UPS Network Management Card 2
Frequently Asked Questions

Summary

UPS Network Management Cards allow for secure monitoring and control of an individual APC UPS via web browser, command line interface, or SNMP.

This FAQ document answers commonly-asked questions about UPS Network Management Card 2 (NMC2) SmartSlot Cards, the firmware features and its benefits. It also addresses the questions of UPS Network Management Card 1 (AP9618) users to migrate to UPS Network Management Card 2 (AP9630, AP9631 and AP9635).

Questions

1. What are the main benefits of the UPS NMC 2?

- RADIUS based remote authentication support, in addition to a selection of security protocols including TLS, SCP, for secure monitoring and control of an individual APC UPS via web browser, command line interface, or SNMP
- Increased security (up to 2048 bit encryption).
- The web interface and documentation supported in the following languages,
  - Chinese (simplified)
  - English
  - German
  - Japanese
- IPv6 Ready
- Improved processing speeds in comparison to UPS Network Management Card 1
- Console port for local UPS NMC 2 configuration
- Future feature enhancements to UPS NMC 2 made available via firmware upgrade
- Responsive web UI for mobile friendly user experience.

Complete list of feature comparison with UPS Network Management Card 1 is covered at the end of this FAQ.

2. What features are new to UPS NMC 2 firmware?

Features	v5.1.x	v6.0.6/ 6.0.7/ 6.1.1	v6.2.1	v6.4
Modbus TCP support for integration with 3rd party Building Management System	✗	✗	✗	✓
Modbus Serial support for integration with 3rd party Building Management System (AP9635 only)	✗	✗	✗	✓
Out of Band Management via Modem	✗	✗	✗	✓
Responsive web UI for mobile friendly user experience.	✗	✗	✗	✓
Smart Battery management with smart battery pack monitoring support (only supported by SRT Smart-UPS, launched in June 2014)	✗	✗	✓	✓
Streaming Firmware upgrade – overcoming the need to delete language packs to carry out UPS firmware upgrade	✗	✗	✓	✓
Supports simultaneous web browser access for up to 8 users and network command line interface for up to 3 users	✗	✓	✓	✓
Enable/disable Green mode (in supported SMT, SMX Smart-UPS)	✗	✓	✓	✓
Predictive Battery replacement by reporting predicted battery failure status (only supported by SMT, SMX, SRT Smart-UPS)	✗	✓	✓	✓
Set the local language on the UPS LCD via UPS Network Management Card (in supported SMT, SMX Smart-UPS)	✗	✓	✓	✓
LCD lock-out for SMT, SMX units from the UPS Network Management web interface	✗	✓	✓	✓

Kindly note the last released firmware version for UPS NMC 1 (AP9617, AP9618, AP9619) is v3.7.2. There is no further firmware update planned for UPS NMC 1. It is available for download from the Software/Firmware downloads webpage @ www.apc.com/tools/download/index.cfm.

3. How do the UPS NMC 2 SKUs differ by features?

	AP9630	AP9631	AP9635
SNMP Management	✓	✓	✓
Data Event Logging	✓	✓	✓
IPv6 Support	✓	✓	✓
User friendly UPS Firmware Upgrade capability	✓	✓	✓
Multiple language support	✓	✓	✓
Modbus TCP support for integration with 3rd party Building Management System	✓	✓	✓
Two USB ports to support UPS Network Management Card Firmware Upgrade		✓	✓
Temperature and (optional) Temperature & Humidity Monitoring, AP9335T – included, AP9335TH – optional		✓	✓
Optional Dry Contact I/O Accessory (AP9810) support		✓	✓
Modbus Serial support for integration with 3rd party Building Management System			✓
Out of Band Management via modem			✓

4. What are the accessories supported by UPS Network Management Card 2? (dry contacts, environment sensors, expansion chassis)

For UPS that support Expansion Chassis (AP9600/AP9604BLK), UPS NMC 2 (AP9630, AP9631, AP9635 and their derivative offers) can be installed to provide additional SmartSlot interface(s).

UPS NMC 2 with Environmental monitoring (AP9631, AP9635 and its derivative offers) supports a total of any 2 accessories or sensors per card,
AP9335T – APC Temperature Sensor (This accessory ships in the box and is also sold separately)
AP9335TH – APC Temperature and Humidity Sensor (This accessory is sold separately)
AP9810 – APC Dry Contact I/O Accessory (It provides 2 input contacts and 1 output relay. This accessory is sold separately)
For a complete list of accessories supported by UPS Network Management Card, please refer to k-base #**FA230777** @ www.apc.com/support.

5. Where can I try out the new UPS NMC 2?

Go to http://testdrive.apc.com and click on the options under "UPS Management", on the left portion of the web page to experience managing a UPS remotely via web browser.

6. Is UPS NMC 2 compatible with all single phase SmartSlot UPSs?

Yes.

7. Does UPS NMC 2 integrate with StruxureWare Data Center Expert and InfraStruxure Manager?

Yes, this is a seamless integration.

