

UPS Network Management Card Product Center

The **Web Product Page** can help to keep you updated with new releases and functionality.

See **Application Notes** for useful information on specific features of your UPS Network Management Card, like Security and UPS configuration management.

- [Network Management Card 2 - firmware v6.8.0](#)
- [Network Management Card 3 - firmware v1.3.0.6](#)

See the **Troubleshooting Flowcharts** for information on troubleshooting common Network Management Card issues.

Network Management Card 2 (Smart-UPS and Symmetra (1P) Application)

New to firmware v6.8.0

v6.8.0 includes several security updates, including:

- The default Super User password must be changed at first log in to the NMC.
- The Administrator, Device, Read-Only, and Network-Only user accounts are disabled by default, and cannot be enabled until the default Super User password is changed.
- New Protocol Status Overview page in the Web UI, and banner in the Command Line Interface (CLI).
- HTTPS and SSH are now the only protocols enabled by default.
- PowerChute Network Shutdown changes.

These changes will not affect existing customers upgrading to v6.8.0. However, these changes will be the default settings for new customers, and existing customers running v6.8.0 who reset the NMC to its default values.

For more information on these changes, see the Network Management Card User Guide and CLI Guide on the [APC website](#).

Important fixes in the v6.8.0 firmware release

Listed below are some of the important fixes made available in v6.8.0:

- There is no longer a memory leak when requesting an SSL connection.
- A plain text password vulnerability has been fixed in the Remote Monitoring Service (RMS) - CVE-2018-7820. Schneider Electric recognizes Taran Dhillon of Hacklabs for identifying this vulnerability. **NOTE:** This issue was fixed in v6.7.2, and RMS support has been removed in v6.8.0.

Downloads

To download the latest version of the firmware and the help:

1. Go to the **APC website**.
2. Search for the firmware via the search bar – SYSUMX680 for SUMX, and SFSY680 for SY.
3. Click **Download** on the product page.
4. On the Software/Firmware page, click **Download**, then click **Download Now**.
5. Repeat these steps to download the language packs – SFSUMX680LP1, SFSUMX680LP2, SFSY680LP1, SFSY680LP2.

See **File Transfer** section in the NMC 2 **User Guide** for more information on upgrading firmware.

Network Management Card 3 (Smart-UPS Application)

New to firmware v1.3.0.6

The **Firmware Upgrade Utility** comes bundled with the v1.1.0.16 firmware file, allowing you to upgrade the firmware on your NMC 3 device(s). For more information on how to use the Utility, see the **File Transfer** section in the **User Guide**.

Important fixes in the v1.3.0.6 firmware release

Listed below are some of the important fixes made available in v1.3.0.6:

- The NMC's Command Line Interface (CLI) no longer reboots when the ↑ arrow key is pressed during an open session.
- The NMC Web UI no longer crashes when a Microsoft Excel file (.xlsx extension) is uploaded as an SSL certificate.
- The NMC no longer resets when it receives a large amount of network traffic.
- The xferini command is now available when accessing the NMC CLI locally via the USB console port.
- The BACnet Device Communication Control Password field in the Web UI no longer displays the length of the password. The password also is not visible if you inspect the field in a web browser.
- The NMC is no longer unresponsive when ICMPv6 packets are continuously sent to the device.

Downloads

To download the latest version of the firmware and the help:

1. Go to the [APC website](#).
2. Search for the firmware via the search bar – SFNMC3SU1.3.0.6.
3. Click **Download** on the product page.
4. On the Software/Firmware page, click **Download**, then click **Download Now**.

See **File Transfer** section in the NMC 3 [User Guide](#) for more information on upgrading firmware.

Knowledge Base Articles

The Knowledge Base on the [APC website](#) has useful product information. To search for an article, enter a text search (e.g. "Network Management Card"), or find an article listed below by typing in one of the FAQ IDs (e.g. FA235265) in the search box, and pressing Enter.

Network Management Card 2	
Fixed for v6.5.0 Updated: Data Center Expert loses SNMPv3 communication to APC devices when upgrading NMC to AOS v6.4.6	FA305661
Fixed for v6.5.0 Temperature Sensor not detected on an AP9631 that was pre-installed in a Symmetra	FA318542
AP9335T(H) / AP9810 configuration issues through SNMP	FA301499
Network Management Card 2 (NMC2) v6.X.X User Types and Permissions Definitions	FA170552
Network Management Card 2 Firmware v6.X.X FAQ/Upgrade Issues	FA176047
Things To Consider When Upgrading or Downgrading a Network Management Card 2 (NMC2) Device between v5.X.X and 6.X.X	FA167693
Network Management Card 3	
Network Management Card 3 – dbg directory not included in Smart-UPS firmware	FA386512
Network Management Card 3 does not establish communications if local CLI session is active during reboot	FA386513
Network Management Card 2 & 3	
MAC address Vendor ID of Network Management Cards, and other network devices changing	FA324455
UPS Network Management Card 2 Firmware Application Compatibility for Smart-UPS Online (SRT) Models	FA231396
Mass Configuration of Users and User Preferences on Network Management Card 2 (NMC2) v6.X.X	FA176542

