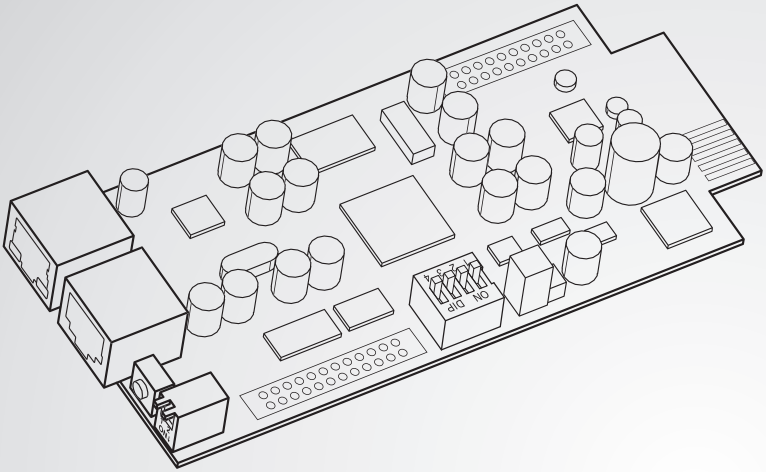

The power behind competitiveness

Delta InsightPower SNMP IPv6 for UPS

User Manual

www.deltapowersolutions.com

Smarter. Greener. Together.

Save This Manual

This manual contains important instructions and warnings that you should follow during the installation, operation, storage and maintenance of this product. Failure to heed these instructions and warnings will void the warranty.

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Chapter 1 : Important Safety Instructions

1-1 Warnings

- The InsightPower SNMP IPv6 for UPS, hereafter referred to as SNMP IPv6, is designed to work with a UPS and needs to be installed inside the UPS's SNMP slot or inside an external SNMP box. Before installation, ensure that all power sources and critical loads connected to the UPS are disconnected.
- Do not place or use this unit in the presence of flammable substances.
- Do not attempt to disassemble the unit.
- Do not attempt to perform any internal modifications on the unit.
- Do not attempt to fix/ replace internal components. When repair is needed, refer all servicing to the nearest Delta service center or authorized distributor.
- Do not allow any objects or liquids of any kind to penetrate the unit.
- Always follow this User Manual to install and operate this unit.
- Do not play the included CD on a conventional CD player. This could generate loud noise at a level that could result in permanent hearing loss.

1-2 Standard Compliance

- **EN 55022: 2006 + A1: 2007, Class B**

  EN 61000-3-3: 1995+A1: 2001+A2: 2005
- **EN 55024: 1998 + A1: 2001 + A2: 2003**

  IEC 61000-4-2: 1995+A1: 1998+A2: 2000

  IEC 61000-4-3: 2006

  IEC 61000-4-4: 2004

  IEC 61000-4-5: 2005

  IEC 61000-4-6: 2007

  IEC 61000-4-8: 1993+A1: 2000

  IEC 61000-4-11: 2004

Chapter 2 : Introduction

2-1 Product Description

The InsightPower SNMP IPv6 for UPS, hereafter referred to as SNMP IPv6, is a device that provides an interface between an UPS and a network. It communicates with the UPS, acquires its information and remotely manages the UPS via a network system. The SNMP IPv6 supports public protocols including SNMP and HTTP. You can effortlessly configure this SNMP IPv6 using a network system and easily obtain your UPS's status and manage your UPS via the SNMP IPv6.

2-2 Features

- **Network UPS management**

  Allows remote management of the UPS from any workstation through Internet or Intranet.

- **Remote UPS monitoring via SNMP & HTTP**

  Allows remote monitoring of the UPS using SNMP NMS, Delta MIB (Management Information Base) or a Web Browser.

- **UPS and system function configuration from any client (password protected)**

  Set the UPS and system parameters through a Web Browser.

- **Event logs & metering data keeping**

  Provides a history data of the UPS's power events, power quality, status and battery conditions.

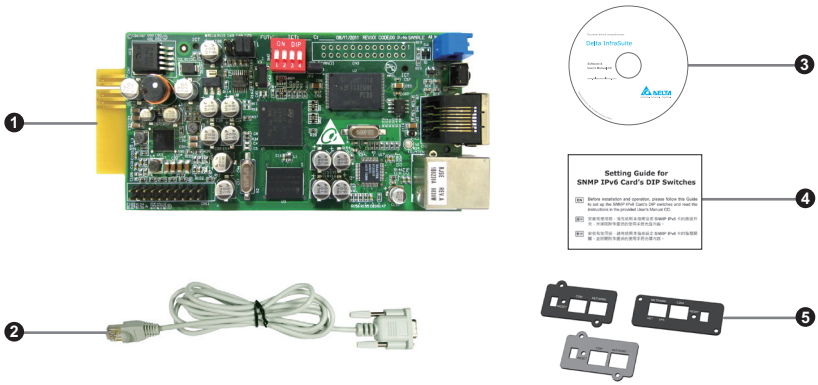
Other features and supported protocols include:

- User notification via SNMP Traps and E-mail
- Network Time Protocol
- Telnet configuration
- BOOTP/ DHCP

- HTTPS, SSH, SFTP and SNMPv3 security protocols
- RADIUS (Remote Authentication Dial In User Service) login and local authentication
- Remote event log management through syslog
- IPv4 protocol
- IPv6 protocol (IPv6 Ready Logo Phase 2 (Core for Host, Logo ID 02-C-000624)

2-3 Package Contents

Please carefully verify the SNMP IPv6 and the included accessories. Contact your dealer if any item is missing or damaged. Should you return the items for any reason, ensure that they are carefully repacked using the original packing materials came with the unit.

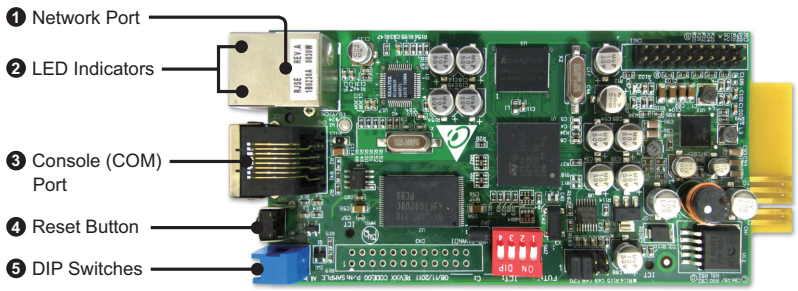


No.	Item	Quantity
❶	InsightPower SNMP IPv6 for UPS	1 PC
❷	RJ45 to DB9 cable	1 PC
❸	Software & User's Manual CD	1 PC
❹	Setting Guide for SNMP IPv6 Card's DIP Switches	1 PC
❺	Cover	3 PCS

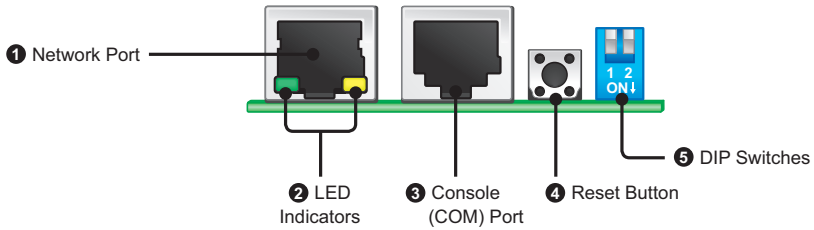
2-4 Interface

The interface includes a NETWORK port, a COM port, LED indicators, a Reset button, DIP switches shown below. For their functions and indications, please refer to the table below.

Top view:



Front view:



No.	Item	Description
1	Network Port	Connects to the Ethernet Network.

No.	Item	Description
❷	LED Indicators	When the SNMP IPv6 is initializing or upgrading firmware, the two LED indicators flash simultaneously to show its status. Refer to the following: • **Rapid simultaneous flashing** (every 50ms) : Initialization or firmware upgrade in progress. • **Slow simultaneous flashing** (every 500ms) : Initialization failed. **WARNING :** Do **NOT** remove the SNMP IPv6 or disconnect the UPS's input power during initialization or firmware upgrade! This could result in data loss or damage to the SNMP IPv6. The green LED indicator shows the network connection status: • **ON** : Network connection established and the IPv4 address is useable. • **OFF** : Not connected to a network. • **Flashes slowly** (every 500ms) : Faulty IP address. The yellow LED indicator shows the linking status between the SNMP IPv6 and the UPS: • **Flashes rapidly** (every 50ms): UPS linked. • **Flashes slowly** (every 500ms): UPS not linked.
❸	Console (COM) Port	1. Connects to a workstation with the provided RJ45 to DB9 cable to configure the system. 2. Connects to an EnviroProbe (optional) to monitor its connected environment monitoring devices.
❹	Reset Button	Resets the SNMP IPv6. This does not affect the operation of the UPS.

No.	Item	Description
❺	DIP Switches	Set up operation modes.

DIP switches	Operation mode	Description
	Normal Mode	The SNMP IPv6 works with the UPS. It provides the UPS's status information and parameters through a network system.
	Pass Through Mode	The SNMP IPv6 stops polling the UPS but transfers the communication data between the console port and the UPS.
	Sensor Mode (with EnviroProbe	The SNMP IPv6 works with the UPS and an optional EnviroProbe. It provides not only the UPS's status information and parameter readings, but also the EnviroProbe's status information and its environmental parameters such as temperature and humidity.
	Configuration Mode	In this mode, the user can login through the console port and configure the SNMP IPv6's settings. Please refer to ***4-4 Configuring through COM Port***.

NOTE

For EnviroProbe information, please refer to the Installation Guide included in the package of the EnviroProbe.

Chapter 3 : Installation

NOTE

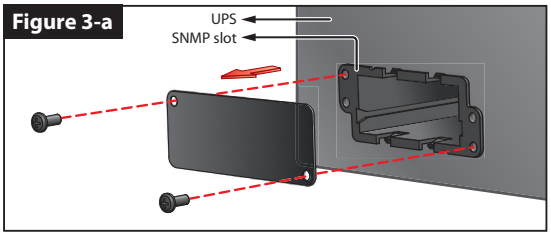
Before installation, please disconnect all power sources and critical loads connected to the UPS. Otherwise, the SNMP IPv6 might have shorting issues to cause UPS shutdown or damage.

Please install the SNMP IPv6 inside your UPS's SNMP slot. If your UPS does not have any SNMP slot, please install it in an optional external SNMP box.

- Please follow the procedures below to install the SNMP IPv6 into your UPS's SNMP slot.

Step 1 Remove the cover and the two screws shown from the UPS's SNMP slot ***(see Figure 3-a)***.

Figure 3-a

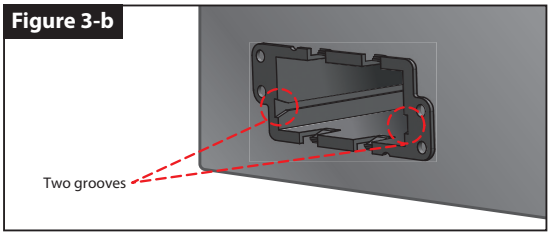


NOTE

Please note that, due to different design, the location of screws for each UPS's SNMP slot might be different.

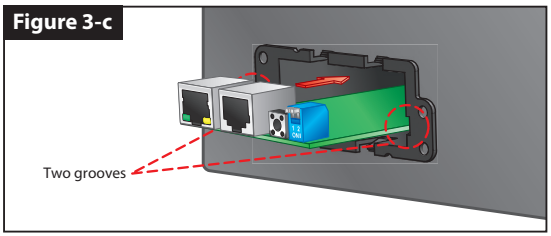
Step 2 Find the two grooves inside the SNMP slot ***(see Figure 3-b)***.

Figure 3-b



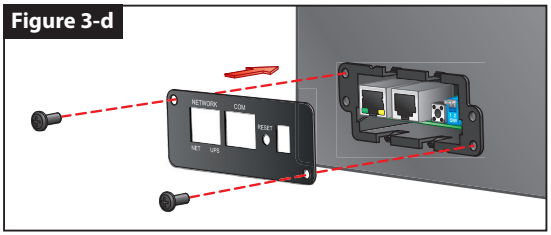
Step 3 Insert the SNMP IPv6 into the grooves ***(see Figure 3-c)***.

Figure 3-c



Step 4 There are three covers provided in the SNMP IPv6's package. Please follow the location of screw holes on the SNMP slot to select the suitable cover, and use the two screws that you just removed to fix the cover on the SNMP slot ***(see Figure 3-d)***.

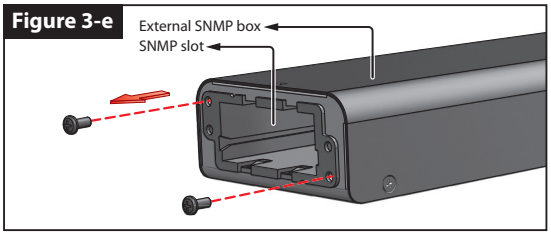
Figure 3-d



- Please follow the procedures below to install the SNMP IPv6 into an external SNMP box.

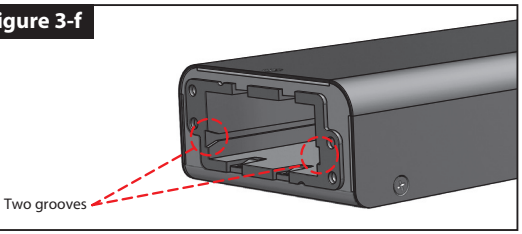
Step 1 Remove the two screws shown from the external SNMP box ***(see Figure 3-e)***.

