

Power Monitoring Expert 2022 Cumulative Update 1

RELEASE NOTES

File Name: PME 2022 Cumulative Update 1.exe

Release Date: February 2023

Download Link:

https://schneiderelectric.sharepoint.com/:f/s/PowerSolutionReleasesGroup/EsU30bvM6v1EI/M7rcC6q9IIBG38gGDMhEMgAKz3y7nW_LA?e=vR6zVj

About this document

This document is intended for Application Engineers, System Integrators, or other qualified personnel who are responsible for designing, installing, configuring, maintaining and using EcoStruxure™ Power Monitoring Expert (PME) software.

This document is not a tutorial, it is written with the assumption that you have been trained in the deployment and use of PME.

Summary

This Cumulative Update (CU) includes several quality and cybersecurity improvements. We highly recommend you to install this update on compatible PME systems.

Details (New Items):

Cybersecurity: This CU includes cybersecurity improvements. It is important that you install this security update as soon as possible.

Fixed Items

Feature / Application / Service	Description
Web Application	Fixed the issue where user session will be available for an extended period beyond the Session Timeout set in PME and after Logout.

Feature/Application/Service: Secure ION Preview

This release contains a preview implementation of our Secure ION driver, useful for connecting to devices that support Secure ION communication.

By utilizing this capability, your installations will benefit from encrypted communications by TLS (Transport Layer Security) implementation in PME.

In this preview, there are some limitations:

- Full TLS certificate validation including monitoring of certificate revocation and expiration is not yet supported.
- Long password support is not yet supported. Password length of 6 characters for an alphanumeric password, or 8 digits for a numeric password is supported.
- The functionality requires an action to enable (it is not on by default).

We expect additional capabilities to be available in a PME 2023 release.

1. Description

- a. PME communicates with ION devices over a TLS encrypted tunnel.
- b. TLS encryption is supported on the below meters:
 - PM8000, ION7400, ION9000, 9410 and 9810.
- c. TLS Encryption is applicable only to TCP/IP based connection and NOT to Serial Communication.
- d. IP Ports:

The below is the list of ports used by PME for the communication between its components and the connected ION devices:

- For "classic ION", continue to use TCP Port 7700
- For "ION over TLS", use TCP Port 7443
- For "Secure Ethergate", continue to use TCP Port 7801/7802

- e. Certificates:

PME interacting with the meter will handle certificate validation (self-signed or CA signed) based on the configuration provided in Management console or Device Manager, whenever establishing a new TLS 1.2 session.

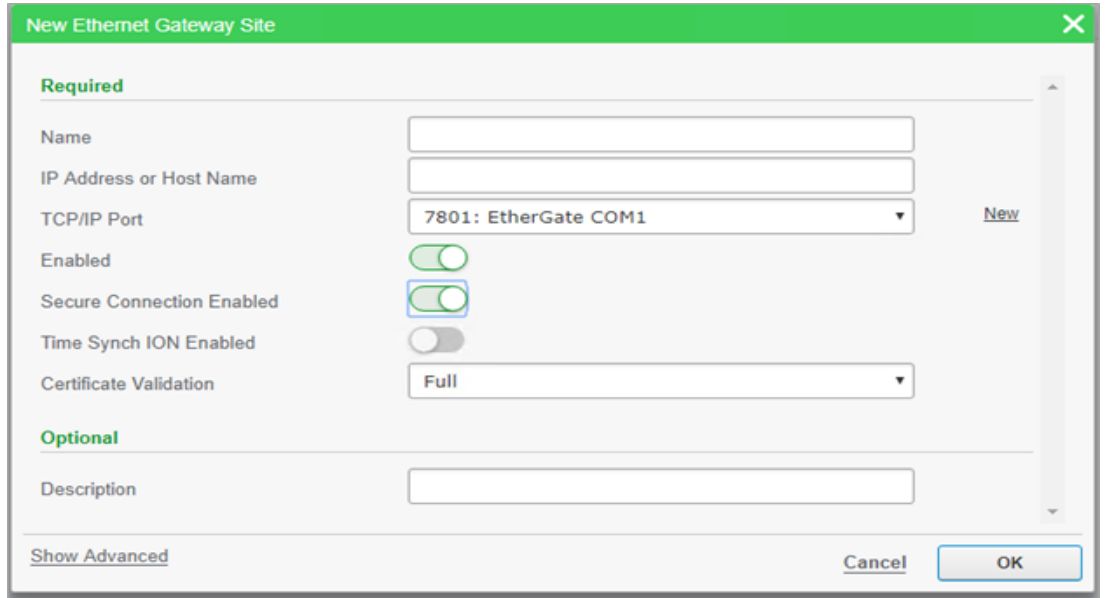
NOTE: PME does certificate validation only on the below scenarios:

