

Schneider Electric  
([www.schneider-electric.com](http://www.schneider-electric.com))  
Part Number: 990-3864H

## RELEASE NOTES for

AP88xx Metered Rack PDU  
AP89xx Switched Rack PDU  
AP84xx Metered-by-Outlet Rack PDU  
AP86xx Metered-by-Outlet with Switching Rack PDU

Released: June 2015

## Affected Revision Levels:

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apc_hw05_aos_632.bin	Network Management Card Operating System & TCP/IP Stack for Hardware Platform v05
apc_hw05_rpdu2g_633.bin	Switched/Metered Rack PDU2 Application
powernet415.mib	PowerNet(R) SNMP Management Information Base (MIB)

For details on upgrading the firmware for your Rack PDU, see the User Guide on the Schneider Electric website ([www.schneider-electric.com](http://www.schneider-electric.com)).

## Schneider Electric Device IP Configuration Wizard v5.0.2

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The wizard is a windows application designed specifically to remotely configure the basic TCP/IP settings of Network Management Cards. The wizard runs on windows(R) 2000, windows 2003, windows vista, windows XP, windows 7, windows Server 2008, windows 8, and windows 2012.

The wizard is available as a free download from the Schneider Electric website. On the website, search by part number SFDIPW502 to find the downloadable file.

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## 1.0 OS & TCP/IP Stack Modifications (apc\_hw05\_aos\_632.bin)

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### 1.1 COMPATIBILITY

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apc\_hw05\_rpdu2g\_633.bin    Rack Mount Power Distribution Unit 2

### 1.2 KNOWN ISSUES IN THIS VERSION

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1. The SNMPv1 "communityString" OID allows 15 characters but should allow 16.
2. The NMC Upgrade utility supports ASCII characters only for username and password.
3. When upgrading from 5.0x systems, if NTP (network time protocol) is not enabled, the NMC clock will need to be set manually.
4. Non-ASCII characters conveyed to an ISX Manager will not display properly in ISXM.
5. The following fields do not accept UTF-8 characters (they accept ASCII only):
  - any numeric field (only Arabic numbers are accepted)
  - the Datalog FTP Server name.
6. The following warning events do NOT cause the Network Management Card to send an SNMP trap:
  - System: Detected an unauthorized user attempting to access the FTP interface.
  - System: Password Changed
7. In the Config.ini file, the [EventActionConfig] keys may report incorrect data when performing a mass configuration.
8. The device and outlet user privileges in the CLI are not consistent with the device and outlet user privileges in the Web interface.
10. In the Web interface, the Primary and Secondary RADIUS servers accept invalid IP address values.
11. In the Config.ini: the SystemDateTime Server keys return strange values when long strings are applied.
12. There are different Date Formats on the NMC General/About page.
13. The Config.ini keywords "LinkDisplay" and "LinkName" in the [SystemLinks] section accept a NULL value.
14. The Trap receiver NMS settings incorrectly allow for a NULL entry.
15. The SNMP v1 and v3 Community Access Addresses incorrectly allow for a NULL entry.
16. The SNMP v1 Trap Community Name incorrectly accepts values greater than the max of 15 and NULL.
17. The Syslog Server address incorrectly accepts a NULL entry.
18. RPDU may warmstart during periods of large network activity.

19. Configuring a fourth email recipient may cause the following event, "System: Email: Could not mail, queue full."
20. Several issues have been identified when upgrading the AOS from v5.x.x to v6.x.x. It is important to review Knowledge Base (KBase) FA176047 prior to upgrading Rack PDUs.

### 1.3 NEW FEATURES & ENHANCEMENTS SINCE AOS V6.1.3

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1. New Responsive Web UI provides a better user experience when managing the web UI with a mobile device.
2. Enabled TLS 1.1 support.
3. Upgrade to the latest USB Host stack and device drivers from HCC.
4. Improvements to the Ethernet VMAC driver.
5. CLI "user" command now indicates if Super User is enabled or disabled.
6. Added a message to the "Recent Device Events" log on the homepage when it is empty.
7. Added support for TLS extension values of zero length.
8. Added support for early Change Cipher Spec (CCS) protocol during initial handshake with Firefox.
9. Improved debug and diagnostic capabilities to help with troubleshooting customer issues.

