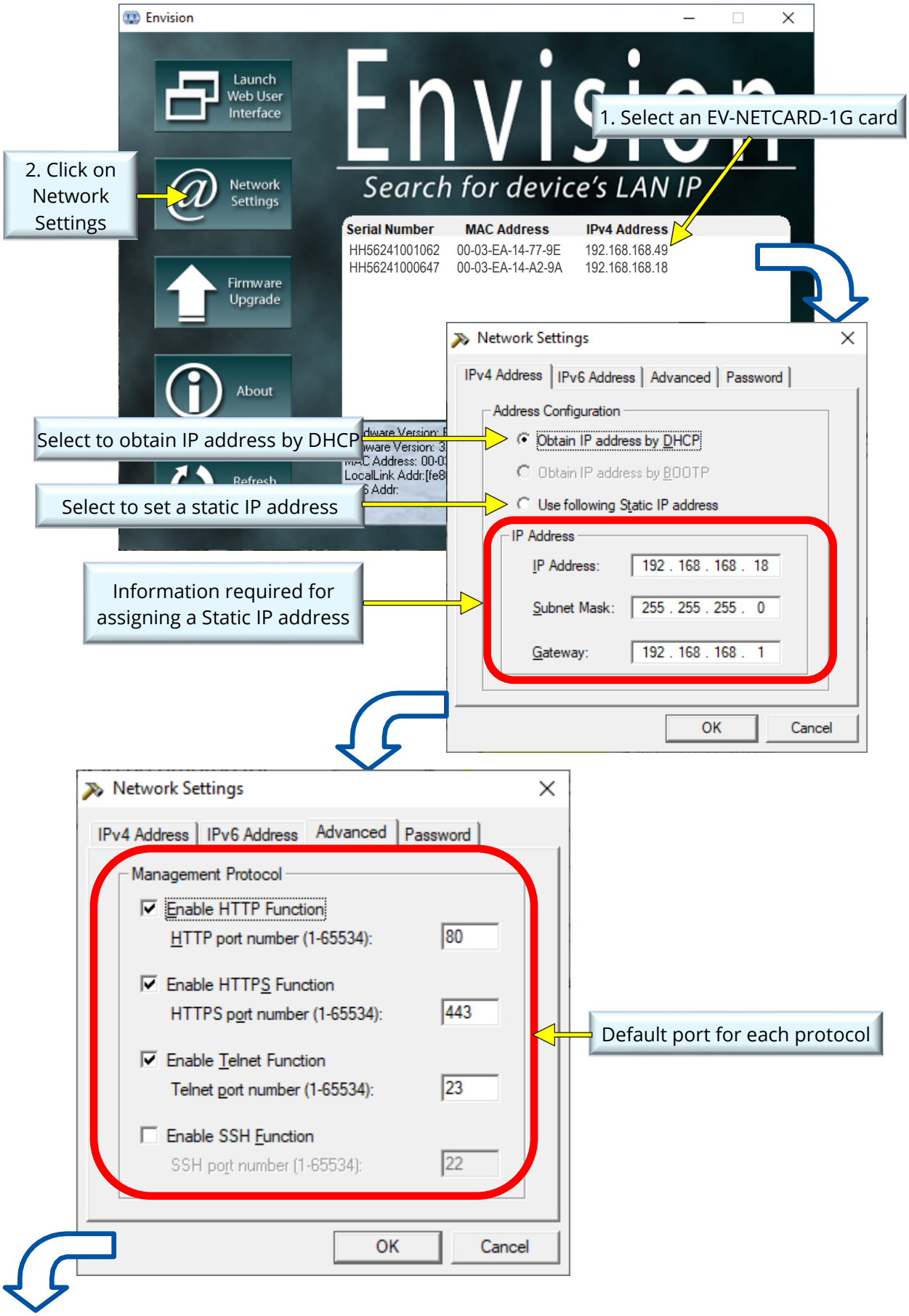
When choosing to obtain IP address by DHCP or BOOTP, the IP address and other network parameters will be assigned by the network

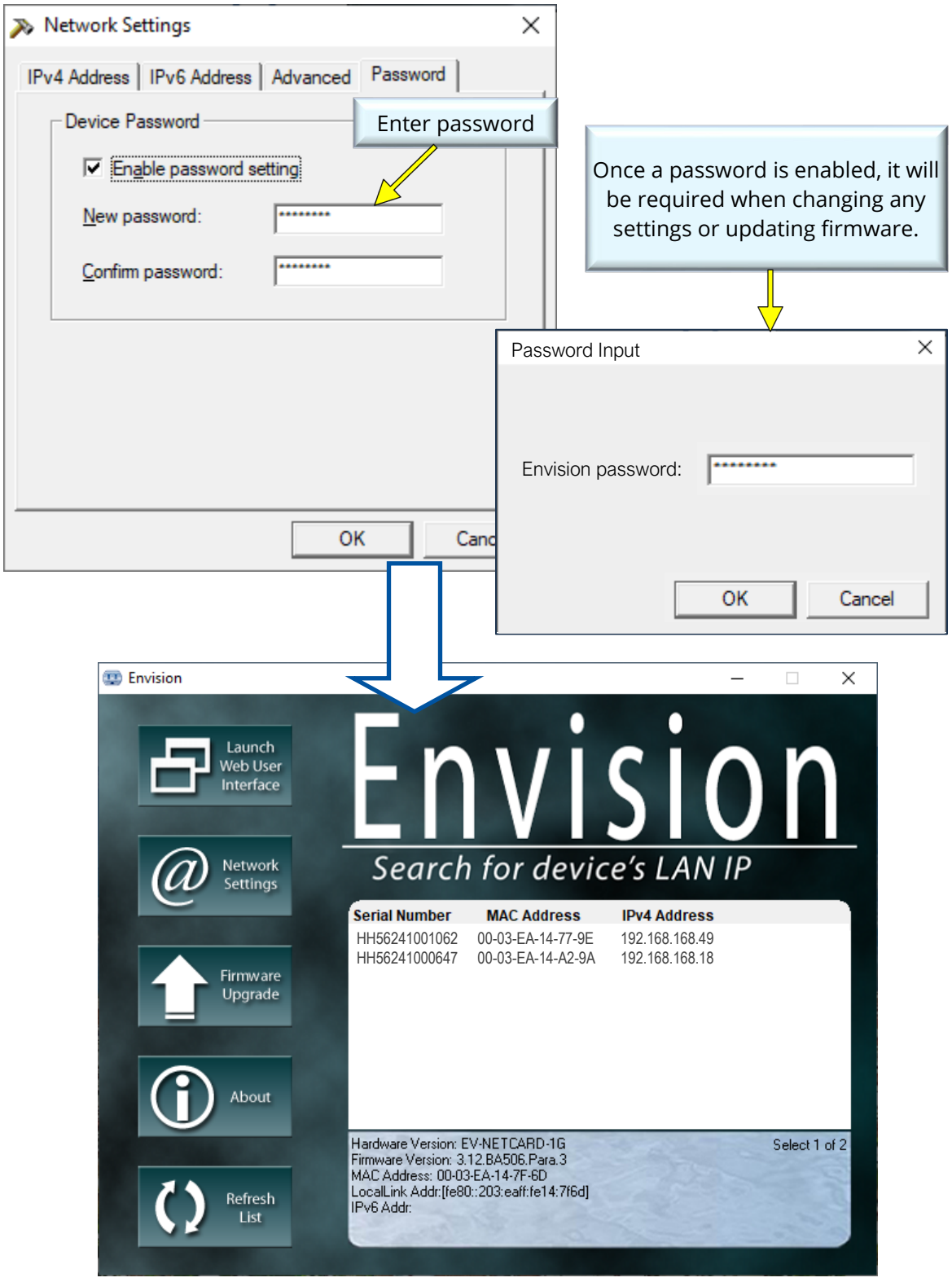
EV-NETCARD-1G supports four network protocols - HTTP / HTTPS / TELNET / SSH for management and security preferences. If any changes are made to the port number, entering the full IP address with the new port number will be required in order to login.

- Example: HTTP port number is changed to 81
  The full address entered on the browser should be "http://192.168.1.100:81" (192.168.1.100 is the IP address of the EV-NETCARD-1G)
- Example: The Telnet port number is changed to 24
  The full address entered on HyperTerminal should be "http:// 192.168.1.100 24" (192.168.1.100 is the IP address of the EV-NETCARD-1G)

4.2 Envision Login Procedure

When using a password to access the EV-NETCARD-1G is enabled, it is necessary to enter the correct password before making any configuration changes and firmware upgrades.


Envision
Launch Web User Interface
Network Settings
Firmware Upgrade
About
Refresh
Envision
Search for device's LAN IP
Serial Number
MAC Address
IPv4 Address
HH56241001062
00-03-EA-14-77-9E
192.168.168.49
HH56241000647
00-03-EA-14-A2-9A
192.168.168.18
1. Select an EV-NETCARD-1G card
2. Click on Network Settings
Select to obtain IP address by DHCP
Select to set a static IP address
Information required for assigning a Static IP address
Network Settings
IPv4 Address
IPv6 Address
Advanced
Password
Address Configuration
Obtain IP address by DHCP
Obtain IP address by BOOTP
Use following Static IP address
IP Address
IP Address:
192 . 168 . 168 . 18
Subnet Mask:
255 . 255 . 255 . 0
Gateway:
192 . 168 . 168 . 1
OK
Cancel
Network Settings
IPv4 Address
IPv6 Address
Advanced
Password
Management Protocol
Enable HTTP Function
HTTP port number (1-65534):
80
Enable HTTPS Function
HTTPS port number (1-65534):
443
Enable Telnet Function
Telnet port number (1-65534):
23
Enable SSH Function
SSH port number (1-65534):
22
OK
Cancel
Default port for each protocol


Network Settings
IPv4 Address
IPv6 Address
Advanced
Password
Device Password
Enter password
Enable password setting
New password:
Confirm password:
OK
Once a password is enabled, it will be required when changing any settings or updating firmware.
Password Input
Envision password:
OK
Cancel
Envision
Launch Web User Interface
Network Settings
Firmware Upgrade
About
Refresh List
Envision
Search for device's LAN IP
Serial Number
MAC Address
IPv4 Address
HH56241001062
00-03-EA-14-77-9E
192.168.168.49
HH56241000647
00-03-EA-14-A2-9A
192.168.168.18
Hardware Version: EV-NETCARD-1G
Firmware Version: 3.12.BA506.Para.3
MAC Address: 00-03-EA-14-7F-6D
LocalLink Addr:[fe80::203:eaff:fe14:7f6d]
IPv6 Addr:
Select 1 of 2

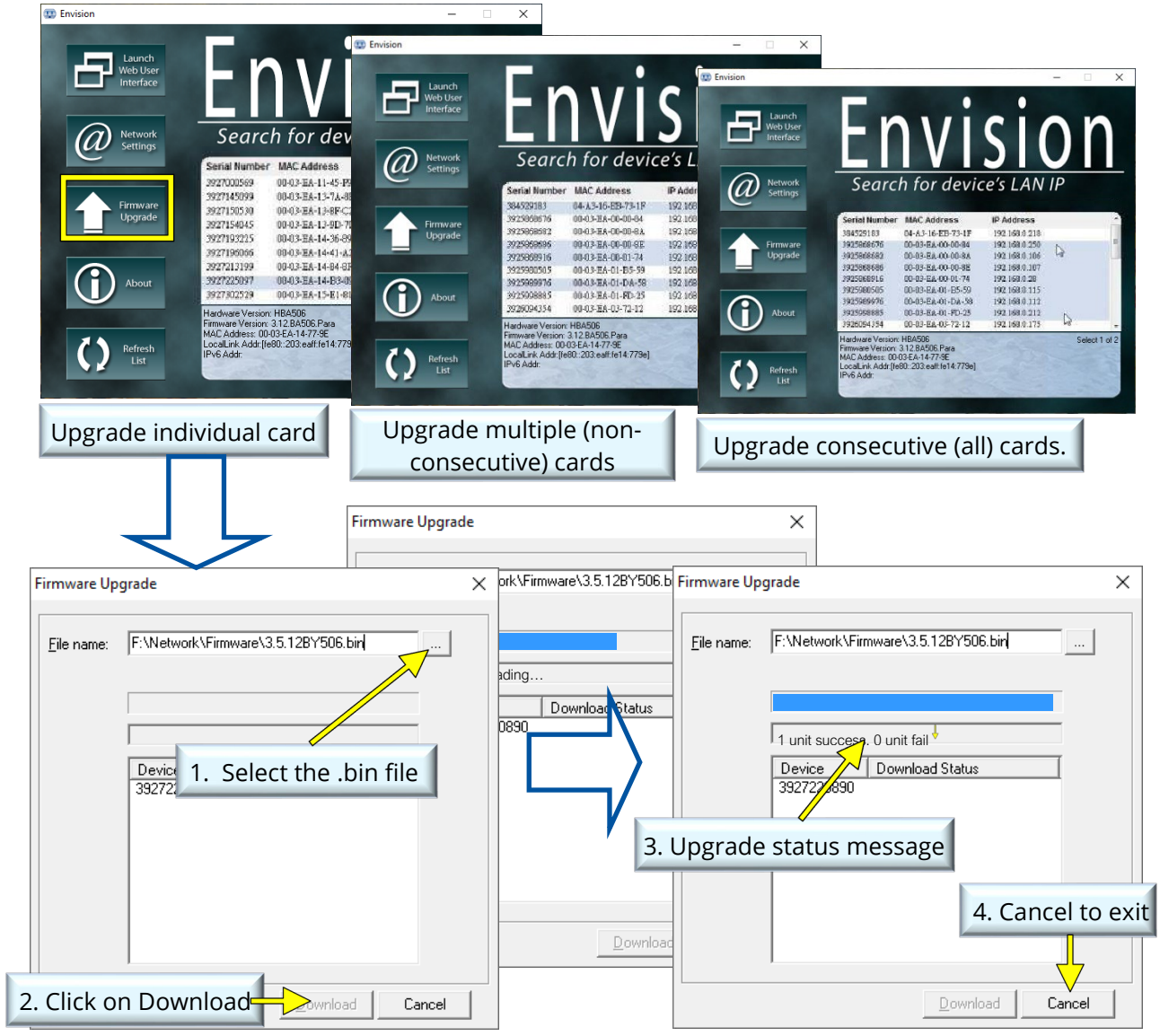
4.3 Firmware Upgrade

- To check for the latest available version of the EV-NETCARD-1G firmware, go to https://minutemanups.com/resource-library and look under the **Network Accessories & Software** section. Verify the selected firmware is for the EV-NETCARD-1G and is compatible with the hardware version of the card.
- Options for updating the firmware of the EV-NETCARD-1G:
  (1) Select the specific EV-NETCARD-1G card from the Envision utility list.
  (2) Press and hold the CTRL key then select multiple EV-NETCARD-1G cards from the list. This option will allow the upgrading of multiple cards at the same time.
  (3) Select the first EV-NETCARD-1G card from the Envision utility list, then press and hold on SHIFT key before selecting the last of the EV-NETCARD-1G cards from the list. This option will allow the upgrading of all the EV-NETCARD-1G cards from the list.

★ **WARNING:** Please make sure when selecting multiple EV-NETCARD-1G cards, they are same model.

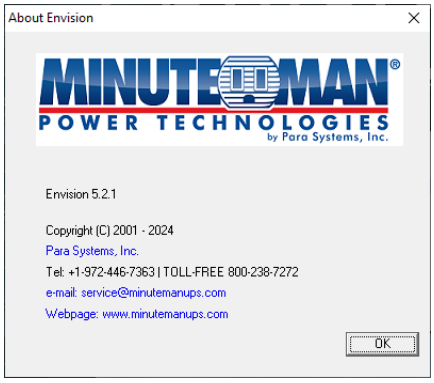
★ **WARNING:** If there are any failures during firmware upgrade process, restart the process from the beginning until the entire upgrade is successful.

- During the upgrade process, either the red and yellow LED will alternatingly flash, or red LED will only flash. DO NOT remove power or the network connection to the EV-NETCARD-1G card until the firmware is successfully upgraded. When the upgrade is complete, the EV-NETCARD-1G card will reboot automatically.



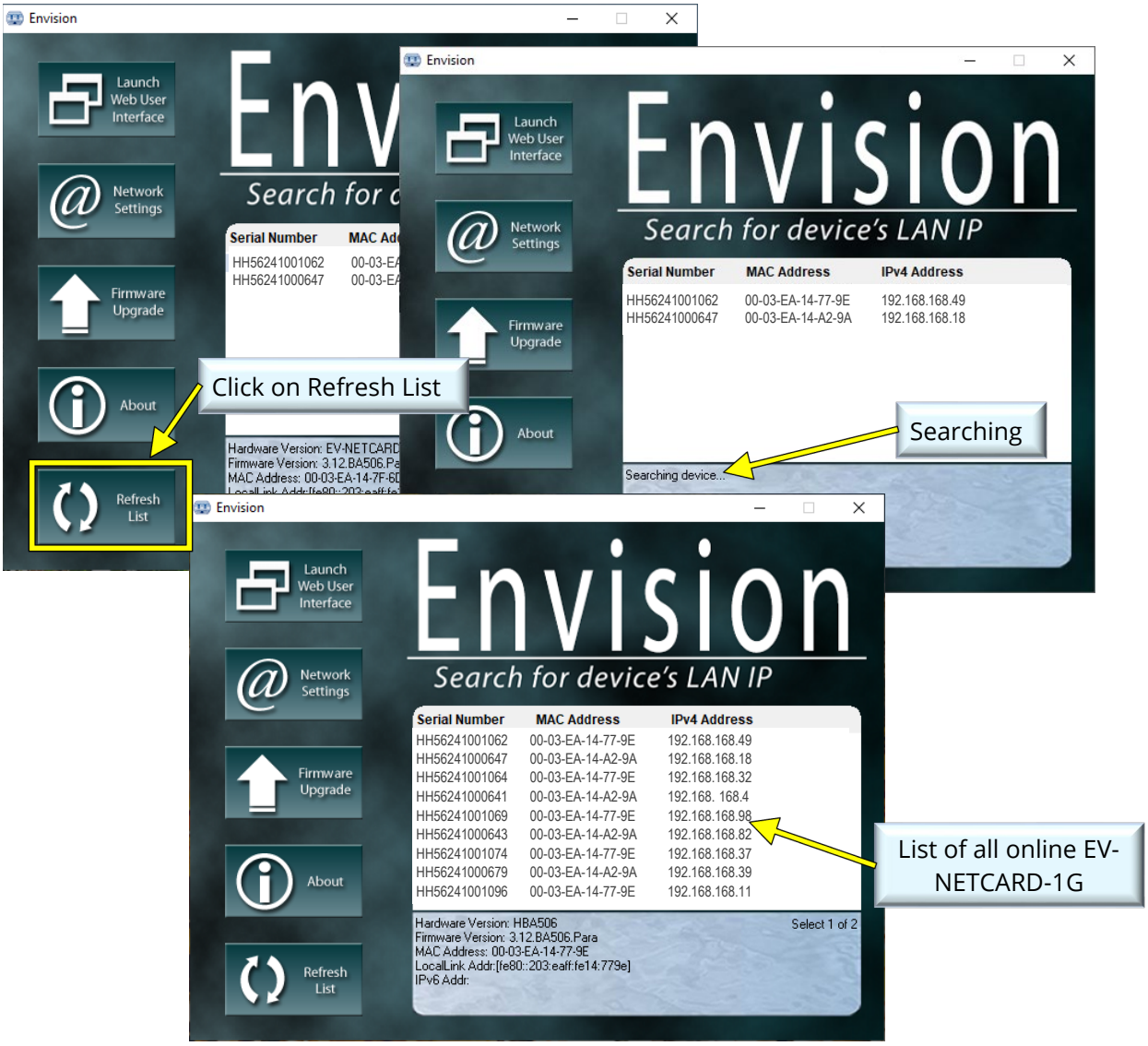
■ About

Shows the current Envision utility version



■ Refresh List

The list of EV-NETCARD-1G cards found by the Envision utility will automatically refresh every two minutes. However, it is also possible to manually refresh the list by selecting the Refresh List icon.

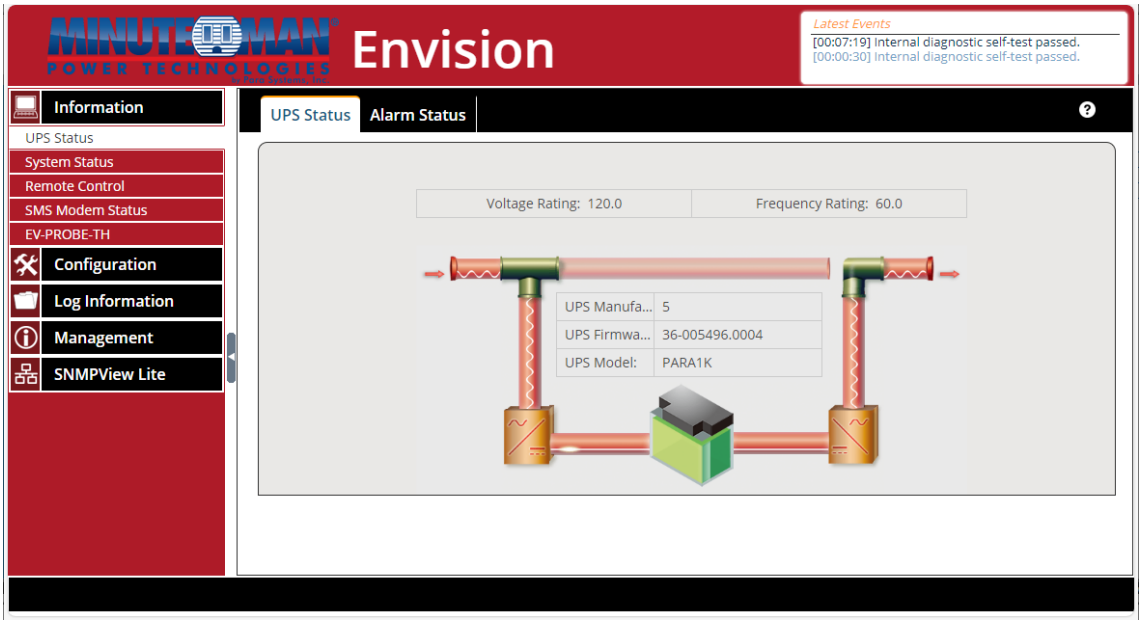


4.4 EV-NETCARD-1G Web Interface & Settings

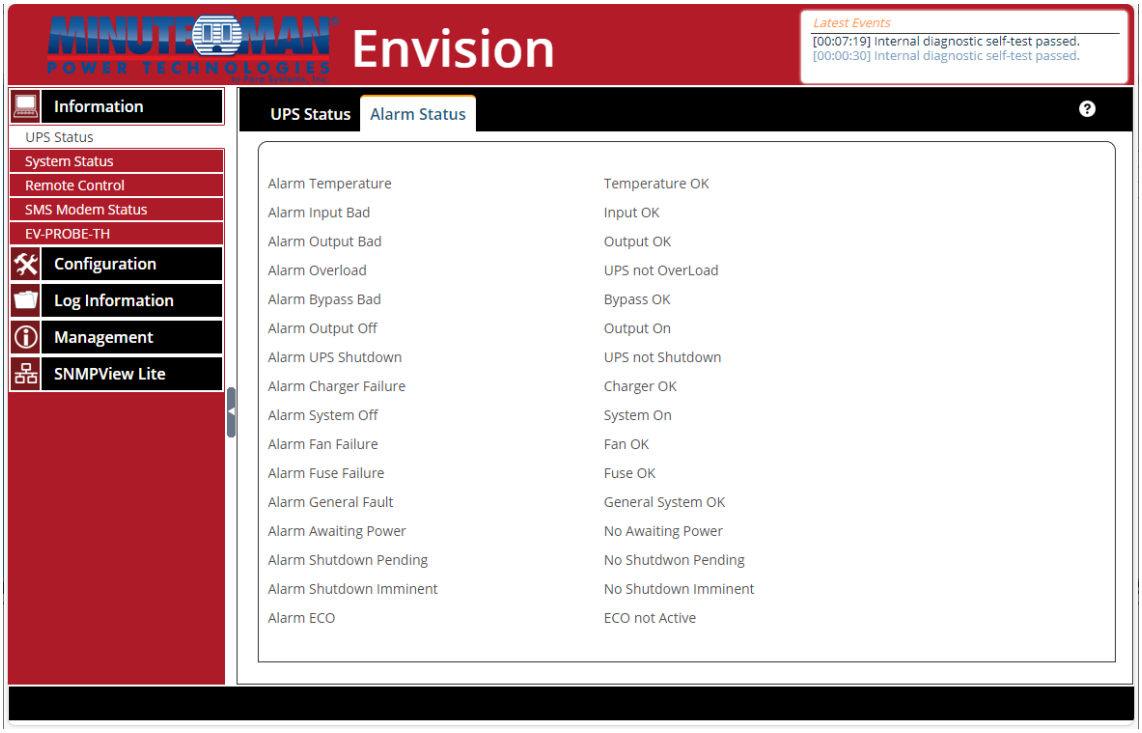
4.4.1 Information

■ UPS Status

- **UPS Status** - This page provides the current UPS connection status in graphic mode with Voltage, Frequency and other information.

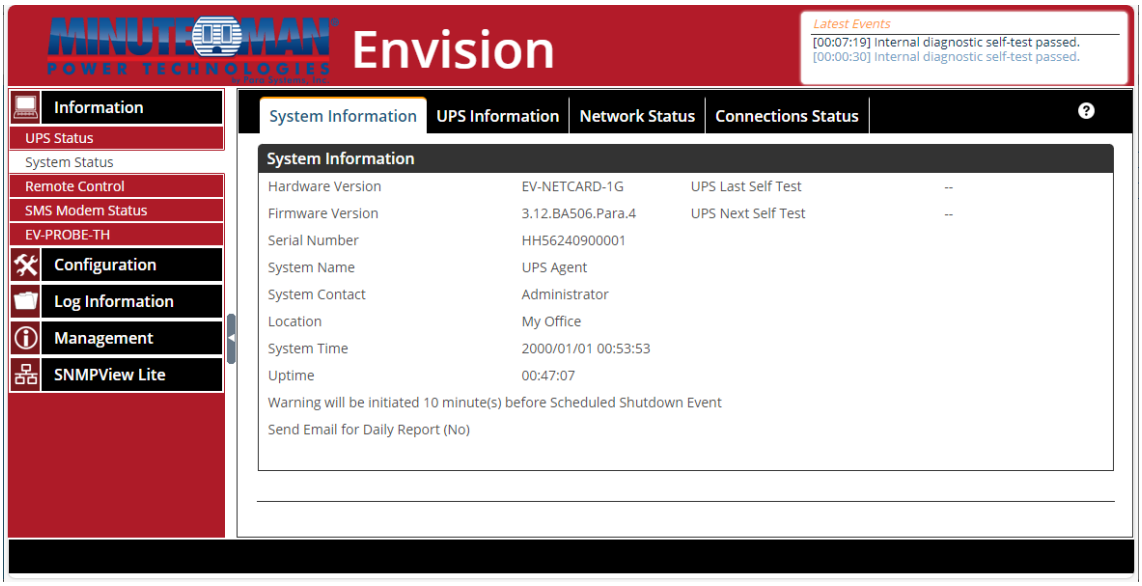


- **Alarm Status** - The Alarm Status page offers a current status of the various active alarm monitoring.

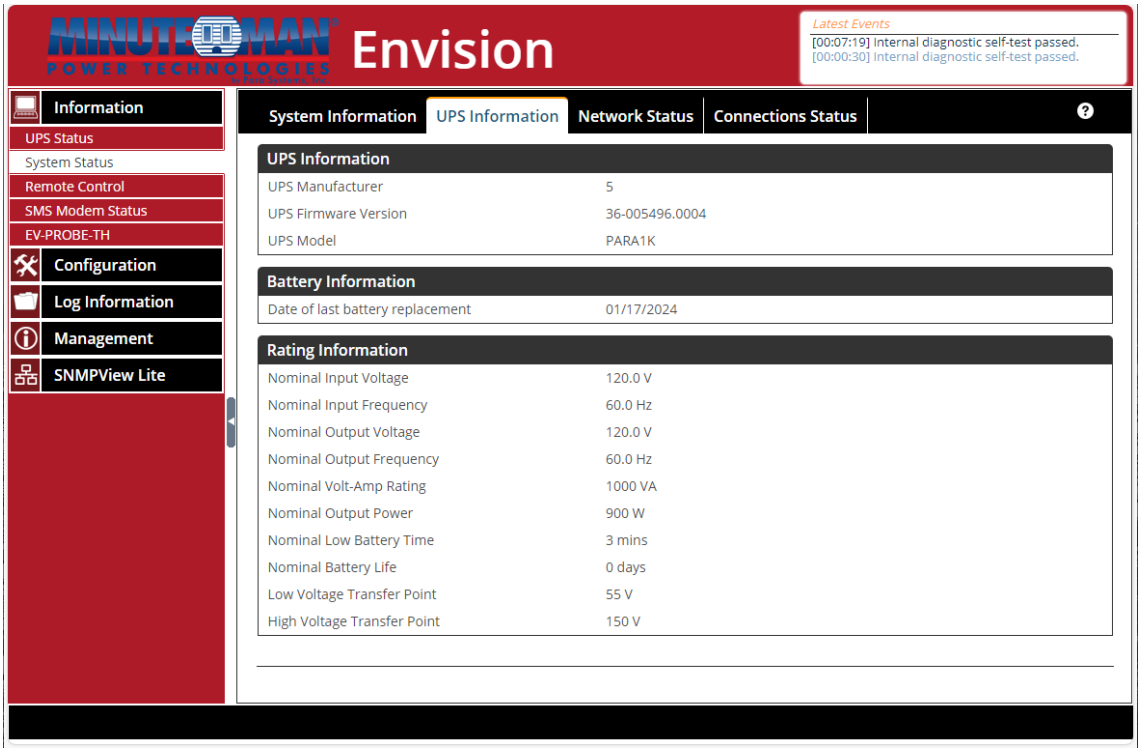


System Status

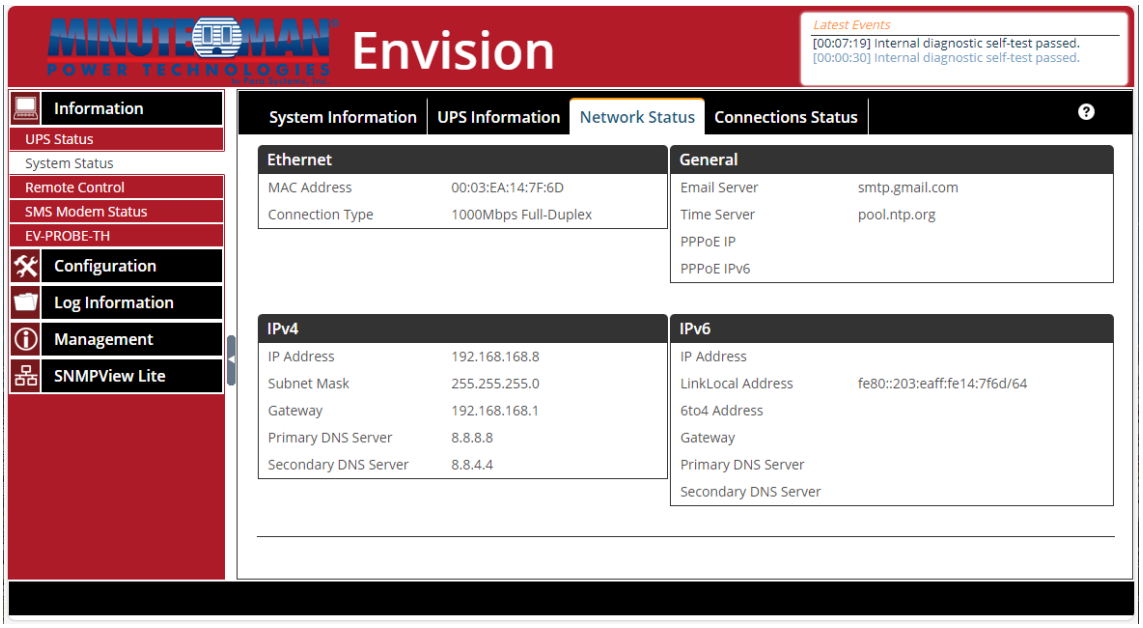
- **System Information** - The System Information screen provides all the basic information for the EV-NETCARD-1G such as hardware and firmware versions, Serial Number, UPS/card location, testing schedule, etc.



