Emerson Network Power® RPC-1000™ Communications Module Release Notes Version 4.D40.1_099117 Firmware July 29th, 2016

This document outlines:

- 1. Version and Compatibility Information
- 2. Features and Enhancements
- 3. Upgrade Instructions
- 4. Known Issues

1. Version and Compatibility Information

This release contains firmware version RPC_HID16_4.D40.1_099117 for the Emerson Network Power® RPC-1000™ rack PDU communication card and is compatible with the following devices and software:

- Liebert® MPX™ power distribution unit (PDU)
- Liebert® MPH™ power distribution unit (PDU)
- Avocent® MergePoint Unity™ KVM over IP
- Avocent® Universal Management Gateway appliance
- Avocent® DSView™ management software
- Avocent® Rack Power Manager software
- Trellis[™] Application Suite
- Nform® software
- SiteScan[™] software

The following communication protocols are supported with the RPC-1000 communication card:

- HTTP/HTTPS*
- Emerson (Velocity) Protocol
- SMTP (Email)
- SMS (Text)
- SNMP v1, v2c, v3

Browser Compatibility Table

Supported Browsers*	Version
Microsoft® Internet Explorer®	IE9, IE10, IE11
Mozilla Firefox®	28.0 or later
Google Chrome™	34.0.1847.116m or later

^{*}See Section 4 for Note on HTTPS support

2. Features and Enhancements

Release Fixes Table

Feature Fix	Description	
Web User Interface	Several security vulnerabilities have been eliminated and verified by an independent audit: • A "Clickjacking" vulnerability has been eliminated • A Cross-Site Forgery vulnerability has been eliminated • The Cross-Site Scripting vulnerabilities have been eliminated • The "Misfortune Cookie" (Allegro Web Server) vulnerability has been eliminated	
Security Scans	Several Security Scan tools attempt to attack communication interfaces to disable them. We have made the RPC-1000 card more robust to prevent communication distruptions that in the past required the card to be power-cycled.	

3. Upgrade Instructions

The RPC-1000™ communications module may be updated to this firmware using the Web-based Firmware Update feature described in the <u>Liebert RPC Web Card - User Manual (SL-20825)</u>.

4. Known Issues

Feature	Description	Workaround
HTTPS	In response to increasing security breaches, newer versions of web browsers are checking for higher levels of encryption and cipher algorithms and libraries when communicating with remote web servers using HTTPS. We now see that some browsers are not allowing secure communication over HTTPS at all unless the web server on the device meets the minimal security level as defined by the browser vendor. Other browsers offer optional settings to allow communications at lower security levels. The RPC-1000 may become unreachable using HTTPS after a recent browser update due to an SSL connection failure. These cards do not have the capacity and processing power required for the newer security libraries and algorithms. HTTP will still work with these browsers.	You may upgrade the RPC-1000 with a RPC2 card in the MPX and MPH products. If you choose not to upgrade and your browser does not support an option for connecting at a less secure level, you may have to use another browser that does.

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