### 1.4 BUGS FIXED IN THIS VERSION SINCE AOS V6.1.3

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1. Added alt and title text when hovering over the disk icon.
2. Changed help text to better explain the user name field.
3. Increased logging time of NTP update failures from 5 minutes to 60.
4. Extended the SNMP trap receiver max index to support the change from 4 to 6.
5. When configuring a firewall, setting an IP range for the Host IP will now generate an error.
6. Fixed the CLI modbus command help text.
7. Made system name/hostname linking disabled by default.
8. User description string is now validated in the same manner as the web based user configuration page.
9. It is no longer possible to delete a firewall policy file while it is in use. Attempting to do so will generate an error.
10. Fixed an issue where Generate Logs feature may no longer work if it is interrupted.
11. Fixed an issue where the firewall configuration change event was being logged on a coldstart or warmstart.

12. Fixed SMTP certificate file name always returning error.
13. Fixed database upgrade issues with network DB, HTTP DB, and Telnet DB.
14. Fixed issue with CLI logzip command not sending logfiles to the user over an e-mail.
15. When changing the password in the web interface, changed "Password" field and error label to "New Password" to be more clear.
16. Issuing CLI userdflt command with an option but without parameters now returns the current config. Improved parameter error checking.
17. In web interface, fixed error message when Notification Email Recipient port number is set out of range.
18. Updated the help to point at the new date format location.
19. Fixed an issue where config.ini file could not be uploaded when HTTPS was enabled.
20. Improved help text for Radius server.
21. Fixed issue causing SNMPv3 traps to sometimes not be sent.
22. Download of logs through download button on Datalog web page is no longer allowed while NMC is uploading the datalog to an FTP server.
23. Errors encountered during certificate load are shown in the web interface.
24. Fixed error checking on password policy settings in web interface.
25. Fixed issue where a DNS address with no dot (".") in the address could be set.
26. When using using recipient mail server, just show "Recipient's SMTP server was used" in the email body.
27. Fixed an issue in config.ini where editing an event for recipients 1 and 2 disables event for recipient 1 upon upload/redownload.
28. In the web UI, the ipsec "other" src/dest port value is now limited to 5 numeric characters.
29. Fixed issue where config.ini strings fields containing semi-colons were not accepted but not logged as invalid in the event log.
30. Fixed issue with AOS event notification configuration through config INI not working as configured.
31. Fixed issue where events configured to repeat with an interval greater than 200 sec caused a warmstart.
32. Fix for DST entered/leaving signals not getting logged in Custom DST settings.
33. Fixed issue with DST settings not working.
34. Web interface now checks for blank field during password reset and prevents user from entering a blank password.
35. User can now enable/disable NTP and force update using the NTP CLI command.
36. Updated messages for RMS registration.

37. Fixed issue with config.ini where heading of Event action configuration is missing.
38. Fixed error message when RMS is configured with an invalid username or password.
39. Fixed Radius "reply time out" setting showing differently on different pages.
40. Fixed an issue where an invalid host name could be set when System Name Synchronization was enabled.
41. Firewall config now handles .fwl files that do not properly end with a newline.
42. Fixed error message for the System Message on the Identification configuration web page.
43. Blank space within quotes can be uploaded through config.ini for Remote Monitoring.
44. Improved input validation for firewall rules.
45. Improved input validation for RMS testing page.
46. CLI firewall -l command will throw an error if no firewall is enabled. Added timestamps firewall -l replies.
47. Don't allow SNMPv2c messages if the system is configured to disable SNMPv1.
48. Improved issue with high IPv4 network latency and ping times.
49. Fixed an issue where the external PHY is Full Duplex but VMAc is Half Duplex.
50. Fixed an issue causing incomplete SPI transfers.
51. CLI "dir" command no longer returns a parameter error.
52. SNMPv3 Security Engine ID now displays the correct value 013E instead of 0000.
53. Preventative fix for the "Misfortune Cookie" vulnerability in Allegro RomPager v4.33 and below.
54. Fixed a deadlock issue when multiple email certificates were loaded.
55. Fixed a reboot issue caused when the user logs off while the Data Log is still being loaded into a new window.

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## 2.0 Switched/Metered Rack PDU2 Application (apc\_hw05\_rpdu2g\_632.bin)

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### 2.1 COMPATIBILITY

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apc\_hw05\_aos\_632.bin    Network Management Card OS & TCP/IP Stack

See 1.0 OS & TCP/IP Stack Modifications (apc\_hw05\_aos\_632.bin) for a list of modifications and enhancements that affect this application version.