Figure 3-e



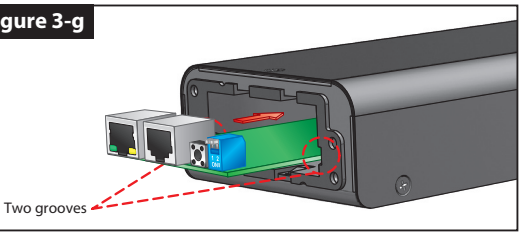
Step 2 Find the two grooves inside the external SNMP box ***(see Figure 3-f)***.

Figure 3-f



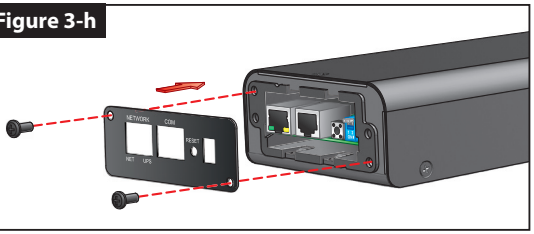
Step 3 Insert the SNMP IPv6 into the grooves ***(see Figure 3-g)***.

Figure 3-g



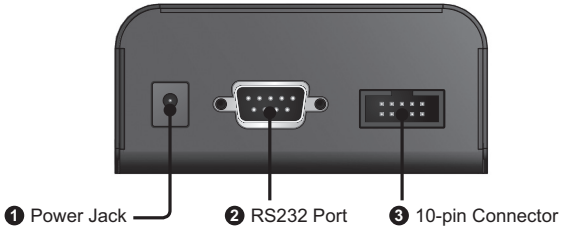
Step 4 There are three covers provided in the SNMP IPv6's package. Please follow the location of screw holes on the external SNMP box to select the suitable cover, and use the two screws that you just removed to fix the cover on the external SNMP box ***(see Figure 3-h)***.

Figure 3-h



NOTE

The backside view of the external SNMP box is shown as follows.



No.	Item	Description
1	Power Jack	Connects your UPS's output. The input power should be 12Vdc.
2	RS232 Port	Use the RS232 cable provided by your UPS to connect your UPS's RS232 port.
3	10-pin Connector	Connects your UPS's PC board. Please ask qualified service personnel to execute such connection. Do not perform the connection yourself.

Please refer to the table below for the external SNMP box's specifications.

External SNMP Box Specifications	
Power Jack	Input Power 12Vdc
RS232 Port	D-Sub 9-Pin Male
10-pin Connector	Male
Size (W×D×H)	92.4 x 208 x 42 mm
Weight	540 g

Chapter 4 : System Configurations

There are different ways you can configure your SNMP IPv6. If a network connection is available at your location, the following methods can be used:

- **Web-based interface** : The InsightPower SNMP IPv6 for UPS Web offers comprehensive system management and monitoring. Please refer to ***Chapter 5: InsightPower SNMP IPv6 for UPS Web***.
- **EzSetting** : Use the provided program EzSetting to quickly set up your SNMP IPv6. Please refer to ***4-2 Configuring with EzSetting***.
- **Telnet mode** : Configure your SNMP IPv6 in text mode. Please refer to ***4-3 Configuring via Telnet***.

The above-mentioned methods require network connection. If not available, you can use direct COM port connection to set up your SNMP IPv6. Please see ***4-4 Configuring through COM Port***.

NOTE

1. To ensure system security, it is highly recommended that you change your account and password after the first login.
2. If you have multiple SNMP IPv6 units installed in your network, we highly suggest that you change the SNMP IPv6's default Host Name to avoid conflicts. Also, it is recommended that you disable BOOTP/ DHCP and manually assign a valid static IP address to the SNMP IPv6.

4-1 Configuring via InsightPower SNMP IPv6 for UPS Web

To set up the SNMP IPv6 via your web browser, please follow the instructions below:

Step 1 Use a CAT5 network cable to connect the SNMP IPv6's Network port to the network. Launch your web browser. In the address bar, enter the SNMP IPv6's default Host Name **InsightPower**, or default IP address **192.168.1.100**. If you are unable to connect, please see ***Chapter 7 : Troubleshooting Q6***.

NOTE

If you have previously changed the SNMP IPv6's Host Name or IP address, connect with the new settings.

Step 2 Log in as Administrator (default account/ password: admin/ password, case sensitive).

Step 3 Specify your preferred display language (default: English) from the drop-down menu on the top right of the page. The SNMP IPv6 remembers your language preference. In the following instructions, English is chosen as the display language.

Step 4 Click **System** → **Administration** → **User Manager**. Manage your login accounts and passwords under the "Local Authentication" subhead. The access permission for the account types is shown as follows:

1) **Administrator :** Allowed to modify all settings.
2) **Device Manager :** Allowed to modify device-related settings.
3) **Read Only User :** Only allowed to view settings without the permission to make changes.

You can manually specify whether users are allowed to log in from other LANs. If you wish to block login attempts from external connections, select **Only in This LAN**. Otherwise, select **Allow Any**.

Step 5 Click **System** → **Administration** → **TCP/ IP** to set Host Name, IP address, Subnet Mask and Gateway IP for the SNMP IPv6.

Step 6 Click **Time Server** to manually set time and date for the system, or enable automatic time synchronization between the SNMP IPv6 and the time servers.

NOTE

To completely set up your SNMP IPv6, please refer to ***Chapter 5: InsightPower SNMP IPv6 for UPS Web***.

4-2 Configuring with EzSetting

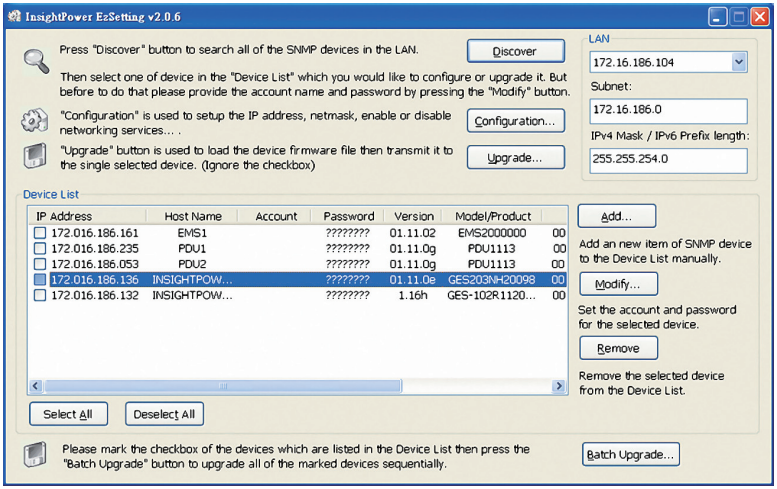
Included in the provided CD, the EzSetting (compatible with Windows 2000/ 2003/ 2008/ XP/ Vista/ 7) allows you to easily configure your SNMP IPv6 and upgrade firmware on your SNMP devices. Follow the instructions below:

Step 1 Use a CAT5 cable to connect the SNMP IPv6's Network port to the network.

Step 2 Make sure the two DIP switches of the SNMP IPv6 are set to the **OFF** position (Normal Mode) to enable network communication. Make sure the workstation and the SNMP IPv6 are on the same LAN.

Step 3 Insert the provided CD in the CD-ROM drive. From the root directory, launch EzSetting.

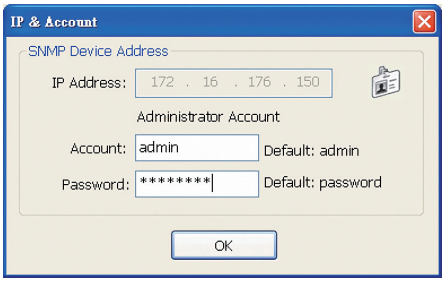
Step 4 Click **Discover** to search all available SNMP devices on the LAN. A list of devices will be shown.



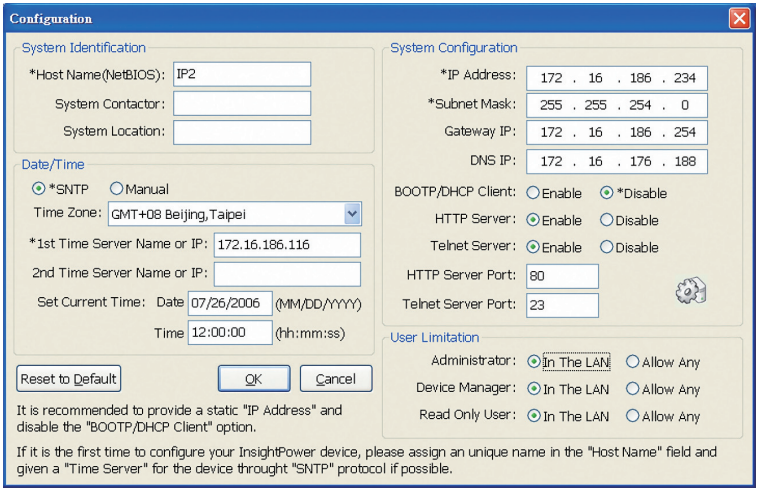
NOTE

1. If you want to search SNMP devices in a different domain, change the **Subnet** and **IPv4/ IPv6 Prefix Length** and click **Discover**.
2. If the SNMP IPv6 can not be found, check UDP port 3456 on the workstation you are using. Make sure it is open.

Step 5 Select the SNMP IPv6 that you want to modify from the Device List. Click **Modify** and enter Administrator's account and password (default: admin/ password, case sensitive).



Step 6 Click **Configuration** to configure network settings.



NOTE

Refer to ***Chapter 5 : InsightPower SNMP IPv6 for UPS Web*** for complete configurations.

4-3 Configuring via Telnet

Step 1 Use a CAT5 network cable to connect the SNMP IPv6's Network port to the network.

Step 2 Connect the workstation (Windows or Linux) to the LAN that the SNMP IPv6 is connected to.

Step 3 For Windows, launch DOS prompt mode (**Start** → **Run** → key in **cmd** and press **Enter**). For Linux, launch Shell.

Step 4 Enter the following command: **telnet InsightPower** or **telnet IP address** to initiate telnet connection with the SNMP IPv6.

Step 5 When connection is established, enter Administrator's account and password (default: admin/ password, case sensitive). The Main Menu will appear on the screen. Please refer to ***4-5 Configuring via Text Mode*** for more information.

NOTE

1. The SNMP IPv6 terminates idle connections after 60 seconds.
2. Refer to ***Chapter 5: InsightPower SNMP IPv6 for UPS Web*** for complete configurations.

4-4 Configuring through COM Port

If a network connection is not available at your location, you can still set up the SNMP IPv6 via COM port connection. Please follow the instructions below:

NOTE

If you are running a non-Windows system, refer to your system's user manual for Telnet clients.

Step 1 Use the provided RJ45 to DB9 cable to connect the SNMP IPv6's COM port to the workstations' COM port.

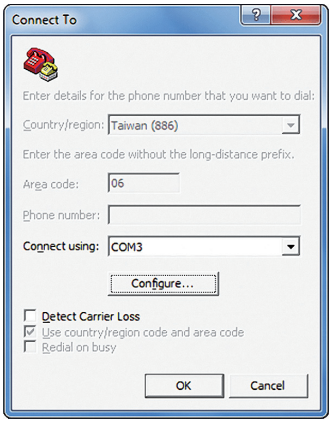
Step 2 Make sure the two DIP switches of the SNMP IPv6 are set to the **OFF** position (Normal Mode).

Step 3 For Windows 2000, 2003, 2008 and XP, go to **Start → Programs → Accessories → Communications** and select **HyperTerminal**.

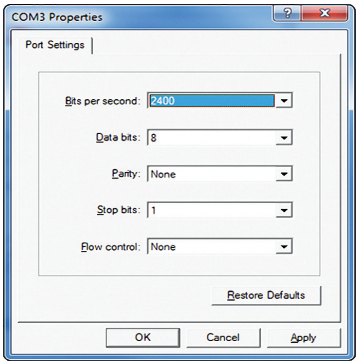
NOTE

Microsoft has removed HyperTerminal from Windows Vista and later versions. If your operation system does not include the program, a free alternative Telnet/SSH client PuTTY can be downloaded from http://www.putty.org.

Step 4 Enter a name, choose an icon for the connection and click **OK**. From the drop-down menu **Connect using**, select the COM port that is connected to the SNMP IPv6.



Step 5 Click **Configure** and set up COM port parameters as follows:

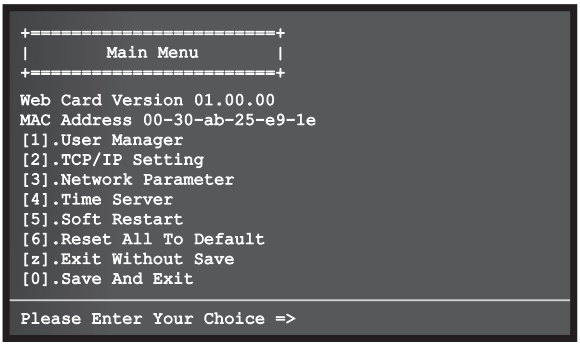


Step 6 Click **OK** to continue. Set the two DIP switches of the SNMP IPv6 to the **ON** position (Configuration Mode), and HyperTerminal will automatically connect to the SNMP IPv6). If it does not connect, click the telephone icon from the tool bar. When connection is established, log in with Administrator's account/ password (default: admin/ password, case sensitive). Once you are logged in, the Main Menu appears on the screen. Please refer to ***4-5 Configuring via Text Mode*** for more information.

