

# **SNMP Card II**

ATS SNMP HTTP AGENT

## **User Guide**



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## **Electronic Emission Notice**

### **Federal Communications Commission (FCC)**

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment.

### **CE Notice**

This device complies with the EMC directive of the European Community and meets or exceeds the following technical standard:

- EN 55022:1998 —"Limits and Methods of Measurement of Radio interference Characteristics of information Technology Equipment." This device complies with the CISPR Class B standard
- EN 55024:1998 —"Electromagnetic compatibility— Generic immunity standard Part1: Residential, and light industry."

## **Safety Information**

### **For SNMP CARD (Card Type)**

- All the service of this equipment must be performed by qualified service personnel. Remove rings, watches and other jewelry before servicing the unit

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# 1. Welcome

## 1.1. *Introduction*

SNMP CARD – acronym for **ATS SNMP** and **HTTP Agent**. It display the ATS status and issue commands to the ATS. User can use SNMP managers or Web browsers to manage the ATS through an Ethernet.

SNMP CARD II:

The SNMP Card II is an internal card (as shown in Figure 1-1) designed for ATS models, where the SNMP Card can be inserted into the extension slot of the ATS.

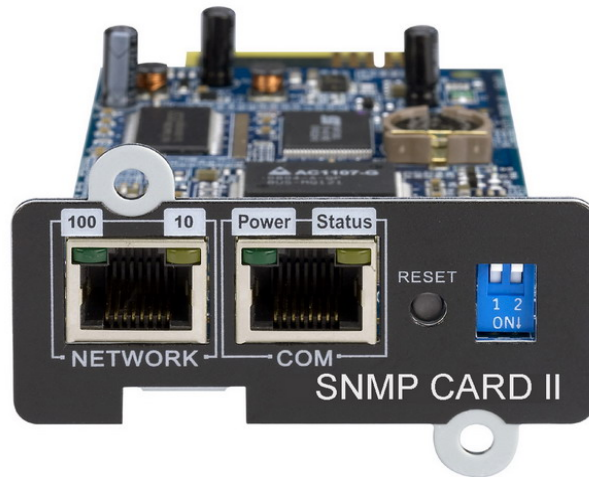


Figure 1-1 SNMP CARD (Card Type)

## 1.2. *SNMP CARD II Resources*

The SNMP CARD CD-ROM contains Upgrade software, Quick Installation Guide, User Guide, MIB files, central management software-Remote View & manual.

1. SNMP CARD Quick Installation Guide is a startup guide on installing and configuring a SNMP CARD using a Windows OS workstation.
2. SNMP CARD User Guide provides user with details and information on installation and configuration of SNMP CARD.
3. SNMP CARD online help is available providing additional instructions not found in the manual.

### 1.3. ***SNMP CARD Package Contents***

1. SNMP CARD with mounting bracket
2. SNMP CARD CD-ROM containing Upgrade software, Quick Installation Guide, User Guide, MIB files, central management software-Remote View & manual.

#### **Features**

- **Network connection through RJ45 connector**  
Allow the ATS to connect directly to the network through a RJ45 connector without using RS232 ports on the computer and without loading any individual ATS management software on the network server.
- **Network ATS management**  
Allow remote management of the ATS from any workstation through Internet or Intranet.
- **Remote ATS monitoring via SNMP, HTTP**  
Allows monitoring of the ATS using SNMP CARD MIB (Management Information Base) – via SNMP CARD and Internet Browser.
- **Configure ATS and SNMP CARD functions from any client (password protected)**  
Set ATS and SNMP CARD parameters from any SNMP management station or through Internet Browsers using HTTP forms and objects.
- **Keep event logs & metering data in flash memory**  
Provide event log of ATS power parameters, power quality, ATS status.

... also

- **Notification of system administrator via SNMP Traps**
- **RTC supported**
- **Telnet support for configuration**
- **BOOTP/DHCP supported**
- **Online configuration supported**
- **Enhanced HTTP security**
- **No restart needed for IP change**

- System parameters/log write to flash memory simultaneously
- SSH and SSL supported
- Can connect an EMD (Environmental Monitoring Device) to detect the temperature and humidity.
- NTP & ICMP supported
- SNMP V3 supported
- IPV6 supported

## System Application

SNMP CARD is a communication interface between ATS and the network. SNMP CARD supports two kinds of protocol – SNMP and HTTP for user access. Through the SNMP NMS and Web Browser, user can obtain the ATS status, issue commands to ATS and setup the SNMP CARD through the network.

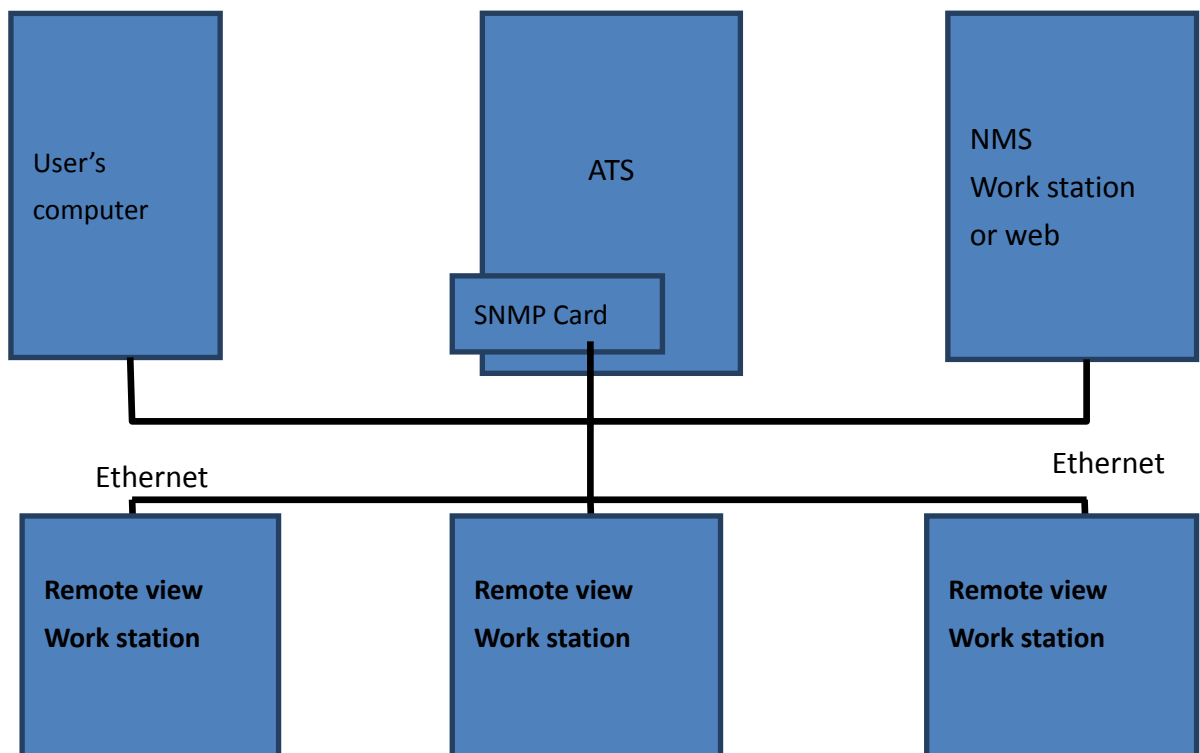


Figure 1-2 SNMP CARD System Application Diagram

## 2. Connect SNMP CARD to the Network

### 2.1. *What you need*

To install SNMP CARD on a network and change its default configuration, you need a workstation running Microsoft Windows (2000, XP or later). If you are using dynamic IP addressing, all you need is a workstation with a Web Browser.

### 2.2. *Hardware Installation*

1. Mount the SNMP CARD to SNMP CARD bracket provided.
2. Insert the SNMP CARD into the ATS external communication slot. (Figure 2.1)
3. Tighten the screws of the SNMP CARD bracket.



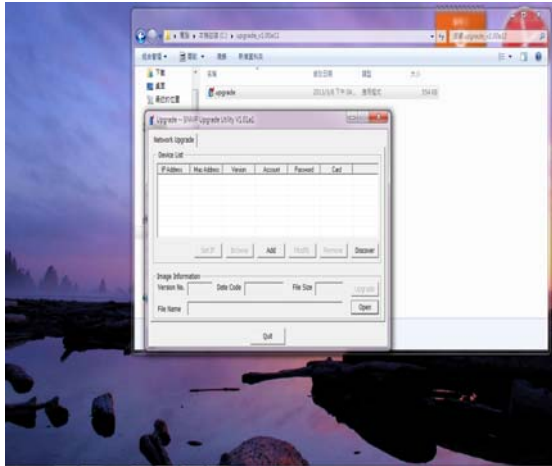
Figure 2-1 SNMP CARD Installation



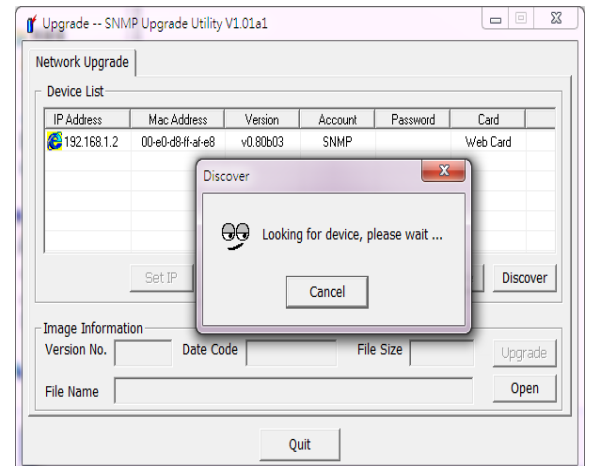
## 2.3. SNMP Card Configuration

Upgrade tool

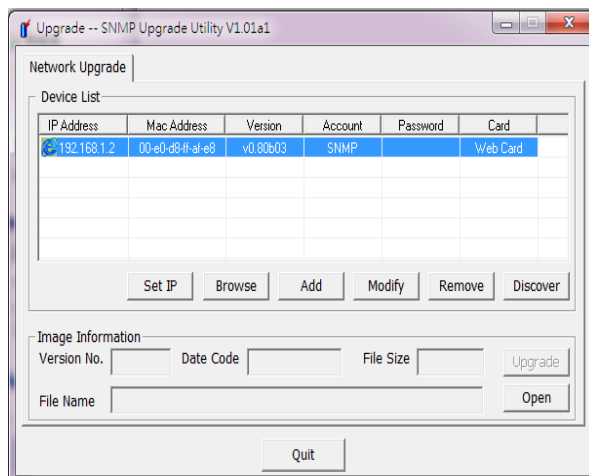
1. Copy the Upgrade utility to the desktop