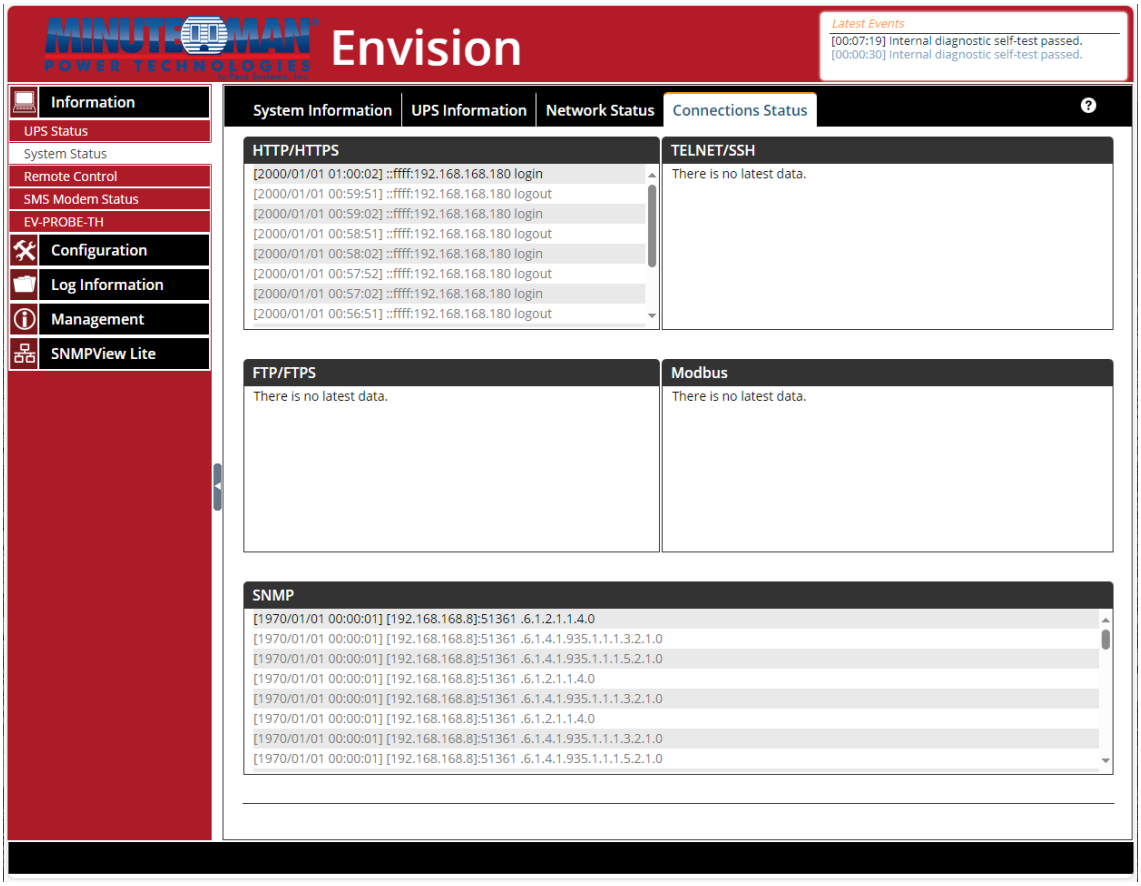
- **UPS Information** - The UPS Information page shows UPS and Battery Information. This data is obtained directly from the UPS or the settings from the UPS Configuration webpage



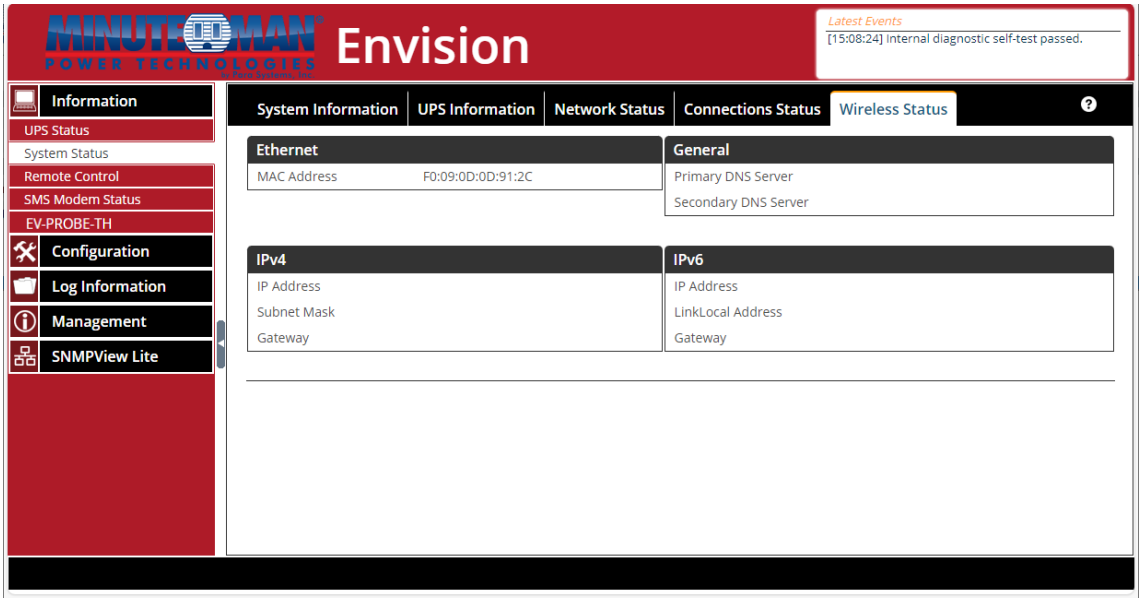
- **Network Status** - The Network Status page provides the network address information of active EV-NETCARD-1G card.



- **Connection Status** - The Connection Status page a log connection events for the various communication protocols on the active EV-NETCARD-1G card.

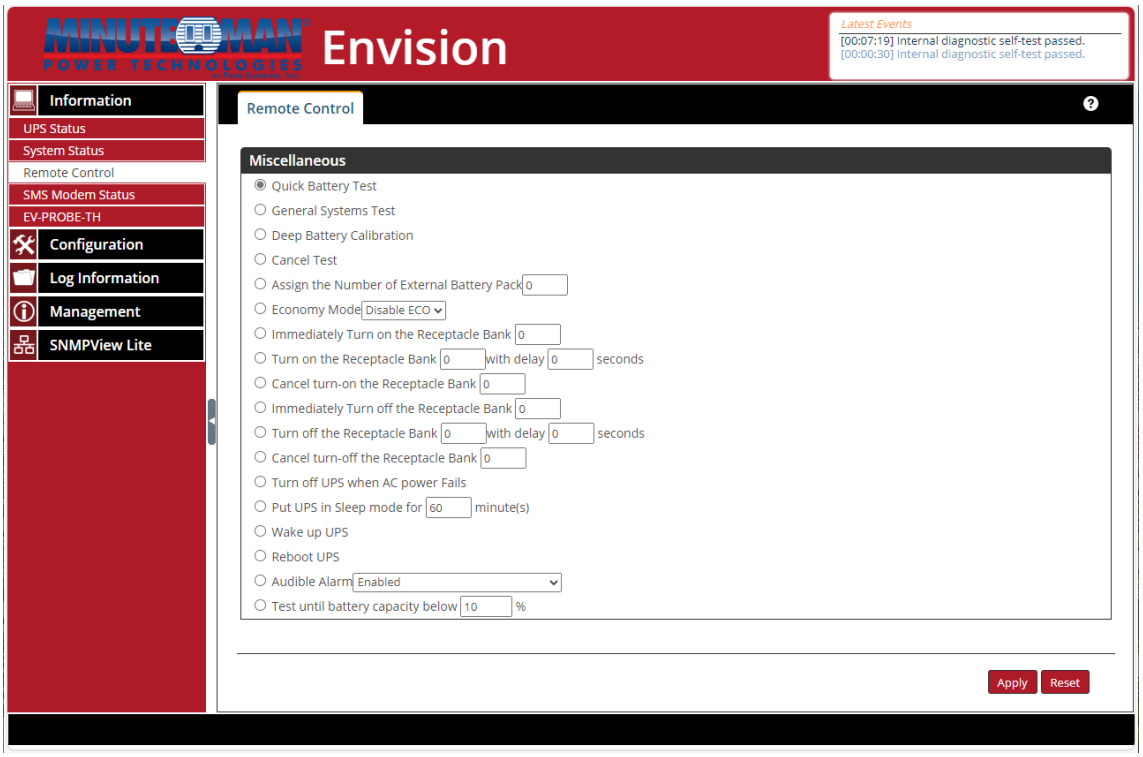


- **Wireless Status** - The Wireless Status page will appear when a Wi-Fi dongle is attached to the EV-NETCARD-1G card. It will provide the details of the network configuration information for the attached dongle.



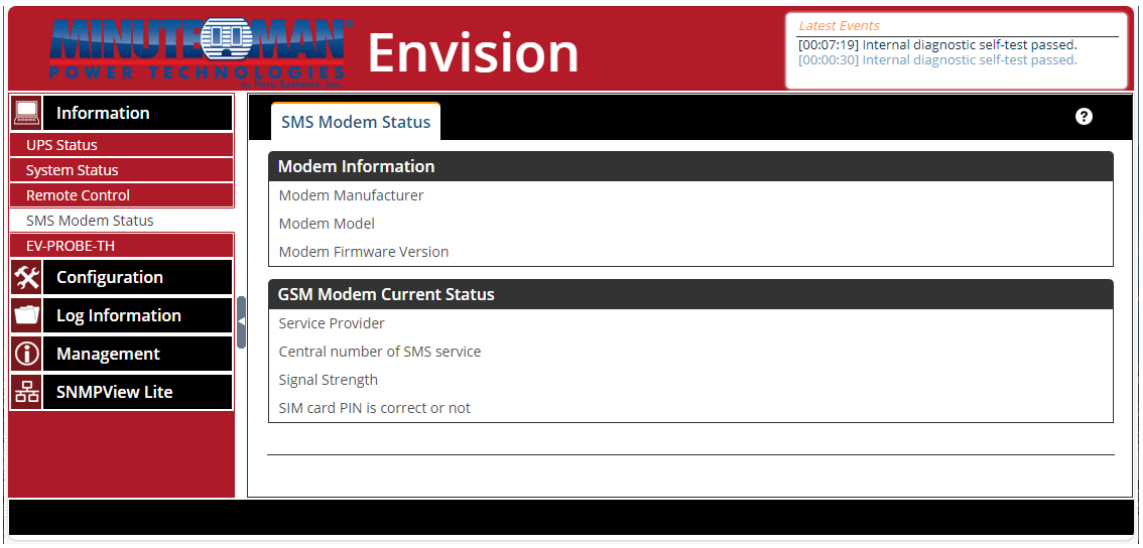
Remote Control

The Remote Control page can be used to remotely perform a variety of tests to the UPS. Select the test to be performed and then click on the Apply icon to execute it.



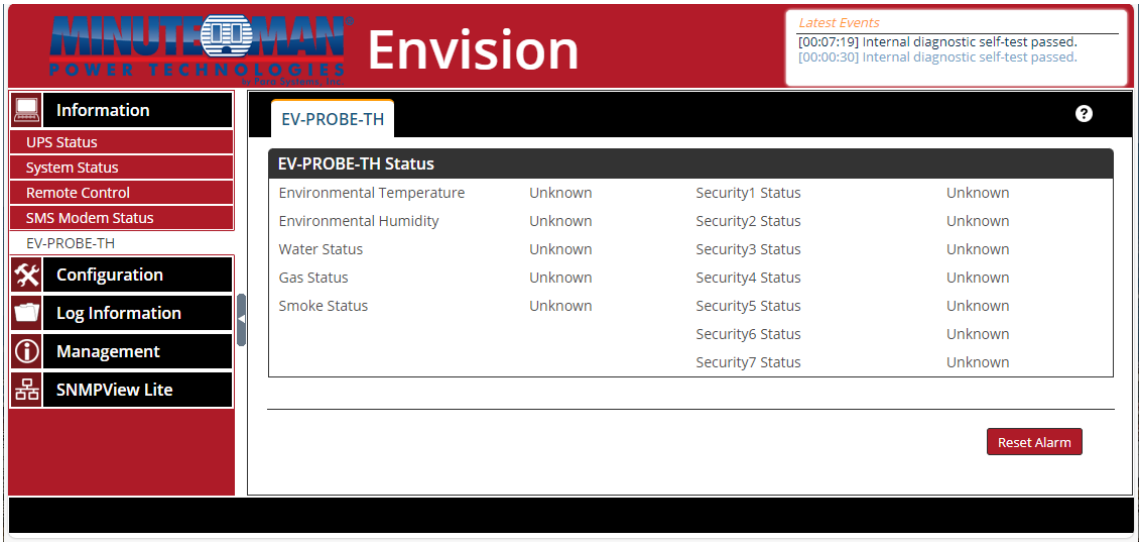
■ SMS Modem Status

When the EV-NETCARD-1G connected to an optional SMS modem, this status page will provide the details of the Modem and its connection status.



■ EV-PROBE-TH

This page shows the environmental status of the location where the EV-PROBE-TH is installed. It will also include status information for any attached sensors that are connected EV-PROBE-TH and the EV-NETCARD-1G.



4.4.2 Configuration

■ UPS Configuration

- **UPS Properties (Please refer to your UPS specification)** - The default values listed on the Configuration>UPS page are reported from the connected UPS. **WARNING:** Any changes made to these values will affect the alarm reporting status of the Envision software.

  – UPS Communication Type: In order to establish the connection between EV-NETCARD-1G and your Minuteman UPS model, confirm the UPS Communication Type is set to: **Minuteman**.

  If the EV-NETCARD-1G card does not recognize the attached UPS, contact Minuteman support at: support@minutemanups.com for assistance.

  – Date of Last Battery Replacement: The default date should be the original date of manufacture for the UPS. When replacing batteries, enter the date the new batteries are installed, using the format: mm/dd/yyyy

  – Nominal Input Voltage (V): Displays the default alarm threshold for the nominal input utility voltage standard used by the UPS and its connected equipment. (120V, 208V, 220V, 230V or 240V). To change the alarm setting, enter a new value in the field and confirm by pressing "Apply"

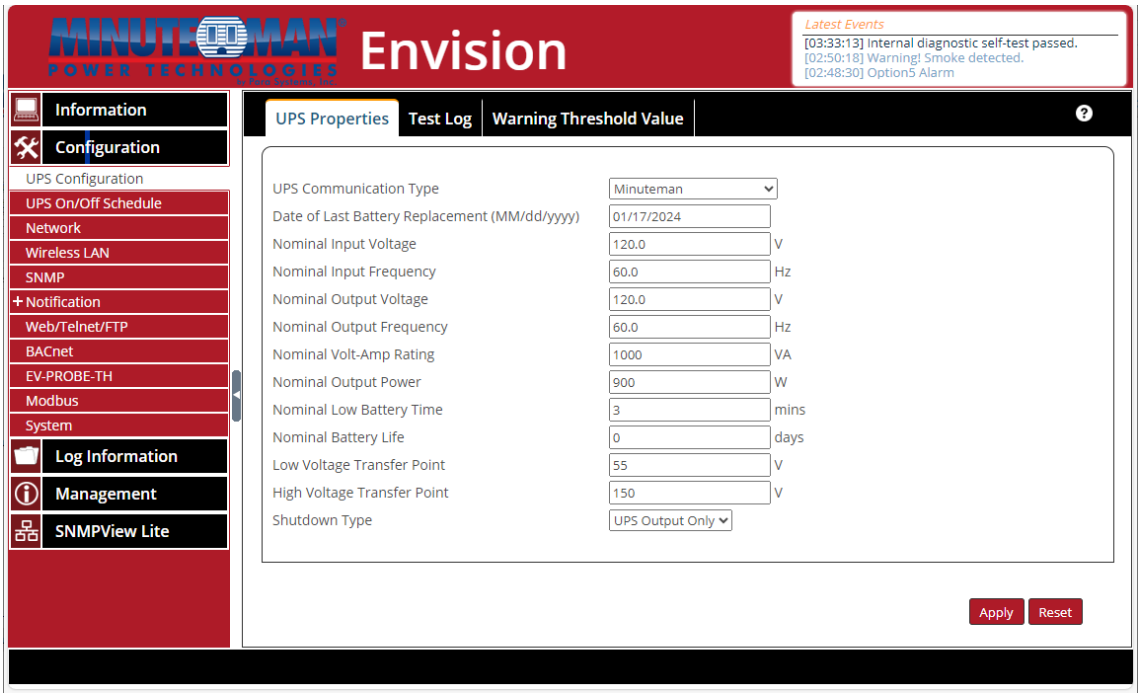
  – Nominal Input Frequency (Hz): Displays the default alarm threshold for the nominal input utility frequency standard used by the UPS and its connected equipment. (50Hz or 60Hz). To change the alarm setting, enter a new value in the field and confirm by pressing "Apply"

  – Nominal Output Voltage (V): Displays the default alarm threshold for the nominal output voltage standard provided by the UPS, to its connected equipment. (120V, 208V, 220V, 230V or 240V). To change the alarm setting, enter a new value in the field and confirm by pressing "Apply"

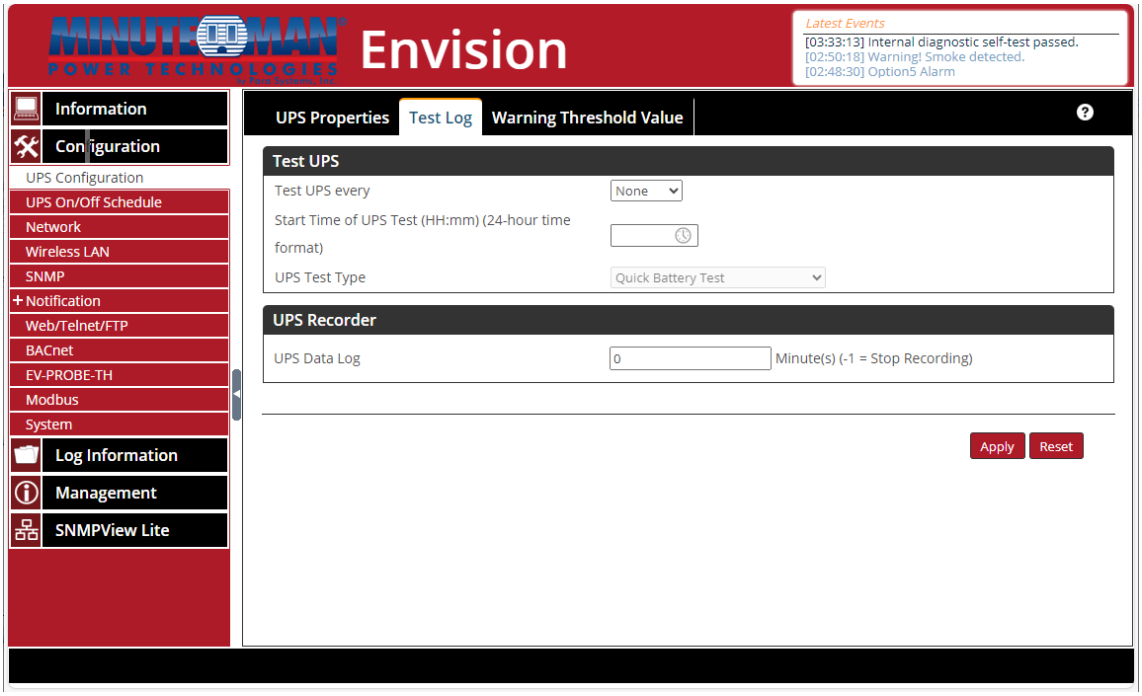
  – Nominal Output Frequency (Hz): Displays the default alarm threshold for the nominal

output frequency standard provided by the UPS, to its connected equipment. (50Hz or 60Hz) To change the alarm setting, enter a new value in the field and confirm by pressing "Apply"

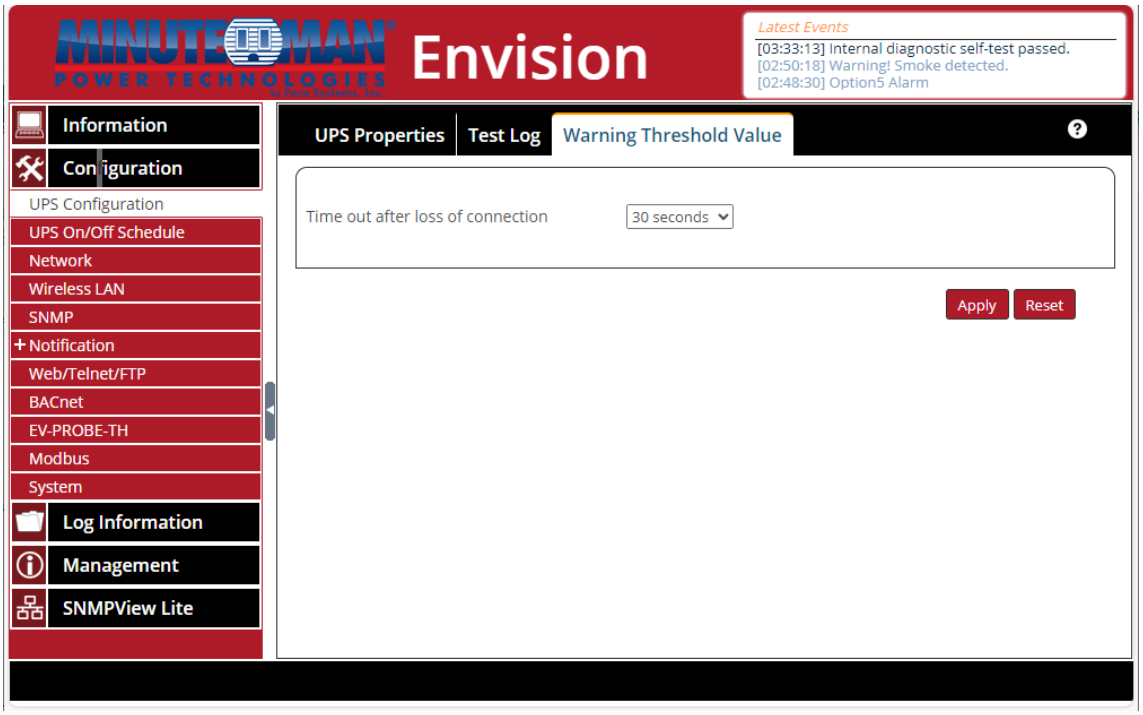
- Nominal Volt-Amp Rating (VA): Displays the default alarm threshold for the maximum capacity of the connected UPS.
- To change the alarm setting, select the field, enter the new value then press "Apply" to confirm.
- Nominal Output Power (W): Displays the default alarm threshold for the maximum connected load attached to the UPS. To change the alarm setting, enter a new value in the field and confirm by pressing "Apply"
- Nominal Low Battery Time (mins): Displays the default estimated runtime of the UPS in battery mode during a blackout. To change the threshold for the alarm, enter a new value in the field and confirm by pressing "Apply"
- Nominal Battery Life (days): Displays the threshold setting for age of batteries before an alarm is issued. To change the threshold for the alarm, enter a new value in the field and confirm by pressing "Apply"
- Low Voltage Transfer Point (V): Displays the lowest input utility voltage threshold alarm where the UPS will transfer to battery mode or return from battery mode. To change the threshold for the alarm, enter a new value in the field and confirm by pressing "Apply".
- High Voltage Transfer Point (V): Displays the highest input utility voltage threshold alarm where the UPS will transfer to battery mode or return from battery mode. To change the threshold for the alarm, enter a new value in the field and confirm by pressing "Apply".
- Shutdown Type: This dropdown menu lists the default setting for the UPS when performing a shutdown action. The options are: Shutdown output only or shutdown the UPS.



- **Test log**
  - Test UPS Every: Sets the options for the frequency of the testing of the UPS. (Week, 2 Weeks, Month, Quarter) are the available selections.
  - Test UPS on: The options for this setting are based on the "Test UPS Every" selection.
  - Week or 2 Weeks: Select the day for the weekly test
  - Month: Select the day of the month (1-31)
  - Quarter: Select the starting mos. then the date of the month.
  - Start Time of UPS Test (hh:mm): Enter the time of day to begin the test (using 24-hour clock)
  - UPS Test Type: Select the type of test to perform. (Quick Battery, Deep Battery, General, Low Battery Warning)
  - UPS Data Log: Enter the time, in minutes, for the recording interval of data from the UPS.

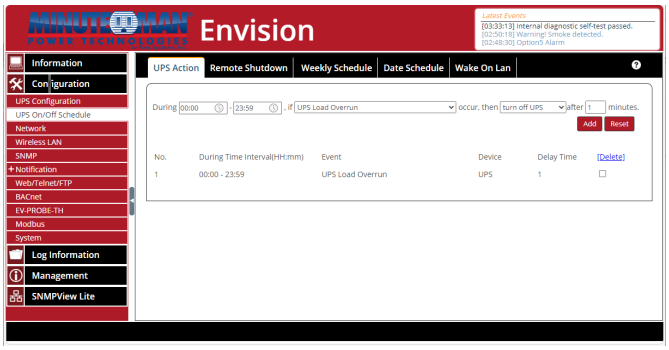


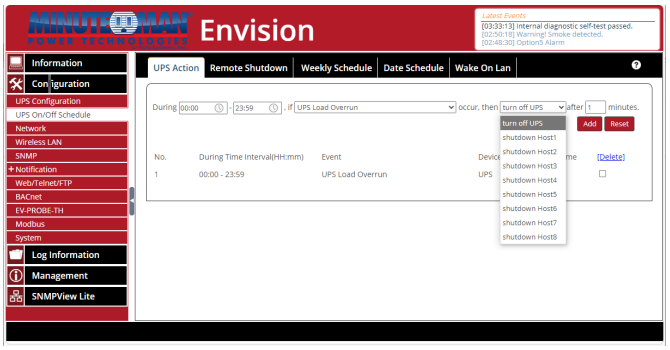
- **Warning Threshold Value** – This page is used to set the period of time after which the EV-NETCARD-1G will send a disconnection warning message. This warning message will be sent after EV-NETCARD-1G loses contact with the UPS for the time specified.

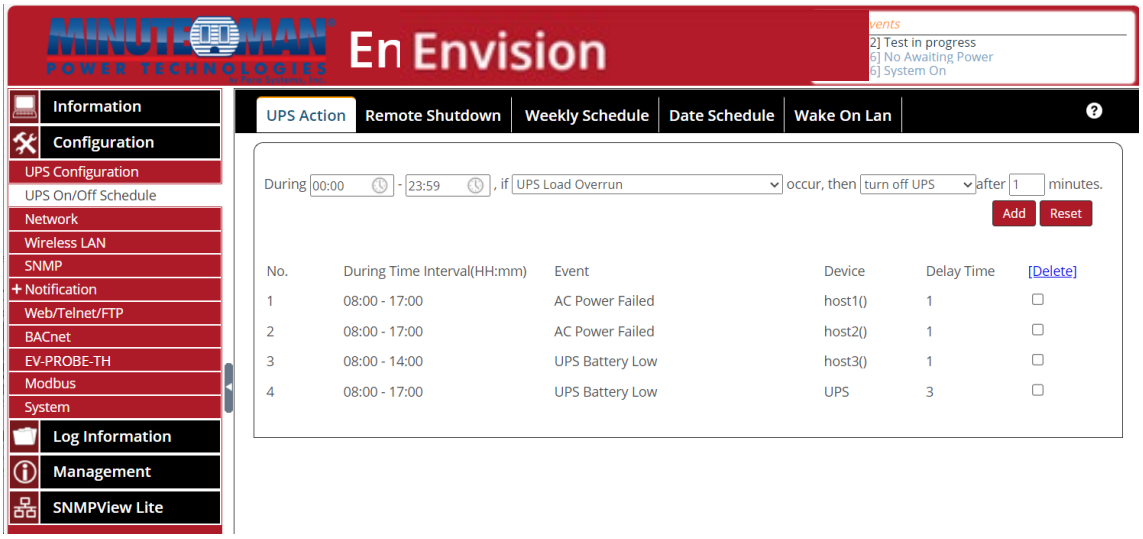


■ UPS On/Off Schedule

- **UPS Action -** This page is intended to set the parameters for UPS actions when a power or UPS event occurs. To complete the action, set the start/stop time parameters then choose the event, the UPS action and any delay, if desired. Press the “Add” icon to initiate. Multiple actions and events can be configured and implemented. To remove any action, check the right-hand box next to the action items, then select “[Delete]”.

