

VERTIV™

RPC2™ Communications Module

Release Notes

FIRMWARE VERSION 14.0.0.3_00290 UPDATE! SEPTEMBER 7, 2018

Release Notes Section Outline

- 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 RPC2_14.0.0.3_00290 (supersedes release RPC2_13.0.0.3_00245) 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 advanced console servers
- 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

- Master mode may be configured via the Command Line Interface (CLI) for the first RPC2™ rack PDU in the array to provide a stable static IP address of 192.168.1.10 on the link port. This configuration is useful when the DHCP server is slow to respond or not connected during RPC2™ power up.

To configure master mode:

1. Run SSH or a Telnet session.
 2. Log in and wait for the CLI prompt.
 3. Enter **system array_master enable**, then enter **system array_master** to confirm the *Array Master: Enabled* response.
 4. Enter **reboot** to restart.
- For CE-marked models, residual current metering is supported for web, SNMP and CLI. This includes full event notification and identification of the path of leakage current through input, branch, and, conditionally, the receptacle (if M or R model types).
 - The web pages' navigation tree now collapses and expands.

Release Fixes Table

FEATURE FIX	DESCRIPTION
VERTIV™ BDM	
	Fixed branch measurement reporting for MPH2™ PDU models having mixed NEMA and IEC receptacle types (for example, the MPR1621 PDU).
VERTIV™ MPH2™ PDU	
	Fixed neutral measurement for three-phase CE-marked models supporting residual current metering. The neutral measurement may have incorrectly reported “6.55A” regardless of loading condition.
AUTHENTICATION	
	Fixed issue preventing login for usernames name beginning with an underscore (_).
WEB INTERFACE	
	Fixed issue preventing data logging from starting if the default 15 minute polling interval was selected.

FEATURE FIX	DESCRIPTION
COMMAND LINE INTERFACE (CLI)	
	Fixed issue for receptacle related commands allowing unauthorized access.
	Fixed issue returning wrong response for sensor threshold temperature command when called by appliance (for example, an Avocent® ACS advanced console server).
	Fixed issue for cycle delay command to report <i>No Support</i> for models not supporting the feature.
	Fixed issue to not mangle the server port value when configuring email or SMS server address.
	Fixed issue to report correct sensor type for relative humidity sensor.
	Fixed issue to allow configuration of NTP string using both IP and hostname.
	Fixed issue to allow white space in System Description string without causing truncation.
	Fixed issue to prevent the display of this unexpected message after log in: <i>Could not chdir to home directory /home/admin. No such file or directory.</i>
	Fixed issue to prevent display of garbled text for the group receptacle add command.
	Fixed some help information.
CONFIGURATION	
	Fixed issue preventing the backup/restore of user name, remote authentication and receptacle grouping settings. NOTE: After firmware update, it's strongly advised to repeat configuration backup/restore to retain full compatibility, if that feature is being used.
PROTOCOL	
	Fixed issue preventing the disabling of IPv6.
SECURITY	
	Contact Vertiv™ technical support for details.
SNMP	
	Fixed issue for duplicated SNMPV3 usernames having different passwords, where not all traps are sent.
	Fixed issue to only send heartbeat to trap server if enabled.

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 3.7.4 (*System Tab- Support-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 display resolution, lower than 900px, zoom out to view the full content.
	If Adware/virus in the host PC, accessing it may cause reboots.	Not available now.
	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 now.
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.
	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 now.
	IgpConditionAcknowledged OID is not supported.	Not available now.
	IgpPduRbEntryClearLossOfLoads OID needs corresponding trap and means to clear active alarm state.	Not available now.

FEATURE	DESCRIPTION	WORKAROUND
	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 power or set thresholds values, a three second delay is required before updated values or states can be read back correctly.	Not available now.
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	No support for clearing active Loss of Loads event.	Use OBWI to clear active event at <i>System-Device Change-Active Events</i> screen.
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The following notifications are missing when executing the **notification** command:

306	ALARM	Branch	Loss of load
307	ALARM	Branch	Hardware fault
208	ALARM	PDU	Neutral voltage fault
209	ALARM	PDU	Over current residual
211	ALARM	PDU	Over current protection
408	ALARM	Receptacle	Hardware fault
513	ALARM	Sensor	Over differential pressure
515	ALARM	Sensor	Under differential pressure
111	ALARM	System	Device change acknowledge pending
115	ALARM	System	Too many sensors
308	NOTIFICATION	Branch	Reset energy occurred
210	NOTIFICATION	PDU	Reset energy occurred
409	NOTIFICATION	Receptacle	Reset energy occurred
106	NOTIFICATION	System	PDU power on reset event
514	WARNING	Sensor	Over differential pressure
516	WARNING	Sensor	Under differential pressure

Not available now.

AVOCENT® DSVIEW™ / RACK POWER MANAGER SOFTWARE

	Avocent® DSView™ and Rack Power Manager software servers fail to discover Vertiv™ MPH2™ PDUs using IPv6 subnet range.	For the Add Appliance Wizard, select the <i>Add one or more appliances by IP address</i> option instead.
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FEATURE	DESCRIPTION	WORKAROUND
	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. Or, perform firmware update via the RPC2™ OBWI directly.
NETWORK		
	Network operates in Auto (1000 Mbs/Full Duplex) mode regardless of Speed/Duplex.	Not available now.
AUTHENTICATION		
	Assigning a remote username with a preceding space character or as an operator prevents successful authentication.	Must use a letter or underscore as first character in username.
RACK PDU ARRAY		
	<p>If using DHCP, the rack PDU array does not reestablish full communication again after a power cycle sequence.</p> <p>To recreate the issue:</p> <ol style="list-style-type: none"> 1. Create working rack PDU array using DHCP. 2. Disconnect the network cable to the first RPC2™ PDU. 3. Turn off all rack PDUs; wait a minute. 4. Turn on all rack PDU while the network cable is still disconnected. 5. Wait ten minutes, then reconnect the network cable to the first RPC2™ PDU. 6. The first RPC2™ PDU will get an IP address after a short delay from the DHCP server. 7. The other RPC2™ PDUs will not reestablish communication to the first RPC2™ PDU. 	Configure master mode for first RPC2™ in array. Then disconnect the communication cabling between the other RPC2™, wait for 30 seconds, then reconnect. No power cycling is required.
NETWORK TIME (SNTP)		
	For Liebert® MPH™ and MPX™ PDUs, if the local setting is selected for the time source, date and time are reset after a reboot. The MPH2™ PDU date and time are unaffected by a reboot.	This is a design limitation. After a reboot the Liebert® MPH™ and MPX™ PDUs local date and time must be re-entered.
CONFIGURATION		
	When using FTP for Backup/Restore, the process will fail due to an invalid filename format.	Append .tar.gz to the filename.