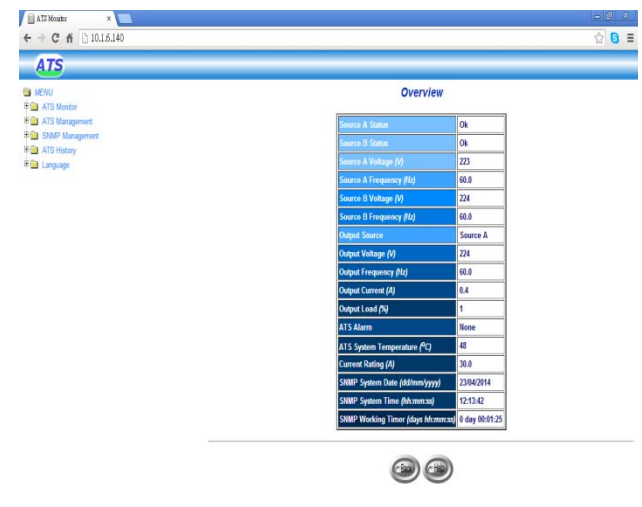
2. Click Discover to search SNMP card IP address



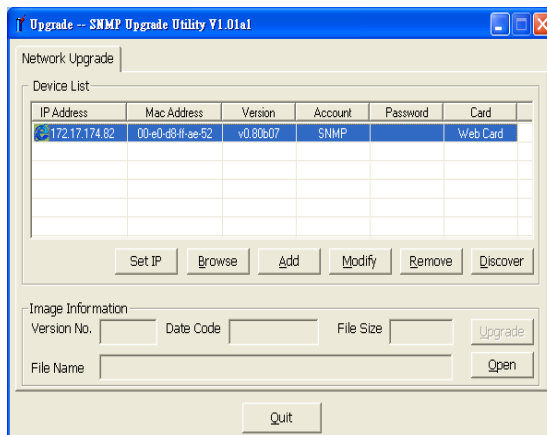
3. Click Browse to open webpage (support DHCP).



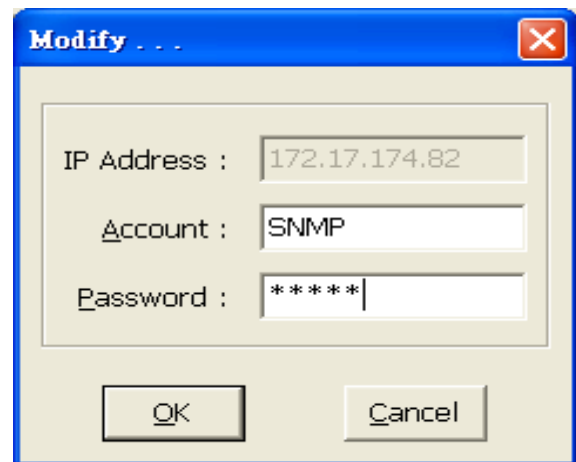
4. The webpage display the SNMP overview



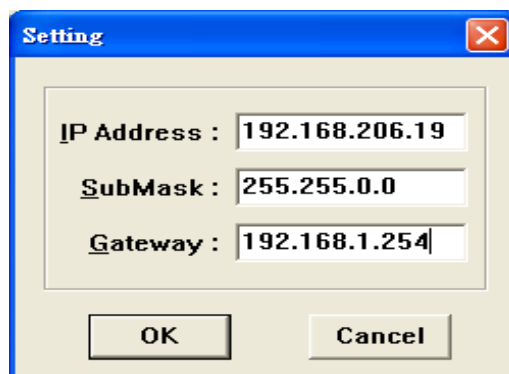
5. If DHCP is disable, please click  
“Modify” to create the setting page



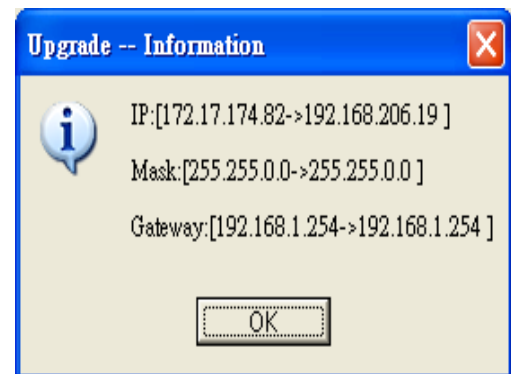
6. set Account and Password  
(Default Account: SNMP / Password:admin)



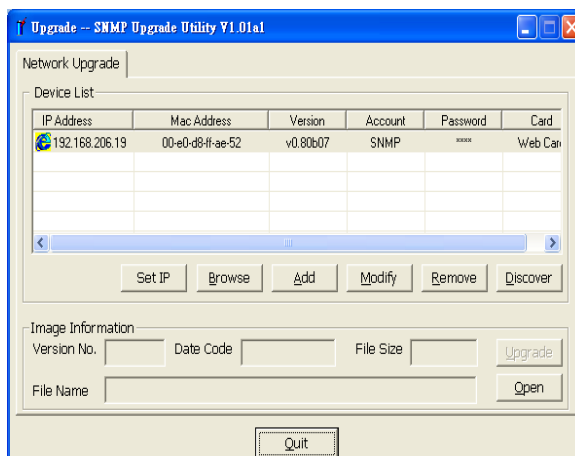
7. click “Set IP” to input the “IP 、  
SubMask 、 Gateway”.



8. Press “OK”



9. Modify IP successfully.



## 2.4. ***SNMP CARD Configuration through TELNET command***

1. Make sure that you have a TCP/IP network already installed.
2. Run command shell (i.e. Windows MS-DOS prompt).
3. SNMP CARD will initially try to acquire an IP address from the DHCP network service, if available on the network.
4. Type "Telnet <IP address obtained from DHCP>" and press enter.
5. If DHCP network service is not available on the network, contact your network administrator to get an IP address for you workstation that has the same network's address as the SNMP CARD's default IP address. ***The SNMP Card default IP address is 172.17.XXX.ZZZ where XXX and ZZZ is the last two pairs of the MAC address in decimal located on the SNMP CARD.***
6. Type "Telnet 172.17.XXX.ZZZ" command and press enter. Password is admin.

## 2.5. ***SNMP CARD Configuration through a Web Browser***

### **2.5.1. Hardware Preparation of SNMP CARD**

1. Procure a workstation with Ethernet card and Web Browser installed.
2. Connect the network cable (twisted-pair cable) from the workstation's LAN port to an active 10/100-hub port.
3. Connect another network cable (twisted-pair cable) from the SNMP CARD LAN port to an active 10/100-hub port. (Figure 2-2).
4. Set the SNMP CARD DIP-switches, the switches 1 and 2 are OFF.
5. Turn on the ATS and wait for SNMP CARD to boot up (around 90 seconds).



Figure 2-2

Connecting the Ethernet cable from the SNMP CARD LAN port.

### 2.5.2.Configuration through a Web Browser

Normally, the first time you use SNMP card, the workstation is unable to communicate with the SNMP card as they are not in the same IP subnet. However, you may use the “route add” command to configure the network routing table in the workstation to complete the SNMP card’s configuration. If the IP address of the machine is in the same subnet as SNMP, just run the web browser.

1. Using a workstation running on Microsoft Windows (2000, XP, 2003 or later) set up the TCP/IP protocol.
2. Connect the network cable to the Network port of the SNMP card.
3. Run command shell (i.e. Windows MS-DOS prompt) and enter the following command to add a routing condition:

```
Route add 172.17.7.18 210.67.192.147
```

Assume the IP address of the workstation is 210.67.192.147.

**Note:** The SNMP Card default IP address is 172.17.XXX.ZZZ where XXX and ZZZ is the last two pairs of the MAC address in decimal located on the SNMP CARD.

Example: MAC address: 00 E0 D8 04 0A 15 , IP address: 172.17.1021 °

### 2.5.3. Running the Web Browser (Internet Explorer or Chrome)

1. Make sure that you have a TCP/IP network already installed.
2. If there is no DHCP network service on the network, contact your network administrator to get an IP address for your workstation that has the same network's address as the SNMP CARD's default IP address. **The default IP address of SNMP CARD is 172.72.XXX.ZZZ where XXX and ZZZ is the last two pairs of the MAC address in decimal located on the SNMP CARD.**
3. Start your Web Browser.
4. Enter the URL "http://172.72.XXX.ZZZ" in the address box where XXX and ZZZ is the last two pairs of the MAC address of SNMP CARD in decimal.
5. The SNMP CARD home page will be shown as below. (Figure 2-3)

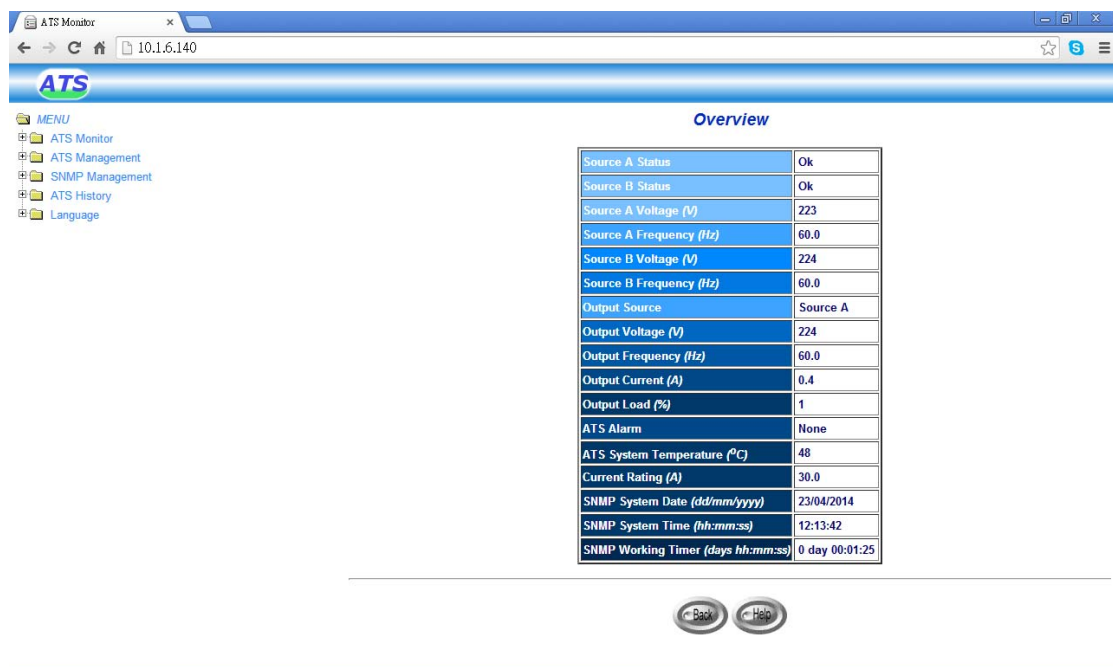


Figure 2-3 SNMP CARD home page screen: Overview.