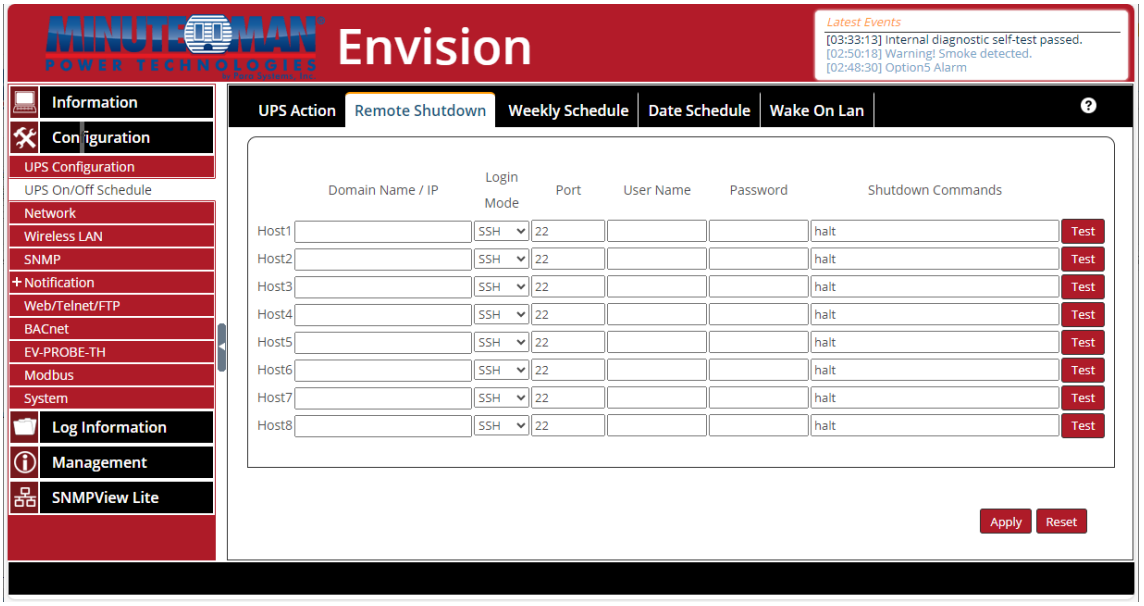






- **Remote Shutdown** - The Remote Shutdown page is intended to program the EV-NETCARD-1G card to issue a command for shutting down a network server, (or another network computer) without the use of installed shutdown software. Events need to first be added under “UPS Action” tab. Once set up, enter the IP address of the corresponding server identified on the “Remote Shutdown” tab to be shut down either by SSH or Telnet with a compatible shutdown command for the server system. (The Telnet Server must be enabled on the PC.)

  For example: To shutdown Host 1 (Windows server) and Host 2 (Linux server) after 1 minute when AC power fails, start with the “UPS Action” tab. Select the “AC Power Failed” event then select “shutdown Host 1 “ and press “Add”. The action will be added to the event list. Repeat this process for Host 2.

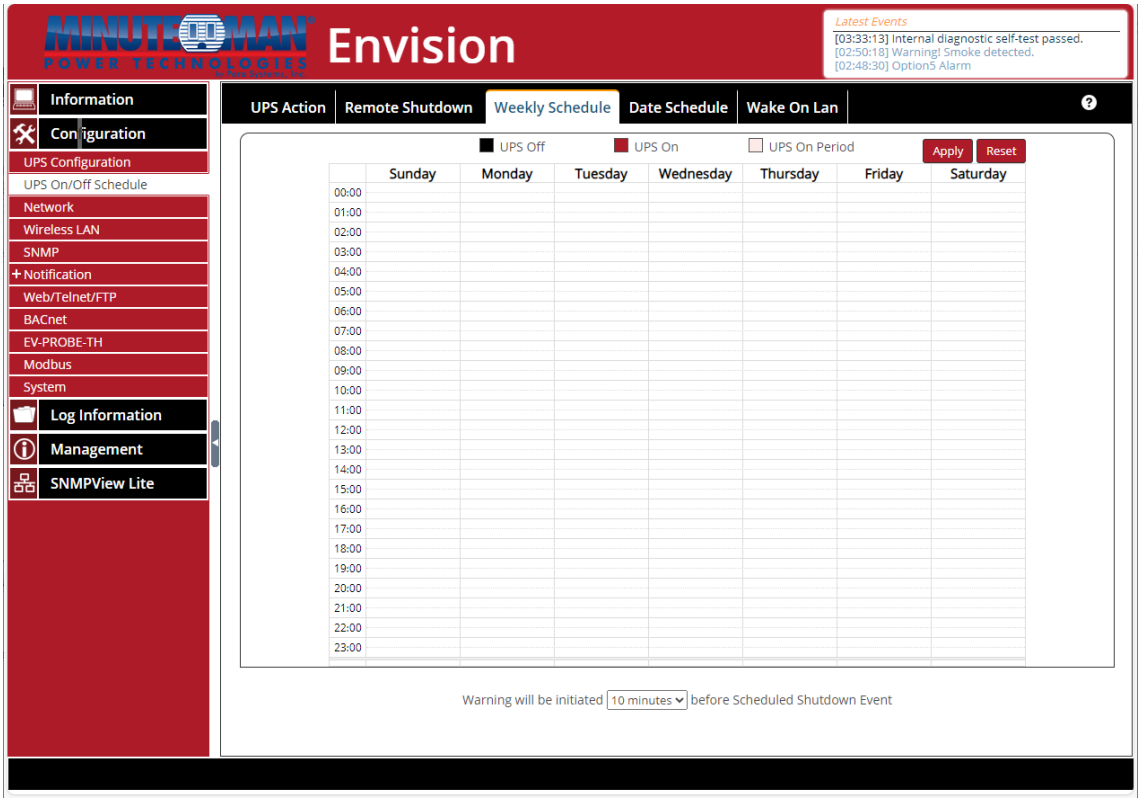


With these two actions set, go to the “Remote Shutdown” tab and enter the domain IP addresses for Host 1 and Host 2. Select either Telnet or SSH for access, enter the user name/password for the server then enter the shutdown command for that operating system. For Windows, “shutdown /s“ is the shutdown command. For Linux, “halt” is the command. For MAC OS, the shutdown command is “sudo shutdown”.

Below is a list of shutdown commands for the most popular operating systems:

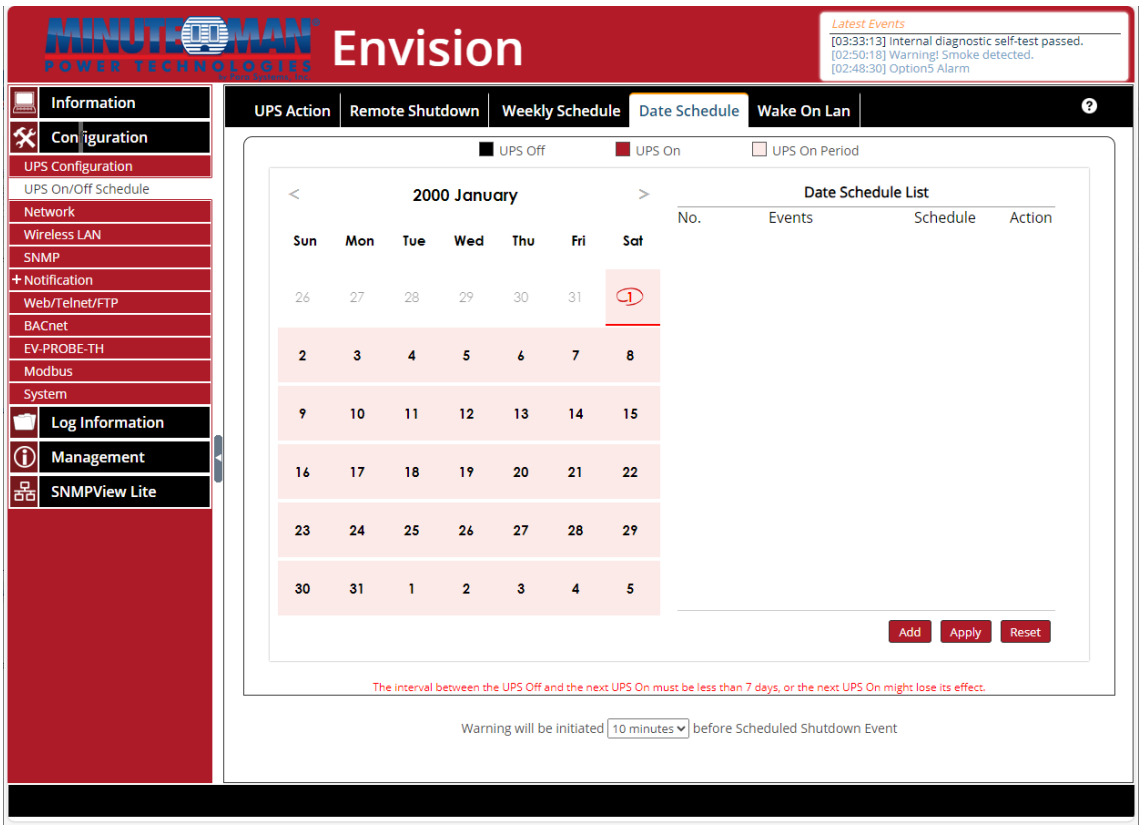
- ***Windows : shutdown/?***
- ***Linux : shutdown –help***
- ***MAC : sudo shutdown***

- **Weekly Schedule** - This tab is responsible for setting a weekly schedule to turn on/off the UPS. In the example below, the UPS is shut down at 17:00 on Friday evening and restarted at 8:00 on Monday morning.

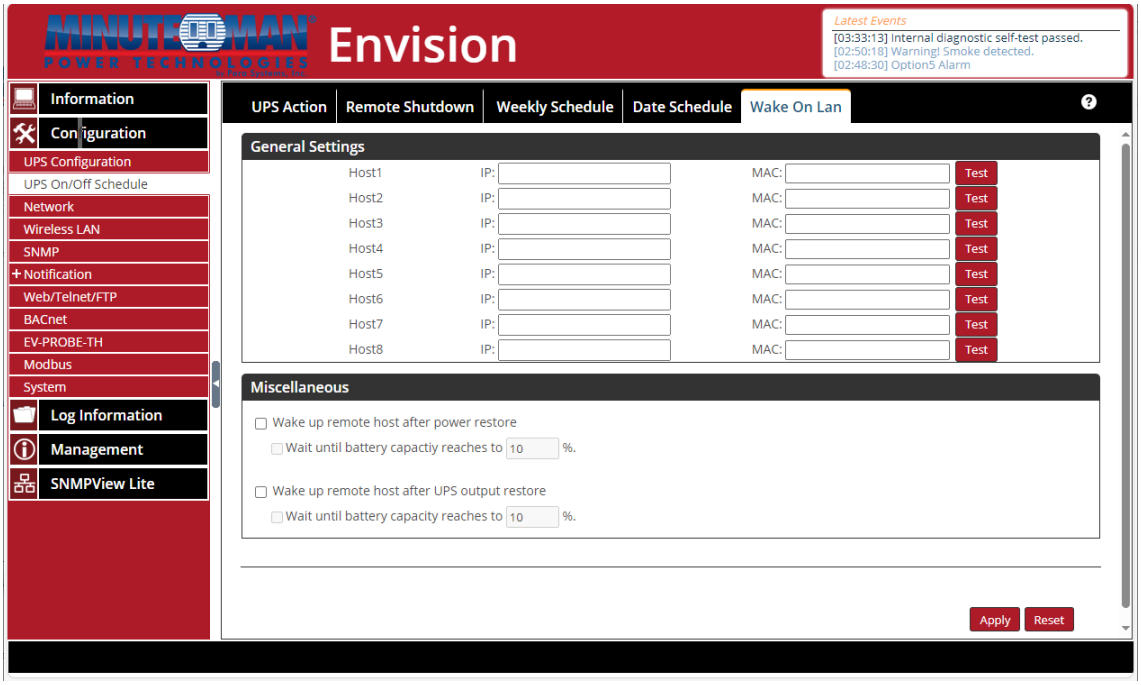


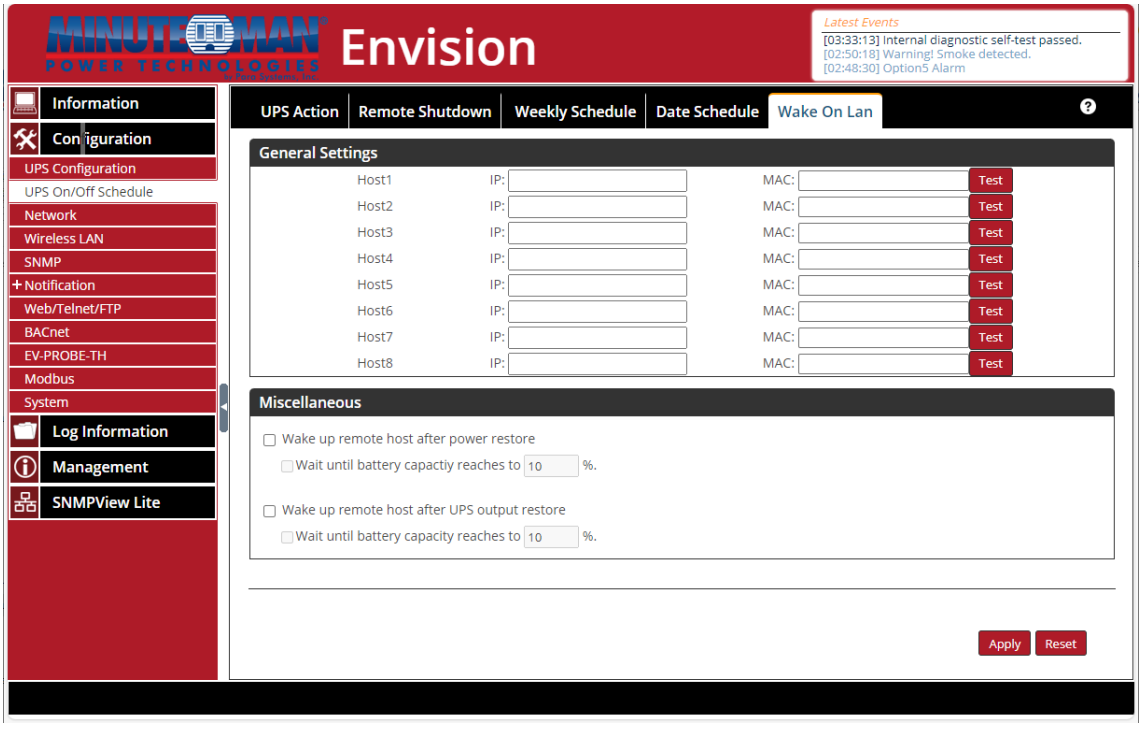
- **Date Schedule** - The Date Schedule menu option sets an individual date and time to power On/Off a UPS. If activated, the settings on this page will override the settings in Weekly Schedule. Select any date on the calendar and press the “add” icon. A window will appear with a time-of-day reference. Choose a time and select “UPS On” or “UPS Off” and press “OK”. To add dates and times, repeat the process.

To initiate a warning message prior to the scheduled shutdown of the UPS, select an option from the dropdown menu at the bottom of the page. When set, the EV-NETCARD-1G card will send the message at a pre-determined time before the shutdown action. When the programming is completed, press the “Apply” icon.



- **Wake On Lan** - This menu option programs the signal from the EV-NETCARD-1G card to wake a networked computer when AC utility power is recovered, or, when the UPS battery capacity reaches its pre-configured percentage. (Make sure the computer supports a Wake On Lan function and is enabled in the BIOS.) Enter the IP address of the target computer and the parameters to program the Wake function. For multiple computes, repeat the process for each computer. When complete, press the “Apply” icon.

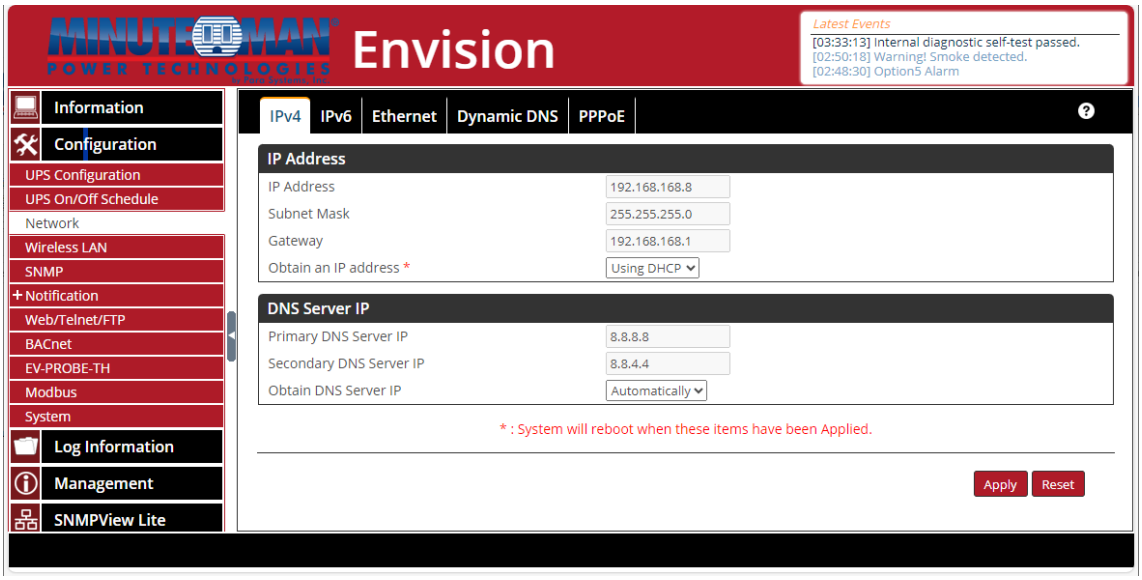




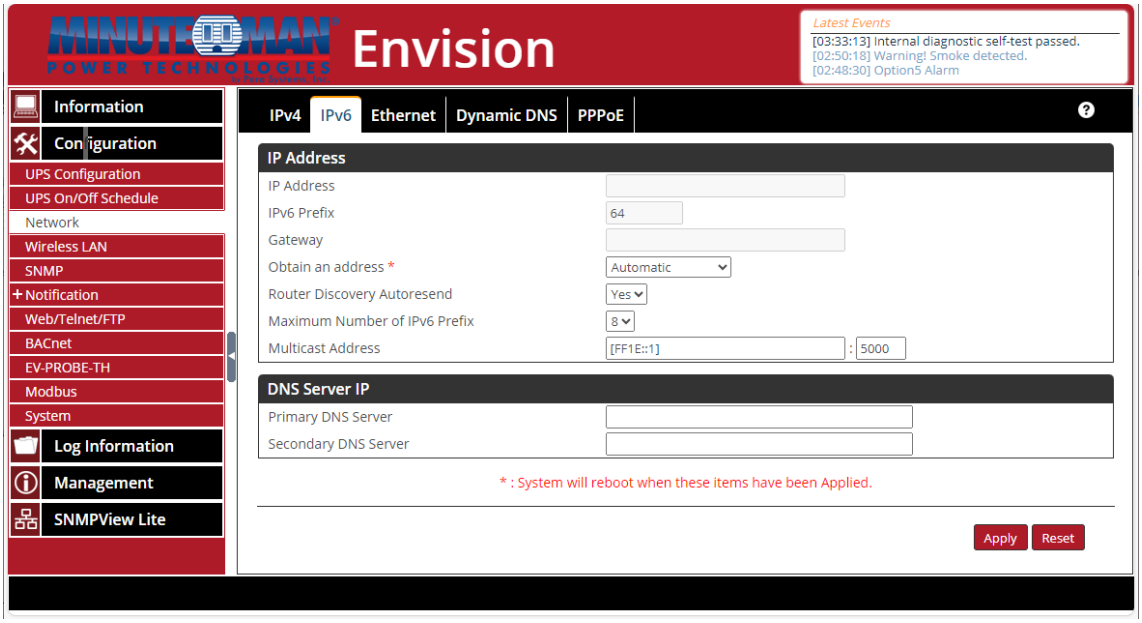
■ Network

This page is responsible for the programming the network settings for the EV-NETCARD-1G card.

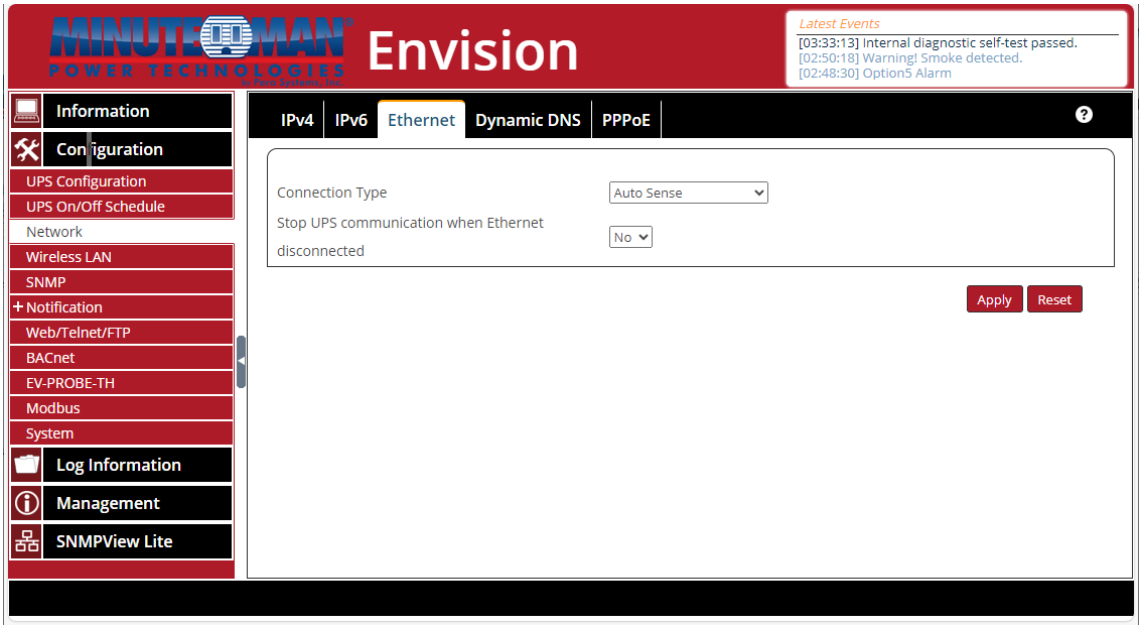
- **IPv4** - The IP address and DNS Server IP can be programmed either manually or through DHCP or BOOTp using the dropdown menus. If the IP address and DNS have previously been configured on the information will automatically show here.



- **IPv6**
  - IP Address: All EV-NETCARD-1G cards support IPv6 addressing. Under the "IPv6" tab, the address can be obtained from the dropdown list of options: Automatic, Stateless, DHCPV6, DHCPV6, or Manual. If Manual is selected all the IP and gateway information must be entered into the respective fields. For all forms of address selection, the remaining fields must be completed: Router Discovery Autoresend, Maximum Number of IPv6 Prefix, and Multicast Address.
  - DNS Server IP: Enter the addresses for the primary and/or secondary DNS Servers.
    NOTE: Once the addressing is completed, press the "Apply" icon and the EV-NETCARD-1G card will reboot with the new configuration.

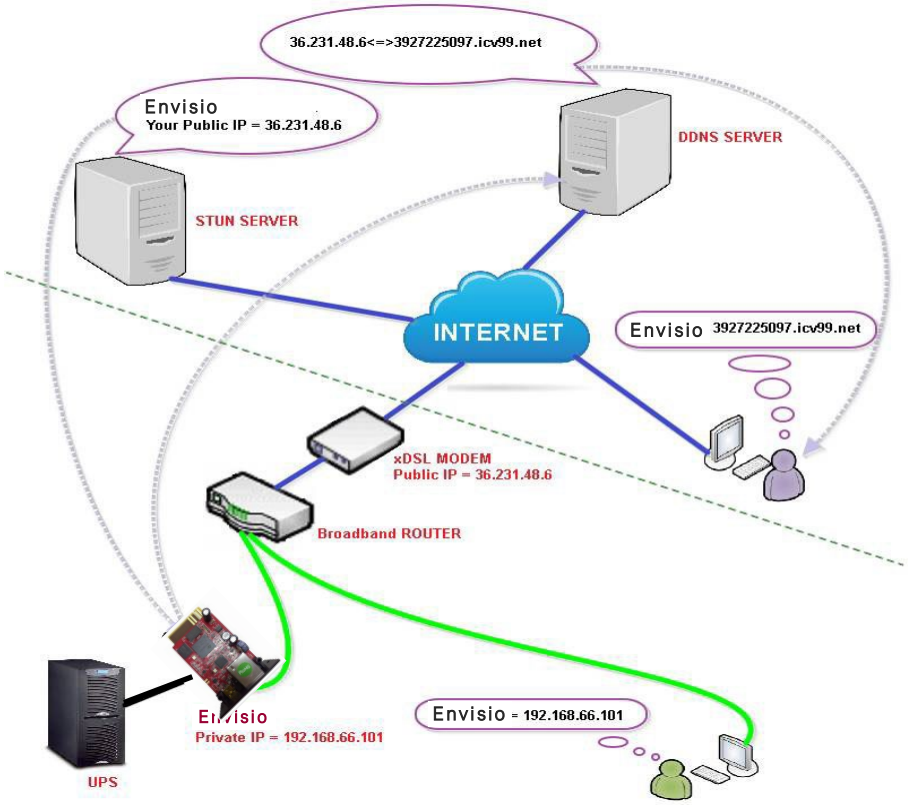


- **Ethernet**
  - Connection Type: This menu option sets the communication speed between EV-NETCARD-1G and connected network.
  - **NOTE:** Once the network speed is selected, press the "Apply" icon and the EV-NETCARD-1G card will reboot with the new configuration.
  - Stop UPS communication when Ethernet disconnected: Use this menu option to continue or stop UPS communications when EV-NETCARD-1G card disconnects from Ethernet.



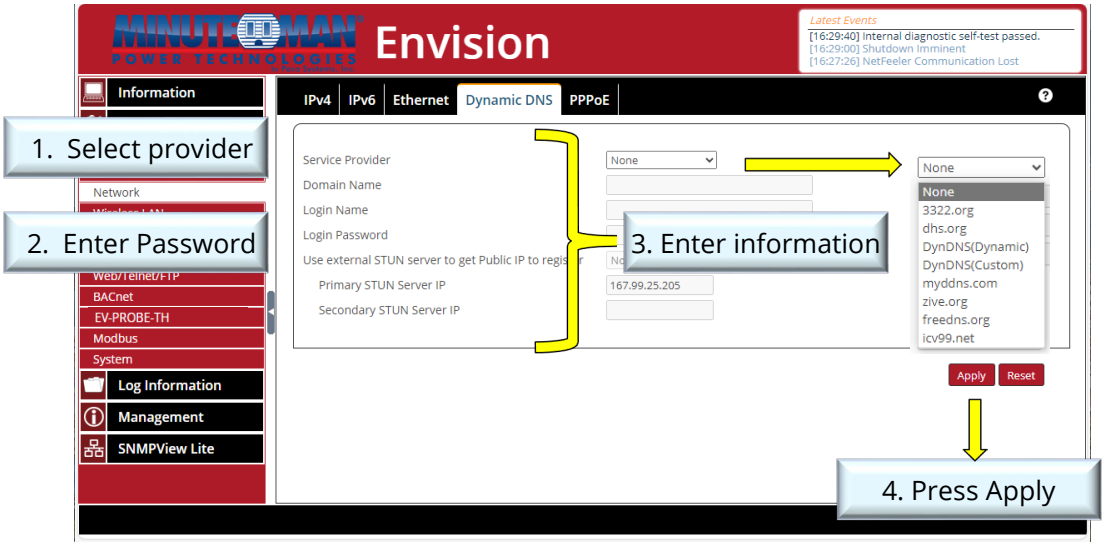
- **Dynamic DNS** - Dynamic DNS is an open-source service which allows a user to attach a dynamic IP address to a static host name. To use this function, ensure an account and password has been registered with the DNS service provider.
  - Service Provider: Dynamic DNS providers can be selected from this dropdown list.
  - Domain Name: Enter the Domain Name created from the above selected DDNS provider.
  - Login Name: Enter the Login/Account Name created with the selected DDNS provider.
  - Login Password: Enter the Password assigned to registered DDNS Account.

  - Use external STUN server to get Public IP to register: Choose **Yes** to ensure the EV-NETCARD-1G card uses the WAN/Public IP to update the selected DDNS server.

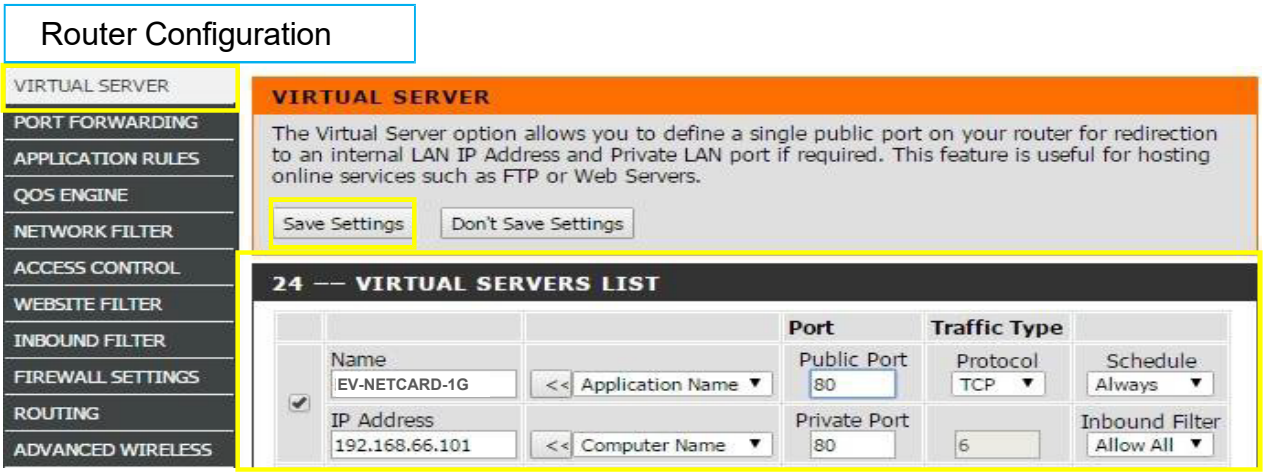


If using iCV99.net as the service provider, follow instructions shown below:

1. Ensure the EV-NETCARD-1G card is able to connect to the internet. Select a service provide from the dropdown list. If the Domain Name, Login Name and serial number of the card do not automatically populate, enter the information manually. Enter the EV-NETCARD-1G password, which is printed on the card label, then press the “Apply” icon.

