

Network Management Card

Firmware Upgrade SOP

First part: Prepare UPS, NMC (Network Management Card), a computer .	2
Second part: View NMC IP address	3
Third part: Upgrade firmware via web browser	10

First part: Prepare UPS, NMC (Network Management Card), a computer

Please Note: If there is NMC running and user has known the IP address of NMC, user can skip first part and second part to go third part.

Step1: Insert NMC into the UPS slot correctly, and make sure the card is connected to the slot tightly.

Step2: There is a communication cable provided from package, please link the card and computer via the cable. Insert the RJ45 port into the "SETTING" port of the card, and connect DB9 port to the RS232 port of computer. Please refer to the following picture.

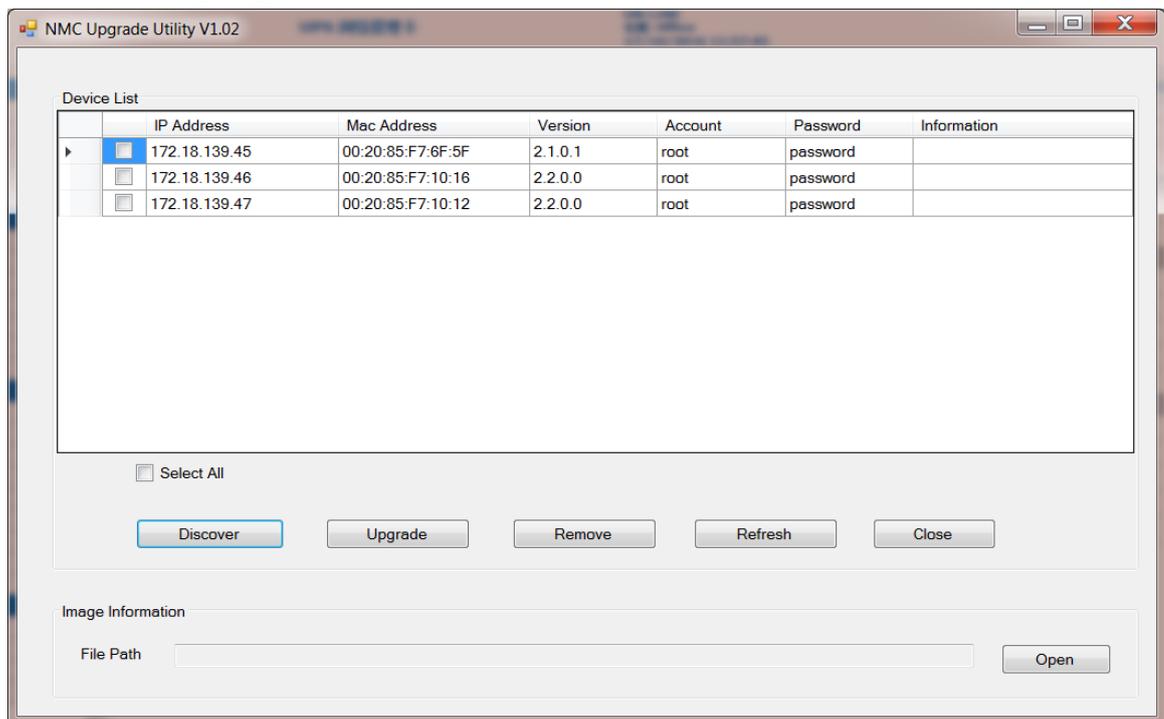
Step3: Connect NMC to network via "NETWORK" port



Second part: View NMC IP address

There are two methods to view NMC IP address. One is view IP address by NMC Upgrade Tool; the other is view IP address by Hyper Terminal, the detail information about Hyper Terminal is Step1 to Step6 in this section.

User can find NMC automatically and quickly in the LAN by NMC Upgrade Tool. Please refer to the following diagram.



View IP address by serial port debug tool or Hyper Terminal or as the following steps:

Step1:

- For Windows XP or other Windows operation system that support Hyper Terminal, select Accessories→Communication→ Hyper Terminal to create serial communication.

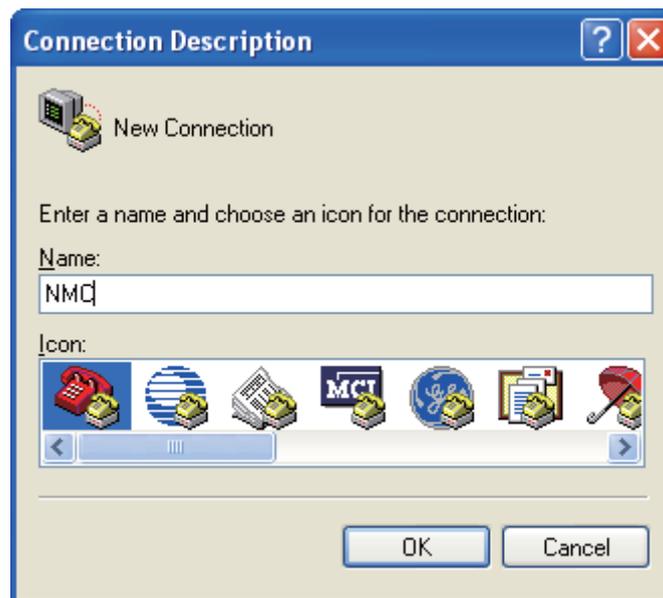
Please refer to the following picture S-Step1-1-1.