## 2.6. **SNMP CARD Initial Configuration**

1. Select *SNMP CARD Configuration* from the *SNMP CARD Management* of the main menu to setup the network configuration parameters (Figure 2-4).
2. Click the *Become Administrator* button at the bottom of the screen. Enter **SNMP** as the login name and **admin** as the password. (Case sensitive)
3. Enter the SNMP CARD IP address.
4. Enter the SNMP CARD Gateway Address in the network.
5. Enter the SNMP CARD Subnet Mask of the network.
6. Click the *Set Values* to save the settings.
7. Select *Date and Time* from the *SNMP CARD Management* of the main menu and enter the appropriate date and time information in the specified format.
8. Select *Set Values* to save the date and time settings.
9. Select *SNMP CARD Control* to enable or disable the network protocols (Figure 2-5).
10. Select *Apply* to save the changes.

The screenshot displays the 'SNMP Configuration' page within the ATS Monitor web application. The browser address bar shows '192.168.1.2/ADMIN/ENG/index.html'. The left sidebar contains a 'MENU' with options: ATS Monitor, ATS Management, SNMP Management, ATS History, and Language. The main content area is titled 'SNMP Configuration' and contains a table of configuration parameters:

Parameter	Value
SNMP IP Address	192.168.1.2
SNMP Gateway Address	192.168.1.254
SNMP Subnet Mask	255.255.255.0
SNMP Address	192.168.1.254
IPv6 AutoConfiguration	Disabled
IPv6 Address Status	Manual Configuration
IPv6 Link Local Address	FE80::2E0:DBFF:FEFF:AFE8
IPv6 Global Address	FD00::192.168.7.18
IPv6 Prefix Length	64
IPv6 Router Address	FD00::192.168.1.254
System Name	SNMP
System Contact	Technical Support Team
System Location	
History Log Interval (Sec)	60
Extended Log Interval (Min)	60
SNMP Polling Rate (Sec)	3
SNMP Broadcast (Yes)	7400

Figure 2-4 SNMP CARD initial configuration page screen.

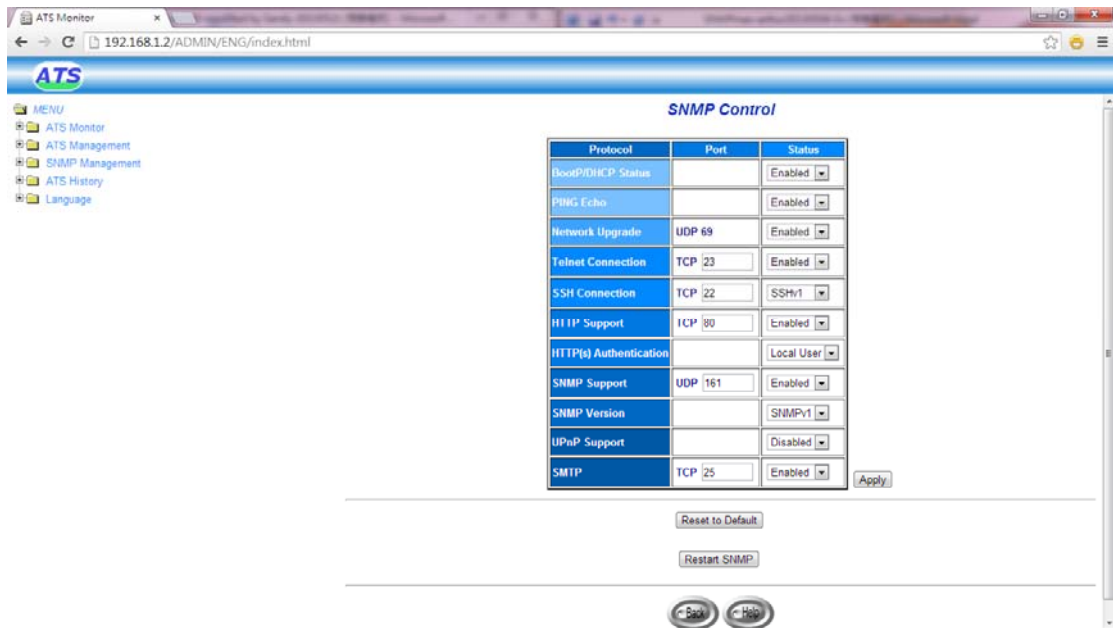


Figure 2-5 SNMP CARD Control page screen.

## 3. Managing SNMP CARD/ATS via Web Browser

### 3.1. Utilising the SNMP CARD Home Page

1. Start your Web Browser and enter SNMP CARD IP address
2. The SNMP CARD home page will be shown on the screen.
3. Select the help icon located at the bottom of each page for a detail description of each item.

### 3.2. ATS Monitoring

Monitoring ATS Input-output voltage, frequency, current, load, real-time abnormal events, status and parameter settings.

#### 3.2.1. Overview

This page shows a snapshot of all the main ATS parameters as shown in Figure 3-1. The page will refresh automatically. To set the refresh time, select the menu *SNMP CARD Management – Homepage Refresh Rate*.



Figure 3-1 SNMP CARD home page screen: Overview.



### 3.2.2.ATS Information

Select “ATS Information” from the ATS Monitoring menu of the home page to view ATS and SNMP CARD Identification Parameters (Figure 3-2).

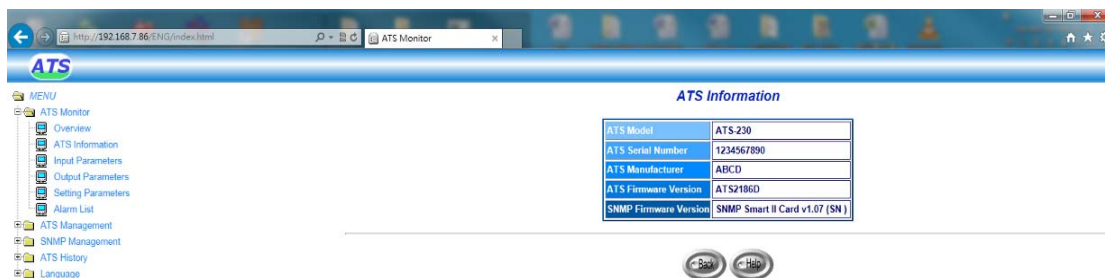


Figure 3-2 SNMP CARD ATS Monitoring page screen: ATS Information

### 3.2.3.Input Parameters

Select Input Parameters from the ATS Monitoring on the main menu to view ATS input parameters (Figure 3-3).



Figure 3-3 SNMP CARD ATS Monitor page screen: ATS Input Parameters

### 3.2.4. Output Parameters

Select Output Parameters from the ATS Monitoring on the main menu to view ATS output parameters (Figure 3-4).



Figure 3-4 SNMP CARD ATS Monitor page screen: ATS Output Parameters

### 3.2.5. Setting Parameters

Select Setting Parameters from the ATS Monitoring on the main menu to view ATS Setting Parameters (Figure 3-5).

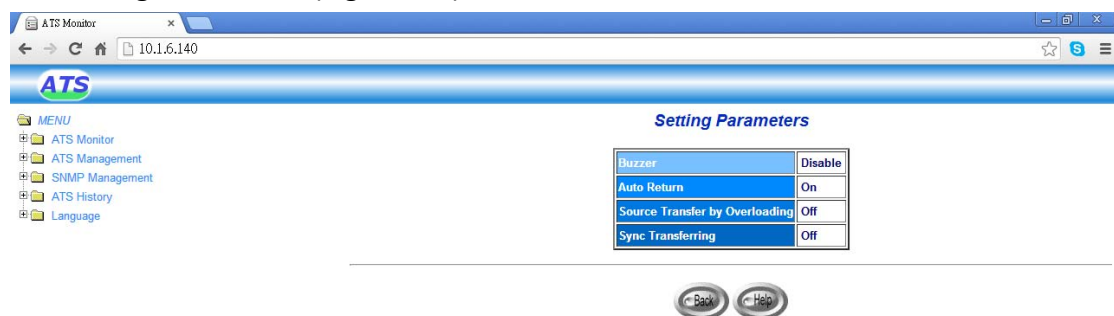


Figure 3-5 SNMP CARD ATS Monitor page screen: Setting Parameters

### 3.2.6.Alarm List

Select Alarm List from the ATS Monitoring on the main menu to view alarms presents (Figure 3-6).

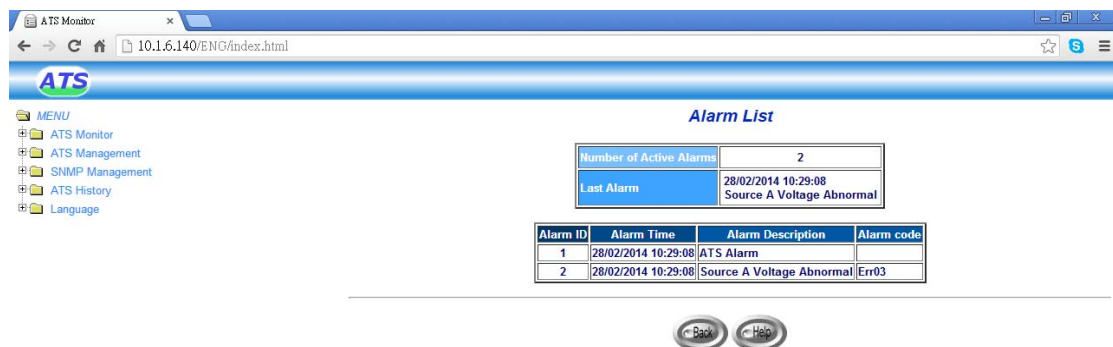


Figure 3-6 SNMP CARD ATS Monitor page screen: Alarm List

## 3.3. *ATS Management*

This section contains the control parameters of the ATS connected to the SNMP CARD.