How do you make a Network Management Card communicate on a network?	FA156064
How do I upgrade the firmware on an APC Network Management Card?	FA156047
How can I download Event, Data, Configuration, and Debug files from my Network Management Card?	FA156131
How can I mass configure a Network Management Card (NMC) or NMC embedded product?	FA156117
Why does my Network Management Card report warmstarts and coldstarts?	FA156063
How do I troubleshoot email failures on a Network Management Card?	FA156078
How To: Configuring an APC Network Management Card with popular email services such as Gmail, Yahoo! and Hotmail/Outlook.com	FA164769
How do I perform a mass firmware upgrade on APC network enabled products?	FA156099
Network Management Card Password Reset Procedure	FA156075
Why is my Web/SNMP (AP9606) or Network Management Card (AP9617, AP9618, AP9619, AP9630, or AP9631) not recognizing my UPS?	FA156045
AP9810 dry contact relay changes state after NMC is reseated	FA301500

UPS Network Management Card Troubleshooting Flowcharts

- PowerChute Network Shutdown
- E-mail
- Network
- Upgrade
- Access

PowerChute Network Shutdown

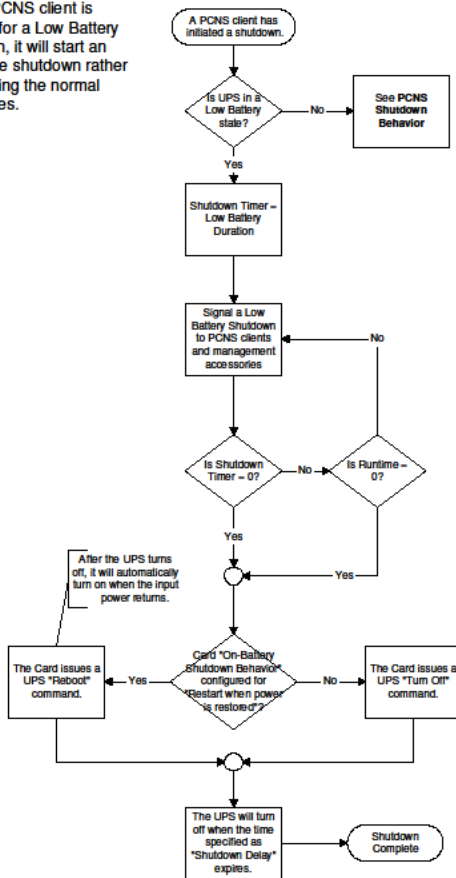
Low Battery Shutdown

Notes:

Once a PCNS client is signaled for a Low Battery Shutdown, it will start an immediate shutdown rather than waiting the normal delay times.

PowerChute Network Shutdown Low Battery Shutdown Behavior

04/25/2006 Rev 2



Shutdown

PowerChute Network Shutdown Shutdown Behavior

04/26/2006 Rev3

Notes:

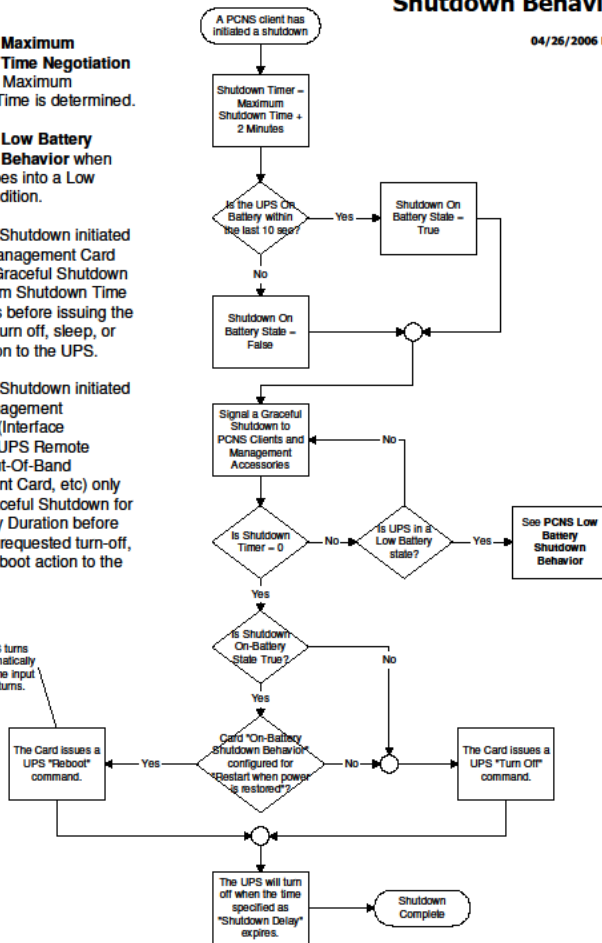
See **PCNS Maximum Shutdown Time Negotiation** for how the Maximum Shutdown Time is determined.

See **PCNS Low Battery Shutdown Behavior** when the UPS goes into a Low Battery condition.