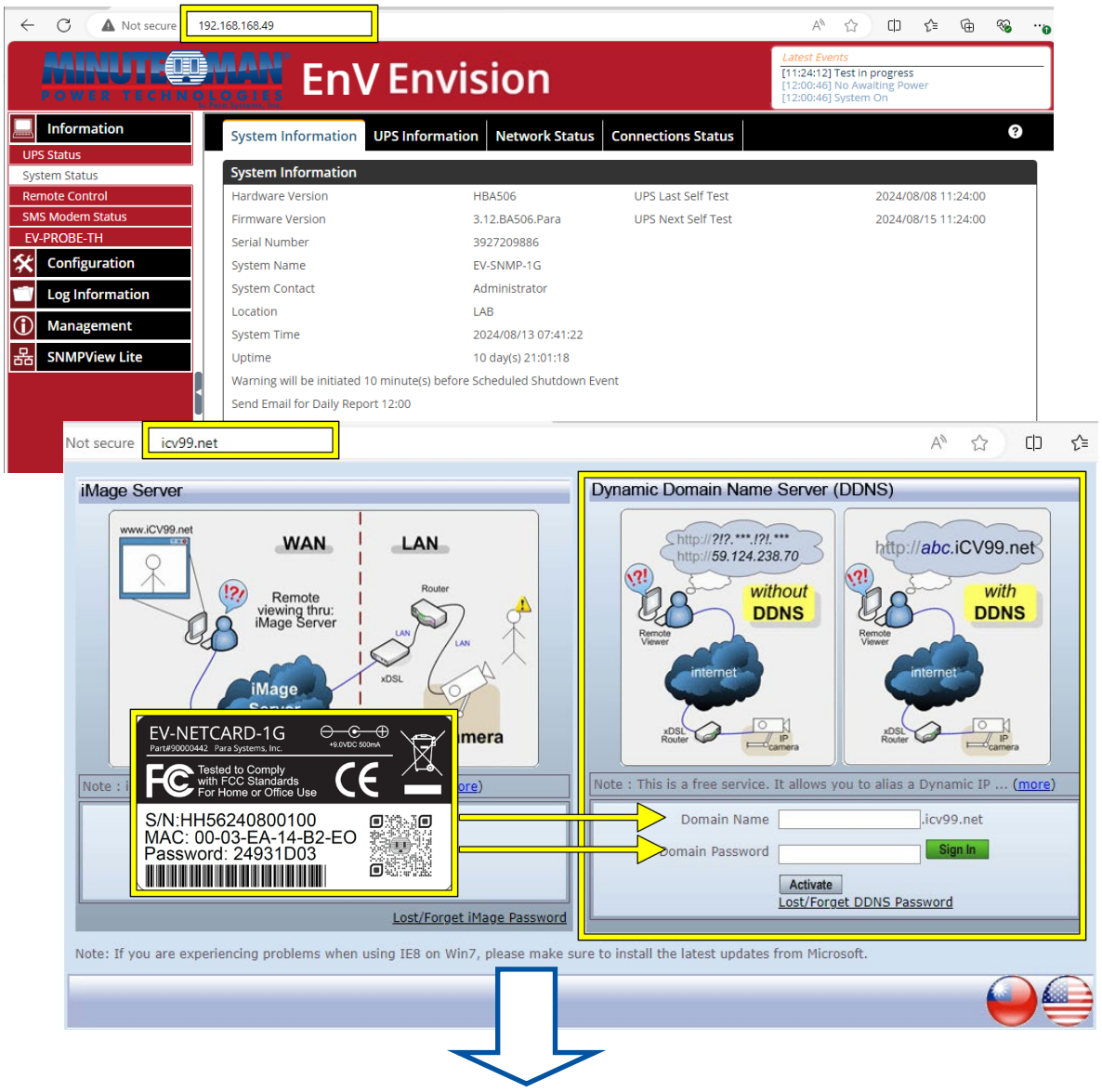


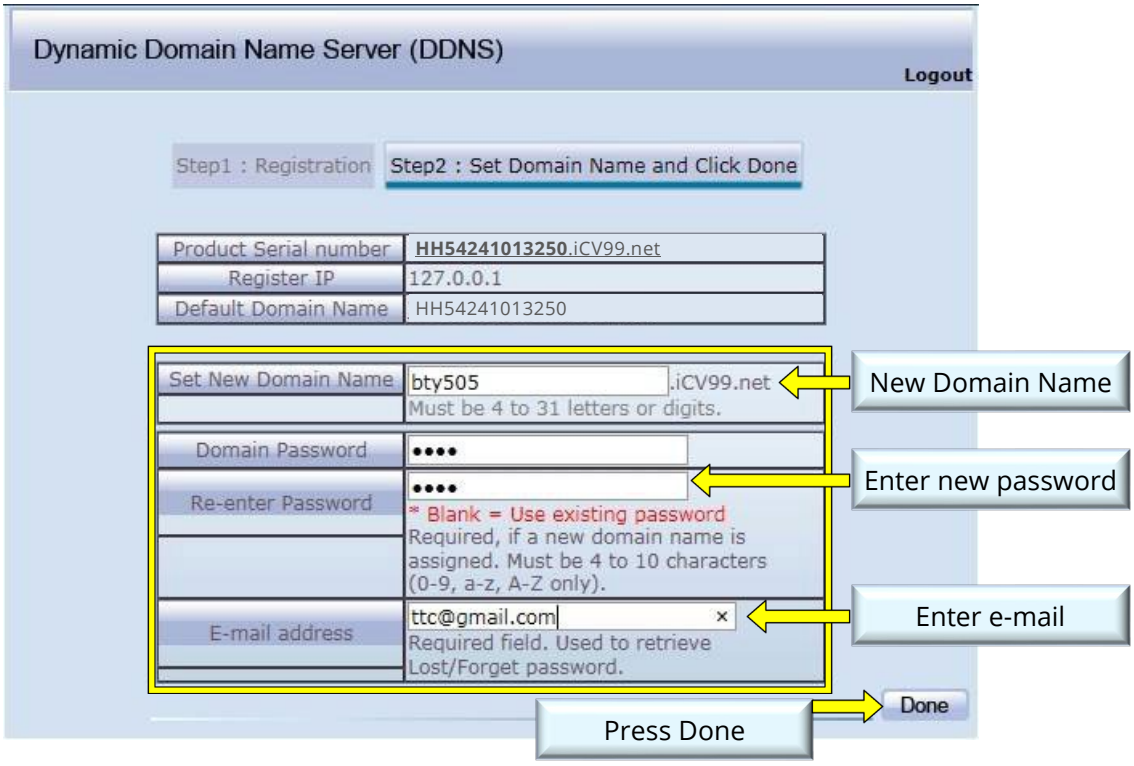
2. If using a router, login to the router and insert the IP and port number under the Virtual Server for port forwarding. For specific details on programming, refer to router's user manual



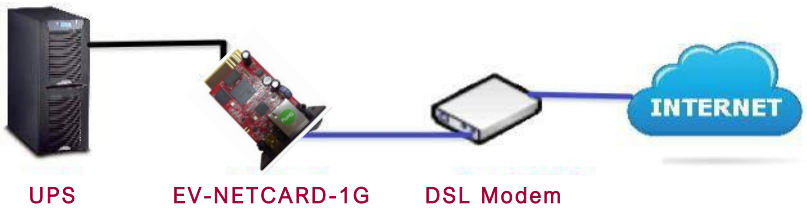
3. Wait at least 20 minutes and the EV-NETCARD-1G card should be logged in under the DDNS Domain name.

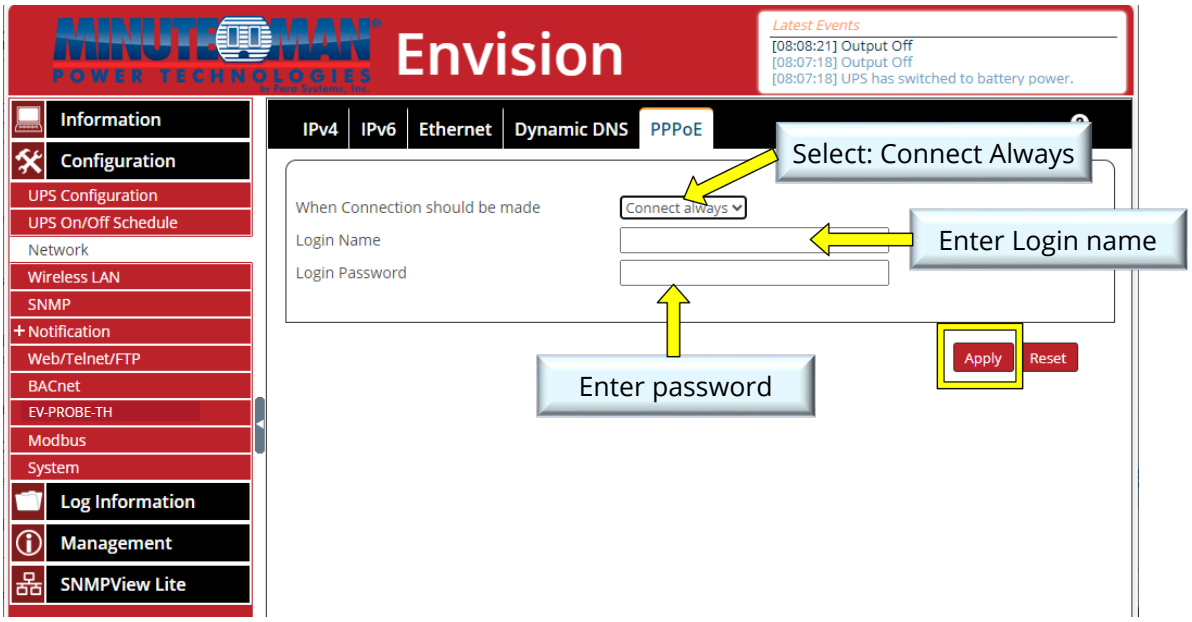
4. To change the domain name or password, go to the service provider website.


Not secure
192.168.168.49
EnV Envision
Latest Events
[11:24:12] Test in progress
[12:00:46] No Awaiting Power
[12:00:46] System On
Information
UPS Status
System Status
Remote Control
SMS Modem Status
EV-PROBE-TH
Configuration
Log Information
Management
SNMPView Lite
System Information
UPS Information
Network Status
Connections Status
System Information
Hardware Version HBA506
Firmware Version 3.12.BA506.Para
Serial Number 3927209886
System Name EV-SNMP-1G
System Contact Administrator
Location LAB
System Time 2024/08/13 07:41:22
Uptime 10 day(s) 21:01:18
UPS Last Self Test 2024/08/08 11:24:00
UPS Next Self Test 2024/08/15 11:24:00
Warning will be initiated 10 minute(s) before Scheduled Shutdown Event
Send Email for Daily Report 12:00
Not secure
icv99.net
iMage Server
www.iCV99.net
WAN
LAN
Remote viewing thru: iMage Server
Router
xDSL
EV-NETCARD-1G
Part#90000442 Para Systems, Inc.
Tested to Comply with FCC Standards For Home or Office Use
S/N:HH56240800100
MAC: 00-03-EA-14-B2-EO
Password: 24931D03
Lost/Forget iMage Password
Dynamic Domain Name Server (DDNS)
http://59.124.238.70
without DDNS
http://abc.iCV99.net
with DDNS
Remote Viewer
internet
xDSL Router
IP camera
Note : This is a free service. It allows you to alias a Dynamic IP ... (more)
Domain Name
.icv99.net
Domain Password
Sign In
Activate
Lost/Forget DDNS Password
Note: If you are experiencing problems when using IE8 on Win7, please make sure to install the latest updates from Microsoft.



- **PPPoE** - Use this feature when connecting the EV-NETCARD-1G to the Internet directly using a xDSL modem by PPPoE. Enter the Login name and password to enable the connection. Once set-up, the EV-NETCARD-1G will connect directly to the Internet. Any abnormal connection issues could cause a failure requiring the card to re-dial in order to re-connect.





■ Wireless LAN

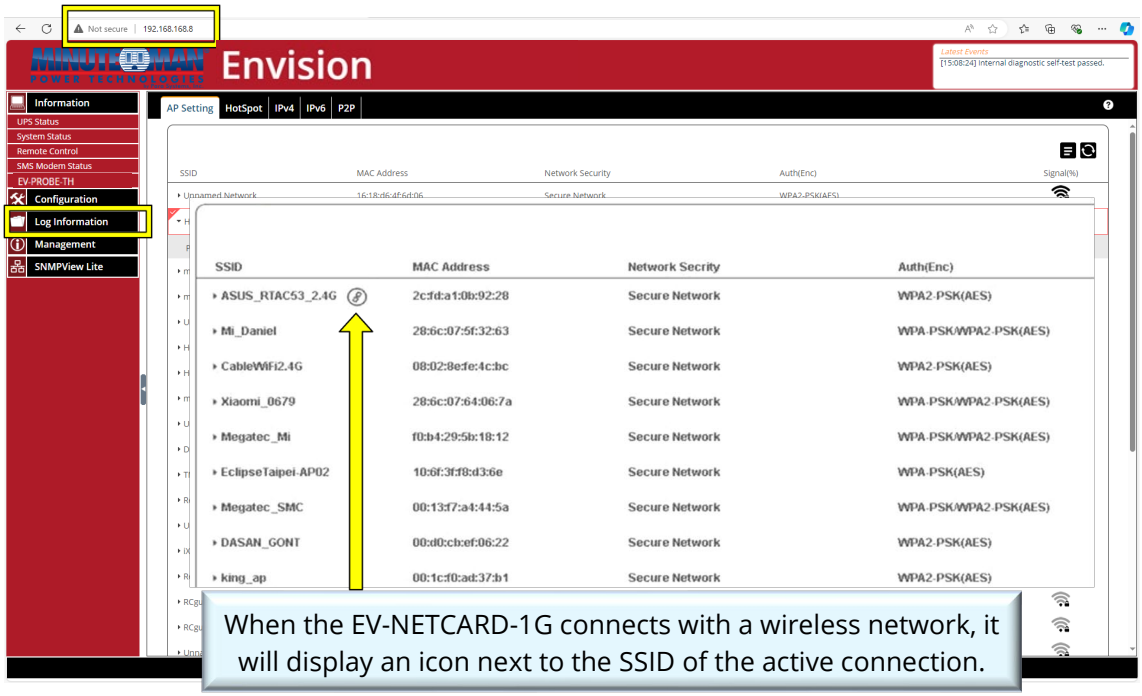
The EV-NETCARD-1G is compatible with most popular USB Wi-Fi dongles. Before installing or configuring a Wi-Fi dongle, the EV-NETCARD-1G must be connected, and accessible, on the network using a wired Ethernet connection. Open the Envision software utility to discover and login to the EV-NETCARD-1G card on the network or use a web browser to type in and go directly to the specific, wired IP-address of the card to be used with the Wi-Fi dongle.

(1) Attach the UPS to the network using the instructions in the **Configuration > Network** menu
(2) Using a web browser or the Envision software utility, go the address IP-address associated with the EV-NETCARD-1G card
(3) Install the Wi-Fi dongle into an open USB port on the card.
(4) Select **Configuration > Wireless LAN** from the menu in the web browser interface
(5) Under the **AP Setting** tab, select the SSID of the preferred Wi-Fi network to join. If required, enter the password of that wireless network.
(6) Once the EV-NETCARD-1G card is connected to the desired wireless network, return to the **Configuration > Network** page and use DHCP, (default), or manually configure the IP-address to use for the card on the wireless network.
(7) The wired Ethernet connection can now be removed if preferred.
(8) The Envision software utility is now able to find the card or the address can be typed in using a web browser.

NOTE: The computer running the Envision software utility must be attached to the same Wireless LAN as the USB dongle.

NOTE: If installing at a remote location, programming the IP-address will require the following: a separate laptop or desktop computer; a cross-over Ethernet cable; or two standard Ethernet cables with one switch.

If using the switch with the Ethernet cables, one cable must connect the computer/laptop to the switch with the second cable connecting the switch and the E-NETARD-1G card. The wireless configuration must be programmed at the remote site to properly connect to the site's wireless network and save the connection information and the password associated with the SSID to the card's firmware.

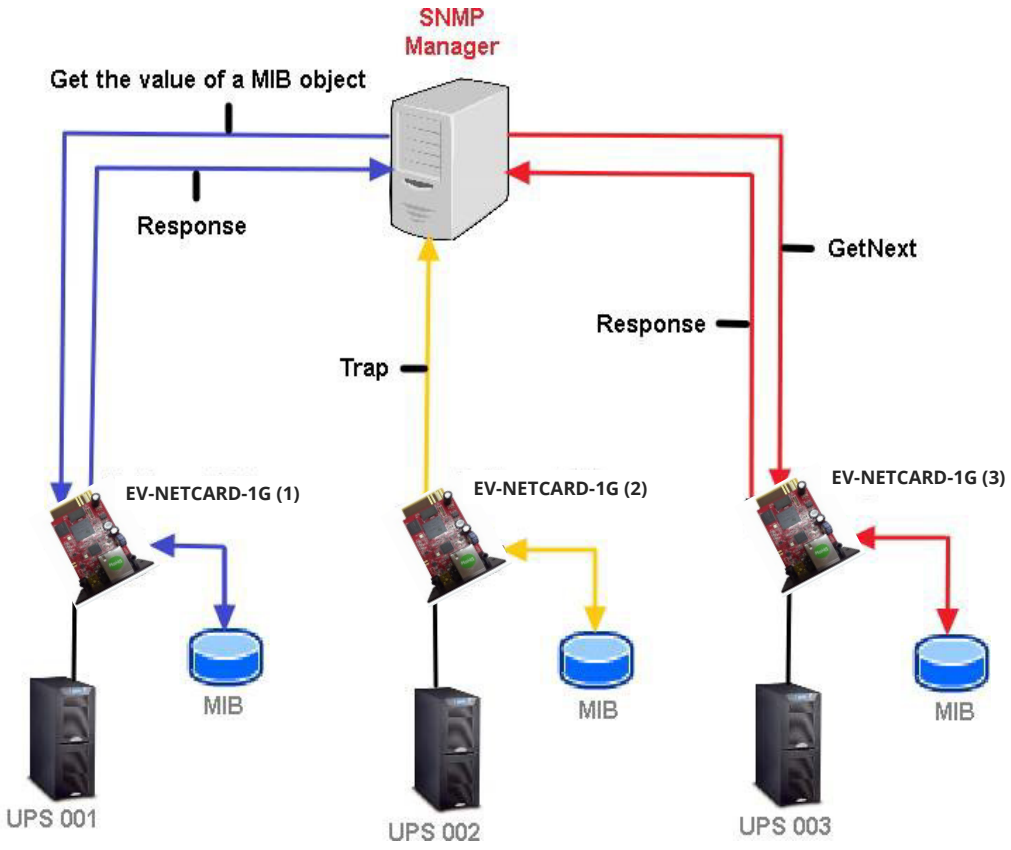


When the EV-NETCARD-1G connects with a wireless network, it will display an icon next to the SSID of the active connection.

■ SNMP

Use of this menu option is to configure the SNMP settings of the EV-NETCARD-1G for use with a NMS (Network Management System).

(EnvisionSNMP, it is available on the from the minuteman website at: SNMP Resource Library - Minuteman UPS)



- **General**

MIB System

- System Name: This section is dedicated to defining a custom name for the EV-NETCARD-1G. Enter the preferred name, then press the "Apply" icon.
- System Contact: This section can be used to list a responsible individual or administrator. Enter the name, then press the "Apply" icon.
- System Location: This section can be used to describe the location of the EV-NETCARD-1G. Enter the preferred description, the press the "Apply" icon.

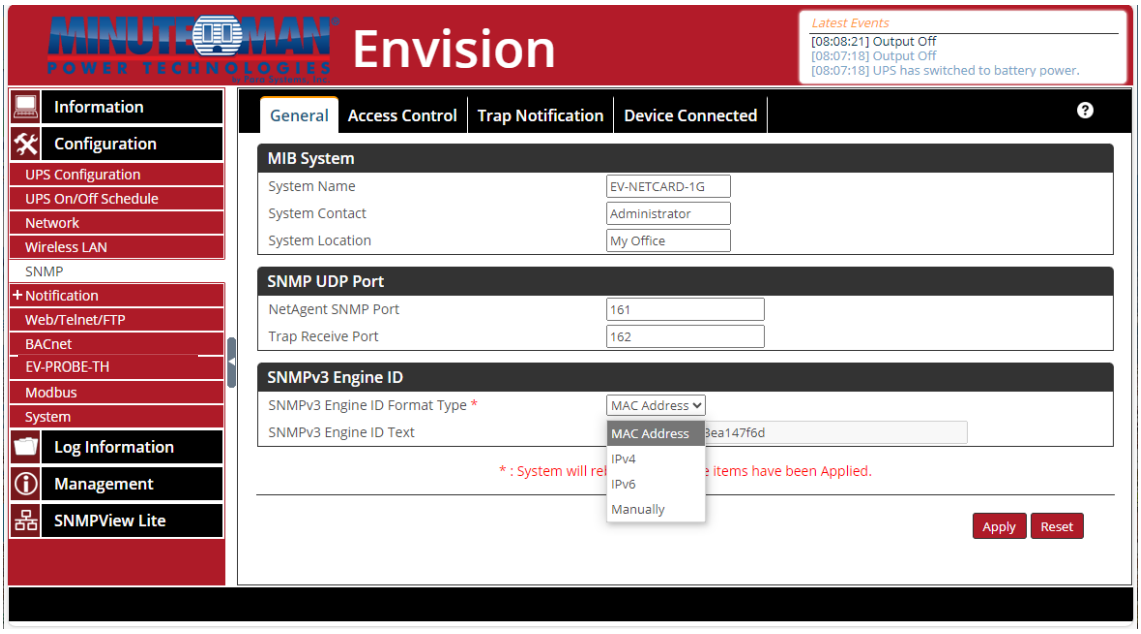
SNMP UDP Port

- Envision SNMP Port: Defines the port which the EV-NETCARD-1G card receives and sends SNMP commands. (The default setting is 161)
- Trap Receive Port: Defines the port to receive SNMP traps. (The default setting is 162)

SNMPv3 Engine ID

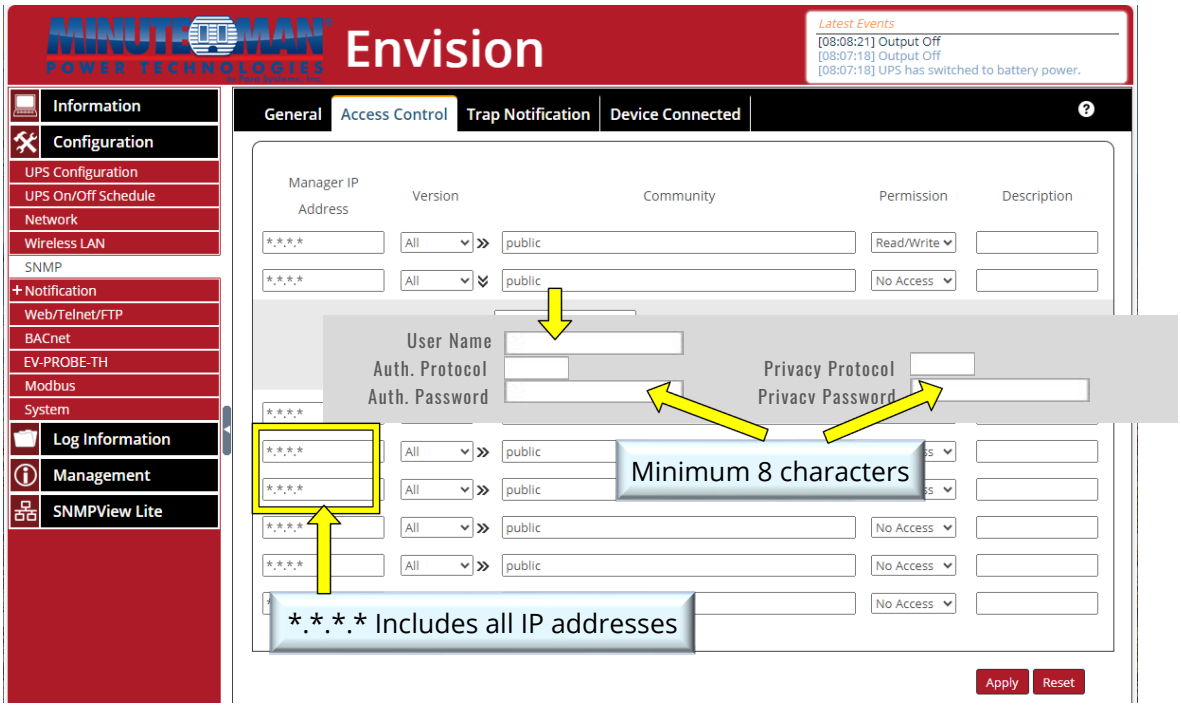
- SNMPv3 Engine ID Format Type: When using SNMPv3, the EV-NETCARD-1G card is required to have an Engine ID for identification to generate authentication and encryption keys.

  The format type can be selected from the dropdown list with option of: MAC Address, IPv4, IPv6 or Manual. When a format is selected, press the "Apply" icon and the car will automatically reboot.
- SNMPv3 Engine ID Text: Automatically provides the SNMPv3 Engine ID content unless the "SNMPv3 Engine ID Format Type" is set to "Manually". If set manually, enter the ID content, then press the "Apply" icon.



- **Access Control**

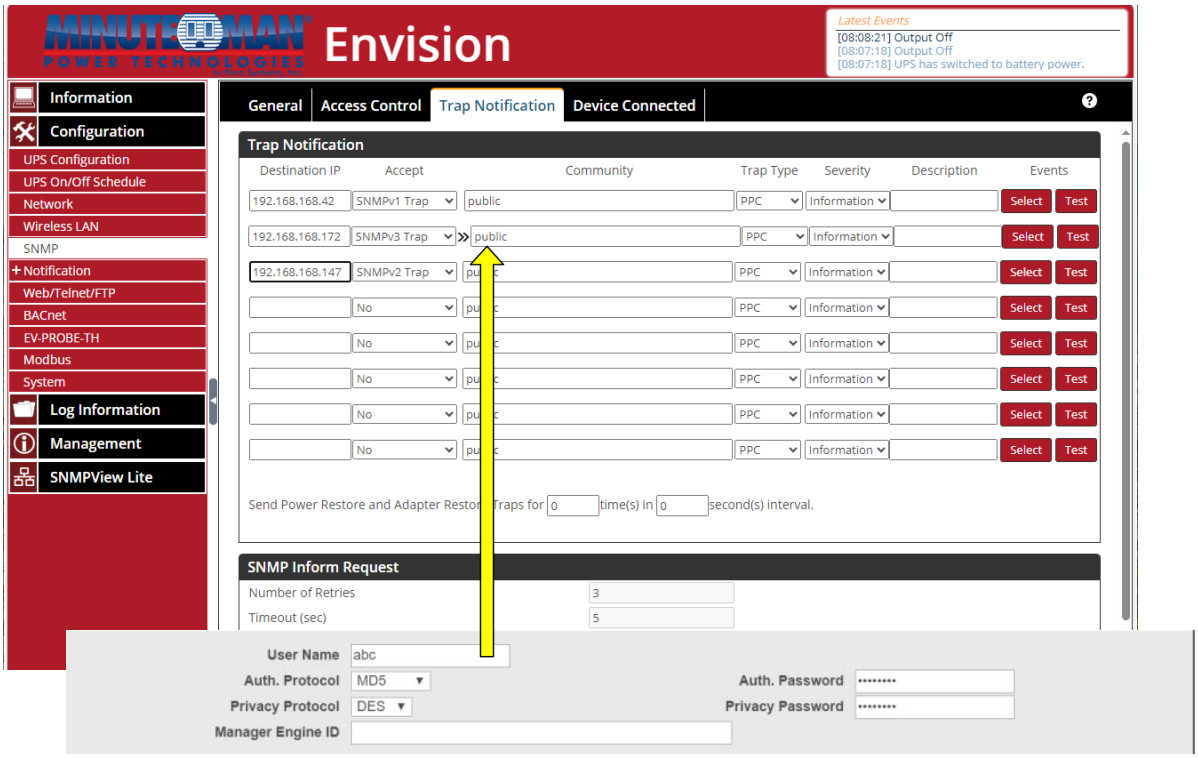
  - Manager IP Address: Define an IP address, (up to 8), which the administrator can use to manage EV-NETCARD-1G cards on the network. To allow management of the EV-NETCARD-1G card from any IP address, enter *.*.*.* into the Manager IP address fields.
  - Version: This field is used to select between: All, V1 & V2C or V3. When selecting All or V3, then a username, password, authentication and privacy setting are required.
  - Community: This section is used to set a NMS Community name for the card. The Community name must be the same as the setting in NMS. (The default setting is public)
  - Permission: Sets the rights and authorities of administrators. The options are: Read, Read/Write, and No Access.
  - Description: This is an open field which provides a field to make notes for the administrator's reference.



- **Trap Notification**

  Trap Notification

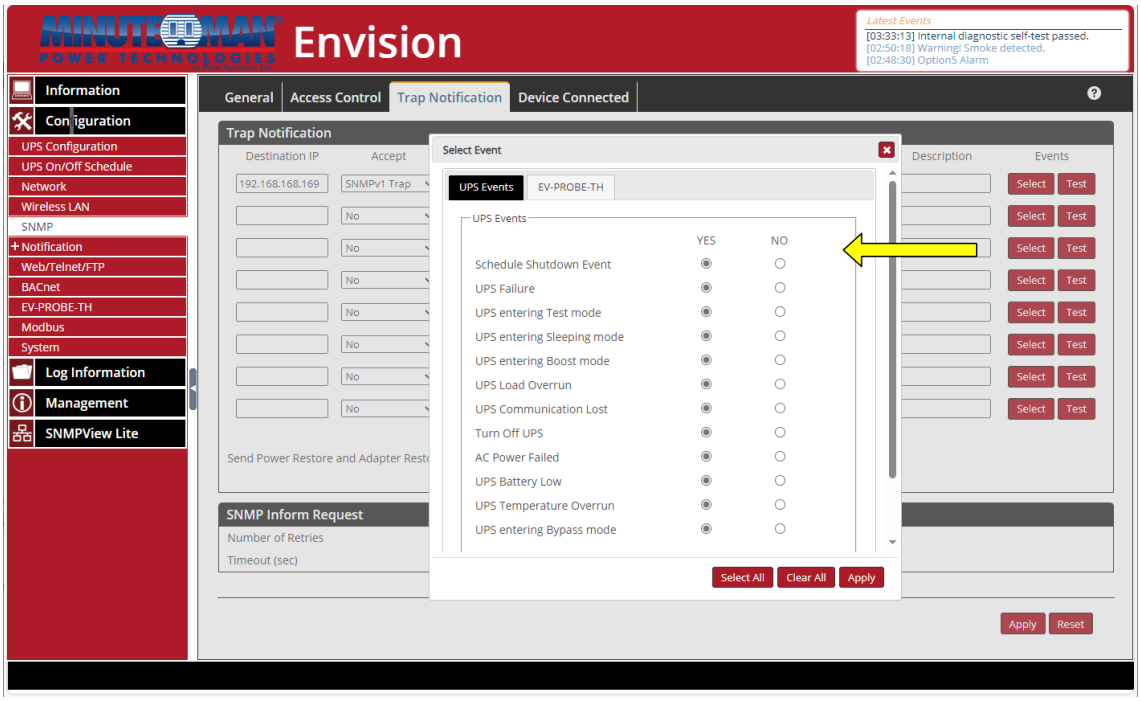
  – Destination IP: Program specific IP addresses for receiving traps sent by the EV-NETCARD-1G card. Up to 8 addresses can be programmed.
  – Accept: When sending traps to the Destination IP addresses, select the SNMP trap type and level from drop down list. The available options are: V1, V2 Inform or Trap, V3 Inform or Trap. When SNMPv3 Trap or SNMPv3 Inform is selected, a username and password authentication is required.