Start -> Programs -> Accessories -> Hyper Terminal.



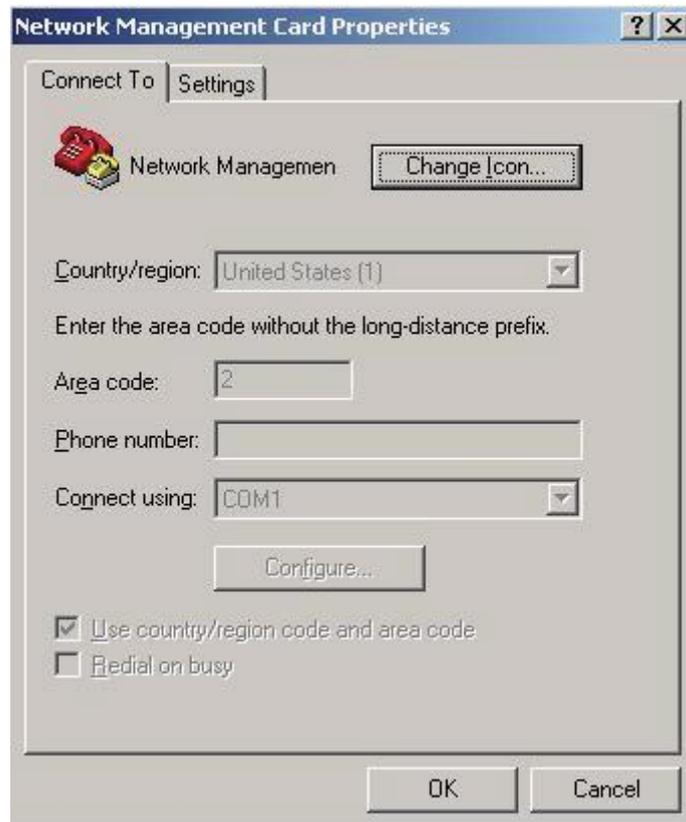
S-Step1-1-1

Enter a name and click OK, please refer to the following picture S-Step 1-1-2.



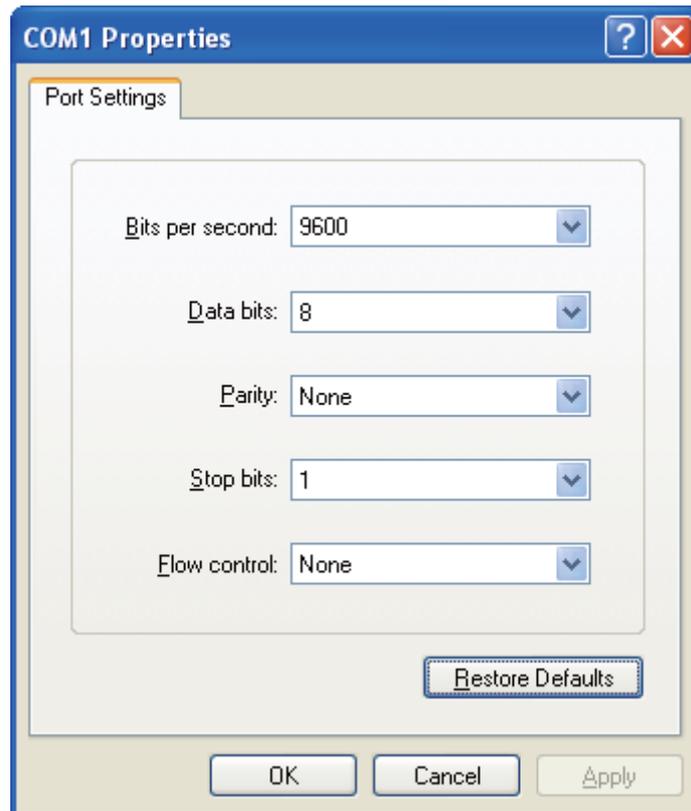
S-Step1-1-2

Select the correct COM port and click OK, please refer to the following picture S-Step 1-1-3.



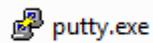
S-Step 1-1-3

Configure the port setting as 9600 bps, 8 data bits, none (parity), 1 Stop bit and None Flow Control, then click OK. Please refer to the following picture S-Step 1-1-4.