### 3.3.1.ATS Control

This page allows user to turn on or off the Buzzer control and manually transfer source by clicking on the [Switch] button as shown below. (Figure 3-7)

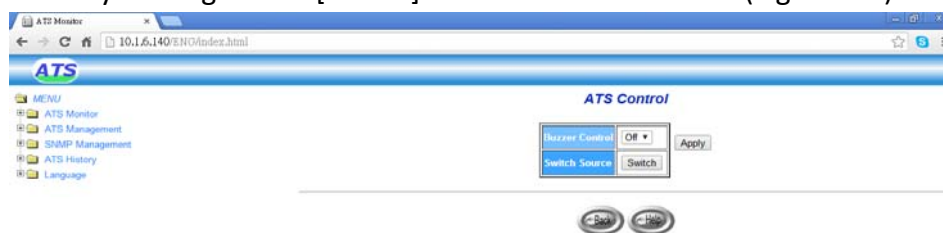


Figure 3-7 SNMP CARD ATS Control screen

### 3.3.2.EMD Configuration

This EMD configuration allows user to configure the EMD parameters as shown below (Figure 3-8). Set the EMD status to Auto allows auto detection of EMD type. For more information about EMD device setup, please see the EMD\_installation\_manual.

Sensor	Sensor Name	Set Point (Low)	Set Point (High)	Calibration Offset
Temperature (°C)	EMD Temperature	5	40	0.0
Humidity (%)	EMD Humidity	20	80	0.0
Alarm-1	EMD Alarm-1	Disabled		
Alarm-2	EMD Alarm-2	Disabled		
EMD Status	Disabled			

Set Value

Back Home

Figure 3-8 EMD Configuration screen

## 3.4. ***SNMP CARD Management***

In this section, you can view and modify the SNMP CARD control parameters. All the sub-menus are available in read-only for all users, except the administrator has access in read/write mode.

### 3.4.1.Date and Time

This menu lets you set the SNMP CARD internal date and time. There are three ways to set the Date and Time (Figure 3-9). Synchronize with computer time, Synchronize with NTP server or set the date and time manually.

Figure 3-9 Date and Time

### 3.4.2.SNMP Configuration

Allows the administrator set the local network configuration parameters in SNMP CARD, including the basic variables in SNMP management (Figure 3-10).

1. **SNMP CARD IP Address:** The IP address of the SNMP CARD in dotted format (e.g. 192.168.1.100).
2. **SNMP CARD Gateway Address:** The IP address of the network gateway in dotted format (e.g. 192.168.1.254).
3. **SNMP CARD Subnet Mask.** The Subnet Mask for your network (e.g. 255.255.255.0).
4. **System Name:** SNMP model name
5. **System Contact:** SNMP Network Administrator
6. **System Location:** SNMP installed location
7. **History Log Interval:** Set the download interval time in seconds to download Input Voltage, Output Voltage, Load, Capacity and Input frequency. These values are saved in the History Log. The maximum value for this setting is 28800 seconds (i.e. 8 hours).
8. **Extended History Log Interval:** Set the download interval, in minutes, to create an extended history log. After every interval, the ATS parameters will be consolidated and minimum, maximum and average values of these parameters will be stored as extended history log. This value can range between 3 and 9000 minutes.
9. **SNMP CARD Polling Rate (sec):** Update interval rate in seconds which

- SNMP CARD update the parameters from ATS (range: 3, 5, 10, 30, 60)
10. **SNMP CARD Baud Rate (sec):** The data transmission rate between the ATS and SNMP CARD.
  11. **Default Language:** Default language options included “English”, “Traditional Chinese”, “Simplified Chinese” and “Auto”. SNMP Card Home Page will be displayed using the language set in the Web Browser if “Auto” is selected.(\*): to be added soon.
  12. **Temperature Unit:** Display the Temperature in Celsius or Fahrenheit.

The screenshot shows the 'SNMP Configuration' page in the ATS Monitor web interface. The browser address bar shows '192.168.1.2/ADMIN/ENG/index.html'. The left sidebar contains a 'MENU' with links to 'ATS Monitor', 'ATS Management', 'SNMP Management', 'ATS History', and 'Language'. The main configuration area contains the following fields:

SNMP IP Address	192.168.1.2
SNMP Gateway Address	192.168.1.254
SNMP Subnet Mask	255.255.255.0
DNS Address	192.168.1.254
IPv6 AutoConfiguration	Disabled
IPv6 Address Status	Manual Configuration
IPv6 Link Local Address	FE80::2E0:D8FF:FEFF:AFE8
IPv6 Global Address	FD00:192.168.7.18
IPv6 Prefix Length	64
IPv6 Router Address	FD00:192.168.1.254
System Name	SNMP
System Contact	Technical Support Team
System Location	
History Log Interval (Sec)	60
Extended Log Interval (Min)	60
SNMP Polling Rate (Sec)	3
SNMP Baudrate (bps)	2400

Figure 3-10 SNMP Configuration

### 3.4.3.SNMP Control

Allows the user to enable or disable the communication protocols available in the SNMP CARD and affect a restart and reset of the SNMP CARD internal parameters. Some of the items in this menu are visible only to administrator with read/write access rights. (Figure 3-11)

1. **BOOTP/DCHP Status:** Enabling or disabling the Boot Protocol (BOOTP) / Dynamic Host Configuration Protocol (DHCP). These protocols are Internet standards used to get a dynamic IP address from a BOOTP / DHCP server.
2. **Ping Echo:** Enabling or disabling the SNMP CARD to respond to Ping requests.
3. **Network Upgrade:** Enabling or disabling the Trivial File Transfer Protocol (TFTP) upgrade control. You can use **upgrade.exe** on Windows via TFTP to upgrade SNMP CARD firmware.

4. **Telnet Connection:** Enabling or disabling the terminal to server application (Telnet) control process. The standard port is 23.
5. **HTTP Support:** Enabling or disabling the HTTP connection with the SNMP CARD. The user may configure HTTP protocol to use a port number other than standard HTTP port (80).
6. **SNMP Support:** Enabling or disabling the SNMP connection with SNMP CARD. The user may configure the SNMP protocol to use a port number other than the standard SNMP port (161).
7. **Reset Agent to Default:** Instructs SNMP CARD to reset parameters to factory default value.
8. **Restart Agent:** Instructs SNMP CARD to restart.

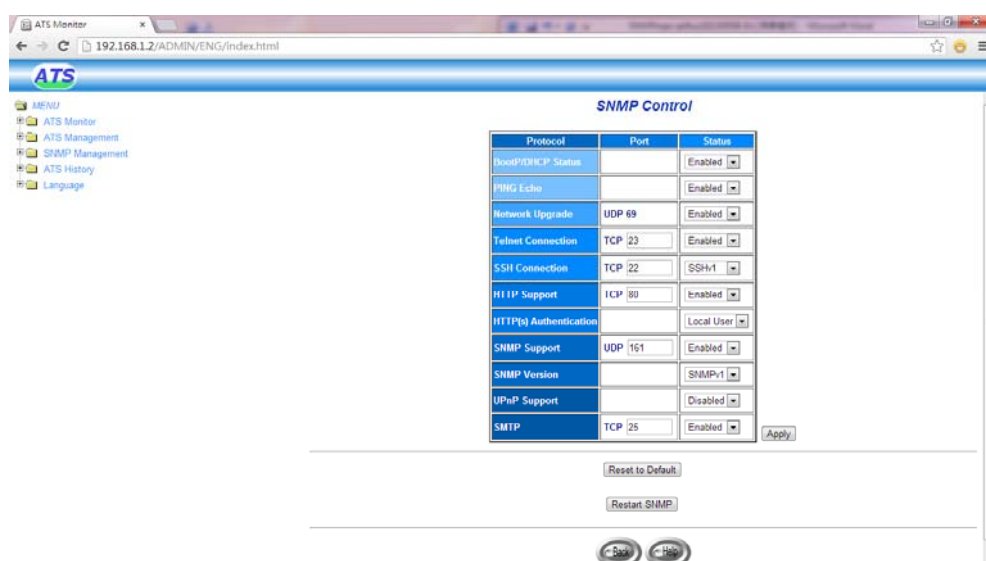


Figure 3-11 SNMP Control

### 3.4.4.SNMP Upgrade

Allows user to upgrade SNMP firmware, as shown below Figure 3-



Figure 3-12 SNMP Upgrade

### 3.4.5. Access Control

Displays the authentication parameters setting as shown below Figure 3-13.

The screenshot shows the ATS Monitor web interface. The browser address bar displays "10.1.6.140/ENG/index.html". The page title is "Access Control". The left menu includes "MENU", "ATS Monitor", "ATS Management", "SNMP Management", "ATS History", and "Language". The main content area is titled "RADIUS Configuration" and contains a table with the following data:

UDP Port	1812
Primary Server	
Secondary Server	
Share Secret of Primary Server	*
Share Secret of Secondary Server	*
Packet Timeout Interval	1
Packet Retry Times	3

Below the table is a "Become Administrator" button. At the bottom of the page are "Back" and "Help" buttons.

Figure 3-13 Access Control



### 3.4.6.SNMP/HTTP Access Control

This menu displays a list of the workstation enabled for read/write access to SNMP CARD. (Figure 3-14) See **Appendix C** HTTP Security Control for detail

1. **Index:** The index number of the entry in the table.
2. **NMS IP Address:** The management station's IP address. 0.0.0.0 means entry not configured. 255.255.255.255 means grant access to all IP. It can configure all IP address in same subnet with the same access right. Like 192.168.1.255
3. **Community:** Low-level password associated with the IP Address. The maximum length of the string is 16 characters.
4. **Access Type:** Access types associated with the IP Address security level. Available options are: Not Access, Read and Read/Write. If the IP Address security level is set to Not Access or Read, it will not grant administrator password.