4-5 Configuring via Text Mode

You can configure the SNMP IPv6 via text mode by using Telnet/ SSH clients such as HyperTerminal and PuTTY. In this section, you can find descriptions and default settings.

Main Menu



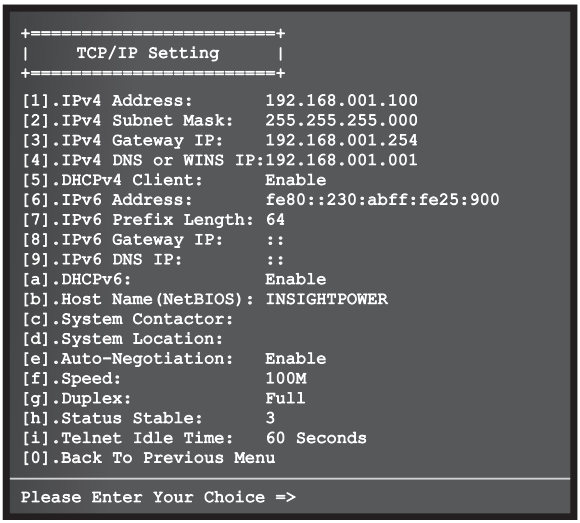
User Manager

```
+========================+
|      User Manager      |
+========================+
RADIUS
[1].RADIUS Auth: Disable
[2].Server:
[3].Secret:
[4].Port:       1812
----------------
Local Auth
    Administrator
[5].Account:    admin
[6].Password:   ********
[7].Limitation: Only in This LAN
    Device Manager
[8].Account:    device
[9].Password:   ********
[a].Limitation: Only in This LAN
    Read Only User
[b].Account:    user
[c].Password:   ********
[d].Limitation: Allow Any
[0].Back To Previous Menu

Please Enter Your Choice =>
```

No.	Item	Description	Default
[1]	RADIUS Auth	Specify whether RADIUS login is allowed.	Disable
[2]	Server	The RADIUS server name.	
[3]	Secret	The RADIUS secret.	
[4]	Port	The RADIUS port number.	1812
[5]	Administrator Account	The default account/ password for the Administrator (case sensitive).	admin
[6]	Administrator Password		password
[7]	Administrator Limitation	Restrict Administrator login area.	Only in This LAN
[8]	Device Manager Account	The default account/ password (case sensitive) for the Device Manager. This account is only permitted to change device-related settings.	device
[9]	Device Manager Password		password

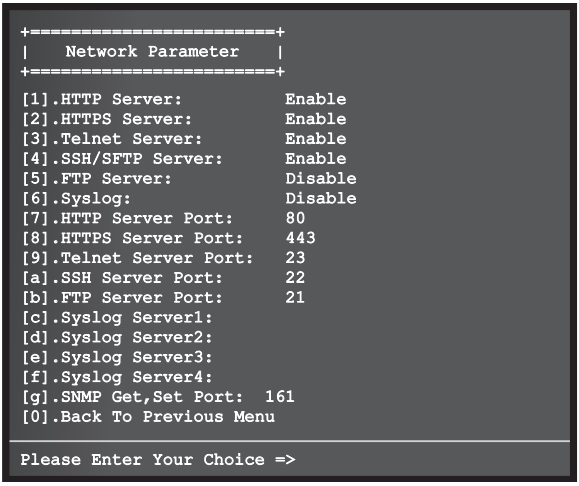
No.	Item	Description	Default
[a]	Device Manager Limitation	Restrict Device Manager login area.	Only in This LAN
[b]	Read Only User Account	The default account/ password (case sensitive) for Read Only User. This account is only allowed to view settings without the permission to make changes.	user
[c]	Read Only User Password		password
[d]	Read Only User Limitation	Restrict Read Only User login area.	Allow Any

TCP/IP Setting



No.	Item	Description	Default
[1]	IPv4 Address	The IPv4 address.	192.168.001.100
[2]	IPv4 Subnet Mask	The IPv4 subnet mask setting.	255.255.255.000
[3]	IPv4 Gateway IP	The IPv4 gateway's IP address.	192.168.001.254
[4]	IPv4 DNS or WINS IP	IPv4 Domain Name Server or WINS IP.	192.168.001.001
[5]	DHCPv4 Client	Enable/ Disable DHCPv4 protocol.	Enable
[6]	IPv6 Address	The IPv6 address.	
[7]	IPv6 Prefix Length	The IPv6 prefix length.	
[8]	IPv6 Gateway IP	The IPv6 gateway's IP address.	
[9]	IPv6 DNS IP	IPv6 Domain Name Server's IP address.	
[a]	DHCPv6	Enable/ Disable DHCPv6 protocol.	Enable
[b]	Host Name (NetBIOS)	The Host Name for the SNMP IPv6.	INSIGHTPOWER
[c]	System Contact	The System Contact information.	
[d]	System Location	The System Location information.	
[e]	Auto-Negotiation	Enable/disable automatic transfer rate (10/ 100Mbps) negotiation.	Enable
[f]	Speed	If the Auto-Negotiation is disabled, you can specify the transfer rate.	100M
[g]	Duplex	If the Auto-Negotiation is disabled, you can specify the duplex mode.	Full
[h]	Status Stable	Status change confirmation check time.	3
[i]	Telnet Idle Time	Telnet connection time-out setting.	60 Seconds

Network Parameter

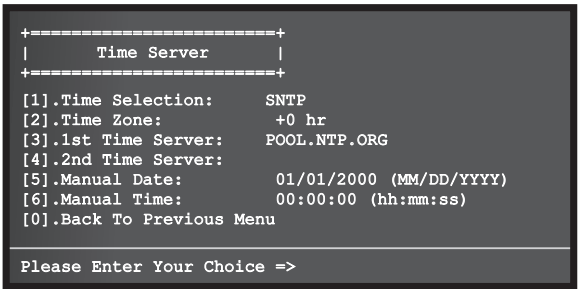


No.	Item	Description	Default
[1]	HTTP Server	Enable/ disable HTTP protocol.	Enable
[2]	HTTPS Server	Enable/ disable HTTPS protocol.	Enable
[3]	Telnet Server	Enable/ disable Telnet protocol.	Enable
[4]	SSH/ SFTP Server	Enable/ disable SSH/ SFTP protocol.	Enable
[5]	FTP Server	Enable/ disable FTP protocol.	Disable
[6]	Syslog	Enable/ disable remote Syslog.	Disable
[7]	HTTP Server Port	HTTP port.	80
[8]	HTTPS Server Port	HTTPS port.	443
[9]	Telnet Server Port	Telnet port.	23
[a]	SSH Server Port	SSH port.	22
[b]	FTP Server Port	FTP port.	21
[c]	Syslog Server 1	The Host Name of remote Syslog Server 1.	
[d]	Syslog Server 2	The Host Name of remote Syslog Server 2.	

No.	Item	Description	Default
[e]	Syslog Server 3	The Host Name of remote Syslog Server 3.	
[f]	Syslog Server 4	The Host Name of remote Syslog Server 4.	
[g]	SNMP Get, Set Port	The SNMP port.	161

Time Server

You can manually adjust time and date for the SNMP IPv6 or set up automatic time server synchronization. The SNMP IPv6, Windows XP and later versions support SNTP (Simple Network Time Protocol). If you need to start up a time server service on your workstation, please refer to ***Chapter 7: Troubleshooting Q1***.



No.	Item	Description	Default
[1]	Time Selection	SNTP or manual.	SNTP
[2]	Time Zone	Adjust your time zone.	+0 hr
[3]	1st Time Server	The first time server for SNTP.	POOL.NTP.ORG
[4]	2nd Time Server	The second time server for SNTP.	
[5]	Manual Date	Set the date manually.	01/01/2000
[6]	Manual Time	Set the time manually.	00:00:00

Soft Restart

Reset the SNMP IPv6. This will not affect the operation of the UPS.

Default Reset

Reset to manufacture default.

Exit Without Saving

Exit and ignore changes.

Save and Exit

Preserve your changes and exit.

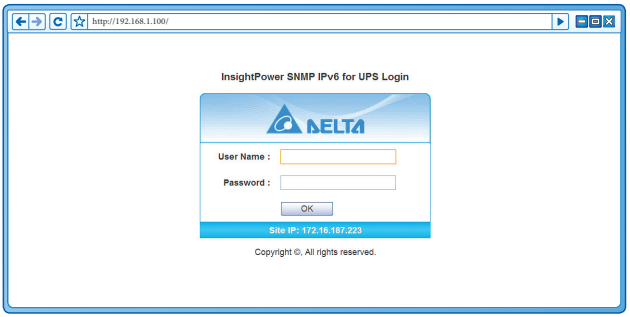
Chapter 5 : InsightPower SNMP IPv6 for UPS Web

To configure the SNMP IPv6 via the InsightPower SNMP IPv6 for UPS Web, please follow the steps below:

Step 1 Make sure that your SNMP IPv6 is connected to the LAN. Use a CAT5 network cable to connect the SNMP IPv6's Network port to the network.

Step 2 Launch your web browser. In the address bar, enter the SNMP IPv6's Host Name **http:/InsightPower/** or IP address. For encrypted connection, enter **https://InsightPower/** or **https://192.168.1.100/**.

Step 3 When connection is established, the login page appears. Enter your account and password (default: admin/ password).



NOTE

1. If you have previously changed the SNMP IPv6's Host Name or IP address, please connect with new settings.
2. If the login page is accessible, but you are unable to log in with correct account and password, additional network configuration may be needed. The cause could be the IP subnet of the computer you are logging in to is different from the SNMP IPv6's. To solve this issue, please refer to ***Chapter 7: Troubleshooting Q3***.
3. The SNMP IPv6 will automatically log off idle connections after 30 minutes.

The **InsightPower SNMP IPv6 for UPS Web** includes the information of **Monitor, Device** and **System**. Please refer to the following sections ***5-1~5-3*** for more information.

5-1 Monitor

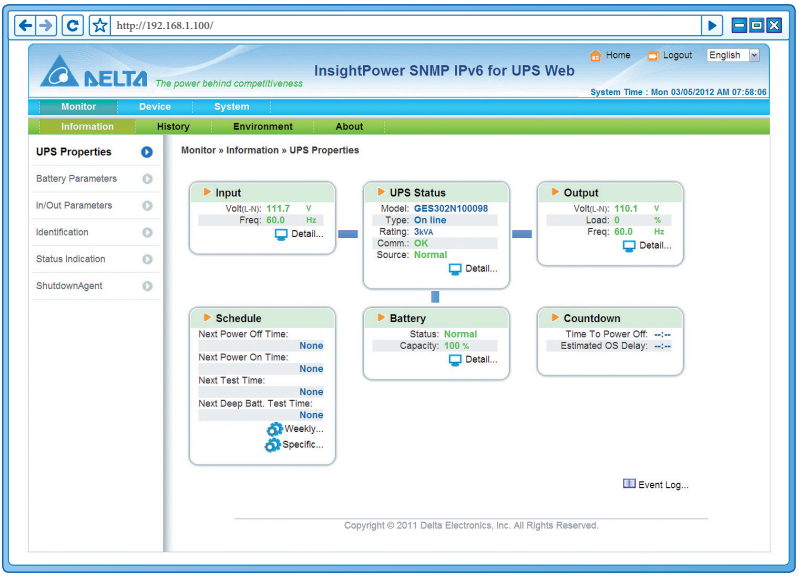
Under the Monitor category, there are Information, History and Environment these three items.

5-1-1 Information

This includes the information of UPS Properties, Battery Parameters, In/ Out Parameters, Identification, Status Indication, and ShutdownAgent. Please note that since different UPSs provide different information, the UPS that you have may not display the same web page.

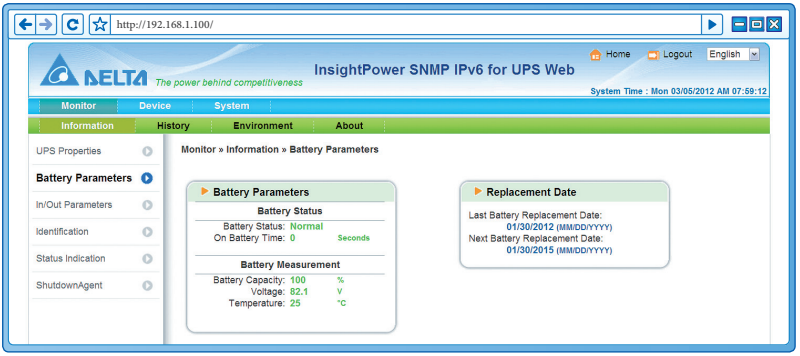
UPS Properties

Go to **Monitor → Information → UPS Properties** to see a status overview of the UPS's major parameters. The values will be updated automatically.



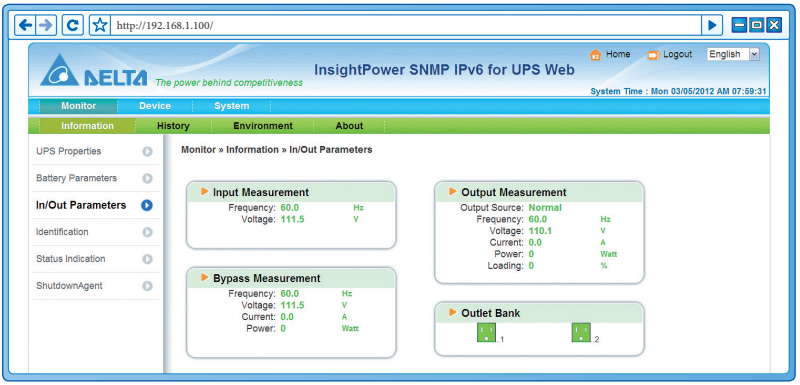
Battery Parameters

Go to **Monitor → Information → Battery Parameters** to view the information of Battery Status, Battery Measurement, Battery Replacement Date.