1. First time device configuration.
2. Disconnect and connect the device from Management Console/Device Manager.

2. Configuration

a. Ethernet Gateway Site Configuration:

- Navigate to Settings Tab > System > Device Manager > Devices. Add and configure a new ethernet gateway site from device manager and configure Group, Name, Device Type, IP address.
- Ports: For Secure Ethergate connection, enable Secure connection toggle button and ensure TCP/IP port is set to **“7801 or 7802”** and default certificate validation is set to **“Full”**.



The screenshot shows a dialog box titled "New Ethernet Gateway Site" with a green header bar and a close button (X) in the top right corner. The dialog is divided into two sections: "Required" and "Optional".

Required Section:

- Name: Text input field.
- IP Address or Host Name: Text input field.
- TCP/IP Port: Dropdown menu with "7801: EtherGate COM1" selected. A "New" link is visible to the right.
- Enabled: Toggle switch (turned on).
- Secure Connection Enabled: Toggle switch (turned on).
- Time Synch ION Enabled: Toggle switch (turned off).
- Certificate Validation: Dropdown menu with "Full" selected.

Optional Section:

- Description: Text input field.

At the bottom of the dialog, there is a "Show Advanced" link on the left, and "Cancel" and "OK" buttons on the right.

b. Ethernet Device Configuration:

- Navigate to Settings Tab > System > Device Manager > Devices. Add and configure a new ethernet device from device manager and configure Group, Name, Device Type, IP address.
- Ports: For ION over TLS connection, enable Secure connection toggle button and ensure TCP/IP port is set to “**7443**” and default certificate validation is set to “**Full**”.