A Graceful Shutdown initiated from the Management Card will signal Graceful Shutdown for Maximum Shutdown Time + 2 Minutes before issuing the requested turn off, sleep, or reboot action to the UPS.

A Graceful Shutdown initiated from a Management Accessory (Interface Expander, UPS Remote Display, Out-Of-Band Management Card, etc) only signals Graceful Shutdown for Low Battery Duration before issuing the requested turn-off, sleep, or reboot action to the UPS.

After the UPS turns off, it will automatically turn on when the input power returns.



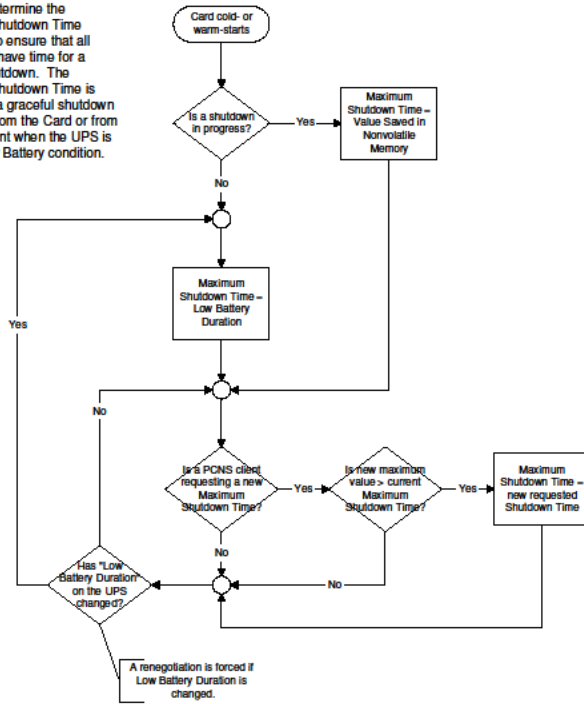
Maximum Shutdown Time

PowerChute Network Shutdown Maximum Shutdown Time Negotiation

04/25/2006 Rev2

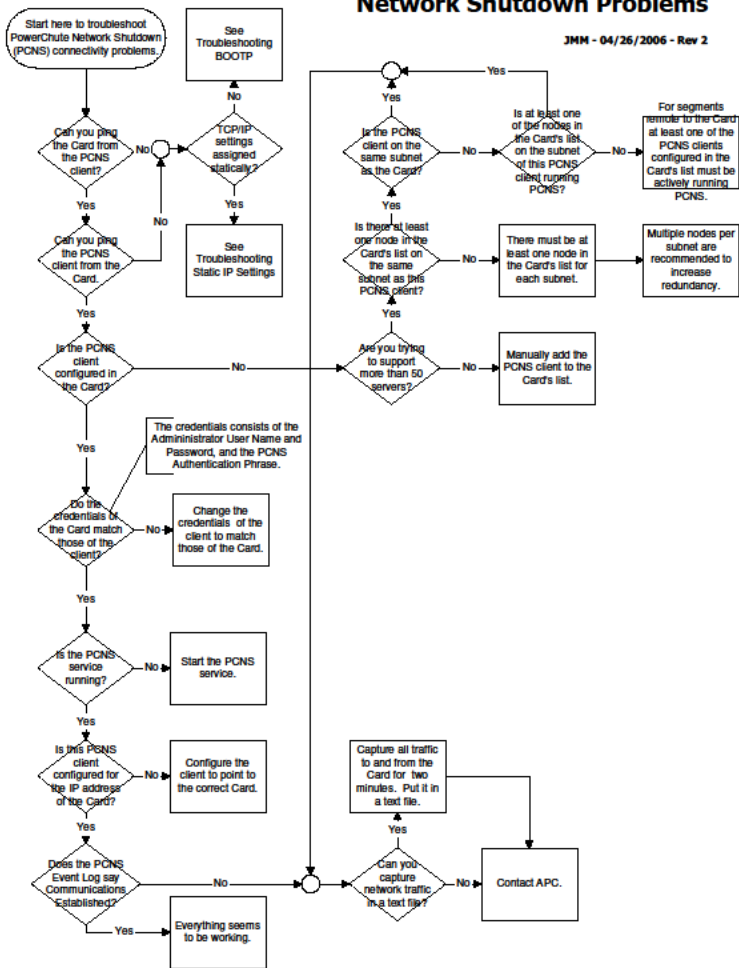
Notes:

The Card continually communicates with all PCNS clients to determine the Maximum Shutdown Time necessary to ensure that all servers will have time for a graceful shutdown. The Maximum Shutdown Time is used when a graceful shutdown is initiated from the Card or from a PCNS client when the UPS is not in a Low Battery condition.

