

Network Management Card Upgrade Utilities

Purpose and Availability

Purpose of the utilities

This guide explains how to use version 1.2 of any of the product-specific firmware upgrade utilities provided by APC® for the Network Management Card (AP9517, AP9618, or AP9619) and for APC devices that contain an integrated, embedded Management Card. Use one of these utilities to upgrade one or more Management Cards automatically from a previous version of the firmware, to the current version of the firmware.

How to obtain the utility for your product

For firmware released in March, 2004, or later, the firmware upgrade utility specific to the APC product type is available from the CD provided with the product. For a product released earlier than March, 2004, obtain the current firmware upgrade utility for the appropriate APC product type at no cost through the **Software Downloads** link on the support page of the APC web site (www.apc.com/support).

Match an Upgrade Utility with Your Product Type

Each APC product type requires a different firmware upgrade utility. For correct operation, you must use the correct utility. If you accidentally use an upgrade utility that is incorrect for your product type, repeat the upgrade with the correct upgrade utility. Using the wrong utility causes incorrect operation of the APC product but does not damage the product.

The following table shows which Management Card upgrade utility to use for each APC product type:

APC Product Type	Upgrade Utility Required †
Smart-UPS [®] , Matrix-UPS [®]	apc_hw02_aosXXX_sumxYYY.exe
Symmetra [®] Single-Phase UPS	apc_hw02_aosXXX_syYYY.exe
Symmetra Three-Phase UPS	apc_hw02_aosXXX_sy3pYYY.exe
Silcon [®] UPS	apc_hw02_aosXXX_dp3eYYY.exe
† XXX represents the most recent version of the AOS firmware module, and YYY represents the most recent version of the application firmware module. In some cases, the version number represented by XXX will not be the same as the version number represented by YYY.	

These utilities operate only on a computer that uses a Windows[®] operating system. To upgrade the firmware from a previous version to a current version on a non-Windows operating system, contact [APC Worldwide Customer Support](#) if you are unsure of how to perform the upgrade.

Before You Begin

Required knowledge and access rights

This guide assumes the following:

- You have a basic knowledge of the Windows operating system.
- You have administrator access rights to the computer on which the upgrade utility will be installed and to all Management Cards for which you will upgrade firmware.
- You know the configured IP addresses of the Management Cards to be upgraded.

For assistance on these matters, see your network administrator before beginning the upgrade.



Caution

FILES MUST CONTAIN NETWORK MANAGEMENT CARD ADMINISTRATOR USER NAMES AND PASSWORDS DISPLAYED IN PLAIN TEXT IN ORDER FOR THE UTILITY TO OPERATE NORMALLY. THESE FILES ARE REQUIRED FOR THE OPERATION OF THE UTILITY AND WILL REMAIN IN THE UTILITY DIRECTORY. AFTER COMPLETION OF THE UPGRADES, THESE FILES CAN BE SECURELY ARCHIVED FOR FUTURE USE, OR DELETED WITHOUT IMPACT TO CURRENT OPERATIONS OF THE NETWORK MANAGEMENT CARD.

Install the Management Card upgrade utility

1. Select the correct Network Management Card upgrade utility, and save it to the Windows computer from which you will perform the upgrade.



To select the correct utility, see [Match an Upgrade Utility with Your Product Type](#).

2. Each Network Management Card upgrade utility is a self-extracting executable file represented by a file icon in the directory's file list that is similar to the following:



Double-click the icon. A dialog box displays a message that provides the names of the firmware files contained in the self-extracting file:

You are about to upgrade the Network Management Card with the following firmware: *AOS_module_file_name* and *application_module_file_name*

Click **Next>** to confirm that these are the correct firmware files.

3. In the next dialog box, select a destination directory:
 - To select the default destination directory, which is .\, click **Next>**.
 - To select a different destination directory, enter the full path to the directory or browse to the directory, and click **Next>**.