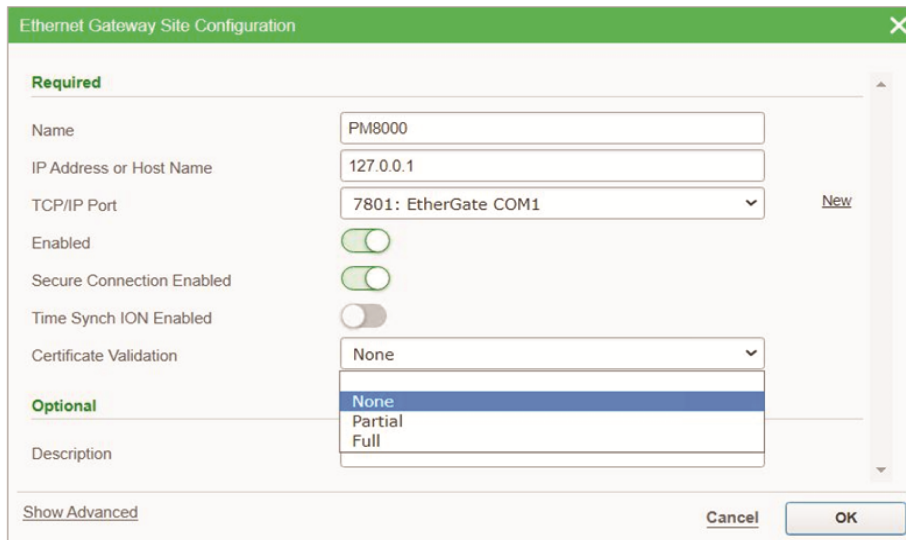
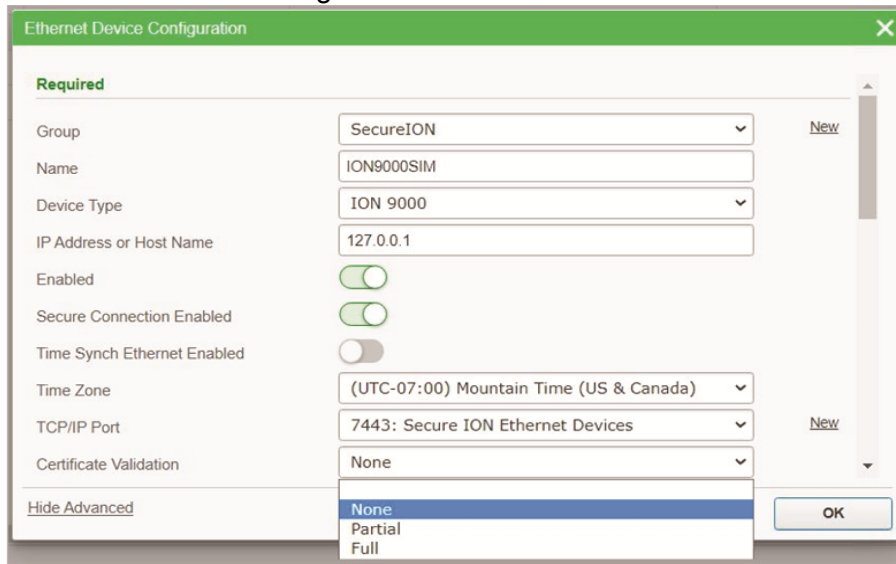
The screenshot shows a dialog box titled "New Ethernet Device" with a green header bar and a close button (X) in the top right corner. The dialog is divided into a "Required" section and an "Advanced" section. The "Required" section contains the following fields and controls:

- Group: A dropdown menu.
- Name: A text input field.
- Device Type: A dropdown menu.
- IP Address or Host Name: A text input field.
- Enabled: A toggle switch, currently turned on.
- Secure Connection Enabled: A toggle switch, currently turned on.
- Time Synch Ethernet Enabled: A toggle switch, currently turned off.
- Time Zone: A dropdown menu showing "(UTC-07:00) Mountain Time (US & Canada)".
- TCP/IP Port: A dropdown menu showing "7443: Secure ION Ethernet Devices".
- Certificate Validation: A dropdown menu showing "Full".

At the bottom of the dialog, there is a "Hide Advanced" link on the left, and "Cancel" and "OK" buttons on the right. A vertical scrollbar is visible on the right side of the dialog.

3. Certificate Validation

- a. PME interacting with the meter will handle certificate validation (self-signed or CA signed) based on the configuration provided in Management Console and Device Manager, whenever establishing a new TLS 1.2 session.
- b. After Secure connection is enabled, user is allowed to select the certificate validation from the drop-down menu option:
 - None
 - Partial
 - Full
- c. If user selects option 'None' for Certificate Validation from Management Console/ Device Manager, then PME will not perform any Certification checks while establishing TLS connection.