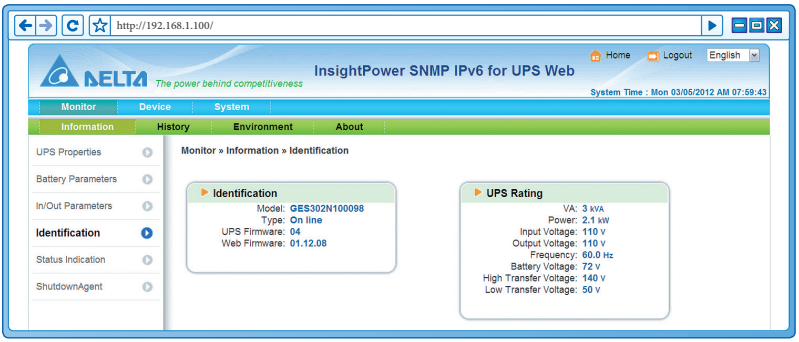
In/ Out Parameters

Go to **Monitor → Information → In/ Out Parameters** to view the information of Input Measurement, Bypass Measurement, Output Measurement and Outlet Bank.



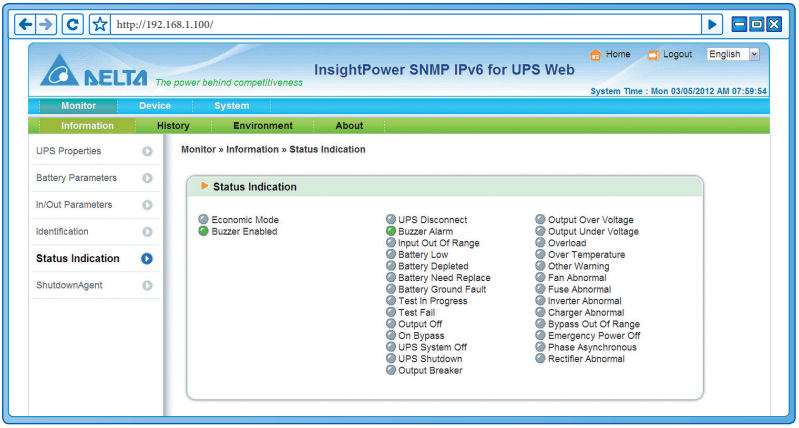
Identification

Go to **Monitor → Information → Identification** to view the information of Identification and UPS Rating.



Status Indication

Go to **Monitor → Information → Status Indication** to view the UPS's event list. When an event occurs, its according beacon lights green.



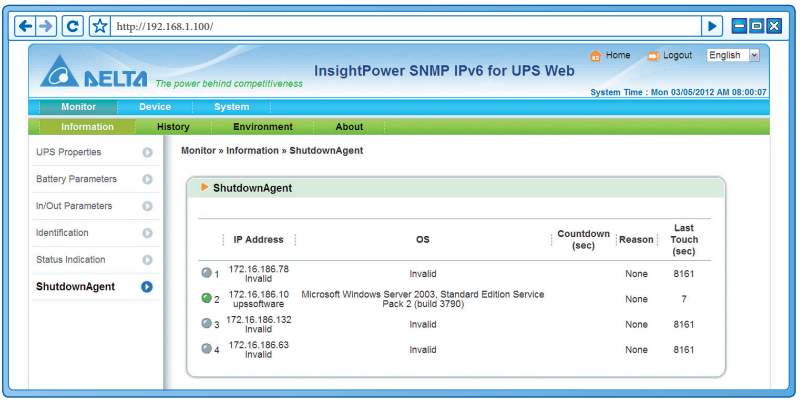
ShutdownAgent

Go to **Monitor → Information → ShutdownAgent** to view your designated PCs' shutdown information, including IP Address, OS (operation system), Count-down, Reason and Last Touch.

Please note that the page only appears if:

- Your PCs have connected to a UPS using this SNMP IPv6.
- Your PCs have installed ShutdownAgent 2012 software.

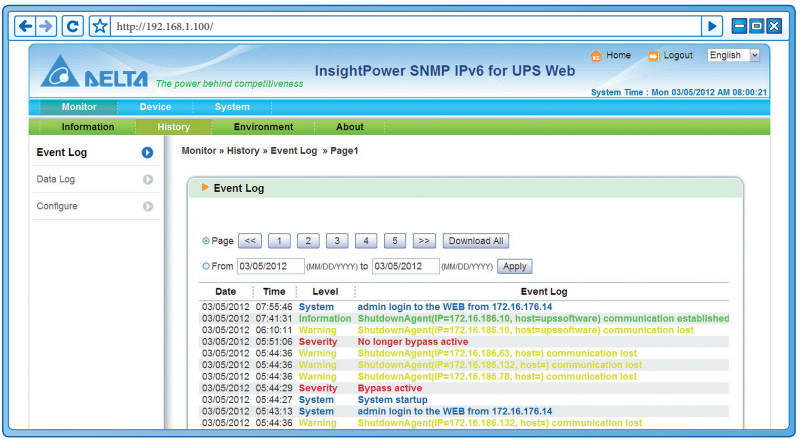
- You have went to **System → Administration → SNMP Trap** to specify your PCs' IP Addresses in the Target IP bar and selected "ShutdownAgent 2012" from Event Level's pull-down menu.



5-1-2 History

Event Log

Go to **Monitor → History → Event Log →** Page 1/ 2/ 3/ 4... to see events that occur. The existing ones are overwritten when the maximum number of entries (1,000) is reached. You can also download the entire event log archive (event_log.xls) recorded during an assigned period of time on your computer.

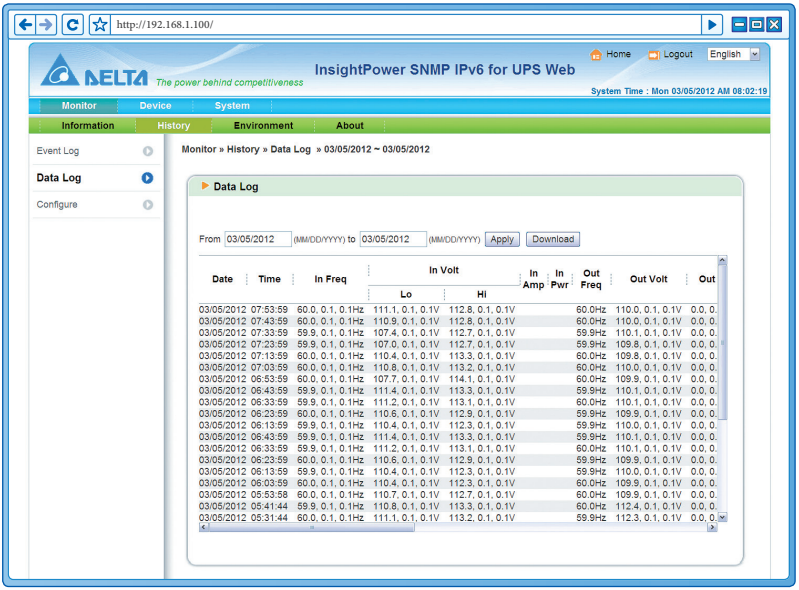


- **Date:** The date when the event occurred.
- **Time:** The time when the event occurred.
- **Level:** The Event Level of the event occurred.
- **Event Log:** The description of the event that occurred.
- **Download Event Log from UPS**

  The SNMP IPv6 sends a request to the UPS, collects the event logs saved in the UPS, and replies to the user through network. Please note that this option only appears when the UPS supports this function, and the event logs saved in the UPS may be different from the event logs saved in the SNMP IPv6.

Data Log

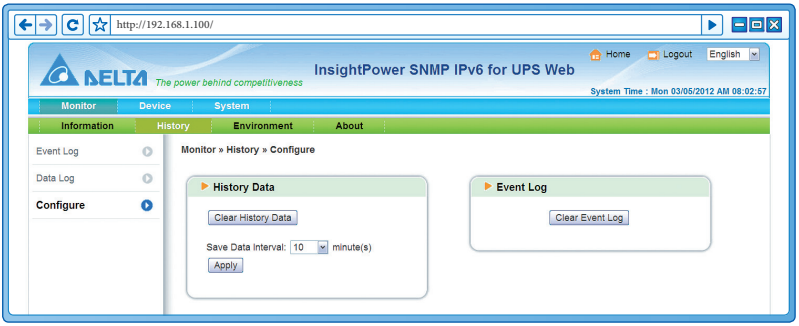
Go to **Monitor → History → Data Log** to see all saved device data. You can also download the data archive (data_log.xls) recorded during an assigned period of time on your computer.



- **Date:** The date when the data entry is recorded.
- **Time:** The time when the data entry is recorded.

Configure

Go to **Monitor → History → Configure** to clear the history data and event log. You can also assign the Save Data Interval.



- **Clear History Data:** Empty the history data log only.
- **Clear Event Log:** Empty the event log only.
- **Save Data Interval:** The time interval after which an event/ data entry is recorded.

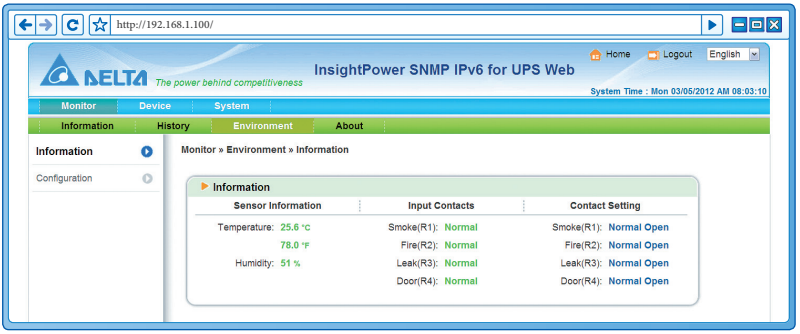
5-1-3 Environment

Only when an EnviroProbe is used can the Environment page show up. Please note that the SNMP IPv6's DIP switch 1 should be set to the **ON** position and DIP switch 2 should be set to the **OFF** position when you use an EnviroProbe.

The Environment page includes Information and Configuration these two items. You can monitor and set up your EnviroProbe via this Environment page. For EnviroProbe information, please refer to the Installation Guide included in the package of the EnviroProbe.

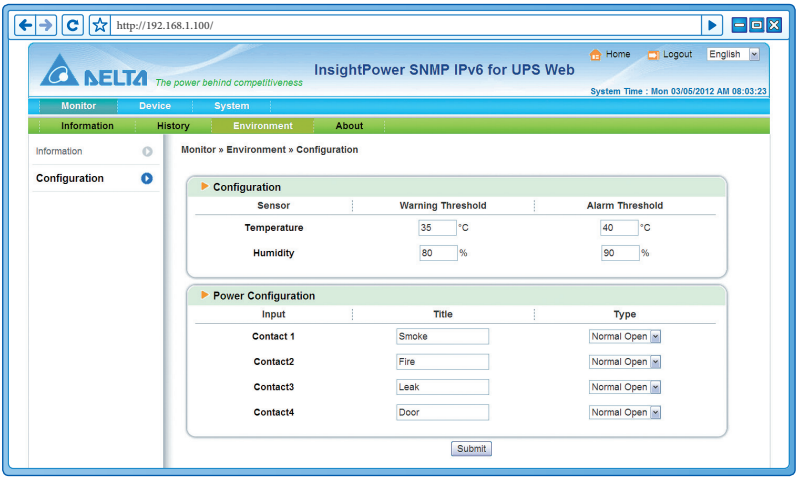
Information

Go to **Monitor → Environment → Information** to see your EnviroProbe's Sensor Information, Input Contacts and Contact Setting.



Configuration

Go to **Monitor → Environment → Configuration** to configure your EnviroProbe's Warning Threshold, Alarm Threshold, Title and Type. Please see the table below for detailed information.

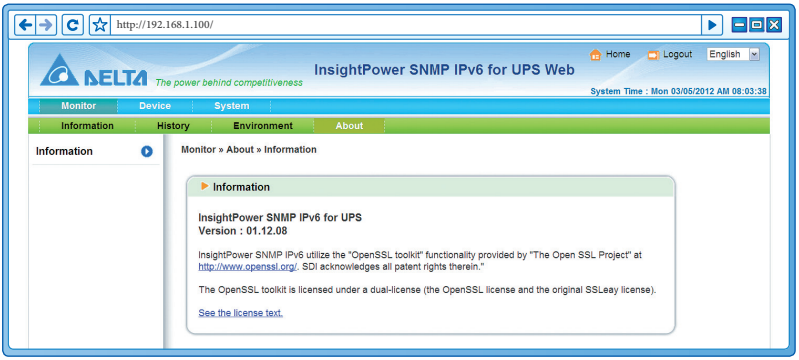


5-1-4 About

Under About category, there is only one item called Information. You can obtain your SNMP IPv6's other information via this channel.

Information

Go to **Monitor → About → Information** to see the version of your InsightPower SNMP IPv6 for UPS and other information about OpenSSL toolkit and licenses.