Note: Only Administrator with Read/Write security access can modify the SNMP card parameters and Access Type to limit individual workstation or subnet with different security option.

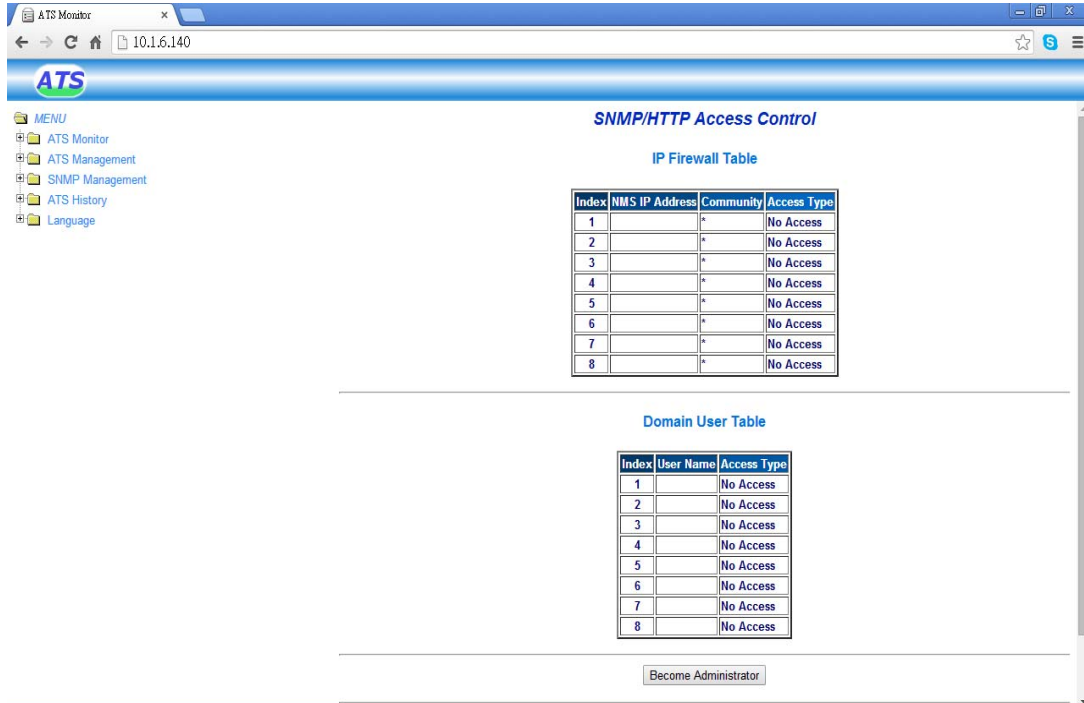


Figure 3-14 SNMP/HTTP Access Control

### 3.4.7.SNMP Trap Receivers

This table can hold a maximum of four entries. It holds the list of the IP address of the Network Management Stations (NMS), which will receive the SNMP traps send by SNMP CARD. (Figure 3-15)

1. **Index:** The index number of the entry in the table.
2. **NMS IP Address:** The IP Address in dotted format of the NMS station to which the trap should be sent.
3. **Community String:** Low-level password associated with the IP Address. The maximum length of the string is 16 characters.
4. **Trap Type:** Types of traps to be received.
  - **None:** Traps will not be received
  - **SNMP CARD Trap:** Traps are received based on Standard ATS MIB.
5. **Severity:** Set the level of the trap to be received.
  - **Information:** All traps are received
  - **Warning:** Receive trap that has warning and alarm status.
  - **Severe:** The significant traps are received
6. **Select Events:** Press the “select” button; you can see an event list. You can tick the events that you would like to receive the notification by trap when the event occurs.
7. **Description:** Customer description string.

**Note:** For specific application can be found in Chapter IV of the "Simple Network Management Protocol" Management SNMP CARD / ATS content.

The screenshot shows the 'SNMP TRAP Receivers' configuration page in the ATS Monitor web interface. The page has a blue header with the ATS logo and a navigation menu on the left. The main content area contains a table with 8 rows for configuring trap receivers. The table has the following columns: Index, NMS IP Address, Community String, Trap Type, Severity, Select Events, and Description. The table is currently empty, showing default values for Trap Type (None) and Severity (Informational). Below the table are buttons for 'Become Administrator', 'Back', and 'Help'.

Index	NMS IP Address	Community String	Trap Type	Severity	Select Events	Description
1		*	None	Informational	Select	
2		*	None	Informational	Select	
3		*	None	Informational	Select	
4		*	None	Informational	Select	
5		*	None	Informational	Select	
6		*	None	Informational	Select	
7		*	None	Informational	Select	
8		*	None	Informational	Select	

Figure 3-15 SNMP TRAP Receivers

### 3.4.8.Email Notification

ATS email notification setting allowing administrator to configure Mail server and Mail receiver in order to receive notification or report from SNMP CARD via email when power event occurred. After becoming an administrator (Login:SNMP, Password: admin), you can press “Select” button to select the event items which will notify you via e-mail when the event occurs.(Figure 3-16)

**ATS Monitor**

**Menu:** ATS Monitor, Overview, ATS Information, Input Parameters, Output Parameters, Setting Parameters, Alarm List, ATS Management, SNMP Management, Date and Time, SNMP Configuration, SNMP Control, SNMP Firmware Update, Authentication Configuration, SNMP/HTTP Access Control, SNMP TRAP Receivers, Email Notification, External Link Setup, ATS History, Language.

**Email Notification**

Mail Server	1234.com.tw
User Account	1234
User Password	*
Sender's Email Address	1234@5678
Mail Subject Prefix	GG
DNS Address	168.95.192.1
Mail Daily Status Report At (h:mm)	00:00
SMTP Authentication	Enabled

Index	Mail Account	Description	Mail Type
1	1234@5678	5678	Events/Status
2	1234@5678	1234	Daily Status
3			None
4			None

Become Administrator

Back Cancel

**ATS Monitor**

**Menu:** ATS Monitor, ATS Management, SNMP Management, ATS History, Language.

**Email Notification**

Mail Server	1234.com.tw
User Account	1234
User Password	*
Sender's Email Address	1234@5678
Mail Subject Prefix	GG
DNS Address	168.95.192.1
Mail Daily Status Report At (h:mm)	00:00
SMTP Authentication	Enabled

Index	Mail Account	Description	Mail Type	Select Events
1	1234@5678	5678	Events / Status	Select
2	1234@5678	1234	Daily Status	Select
3			None	Select
4			None	Select

Set Value Send Test

Back Cancel

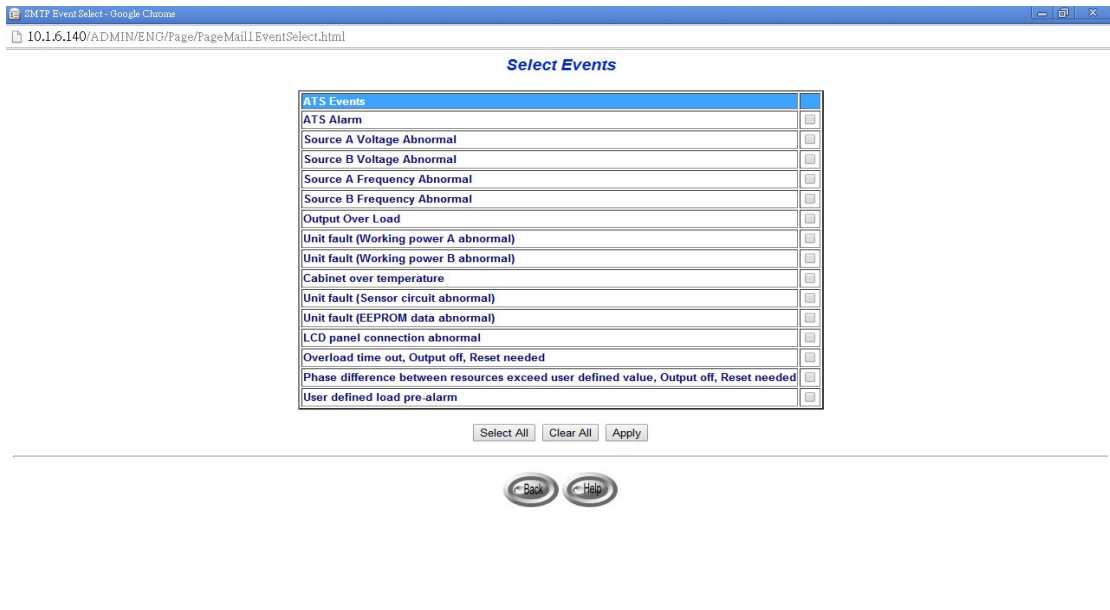


Figure 3-16 E-mail Notifications

- Mail Server**

The Hostname of a SMTP Mail Server that will be used to send email messages from the SNMP CARD. By Entering the Hostname, you are also required to enter the DNS Address.

- User Account**

This field is the User Account of Mail Server. Default has no entry, and only required if Mail Server needed for authentication to send mail.

- User Password**

This field is for entering the Password of User Account.

- Sender's Email Address:** This field specify the sender's email address of the Email. If this field left blank, the default sender's address will be account@ip\_address.

- Mail Subject Prefix:** The string prefix in the mail subject to identify the device which sends out the mail.

- DNS Address**

This field is the IP Address of your network DNS server that's responsible for translating names into addresses, routing mail to its proper destination. Default, field contain 0.0.0.0.

- Mailing Daily Status Report At (hh:mm)**

Set the SNMP CARD to send a Daily Status report to selected Mail Receiver, by entering the time of day in 24-hour format at which time you want the email sent.

8. **SMTP Authentication**

Enabled/Disabled SMTP authentication

9. **Mail Receiver**

This field is the receiver's email address.

10. **Description**

This field is the email description.

11. **Mail Type**

This column is for selecting the type of email sent to a specific Mail Receiver.

Types of email are *None*, *Events*, *Daily Status*, or *Event/Status*.