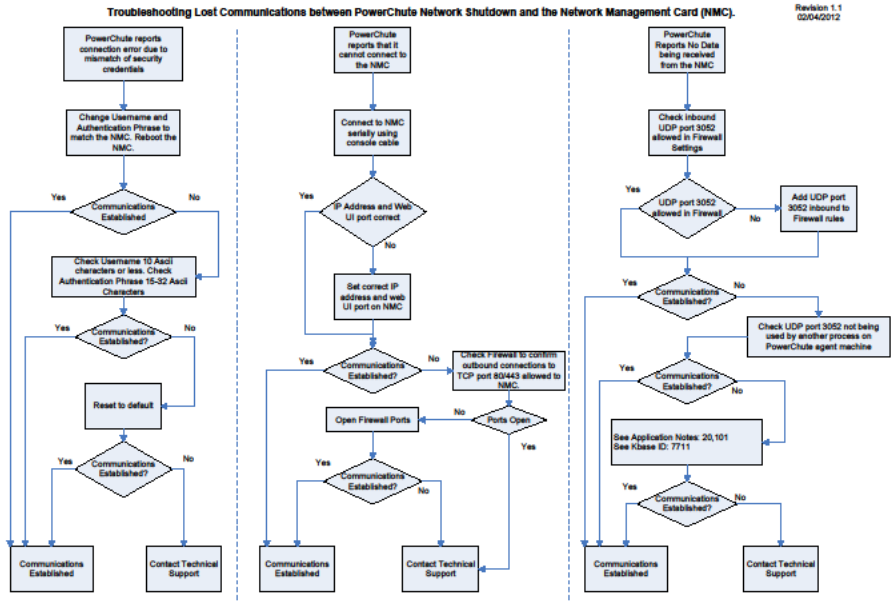


Troubleshooting PowerChute Network Shutdown Problems

JMM - 04/26/2006 - Rev 2



PowerChute Lost Communication

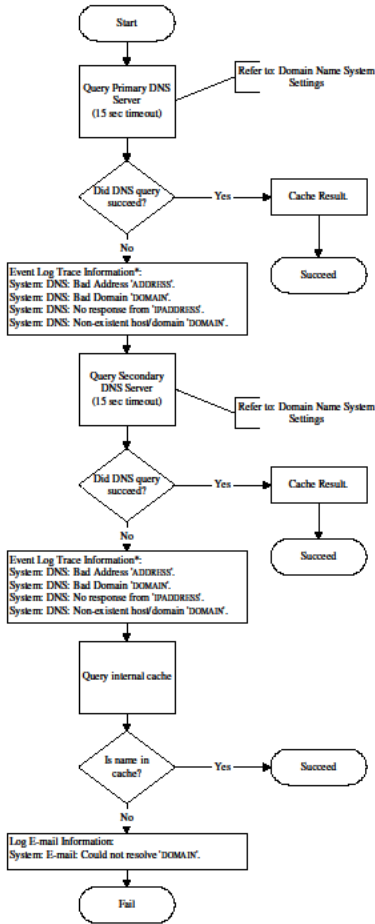


E-mail

DNS Flowchart

Detailed DNS Flow Chart

04/20/2006 - Rev 2

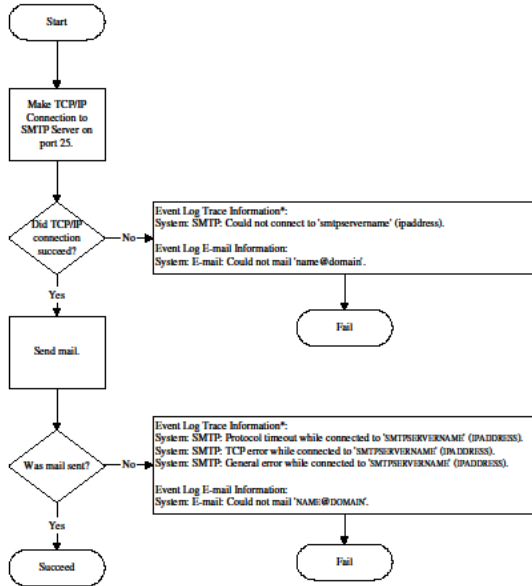


Note:
*Event Log Trace Information is not enabled by default. Refer to Event Configuration.

SMTP Flowchart

Detailed SMTP Flow Chart

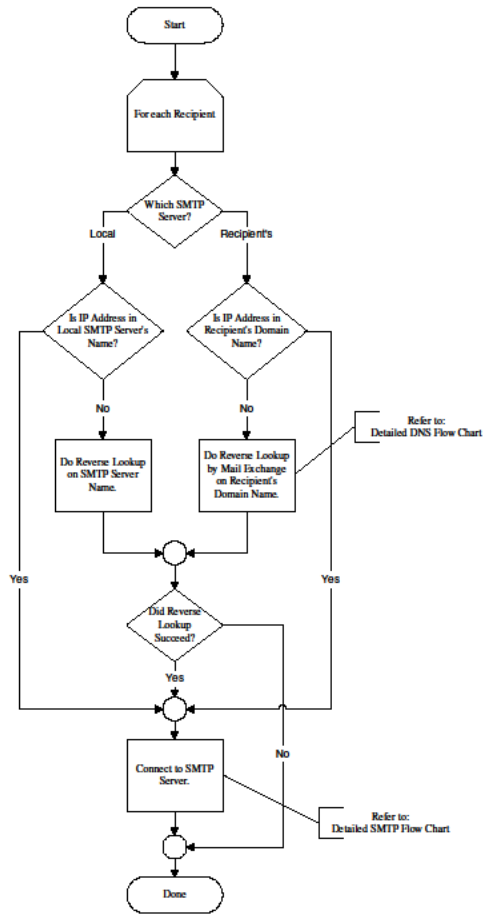
04/21/2006 - Rev 2



Note:
*Event Log Trace Information is not enabled by default. Refer to Event Configuration.

