

## **PXGX UPS Card Firmware Enhancement History**

This history applies to catalog number PXGXUPS (style number 103007974-5591) which first shipped with v1.6.0ups firmware.

### **Version 2.6.0.32 – August 2022**

Support of newer hardware revision of the card. Older firmware versions are not compatible with the new hardware. Downgrading to pre-2.6.0.5 may damage the card!

- Fixed an issue related to duplicate names for SNMP MIBs
- Fixed an issue causing a file to display incorrect build number

### **Version 2.6.0.28-ups – September 2021**

Support of newer hardware revision of the card. Older firmware versions are not compatible with the new hardware. Downgrading to pre-2.6.0.5 may damage the card!

- Fixed an issue related to RMD Remote Monitoring Device and accuracy of low battery alarm
- Fixed an issue related to event triggered remote shutdown when using IPP/IPM
- Fixed an issue with unnecessary excessive DNS queries
- Included additional common ports to allow filtering by trusted IP or hostname
- Fixed an issue with unknown or unresolved hostnames when filtering by hostname
- Fixed an issue with existing trusted IP or hostnames not filtering properly on unit reboot
- Included an additional UI pop up window to notify user of unknown/unresolvable hostname
- Fixed an issue with the e-mail event triggers page failing to delete e-mail event triggers
- Fixed an issue with the e-mail event triggers page occasionally hanging indefinitely
- Fixed an issue with KDP not transmitting when time/zone is not configured

### **Version 2.6.0.25-ups – March 2021**

Support of newer hardware revision of the card. Older firmware versions are not compatible with the new hardware. Downgrading to pre-2.6.0.5 may damage the card!

- Fixed an issue related to RMD Remote Monitoring Device connectivity
- Fixed an issue related to SNMP not recognizing certain characters
- Temperature can now be displayed in Celsius or Fahrenheit

### **Version 2.6.0.21-ups - October 2020**

Support of newer hardware revision of the card. Older firmware versions are not compatible with the new hardware. Downgrading to pre-2.6.0.5 may damage the card!

- Only TLS 1.2 and 1.3 are now supported in browsers
- Fixed an issue with the EMP Environmental Monitoring Probe not reporting temperature and humidity values

### **Version 2.6.0.19-ups - August 2020**

Support of newer hardware revision of the card. Older firmware versions are not compatible with the new hardware. Downgrading to pre-2.6.0.5 may damage the card!

- TLS can now be auto-negotiated (TLS 1.0, 1.1, 1.2 and no TLS supported)
- Fixed logging issue with PredictPulse
- Fixed e-mail issue with PredictPulse
- Fixed communication issue with RMD Remote Monitoring Device
- Changed password reset behavior – see PXGMS and PXGX UPS Password Behavior.pdf
- Fixed logging issue with IPM software

### **Version 2.6.0.13-ups - January 2020**

Support of newer hardware revision of the card. Older firmware versions are not compatible with the new hardware. Downgrading to pre-2.6.0.5 may damage the card!

- Fixed communication issue with IPM and IPP software
- Fixed communication issue with RMD Remote Monitoring Device
- Eaton PredictPulse service support updated.
- Fixed problems with alarm configurations

### **Version 2.6.0.5-ups – February 2019**

Support of newer hardware revision of the card. Older firmware versions are not compatible with the new hardware. Downgrading to pre-2.6.0.5 may damage the card!

- Eaton PredictPulse service support updated.
- Disabled the RSS feed and RSS feed icon on the user interface
- Added verification of firmware image integrity
- Removed OpenVPN
- Added editable banner on the login page
- Added SysLog, compatible with Splunk and many other tools.
- Various library and cybersecurity updates
- **Modified the USB/RNDIS interface settings to use link-local IPv4 address 169.254.0.101**

