Rack Automatic Transfer Switch (ATS) AP44•• with Network Management Card 2

APC™

AP4421, AP4422, AP4423, AP4424, AP4425, AP4430, AP4431, AP4432, AP4433, AP4434, AP4450, AP4452, AP4452J, AP4453, AP44••

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What's in This Document

Affected Revision Levels

Component	Version	Details
APC Operating System	apc_hw05_aos_712.bin	Network Management Card (NMC) Operating System & TCP/IP Stack for Hardware Platform v05.
ATS Application	apc_hw05_ats4g_712.bin	Automatic Transfer Switch Application
PowerNet® Application	powernet450.mib	PowerNet SNMP Management Information Base (MIB)

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Device IP Configuration Wizard

The Device IP Configuration Wizard is a Windows® application designed specifically to remotely configure the basic TCP/IP settings of Network Management Cards. The Wizard runs on Windows 2000, Windows Server® 2003, Windows Server 2012, and, on 32- and 64-bit versions of Windows Vista®, Windows XP, Windows Server 2008, Windows 8, and Windows 10 operating systems. This utility supports cards that have firmware version 3.X.X or higher and is for IPv4 only.

The Wizard is available as a free download from the APC website, www.apc.com:

1. Go to www.apc.com/tools/download and select **Software Upgrades - Wizards and Configurators** from the **Filter by Software/Firmware** drop-down list

2. Click **Submit** to view the list of utilities available for download.

3. Click **Download** to download the **Network Management Device IP Configuration Wizard**.

New Features

APC Operating System (apc_hw05_aos_712.bin)
• A new feature is added for SNMPv1 and SNMPv3 ports to help configure SNMP traps.
• HTTPS now uses TLS v1.2 for encryption. (In previous firmware versions, HTTPS used TLS v1.1.)
ATS Application (apc_hw05_ats4g_712.bin)
• Added the SNMP OIDs *atsStatusFuseSourceA* and *atsStatusFuseSourceB* to get the fuse status.
• Added a critical alarm notification in the form of traps in the event of a blown fuse.

Fixed Issues

APC Operating System (apc_hw05_aos_712.bin)
• You can now paste passwords and passphrases containing more than 20 characters in the CLI when using SSH.
• When you access the CLI with SSH, the default directory is shown after you sign in.
ATS Application (apc_hw05_ats4g_712.bin)
• Fixed an issue where the CLI command `LCD` did not read the current status of LCD display.
• Fixed an issue where the lost redundancy trap notification displays the incorrect information related to the reported source name.
• Fixed an issue where the attempt to abort log file downloads started through the LCD and keypad interface failed.

Known Issues

APC Operating System (apc_hw05_aos_712)
None.

ATS Application (apc_hw05_ats4g_712)

- The firmware update utility at this revision may fail to update devices if the user selects SCP as the protocol and also chooses to back up log files before updating. Log backup can be performed automatically if the FTP protocol is selected and can also be done manually.

- Voltage out checking is not currently supported; any approach to reading the output voltage will always result in a reading of voltage present, regardless of its actual status.

- False alarms may occur when the line voltage is set to the minimum or maximum value.

- When line voltage is set to the minimum allowable value, the ATS may fail to report an over-voltage alarm. The ATS will still switch sources in the case of an over-voltage alarm. Continuous source switching may occur when there is a frequency deviation from the set value (50 or 60 Hz) and the Voltage Transfer Range has been set below 10 V.

- A Spike/Dropout event may occur when operating with two nominal voltage sources at 50 Hz if the 10 Hz Frequency Deviation setting is used.

- If the frequency deviation is set to 10 Hz and the frequency of a source is offset by 10 Hz, the ATS will incorrectly disqualify that source.

- When both sources are set to 50 Hz or 60 Hz, the unit automatically changes the nominal frequency to match the source frequency.

- SNMP OID's Output Minimum Current & Output Maximum Current are not currently supported. Related parameters in the Web UI and CLI are also not implemented yet.

- In rare cases, a fast source switch may occur and may cause internal fuses to open when there is a voltage spike or dropout on the selected input.