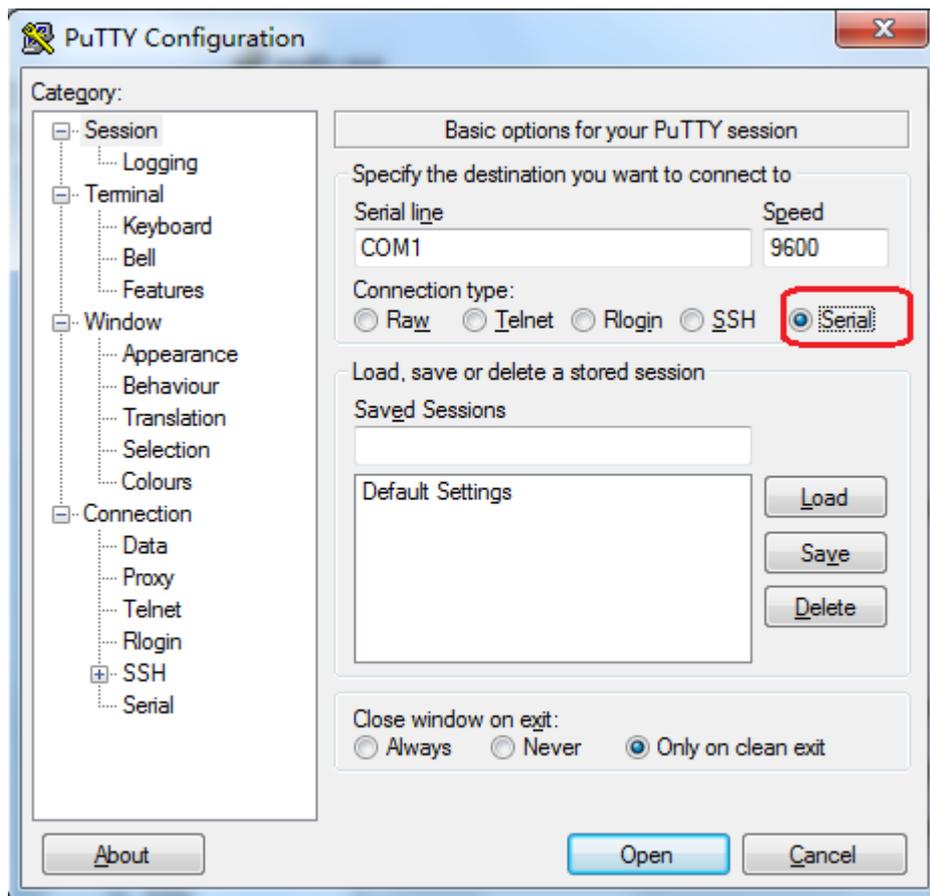


S-Step 1-1-4

- For XP above Windows version, communicate with serial port via serial port debug tool (Putty is used as example in this manual) ◦ Double click Putty

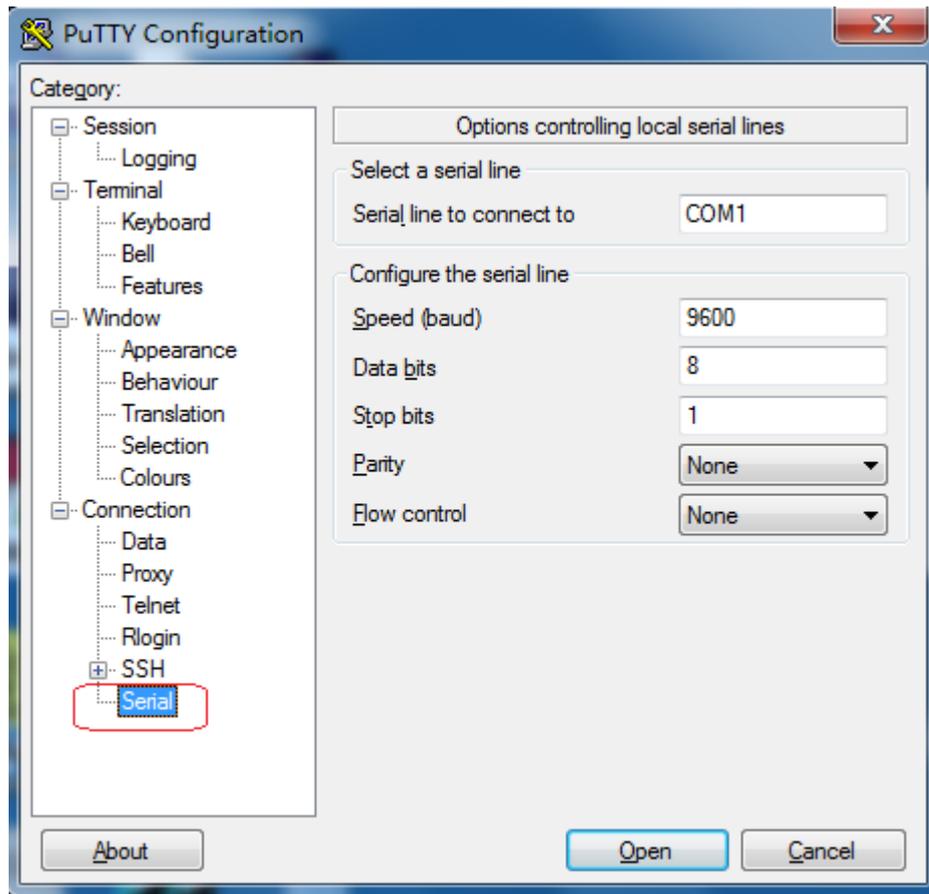


icon , open Putty and select serial session , configure the correct serial port and baud rate 9600 bps ◦ Please refer to the following picture S-Step 1-2-1.