Email Flow Chart

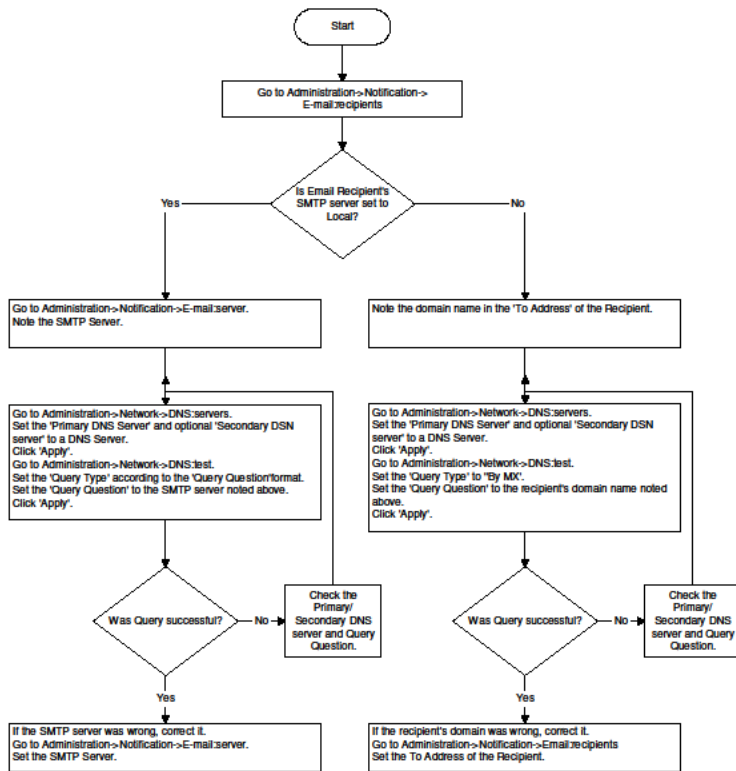
04/20/2006 - Rev 2



E-mail Troubleshooting Flowchart

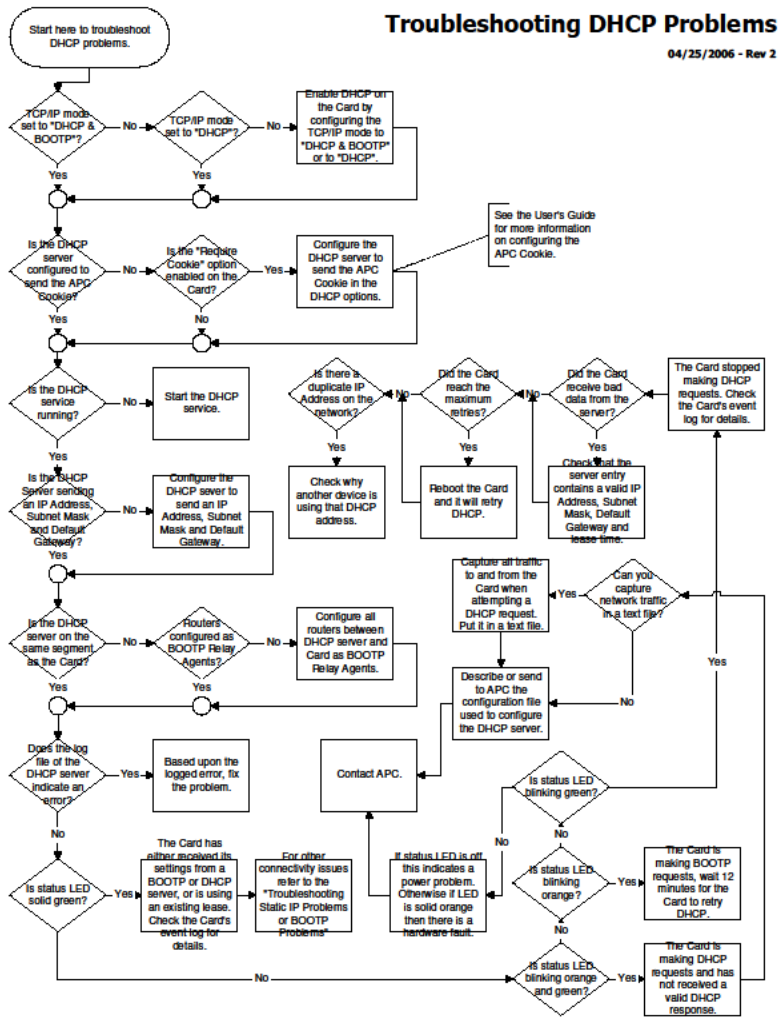
Troubleshooting E-mail Problems

04/21/2006 - Rev 2



Network

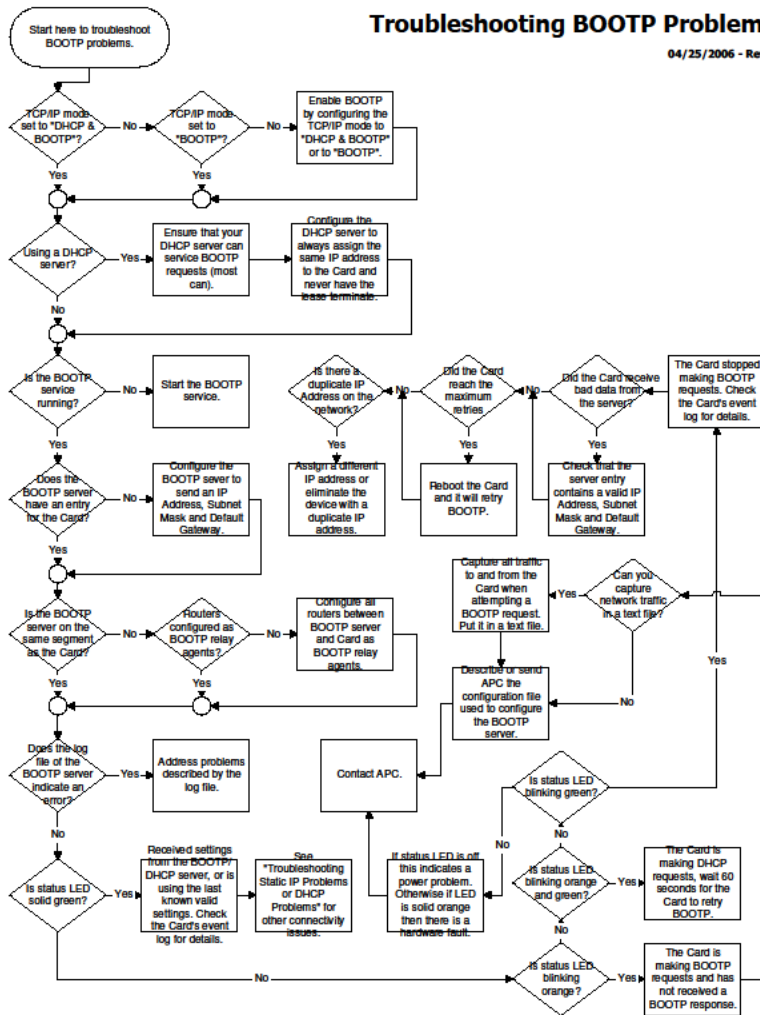
DHCP Problems



BOOTP Problems

Troubleshooting BOOTP Problems