## 2.2 KNOWN ISSUES IN THIS VERSION

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1. Selecting the "Launch Log in New Window" button on the Data Log web page will sometimes launch a new window with no data records, only column headers.
2. The data log will sometimes fill to the maximum allowed number of entries when it has been configured to a value less than the maximum.
3. Should a user attempt to configure a phase's Overload Alarm with a value that is above the maximum load value, configuration errors in Near Overload and Low Load Warning values will not be reported on the screen. These entries will be rejected along with the Overload Alarm entry, but notification will not be put on the screen for those fields.
4. When a large number of outlet groups are controlled simultaneously, some controls may not complete. Additionally, the Rack PDU may reboot.
5. Telnet session may close unexpectedly after performing the CLI command to control many outlets at the same time. The command will complete, but the user may have to log back in to the telnet session.
6. If a "Cancel Pending Commands" is issued when more than 6 outlet group commands are in progress, some of the cancel commands may not get processed.
7. In some situations, such as when a large number of events are generated at the same time, some events may not get logged. This may also cause the active alarm list to not display an active alarm, or to display an alarm that has actually been cleared.
8. If a breaker is tripped on an AP84xx or AP86xx SKU with two outlet banks (AP8441, AP8453, AP8641, AP8653), outlets 9 through 16 may report incorrect measurements.
9. A complete config.ini upload to a Rack PDU in a Network Port Sharing group may take a long time. For example, for a Rack PDU in a Network Port Sharing group with three other Rack PDUs, it may take 30 minutes to complete.
10. Enabling Energywise in a Network Port Sharing group with four AP86xx series units may cause the host unit to reboot.

## 2.3 NEW FEATURES & ENHANCEMENTS SINCE RPDU2 v6.1.0

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1. New Responsive Web UI provides a better user experience when managing the web UI with a mobile device.
2. Added more information to the top of the event log and data log: RPDU and NMC serial numbers, model number, hardware revision, and firmware revisions.
3. On the Environment web page, added detailed description for any active environmental alarms.
4. Added help text to indicate the LCD Blink test can be cancelled by pressing any button on the RPDU.
5. Upon a soft reset or when the reset button is pressed, the message "Network Management Interface Restarting" will be shown on the LCD for the duration of the restart event.

6. The Network Port Sharing firmware auto-update feature is now also able to update the boot monitor on guest units.
7. When a Network Port Sharing firmware update is in process, the message "Firmware Update in Progress from Host PDU" will be displayed on the LCD.
8. The event log message for a Scheduled Outlet Action now contains more detail on what settings were changed.

#### 2.4 BUGS FIXED IN THIS VERSION SINCE RPDU2 v6.1.0

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1. Fixed an issue where input phase voltages could drop to 1 V after a reboot.
2. In config.ini, fixed a display issue with the Event\_A1 item and the preceding description text.
3. AP8861 and AP8865 now correctly show Line-to-Line phase voltages on the CLI and LCD interfaces.
4. Attempting to set SNMP OIDs rPDU2DeviceConfigOutletsEnergyReset and rPDU2DeviceConfigOutletsPeakLoadReset on a unit without metered outlets will now return an error.

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### 3.0 Schneider Electric Device IP Configuration Wizard v5.0.2

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#### 3.1 COMPATIBILITY

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apc\_hw05\_aos\_632.bin and prior Network Management Card OS & TCP/IP Stack

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### 4.0 Miscellaneous

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#### 4.1 RECOVERING FROM A LOST PASSWORD

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See the User Guide on the Schneider Electric website ([www.schneider-electric.com](http://www.schneider-electric.com)) for instructions on how to recover from a lost password.

#### 4.2 EVENT SUPPORT LIST

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For the event names and event codes for all events supported for a currently connected Schneider Electric device, first retrieve the config.ini file from the RPDU.

To use FTP to retrieve the config.ini file from a configured RPDU:

1. Open a connection to the RPDU, 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 RPDU.  
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".

#### 4.3 POWERNET MIB REFERENCE GUIDE

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NOTE: The MIB Reference Guide, available on the Schneider Electric website ([www.schneider-electric.com](http://www.schneider-electric.com)), explains the structure of the MIB, types of OIDs, and the procedure for defining trap receivers. For information on specific OIDs, use a 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 (powernet415.mib, downloadable from the Schneider Electric website ([www.schneider-electric.com](http://www.schneider-electric.com))).

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