The program unpacks seven files necessary to continue the upgrade and displays the following message:

```
Extraction Complete  
The files have been successfully extracted from the Archive
```

The following eight files are unpacked in the destination directory you specified:

- apc_hw02_aos_202.bin (a patch needed by the utility to upgrade a Management Card from a 1.x.x. firmware version to the most recent 2.x.x firmware version)
- apc_hw02_aos_XXX.bin (where XXX is the most recent version of the AOS firmware module, e.g., 250)
- apc_hw02_product_YYY.bin (where *product* is the type of APC product in use and YYY is the most recent version of the application firmware module, e.g., 251)



Note

In some valid combinations of firmware versions, the version number of the AOS firmware module is not the same as the version number of the application firmware module (e.g., apc_hw02_aos_250.bin and apc_hw02_sumx_251.bin are a valid combination of versions).

- upgrd_util.exe
- go.bat
- winftp32.dll
- config.txt
- IP_List.txt

Click **Finish** to close the archive. The upgrade utility starts automatically.

Run the Management Card Upgrade Utility

The Network Management Card upgrade utility starts automatically when the installation is complete.



Caution

THIS PROCESS UPLOADS MULTIPLE FILES TO EACH MANAGEMENT CARD TO COMPLETE THE UPGRADE. THIS PROCESS MAY TAKE SEVERAL MINUTES FOR EACH MANAGEMENT CARD. DO NOT CANCEL THIS PROCESS BEFORE COMPLETION; INCOMPLETELY LOADED FIRMWARE UPDATES TO A MANAGEMENT CARD MAY PRODUCE UNEXPECTED BEHAVIOR.

Use the utility to upgrade a single Network Management Card

Follow these instructions to upgrade a single Network Management Card. For upgrades to multiple Network Management Cards, see [To upgrade multiple Network Management Cards](#).

1. When the Network Management Card upgrade utility installation is complete, your terminal displays the following in the command prompt window:

```
NMC Upgrade Tool v1.2
American Power Conversion          Network Management Card AOS      v2.5.0
(c) Copyright 2004 All rights reserved  Smart-UPS & Matrix-UPS APP    v2.5.1
-----

*****
Warning: User name and password information will be displayed
to the screen in plain text.
*****

IP Address of target to upgrade:
```

- If the correct versions of AOS and application modules are displayed on the screen, enter a valid, previously configured IP address of a single Network Management Card to be upgraded, and press ENTER.
2. At the user name and password prompts, enter the administrator user name and password of the Network Management Card that has the IP address you provided.
 - If all the information you provided is correct, the upgrade process begins. The message `Network Management Card has been upgraded successfully` indicates when the upgrade is finished.
 - If information about the Network Management Card was not correct, or if the computer running the utility could not connect to the specified IP address, the message `Could not log into Network Management Card` is displayed.
 3. Press ENTER to exit the upgrade utility. If the upgrade was unsuccessful, check your information, check the availability of the network connection to the Management Card you want to upgrade, and run the utility again.



To upgrade another card or multiple cards, see [To upgrade multiple Network Management Cards](#).

To upgrade multiple Network Management Cards

1. Go to the directory that contains the upgrade utility.
2. Open the file `iplist.txt` using any ASCII text editor.
3. Edit the file `iplist.txt` so that it contains the IP addresses, administrator user names, and administrator passwords of all the Management Cards to upgrade. The following example shows three Management Cards to be upgraded at 159.215.13.74, 159.215.13.75, and 159.215.13.76:

```
[SystemManager]
SystemIP=159.215.13.74
SystemUserName=admin_user_name1
SystemPassword=admin_password1

SystemIP=159.215.13.75
SystemUserName=admin_user_name2
SystemPassword=admin_password2

SystemIP=159.215.13.76
SystemUserName=admin_user_name3
SystemPassword=admin_password3
```

4. Save the `iplist.txt` file.
5. From the same directory, run the `go.bat` file to perform the upgrade.
6. Verify from the computer screen that the Network Management Cards at the specified IP addresses were upgraded.
7. Verify from the `result.txt` file that the Network Management Cards at the specified IP addresses were upgraded.
8. Review the `log.txt` file after the upgrade to verify and review upgrades.



Caution

IF YOU EXECUTE THE UPGRADE UTILITY AFTER THE IPLIST.TXT FILE IS CREATED BUT BEFORE THIS FILE IS EDITED TO SPECIFY NEW NETWORK MANAGEMENT CARD IP ADDRESSES, USER NAMES, AND PASSWORDS, THE MANAGEMENT CARDS ORIGINALLY LISTED IN THE IPLIST.TXT FILE WILL BE UPGRADED AGAIN.