- **None:** allow you to disable the sending of email to a specific recipient.
- **Events:** allow the recipient to receive event-related messages when event occur.
- **Daily Status:** allow the recipient to receive the Daily Status message while "Mailing Daily Status Report At (hh:mm)" setting time is up. The message contains two file attachments containing information logged by the SNMP CARD (in .csv format suitable for viewing in Microsoft Excel). One attachment contains the History Log (Logged ATS data) and the other contains the Event Log (Logged Event text).
- **Events/Status:** specifies the recipient should receive an email message containing the event-related notification and the two file attachments (as described above), each time an event notification is sent.

12. **Event Level**

This column is for selecting the Severity level of notification you wish to send to each Mail Receiver configured to be sent Mail Type: Events or Events/Status. This filter is based on the SNMP-based traps (Events) and allows selection of Informational, Warning or Severe. Refer to the MIB documentation for more information.

13. **Select Events**

Press the "Select" button; you can see an event list. You can tick the event that you would like to receive the notification by e-mail when the event occurs

### 3.4.9.External Links

This page describes the External Links setup. Up to four links can be created on this page. User can click on each link directly to connect to the related web pages. Example: another ATS with SNMP CARD or technical support homepage. (Figure 3-17)

Index	Screen Text	Link Address	Status
1			Disabled
2			Disabled
3			Disabled
4			Disabled

Set Value

Back Home

Figure 3-17 External Links

#### Screen Text

Description of hyperlink for user's reference.

#### Link Address

Web page location in IP address or URL format.

#### Status

The visibility of the hyperlink. Set "Disable" will make this hyperlink invisible.

### 3.5. **ATS History**

Allow users to view all types of ATS & SNMP CARD log messages displayed in chronological order such as the *ATS History Log*, *ATS Extended Log*, *ATS Events Log* and *SNMP Events Log*. These log messages can help you detect and diagnose problems with your SNMP CARD.

#### 3.5.1. **ATS History Log**

To save the history log to a file in Microsoft Excel format, go to the *Clear & Save Log Data* sub-menu and click on the link *ATS History Log* under the *Save Log Data* title bar.

1. **Log Date:** Date of the value recorded.
2. **Log Time:** Time in 24-hour format of the value recorded
3. **Voltage:** The input voltage in Volts recorded
4. **Source A Voltage:** The voltage of source A in Volts recorded.
5. **Source A Frequency:** The frequency of source A in Hz recorded.
6. **Source B Voltage:** The voltage of source B in Volts recorded.
7. **Source B Frequency:** The frequency of source B in Hz recorded.
8. **Output Voltage:** The output voltage in Volts recorded
9. **Output Frequency:** The output frequency in Hz recorded.
10. **Output Current:** The output current in Amp recorded.
11. **Load:** The connected load in percentage recorded
12. **EMD Temperature:** The current EMD temperature.
13. **EMD Humidity:** The current EMD humidity.
14. **ATS System Temperature (°C):** The temperature of ATS system.

#### 3.5.2. **ATS Extended Log**

Allow users to view summary of the ATS parameters taken over a period. Each ATS parameters, minimum, maximum and the average values are shown in the records. The Administrator can change the recording range by changing the value of the *Extended Log Interval* in *SNMP CARD Configuration* page. The existing log is overwritten when the maximum numbers of entries are reached.

1. **Start Date:** Recording start date
2. **Start Time:** Recording start time
3. **End Date:** Recording end date
4. **End Time:** Recording end time

5. **Source A Voltage:** The minimum, maximum and average values of voltage for source A at the time of recording.
6. **Source A Frequency:** The minimum, maximum and average values of frequency for source A at the time of recording.
7. **Source B Voltage:** The minimum, maximum and average values of voltage for source B at the time of recording.
8. **Source B Frequency:** The minimum, maximum and average values of frequency for source B at the time of recording.
9. **Output Voltage:** The minimum, maximum and average values of the output voltage at the time of recording.
10. **Output Frequency:** The minimum, maximum and average values of the output frequency at the time of recording.
11. **Output Current:** The minimum, maximum and average values of the output current at the time of recording.
12. **Load:** The minimum, maximum and average values of the output load at the time of recording
13. **EMD Temperature:** The minimum, maximum and average values of the EMD temperature at the time of recording.
14. **EMD Humidity:** The minimum, maximum and average values of the EMD humidity at the time of recording.

### 3.5.3.ATS Event Log

This table lists all the events that have occurred since the table was cleared. The existing values are overwritten when the maximum number of entries (rows) has been reached.

1. **Date:** The date when the ATS event occurred
2. **Time:** The time when the ATS event occurred
3. **Event Description:** The description of the ATS event occurred

### 3.5.4.SNMP Events Log

This table lists all the SNMP CARD events occurred. The Administrator has the access right to delete the entries.

1. **Date:** The date when the SNMP event occurred
2. **Time:** The time when the SNMP event occurred
3. **Event Description:** The description of the SNMP event occurred



### 3.5.5. Clear & Save Log Data


This page lets the Administrator save SNMP CARD log data to a file in Microsoft Excel format. Administrator is also able to clear specific log data or choose to clear the log data after saving the log data.

1. **Clear Log Data:** Administrator can clear the specific log data by putting a check mark beside it and click the Clear button.
2. **Clear the corresponding log data as you click the hyper-link below:** Administrator can choose to clear the log data after saving the log to a file. Select Yes or No and click the Apply button. Default value is set to "No"
3. **Save Log Data:** Administrator can save the various SNMP CARD log data to a file with the extension .csv that can be opened and read in MS Excel.

**Note:** When you mouse click any one of the hyper-link here while the "Clear the corresponding log data as you click the hyper-link below" selection is set to "Yes", the corresponding log data will be lost even if you cancel the operation.

### 3.6. Language Selection

Allow users to select the language to display on screen. Language support are “English”, “Traditional Chinese”, and “Simplified Chinese”. Language will switch immediately once you click on the option. (Figure 3-18).




**Overview**

Source A Status	Ok
Source B Status	Ok
Source A Voltage (V)	219
Source A Frequency (Hz)	60.0
Source B Voltage (V)	220
Source B Frequency (Hz)	60.0
Output Source	Source A
Output Voltage (V)	219
Output Frequency (Hz)	59.9
Output Current (A)	0.4
Output Load (%)	1
ATS Alarm	None
ATS System Temperature (°C)	48
Current Rating (A)	30.0
SNMP System Date (dd/mm/yyyy)	23/04/2014
SNMP System Time (hh:mm:ss)	13:54:20
SNMP Working Timer (days hh:mm:ss)	0 day 00:01:47

Back Help

---



**總覽**

電源A狀態	良好
電源B狀態	良好
電源A電壓(伏特)	221
電源A頻率(赫茲)	60.0
電源B電壓(伏特)	223
電源B頻率(赫茲)	60.0
當前輸出電源	電源B
輸出電壓(伏特)	219
輸出頻率(赫茲)	60.0
輸出電流(安培)	0.3
輸出負載(百分比)	0
系統警告	無
系統溫度(攝氏)(°C)	44
額定電流(安培)	30.0
SNMP系統日期 (日/月/年)	07/03/2014
SNMP系統時間 (時:分:秒)	14:08:54
SNMP工作計時 (天 時:分:秒)	0day 01:42:23

Back Help



Figure 3-18 Language Selections

## 4. Managing SNMP CARD /ATS via SNMP

### 4.1. *Setting SNMP parameters in SNMP CARD*

Before using SNMP CARD in SNMP environment, the IP address, gateway must be configured properly. See [2. Connect SNMP CARD to the Network](#) for details.

### 4.2. *SNMP Access Control Setting*

SNMP CARD supports SNMP protocol. You can use SNMP NMS to manage ATS through the network. The IP address of the workstation must be entered in the SNMP CARD write access table to prevent unauthorized users from configuring SNMP CARD via HTTP or SNMP protocols.

**Note:** If you do not enter the IP address of the workstation to the *Access Control Table* (via Serial Port or Telnet) or the *SNMP/HTTP Access Control* (via Web Browser) in SNMP CARD, the SNMP NMS can only view the ATS status; it will not be able to perform any configuration on SNMP CARD/ATS. (See 3.4.6 SNMP/HTTP Access Control)

### 4.3. *SNMP Trap Receivers Setting*

See 3.4.7 SNMP Trap Receivers for details.

### 4.4. *Set up SNMP Manager Software*

1. Add the MIB file of SNMP CARD in the SNMP CARD CD-ROM to the MIB database of the SNMP manager.
2. Search for SNMP CARD in the network
3. To access the SNMP CARD SNMP agent, use 'public' for the GET community string and the Read/Write password (default is **admin**) for the SET community string.

GET Community string: *public*

SET Community string: *admin*

For more information, see the MIB file on the SNMP CARD CD-ROM.

## 5. Appendix A Technical Information

### 5.1. *Technical Information about SNMP CARD*

#### Features

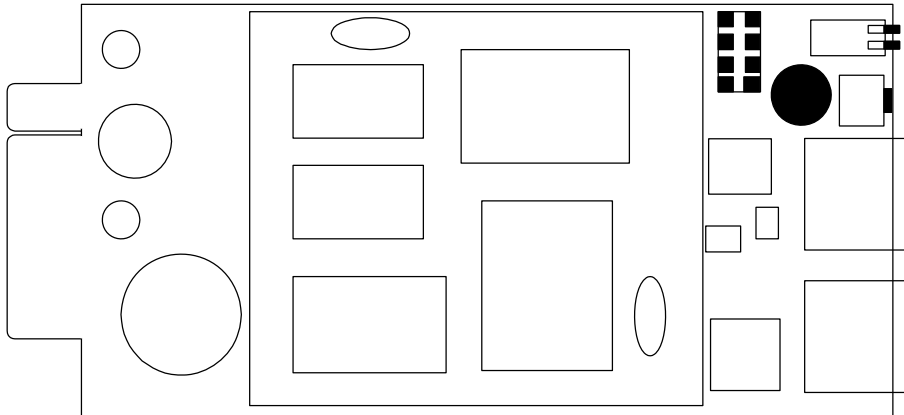
- Configuration from HTTP Web Browser, Telnet and serial port console.
- Management through SNMP manager and HTTP Web Browser.
- Support SNMP MIB (ATS).
- Upgrade from TFTP server and serial port.
- ATS control through scheduling.
- History, Event and Statistic log file.
- SNMP alarms detection.
- Support internal Real Time Clock (RTC).