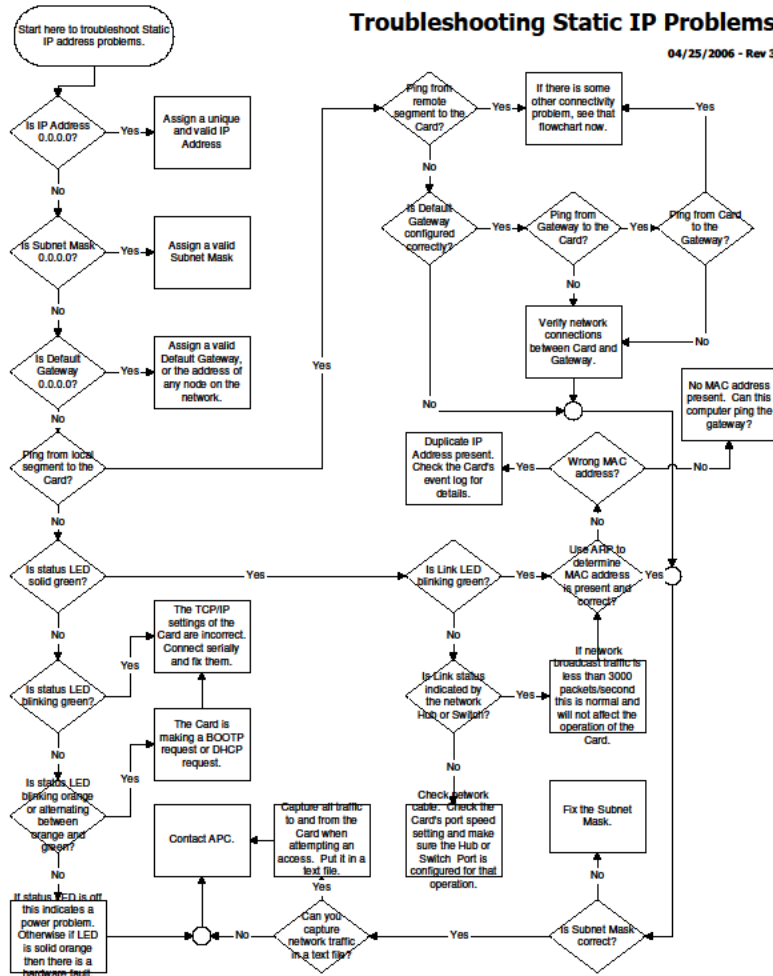
04/25/2006 - Rev 3



Static IP Problems

Troubleshooting Static IP Problems

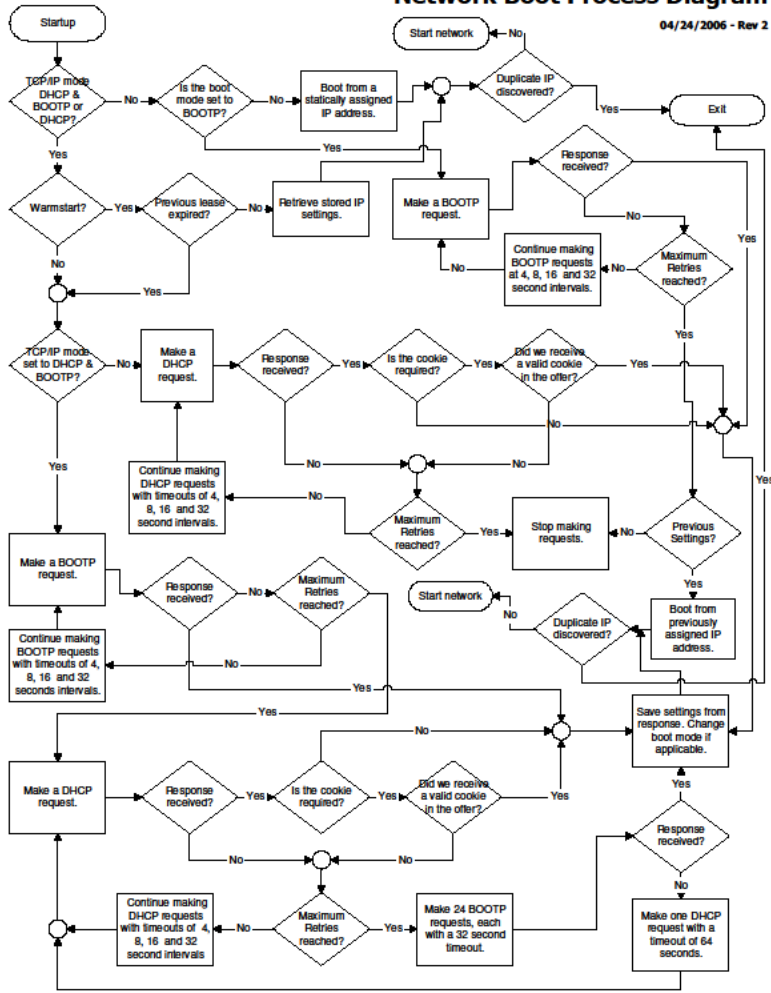
04/25/2006 - Rev 3



Network Boot Problems

Network Boot Process Diagram

04/24/2006 - Rev 2



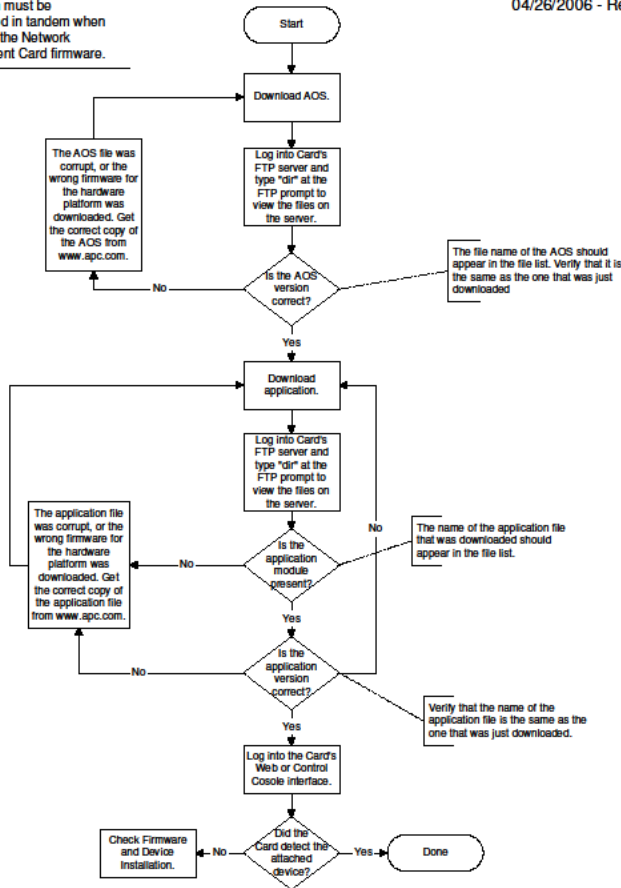
Upgrade