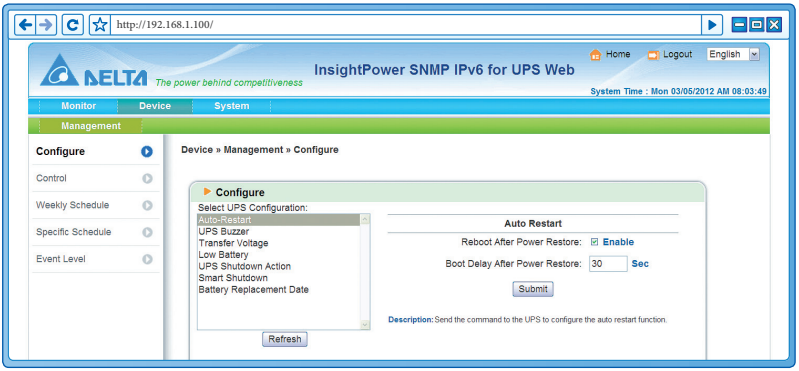
5-2 Device

5-2-1 Management

Since different UPSs have different functions, your UPS may not support the same configurations or control items stated below.

Configure

Go to **Device → Management → Configure** to configure the UPS. The configuration values are saved in the UPS or in the SNMP IPv6 and these values change UPS operation. The configuration items include the following. Please note that different UPSs may support different configuration options.



- **Auto Restart**

  After you click **Submit** to confirm your auto restart setup, the SNMP IPv6 will send the command to the UPS to enable auto restart.

- **UPS Buzzer**

  After you click **Submit** to confirm your buzzer setup, the SNMP IPv6 will send the command to the UPS to enable buzzer.

- **Voltage Sensitivity**

  After you set up your voltage sensitivity (there are Normal, Reduced, and Low selections) and click **Submit**, the SNMP IPv6 will send the command to the UPS to enable the UPS's voltage sensitivity function.

- **Transfer Voltage**

  After you click **Submit** to confirm your transfer voltage setup, the SNMP IPv6 will send the command to the UPS to enable the relevant functions.

- **Low Battery**

  This configuration saves the setup values in the SNMP IPv6 and compares with the values received from the UPS. If the received battery level is lower than the assigned one, the SNMP IPv6 will trigger a low-battery alarm.

- **UPS Shutdown Action**

  This configuration saves your setup values in the SNMP IPv6 and compares with the values received from the UPS. If an event like power failure or low battery occurs, the SNMP IPv6 will send the assigned shutdown delay command to the UPS.

- **Smart Shutdown**

  The Smart Shutdown configuration is used to safely shutdown all of the connected computers and the UPS. First of all, you should estimate the longest OS Shutdown Delay time for your operating systems that have been installed shutdown software and connected to the SNMP IPv6. The SNMP IPv6 will delay the assigned OS Shutdown Delay time and wait for all operating systems' shutdown. After that, the SNMP IPv6 will send the assigned UPS shutdown-delay command to the UPS and turn off the UPS.

- **Battery Replacement Date**

  After you set up battery replacement dates, the SNMP IPv6 will send the command to the UPS and save the information in the UPS.

- **External Battery Pack**

  After you click **Submit** to confirm your external battery pack setup, the SNMP IPv6 will send the command to the UPS and save the external battery pack quantity in the UPS.

- **Bypass Transfer Frequency**

  After you set a tolerance of bypass transfer frequency and confirm your setup, the SNMP IPv6 will send the command to the UPS. If the UPS transfers to bypass mode and the bypass frequency is out of the tolerance, output will be turned off and critical loads will be protected.

- **Bypass Transfer Voltage**

  After you set a tolerance of bypass transfer voltage and confirm your setup, the SNMP IPv6 will send the command to the UPS. If the UPS transfers to bypass mode and the bypass voltage is out of the tolerance, output will be turned off and critical loads will be protected.

- **Periodic Auto Test**

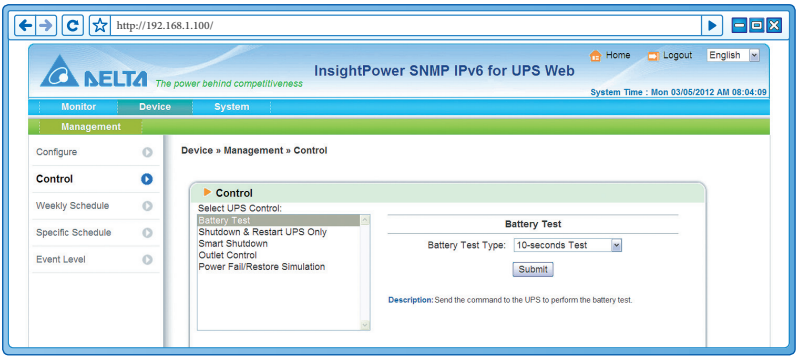
  This configuration is used to set up battery test time. After you confirm your setup, the SNMP IPv6 will send the command to the UPS and save the setup in the UPS. When the test time is due, the UPS will automatically perform the battery test.

- **Output Dry Contacts**

  After you click **Submit** to confirm your setup of output dry contacts, the SNMP IPv6 will send the command to the UPS, save the values in the UPS, and report the current UPS's status.

Control

Go to **Device → Management → Control** to configure relevant control commands. After you click **Submit**, the SNMP IPv6 will send the according commands to the UPS to enable relevant functions. The control items include the following.



- **Battery Test**

  After you select the battery test type and click **Submit**, the SNMP IPv6 will send the command to the UPS to enable the battery test accordingly.

- **Shutdown & Restart UPS Only**

  After you confirm your setup, the SNMP IPv6 will send the command to the UPS to shut down or/ and restart the UPS.

  If you want to shutdown the UPS, please check the UPS Shutdown Delay box and key in delay time.

  If you want to restart the UPS, please check the UPS Restart Delay box and key in delay time.

  If you want to shutdown and restart the UPS, please check both of the boxes and key in according delay time.

- **Smart Shutdown**

  The Smart Shutdown configuration is used to safely shutdown all of the connected computers and the UPS. First of all, you should estimate the longest OS Shutdown Delay time for your operating systems that have been installed shutdown software and connected to the SNMP IPv6. The SNMP IPv6

will delay the assigned OS Shutdown Delay time and wait for all operating systems' shutdown. After that, the SNMP IPv6 will send the assigned UPS shutdown-delay command to the UPS and turn off the UPS.

- **Outlet Control**

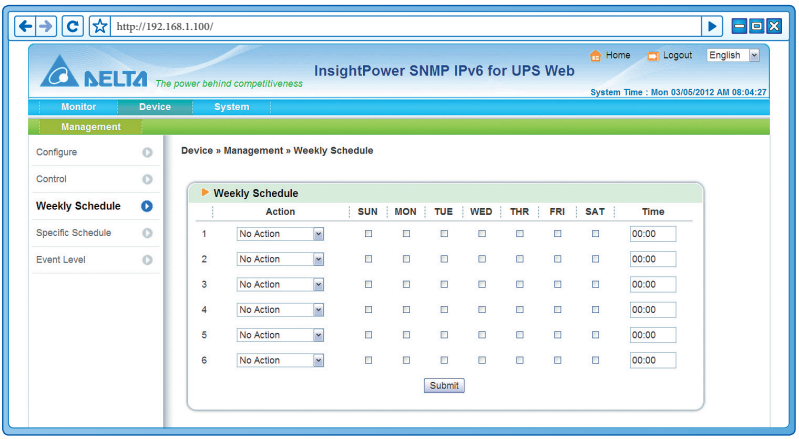
  Press the **Switch Bank** button to control the UPS output relay (on or off).

- **Power Fail/ Restore Simulation**

  Click **Power Fail Test** or **Power Restore Test** button to let the SNMP IPv6 simulate UPS power failure or power restore event. This function allows you to test all of the connected software and verify whether they work properly or not. Please note that the simulation won't influence UPS operation, the UPS remains in its original operation mode and won't transfer to battery mode.

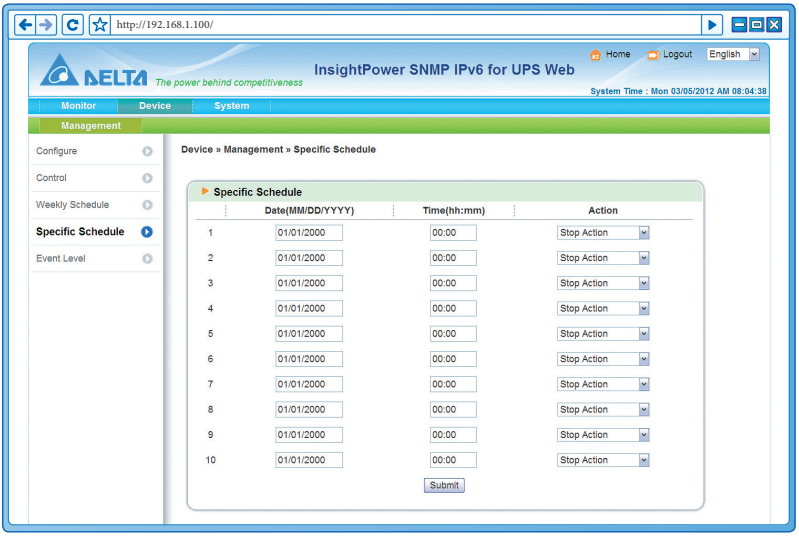
Weekly Schedule

Go to **Device → Management → Weekly Schedule** to arrange a weekly schedule for the UPS. You can select **No Action, Shutdown, Restart, 10-Second Test**, and set up what day and what time you want the action to be executed.



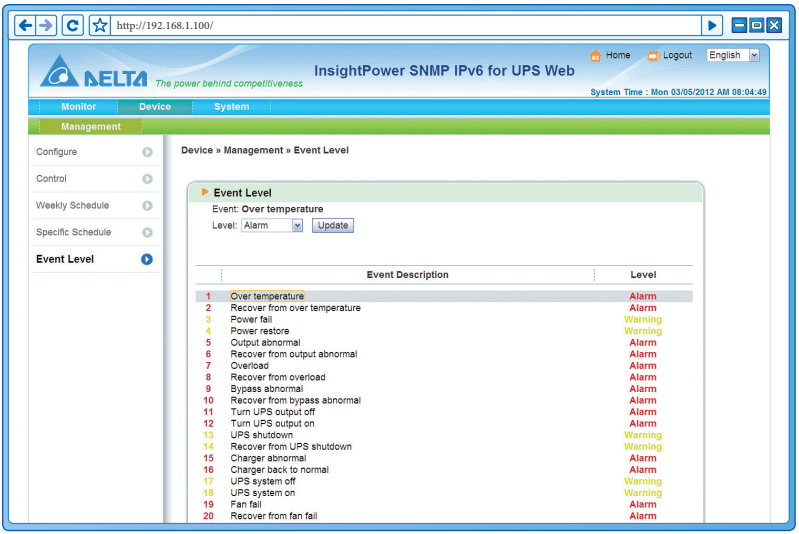
Specific Schedule

Go to **Device → Management → Specific Schedule** to arrange a specific schedule for the UPS. You can set up a specific date **(MM/ DD/ YYYY)** and time **(hh:mm)** for a specific action **(Stop Action, Shutdown, Restart, 10-Second Test** and **Deep Battery Test)**.



Event Level

Go to **Device → Management → Event Level** to set up a level for an event. If you want to receive an event notification, please refer to ***5-3-2 Notification - SNMP Trap*** and ***5-3-2 Notification - Mail Server***.



5-3 System

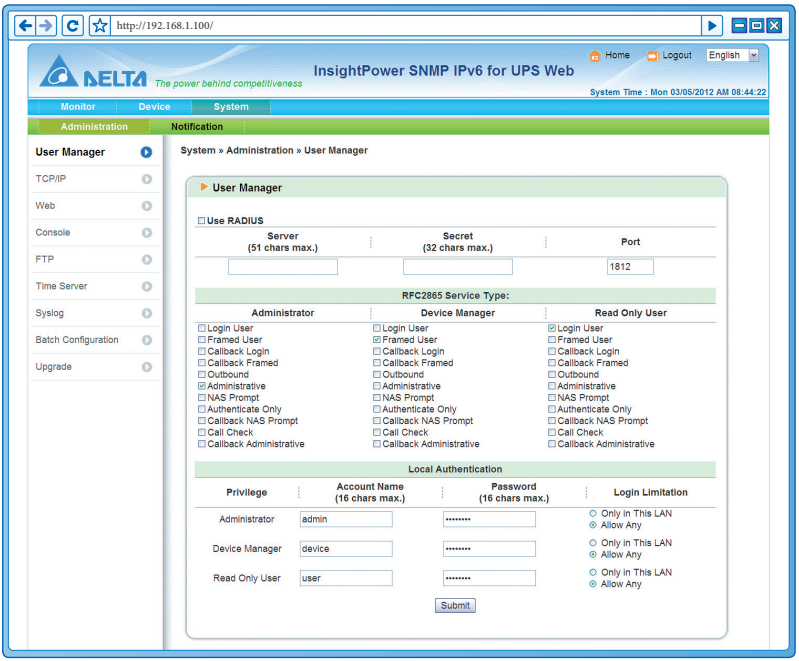
Only Administrator can see the System page. Under the System category, there are Administration and Notification these two items. You can use them to change or look up the system's relevant settings or records. Please see below for more descriptions.

5-3-1 Administration

The Administration page includes User Manager, TCP/ IP, Web, Console, FTP, Time Server, Syslog, Batch Configuration, and Upgrade these nine selections.