- Community: The trap receiver and the EV-NETCARD-1G card must be same community. (The default is: Public)
- Trap Type: Select from PPC MIB or RFC1628 MIB (The default is: PPC)
  ★MIB file is available via download at: SNMP Resource Library - Minuteman UPS
- Severity: This section set the Trap level for each receiver. There are three levels available:
  - Information: Receives all traps.
  - Warning: Receives only "warning" and "severe" traps.
  - Severe: Receives only "severe" traps.
    (Please refer your NMS manual for Trap levels.)
- Description: This is an open field which provides a field to make notes for the administrator's reference.
- Events: Programs specific events for the EV-NETCARD-1G card to send traps to the identified recipients. Press the "Select" icon to show the full list of events to choose from.
  - UPS Events: Under the UPS Events tab, check the box next to the specific events then press "Apply".
  - EV-PROBE-TH: A list of optional environmental trap alarms that can be selected if the EV-PROBE-TH is being used in conjunction with the EV-NETCARD-1G card.

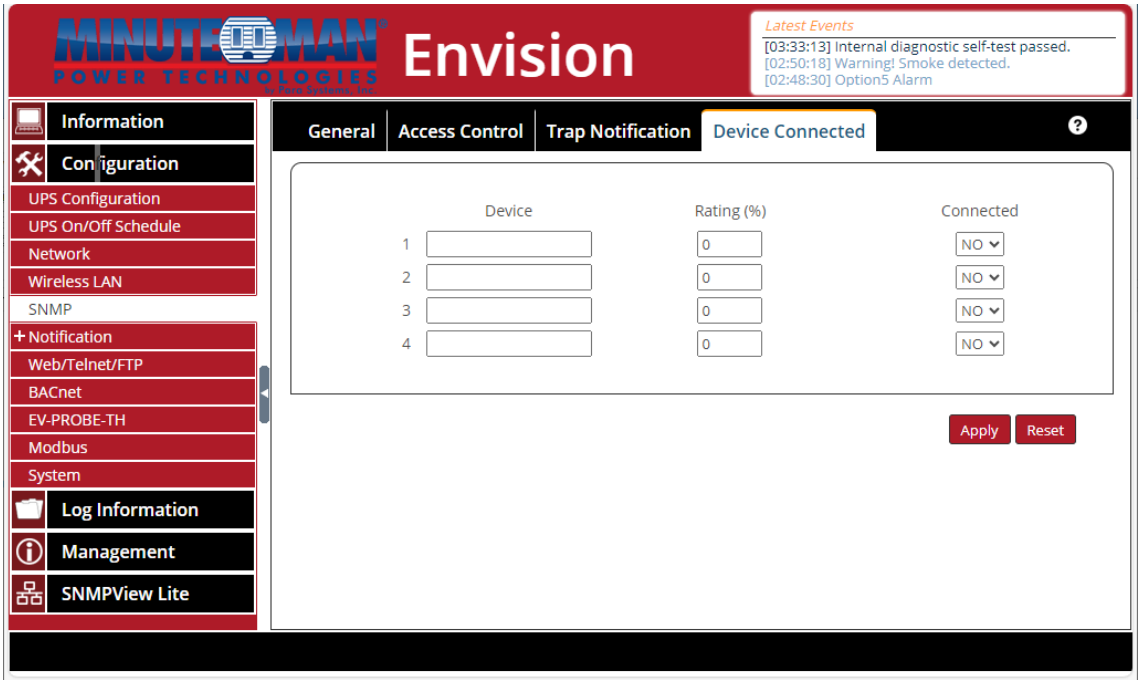
  NOTE: Optional sensors must be used in order to set trap alarms for Security Alarm and Smoke Alarm.

  When all the trap alarm selections are completed, use the "Test" icon to send a test trap to confirm the settings are correct.



- Send Power Restore and Adaptor Restore Traps: This function sets the repeat number of "Power Restore" traps, and the intervals between transmissions, sent to the recipients when power is restored to the EV-NETCARD-1G card. This function can be used to test the communications between trap receiver and the EV-NETCARD-1G card after power returns.
- SNMP Inform Request - Use this function to set the number of times the EV-NETCARD-1G card can request a response from the sending Inform host with a preset value. (The default is 3 times with an interval of 5 seconds)

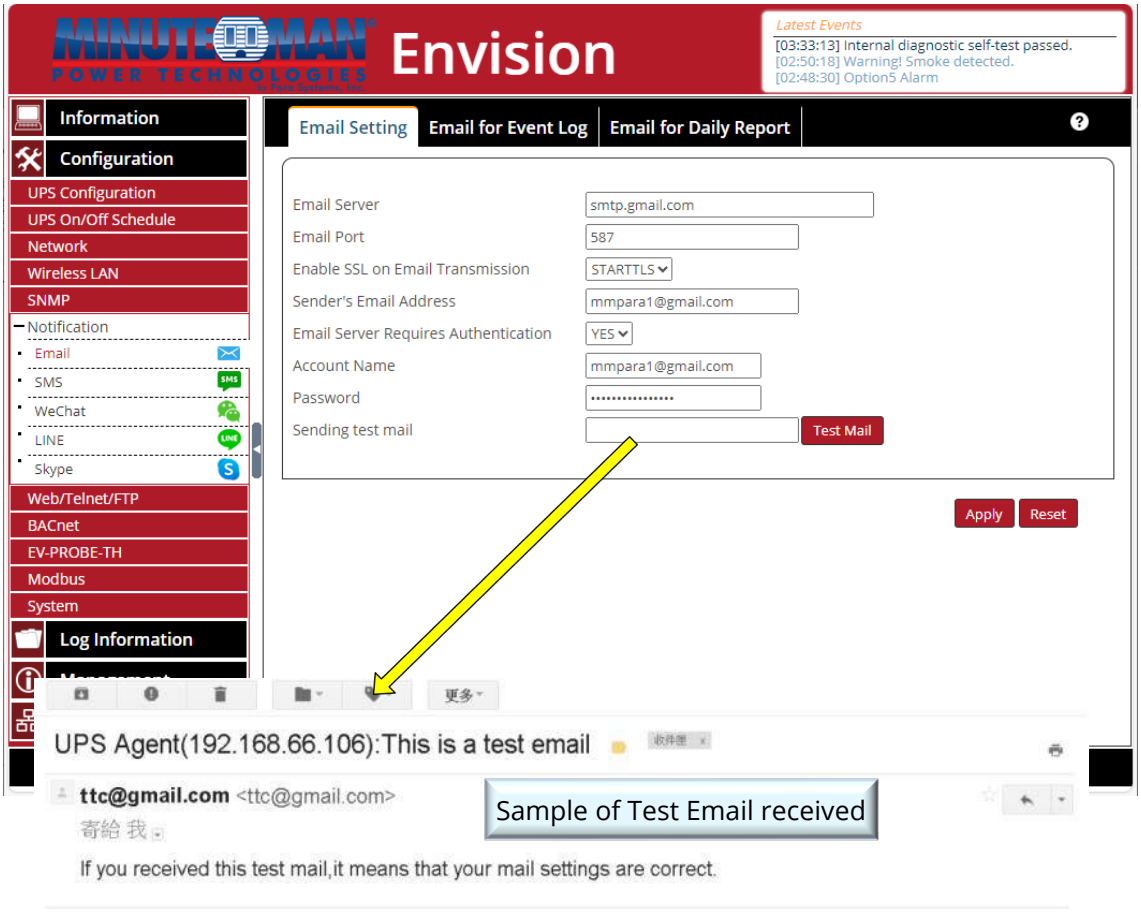
- **Device Connected** - This section is to set the usage power and connection status of other devices which connects to the same UPS as EV-NETCARD-1G uses*.
  (*Must be a supported feature of the UPS)



Email

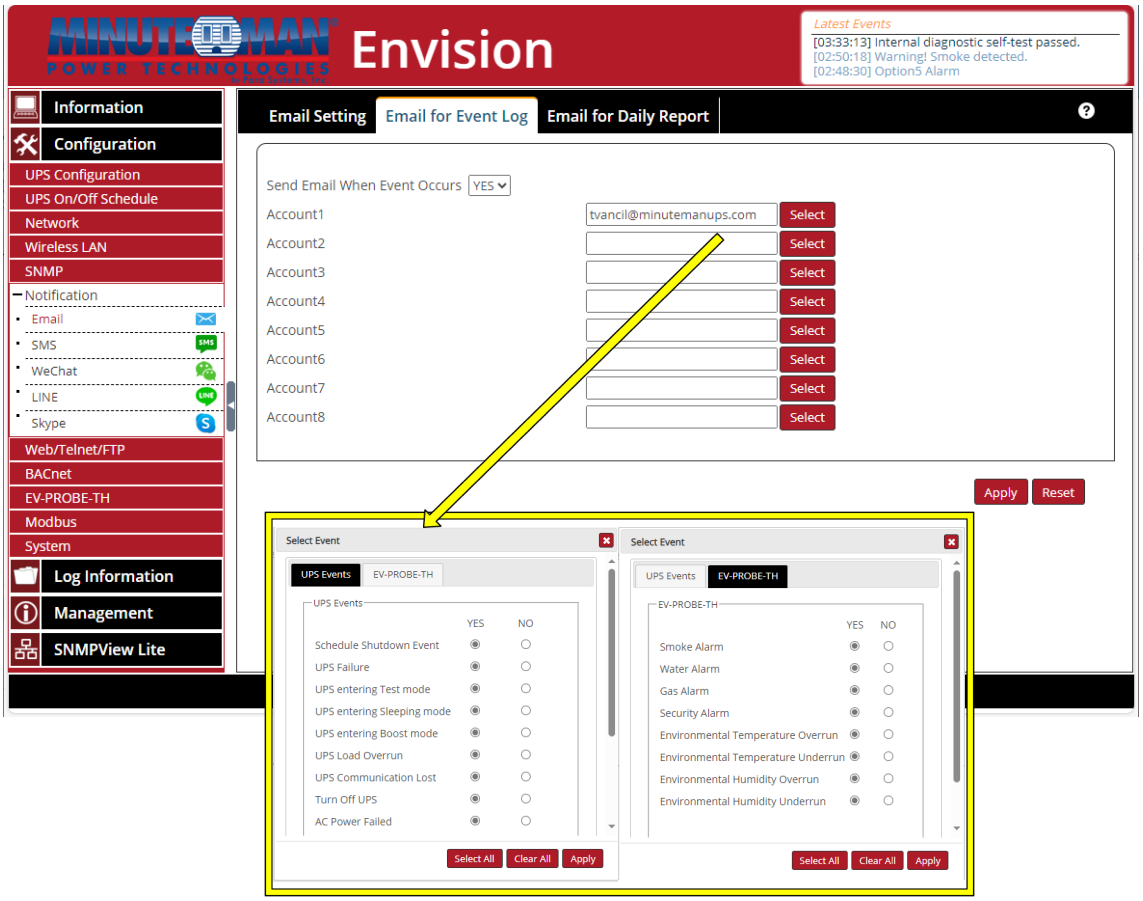
The menu option sets the parameters for sending email notifications when events occur or to send data log information. The EV-NETCARD-1G supports SSL, TLS, and STARTTLS

- **Email Setting**
  - Email Server: Enter the address of email server to be used.
  - Email Port: Identify the Port used for sending email.
  - Enable SSL on Email Transmission: Select the SSL type to use for email transmission: SLS/TLS, STARTTLS or NONE
  - Sender's Email Address: Enter the senders email address
  - Email Server Requires Authentication: Select "Yes" if the email server requires authentication or "No" if it does not.
  - Account name: If authentication is required, enter the account name in this field.
  - Password: If authentication is required, enter the password in this field.
  - Sending Test Mail: When all the selections are completed, enter an email address to verify all configuration items are correct. Press the "Test Mail" icon. If an e-mail is received, complete the process by pressing the "Apply" icon.

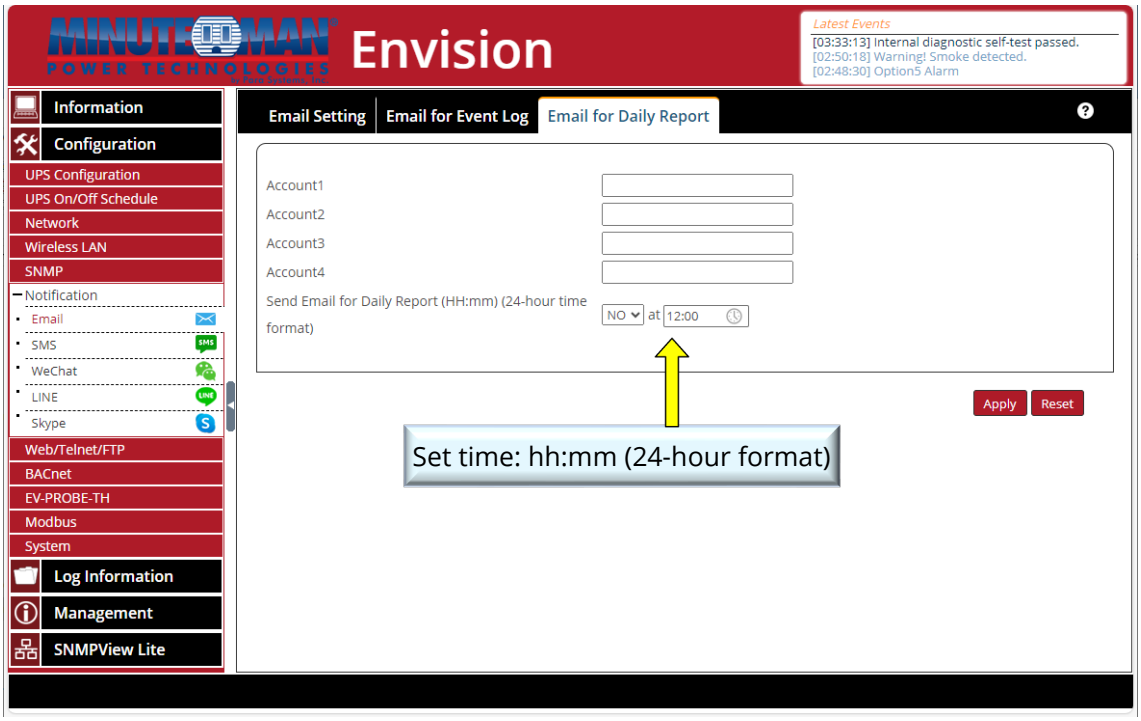


- **Email for Event Log (To received email notification** - Use this option to define up to 8 email addresses to receive warnings sent by EV-NETCARD-1G card when selected events occur. Enter each email address then press the “Select” icon. From the pop-up window, check the specific events to send alarms to that specific email address.
  - UPS Events: Under the UPS Events tab, check the box next to the specific events then press “Apply”.
  - EV-PROBE-TH: A list of optional environmental trap alarms that can be selected if the EV-PROBE-TH is being used in conjunction with the EV-NETCARD-1G card.

  NOTE: Optional sensors must be used in order to set trap alarms for Security Alarm and Smoke Alarm. When all the email addresses are configured, press the “Apply” icon.

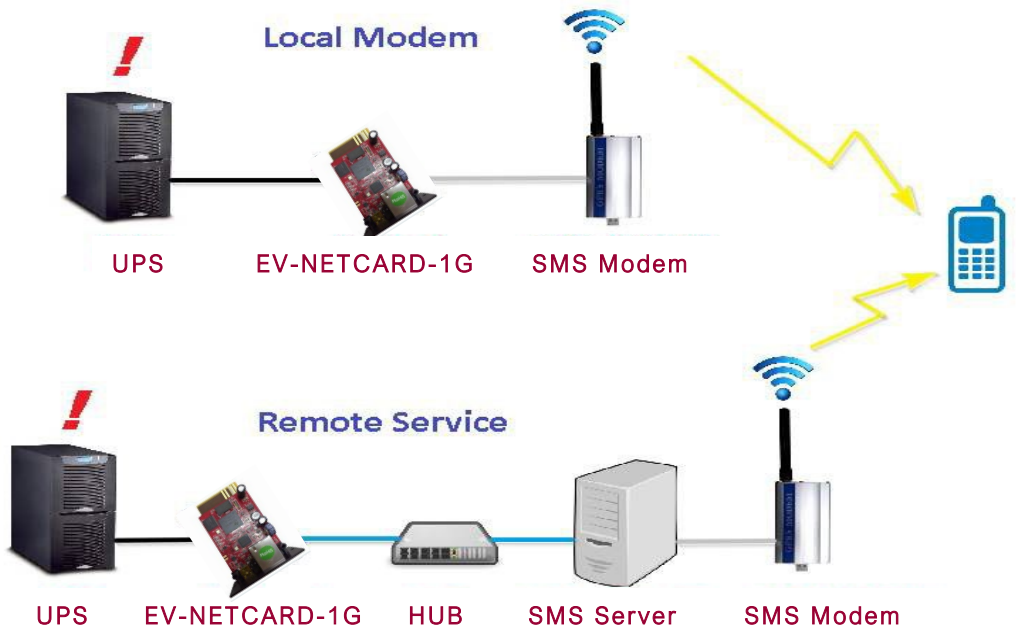


- **Email for Daily Report (To receive daily report)** - The EV-NETCARD-1G can provide a daily report of events and data recordings. These reports can be sent to individual email recipients, (up to 4). Enter the address in the available field then select “Yes” to send the daily report or “No” to suspend the action. If sending daily reports, set a time of day for the report to be sent dropdown menu.



■ Configuration > SMS

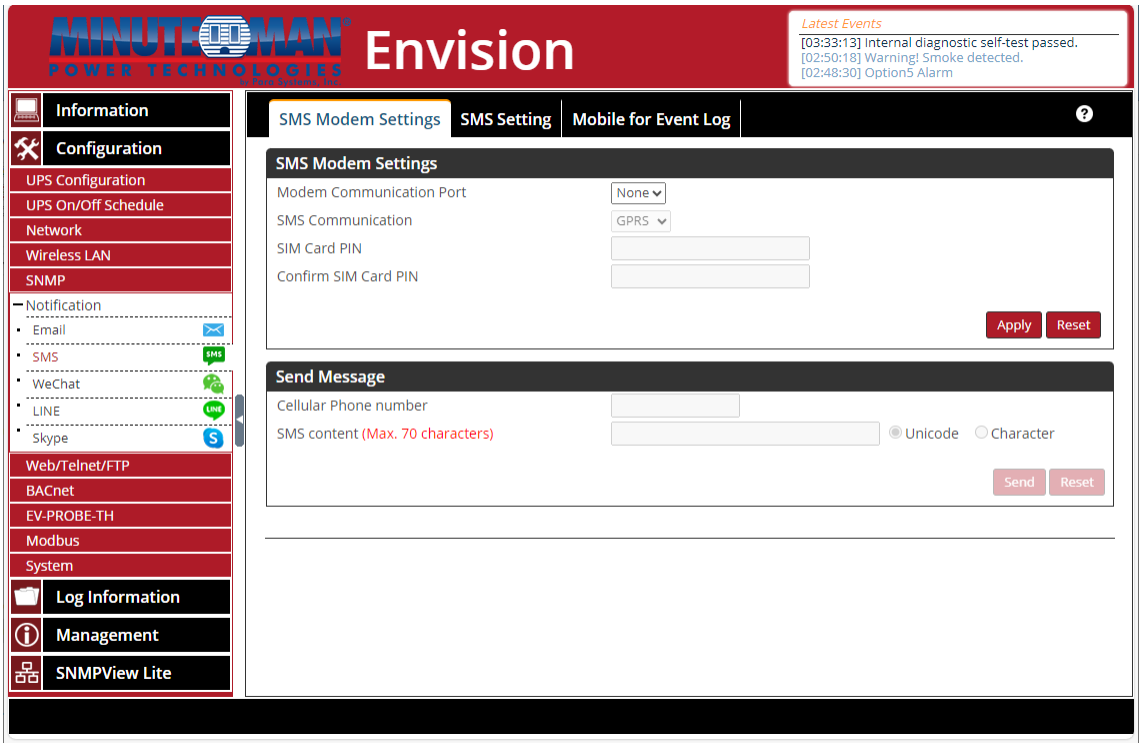
The EV-NETCARD-1G supports alarm notification through Short Message Signals (“SMS”) sent and received using a GSM/GPRS/CDMA Modem. A diagram of the operation is provided below.



- **SMS Modem Setting**

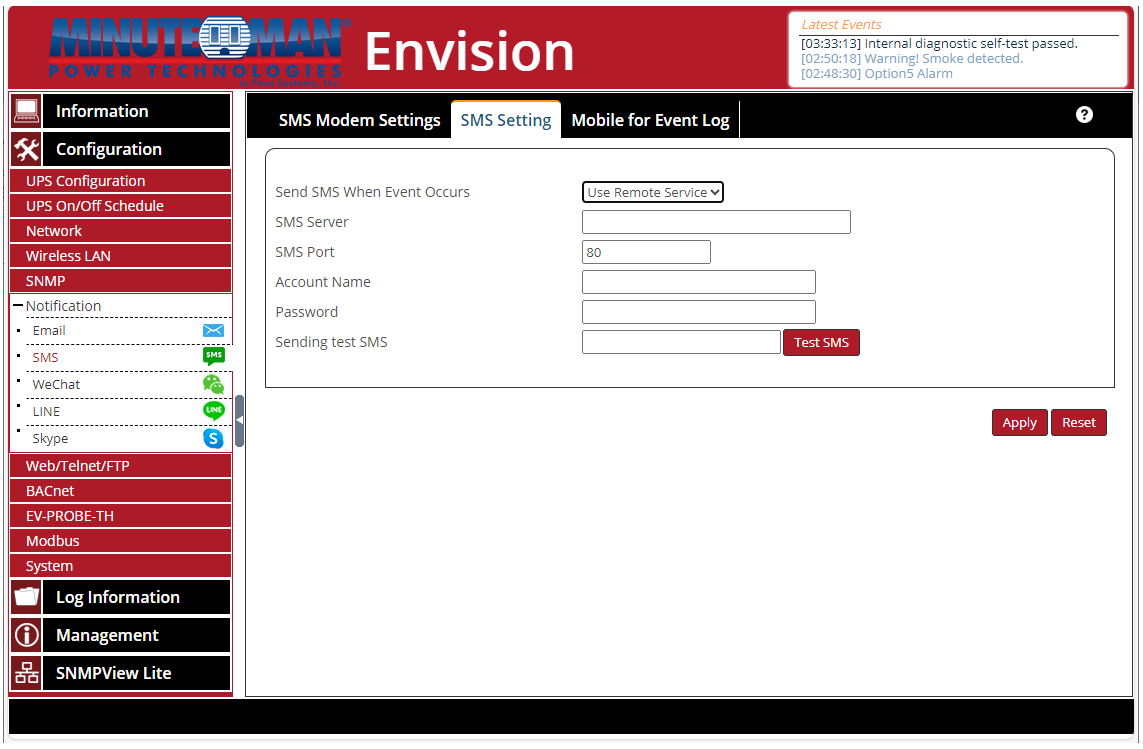
  SMS Modem Settings: Configure the card and modem settings for sending alarms through SMS communications.
  - Modem Communications Port: Select the port to use with the desired modem.
  - SMS Communication: Select the signal type for using with the desired modem.
  - SIM Card PIN: Enter the SIM card number for the modem.
  - Confirm SIM Card PIN: Confirm the entry from above. When all the information has been entered, press the "Apply" icon.

  Send Message:
  - Cellular Phone Number: Enter the number of the recipient cell phone
  - SMS Content: Create the text of the SMS message to send to the cell phone and define the format, (Unicode or Characters).

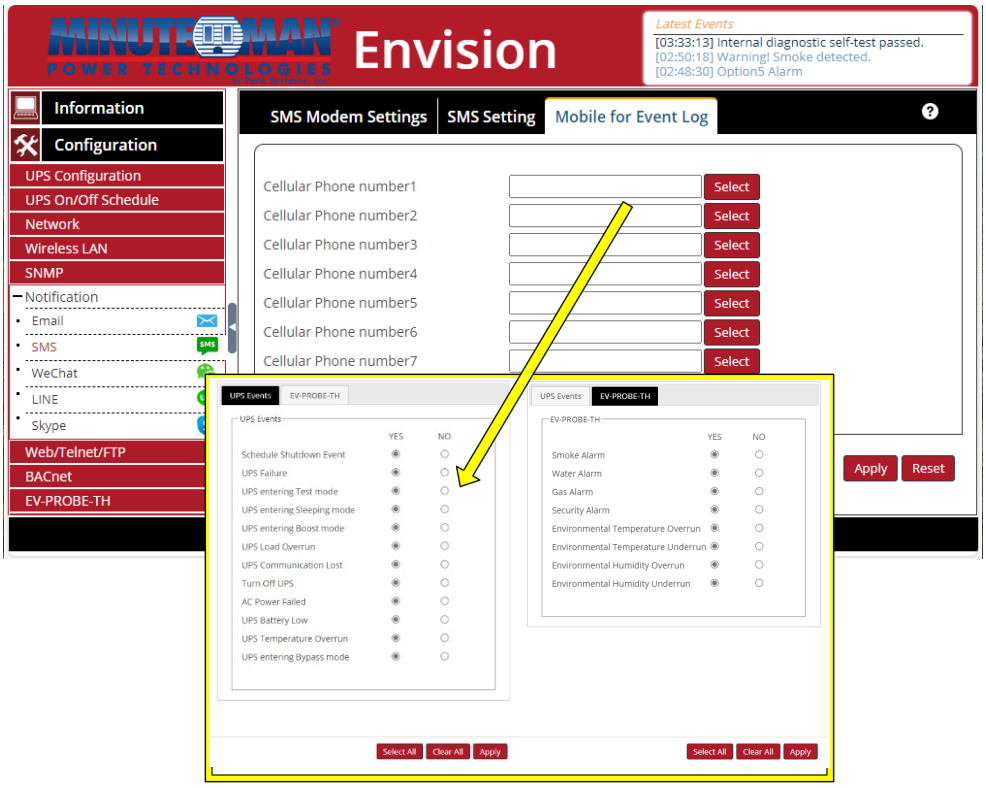


- **SMS Setting**
  - Send SMS When Event Occurs: Select options from dropdown menu: Disable, Use Local Modem or Use Remote Service
    - Disable: No SMS Service
    - Use Local Modem: Select when a GSM modem is directly connected to EV-NETCARD-1G card (Refer to the SMS Modem section for its installation)
    - Use Remote Service: Select when a GSM modem is connected to a networked PC with SMS Server software installed (Refer to the SMS Server section software installation)
  - SMS Server: If using the Remote Service to send SMS messages, enter the IP address of the computer with the installed SMS Server here.

- SMS Port: If using the Remote Service to send SMS messages, enter the port number of the SMS Server used for sending messages. (The default is Port 80)
- Account Name: If using the Remote Service to send SMS messages, enter the account name of the SMS Server, if required.
- Password: If using the Remote Service to send SMS messages, enter password for the SMS Server, if required.
- Sending test SMS: When the configuration is completed, enter a mobile number to receive a test. SMS. If a successful test message is sent, press the "Apply" icon to save settings.



- **Mobile for Event Log** - Use this option to define up to 8 cell phone numbers to receive warnings sent by EV-NETCARD-1G card when selected events occur. Enter each phone number then press the "Select" icon. From the pop-up window, check the specific events to send alarms to that specific phone number.
  - UPS Events: Under the UPS Events tab, check the box next to the specific events then press "Apply".
  - EV-PROBE-TH: A list of optional environmental trap alarms that can be selected if the EV-PROBE-TH is being used in conjunction with the EV-NETCARD-1G card.
    NOTE: Optional sensors must be used in order to set trap alarms for Security Alarm and Smoke Alarm. When all the phone numbers settings are completed, press the "Apply" icon.



■ Web/Telnet/FTP

This menu option sets the permissions for each user account for Web, Telnet and FTP access, (for up to 8 users). Restrictions to enable/disable specific ports for HTTP/HTTPS, Telnet/ SSH and FTP can be programmed from this screen.

- **HTTP/HTTPS**

  Management Protocol:

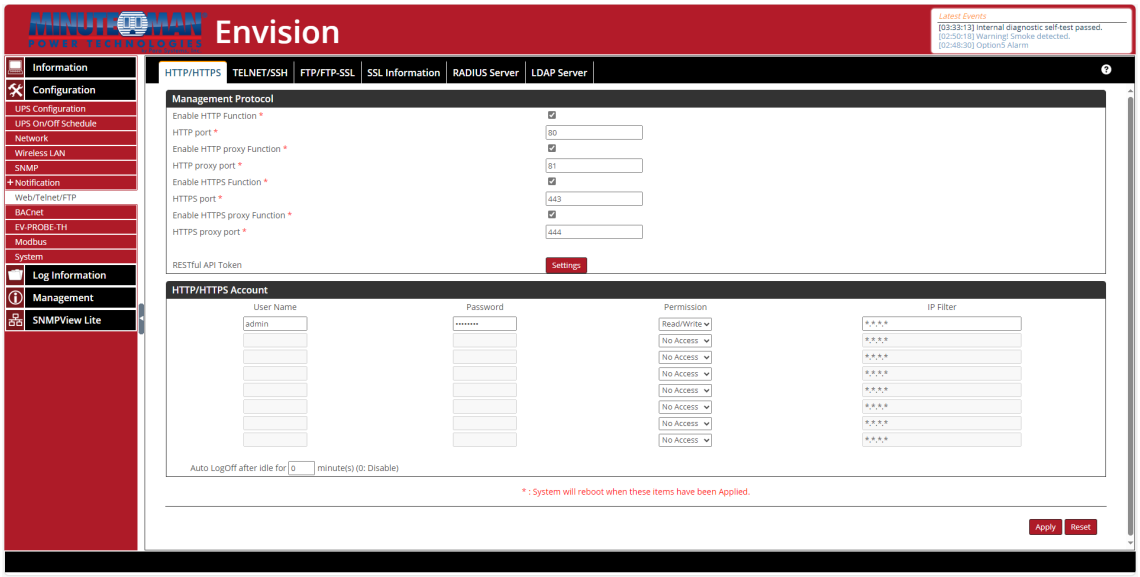
  – Enable HTTP Function: Check to enable then enter the specific port number to access.
  – Enable HTTP proxy Function: Check to enable then enter the specific port number to access.
  – Enable HTTPS Function: Check to enable then enter the specific port number to access.
  – Enable HTTPS proxy Function: Check to enable then enter the specific port number to access.
  – RESTful API Token: (Need additional definition)
    - Token should be created to allow remote Rest API connections over HTTPS

  HTTP/HTTPS Account:

  – User Name: Set up a User Name for use when using the EV-NETCARD-1G web browser access, (up to 8 are allowed) in the provided field(s).
  – Password: Create and use a password for each User Name to protect against unauthorized EV-NETCARD-1G card web access.