#### 5.1.1. Technical Specification

CPU	16-bits AC1105 Fast Ethernet RISC Processor Phoenix Kernel
Memory	2MB (1Mbit x16) TFBGA Flash ROM 2MB (1Mbit x16) SDRAM
Serial Communication	Two UART Channels, one RJ-45, one Gold finger.
LAN Controller	10/100 Mbits Ethernet controller
Network Connection	10/100 TX RJ-45 jack connector
RTC	Real time clock
Network Protocol	Ablerex ATS protocol
Supported MIB	SNMP MIB (ATS)
Operating Temperature	0 ~ 40° C
Operating Humidity	10 ~ 80 %
Power Input	5~40V DC
Power Consumption	3.0 Watts Maximum
Size	130mm x 60mm x 18.2mm (L x W x H)
Weight	70gm
Regulatory compliance	FCC class B CE class B

## 5.1.2.Board Layout and Pin Assignment

### Board layout

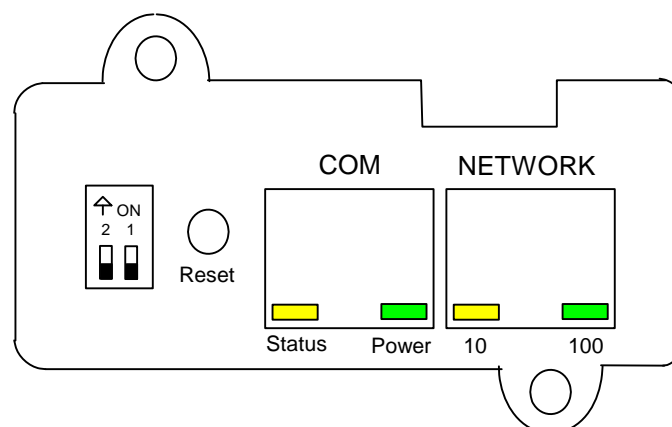


### Pin assignment

Bottom Side		Component Side	
Pin 1	GND	Pin 2	DC (8-15V)
Pin 3	Txd→ATS	Pin 4	Rxd←ATS
Pin 5	NC	Pin 6	NC
Pin 7	NC	Pin 8	Short to pin 10
Pin 9	GND	Pin 10	Short to pin 8
Pin 11~25	NC	Pin 12~26	NC

## 5.1.3.Switch Description

### Component layout of the panel



## DIP-switch definition

No.	SW1	SW2	Function Mode
1	ON	ON	Manufacture Diagnostic Mode
2	ON	OFF	Serial upgrade mode
3	OFF	ON	Reserved
4	OFF	OFF	Operating Mode

## 5.1.4.LED Indicator

### LED definition

No.	Port	Green LED	Amber LED	Function
1	<b>Network</b>	Flashing(1sec)	OFF	Ethernet 100 Traffic
2		OFF	Flashing(1sec)	Ethernet 10 Traffic
3		OFF	OFF	Ethernet disconnect
4	<b>COM</b>	ON	Flashing(1~3sec)	RS-232 Port Active
5		OFF	Flashing(1sec)	Serial Upgrade Mode
6		Two LED cross Flashing	Two LED cross Flashing	Auto Diagnostic Mode
7		ON	ON	Hardware Error

## 6. Appendix B Firmware Upgrades

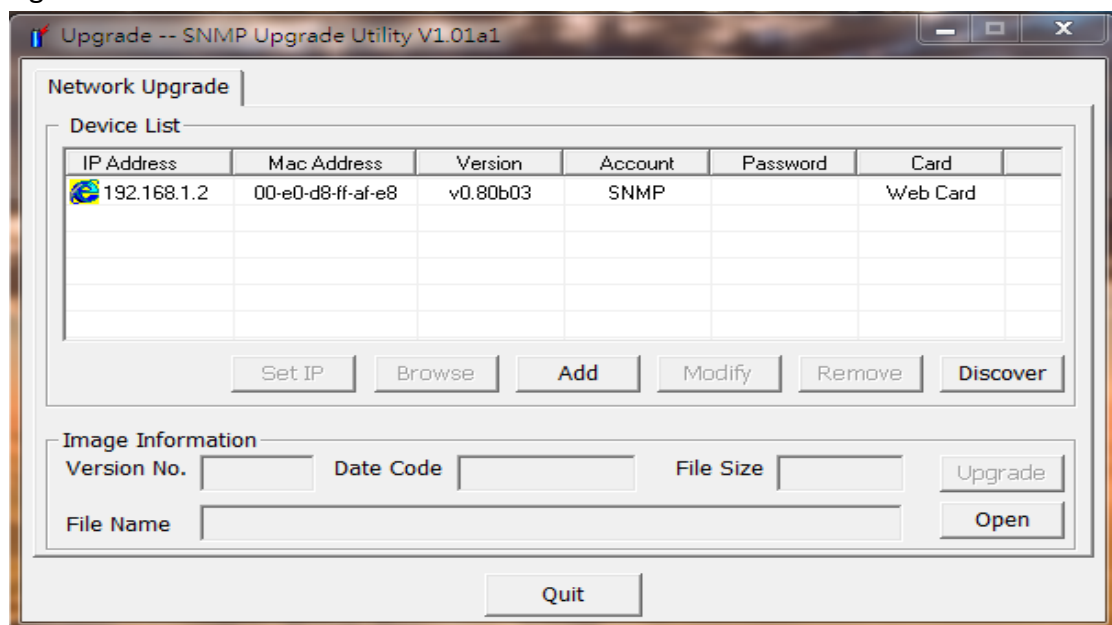
### 6.1. General information

To perform firmware upgrading, SNMP CARD must be connected to the same network as the workstation from which the file is to be sent.

In the SNMP CARD Control menu, check that the Network Upgrade is enabled and you have the login string information and the Community Read/Write Password.

### 6.2. Updating SNMP CARD Firmware from Windows 2000/XP/2003

To perform firmware upgrade, use the **upgradeVX.00.exe** program on the SNMP CARD CD-ROM. This program is compatible with Windows2000/XP/2003 and higher.



1. **Device List:** Displays the addresses of the SNMP CARD present in the local network.
2. **Discover:** Search for the SNMP CARD on the local network.
3. **Remove:** Removes the selected SNMP CARD from the ATS List.
4. **Modify:** Modify the parameters of the selected SNMP CARD in the ATS List.
5. **Add:** Add the IP address of a SNMP CARD to the ATS List manually.



6. **Browse:** Open SNMP CARD Webpage of the SNMP CARD from the ATS List.
7. **Set IP:** Re-set SNMP CARD IP Address; Subnet Mask and Gateway Address in the ATS List.
8. **Upgrade:** Upgrade the selected SNMP card in the ATS List.
9. **Open:** Open and load the new image file for upgrade.
10. **Quit:** Exit the program.

**Note:** You can simultaneously upgrade up to 4 SNMP CARDS on the network using the upgradeVX.00.exe program

### 6.3. Updating SNMP CARD Firmware from UNIX

To upgrade the firmware using a UNIX operating system, you must have the command **tftp** installed in your system.

For uploading of the new firmware to SNMP CARD, execute the following command line:

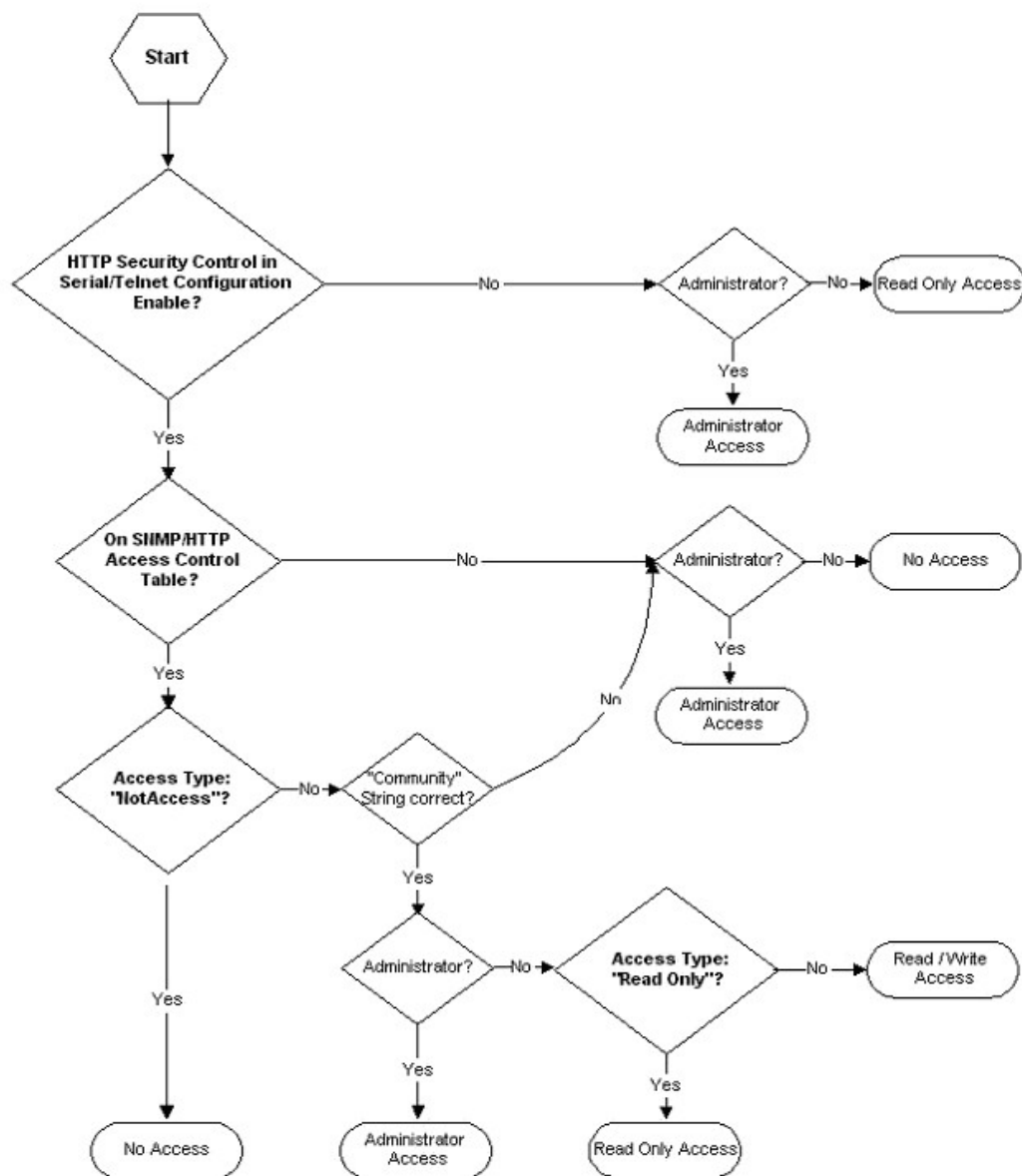
```
# tftp
tftp> binary
tftp> connect <host>
tftp> put <filename> upgrade@<password>@<username>
```

where:

<b>binary</b>	: Binary data download mode
<b>&lt;host&gt;</b>	: SNMP CARD IP address. Example <b>172.168.1.18</b>
<b>put</b>	: PUT command
<b>&lt;filename&gt;</b>	: Name of the file containing the firmware image. Example: <b>/mnt/floppy/SNMP CARD500.bin</b>
<b>upgrade</b>	: Upgrade key word
<b>@</b>	: Separator characters
<b>&lt;password&gt;, &lt;username&gt;</b>	: User Name and Password for read/write access

## 7. Appendix C HTTP Security Control

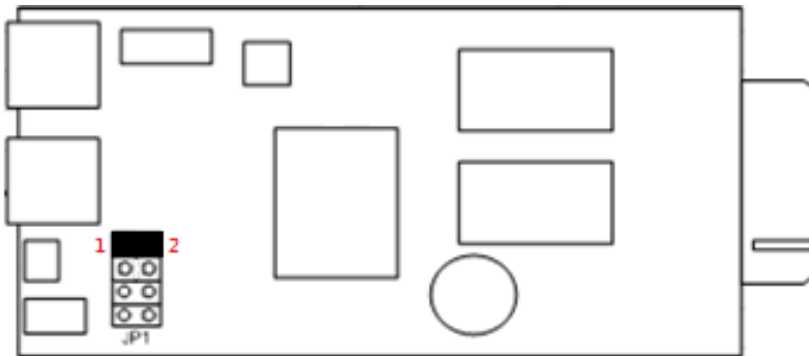
Flow Chart of the "HTTP Security Control" Option



## 8. Appendix D How to do when forget the account & password

For example you changed password to ATS/123456, but you forgot the password

1. Short pin1 & pin2, then using default password "admin" to login Telnet to change password

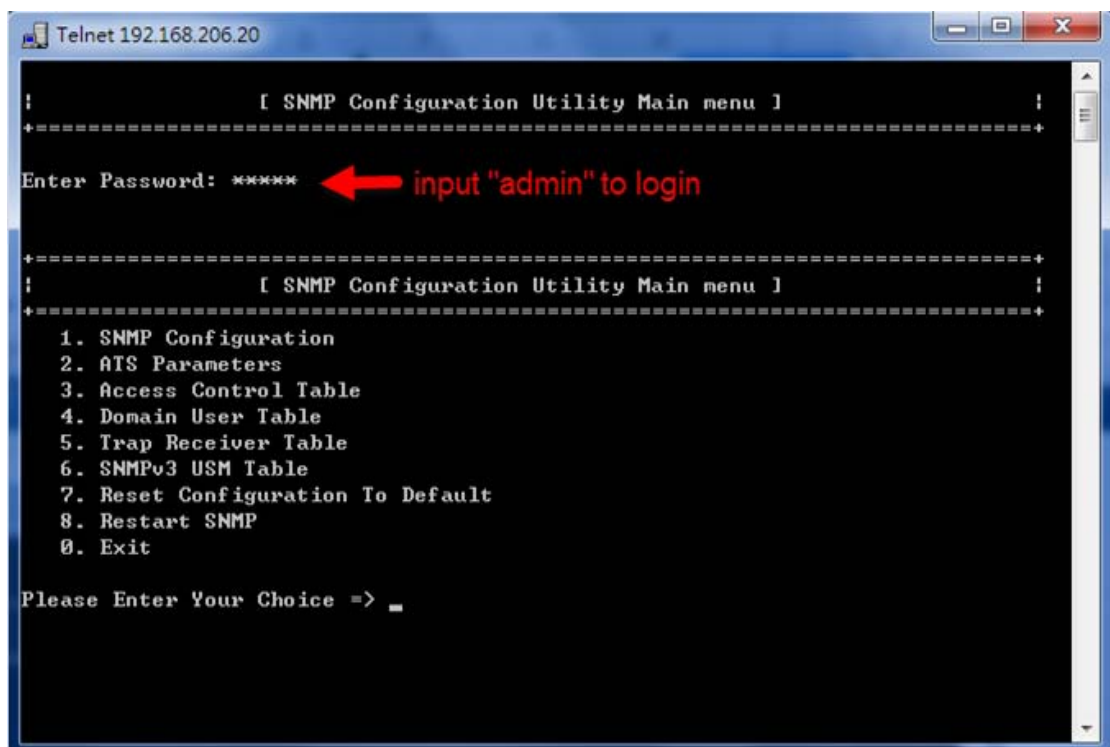


2. Input telnet xxx.xxx.xxx.xxx (SNMP card IP add.) in Start menu > Run

A screenshot of the ATS web interface. The left sidebar shows a list of programs, including 'telnet 192.168.206.20'. The main content area displays the 'Overview' page, which contains a table of system status information.

Overview	
Source A Status	Ok
Source B Status	Ok
Source A Voltage (V)	219
Source A Frequency (Hz)	59.9
Source B Voltage (V)	220
Source B Frequency (Hz)	59.9
Output Source	Source A
Output Voltage (V)	220
Output Frequency (Hz)	59.9
Output Current (A)	0.3
Output Load (%)	1
ATS Alarm	None
ATS System Temperature (°C)	47
Current Rating (A)	30.0
EMD Temperature (Celsius)	
EMD Humidity (%)	
EMD Alarm-1	Unknown
EMD Alarm-2	Unknown
SNMP System Date (dd/mm/yyyy)	09/09/2014
SNMP System Time (hh:mm:ss)	11:49:48
SNMP Working Timer (days hh:mm:ss)	3 days 18:39:13

3. Input "admin" to login

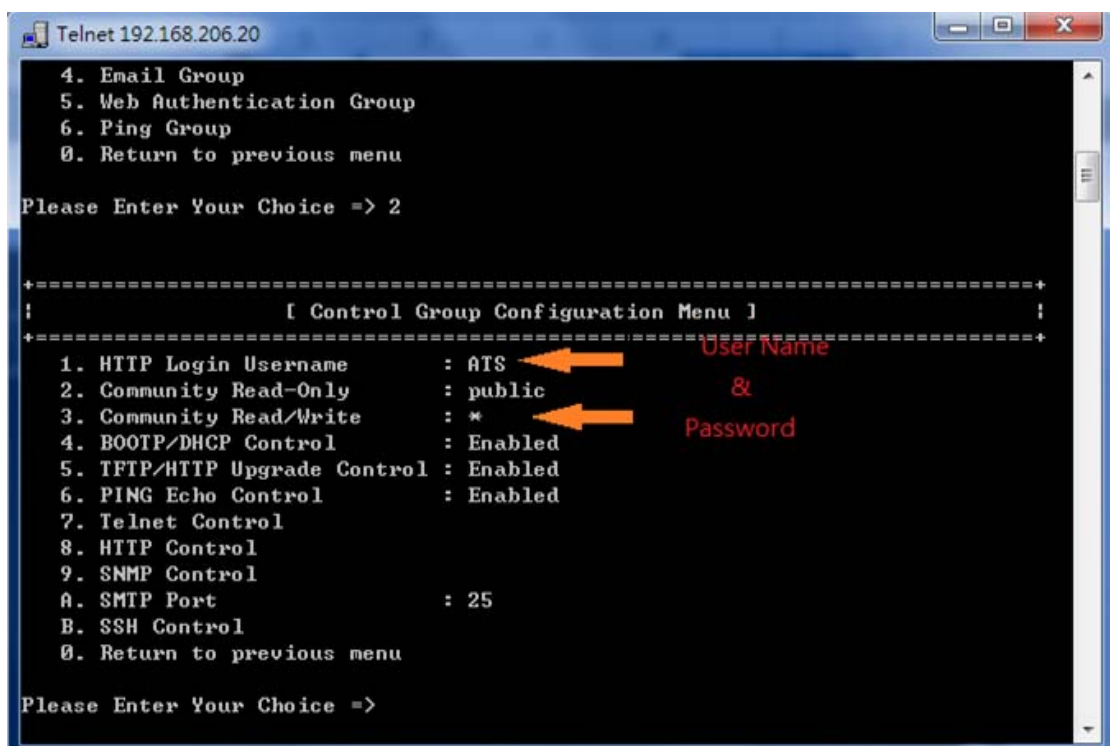


```
Telnet 192.168.206.20

[ SNMP Configuration Utility Main menu ]
=====
Enter Password: ***** ← input "admin" to login
=====
[ SNMP Configuration Utility Main menu ]
=====
1. SNMP Configuration
2. ATS Parameters
3. Access Control Table
4. Domain User Table
5. Trap Receiver Table
6. SNMPv3 USM Table
7. Reset Configuration To Default
8. Restart SNMP
0. Exit

Please Enter Your Choice => _
```

4. Enter menu 1,SNMP Configuration > 2, Control Group , then you can change the user name and password



```
Telnet 192.168.206.20

4. Email Group
5. Web Authentication Group
6. Ping Group
0. Return to previous menu

Please Enter Your Choice => 2

[ Control Group Configuration Menu ]
=====
1. HTTP Login Username      : ATS ← User Name
2. Community Read-Only     : public
3. Community Read/Write    : * ← Password
4. BOOTP/DHCP Control      : Enabled
5. TFTP/HTTP Upgrade Control : Enabled
6. PING Echo Control       : Enabled
7. Telnet Control
8. HTTP Control
9. SNMP Control
A. SMTP Port               : 25
B. SSH Control
0. Return to previous menu

Please Enter Your Choice =>
```

5. Remove the jumper after changed then you can login with new user name and password