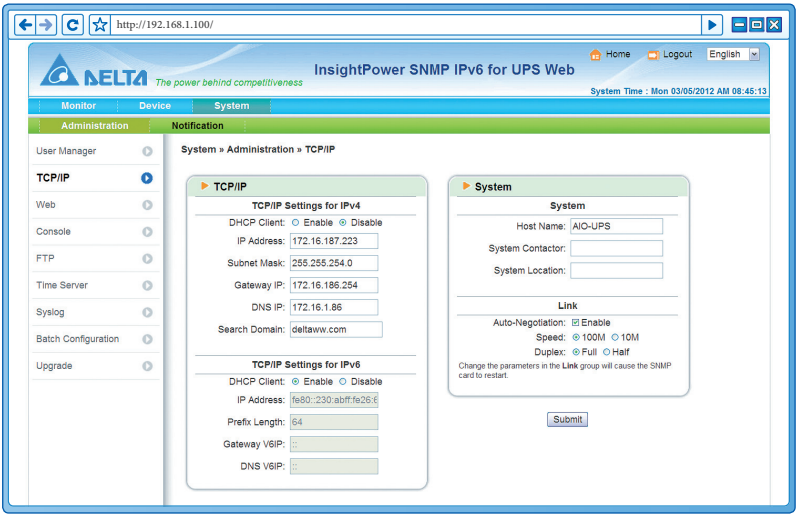
User Manager

The SNMP IPv6 supports RADIUS. Check the **Use RADIUS** box, key in required information including Server, Secret and Port (default: 1812) and click **Submit** to enable RADIUS. You can define service types for Administrator, Device Manager and Read Only User. If RADIUS is disabled, you can still manage the Account Name, Password and Login Limitation for Local Authentication.



TCP/ IP

This allows Administrator to configure local network parameters for the SNMP IPv6.



- **TCP/ IP Settings for IPv4**

  1) **DHCP Client:** Enable/ Disable DHCP. If enabled, DHCP server automatically assigns an IP address to the SNMP IPv6.

  2) **IP Address:** The IP address in dotted format.

  3) **Subnet Mask:** The Subnet Mask for your network.

  4) **Gateway IP:** The IP address for network gateway in dotted format.

  5) **DNS IP:** The IP address Domain Name Server in dotted format.

  6) **Search Domain:** If the Host Name you provided cannot be found, the system appends the search domain to your Host Name.

- **TCP/ IP Settings for IPv6**

  1) **DHCP Client:** Enable/ Disable DHCP. If enabled, DHCP server automatically assigns an IP address to the SNMP IPv6.

  2) **IP Address:** The IPv6 address.

  3) **Prefix Length:** The prefix length for the IPv6 address.

4) **Gateway V6IP:** The IP address for the IPv6 network gateway.

5) **DNS V6IP:** The IP address for the IPv6 domain name server.

- **System**

1) **Host Name:** The SNMP IPv6 Host Name on the network.

2) **System Contact:** System contact information.

3) **System Location:** System location information.

- **Link**

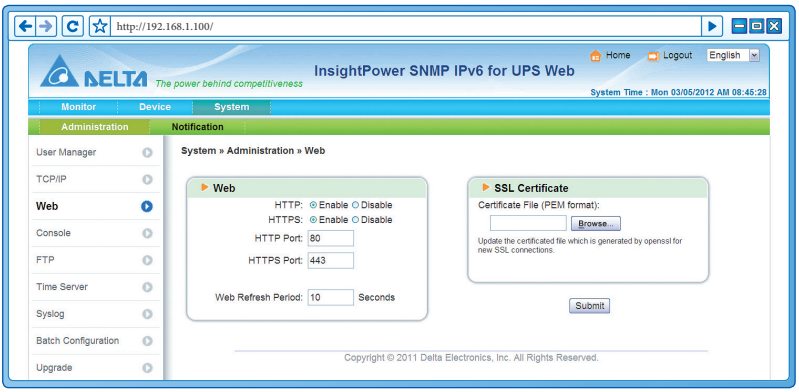
1) **Auto-Negotiation:** Enable/ Disable automatic transfer rate (10/ 100M bps) negotiation.

2) **Speed:** If the Auto-Negotiation is disabled, you can specify the transfer rate.

3) **Duplex:** If the Auto-Negotiation is disabled, you can specify the duplex mode.

Web

This allows Administrator to enable/ disable HTTP/ HTTPS communication protocols.



- **Web**

1) **HTTP:** Enable/ disable HTTP connection.

2) **HTTPS:** Enable/ disable HTTPS connection.

3) **HTTP Port:** Assign an HTTP port number (default: 80).

4) **HTTPS Port:** Assign an HTTPS port number (default: 443).

5) **Web Refresh Period:** Web refresh interval.

- **SSL Certificate**

1) To ensure connection security between the SNMP IPv6 and the connecting workstation, SSL certificate can be used to encrypt and secure the integrity of transmitting data.

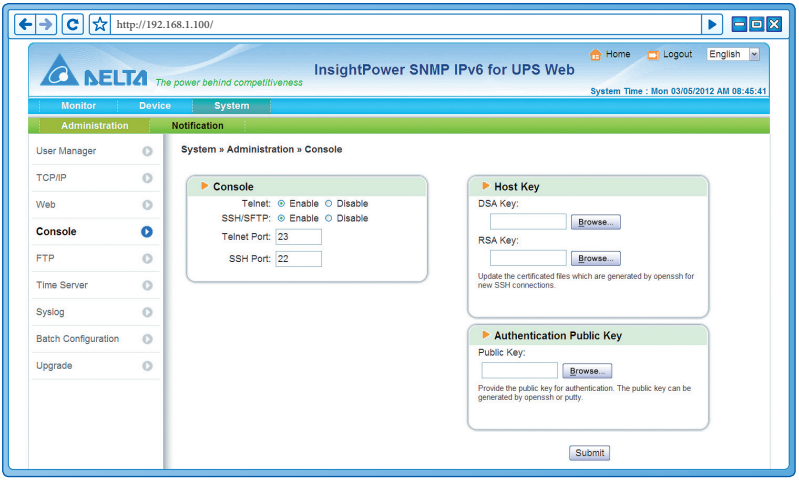
2) **Certificate File:** This allows you to replace your own SSL certificate file. The SNMP IPv6 supports PEM format which is generated by OpenSSL. Click **Choose File** to upload a certificate file.

NOTE

For more information about generating a private SSL certificate file, please refer to ***Chapter 7: Troubleshooting Q12***, or visit http://www.openssl.org/.

Console

This item allows the Administrator to enable or disable Telnet/ SSH communication protocols.

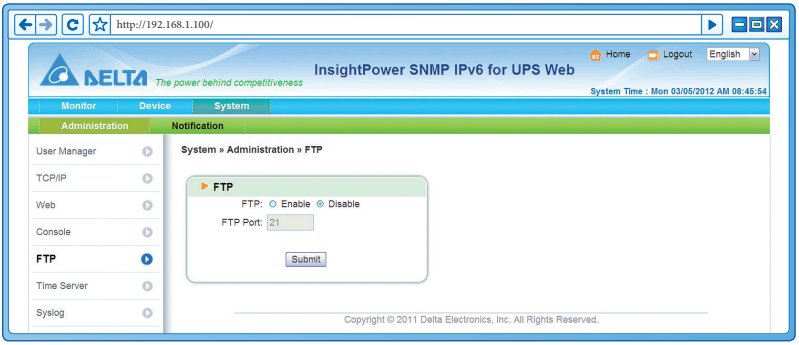


- **Telnet:** Enable/ disable Telnet connection.
- **SSH/ SFTP:** Enable/ disable SSH/ SFTP connection.
- **Telnet Port:** Assign a Telnet port number (default: 23).
- **SSH Port:** Assign an SSH protocol port number (default: 22).
- **Host Key/ Authentication Public Key:**

  This allows you to replace your own SSH keys. The SNMP IPv6 supports key files generated by OpenSSH, including DSA, RSA, and Authentication Public Keys. How to generate DSA, RSA, and Authentication Public keys for SSH, please refer to ***Chapter 7 : Troubleshooting Q13***. You can use this page or SFTP protocol to upload key files. For detailed information, please refer to ***Chapter 7 : Troubleshooting Q14***.

FTP

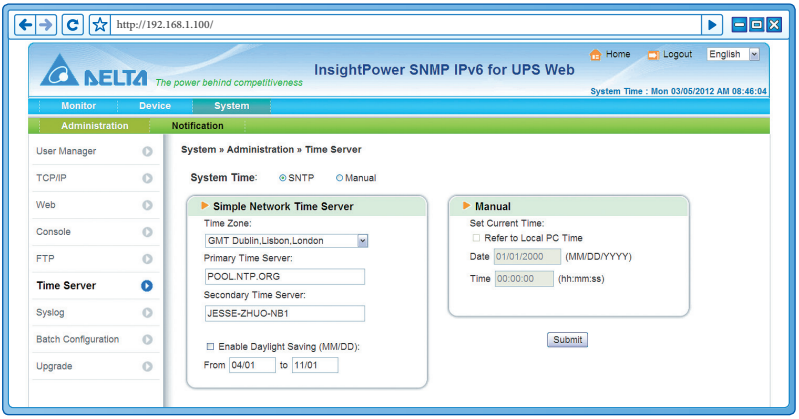
This allows Administrator to enable/ disable FTP communication protocol.



- **FTP:** Enable/ disable FTP connection.
- **FTP Port:** Assign an FTP port number (default: 21).

Time Server

You can manually set the time and date, or allow automatic time synchronization with SNTP servers. Please note that if the SNTP server is not responsive, the event and data log will not register even when SNTP is enabled.



- **Simple Network Time Server**

  1) **Time Zone:** From the dropdown menu, select the time zone for the location where the SNMP IPv6 is located.

  2) **Primary/ Secondary Time Server:** Two time servers can be added. Every 60 minutes, the SNMP IPv6 synchronizes with the first responding server.

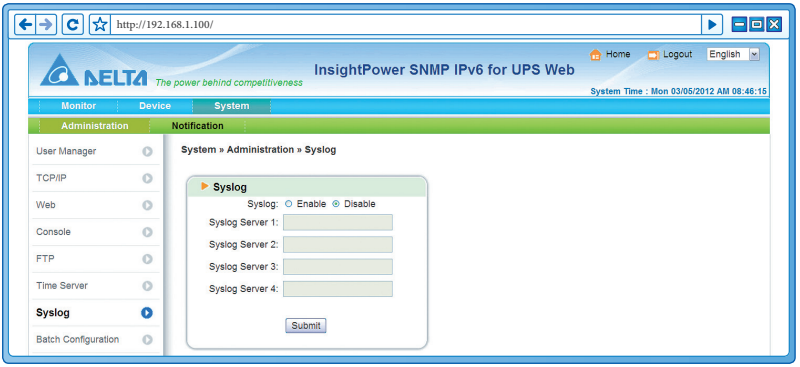
  3) **Enable Daylight Saving:** Check to enable daylight saving time. During this period, the SNMP IPv6 adjusts time forward one hour.

- **Manual**

  If a time server is not accessible, you can still manually set time and date. Please note that every time you restart the SNMP IPv6's network module, time and date is reinstated to previous assigned settings.

Syslog

Syslog is used to store the event log on remote Syslog servers. This will not affect the local event log. After enabling the Syslog, please set up a server IP address. You can set up at maximum four Syslog servers at a time.



Batch Configuration

The SNMP IPv6 provides batch configuration to allow quick and effortless setup on multiple SNMP devices. You can duplicate settings by exporting configuration files from the SNMP IPv6 that you have successfully configured, and import the configuration files on other devices.

- **System Configuration**

  The **System Configuration** includes settings saved in the **Device** and **System** tabs. To download a configuration file, simply click **Download**. To upload a configuration file, click **Choose File**, select the file you wish to upload, and click **Upload**.

NOTE

If the IP address is static and you wish to copy settings to other devices on the same LAN, you must manually remove the following line **IP=xxx.xxx.xxx.xxx** under the [System] section from the exported configuration file. You can open the configuration file with text editors such as Notepad and WordPad. To modify/ assign IP address for the SNMP IPv6, please see ***Chapter 4: System Configurations***.

- **SNMP Configuration**

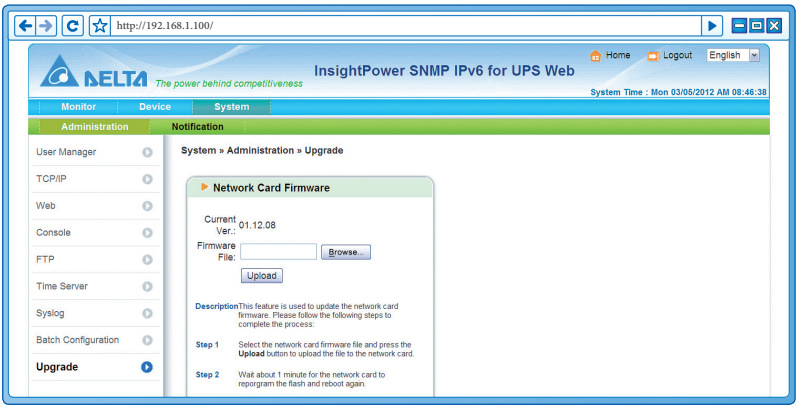
  The **SNMP Configuration** includes settings saved in the **Notification** tab. To download a configuration file, simply click **Download**. To upload a configuration file, click **Choose File**, select the file you wish to upload, and click **Upload**.

NOTE

If you need to modify the command lines, please do not delete the unmodified ones. They should be left intact to assure the integrity of the configuration file.