### **Version 2.5.0.3-ups – May 2018 (Limited release)**

- Eaton PredictPulse service support updated.
- Updated 3rd party libraries

### **Version 2.4.2.1-ups – August 2017 (Limited release)**

- Updated 3rd party libraries
- PercentLoad values added into TrendLog
- Support for secured email servers without authentication added
- UPS communication failure alarm is available in Modbus as aEndDevCommFail
- CyberSecurity fixes (sudo, openssh, lighttpd, ntp)
- Phase VA, Power and PowerFactor now available in SNMP
- Fix of oneline for both 9390 w and w/o MBS

**Version 2.4.0.1-ups – October 2016**

- Eaton PredictPulse service support updated.
- Fixed a bug that caused BACnet protocol to not deliver alarm information.
- SSL certificate regeneration has been fixed.
- SSL TLSv1.1 cyphers and all the previous versions have been disabled in PXGX UPS card.
- IPv6 support for SNMP and HTTPs connection fixed.
- Minor translation fixes.
- With this or newer firmware versions, it will not be possible to downgrade to pre 2.4. firmware versions.

**Version 2.3.6-ups – October 2015**

- Newer version of the system software (Toolkit), bringing PXGX to the same feature level as the PXGMS.
- Added BACnet IP support.
- Added language support for Chinese, French and Spanish in addition to English.
- Added setup wizard for PredictPulse.
- Added support for 9395P UPS
- Fixed a bug that prevented IPM and IPP from getting values from the Environmental Monitoring Probe (EMP).
- Upgraded OpenSSL
- Added secure email capability (SMTP over SSL) which enables use of certain public SMTP servers like Gmail
- Added extraction of UPS internal log from 9395P, 9395, 9390, 9355 and 9155 UPS.
- Removed support for collective email.
- Various minor enhancements and fixes

**Version 1.6.0.5a-ups – June 2014**

Support of newer hardware revision of the card. Older firmware versions are not compatible with the new hardware. Downgrading to pre-1.6.05a may damage the card!

**Version 1.6.0.5-ups – September 2013**

- Fixed an issue where the email client wasn't sending event emails.
- Fixed an issue where the email configuration web page didn't allow the entry of a port number after the SMTP server name.
- The USB interface's IP address assignment of 192.168.200.101 no longer prevents the use of the card on the same 192.168.200.x subnet via the Ethernet port. The USB port is only active with this Ethernet address while it's being used for initial configuration. Once the cable has been removed, normal Ethernet communication is restored.
- Fixed an issue where the 9395 Shutdown Imminent alarm was not correctly supported in the XCP Get System Status data block.
- The web UI will now reject HTTPS sessions considered insufficiently secure. These include sessions using no cryptography at all or key lengths less than 128 bits. SSL v2, and DES and triple-DES encryption requests are also rejected.
- The web UI now allows the use of the hyphen ('-') character in the trusted host names list.

- The output current meter values and limits are now sourced exclusively from the XCP Meters (0x34) block for the BladeUPS and 9395 UPS only. This works around an issue with the BladeUPS f/w output ampere rating being wrong in the System Status (0x51) block.
- The web UI one-line support has been updated for the 9395 UPM “Ready” indicator. The “Input” line has also been moved to the upper device module for the 9395 UPS and SBM.
- Several minor web UI one-line and breaker/contactors updates were also made.
- The EMP (Environmental Monitoring Probe) name was changed from Powerware EMP to Eaton EMP.

#### **Version 1.6.0.3-ups – October 2011**

- A "Value" column is now included in the Modbus register map CSV files. This column shows the current value of all parameters.
- Added support for the new 9395 Ground Fault alarm.
- Demand Energy parameters were converted to Demand Watts.

#### **Version 1.6.0.2-ups – February 2011**

- Parameter descriptions are now included in the Modbus register map CSV files.
- The PXGX UPS now correctly provides temperature and humidity data from an installed EMP (Environmental Monitoring Probe) to 9390 and 9395 UPS systems if the UPS is configured to accept the data.
- Data logs are now available for inclusion with eNotify emails.
- The status of the Shutdown Imminent alarm is now correct for 9395 systems.
- A OneLine display problem associated with the 9355 HV UPS was corrected.

#### **Version 1.6.0-ups – November 2010**

- This was the original manufactured version of f/w for the PXGX UPS card.