- Permission: Sets the level of user rights when accessing the EV-NETCARD-1G via the web browser. The options are: No Access / Read / Read&Write
  - Permission Rule： At least one user account must have Read/Write permission
  - Permission Rule : Read and Write permissions must have a User Name and cannot be blank
- IP Filter: Restrict access to the card to only specific IP addresses: (using "*.*.*.*" allows access from any IP address)

  Auto Logoff after Idle for X minute (s): Set the amount of time before the EV-NETCARD-1G webpage automatically logs the user out when there is no activity on the screen. (0 is disabled)

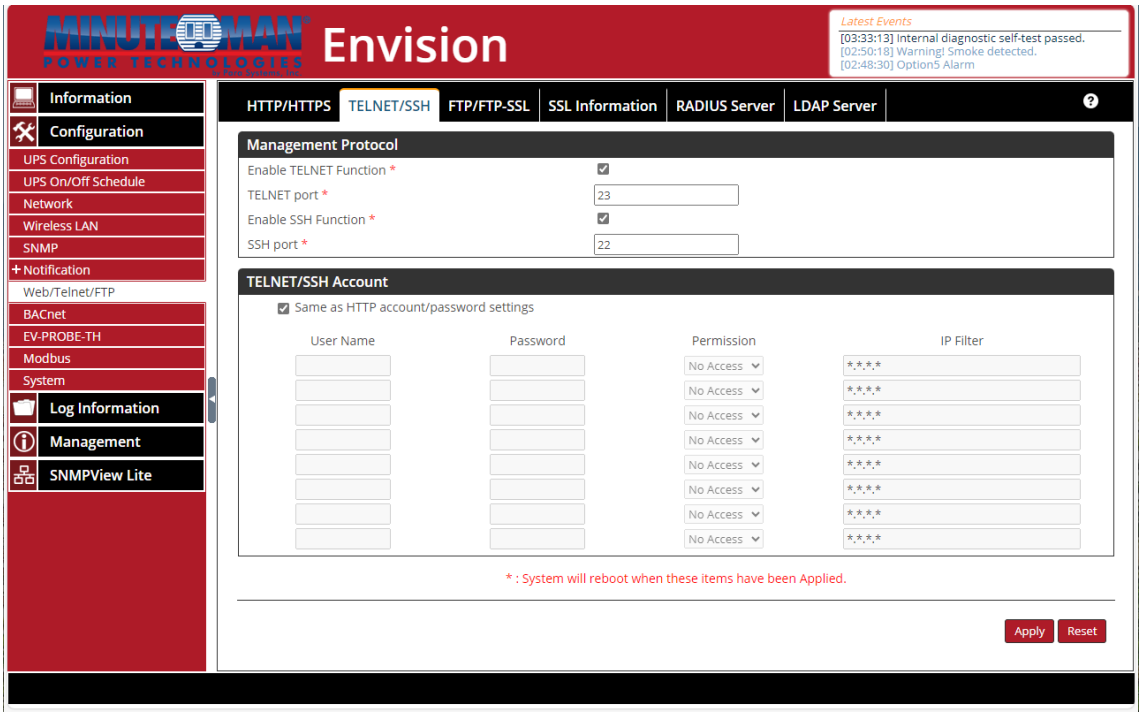


- **Telnet/SSH** - Enable and enter specific port information to access or disable Telnet/SSH Telnet/SSH communications.

  Management Protocol
  - Enable TELNET Function: To enable TELNET, select the checkbox then enter the preferred TELNET Port number.
  - Enable SSH Function: To enable SSH, select the checkbox then enter the preferred SSH Port number.

  TELNET/SSH Account:
  - Same as HTTP account/password settings: Checking this box will automatically duplicate the settings used for setting up the HTTP/HTTPS communications.
  - User Name: If not duplicating the HTTP settings, create or enter a User Name, (up to 8 are allowed) in the provided field(s).
  - Password: Create and use a password for each User Name to protect against unauthorized EV-NETCARD-1G card web access.
  - Permission: Sets the level of user rights when accessing the EV-NETCARD-1G via the web browser. The options are: No Access / Read / Read&Write
    - Permission Rule： At least one user account must have Read/Write permission
    - Permission Rule : Read and Write permissions must have a User Name and cannot be blank

- IP Filter: Restrict access to the card to only specific IP addresses: (using "*.*.*.*" allows access from any IP address)



- **FTP/FTP-SSL** - The menu will provide options to configure and set up the FTP/FTP-SSL access.

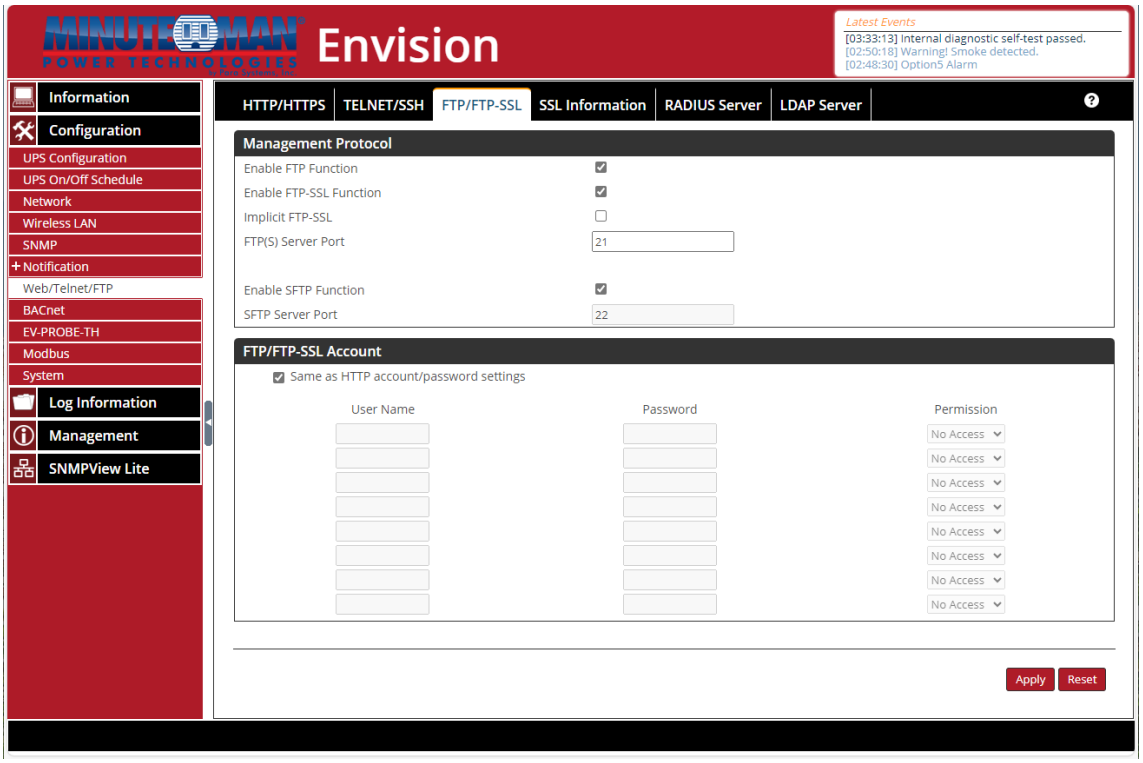
Management Protocol

- Enable FTP Function: Check the box to enable the FTP function.
- Enable FTP-SSL Function: Check the box to enable FTP-SSL protection
- Implicit FTP-SSL: Check the box to define a specific port for the client (990) to be used for secure connections
- FTP(S) Server Port: Select the port for server FTP(S) communications
  - Implicit FTP-SSL option forces the FTP client to connect securely from the start
- Enable SFTP Function: Check the box to enable SFTP function
- SFTP Server Port: Select the port for SFTP server communications.

FTP/FTP-SSL Account

- Same as HTTP account/password settings: Checking this box will automatically duplicate the settings used for setting up the HTTP/HTTPS communications.
- User Name: If not duplicating the HTTP settings, create or enter a User Name, (up to 8 are allowed) in the provided field for FTP access to the EV-NETCARD-1G card.
- Password: Create and use a password for each User Name to protect against unauthorized FTP access.
- Permission: Sets the level of user rights when accessing the EV-NETCARD-1G via the web browser. The options are: No Access / Read / Read&Write
  - Permission Rule : At least one user account must have Read/Write permission
  - Permission Rule : Read and Write permissions must have a User Name and cannot be blank

When all the configuration settings are completed, press the "Apply" icon and the card will reboot for all configurations to take effect.



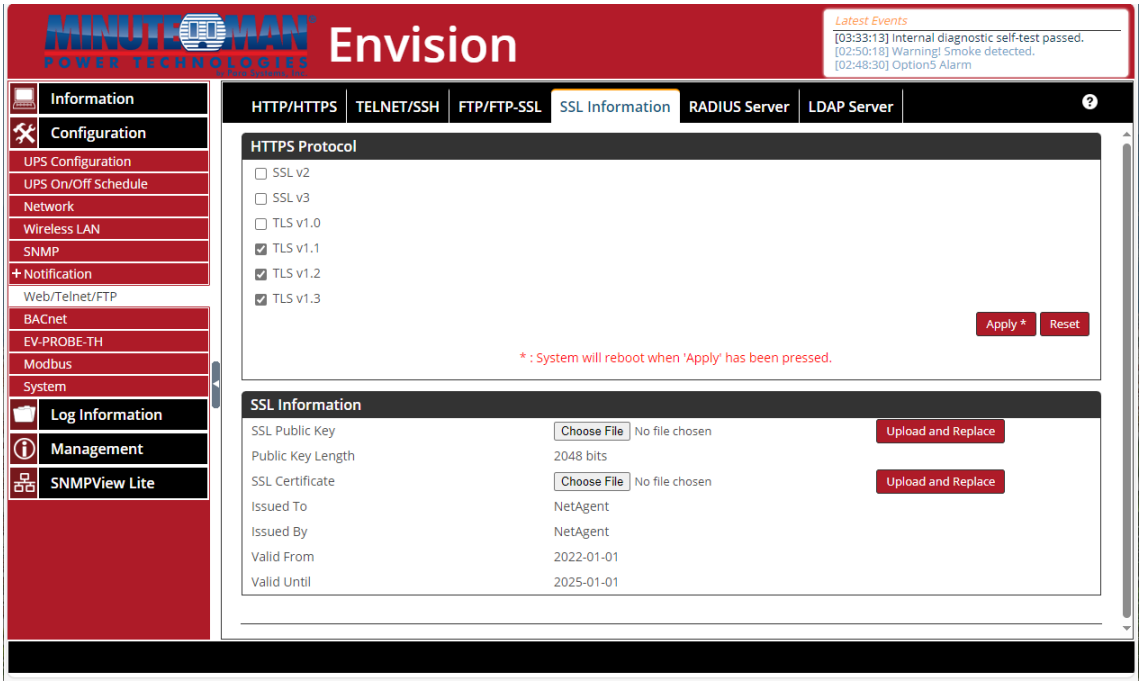
- **SSL Information** - The EV-NETCARD-1G card supports HTTPS protocol and varies SSL encryptions version for network connection. User may upload its Public Key and Certification for authentication.

  HTTPS Protocols - Select the encryption version to be used from the list provided:
  - SSL v2
  - SSL v3
  - TLS v1.0
  - TLS v1.1
  - TLS v1.2
  - TLS v1.3

  Once the selection is made, press the “Apply” icon. The card will then reboot with the updated SSL version.

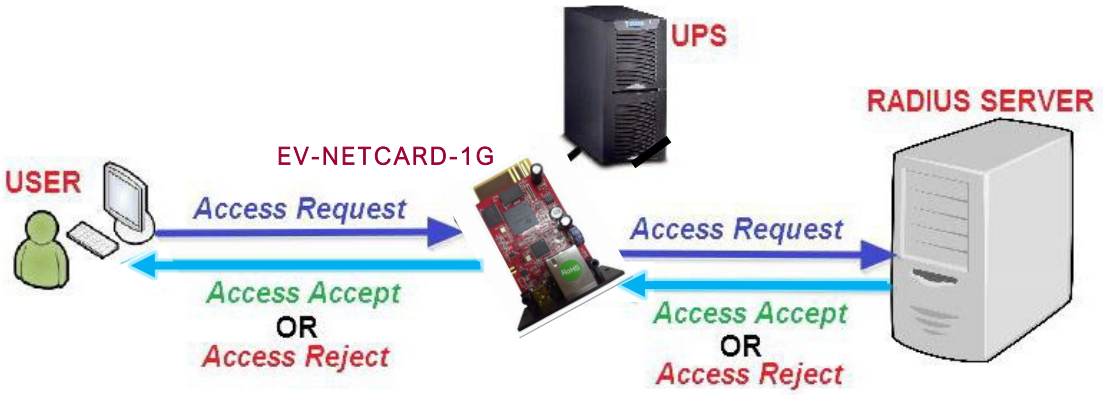
  SSL Information - Use the steps in this section to upload the SSL certificate. When both public key and certificate are uploaded to EV-NETCARD-1G web server, the SSL communication encryption will be activated.
  - Select Public Key: Search and find the Public Key file to upload to the web server. When found, press the “Upload and Replace” icon.
  - Public Key Length: Lists the length of the Public Key loaded into the web server.
  - SSL Certificate: Search and find the SSL certificate file to upload to the web server. When found, press the “Upload and Replace” icon.
  - Issued To / By: Lists the issuer and recipient of the SSL Key
  - Valid From / Until: Lists the term of validity for the certificate.

(To communicate via HTTPS, make sure to enable HTTPS port 443.) To have the EV-NETCARD-1G create its own public key and certificate, please refer to OpenSSL software on the OpenSSL website at: ***https://openssl-library.org/source/***



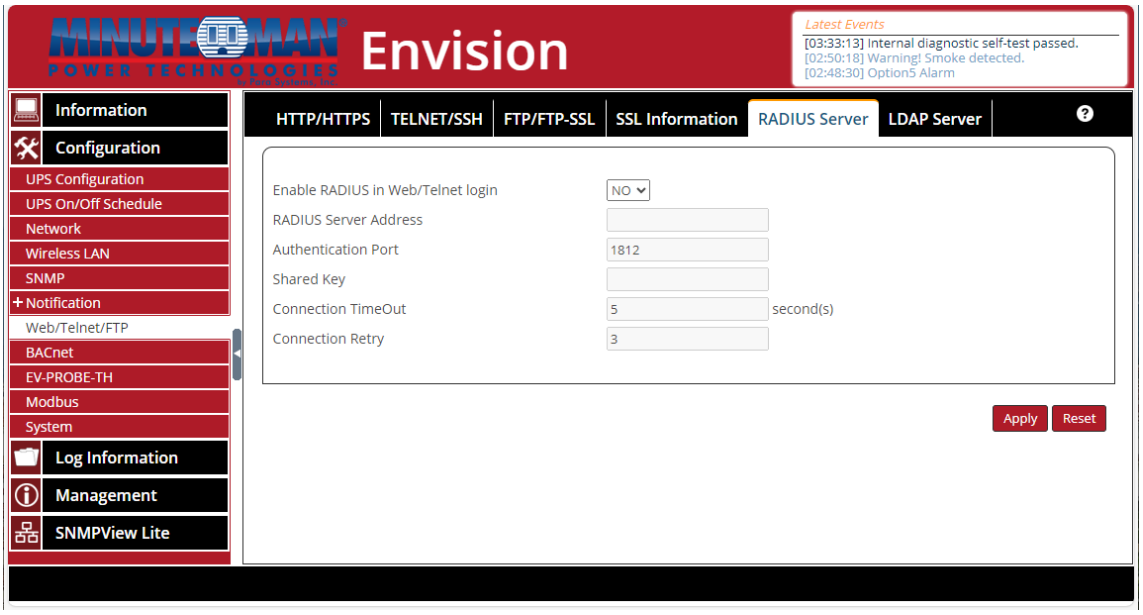
NOTE: When connecting the EV-NETCARD-1G using HTTPS, with its own generated public key and certificate, the web browser may show an error, please ignore and continue.

- **RADIUS Server** - RADIUS server authentication is supported on the EV-NETCARD-1G card. It can be configured and activated via the menu options.

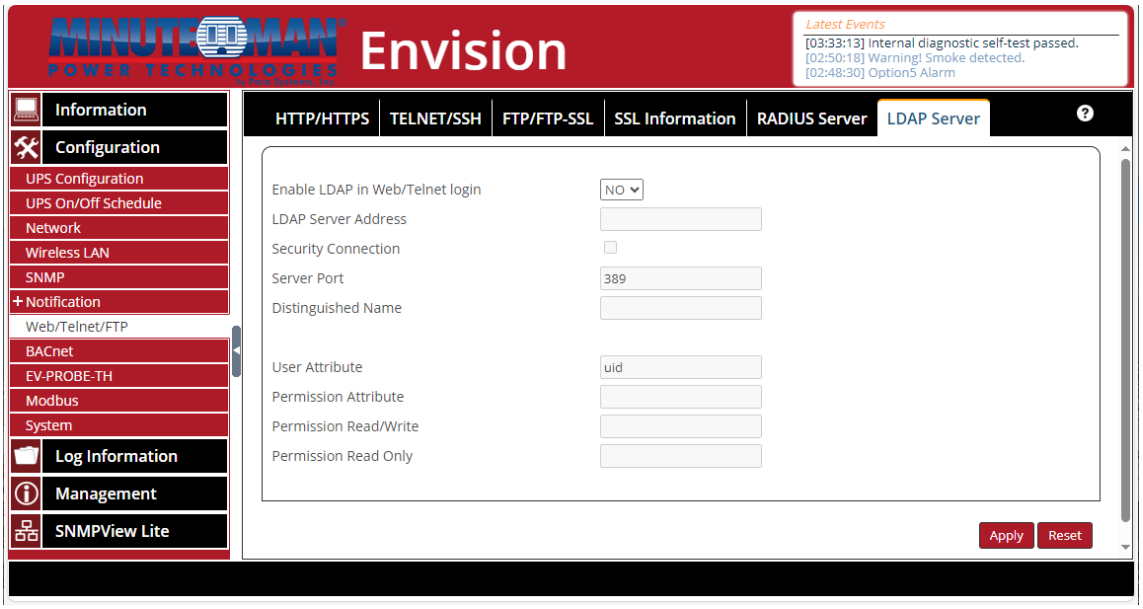


- Enable RADIUS in Web/Telnet Login: Select “Yes” or “No” from the dropdown menu
- RADIUS Server Address: If using RADIUS, enter the IP address of the RADIUS Server
- Authentication Port: Enter RADIUS port number (The default is 812)
- Shared Key: Enter the Shared Key between RADIUS Server and client
- Connection Timeout: Sets the number of seconds to suspend the login time after the RADIUS server is rejected
- Connection Retry: Sets the number of connections to the RADIUS server after connection failures.

When all the configuration settings are completed, press the “Apply” icon.



- **LDAP Server** - LDAP is a vendor-neutral software protocol used to lookup information or devices within a network. For setup information, please see your server settings.

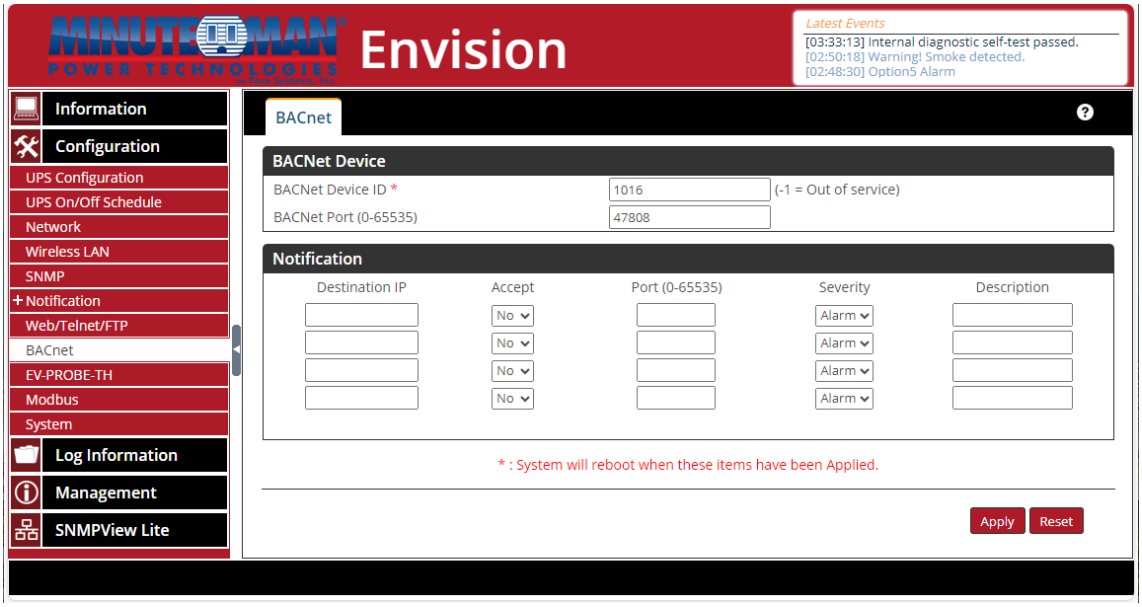


BACnet

The EV-NETCARD-1G card supports BACnet/IP (Building Automation and Control/Internet Protocol)

- BACNet Device: Use this menu option to configure the device ID and access port number for the EV-NETCARD-1G card when using BACnet for communications.
  - BACNet Device ID: Enter the assigned ID number to use for the card. (-1 is Out of Service)
  - BACNet Port (0-65535): Enter a BACNet port number for the card.
- Notification: Configure the recipients for notifications from the card.
  - Destination IP: Enter the IP address, (up to 4), for receiving notifications form the EV-NETCARD-1G card.
  - Accept: Set to receive notifications or not
  - Port (0-65535): Enter the BACNet Port number for the recipient.
  - Severity: List the type of notifications to send to the recipient: (Alarm or Event)
  - Description: This is an open field which provides a field to make notes for the administrator's reference.

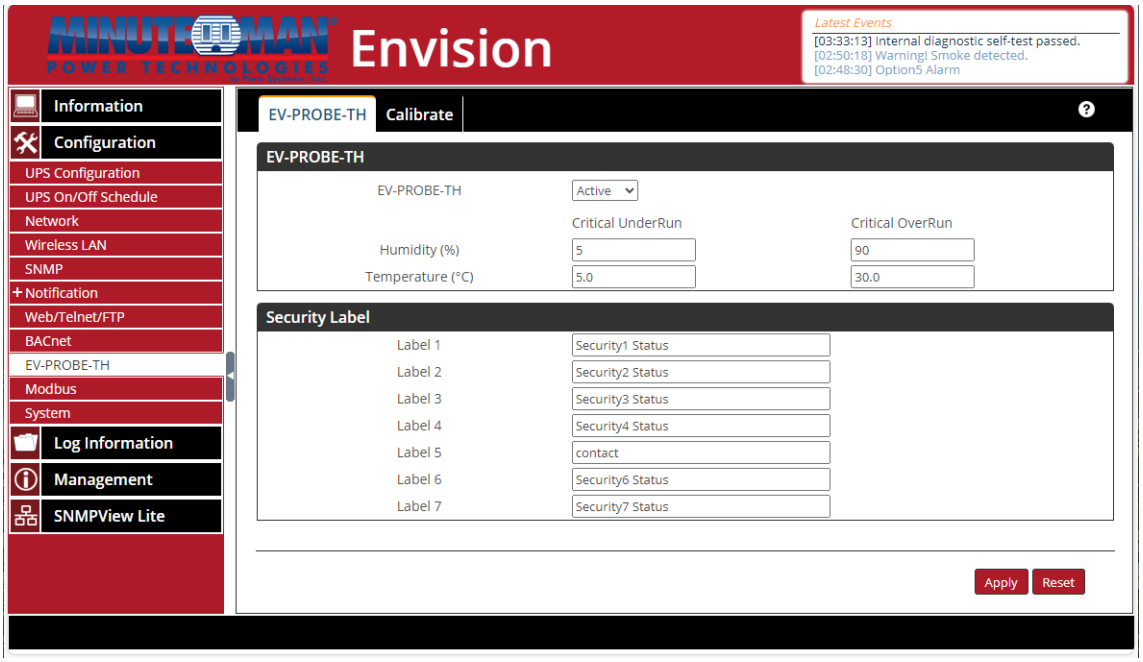
When all the configuration settings are completed, press the "Apply" icon and the card will reboot for all configurations to take effect.



■ EV-PROBE-TH

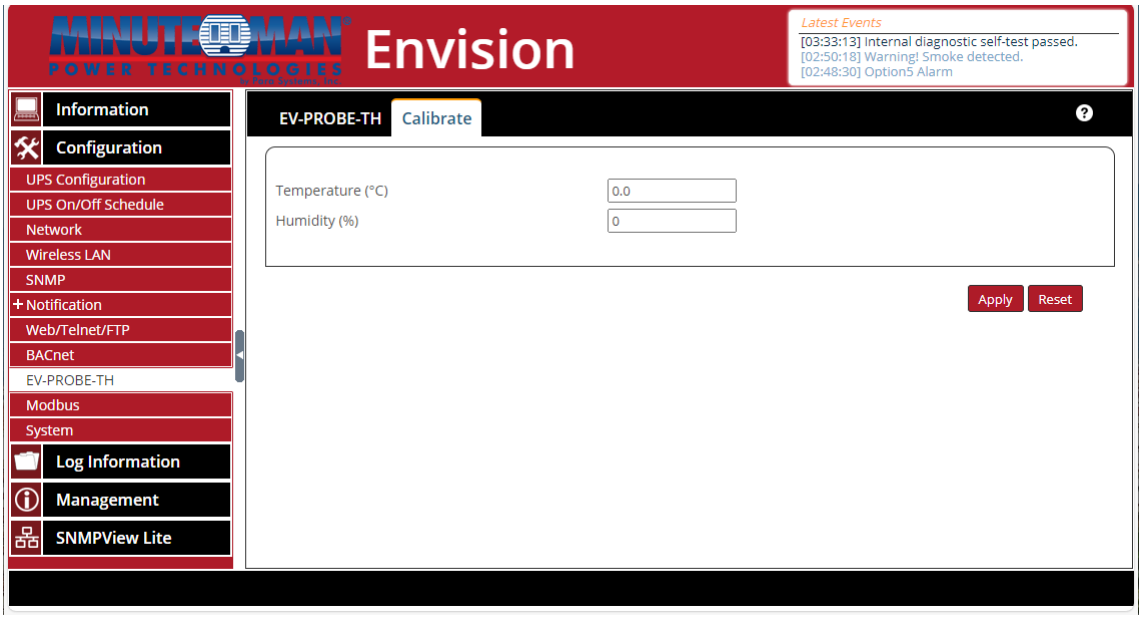
The EV-PROBE-TH is an optional external environmental sensor and hub device. Its primary purpose is to detect temperature, humidity and water conditions and trigger alarms when conditions warrant. The EV-PROBE-TH also contains a built-in RF receiver for use with other external sensors such as smoke and contact sensors.

- **EV-PROBE-TH**
  - EV-PROBE-TH: The EV-PROBE-TH, when configured, will sound an audible alarm and trigger a trap or warning message when it detects temperature and humidity values or standing water below and above the programmed settings.
    - EV-PROBE-TH: Enable or disable the probe function
    - Humidity (%): Program the minimum and maximum thresholds for humidity alarms.
    - Temperature (°C): Set the minimum and maximum thresholds for temperature alarms.
  - Security Label: Connect up to 7 additional contact sensors that communicate with the EV-PROBE-TH via RF. Use this section to set a descriptive location or name for each installed contact sensor.



- **Calibrate** – Use this tab to verify and calibrate the EV-PROBE-TH temperature and humidity settings. Use an external sensor to verify conditions and enter in the respective fields.

When all the configuration settings are completed, press the "Apply" icon.



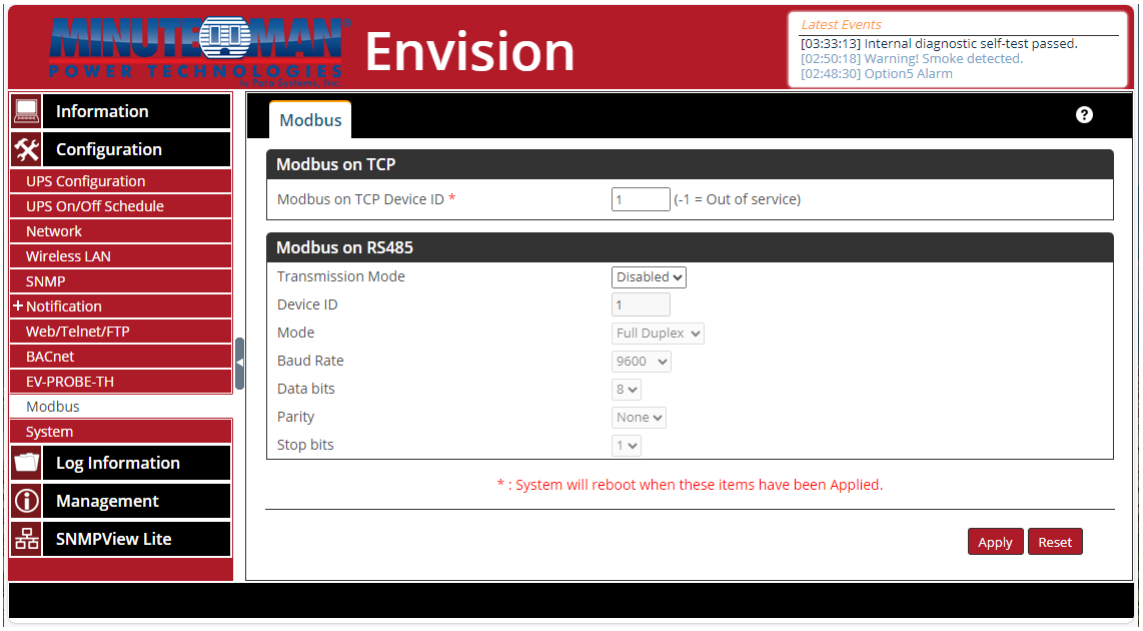
■ MODbus

Use this menu option to set the MODbus settings on the EV-NETCARD-1G card.

– MODbus on TCP/IP: To deactivate use of the MODbus function over TCP/IP, use the default (-1) setting. If activating, then select a port from 1-255.

– MODbus on RS485: Program the settings for use of the MODbus function over a RS485 connection.

When all the configuration settings are completed, press the “Apply” icon.