After you use the upgrade utility

The Network Management Card upgrade utility does not register itself with the Windows operating system. After you finish upgrading Network Management Cards, you may delete the entire working directory without affecting the previously upgraded Management Cards.

Manual Upgrade of a Management Card

As an alternative to running the upgrade utility, you can upgrade a Network Management Card by using File Transfer Protocol (FTP).



Before you use FTP to upgrade a Management Card, see [Required knowledge and access rights](#).

Instructions for using FTP

For step-by-step instructions on using FTP to upgrade a Network Management Card, go to the support page of the APC Web site (www.apc.com/support), click on **Search the Knowledge Base**, and perform the following search:

1. Set the **Product** field to Network Management Cards.
2. Set the **Search by** field to Exact Phrase.
3. Enter Firmware upgrade instructions in the **Search Text** field.
4. Click **Search**.
5. Click the link “Firmware upgrade instructions for the Web/SNMP and Network Management Cards.” Ignore the parts of the instructions that refer to the Web/SNMP Management Card and the Management Card Wizard. (You cannot use the Wizard to upgrade firmware for a Network Management Card.)

Using FTP to upgrade from version 1.x.x firmware

To obtain the firmware files necessary to upgrade the Network Management Card from version 1.x.x firmware to version 2.x.x version firmware:

1. Identify the correct self-extracting executable file for the upgrade utility you need, based on the APC product type.



See [Match an Upgrade Utility with Your Product Type](#).

2. Extract all files from the self-extracting executable file.



See [Install the Management Card upgrade utility](#).

3. Find the following three files among the extracted files:

- apc_hw02_aos_202.bin (APC Operating System Module and incremental system patches).
- apc_hw02_aos_XXX.bin (APC Operating System Module, version XXX).
- apc_hw02_*product*_YYY.bin (APC Application Module version YYY, where *product* is the APC product type for which the application module is suitable).

4. To upgrade a Network Management Card to version 2.x.x firmware, use FTP to transfer the three files in the order shown in [step 3](#).



Caution

TRANSFERRING THE FILES IN THE WRONG ORDER WILL CAUSE THE UPGRADE TO FAIL AND MAY CAUSE THE MANAGEMENT CARD TO BECOME UNUSABLE UNTIL IT IS UPGRADED CORRECTLY.

Summary

The upgrade utility self-extracting executable file provides all the necessary files to upgrade the firmware of a Network Management Card. You can use the extracted firmware files with the utility to perform the upgrade automatically, or you can use the extracted files with FTP to perform the upgrade manually. To upgrade firmware from a 1.x.x to a 2.x.x version, you must transfer the AOS firmware module `apc_hw02_aos_202.bin` to the Network Management Card before you transfer a later 2.x.x AOS firmware module and application module. The upgrade utility automates the entire upgrade, including the transfer of the interim AOS module `apc_hw02_aos_202.bin`.

APC Worldwide Customer Support

Customer support for this or any other APC product is available at no charge in any of the following ways:

- Visit the APC Web site to access documents in the APC Knowledge Base and to submit customer support requests.
 - www.apc.com (Corporate Headquarters)
Connect to localized APC Web sites for specific countries, each of which provides customer support information.
 - www.apc.com/support/
Global support searching APC Knowledge Base and using e-support.
- Contact an APC Customer Support center by telephone or e-mail.
 - Regional centers:

Direct InfraStruXure Customer Support Line	(1)(877)537-0607 (toll free)
APC headquarters U.S., Canada	(1)(800)800-4272 (toll free)
Latin America	(1)(401)789-5735 (USA)
Europe, Middle East, Africa	(353)(91)702000 (Ireland)
Japan	(0) 35434-2021
Australia, New Zealand, South Pacific area	(61) (2) 9955 9366 (Australia)

- Local, country-specific centers: go to www.apc.com/support/contact for contact information.

Contact the APC representative or other distributor from whom you purchased your APC product for information on how to obtain local customer support.

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