NetBotz® Rack Monitor 250 with NMC3 (NBRK0250A)

Trademark Statement

What's in This Document

Affected Revision Levels

Component	Version	Details
APC Operating System	v3.4.2.1	APC Operating System
NetBotz 250A Application	v3.4.2.3	NetBotz 250A Application
PowerNet® Application	powernet459.mib	PowerNet SNMP Management Information Base (MIB)

Schneider Electric
70 Mechanic Street
02035 Foxboro, MA
USA

Supported Browsers

The Web UI supports the latest versions of the following Web browsers. Other commonly available browsers and versions may work, but have not been tested.

- Google® Chrome®
- Microsoft® Edge®
- Mozilla® Firefox®

New Features

APC Operating System v3.4.2.1

- Updated the OIDs for external Rack Access to get the NetBotz Rack Access Pod (NBPD0175) information

NetBotz 250A Application v3.4.2.3

- This release introduces support for up to 12 NetBotz Rack Access Pod 175 (NPD0175) devices.

  You can add up to 12 rack access pods by connecting a supplemental power supply (AP9505i) to every third pod.

  Note: When a rack access pod is removed from an A-Link port on the appliance, the system must be rebooted to clear the communication lost message from the Home page.

NOTICE: Downgrading the firmware to a previous version is not supported in firmware v3.4.2.3 and newer.

Fixed Issues

NetBotz 250A Application v3.4.2.3

None

Security Updates

- CWE-1286: Improper Validation of Syntactic Correctness of Input
- CWE-787: Out-of-bounds Write
- CWE-120: Buffer Copy without Checking Size of Input

Known Issues

APC Operating System v3.4.2.1

None

NetBotz 250 Application v3.4.2.3

Updates and upgrades

1. **Upgrade the NetBotz Rack Monitor 250A firmware before first use.** Download the most recent version of the NetBotz Rack Monitor 250A firmware from www.se.com. See for basic instructions, or see the *User Guide* on www.se.com for detailed instructions to upgrade the firmware.

   NOTICE: Downgrading the firmware to a previous version is not supported in firmware v3.4.2.3 and newer.
2. **Update the NetBotz 250 Data Center Expert (DCE) Scanner Device Definition File (DDF) to a version more recent than 6:** Verify the DDF used by DCE under **Device > SNMP Device Communication Settings > Device Definition Files**. The most recent scanner DDF version is 17. Contact your local technical support for an up-to-date scanner DDF.
3. **Rack access devices are temporarily removed from the user interface during the firmware update.** The firmware update for the Rack Monitor 250A happens first, then the update for the rack access devices follows. Once the Rack Monitor 250A firmware update completes, it takes about ten minutes for the rack access devices to reappear in the list. All configured settings remain as expected.
4. **Do not reboot the appliance while a Sensor Pod 150 firmware upgrade is in progress.** When a Sensor Pod 150 is connected to the appliance, an informational alarm occurs and error messages are reported on the home page for connected sensors while the Sensor Pod's firmware upgrades. The errors clear and accurate status messages are displayed after the upgrade. The status of the upgrade process can be viewed from **Configuration > Device > NetBotz** in the Web UI.
5. The NetBotz appliance restarts after upgrading the firmware to the latest version. When SCP is used to upgrade the firmware, a second restart is required. Wait 3-4 minutes and then restart a second time to complete the upgrade.
   You can initiate the restart from the web user interface, the command line interface, or by pressing the reset button on the appliance.

EcoStruxure™ IT Data Center Expert (DCE) and EcoStruxure IT Gateway

1. **Unplugged sensors in DCE can be deleted**. NetBotz Rack Monitor 250A alarm generation enabled/ disabled sensors reporting as unplugged in DCE can safely be deleted. Humidity sensors reporting as unplugged on temperature-only sensors can also safely be deleted. These sensors were erroneously included in the device definition file (DDF), and have been removed in version 16 and newer.
2. DCE and EcoStruxure IT Gateway do not include support for the NetBotz 250A outputs (beacon, switched outlet, output relay). Support for these features is planned for future updates of DCE and the Gateway.
3. EcoStruxure IT Gateway does not automatically update user-configured values (sensor names, for example). To update these values in the Gateway, click the menu icon, select **Discovery**, then select **RUN** to rediscover the updated Rack Monitor 250A.

Sensors, pods, and rack access devices

1. The NetBotz Sensor Pod 180 (NBPD0180) is not supported by the NetBotz 250A appliance.
2. Some events, including "Sensor disconnected" and "Sensor configuration updated", may not be generated for the voltage sensor.
3. After replacing a sensor with a different sensor, the name of the previously connected sensor is displayed. This is not resolved by rebooting the Rack Monitor 250A. The sensor will report accurate values as expected.
4. Sensors connected to a Sensor Pod 150 can be mapped for the beacon only, and not for the switched outlet or output relay. Door switch sensors connected to Door 1 or Door 2 ports can be mapped for the beacon only, and not for switched outlet or output relay. Alarm mapping is not available for any wireless sensors.
5. State sensors do not appear in the data log. Wireless sensors and Sensor Pod 150 devices without at least one numeric sensor do not appear in the data log filtering list.
6. When a rack access handle and door switch are left open for longer than the time specified in the Door Open Alarm Threshold, the auto relock alarm occurs rather than the door open alarm.
7. When a rack access pod is removed from an A-Link port on the appliance, the system must be rebooted to clear the communication lost message from the Home page.