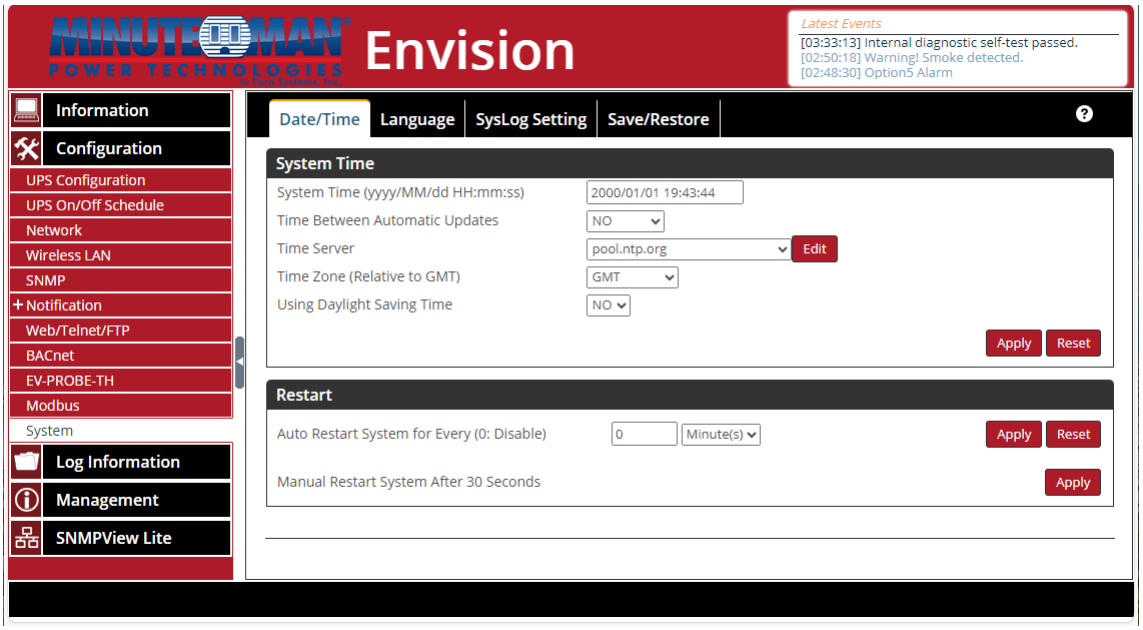


■ System

Use this menu option to set the EV-NETCARD-1G card system time, language and SYSLOG configuration.

- **Date/Time** - Synchronize the EV-NETCARD-1G card with an external source or internal Time Server for correct date and time settings.
  - System Time:
    - System Time (yyyy/mm/dd hh:mmm:ss): Set the initial date and time to manually display on the EV-NETCARD-1G card.
    - Time Between Automatic Updates: Sets an interval for time synchronizations.
    - Time Server: The use of an internet-based time server can be selected from the drop down list or add other time server manually.
    - Time Zone(Relative to GMT): Choose the time zone for the installation site by selecting an option from the dropdown menu, (relative to the GMT time zone).
    - Using Daylight Saving Time: Select “Yes” or “No” for using the automatic daylight savings adjustment feature.
  - Restart:
    - Auto Restart System for Every (0 is disabled): Set the EV-NETCARD-1G to restart automatically at preset hour or minute or select “0” to disable. Press “Apply” to complete the programming.
    - Manual Restart System After 30 seconds: Press the “Apply” icon to perform a restart of the EV-NETCARD-1G card. (The restart has a 30-second delay after pressing “Apply”.

When all the configuration settings are completed, press the “Apply” icon.

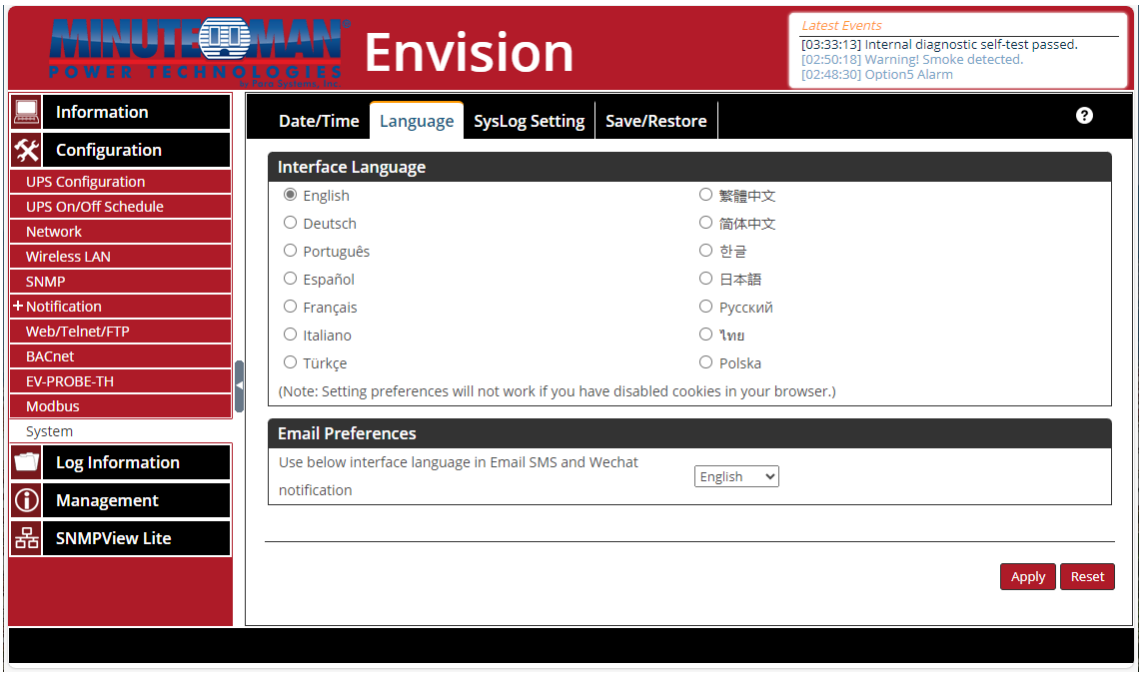


- **Language** - Program the preferred language interface settings for the EV-NETCARD-1G card.
  - Interface Language: Select the preferred language to use for the web browser interface of the EV-NETCARD-1G card. When first logging in to the EV-NETCARD-1G webpage, it will auto detect the default OS language of the PC and show the same language until changed and active using this option.

    Languages supported by the EV-NETCARD-1G card:

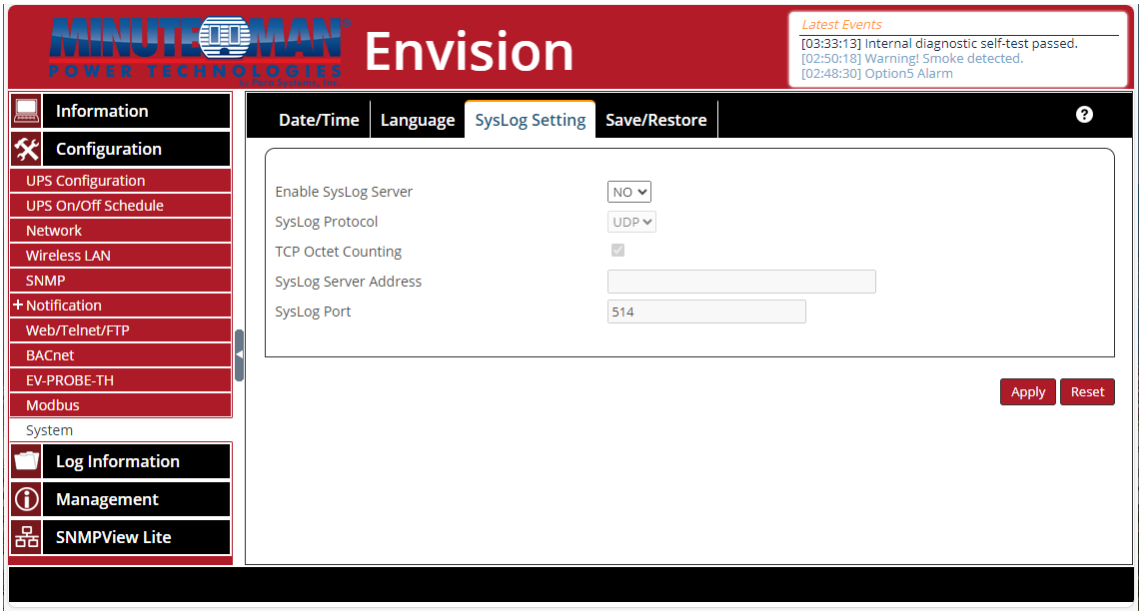
    - English
    - Deutsch
    - Português
    - Español
    - Français
    - 繁體中文
    - 한글
    - Русский
    - Polska
    - Italiano
    - 簡體中文
    - 日本語
    - ไทย
    - Türkçe

    NOTE: Cookies must be enabled on the web browser before using this function.
  - Email Preference: Select the language preference when sending email and SMS alarm messages.

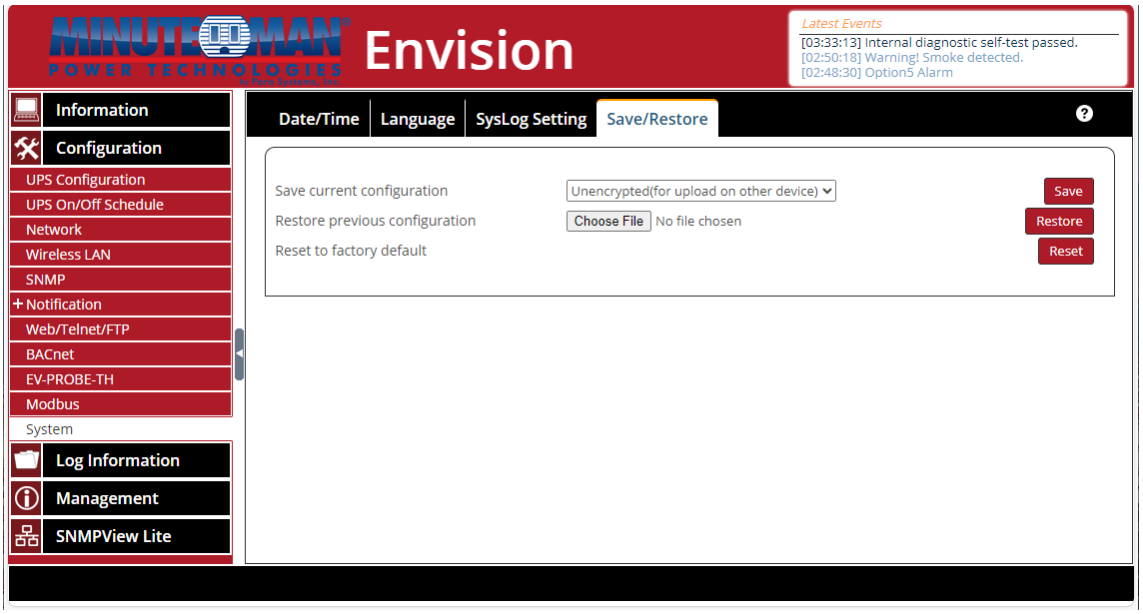


- **SYSLOG Setting** - Use this menu option to set the SYSLOG configuration.
  - Enable Syslog Server: Select No or Yes for activation of the Syslog function.
  - Syslog Protocol: Choose either UDP or TCP for the Syslog protocol
  - TCP Octet Counting: Check if using TCP Octal counting
  - Syslog Server Address: Program the network address of the Syslog server.
  - Syslog Port: Choose the port to use for communication with the Syslog server

When all the configuration settings are completed, press the “Apply” icon.



- **Save/Restore**
  - Save Current Configuration: Choose “Encrypted” or “Unencrypted” from the drop down menu to save the current EV-NETCARD-1G configuration to the PC. If uploading to another computer, select “Unencrypted”. The default name of the text file will be: YYYY_MMDD_####.cfg.
    NOTE: Administrator permission required to save the file.
  - Restore previous configuration: Use this menu option to restore a previously saved configuration. Select “Browse” and to locate the file and press the “Restore.” icon.
  - Reset to factory default: Selecting this option will reset all features of the card to its default values.

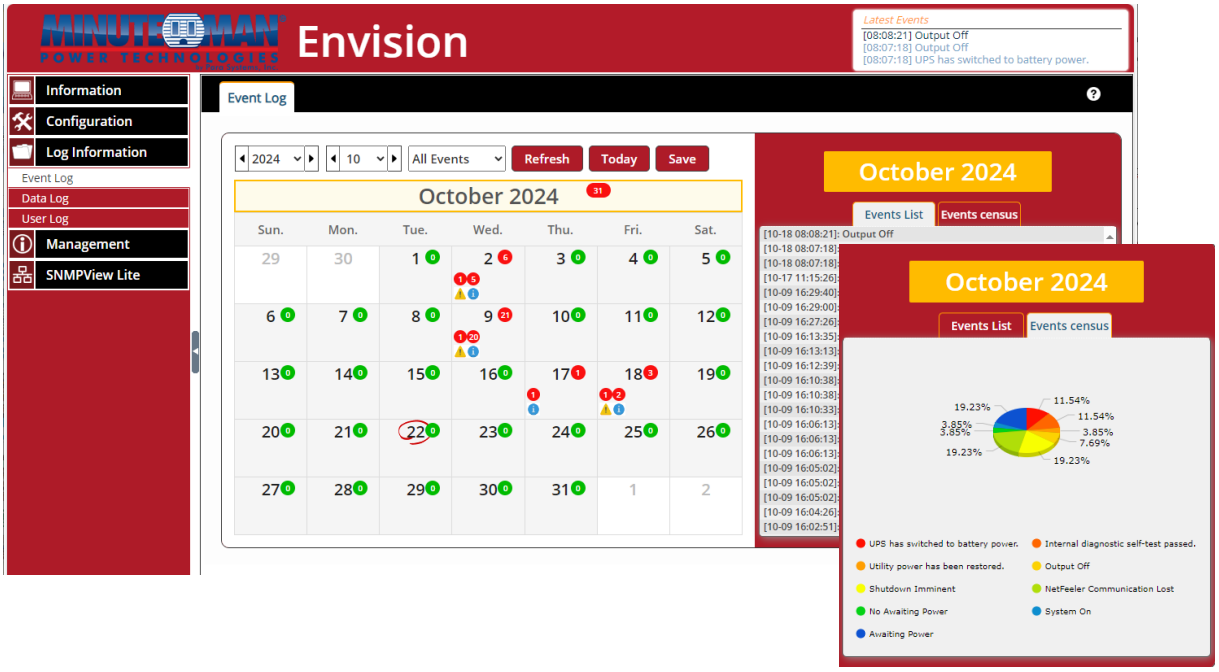


4.4.3 Log Information

■ Event Log

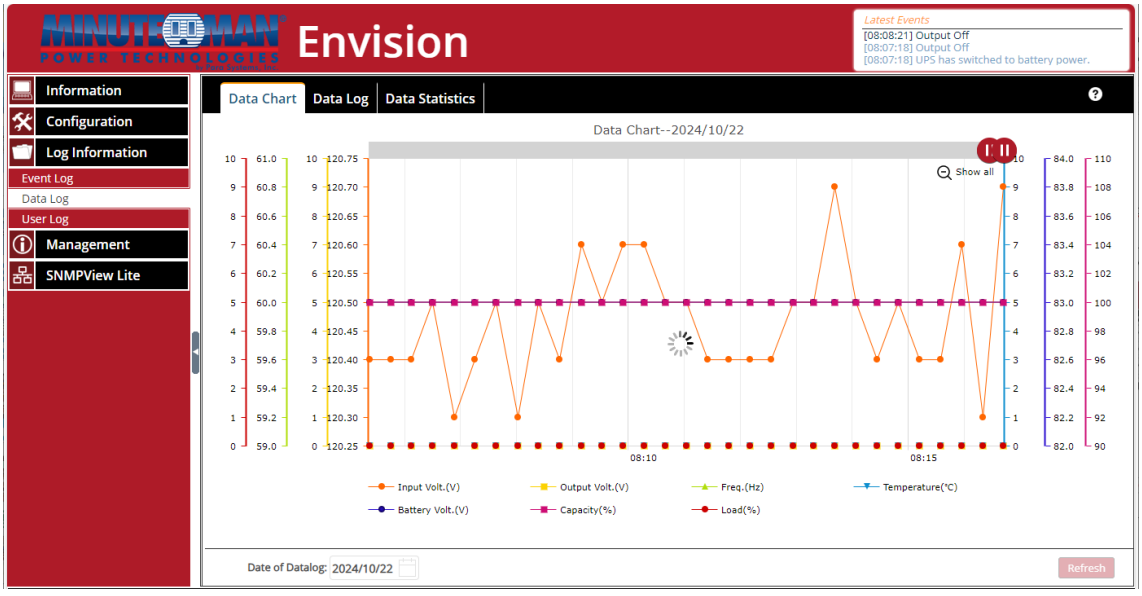
A calendar of events that occur to the UPS.

- Event List: The Event Log displays a record of all events that occur to the UPS, stamping the event by Date and Time. It also provides a detailed description of the event. Select any month or year on the calendar and the events from that month will be displayed. Events can also be filtered by Type: Severe, Warning or Notification. Press the “Refresh” icon and the calendar will update events from the previous refresh. Press the "Today” icon for a list of events for the current day. Press the “Save” icon to download the current list of events to a PDF document.
- Event Census: Present the recorded events, within the defined time frame in a statistical manner.



■ Data Log

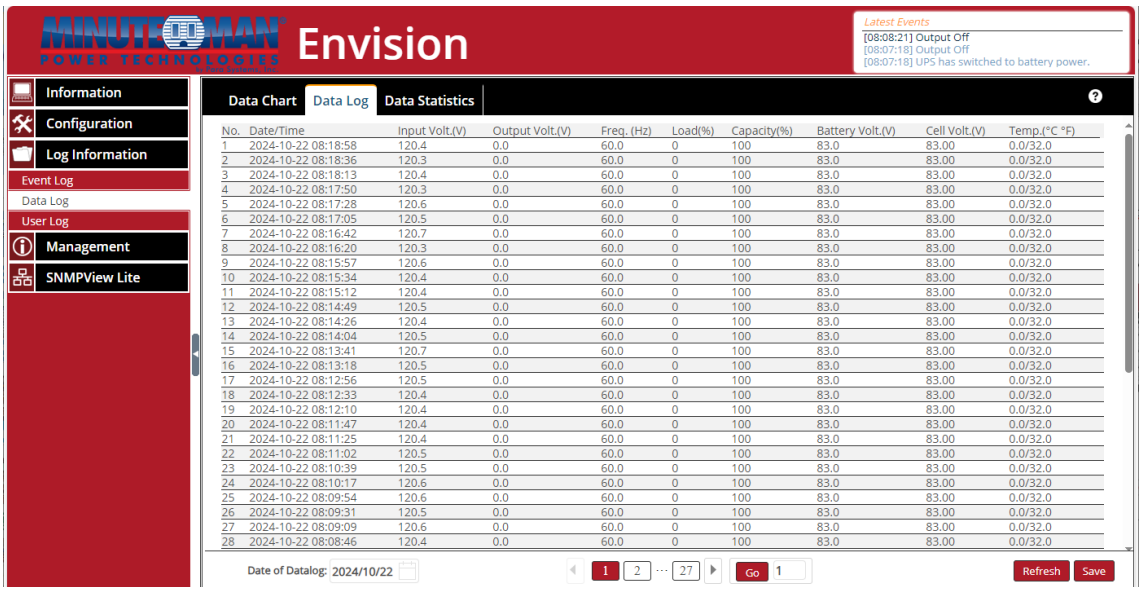
- **Data Chart -** Records a real-time set of data points concerning the UPS: Input Volt.(V); Output Volt.(V); Freq.(Hz); Temperature(°C), Battery Volt.(V); Capacity(%) and Load(%). Logs can be saved in CSV format by clicking on "Save". The bar on top can be adjusted to check the log status at specific time of the day.



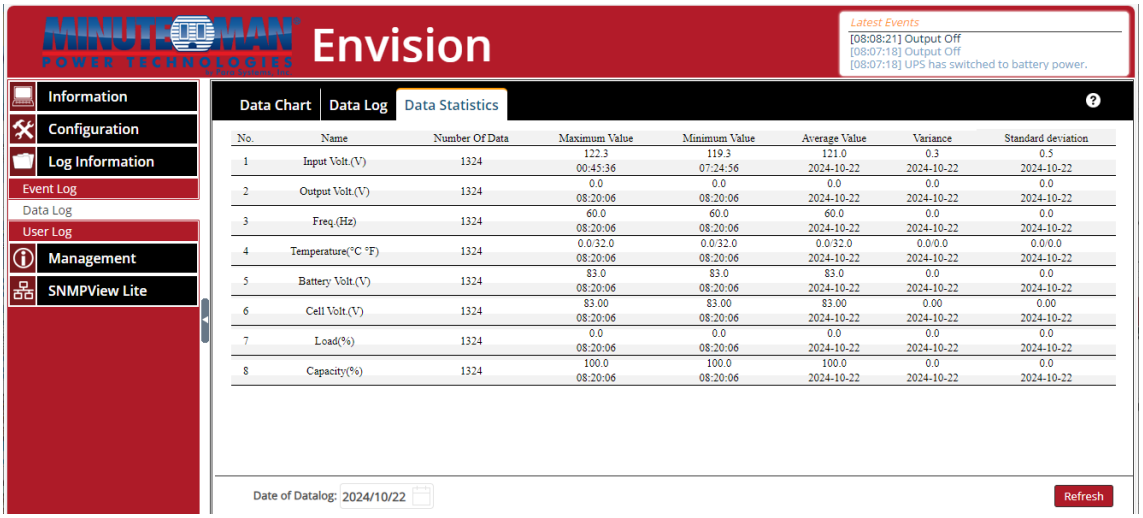
- **Data Log** - This menu option records UPS statistics in a list format and are date and time stamped as they occur. This list includes:

Input Volt(V)	Output Volt(V)
Freq.(Hz)	Load(%)
Capacity(%)	Battery Volt(V)
Cell Volt(V)	Temp.(°C°F

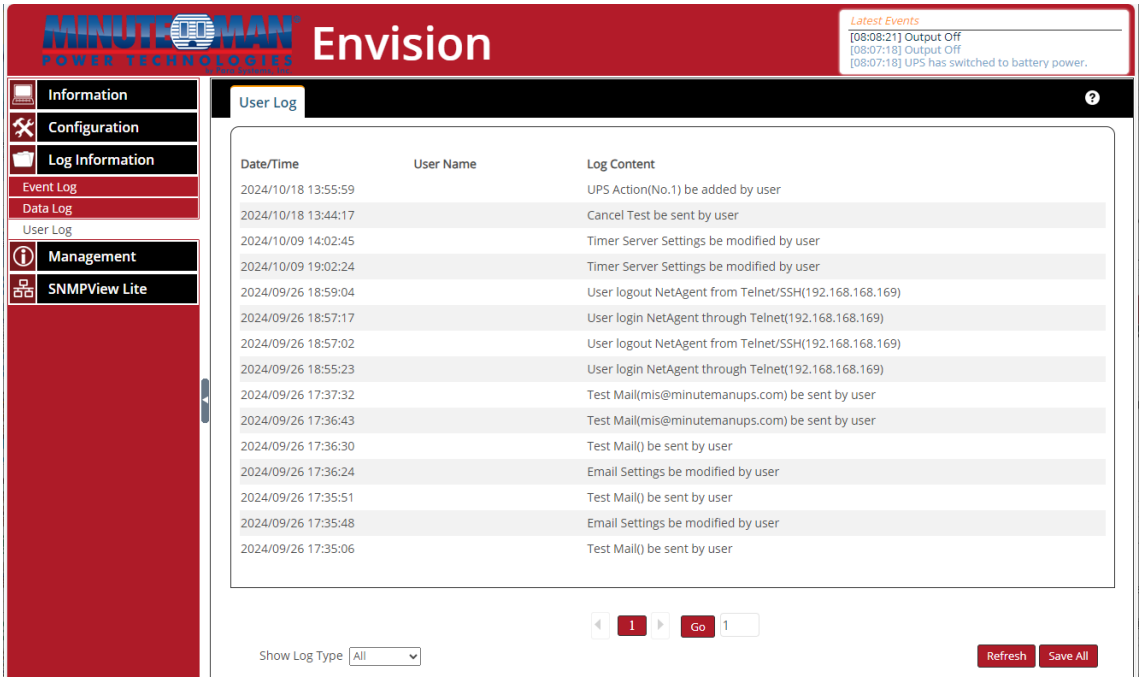
NOTE: When the EV-PROBE-TH is installed, data from connected sensors will also be available.



- **Data Statistics -** Provide details and directions for the current day Data Statistics of the connected UPS.



- **User Log -** Provides a running log actions performed through the EV-NETCARD-1G card.



4.4.4 Management

■ Envision Web

- **Netcard Web** - This menu option will display all of the Envision Netcards installed within the network. Each card listing will include: its serial number; Mac Address; Hardware/Firmware version and IP-address. Highlight and select a card to bring up available configuration options.

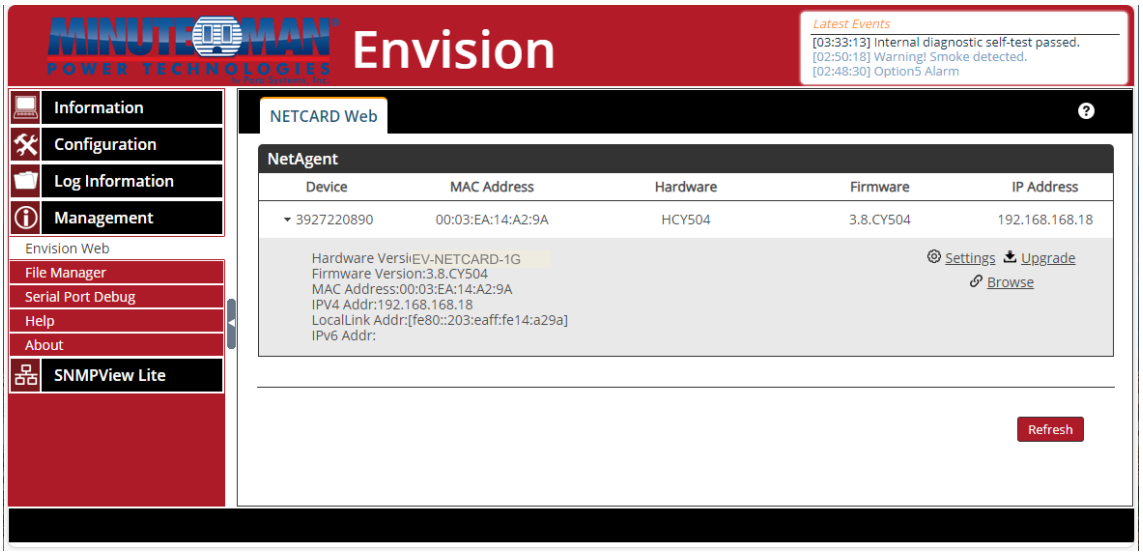
  – Settings: Updates and changes can be made to the network accessibility of the Envision Netcard. If the fields on this window are left blank, the EV-NETCARD-1G will not be accessible. ★ **WARNING:** Any changes made can have a direct affect on the accessibility of the card on the network.
    - IPV4 Address: Enter a new IP address using, DHCP, Bootp or manually entering a static IP address. If entering a static, enter the preferred IP address, Subnet Mask and Gateway address in the provided fields, then press “OK”.
    - IPV6 Address: Create an IPV6-based address for the card using: Automatic, Stateless DHCPV6, DHCPV6 or automatic options. If using “Manual” enter the preferred IP address, IPV6 Prefix and the Gateway address in the provided fields, then press “OK”.
    - Advanced: Set the preferred available protocol functions used by the card. The card can accept one or more of the following: HTTP, HTTPS, TELNET, and SSH. When selecting an option, input the port number to use for that option. When completed, press the “OK” icon.

- Password: Set or change a password for access to the card. If a password is previously in use, enter the old password in the field provided, then enter the new password and confirm it before pressing the "OK" icon.

– Upgrade: When selected, follow the instructions to download the new configuration file created for the card.

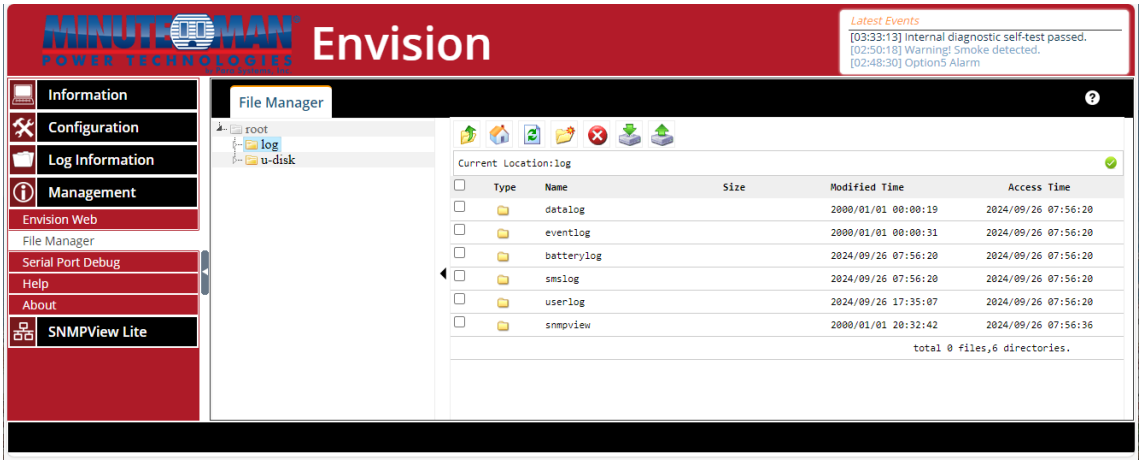
– Browse: Selecting "Browse" will directly redirect the web browser to the webpage of the card.

If the EV-NETCARD-1G is accessible by WAN IP, the Envision Web utility will also be able to list out all the other available EV-NETCARD-1G cards under same LAN. (HTTP port 81 must be enabled on the EV-NETCARD-1G with WAN IP and domain to be as http://xxx.xxx.xx:81 where (xxx.xxx.xx) is the WAN IP or domain name.



