

# Release Notes

## Rack Power Distribution Unit with Network Management Card 2

Revised: July 2019

Release Notes for: AP7xxxB and AP8xxx series Rack PDUs and AP71xxB Inline Current Meters

### Affected Revision Levels

Component	File	Details
APC Operating System	apc_hw05_aos_674.bin	Network Management Card (NMC) Operating System & TCP/IP Stack for Hardware Platform v05.
rpdu2g Application	apc_hw05_rpdu2g_674.bin	Rack Power Distribution Unit Application
PowerNet® Application	powernet430.mib	PowerNet SNMP Management Information Base (MIB)

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

### 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 7, 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 by Schneider Electric website at [www.apc.com](http://www.apc.com):

1. Go to [www.apc.com/tools/download](http://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 on the '**Download**' button to download the '**Network Management Device IP Configuration Wizard**'.

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## New Features

### APC Operating System (apc\_hw05\_aos\_674.bin)

- **802.1x (EAPoL) w/ TLS.** EAPoL is network-port access which is necessary for sites which require the network device to authenticate with a RADIUS server (through a network switch) prior to being granted general access to the target network.
- **Elliptical Curve Cryptography (ECC).** Currently ECDHE has been implemented and provides more secure communication for HTTPS Web access. RC4 and MD5 are no longer available.

### rpdu2g Application (apc\_hw05\_rpdu2g\_674.bin)

- Added Phase Balance alarm feature to the Web UI, CLI, and config.ini for models with two or more metered phases. If phases are out of balance by a number of amps greater than the configured threshold, a warning alarm is generated.
- Added Outlet Alarm Actions to the Web UI and config.ini for models with switched outlets. This feature allows you to configure outlet behavior based on environment-related alarms.
- Added the following SNMP OIDs: rPDU2IdentBootMonitorRev, rPDU2IdentLongDescription, rPDU2IdentNMCSerialNumber, rPDU2DevicePropertiesDevicePowerRating, rPDU2OutletSwitchedConfigExternalLink, rPDU2OutletSwitchedStatusExternalLink, rPDU2OutletMeteredConfigExternalLink, rPDU2OutletMeteredStatusReceptacleType, and rPDU2OutletMeteredStatusExternalLink.
- Added a button to **Show/Hide** phase or bank status under **Configuration > RPDU > Phase/Bank**.

## Fixed Issues

### APC Operating System (apc\_hw05\_aos\_674.bin)

- Added configuration option for Limited Status Web page to CLI and config.ini.
- Fixed memory leak issue when connecting via HTTPS.
- CVE-2018-7820: Fixed in v6.7.2. A clear text password vulnerability has been fixed in the Remote Monitoring Service (RMS). APC by Schneider Electric recognizes Taran Dhillon of Hacklabs for identifying this vulnerability.

### rpdu2g Application (apc\_hw05\_rpdu2g\_674.bin)

None.

## Known Issues

### APC Operating System (apc\_hw05\_aos\_674.bin)

- Disabling an individual event for email notification may cause an unexpected network interface restart.
- Modifying RADIUS settings via config.ini may cause an unexpected network interface restart.
- The NMC may experience an unexpected network interface restart while editing a firewall policy.
- Modifying large groups of event actions by severity may cause an unexpected network interface restart.
- IPv6 connectivity outside of local subnet does not work in all environments.
- SNMPv3 communication and monitoring on some third-party SNMP management tools such as ManageEngine OpManager does not work properly.
- SNMP traps do not work for some AOS events.
- File transfers using SCP do not work properly with WinSCP client.
- Certain privileges in the CLI are not consistent with the user privileges in the Web UI.
- The Trap receiver NMS settings incorrectly allow for a NULL entry.
- SNMP Trap Recipients are activated only after a previous Trap recipient can send Traps.
- Firewall rules configured through the Web UI are active even when the firewall is not enabled. A fix to this issue is planned for an upcoming release.

**rpdu2g Application (apc\_hw05\_rpdu2g\_674.bin)**

- 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 to obtain environmental sensor status (if connected) 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.
- AP8XXX only: In a Network Port Sharing group, if a unit has an active alarm upon startup and the unit changes its display ID, the alarm may remain in the active alarm list even after the alarm condition clears.
- 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.
- AP8XXX only: A complete config.ini upload to a Rack PDU in a Network Port Sharing group may take a long time. For example: A Rack PDU in a Network Port Sharing group with three other Rack PDUs may take 30 minutes to complete the upload.
- AP8XXX only: A unit in a Network Port Sharing group with a letter in the seventh or eighth positions of its serial number may generate a communication lost alarm upon upgrading from 6.1.0 or earlier to 6.3.3 or later. This alarm may be cleared and should not repeat in future upgrades.
- A unit with over 24 switched outlets (such as AP8965X671) may show a load reading on phase L1, even with no load connected on outlets. This is due to the number of outlet relays drawing power from the input phase.
- AP8XXX only: In Network Port Sharing configuration, StruxureWare Data Center Expert may take more than 4 minutes to discover a Rack PDU.
- When controlling a synchronized outlet group with the Web UI, the Outlet User may receive a warning that the control action was not successful when it actually was successful.
- When the host of a Network Port Sharing group has a single phase, the Phase Balance table does not change color to reflect alarm status.
- If the clearing method for an outlet alarm action is set to **Auto**, outlets are automatically set to the non-action state when an alarm clears, regardless of what state they were in before the alarm. For example, if the alarm action is **Off**, the outlets are turned on when the alarm clears. This happens even if the outlets were off before the alarm started.
- The new CLI command `phBalAlGen` is not yet functional and returns "Command not found."

## Miscellaneous

### Recovering from a Lost Password

See the User Guide on the website, [www.apc.com](http://www.apc.com) for instructions on how to recover from a lost password.

### 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 retrieve the config.ini file from the Network Management Card.

To use FTP to retrieve config.ini from a configured 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

**NOTE:** The MIB Reference Guide, available on the website, [www.apc.com](http://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 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 (the file powernet430.mib downloadable from the website, [www.apc.com](http://www.apc.com)).

### Hash Signatures

<b>MD5 Hash:</b> c2e3627087f20c4d35d48f00374454d3
<b>SHA-1 Hash:</b> cb669c69fde28201157c78703ed816305a11217c
<b>SHA-256 Hash:</b> 3e634b9780a1bdd11c2c2cee853dbf74279b4b16a57e5fc7d92b3a68d0c2fdde

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