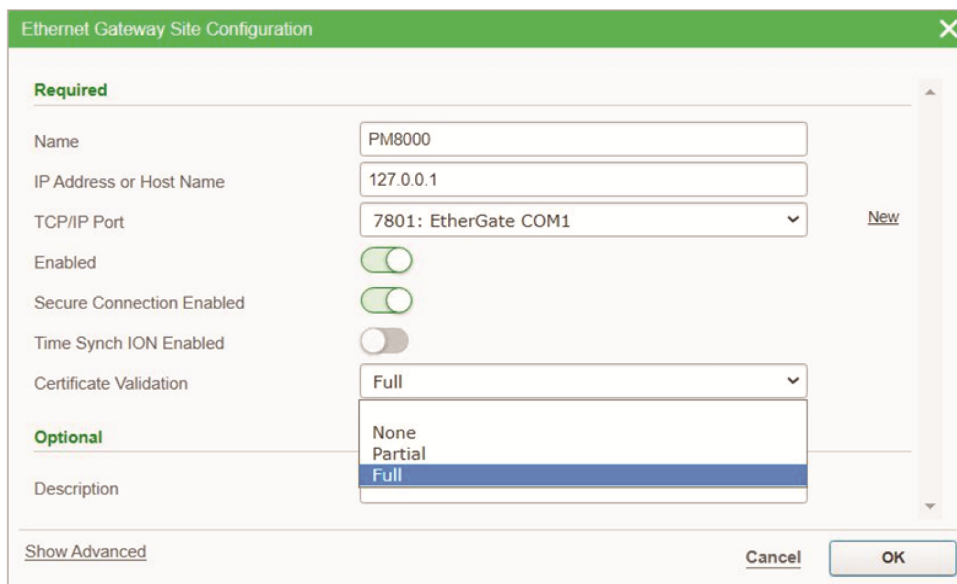
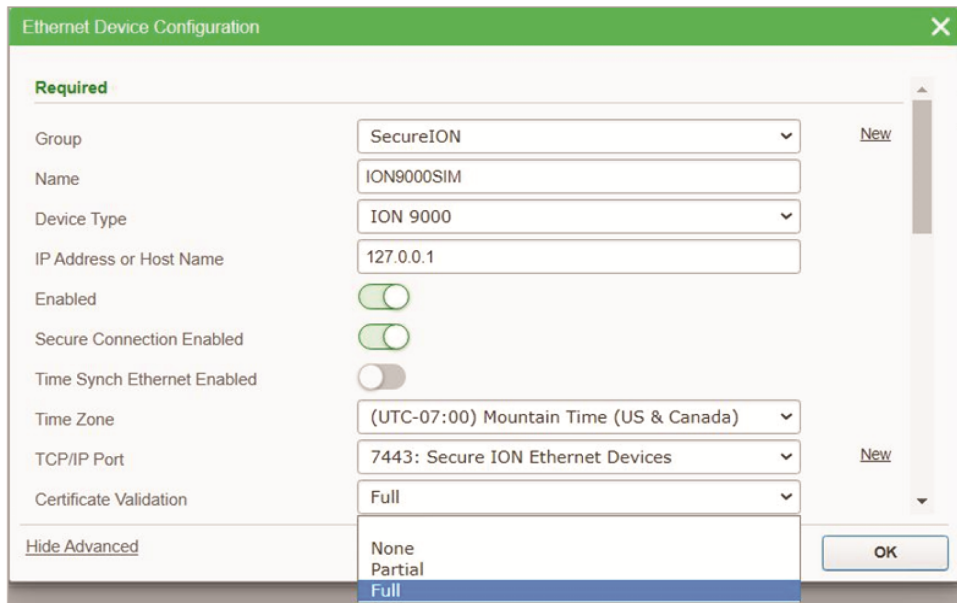


- d. If user selects option 'Partial' for Certificate Validation from Management Console/ Device Manager, then PME will perform Certification checks and will warn on the Certificate issues but Connection to the device will still continue even if there are issues with the certificate.

The screenshot shows the 'Ethernet Device Configuration' dialog box. Under the 'Required' section, the 'Certificate Validation' dropdown menu is open, showing three options: 'None', 'Partial' (which is selected and highlighted in blue), and 'Full'. Other fields include 'Group' (SecureION), 'Name' (ION9000SIM), 'Device Type' (ION 9000), 'IP Address or Host Name' (127.0.0.1), 'Enabled' (checked), 'Secure Connection Enabled' (checked), 'Time Synch Ethernet Enabled' (unchecked), 'Time Zone' ((UTC-07:00) Mountain Time (US & Canada)), and 'TCP/IP Port' (7443: Secure ION Ethernet Devices). There are 'New' buttons next to the Group and TCP/IP Port fields, and an 'OK' button at the bottom right.