8. Does UPS NMC 2 offer out of band management?

Yes, the AP9635 (UPS NMC 2 w/ Environment Monitoring, Modbus and Out of Band Management) offers dial-in facility to access the management card's console interface and dial-out notifications can be received on a configured telephone number.

9. Can UPS NMC 2 be used simultaneously with PowerChute Business Edition using serial/USB communication?

No, this is not a supported configuration on UPS NMC 1 or on UPS NMC 2. For network based safe server shutdown, please use PowerChute Network Shutdown along with your UPS Network Management Card.

10. What are the security features in the latest UPS NMC 2 firmware v6.4?

UPS NMC 2 firmware v6.4 adds TLS 1.2 support for safe NMC access in addition to the existing security features including,

a. Password Security
b. 3-tier user access (read only, device and administrator)
c. RADIUS support
d. SMTP Authentication - e-mail
e. HTTPS
f. IPv6 Ready
g. SSH Up to 2048 bit Public/Private Key Encryption

11. Is there a planned end of sales date for UPS Network Management Card with Environmental Monitoring & Out of Band Management (AP9618)?

The AP9635 (UPS NMC 2 w/ Environment Monitoring, Modbus and Out of Band Management) is now the official Environmental Monitoring and out of band management offer from APC by Schneider Electric.
AP9618 (UPS Network Management Card with Environmental Monitoring & Out of Band Management) is to be discontinued by September 2016.

12. How do UPS Network Management 2 features compare with that of UPS Network Management 1?

			with Environmental Monitoring		w/ Environmental Monitoring & Out of Band Management	
Features	**AP9617** (discontinued)	**AP9630**	**AP9619** (discontinued)	**AP9631**	**AP9618**[1]	**AP9635**
UPS Network Management Card	**NMC 1**	**NMC 2**	**NMC 1**	**NMC 2**	**NMC 1**	**NMC2**
Remote UPS Management						
Sequenced load shedding		✓		✓		✓
Sequenced start up		✓		✓		✓
On demand load shedding		✓		✓		✓
On demand restart		✓		✓		✓
Scheduled load shedding		✓		✓		✓
Schedule start up		✓		✓		✓
Enhanced Logging		✓		✓		✓
Multi-user support		✓		✓		✓
Fault & power event notification	✓	✓	✓	✓	✓	✓
Reboot UPS remotely	✓	✓	✓	✓	✓	✓
Event and Data logging	✓	✓	✓	✓	✓	✓
Multiple Server Shutdown (in conjunction with PowerChute Network Shutdown)						
Best in Class Operating System Support	✓	✓	✓	✓	✓	✓
Run command file	✓	✓	✓	✓	✓	✓
Schedule shutdown	✓	✓	✓	✓	✓	✓
Sequenced server shutdown	✓	✓	✓	✓	✓	✓
Browser Accessible	✓	✓	✓	✓	✓	✓
Supports parallel and redundant UPS	✓	✓	✓	✓	✓	✓

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[1] AP9618 is planned to be discontinued by September 2016.

configurations						
Management Options						
Modbus Serial						✓
Out of band management					✓	✓
Telnet Menu-driven interface	✓		✓		✓	
Language support: Chinese (Simplified), English, German, Japanese, Russian		✓		✓		✓
Modbus TCP		✓		✓		✓
Debug Dump for Tech Support		✓		✓		✓
Telnet Command Line Interface (CLI)		✓		✓		✓
Temperature notifications & actions			✓	✓	✓	✓
Optional humidity notifications & actions			✓	✓	✓	✓
Optional customizable input contacts			✓	✓	✓	✓
Optional customizable output relays			✓	✓	✓	✓
Syslog	✓	✓	✓	✓	✓	✓
Browser Accessible	✓	✓	✓	✓	✓	✓
Integrates with StruxureWare Data Center Expert/ InfraStruXure Manager	✓	✓	✓	✓	✓	✓
Enterprise management system compatible SNMPv1	✓	✓	✓	✓	✓	✓
SNMPv2	✓	✓	✓	✓	✓	✓
SNMPv3	✓	✓	✓	✓	✓	✓
Security						
TLS 1.2 support		✓		✓		✓
IPv6 Ready		✓		✓		✓
SSH Up to 2048 bit Public/Private Key Encryption		✓		✓		✓
SSH Up to 1024 bit Public/Private Key Encryption	✓		✓		✓	
Password Security	✓	✓	✓	✓	✓	✓
3-tier user access (read only, device and administrator)	✓	✓	✓	✓	✓	✓
RADIUS support	✓	✓	✓	✓	✓	✓
SMTP Authentication - e-mail	✓	✓	✓	✓	✓	✓
HTTPS	✓	✓	✓	✓	✓	✓
Installation/Configuration						
Compatible with all SmartSlot enabled UPSs		✓		✓		✓
Mass Configuration Executable	✓	✓	✓	✓	✓	✓
Network Time Protocol	✓	✓	✓	✓	✓	✓
Total Cost of Ownership						
Enables Upgrade of the UPS firmware		✓		✓		✓
Future feature enhancements made available via firmware upgrade		✓		✓		✓