S-Step 1-2-1

Select "Serial" node on the left tree, and configure the parameters of the serial port on the right window: 9600 bps, 8 bits, None parity, 1 stop bit and None flow control. And then open the putty serial communication window by click "open" button. Please refer to the following picture S-Step 1-2-2.



S-Step 1-2-2

Step2: Press the “Enter” key from keyboard, and wait for the card information shown, when you see the information shown as the following picture S-Step2, please input the default password “password” and the Network Management Card configuration menu will be shown on the screen as the following picture S-Step3-1.

```

+-----+
|           Network Management Card Configure Menu           |
+-----+
Password: *****

```

S-Step2

Step3: Input “1” to enter the IP configuration menu to view or configure the IP address. For example, you can see the IP Address as the following picture S-Step3-2.

```

+-----+
|           Network Management Card Configure Menu           |
+-----+
1. IP Configurations
2. Pass Through
3. Reset Configuration to default
4. Restart
5. Password
0. Exit
Please Enter Your Choice ->

```

S-Step3-1

```
=====
|                                     |
|                                     | IP Configure Menu |
|                                     |
| MAC Address      : 00:20:85:F7:10:18
| 1. DHCP          : Enabled
|   IP address     : 172.18.127.88
|   Subnet mask    : 255.255.255.0
|   Gateway        : 172.18.127.1
|   Primary DNS address : ::FFFF:172.18.121.17
|   Secondary DNS address: ::FFFF:151.110.232.21
| 7. IPv6 Configure
| 0. Return to previous menu
```

Please Enter Your Choice :

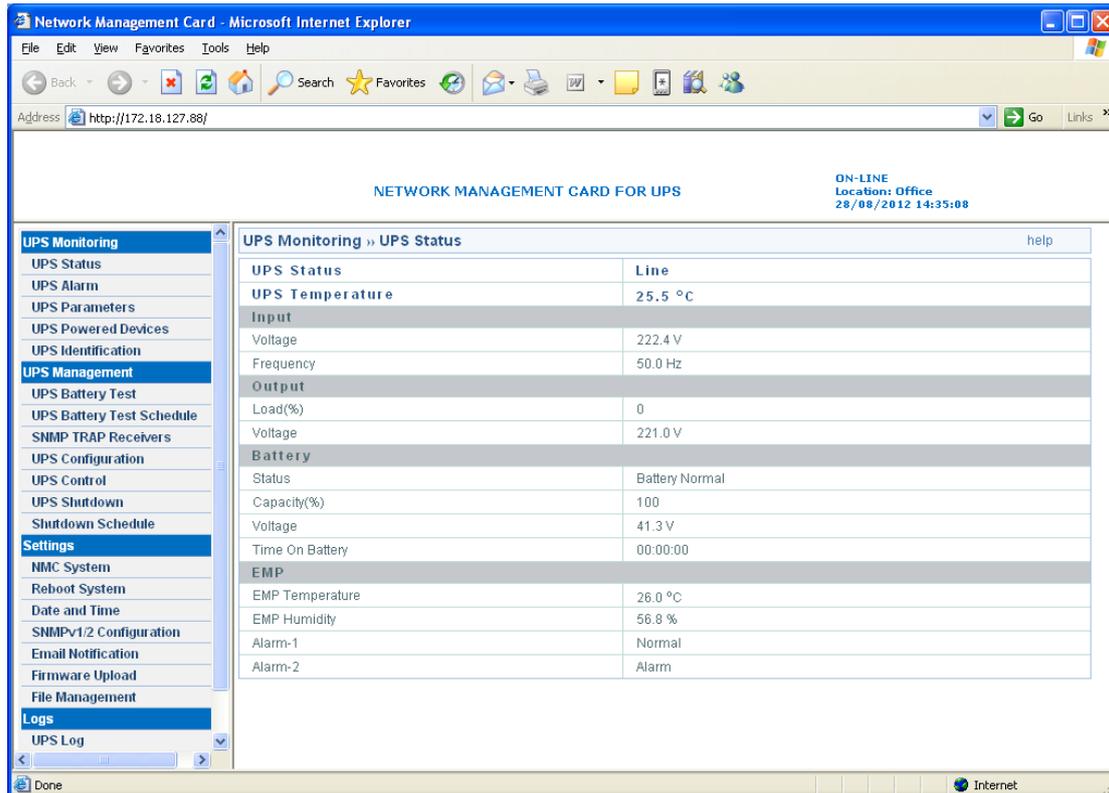
S-Step3-2

Third part: Upgrade firmware via web browser

Please Note: The upgrade process will take you several minutes, please waiting with your patience.

There are two files to be updated, rom.bin and image.bin. Please upload rom.bin first, after upload it successfully, and then upload image.bin.