The screenshot shows the 'New Ethernet Gateway Site' dialog box. Under the 'Required' section, the 'Certificate Validation' dropdown menu is open, showing three options: 'None', 'Partial' (which is selected and highlighted in blue), and 'Full'. Other fields include 'Name' (PM8000), 'IP Address or Host Name' (127.0.0.1), 'TCP/IP Port' (7801: EtherGate COM1), 'Enabled' (checked), 'Secure Connection Enabled' (checked), and 'Time Synch ION Enabled' (unchecked). There is a 'New' button next to the TCP/IP Port field. Under the 'Optional' section, there is a 'Description' field. At the bottom, there are 'Show Advanced', 'Cancel', and 'OK' buttons.

- e. If user selects option 'Full' for Certificate Validation from Management Console/Device Manager, then PME will perform Certification checks and will warn and block the communication to the meter if there are issues with the certificate.



- f. All warnings related to secure ION prelim certificate validation ('Partial' and 'Full') will be logged under PME system logs.

Timestamp	Priority	Source	Target	Category	Computer	Description
2/13/2023 12:45:21.430 AM	Information	ETHERNET	ION9000SIM	Site Connection	STANDALONE	Site connected
2/13/2023 12:45:24.623 AM	WARNING	ETHERNET	ION9000SIM	Site Connection	STANDALONE	Site comm-port control information: TLS certificate validation error occurred. Error status : certificate has expired

Fixed Items

Feature / Application / Service	Description
EWS Client	<p>Fixed the loading of device/measurement data with special character created in EBO in EWS Client configuration.</p> <p>Fixed the EWS Client issue where the changes made in the EBO were not reflected on refresh in PME.</p> <p>Fixed the EWS Client Test connection Failure.</p> <p>Fixed the EWS Client issue where the duplicate source and measurement mapping creation was allowed.</p> <p>Fixed the issue where the EWS Client configuration was not allowing Domain Users.</p> <p>Fixed the Input string format error occurred while formatting historical data in EWS client.</p>
Dashboard	Fixed an issue that prevented the selection of "Now" option in the fixed date range selection.
License Configuration tool	Fixed an issue for showing the warning message about deactivating the Trial license even after deleting the trial license.
Management Console	Fixed the loading time issue in Advanced Meter Security Interface in Management Console.
ION Services	Fixed an issue that caused the connection timeout in site server.
Breaker Configuration Tool	<p>Fixed an issue where the configuration parameters of the Breaker Configuration Tool were not properly displayed.</p> <p>Fixed the Modbus gateway service crash issue crashing periodically with Overflow Exception.</p>
Driver Package	Fixed the TH110 device communication issue causing in French OS.
Reports: EN50160:2010 report	Fixed the report header missing when the report is viewed in a browser.
Reports: Modeling Report	Fixed the issue on Create and Use Model Reports on Renaming of Standard Databases.
Waveform Analytics	Fixed an issue in displaying the load loss value in percentage instead of ratio for the waveform analytics.
Trends	Fixed the series selection dialog close issue after creating a trend with hierarchy node selection.

Removed Items

No functionality or feature has been removed.

IMPORTANT NOTES

System Compatibility

PME 2022 CU1 is compatible with PME 2022. Do not install it with any other versions of the software.

System Impact

PME services are stopped during the installation of PME 2022 CU1. This can affect communications and data processing. A system reboot is not required.

Licensing

PME 2022 CU1 is covered by the existing PME 2022 product licenses. It does not require additional licensing. PME 2022 CU1 does not change any existing trial licenses.

Update File Integrity

Verifying the update file integrity helps identify unexpected changes in the file caused by download issues or by tampering with the file.

NOTE: Do not use an update file for which the integrity cannot be confirmed. In that case, download the update again and check its integrity. Repeat this process until you have a correctly downloaded update file with confirmed integrity.