NMC Firmware Upgrade

Troubleshooting Network Management Card Firmware Upgrades

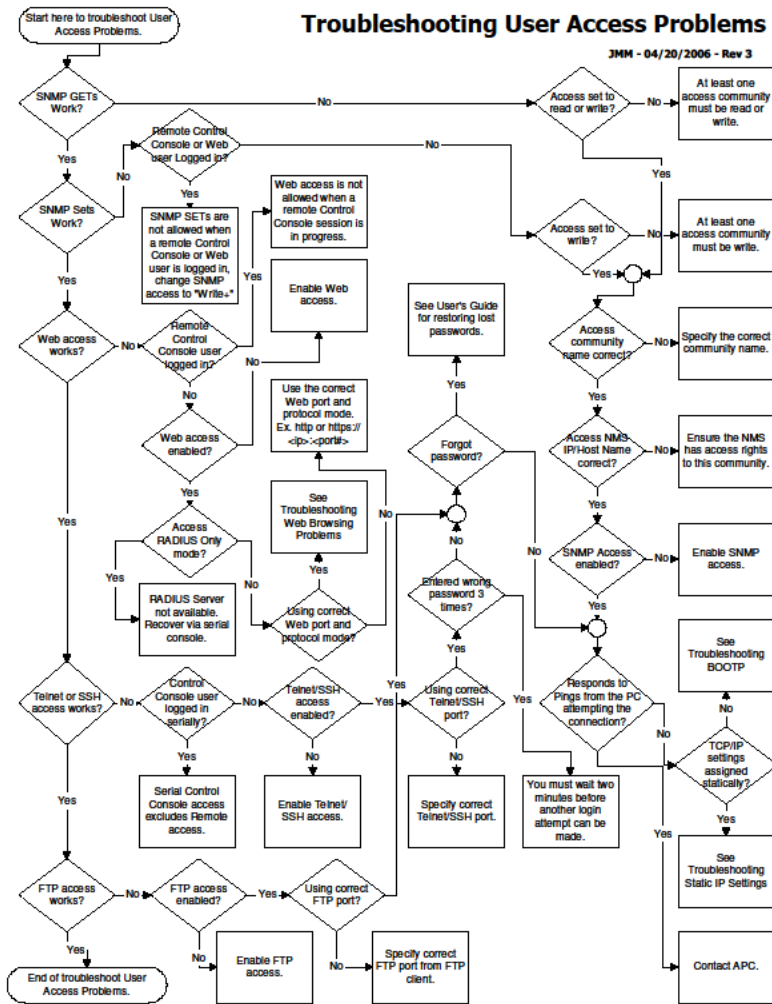
04/26/2006 - Rev 2

NOTE: Both the AOS and application must be downloaded in tandem when upgrading the Network Management Card firmware.

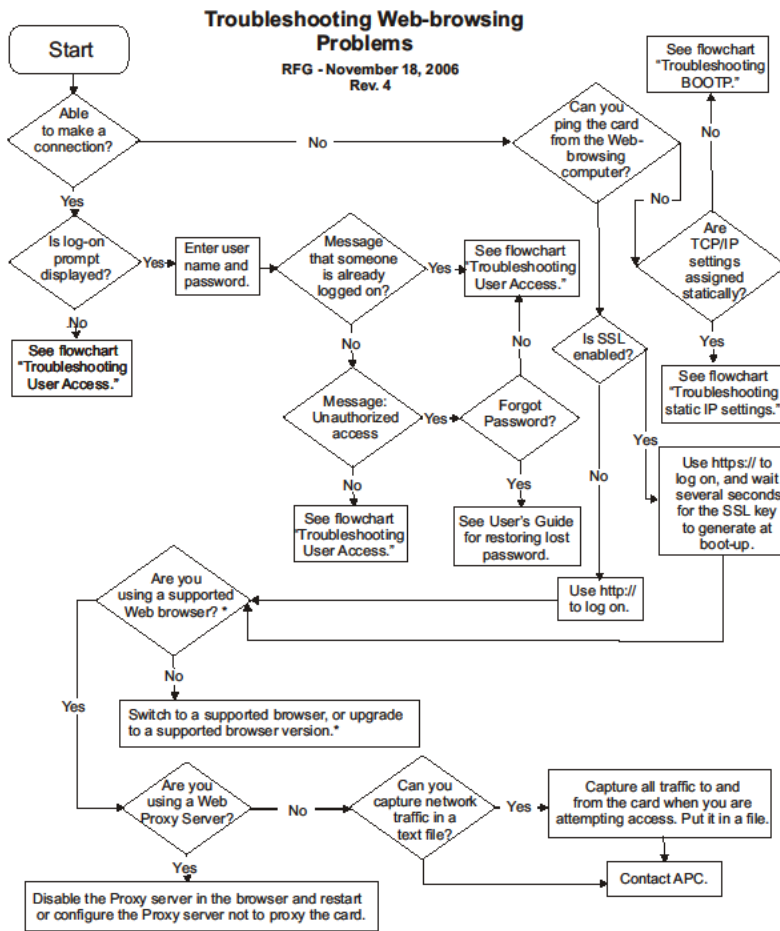


Access

User Access Problems



Web Browsing Problems



* Note: To access the Web interface of the Network Management Card, use Microsoft® Internet Explorer (IE) 5.5 and higher (on Windows® operating systems only), Firefox®, version 1.x, by Mozilla® Corporation (on all operating systems), or Netscape® 7.x and higher (on all operating systems)