Step1: Open the web browser, and input the IP address, such as 172.18.127.88, in the Address text box, Web page will be shown as the following picture T-Step1. You can know the IP address of the card from step6 of the second part operation.



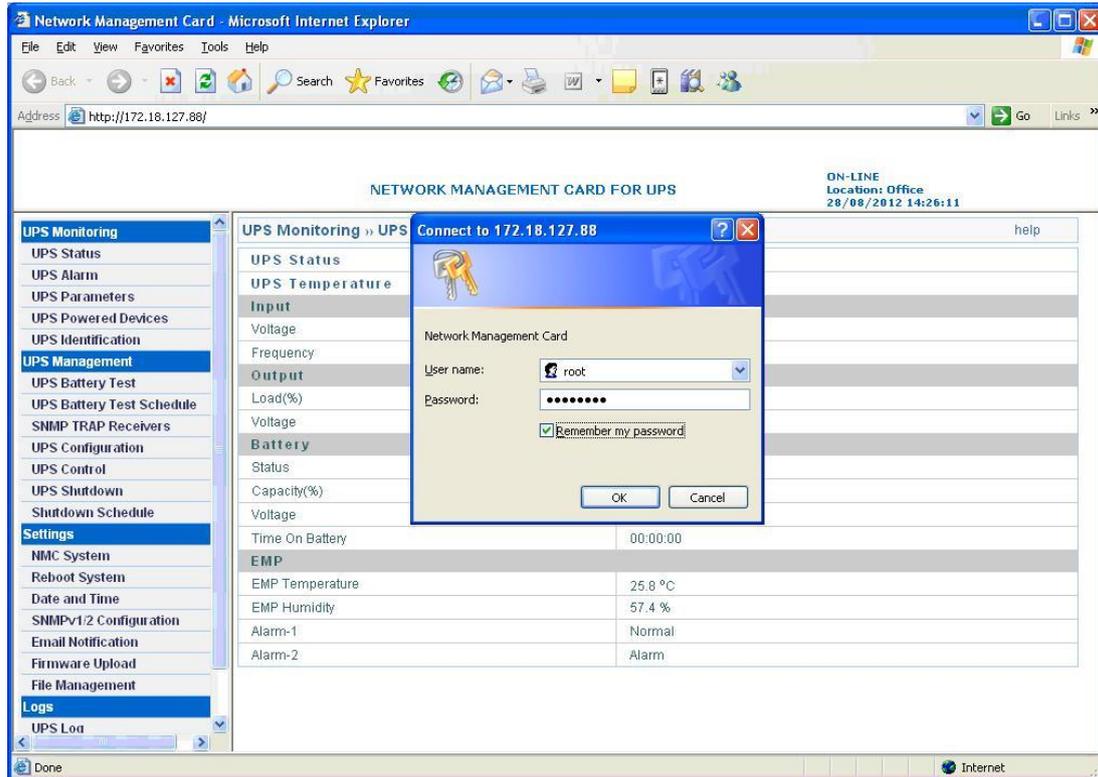
ON-LINE
Location: Office
28/08/2012 14:33:08

UPS Monitoring >> UPS Status help

UPS Status	Line
UPS Temperature	25.5 °C
Input	
Voltage	222.4 V
Frequency	50.0 Hz
Output	
Load(%)	0
Voltage	221.0 V
Battery	
Status	Battery Normal
Capacity(%)	100
Voltage	41.3 V
Time On Battery	00:00:00
EMP	
EMP Temperature	26.0 °C
EMP Humidity	56.0 %
Alarm-1	Normal
Alarm-2	Alarm

