

VERTIV™

RPC2™ Communications Module

Release Notes

FIRMWARE VERSION 12.0.0.5_00109, SEPTEMBER 8, 2017

Release Notes Section Outline

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

1 Update Instructions

This release contains firmware version RPC2_12.0.0.5_00109 (supersedes release RPC2_11.0.0.7_100745) and is compatible with the following devices and software:

- Vertiv™ RPC2™ rack PDU (power distribution unit) communication card. The following communication protocols are supported with the RPC2™ communication card:
 - HTTP/HTTPS
 - Liebert® Velocity Protocol
 - Email
 - SMS
 - Vertiv™ Command Line Interface (CLI)
 - SNMP v1, v2c, v3
- Vertiv™ MPH2™ power distribution unit (PDU)
- Liebert® MPH™ power distribution unit (PDU)
- Liebert® MPX™ power distribution unit (PDU)
- Avocent® MergePoint Unity™ KVM over IP and serial console switch
- Avocent® ACS 6000 advanced console server
- Avocent® Universal Management Gateway appliance
- Avocent® DSView™ management software
- Avocent® Rack Power Manager software
- Trellis™ real-time infrastructure optimization platform
- Nform™ software
- SiteScan™ software

Browser Compatibility Table

SUPPORTED BROWSERS	VERSION
Microsoft® Internet Explorer®	IE10, IE11
Mozilla Firefox®	28.0
Google Chrome™	34.0.1847.116m
Safari® (MacBook®)	6.1.1
Safari (iPad®)	7.1

2 Features and Enhancements

Release Features Table

FEATURES/ENHANCEMENTS	DESCRIPTION
Vertiv™ MPH2™ PDU	Residual current metering web user interface (UI) support added for CE marked and world-wide models.
Web Interface	Vertiv™ rebranding and new color theme. Support digest authentication mode for 3rd party software using auto-login. Support uploading CA certificates
SNMP	Support AES encryption for SNMPv3

Release Fixes Table

FEATURE FIX	DESCRIPTION
Web Interface	Changed colors and graphics to the Vertiv™ brand. Fixed issues preventing firmware update (after previous attempt had aborted) and completion of device reboot sequence that forces exit from bootloader mode.
	Improved firmware update reliability for array configurations, including reporting percent completion of firmware image upload.
	Disabled browser Back button to prevent navigation to stale web pages.
	Fixed issue configuring receptacle grouping for fourth unit in array.
	Fixed incorrect display of false alarm while device change not acknowledged.
	Resolved miscellaneous table and bar graph rendering issues.
Vertiv™ MPH2™ PDU	Fixed issue for models with mix of NEMA and IEC receptacles displaying persistent invalid abnormal system status, such as with MPHR1523.

FEATURE FIX	DESCRIPTION
Liebert® MPX™ PDU	<p>Fixed web UI navigation tree causing <i>Load error! (parseerror)</i> message for MPX™ IMS PDUs and MPX™ PDU system without MPX™ BRM installed.</p> <p>Clear active alarms if affected BRM removed.</p>
Authentication	<p>Changed the default password for the power user to 'pwrusr'.</p> <p>Fixed issue preventing login for Kerberos server configuration when the Realm Domain Name and Domain Name are left blank.</p> <p>Reduced login wait time for Kerberos/Local authentication.</p> <p>Fixed issue for failed login to allow special characters for Radius password.</p> <p>Fixed issue with handling client cookies when accessing indirectly via the Avocent® Universal Management Gateway appliance.</p> <p>Changed the default password for the power user to 'pwrusr'.</p> <p>Fixed issue preventing login for Kerberos server configuration when the Realm Domain Name and Domain Name are left blank.</p>
Command Line Interface (CLI)	<p>Fixed issue causing unexpected response: <i>Trying to connect to the device...Please try again later.</i></p> <p>Fixed issue for the first attempt to set SNMPv3 Access type to ReadWrite for any entry (such as entry 5) using the snmpv3 access type 5 ReadWrite command, which results in the following error message: Error: SNMP V3 Access set failed. This error message occurs because the Source parameter cannot be empty unless the Access type is "No Access".</p> <p>Increased maximum length of To fields for Email/SMS to 250 characters.</p> <p>Fixed issue with incorrect application firmware version reported by sysinfo version command.</p> <p>Revised help information.</p> <p>Corrected spelling and formatting errors.</p>
Configuration	<p>Fixed numerous issues with configuration backup/restore for local/ftp/USB memory stick methods not saving certain configuration data (including network settings, sensor order, Avocent® DSView™ software server IP addresses, email/SMS connection type, authentication, username and password).</p>