- Users may not be able to be clear some lost communication events.

- Freq Out of Range events may not appear in the Event Log if they are of short duration.

- Power supply issues (for example, low voltage or low frequency) are not reported if they occur because of a redundancy loss event. The redundancy loss is still reported. Also, in some cases, the power supply status shows "Normal" even though one of the sources is unavailable.

- No SNMP OID for "Location" is available in the automaticTransferSwitch category. Refer to sysLocation (1.3.6.1.2.1.1.6) as an alternative.

- No SNMP OID for "Contact" is available in the automaticTransferSwitch category. Refer to sysContact (1.3.6.1.2.1.1.4) as an alternative.

Miscellaneous

Recovering from a Lost Password

You can use a local computer (a computer that connects to the Rack ATS through the serial port) to access the Command Line Interface (CLI) to reset the user name and password:

1. Select a serial port at your local computer and disable any service using that port.

2. Connect the serial communication cable (included) to the selected port on the computer and to the Serial port on the Rack ATS.

3. Open a terminal program (such as Tera Term, HyperTerminal®, or PuTTY®), and configure the selected port with 9600 bps, 8 data bits, 1 stop bit, no parity, and no flow control.

4. Press Enter, repeatedly, until the `User Name` prompt is displayed. If the `User Name` prompt is not displayed, verify the following:

   • The serial port is not in use by another application.

   • The terminal settings are correct as specified in step 3.

   • The correct cable is being used as specified in step 2.

5. Press **Reset** button near the power LED once. The Status LED will flash orange and green within 5–7 seconds of pressing the **Reset** button. When the Status LED begins flashing, immediately press the Reset button a second time to temporarily reset the user name and password to their defaults.

6. Press Enter, repeatedly if necessary, to display the `User Name` prompt again, then log on with the default user name and password (**apc** and **apc**). If you take longer than 30 seconds to log on after the `User Name` prompt is displayed, you must repeat step 5 and log on again.

7. At the CLI, use the following commands to change the password from **apc** to a value of your choice:
   `user -n apc -cp apc -pw <user password>`

   Example: to change the Super User's password to `p@ssword`, enter
   `user -n apc -cp apc -pw p@ssword`

   > **NOTE:** For security reasons, it is possible to disable the Super User account. To verify that the Super User account is enabled, enter
   > `user -n apc -e`
   >
   > If the account is disabled and the current password is p@ssword, you can enter `user -n apc -e enable -cp p@ssword` to enable the Super User account.

8. Enter the command `quit`, `exit`, or `bye` to log off. Reconnect any serial cable you have disconnected, and restart any service you have disabled.

Event Support List

To obtain the event names and event codes for all events supported by a currently connected APC by Schneider Electric device, first use FTP to retrieve the config.ini file from the Network Management Card:

1. Open a connection to the NMC, using its IP Address:

   `ftp > open <ip_address>`

2. Log on using the Administrator user name and password.

3. Retrieve the config.ini file containing the settings of the Network Management Card:

   `ftp > get config.ini`

The file is written to the folder from which you launched FTP.

In the config.ini file, find the section heading `[EventActionConfig`. In the list of events under that section heading, substitute 0x for the initial E in the code for any event to obtain the hexadecimal event code shown in the user interface and in the documentation. For example, the hexadecimal code for the code E0033 in the config.ini file (for the event "System: Configuration change") is 0x0033.

PowerNet MIB Reference Guide

The MIB Reference Guide, available on www.apc.com, explains the structure of the MIB, types of OIDs, and the procedure for defining SNMP trap receivers. For information on specific OIDs, use an MIB browser to view their definitions and available values directly from the MIB itself. You can view the definitions of traps at the end of the MIB itself (the file powernet450.mib is downloadable from www.apc.com).

Hash Signatures

apc_hw05_aos712_ats4g712_bootmon109.exe

MD5	e7058e20559d44a11ea92c4082fa0d7b
SHA-1	75cdd2f99e8c93e62b86851fc6c8266f8df80c52
SHA-256	e69ab8e66bfeee254a0bafb69fd5423b69ab3a8081b89335fc34b1c9e23d6e53