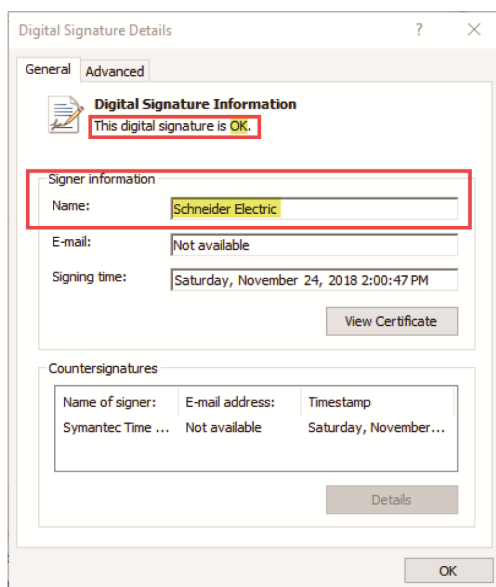
To verify the file integrity:

1. Download the PME 2022 CU1 install file.
2. Right-click the file and select Properties. This opens the Properties dialog.
3. In the Properties dialog, select the Digital Signatures tab.
4. In the Signature list, highlight the Name of signer. Click Details.

NOTE: Only Schneider Electric should be shown in the Signature list.

5. Verify that the digital signature is OK, and that the signer name shows Schneider Electric.

Example:



6. Close the Properties dialog.

INSTALLATION INSTRUCTIONS

WARNING

POTENTIAL COMPROMISE OF SYSTEM AVAILABILITY, INTEGRITY, AND CONFIDENTIALITY

Apply the latest updates and hotfixes to your Operating System and software.

Failure to follow these instructions can result in death, serious injury, equipment damage, or permanent loss of data.

Before installing PME 2022 CU1, install the Windows Update available up to the release date of the cumulative update on the PME Application Server and on any PME Engineering client computers.

Install PME 2022 CU1 on the PME Application Server and on any PME Engineering client computers.

NOTE: PME services are stopped during the installation of PME 2022 CU1. This can affect communications and data processing.

WARNING

UNINTENDED EQUIPMENT OPERATION

- Before installing the update, verify that the system is not performing critical control actions that may affect human or equipment safety.
- Verify correct system operation after the update.

Failure to follow these instructions can result in death, serious injury or equipment damage.

WARNING

INACCURATE DATA RESULTS

- Before installing the update, verify that the system data results are not used for critical decision making that may affect human or equipment safety.
- Verify correct system data results after the update.

Failure to follow these instructions can result in death, serious injury, equipment damage, or permanent loss of data.

To install PME 2022 CU1 on the PME Application Server:

NOTE: PME 2022 CU1 cannot be uninstalled.

1. On the Windows server where PME is installed, log in with an account that is a member of the Administrators group.
2. Take PME out of service by informing system users of the outage and disabling any automated system control or third-party interactions.
3. Close all PME Engineering Client applications (Management Console, Vista, Designer, any Management Console tools).

NOTE: Web client applications can remain open but might experience a service interruption during the upgrade.

4. Run the PME 2022 CU1 install file.
5. Follow the steps in the installer to install PME 2022 CU1.
6. After the installation, verify the correct operation of the PME system and put the system back into service.

NOTE: To resolve issues that might occur after CU1 installation, contact [Technical Support](#).

7. Restart any Web client applications that experienced a service interruption during the upgrade.

NOTE: To confirm that the update is installed on your system, check Help > About in any of the Engineering applications, or check the Windows registry at HKEY_LOCAL_MACHINE\SOFTWARE Wow6432Node\Schneider Electric\Power Monitoring Expert\11.0\CumulativeUpdate.

NOTE: Using PME 2022 ISO, if user performs Reconfigure, Reset Accounts, Export System Key, Import System Key on a system where PME 2022 CU is already installed, the step "Start Service" and "Verify registered Services" may show as failed. We recommend continuing with further installation by clicking "Try Again" to continue with the installation. As a mandatory next step, we recommend running PME 2022 CU reconfigure using PME 2022 CU.exe on top of it before using system for any further use.

To install PME 2022 CU1 on a PME Engineering Client computer:

NOTE: PME 2022 CU1 cannot be uninstalled.

1. On the Engineering Client computer, log in with an account that is a member of the Administrators group.
2. Close all PME Engineering Client applications (Management Console, Vista, Designer, any Management Console tools).
3. Run the PME 2022 CU1 install file.

4. Follow the steps in the installer to install PME 2022 CU1.

NOTE: To resolve issues that might occur after CU1 installation, contact [Technical Support](#).

5. Restart the Engineering Client applications, if needed.