FEATURE FIX	DESCRIPTION
Network	
	Fixed issue preventing firmware update via tftp or tftpd server using an IPv6 address.
Protocol	
	Telnet is disabled for factory default setting. In the web interface, navigate to <i>System-Settings-Manage Protocol</i> to configure the setting.
	Velocity v.4 server is disabled for factory default setting. In the web interface, navigate to <i>System-Settings-Manage Protocol</i> to configure the setting.
Security	
	Contact Vertiv™ technical support for details.
Sensors	
	Fixed issue restoring temperature Fahrenheit or Celsius setting change after reboot or power cycle.
SNMP	
	Fixed memory leak when device is power cycled in array configuration.
	Increased maximum length of To: fields for Email/SMS to 250 characters.
	Fixed heartbeat to not send to trap server if disabled.
	Fixed array indexes if size of array changed.
SNTP	
	Fixed issue with SNTP time server synchronization preventing login.
SWOTP	
	Fixed issue occurring when the sensor string is disconnected and power cycle/ reboot occurs. If it is reconnected after, all receptacles with SWOTP enabled are inadvertently switched off.

3 Upgrade Instructions

The Vertiv™ RPC2™ rack PDU communications card/module may be updated to this firmware using the web-based firmware update feature described in Section 4.8.4 (*System Tab- Firmware Update*) of the RPC2™ Communications Module Installer/User Guide (590-1380-501A).

4 Known Issues

FEATURE	DESCRIPTION	WORKAROUND
Web Interface		
	Older browser versions may not correctly render certain graphical features.	Use only compatible browsers' versions advised above.
	A non-maximized window may hide some tabs.	For the best experience, the recommended minimum horizontal resolution is 1200px. For resolutions lower than 900px, zoom out to view the full content.
	If Adware/virus in the host PC, accessing it may cause reboots.	Not available at this time.
	Login does not accept credentials or various pages do not show expected information or new feature support.	Delete browser cache, close browser and log in again. A reminder message is now displayed at the log in screen.
	IE9 does not display percentage complete for upload phase of firmware update.	Not available at this time.
	A mix of Liebert® MPX and Vertiv™ MPH2 PDUs in an array will incorrectly display a configuration choice for an MPH2 PDU.	Ignore the MPH2 Vertiv™ Config link.
	The Reset All Energy checkboxes remain checked after action is taken.	Either click the checkbox in the header, or browse to another page to clear all checkboxes.
	A slow firmware upload time exceeding the session timeout will abort the firmware upload when it times out.	Disable or increase session timeout to be longer than firmware upload time for slow networks.
	After a reset to factory defaults, occasionally the event log will display an incorrect timestamp (if the time server is enabled and accessible), and the web session will unexpectedly log out after two minutes.	Log in again and the default or user-configured web session timeout will be active and the event log will display the correct timestamp for subsequent entries.
Sensors		
	Prior to the Vertiv™ RPC2™ card Rev4 hardware assembly, for the Liebert® SN prefix family of modular sensors' configurations having greater than three modular SN-2D and SN-3C sensors on the same string, the sensor discovery process can become unstable depending upon the sensor cabling proximity to noisy power cabling. The symptoms may include occasional Absent Sensor events or the inability to discover one or more sensors.	Please refer to the RPC2™ card Liebert® SN™ Modular Sensors Discovery Process Technical Bulletin for more detail.