Miscellaneous

1. A full config.ini file may take up to 20 minutes to load. A config.ini file with a 200-user [AccessPXUser] section may take up to 10 minutes to load.
2. **Unable to communicate with the appliance using the USB console port**. You may need to install a serial-to-USB driver to communicate with the Rack Monitor 250A. The driver is available for download from the USB vendor FTDI. For more information, see the FAQ article *NetBotz 250 | Serial Connection (Driver + Serial Parameters)* (FA381275). You can search for FAQ articles on https://se.com/support.
3. The wirelessSensorConfigName OID allows values with more than 20 characters. Sensor names will be truncated in interfaces that enforce the 20-character limit.
4. The message “NB: Communication established” is not received by SNMP traps or syslog.
5. IPv6 connectivity outside of local subnet does not work in all environments.
6. SNMPv3 communication and monitoring on some third party SNMP management tools such as ManageEngine OpManager does not work properly.
7. SNMP traps do not work for some AOS events.

Miscellaneous

Recovering from a Lost Password

Resetting the Rack Monitor 250A will reset the unit to its default configuration. Export the .ini file after configuring your Rack Monitor 250A and keep it in a safe place. If you have this file saved, you will be able to retrieve your configuration after a lost password event.

You can use any secure interface to complete the recovery process. This includes the local CLI by serial connection, remote CLI by SSH, or Web by HTTPS. See the User Guide.

1. Hold down the **Reset** button for 20–25 seconds, ensuring the Status LED is flashing green during this time. When the Status LED changes to orange, release the **Reset** button to allow the Rack Monitor 250A to complete its reboot process.
2. Access the Rack Monitor 250A through one of the secure interfaces to set your custom password and configure the device. After resetting the device to defaults, the log in with the default user name **apc** and password **apc**.

Update the Appliance

It is recommended that you update the Rack Monitor 250A firmware to the most recent version before first use.

1. Download the latest firmware for free.

   If you have a Windows computer, you can use the firmware executable to upgrade the firmware. If you have any other type of computer, you must use FTP, SCP, or XMODEM to manually upload the firmware upgrade file to the Rack Monitor 250A.

   For more information about using FTP, SCP, or XMODEM to manually update the Rack Monitor 250A firmware files, see the User Guide.
2. The NetBotz appliance restarts after upgrading the firmware to the latest version. When SCP is used to upgrade the firmware, a second restart is required. Wait 3-4 minutes and then restart a second time to complete the upgrade. Press the reset button on the appliance, or initiate the restart from the web user interface or the command line.

   To restart from the web user interface, log in to the Rack Monitor 250A and go to **Control > Network > Reset/Reboot**and select **Reboot Management Interface**.

   To restart from the command line, use the **reboot** command.
3. When the upgrade has completed, log in to the Rack Monitor 250A and go to **Configuration > Device > NetBotz**. Once the status of all connected devices has changed from **FW Upgrade** to **Normal** (or **Warning** or **Critical** if there is an active alarm), and the rack access devices are displayed as expected, the Rack Monitor 250A is ready for use.

Update the Wireless Sensor Network

Firmware updates for the wireless sensor network are included with updates for your appliance. When you update the firmware on your appliance, any new firmware for wireless devices appears in the Target field. Update the firmware on the wireless devices when the Target firmware version does not match the Current firmware version.

On the **Wireless Network Configuration** page:

The **Update** button is activated when the **Target** firmware version is newer than the **Current** firmware version.

Click **Update** to begin the firmware update for the sensors, coordinator, and routers. Allow about 20 minutes per wireless sensor for the update to complete.

> **NOTE:** The sensors are updated first and automatically reboot after the firmware is downloaded. Then the coordinator and the routers are updated.

The **Apply** button is activated when all the sensors are updated, and the firmware on the coordinator and routers is staged.

Click **Apply** to reboot the coordinator and routers.

> **NOTE:** The firmware update can be interrupted. If the update does not complete, reboot the NetBotz appliance and repeat the update process.

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.se.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 powernet459.mib is downloadable from www.se.com).

Hash Signatures

apc_hw21_nb250–3–4–2–3.exe

MD5	0ba863ef7547bf5b9fa2082dbc91a33b
SHA-1	15cb521b0fa979bfff780a9fc3cd60e9677883e7
SHA-256	b363ad8be8a08190be39980246b79088899d79dea6a45ef0b3bbd777965770e5