

Vertiv™ PowerIT Upgradeable Rack Power Distribution Unit (PDU) and Rack Transfer Switch (RTS)

Firmware Release Notes

VERSION 7.0.2, AUGUST 2025

Release Notes Section Outline

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1. Overview

This firmware release is compatible with Vertiv™ PowerIT Upgradeable Rack PDUs and RTS units equipped with Vertiv™ PowerIT Upgradeable IMD-5M models of Upgradeable Interchangeable Monitoring Devices (IMDs), which are currently running firmware version 6.2.0 and later.

IMPORTANT NOTE: Immediately following system startup, this firmware may update the internal rack PDU and/or RTS components, which can take up to 30 minutes to complete, depending on the device model and prior firmware version. During this time, a *Component Update in Progress* message displays. Please ensure the rack PDU or RTS is not reset or powered off during this process. If the PDU or RTS is powered off during the process, the firmware update must be reinstalled to re-run the component update.

2. Features and Enhancements

This release includes the following features and enhancements:

- Security:
 - Updated various libraries.
 - Enhanced syslog to reduce duplicate entries.
- Outlet and Alarm Configuration:
 - The maximum number of alarm targets has been increased to 64.
 - The outlet indicator color in the user interface now corresponds with the color indicator of the rPDU.
- Application Programming Interface (API):
 - The initial implementation adheres to Redfish standards, with future releases scheduled to incorporate additional capabilities as prescribed by DMTF.

NOTE: The Redfish API documentation outlines the functionality.
- Sensor Support:
 - Added leak detection capabilities through the SN-L sensors.
 - Added enhanced measurement functionality for high-capacity rPDU support.
 - Implemented airflow readings through MODBUS.
- Networking:
 - Implemented 802.1x for Network port authentication.
- VIProvisioner
 - Added the IP address and rPDU label in the list of discovered devices.

3. Known Issues and Limitations

This release includes the following known issues:

- Command Line Interface (CLI):
 - When using the CLI to set values, large numerical inputs are always interpreted as numbers, even if specified as strings. To address this, use the API or web interface.
- Current Rating:
 - Customer defined current ratings may not reset when restored to default.
 - API and GUI current ratings use different units (mA and A).
- Email:
 - If the time is not set either through NTP or manually, email notification will not be available.
- Firmware Updates:
 - Updating the firmware from version 6.x to 7.x typically requires up to 90 seconds. However, certain internal components may need up to 30 minutes or more to complete their respective firmware updates, depending on the specific device component involved.
- Network Loop Configuration:
 - The Vertiv™ PowerIT IMD-5M using the Rapid Spanning Tree Protocol (RSTP) may take an extended period to converge while it computes and spans a new tree. This period may further increase depending on the network configurations applied to the switches. An unmanaged/non-RSTP participating switch should be connected to the Vertiv™ PowerIT IMD-5M node.
NOTE: It is recommended to user a managed switch when enabling RSTP.
 - USB Wi-Fi dongles are not supported in version 7.0.2.
- Remote Authentication:
 - Administrators cannot log out remotely authenticated users through the API.
 - Remotely authenticated users with specified scopes may access outlets outside their assigned scope. Local user's scope will work as expected.
- SSH Key:
 - The SSH Key Exchange method ecdh-sha2-nistp384 was replaced with curve25519-sha256, leaving curve25519-sha256 as the only SSH Key Exchange method supported (i.e., Version .71 or later of putty).
- VI Director:
 - VI Director may not reboot all outlets in a group. To address this, reboot each outlet individually.

4. Notes

The following notes and limitations apply to this release:

- Network Access Control:
 - IPv6 link local cannot be specified as permitted IP addresses.
 - Network Access Control cannot be enabled when no IP addresses are defined.
 - Network Access Control is reset to default values when resetting network settings or when resetting all settings.
- Network:
 - When DHCP is enabled but a DHCP server is not available, a 169.254.0.0/16 network IPv4 link local address is assigned to the port.
 - DHCP address assignments and reservations may change when updating from firmware versions 5.10.4 or 5.10.8 to 6.1.0 or later. This is due to a correction to an erroneous DHCP client-id setting present in 5.10.4 and 5.10.8 firmware.

- Provisioner:
 - Discovery progress is indicated for IP address scan discovery only.
 - IP address scan discovery does not discover the rack PDU performing the discovery.
 - For Provisioner to operate correctly, HTTPS must be enabled, and the default port number must be used.
 - Target devices must use firmware version 6.1.0 or later to perform initial admin user configurations.
- Vertiv™ PowerIT IMD-5M:
 - Non-roman alphabet device labels may not display correctly on the Vertiv™ PowerIT IMD touchscreen display.
 - Phase and sensor labels longer than 10 characters may not display fully on the Vertiv™ PowerIT IMD touchscreen display.
 - Redundant power is turned on nine seconds after the device is powered on.
 - If the touchscreen is used while the Provisioner is executing a request, the display may temporarily lockup and prevent the Provisioner from completing the operation. To avoid this issue, do not touch the touchscreen while the Provisioner is completing a requested operation.
- Vertiv Intelligence Director:
 - Alarm-controlled switched rack PDU outlets that are part of an outlet group do not change state when the group outlet state is changed.
 - When an array device HTTP protocol is enabled, the array manager web browser cache must be refreshed for the Devices page redirection link to work.
 - When the array controller uses firmware version 6.1.0 or later, existing array devices that use Vertiv™ PowerIT IMD-02x controllers must be updated to version 3.4.0.
 - To manage Vertiv™ PowerIT IMD-5M array devices, Vertiv Intelligence Director (aggregation) IMD-3x array controllers must be updated to firmware version 6.1.0 or later.
 - Due to enhanced system security requirements, Vertiv Intelligence Director (Aggregation) no longer supports Vertiv™ Vertiv™ PowerIT IMD models 02XV, 02XH, 02EH, and 02EV array devices when using an array controller with firmware version 6.1.0 or later. Attempting to onboard a Vertiv™ Vertiv™ PowerIT IMD-02x rack PDU will result in an Unknown Device error. However, existing previously onboarded Vertiv™ Vertiv™ PowerIT IMD-02x rack PDU array devices will continue to operate normally. To remove this limitation, upgrade these rack PDUs to a Vertiv™ Vertiv™ PowerIT IMD-03x or IMD-5M.
- Firmware:
 - It is not possible to upload and install older firmware. Users can only revert to the previous installed version.
- Password Expiry:
 - Password aging expiry is not flagged when the rack PDU is accessed through the API.
 - Updating the rack PDU firmware may cause password aging expiry timers to reset to default values.
- Miscellaneous:
 - Power readings may not be available for up to 30 seconds after the device is powered on.
 - The RTAFHD3 sensor temperature, airflow, humidity, and dewpoint sensor will display an airflow value of ‘-’ while calibrating for the first 30 seconds after sensor connection or device power on.