FEATURE	DESCRIPTION	WORKAROUND																																												
	Prior to Vertiv™ RPC2™ PDU card Rev3 hardware assembly, the Liebert® SN Leak Detection Sensor (SN-L) is not supported.	Please refer to RPC2™ card Support for Liebert® SN™ Leak Detection Sensor Technical Bulletin for more detail.																																												
SNMP																																														
	No validation of logical consistency for threshold settings.	Not available at this time.																																												
	IgpConditionAcknowledged OID is not supported.	Not available at this time.																																												
	IgpPduRbEntryClearLossOfLoads OID needs corresponding trap and means to clear active alarm state.	Not available at this time.																																												
	No support for clearing active Loss of Loads event.	Use OBWI to clear active event at <i>System-Device Change-Active Events</i> .																																												
Command Line Interface (CLI)																																														
	When using CLI to control the power or set thresholds values, a three second delay is required before the updated values or states can be read back correctly.	Not available at this time.																																												
	No support for clearing active Loss of Loads event.	Use OBWI to clear active event at <i>System-Device Change-Active Events</i> screen.																																												
	<p>The following notifications are missing when executing the notification command:</p> <table border="1" data-bbox="500 1308 979 1957"> <tbody> <tr> <td>513</td> <td>ALARM</td> <td>Sensor</td> <td>Over Differential Pressure</td> </tr> <tr> <td>514</td> <td>WARNING</td> <td>Sensor</td> <td>Over Differential Pressure</td> </tr> <tr> <td>515</td> <td>ALARM</td> <td>Sensor</td> <td>Under Differential Pressure</td> </tr> <tr> <td>516</td> <td>WARNING</td> <td>Sensor</td> <td>Under Differential Pressure</td> </tr> <tr> <td>208</td> <td>ALARM</td> <td>PDU</td> <td>Neutral Voltage Fault</td> </tr> <tr> <td>306</td> <td>ALARM</td> <td>Branch</td> <td>Loss of Load</td> </tr> <tr> <td>307</td> <td>ALARM</td> <td>Branch</td> <td>Hardware Fault</td> </tr> <tr> <td>408</td> <td>ALARM</td> <td>Receptacle</td> <td>Hardware Fault</td> </tr> <tr> <td>115</td> <td>ALARM</td> <td>System</td> <td>Too Many Sensors</td> </tr> <tr> <td>111</td> <td>ALARM</td> <td>System</td> <td>Device Change Acknowledge Pending</td> </tr> <tr> <td>106</td> <td>NOTIFICATION</td> <td>System</td> <td>PDU Power on Reset Event</td> </tr> </tbody> </table>	513	ALARM	Sensor	Over Differential Pressure	514	WARNING	Sensor	Over Differential Pressure	515	ALARM	Sensor	Under Differential Pressure	516	WARNING	Sensor	Under Differential Pressure	208	ALARM	PDU	Neutral Voltage Fault	306	ALARM	Branch	Loss of Load	307	ALARM	Branch	Hardware Fault	408	ALARM	Receptacle	Hardware Fault	115	ALARM	System	Too Many Sensors	111	ALARM	System	Device Change Acknowledge Pending	106	NOTIFICATION	System	PDU Power on Reset Event	Not available at this time.
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FEATURE	DESCRIPTION	WORKAROUND
	209 ALARM PDU Over Current - Residual	
	210 NOTIFICATION PDU Reset Energy occurred	
	308 NOTIFICATION Branch Reset Energy occurred	
	409 NOTIFICATION Receptacle Reset Energy occurred	
	211 ALARM PDU Over Current Protection	
Avocent® DSView™ software/ Avocent® Rack Power Manager software		
	Avocent® DSView™ software and Avocent® Rack Power Manager software servers fail to discover Vertiv™ MPH2™ rack PDUs using IPv6 subnet range.	For the Add Appliance Wizard, select the <i>Add one or more appliances by IP address</i> option instead.
	Upgrade Firmware is not supported in Https mode.	Click <i>Network-Access Control</i> in navigation tree, select <i>Http</i> under Web Server drop down list box, click <i>Save</i> , and then try <i>Upgrade Firmware</i> again. Alternatively, perform firmware update via the RPC2™ OBWI directly.
Network		
	The Network operates in “Auto (1000 Mbs/Full Duplex)” mode regardless of Speed/Duplex setting.	Not available at this time.
	If the network switch the RPC2™ PDU is connected to is disconnected from network for a time longer than the DHCP lease time, the new ip assignment is not accepted.	After the network switch is reconnected, disconnect the RPC2™ network cabling for 15 seconds and then reconnect.
	Static ip assignment in range 192.168.1.1 through .14 interferes with reserved static ip used for array formation.	Don't configure static ip in this range.
Notification		
	The 301 ALARM Branch Overcurrent Protection event is not generated when SWOCP is enabled and alarm threshold is breached.	Not available at this time.
Authentication		
	Assigning a remote username with a preceding space character or as an operator prevents successful authentication.	Do not use space character in name.

FEATURE	DESCRIPTION	WORKAROUND
Configuration	Unable to restore user and group names from backup.	Not available at this time.
SWOTP	If SWOTP is enabled and temperature sensor is disconnected and then reconnected, the affected receptacle is immediately powered off.	Disable SWOTP until temperature sensor is connected and operating.