Upgrade

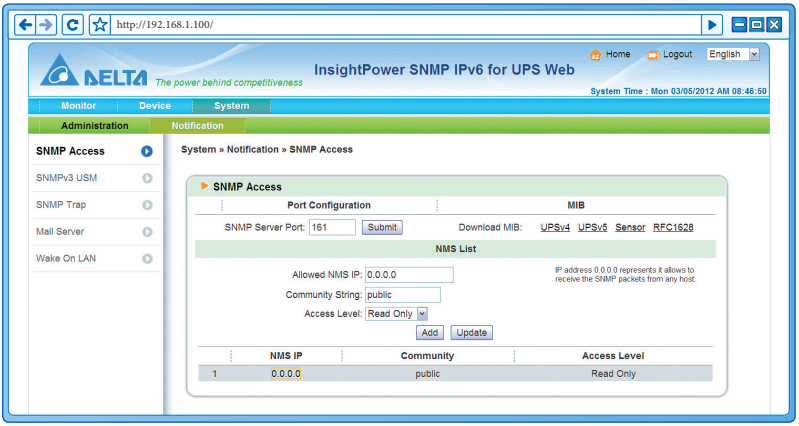
The Upgrade page shows the SNMP IPv6's current firmware version. The Administrator can use this page to update the SNMP IPv6's firmware. Click **Choose File**, select the file you wish to upload, and click **Upload**. The upgrade process should take about one minute.



5-3-2 Notification

The Notification page includes SNMP Access, SNMPv3 USM, SNMP Trap, Mail Server, Wake On LAN these five items.

SNMP Access



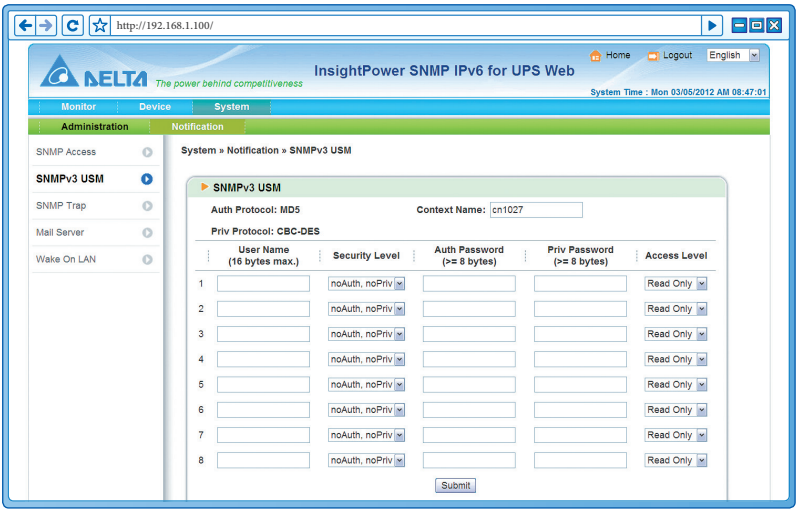
The SNMP IPv6 supports SNMP protocol and SNMP NMS (Network Management System), which are commonly used to monitor network devices for conditions that call for administrative attention. To prevent unauthorized access, you can specify the NMS IP addresses that are allowed to access, their community strings and access levels. The maximum number of IP entries is 256.

NOTE

If IP address **0.0.0.0** is enlisted, the NMS IP access restriction is ignored. The SNMP IPv6 checks the community string to identify the access level and permission according to your setting.

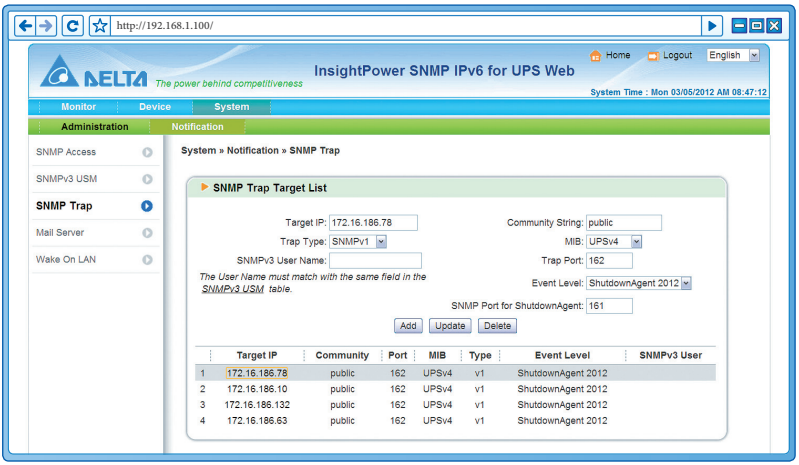
SNMPv3 USM

SNMPv3 offers features such as the encryption of packets and authentication to improve security. The SNMPv3 USM (User Session Management) allows you to assign eight User Names whose access is granted via SNMPv3 protocol. You can also define their respective Security Levels, Auth Passwords, Priv Passwords and Access Levels.



SNMP Trap

SNMP Trap alerts users to event occurrences in your monitored environment. To enable SNMP Trap, you must add Target IP addresses to the Target IP list. Specify the Community String, Trap Type, MIB, SNMPv3 User Name, Trap port, Event Level, SNMP Port for ShutdownAgent and click **Add**. If you wish to update or delete a Target IP address, specify the IP address in the Target IP list, and click **Update** or **Delete**.



NOTE

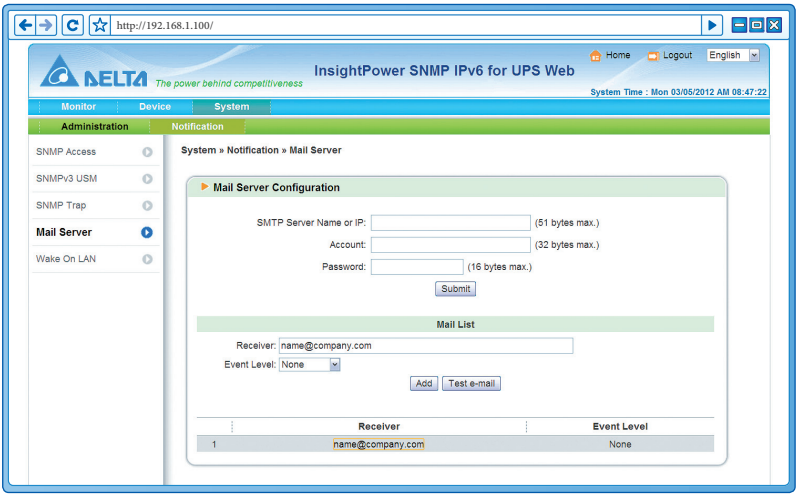
The SNMP IPv6 supports SNMPv1, SNMPv2c and SNMPv3 traps to satisfy most of customers' environments. If you select the SNMPv3 trap, please specify an SNMPv3 USM User Name.

You can use Event Level to determine what event notifications should be sent to which Target IP Address. Five event levels are listed as follows:

- **None:** No event notifications are sent to the target address.
- **Information:** All event notifications are sent to the target address.
- **Warning:** Both Warning and Alarm event notifications are sent to the target address.
- **Alarm:** Only Alarm event notifications are sent to the target address.
- **ShutdownAgent:** All event notifications are sent to the target address, and you can go to **Monitor → Information → ShutdownAgent** to review your designated PCs' shutdown information.

You can go to **Device → Management → Event Level** to change the event level.

Mail Server



You can set up an SMTP Server and specify a list of E-mail recipients who will receive notifications when events occur. The maximum number of recipients is 256.

If a DNS server is not available in the network, you need to manually assign an SMTP server address to enable the E-mail notification system.

- **SMTP Server Name or IP**

  If a Host Name is entered, a **DNS IP** should be added in **TCP/ IP**. Please see ***5-3-1 Administration – TCP/ IP***.

- **Account**

  The mail server login account.

- **Password**

  The mail server login password.

- **Receiver**

  The recipients' E-mail addresses.

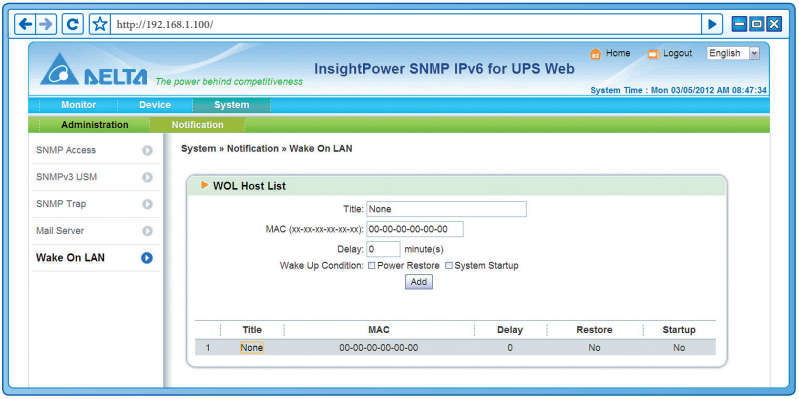
- **Event Level**

  Select the Event Level that when triggered, an E-mail notification is sent to the corresponding recipient.

  1) **Information:** All event notifications are sent to the target address.
  2) **Warning:** Warning and Alarm event notifications are sent to the target address.
  3) **Alarm:** Only Alarm event notifications are to the target address.

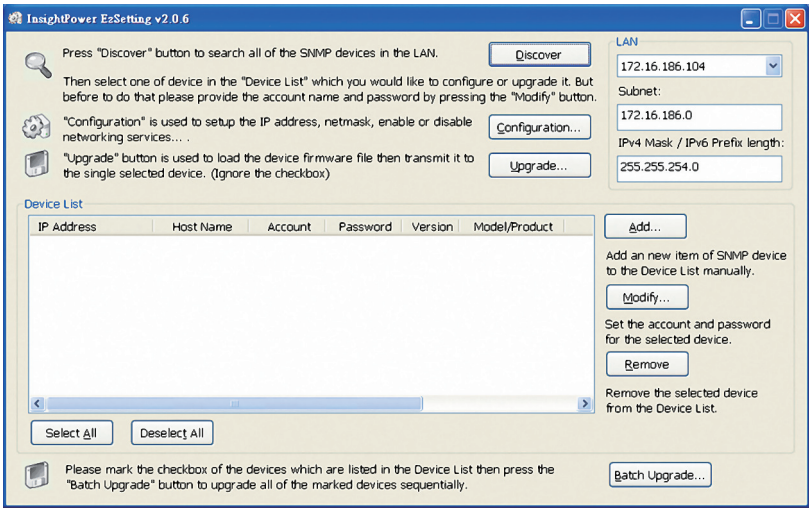
Wake On LAN

Wake On LAN function can start up clients' PCs from network with MAC address, and you can set up at maximum 256 MAC addresses. The configuration can wake up clients' PCs after power restores or the SNMP IPv6 starts up.



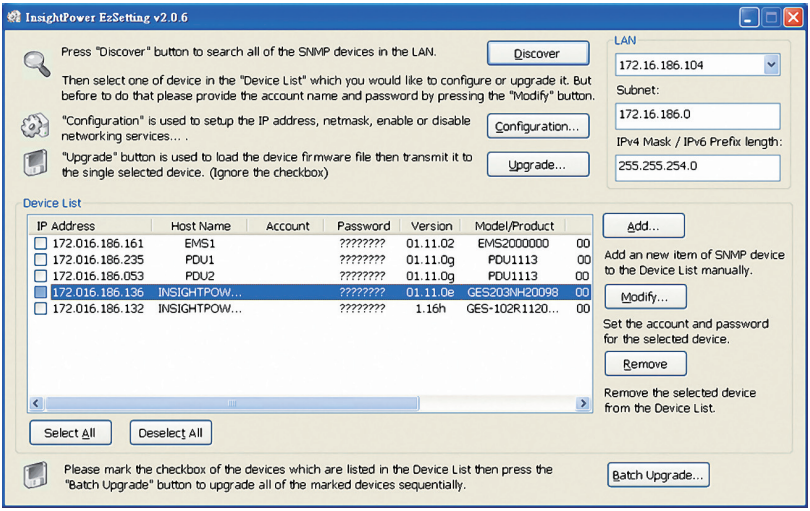
Chapter 6 : SNMP Device Firmware Upgrade

With the provided program EzSetting, you can effortlessly perform a firmware upgrade on your SNMP devices via LAN. Please refer to the following instructions.

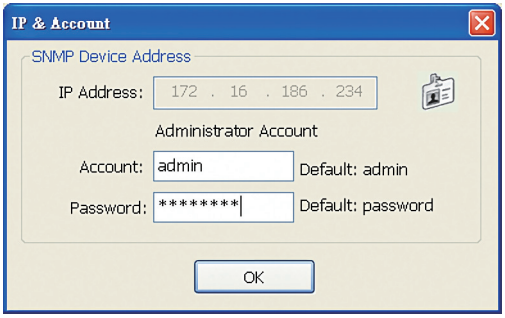


Step 1 The subnet mask allows you to define the device discovery range in the specified subnets. Make sure the SNMP device you wish to upgrade is in the subnet that is specified. If it is not, please modify the subnet and subnet mask.

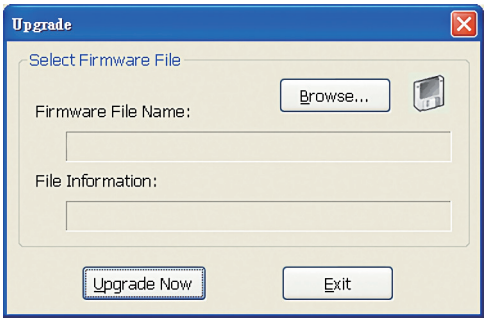
Step 2 Click **Discover**. A list of SNMP devices is shown.