T-Step1

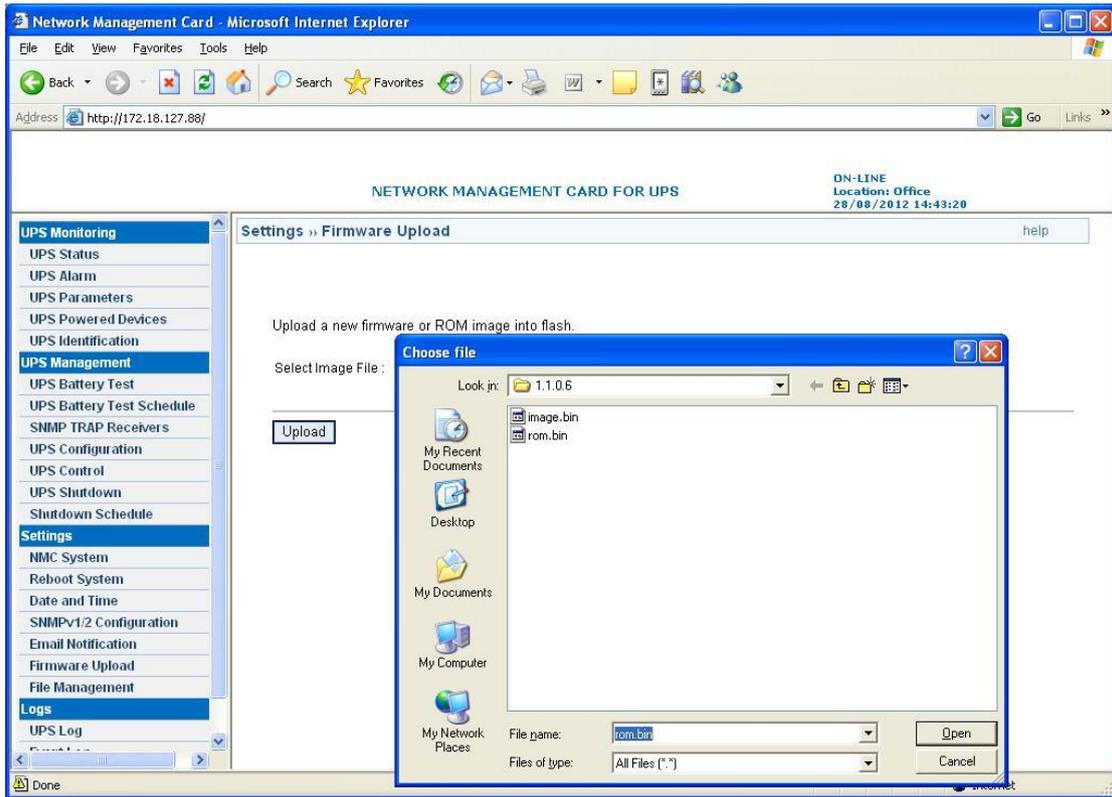
Step2. Click Settings→Firmware Upload menu on the left window, and there will be a dialog pop-up to require you input user name and password. Please refer to the following picture T-Step2. Please input user name: **root**, password: **password**



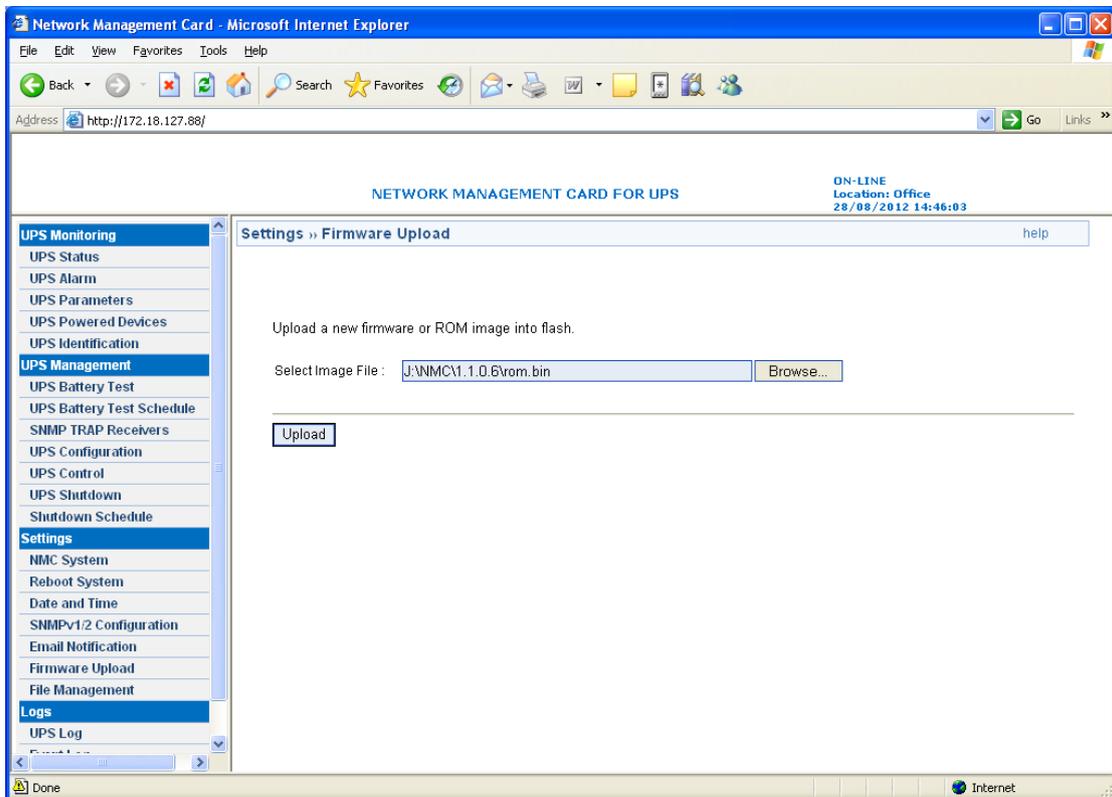
T-Step2

Step3: Select the rom.bin file that ready for upgrade by clicking the 'Browse' button. Please refer to the following picture T-Step3-1, and press 'Upload' button to start the firmware upgrade. Please refer to the following picture T-Step3-2.

In the process for updating the rom.bin, you can view the information shown on Hyper Terminal to make sure the rom.bin upload OK and the card reset OK. If upload successfully, the information will be shown as T-Step3-3.