File Manager

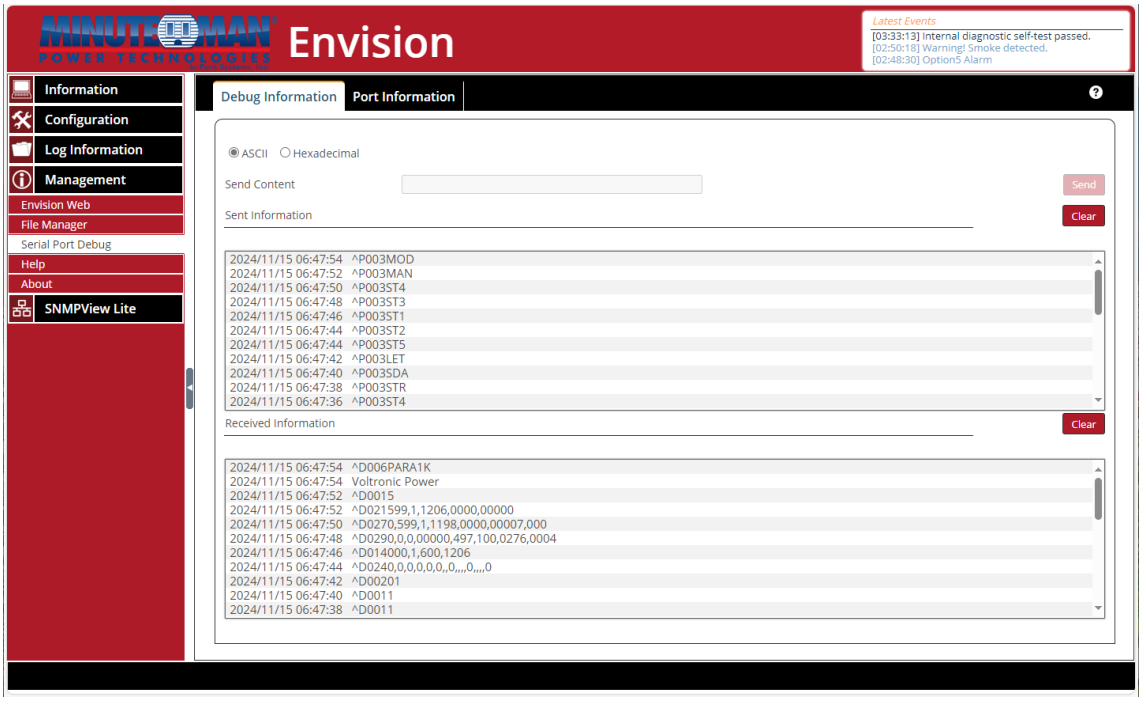
Use this menu option to manage Datalog files generated by the EV-NETCARD-1G card as well as configuration files used for the batch programming multiple cards over a network. Once the datalog files have been reviewed, they can be saved or deleted. If a "dat. File" is deleted, the log record will also be erased on the Log display of the card, under the Log Information menu tab.



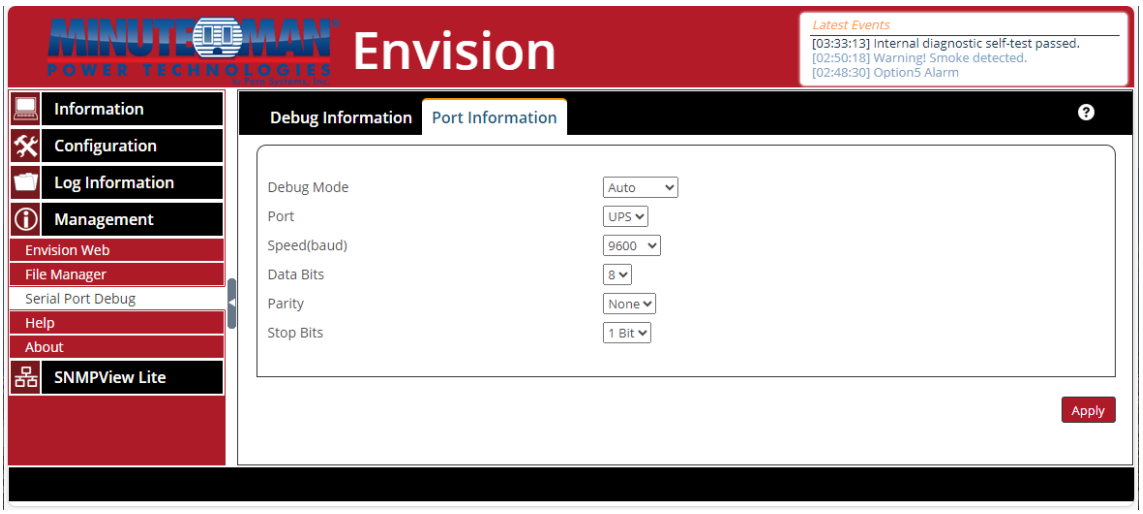
Serial Port Debug

Logs the communication status between the EV-NETCARD-1G card and the UPS, listed through Sent and Received sections.

- **Debug Information** - Commands can be sent automatically by the EV-NETCARD-1G card to the UPS. Commands can also be manually sent by entering the command to the UPS in the "Sent Content" field. Select either ASCII or Hexadecimal format when sending commands.
  - Sent Information: This section shows the real time sent commands in chronological order to the UPS.
  - Received Information: This section displays the responses of the UPS to the EV-NETCARD-1G card.

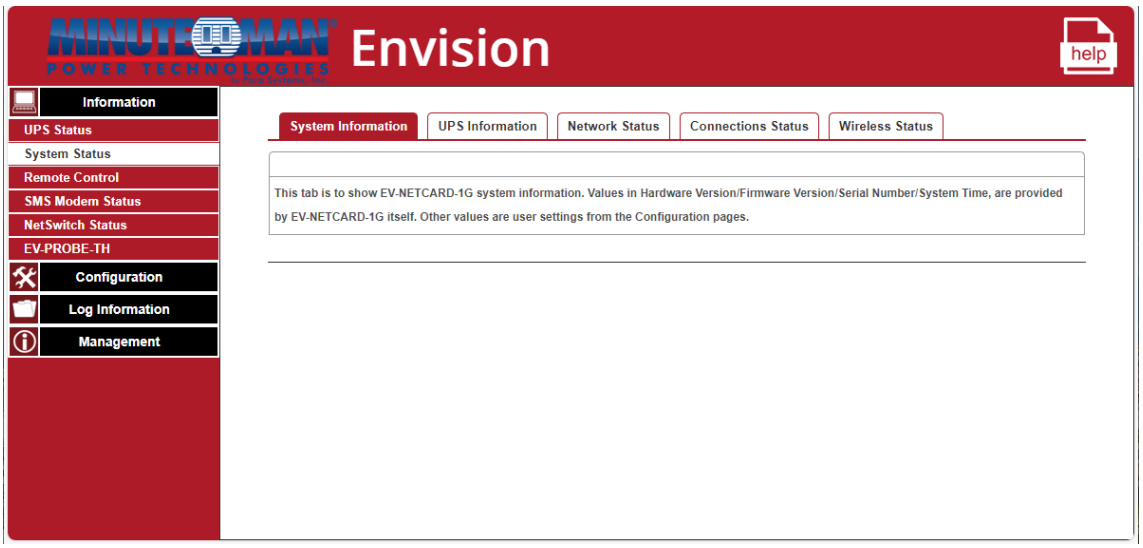


- **Port Information** - Configures the communication parameters between the EV-NETCARD-1G card and the UPS. The available parameters are: Debug Mode, Port, Speed (Baud), Data Bits, Parity and Stop Bits. The two encoding formats are: ASCII or Hexadecimal.



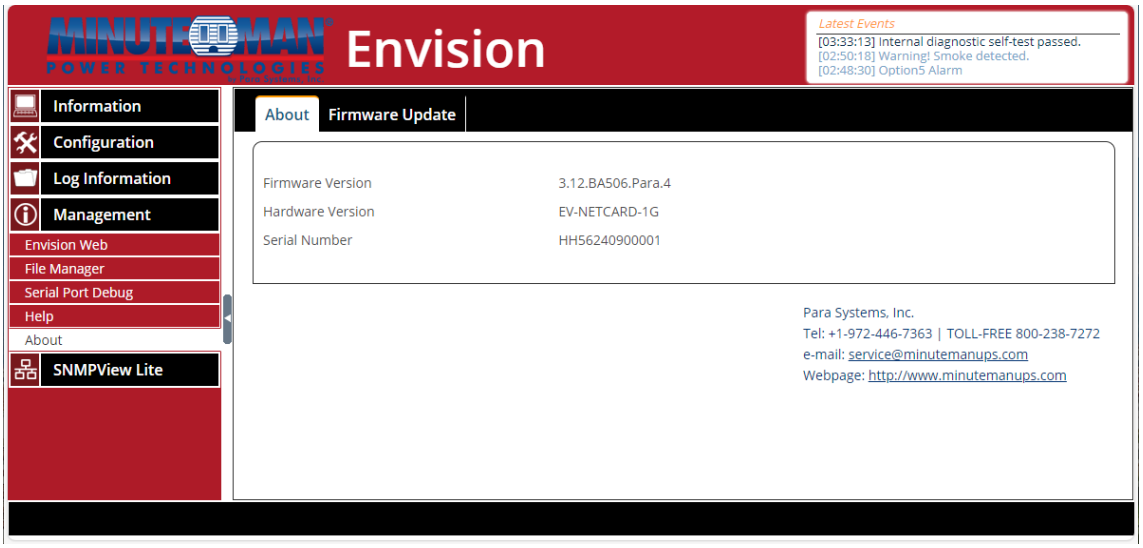
Help

The EV-NETCARD-1G card offers an online Help resource library that provides answers to questions and description on the function if individual pages of the web browser interface.



About

- **About -** Displays the hardware and firmware revisions as well as the serial number for the card.



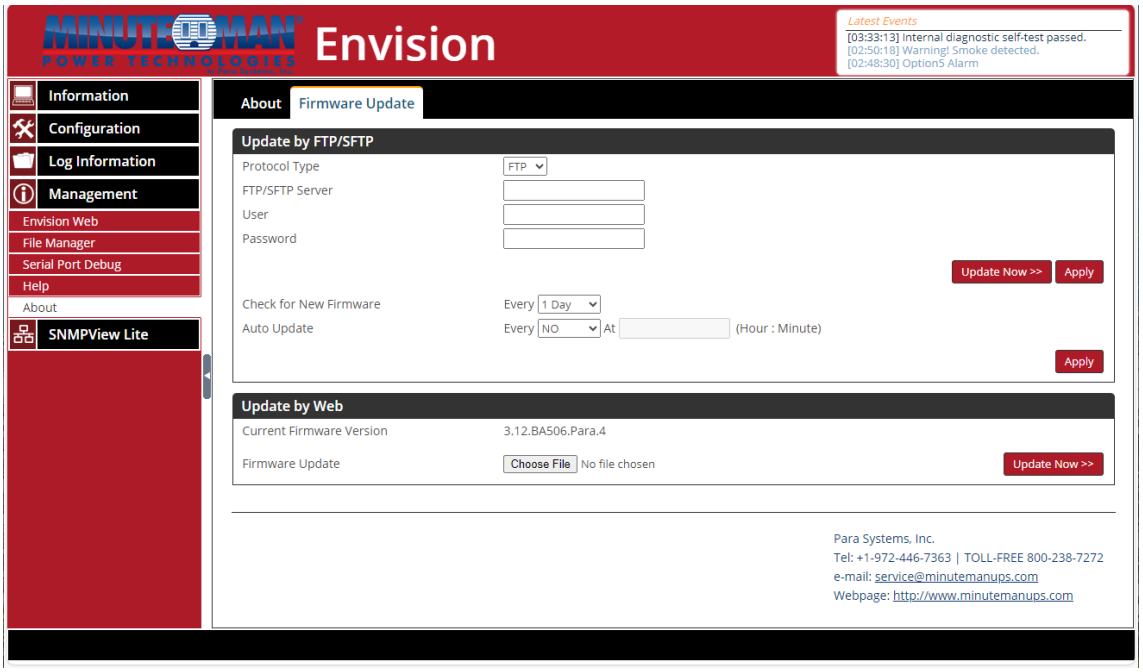
- **Firmware Update** - This menu option is used for updating the firmware of the EV-NETCARD-1G card.
  - Update by FTP/SFTP:
    - Protocol Type: Set the protocol between FTP and SFTP using the dropdown menu
    - FTP/SFTP Server: Enter the FTP server location on the network for the firmware update
    - User: Customer's user credentials
    - Password: Enter the password for the user.

  When the information has been entered, select "Apply" to save the settings. The firmware will commence according to the programmed settings. Press the "Update Now" to manually perform the firmware update.

    - Check for New Firmware: Select an interval date from the dropdown menu.
    - Auto Update: Select an interval and time to perform the firmware upgrades using the dropdown menu and open field.

  When the information has been entered, select "Apply". The firmware will update according to the programmed settings.

  - Update by Web:
    - Current Firmware Version: Displays the current firmware used by the EV-NETCARD-1G card
    - Firmware update: Choose a specific folder and file to use for updating the firmware of the card, then press the "Update Now>>" icon to begin the update process.

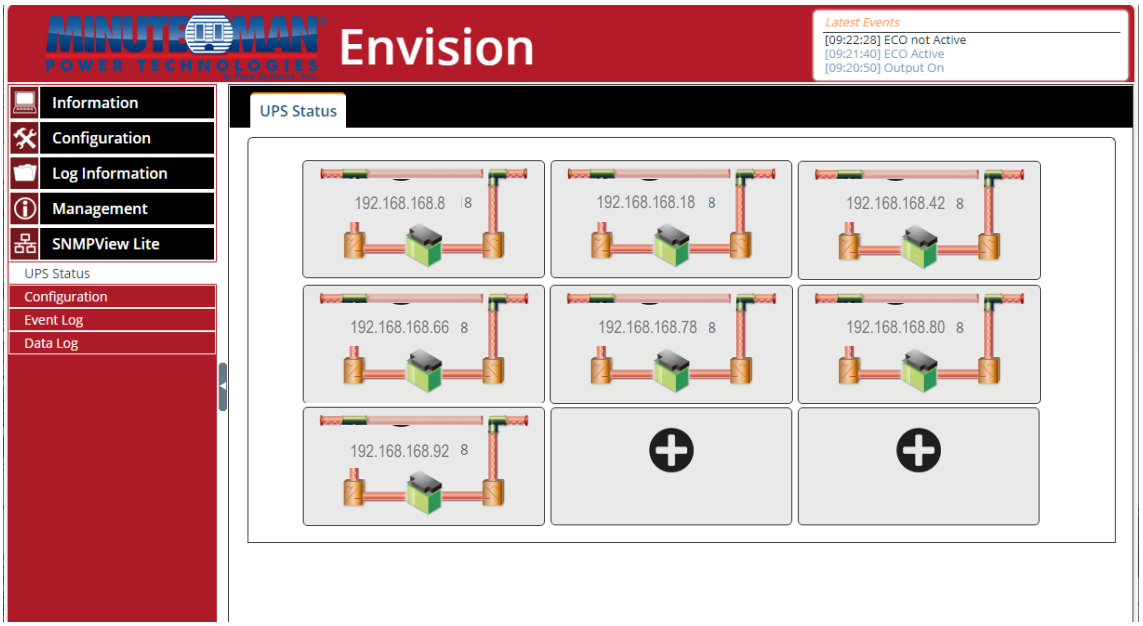


4.5 SNMPView Lite

SNMPView Lite provides a single platform for real-time monitoring and programming of up to 9 active EV-NETCARD-1G cards over a network connection.

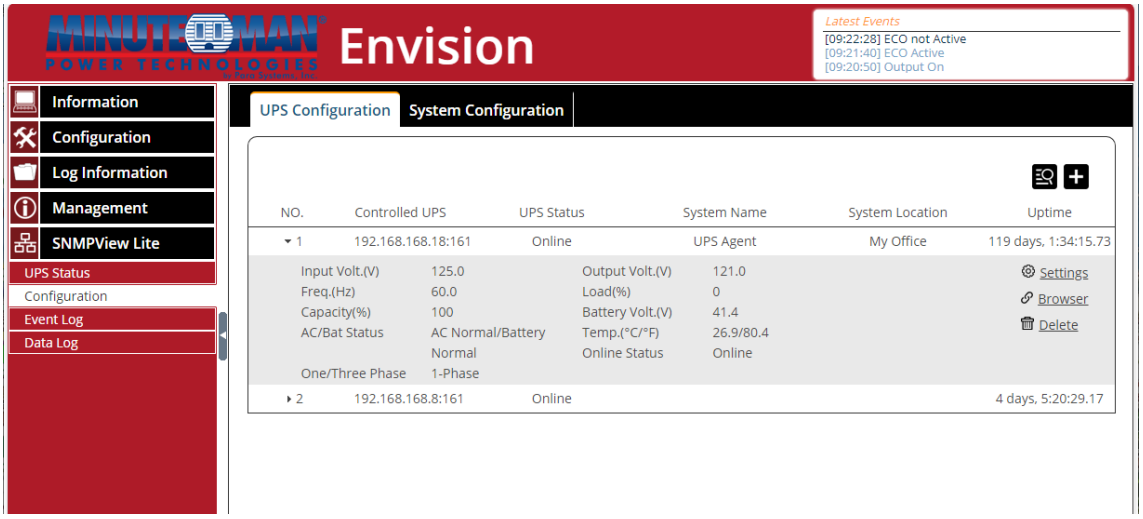
■ UPS Status

- **UPS Status** – The UPS Status page can provide a real-time display of up to 9 EV-NETCARD-1G cards over a network connection. The monitoring screen will show the current UPS connection status in graphic mode with Voltage, Frequency, IP-address and other information. Any of the 9 active cards displayed can be removed and/or replaced with other cards on the network using the Configuration menu.

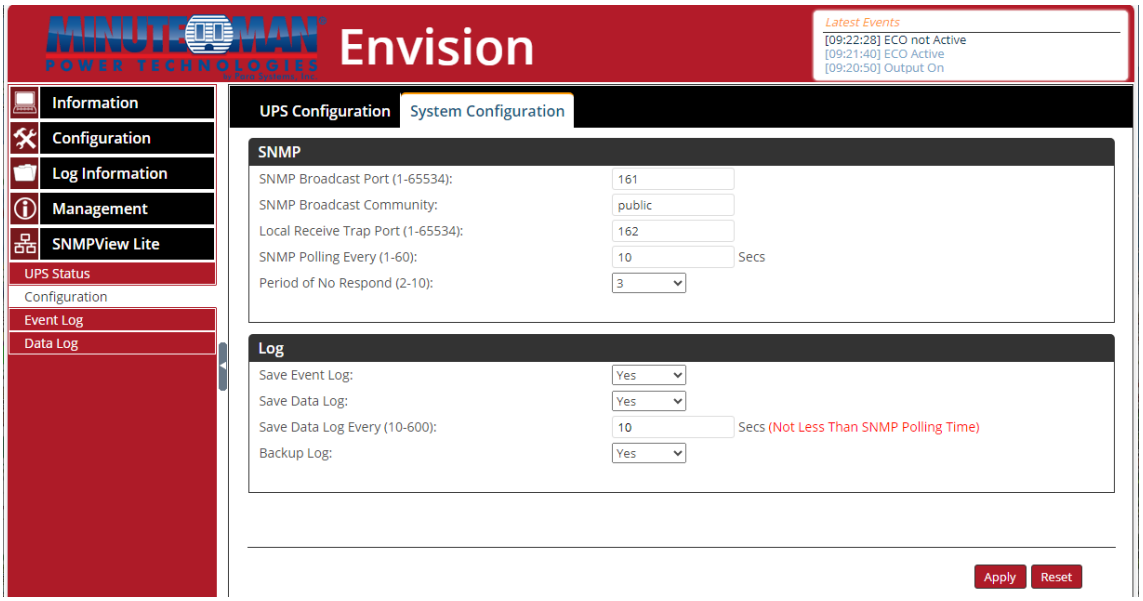


Configuration

- **UPS Configuration** – The Configuration page provides a real-time list of up to 9 EV-NETCARD-1G cards over a network connection. The cards listed on this page will be the same as the cards listed on the UPS Status page. Selecting any one card among the list will expand the detailed information on that card.
  - Settings: Review or Update and change the IP-address information for the card. The security level of the card, (SNMPv1, SNMPv2c, SNMPv3), can also be updated using this screen.
  - Browser: Selecting Browser will redirect the browser screen directly to the selected card.
  - Delete: Selecting Delete will remove the card from the list of monitored cards and from the UPS Status screen

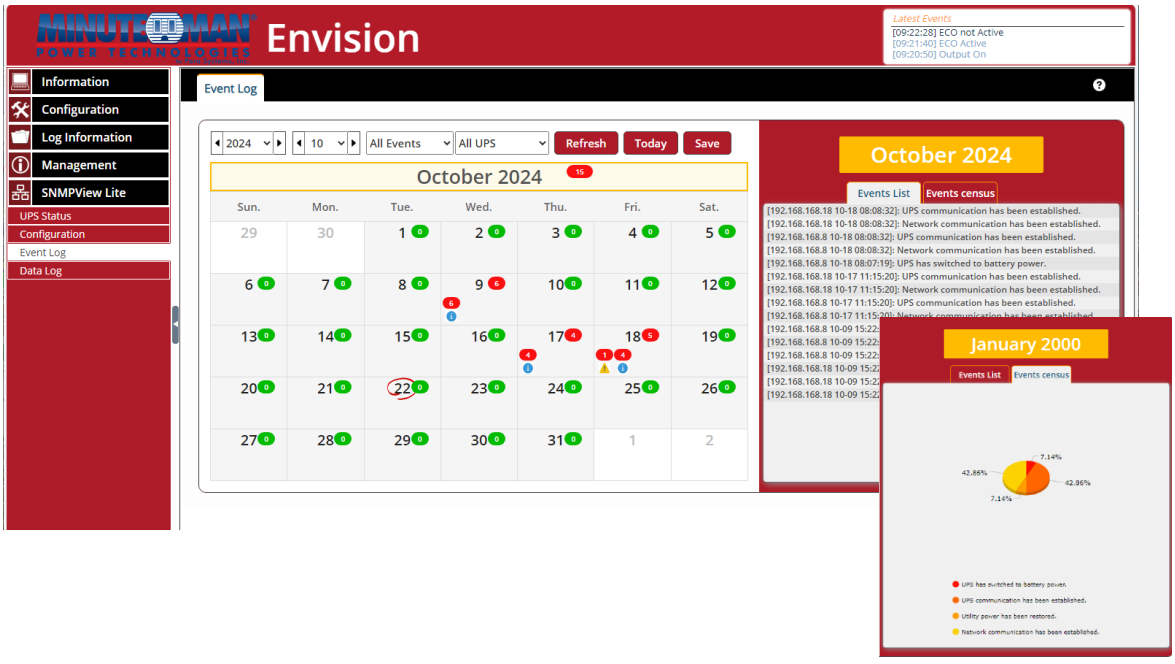


- **System Configuration** – Provides an option to change the system settings for the cards included on the UPS Status and Configuration pages. The changes on this page will only affect the cards that are actively being monitored.
  - SNMP: View the current port settings and community settings for the active cards on the UPS Status page or make any changes desired. The SNMP polling interval for the cards also can be altered. Use the "Period of No Response" field to change the number of times the selected cards are pinged without response before an alarm is issued.
  - Log: The Log fields allow for activating or deactivating the Event and Data logging functions. The interval for the reporting of data and events can also be adjusted as well as the creation of a backup log, if desired.



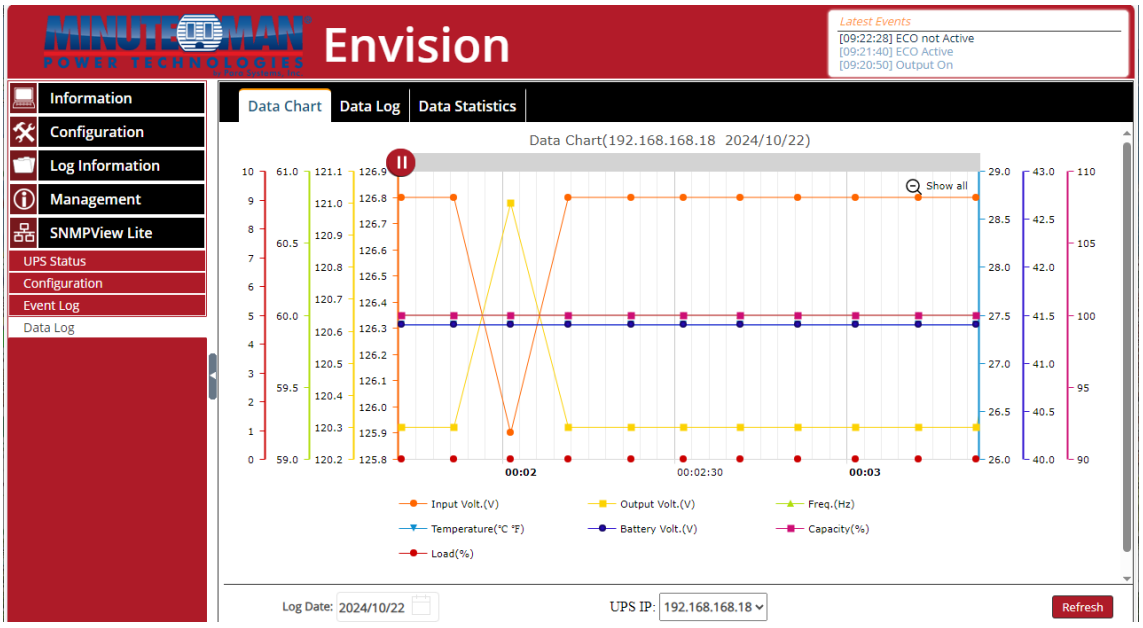
■ Event Log

- **Event Log** – Provides a monthly summary of events that occurred to the selected cards on the UPS Status or Configuration pages. The default calendar of events is set to Monthly but can be changed to view the current daily events. Use the drop down menus, then select "Refresh", to look at previous months events. The drop down menus can also be used to select specific cards and the type of events to list: All, Severe, Warning and Information.
  - Events List: Features a filtered list of all the events noted on the calendar by the settings used.
  - Events Census: Displays the filtered list of events in a graphical pie chart.

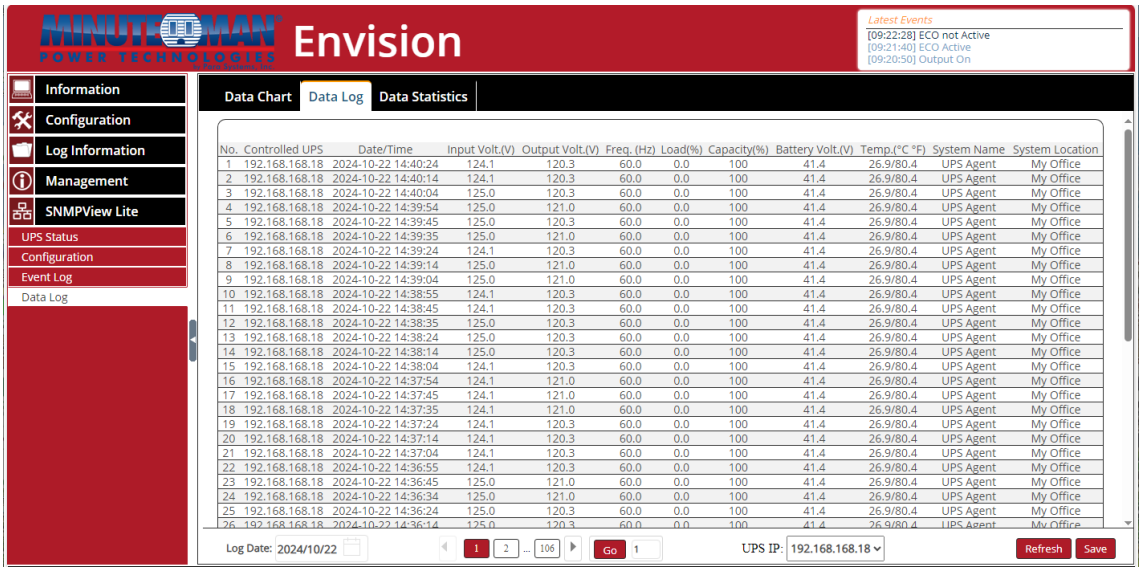


Data Log

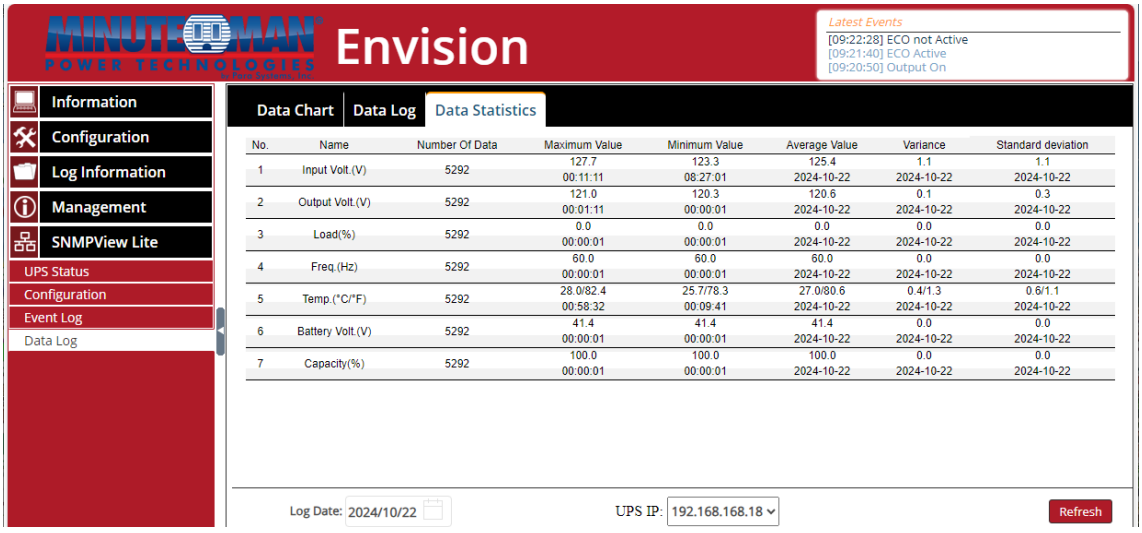
- **Data Chart** – The data chart provides a running stream of input, output and load factors for a specific EV-NETCARD-1G card based on data points from the time intervals set in the System Configuration page of SNMPView Lite. Select the individual card to monitor from the drop down menu at the bottom of the page. Scroll the mouse over any of the data points to see the specific values for that particular date and time. The beginning and ending intervals can be adjusted by moving the vertical start and finish dates



- **Data Log** – Provides the same information as the Data chart page but in a list of data points. The default information on the screen represents the latest data points. Press the refresh icon to update the information. To view earlier data points, select a date from the drop down menu at the bottom of the page.
  To save the information, press the Save icon and the information will be compiled into a csv file which can be saved or viewed using a compatible viewer like Microsoft Excel.



- **Data Statistics** – The Data Statistics page provides a snapshot of minimum and maximum values for the input and output of a specific UPS with an installed EV-NETCARD-1G card. The information is limited to a specific date which can be selected from the field at the bottom of the page. The information provided shows input and output voltage, frequency, UPS temperature, connected load information and battery voltage.



Notes:

Additional Notices:

NOTICE: This product complies with the rules for Class B device, pursuant to Part 15 of the FCC rules for radio noise emissions from a digital apparatus.

These limits are designed to provide reasonable protection against such interference in a residential installation.

This equipment generates and uses radio frequency and if not installed and used properly, in strict accordance with the manufacturer's instructions, may cause interference to radio and television reception. If this device does cause interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient the receiving antenna.
- Relocate the computer with respect to the receiver.
- Move the computer away from the receiver.
- Plug the computer into a different outlet so that the computer and receiver are on different branch circuits.
- Shielded communications interface cables must be used with this product.

Life Support Policy

Para Systems does not support the use of any of its products in life support applications where the failure or malfunction of the product can be reasonably expected to cause failure to life support devices or to significantly affect their safety or effectiveness. Furthermore, Para Systems does not recommend the use of any of its products in direct patient care.

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