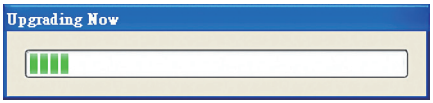
Step 3 Select a device from the Device List, click **Modify**, and enter Administrator account and password.



Step 4 Click **Upgrade**. The upgrade dialog box pops up. Click **Browse** to select a valid firmware binary file. Verify the firmware version shown under File Information, and then click **Upgrade Now** to continue.



Step 5 The upgrade process should take about 20 seconds.



Step 6 When the upgrade is completed, the following dialog box appears. It takes about 1 minute for the device to reboot.

Chapter 7 : Troubleshooting

Q1. How to set up an SNTP server on my workstation for the SNMP IPv6 to synchronize?

To enable SNTP services in Windows XP, go to **Start → Control Panel → Add/ Remove Programs → Add/ Remove Windows Components → Networking Services →** check **Simple TCP/ IP Services → OK**. To enable time synchronization, you need to set SNTP time server addresses in **Time Server**. Please refer to ***Chapter 4: System Configurations***.

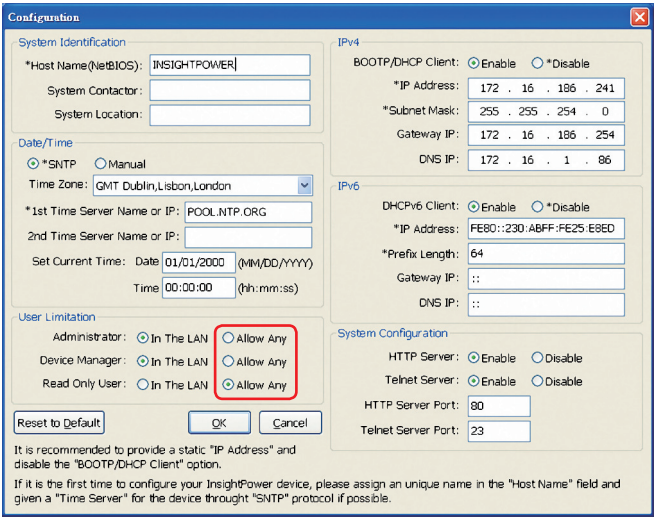
Q2. How to make sure the linking between the SNMP IPv6's and the UPS is established?

If the linking between the SNMP IPv6 and the UPS is correctly established, the yellow LED indicator should flash rapidly. If not, confirm that the device ID setting on the SNMP IPv6 and the UPS is consistent.

```
C:\>ping 172.16.186.230

Pinging 172.16.186.230 with 32 bytes of data:
Reply from 172.16.186.230: bytes=32 time=2ms TTL=64
Reply from 172.16.186.230: bytes=32 time=2ms TTL=64
Reply from 172.16.186.230: bytes=32 time=2ms TTL=64
Reply from 172.16.186.230: bytes=32 time=4ms TTL=64

Ping statistics for 172.16.186.230:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 2ms, Maximum = 4ms, Average = 2ms


C:\>
```

Q3. I can access the InsightPower SNMP IPv6 for UPS Web, but I cannot login in.

Please check the IP addresses of the SNMP IPv6 and the workstation on which you are trying to log in. By default, they must be within the same LAN so you can connect via the web interface. You can enable external connections to solve this issue. To do this, launch EzSetting and change User Limitation to Allow Any, as shown below.



Q4. Unable to connect to the SNMP IPv6 via its Host Name?

If you just assign a new static IP address to the SNMP IPv6, you may need to refresh the NetBIOS table so that it corresponds with the new setting. Although Windows updates its NetBIOS table periodically, you can still manually force it to refresh by entering the following command **nbtstat –R** in DOS prompt mode. After that, you can now connect to the SNMP IPv6 by its Host Name. Please also ensure that the Host Name assigned to the SNMP IPv6 does not exceed 16 bytes.

Q5. How to check my workstation's IP address?

For Windows, please enter **ipconfig /all** in DOS prompt mode. For UNIX, please enter **ifconfig** in shell. You should be able to check your IP and MAC (Physical Address) now.

```
Physical Address. . . . . . . . . : 00-23-4D-A2-3A-2C
DHCP Enabled. . . . . . . . . . . : Yes
Autoconfiguration Enabled . . . . : Yes
Link-local IPv6 Address . . . . . : fe80::ad55:5b9b:74c6:e5fc%12(Preferred)
IPv4 Address. . . . . . . . . . . : 172.16.186.97(Preferred)
Subnet Mask . . . . . . . . . . . : 255.255.254.0

C:\>
```

Q6. Unable to ping the SNMP IPv6 from my workstation?

If the SNMP IPv6 is non-responsive, check the following:

1) If the green LED indicator on the SNMP IPv6 is OFF, check if the network cable is correctly connected from the SNMP IPv6 to the router or hub.

2) If the green LED indicator is ON, the current IP address could be unreachable. Manually assign a valid IP address to the SNMP IPv6.

3) If the green LED indicator flashes and (1) your network configuration includes a DHCP server, make sure the DHCP service is working properly; (2) Otherwise, make sure the assigned IP is not already taken on the network. Please note that if the current configuration is not useable, the SNMP IPv6 will reset to default IP settings (IPv4 address: 192.168.1.100/ net mask: 255.255.255.0/ gateway: 192.168.1.254).

4) If the problem persists, use a network cable to cross link your SNMP IPv6 and the workstation. Ping the SNMP IPv6's default or static IP address, according to your configurations. If a ping response is successfully received, indicating that the SNMP IPv6 is working properly, check your network equipment. If not, contact your local dealer or service personnel for assistance.

Q7. Unable to perform an SNMP Get command?

Refer to ***5-3-2 Notification*** to check SNMP settings. Make sure that the workstation's IP address is added to the NMS IP list with Read or Read/ Write access. The community string on the workstation and the SNMP IPv6 must match.

Q8. Unable to perform an SNMP Set command?

Refer to ***5-3-2 Notification*** to check SNMP settings. Make sure that the workstation's IP address is added to the NMS IP list, with Read/ Write permission. The community string on the PC and the SNMP IPv6 must match.

Q9. Unable to receive SNMP trap?

Refer to ***5-3-2 Notification*** to check SNMP Trap settings. Make sure that the workstation's IP address is added to the Target IP list.

Q10. Forgot Administrator's account and password?

You can reset Administrator's account and password via text mode. Refer to ***4-4 Configuring via COM*** Port to establish a COM port connection with the SNMP IPv6. When the login information is prompted, key in **rstadmin** within 30 seconds and press **enter**. The Administrator account and password are now reset to default (admin/ password).

Q11. How to enable IPv6 in Windows XP?

If you are running Windows XP, please enable IPv6 first (click **START → RUN**, and enter **ipv6 install**). The SNMP IPv6 supports IPv6 with no additional configurations required. However, please note that IPv6 is automatically disabled if an identical LLA (Local-link Address) already exists on the LAN. If the SNMP IPv6 obtains both IPv4 and IPv6 records from DNS resolution, the IPv4 is used as the primary IP address for the given Host Name.

To learn more information regarding IPv6 compatibility, please visit IETF (http://tools.ietf.org/html), or IPv6 Ready Logo Program (http://www.ipv6ready.org).

Q12. How to generate a private SSL certificate file (in PEM format) for HTTPs connection?

To ensure connection security between the SNMP IPv6 and your workstation, you can create your own SSL certificate file. Please download and install OpenSSL Toolkit from http://www.openssl.org. Launch Shell or DOS prompt mode and enter the following command to create your own certificate file:

```
openssl req -x509 -nodes -days 3650 -newkey
rsa:1024 -keyout cert.pem -out cert.pem
```

1) Answer the prompted questions. Proceed with the given directions. Once it is completed, a file named cert.pem is created in the current working directory.

2) Upload cert.pem to the InsightPower SNMP IPv6 for UPS Web. Please refer to ***5-3-1 Administration – Web***.

Q13. How to generate DSA, RSA and Public keys for SSH?

For Linux:

1) Please download and install OpenSSH from http://www.openssh.org.

2) Launch Shell and enter the following commands to create your own keys (please ignore it when prompted to provide passphrase):

```
DSA Key:ssh-keygen -t dsa
RSA Key:ssh-keygen -t rsa
```

3) Upload DSA and RSA keys to the InsightPower SNMP IPv6 for UPS Web. Please refer to ***5-3-1 Administration – Console*** for more information.

For Windows:

1) Please download and install PuTTY from http://www.putty.org.

2) Run puttygen.exe from the installed directory.

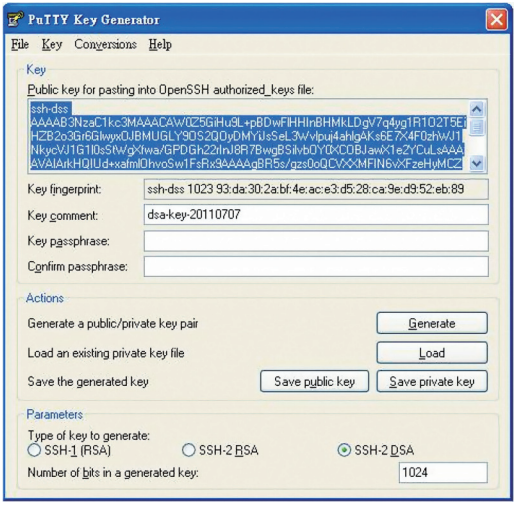
3) Select **SSH-2 RSA** from the Parameters area and click **Key → Generate key pair** to generate a RSA key.

4) Click **Conversions → Export OpenSSH Key** and assign a filename to the RSA key. Please ignore it when prompted to provide key passphrase.

5) Select **SSH-2 DSA** from the Parameters, clickt **Key → Generate key pair** to generate a DSA key.

6) Click **Conversions → Export OpenSSH Key** and assign a filename to the DSA key. Please ignore it when prompted to provide key passphrase.

7) Copy the generated key from the text box, paste in a text editor and save as a text file.



8) Upload the DSA/ RSA/ Public keys files to the InsightPower SNMP IPv6 for UPS Web. Refer to ***5-3-1 Administration – Console*** for more information.

Q14. How to upload configuration / firmware / key files via SSH/ SFTP?

To quickly configure your SNMP IPv6, you can upload the files via SSH/ SFTP. The SNMP IPv6 automatically imports your settings after the files are uploaded to the designated directories. Refer to the following table:

Directory	Files
\config_snmp	snmp.ini
\config_system	configure.ini
\ssh_dsa	DSA key
\ssh_rsa	RSA key
\ssh_pubkey	Public key
\upgrade_snmp	SNMP IPv6's firmware upgrade package (binary)
\upgrade_device*	Device's firmware upgrade package (binary)

*Appears on specific devices only.

Upload files to their respective directories. Make sure the filenames do not contain non-English characters to avoid read error. Overwrite existing files if prompted by your SFTP client.

Q15. How to test SNMPv3 in Linux?

Before you can access the SNMP OID (Object Identifier) via SNMPv3 protocol, the SNMPv3 USM table must be organized. Please refer to ***5-2-2 Notification – SNMPv3 USM*** for more information.

To test SNMPv3 in Linux, launch shell and key in the following command:

```
snmpwalk -v 3 -u <user> -l authPriv -A <pass-
word> -X <password> -n <context name> -t 3 <ip>
1.3.6.1.2.1.1.1.0
```

-v: 1 for SNMPv1, 3 for SNMPv3.

-l: Follow the security levels. They are: noAuthNoPriv, authNoPriv and authPriv.

-u: The user name which is assigned from SNMPv3 USM table.

-A: The Auth Password which is assigned from SNMPv3 USM table.

-X: The Priv Password which is assigned from SNMPv3 USM table.

-n: The Context Name which is assigned from SNMPv3 USM table.

-t: Timeout in seconds.

<ip>: The IP address of the SNMP IPv6.

<oid>: The next available SNMP OID (for example: 1.3.6.1.2.1.1.1.0). Please refer to the RFC1213 MIB.

Appendix A : Specifications

Model Name	InsightPower SNMP IPv6
Power Input	12 Vdc
Power Consumption	2 Watt (Max.)
Network Connection	RJ-45 jack connector (10/ 100M)
Physical	
Size (W x D)	130 mm x 60 mm
Weight	75 g
Environmental	
Operating Temperature	0 ~ 60℃
Storage Temperature	-40 ~ 125℃
Operating Humidity	0 ~ 90 % (Non-condensing)

NOTE

* Refer to the rating label for the safety rating.
* All specifications are subject to change without prior notice.

Appendix B : Warranty

Seller warrants this product, if used in accordance with all applicable instructions, to be free from original defects in material and workmanship within the warranty period. If the product has any failure problem within the warranty period, Seller will repair or replace the product at its sole discretion according to the failure situation.

This warranty does not apply to normal wear or to damage resulting from improper installation, operation, usage, maintenance or irresistible force (i.e. war, fire, natural disaster, etc.), and this warranty also expressly excludes all incidental and consequential damages.

Maintenance service for a fee is provided for any damage out of the warranty period. If any maintenance is required, please directly contact the supplier or Seller.

WARNING : The individual user should take care to determine prior to use whether the environment and the load characteristic are suitable, adequate or safe for the installation and the usage of this product. The User Manual must be carefully followed. Seller makes no representation or warranty as to the suitability or fitness of this product for any specific application.

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