T-Step3-1



T-Step3-2

```

NMC Version 1.1.0.6
+-----+
|           Network Management Card Configure Menu           |
+-----+

Password:Download complete, writing to flash...
Firmware updated, quit the session to restart.
Resetting the system in 2 seconds...
bootloader version is 0.0.0.1
Got AUTO-CONFIGURED IPv6 address FE80::220:85FF:FEF7:1018 on interface eth0:3
Got DHCP IPv4 address 172.18.127.88 on interface eth0
Network IP configured.
FTP server started.
Using existing X.509 certificate.
HTTPS/HTTP server started.
SNMP start success
NMC Version 1.1.0.6
+-----+
|           Network Management Card Configure Menu           |
+-----+

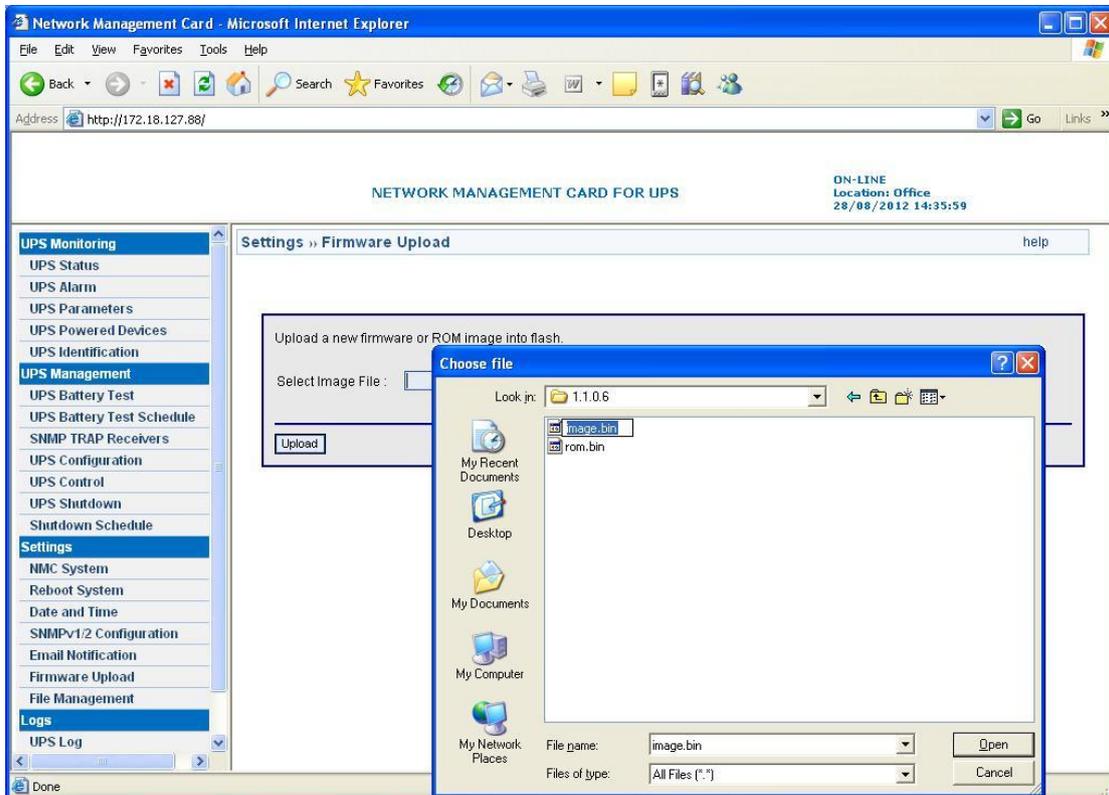
Password:_

