



Release Notes for Raritan EMX Firmware Version 2.5.1

Version: EMX 2.5.1 Build 41241 Release Notes, Version 1

Date: April 11, 2014

Effective: Immediately.

Applicability:

This release contains a critical security fix found in OpenSSL (CVE-2014-0160, details below in the *Release 2.5.1 Contains All Enhancements and Fixes* section below), and it is highly recommended that all EMX customers upgrade to this release immediately. Raritan will not be liable for any security breaches resulting from older firmware on a unit.

This firmware release is for General Availability ("GA") on new EMX models and upgrades to selected models only. There is a new User Guide for EMX models. Please check with Raritan Support if you are unsure of the model number of your EMX unit; it is typically viewable from the EMX GUI Device Information page. The EMX models are:

EMX2-888

EMX2-111

Due to a critical security fix in EMX 2.5.1, you should not downgrade from Release 2.5.1 build to ANY prior release.

Release Status: General Availability (GA) on specific EMX models with factory shipments, and upgrades on select models only.

Release 2.5.1 contains all enhancements and addressed issues that are listed below:

- A) Changed Focus on login page when Restricted Service Agreement is turned on. When the Restricted Service Agreement banner is turned on, it was necessary to use the mouse to accept the terms. The user could not use the keyboard to do this via TAB or Shift+Tab. This has been changed to put the initial focus on the check box. Pressing "Space" would accept the terms and shift focus to the username field. This greatly speeds the operation of logging into the PDU. [53202]
- B) Added support for the Raritan DX-D2C6 sensor. [53203]
- C) Timer Events & Sensor Report / Allow periodic alert messages with temperature to be sent via GSM modem.[46305]



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- D) MODBUS-TCP support has been added. Note that the register-set may be different for sensors in EMX (versus PX2), since EMX supports up to 130 sensors. PX2 units, by way of comparison support a maximum of 16 sensors.[54287]
- E) Support has been added for external security card readers. [53091]
- F) Implemented Modbus TCP/RTU Gateway. EMX is Modbus TCP slave and 'translates' (should be 1:1 mapping) incoming Modbus requests to Modbus RTU using the 'unit ID' as slave ID. EMX is Modbus RTU master and supports "USB to 2-Port RS422 / RS485 Industrial ISOLATED" adapter: (http://www.usconverters.com/index.php?main_page=product_info&cPath=75&products_id=198) to connect serial Modbus devices.
 - Modbus TCP master (client APP) needs to be able to set 'unit ID' for Modbus TCP device (usually there is only an IP address required). Third-party applications trying to use this gateway function MUST be able to support such functionality. A maximum of one USB-RS485-adapter is supported per EMX. [53205]
- G) Fixed critical security issue identified in CVE-2014-0160 which was found in OpenSSL 1.0.1. More information is available here: <http://heartbleed.com/>

Summary:

"The Heartbleed bug allows anyone on the Internet to read the memory of the systems protected by the vulnerable versions of the OpenSSL software. This compromises the secret keys used to identify the service providers and to encrypt the traffic, the names and passwords of the users and the actual content. This allows attackers to eavesdrop communications, steal data directly from the services and users and to impersonate services and users."

To fix this, the OpenSSL library has been updated to the newest version in EMX2.5.1, in which this vulnerability is resolved.

Since private keys could have leaked already, customers should revoke any SSL certificates installed on the affected devices and replace them with new ones. [55972]

Consult the Raritan EMX User Guide for more information on these EMX firmware features.

Raritan EMX Documentation:

The following user documentation is available for the Raritan EMX models:



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The User Guide for EMX 2.5 (PDF format) should be used with this release.
The SNMP MIB is retrievable from the unit itself.

Upgrade Matrix (path for upgrades):

This release is intended as an upgrade to previous releases on EMX2-111, EMX2-888 only, and for factory shipments on new Raritan EMX units.

Raritan EMX Release 2.5.1 compatibility information:

1. EMX models are currently supported by Power IQ, but icon may show Dominion PX/PX2.
2. Upgrade Matrix: See IMPORTANT note under Upgrade Matrix above BEFORE upgrading firmware on any unit.

Important Notes and Information:

Enable Javascript in your browser before logging into the unit to start the upgrade process. This is a mandatory firmware upgrade for all EMX customers.

Known Issues with this EMX Release:

1. When power is removed from the EMX, it should remain OFF for a minimum of 30 seconds. This allows all the capacitors in the internal power supplies to discharge completely, before restarting the unit.
2. With Windows Vista, when using the USB-B port as a console port, resetting the EMX unit may cause the console port not to be accessible. The workaround is to unplug the USB-B cable and plug it back in; or, in Windows Vista, Disable and Enable the COM port in use. [37711]

Release Package Details:

The Release 2.5.1 Build 41241 package for the Raritan EMX series has the following components. Some releases are not posted and are intended for specific customers or for new models only; if posted on the Raritan website, the file is zipped and must be unzipped before it can be installed on the Raritan EMX unit:

“EMXReleaseNotes2.5.1v1” – this file
A firmware release (binary):



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Emx-ecx-020501-41241.bin

Firmware Upgrade Pre-requisites:

If you have any questions, or cannot follow the instructions below, please STOP and contact Raritan Technical Support for further instructions. Please read the entire instructions (this document) before proceeding.

General Upgrade Instructions - using the browser-based user interface. For detailed instructions, please consult the User Guide:

- 1) Download the release from the Raritan website, under the Support section.
- 2) Unzip the file.
- 3) Login as and Admin and navigate the GUI to the Maintenance->Upgrade Firmware section and follow the instructions.
- 4) Do not unplug or power off the device. Also, do not disconnect from the network during the upgrade.
- 5) To minimize the chance for communications errors, use a wired Ethernet workstation to do the upgrade.

If you have any questions or issues during the update, call Raritan Technical Support for assistance.

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