```

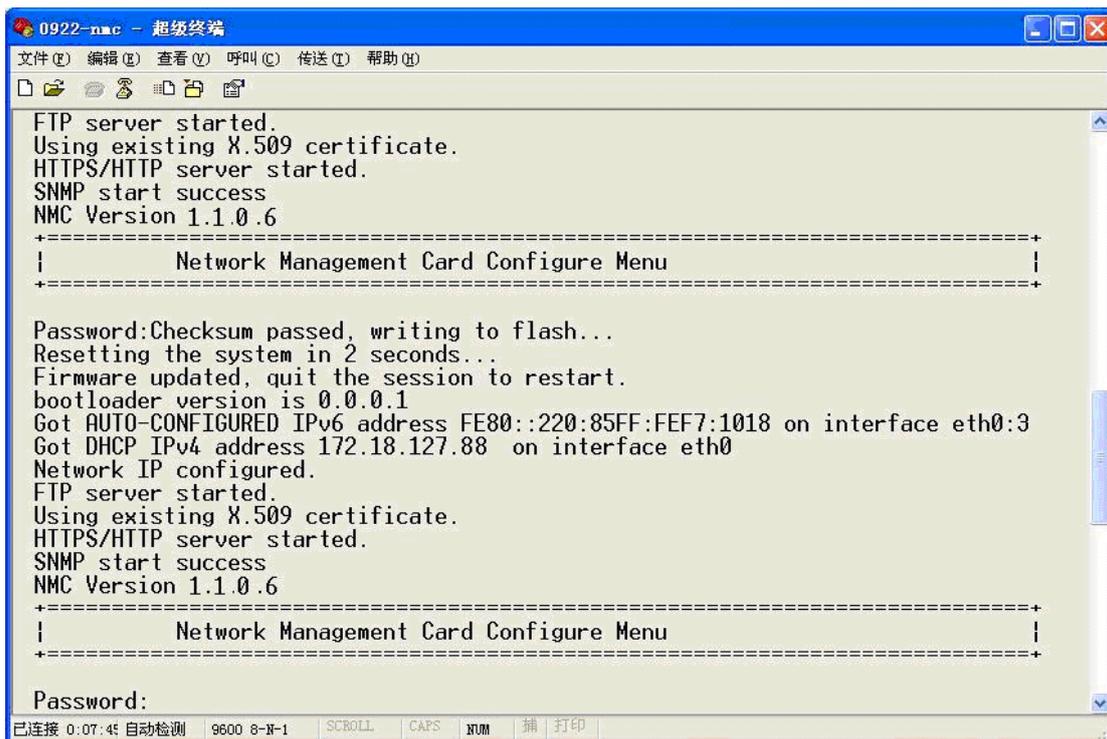
T-Step3-3

Step4: After the rom.bin file is upgraded successfully. Refresh the web browser to make sure the card communication OK. Repeat the Step2 of the third part and select the image.bin file that ready for upgrade by clicking the 'Browse' button. Please refer to the following picture T-Step4-1, and press 'Upload' button to start the firmware upgrade.

In the process for updating the image.bin, you can view the information shown on Hyper Terminal to make sure the image.bin upload OK and the card reset OK. If upload successfully, the information will be shown as T-Step4-2



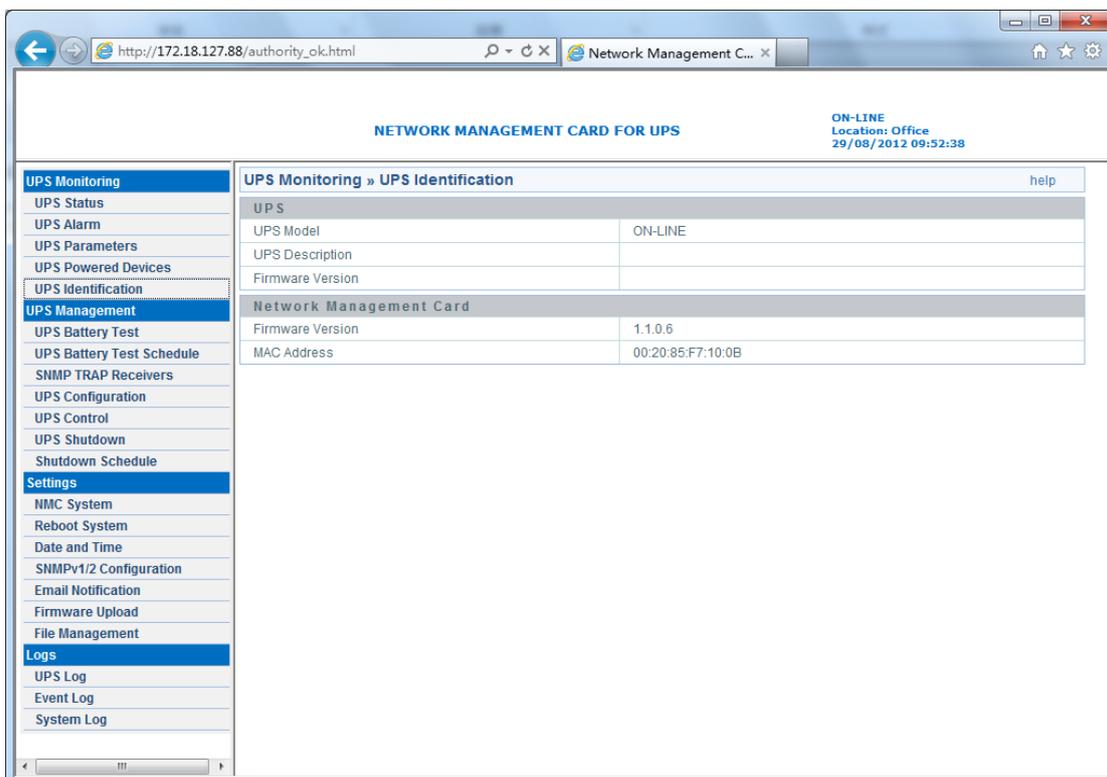
T-Step4-1



T-Step4-1

Step5: After rom.bin and image.bin update successfully, you can confirm the firmware version in “UPS Identification” page, Please refer to the following picture T-Step5.

Note: if you can't refresh the IE successfully, please close IE and reopen, input the correct IP address of NMC to view UPS status.



T-Step5