StruxureWare™

Power Monitoring Expert 8.2

Installation Guide

7EN02-0392-00

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Schneider Electric
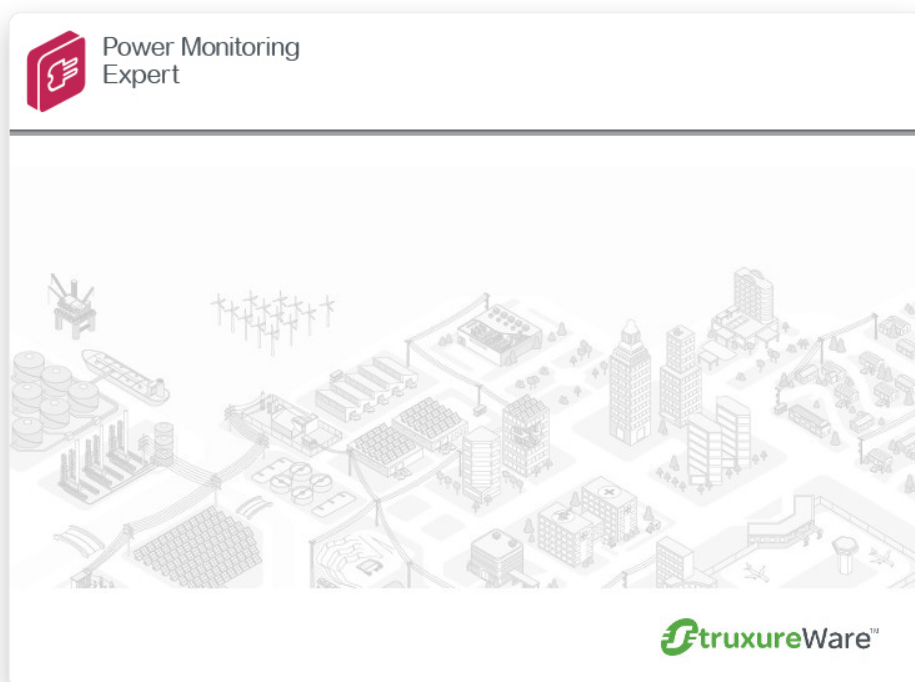
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Safety information

Important information

Read these instructions carefully and look at the equipment to become familiar with the device before trying to install, operate, service or maintain it. The following special messages may appear throughout this bulletin or on the equipment to warn of potential hazards or to call attention to information that clarifies or simplifies a procedure.

The addition of either symbol to a "Danger" or "Warning" safety label indicates that an electrical hazard exists which will result in personal injury if the instructions are not followed.

This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

⚠ DANGER

DANGER indicates an imminently hazardous situation which, if not avoided, **will result in** death or serious injury.

⚠ WARNING

WARNING indicates a potentially hazardous situation which, if not avoided, **can result in** death or serious injury.

⚠ CAUTION

CAUTION indicates a potentially hazardous situation which, if not avoided, **can result in** minor or moderate injury.

NOTICE

NOTICE is used to address practices not related to physical injury. The safety alert symbol shall not be used with this signal word.

Please note

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A qualified person is one who has skills and knowledge related to the construction, installation, and operation of electrical equipment and has received safety training to recognize and avoid the hazards involved.

Contents

Safety precautions

During installation or use of this software, pay attention to all safety messages that occur in the software and that are included in the documentation. The following safety messages apply to this software in its entirety.

⚠ WARNING

UNINTENDED EQUIPMENT OPERATION

- Do not use the software for critical control or protection applications where human or equipment safety relies on the operation of the control action.
- Do not use the software to control time-critical functions because communication delays can occur between the time a control is initiated and when that action is applied.
- Do not use the software to control remote equipment without securing it with an authorized access level, and without including a status object to provide feedback about the status of the control operation.

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

⚠ WARNING

INACCURATE DATA RESULTS

- Do not incorrectly configure the software, as this can lead to inaccurate reports and/or data results.
- Do not base your maintenance or service actions solely on messages and information displayed by the software.
- Do not rely solely on software messages and reports to determine if the system is functioning correctly or meeting all applicable standards and requirements.
- Consider the implications of unanticipated transmission delays or failures of communications links.

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

⚠ WARNING

POTENTIAL COMPROMISE OF SYSTEM AVAILABILITY, INTEGRITY, AND CONFIDENTIALITY

- Change default passwords to help prevent unauthorized access to device settings and information.
- Disable unused ports/services and default accounts to help minimize pathways for malicious attackers.
- Place networked devices behind multiple layers of cyber defenses (such as firewalls, network segmentation, and network intrusion detection and protection).
- Use cyber security best practices (for example: least privilege, separation of duties) to help prevent unauthorized exposure, loss, or modification of data and logs, or interruption of services.

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

Introduction

This guide is intended for Application Engineers, System Integrators, or other qualified personnel who are responsible for installing StruxureWare™ Power Monitoring Expert software and preparing the servers on which it is installed.

A typical installation consists of a computer or network of computers running Power Monitoring Expert software, Microsoft SQL Server software, and one or more networks of devices (such as basic energy meters, multi-function monitoring/analysis/control devices, and/or intelligent relays).

In this guide you will find information on:

- Supported operating systems and SQL Server editions

- Preparing the server and client computers

- Power Monitoring Expert setup types

- Required IP ports

- Step-by-step installation instructions for SQL Server and Power Monitoring Expert

- Required post-installation tasks

- Cyber security considerations

- Troubleshooting

Note that this guide is focused on the deployment process and provides information on how to install and commission the system.

For more information on how to design a system, review the *StruxureWare Power Monitoring Expert Design Guide*. For information on how to configure a system, review the *StruxureWare Power Monitoring Expert User Guide* and other documentation listed in the next section.

NOTE: Services personnel and fully-commissioned Power Monitoring Expert servers are also available – contact Schneider Electric for details.

Product documentation

The following Power Monitoring Expert documentation is applicable to this version of the product.

- *What's New*, document number 7EN12-0302-00.

- *Before Installing your Software*, document number 7EN52-0406-00.

- *Using the SQL Server 2012 DVD*, document number 7EN52-0391-00.

- *Using the SQL Server 2016 DVD*, document number 7EN52-0432-00.

- *Installation Guide*, document number 7EN02-0392-00.

- *User Guide*, document number 7EN02-0391-00.

- *Hierarchy Manager – Help Topics*, document number 7EN52-0413-00.

- *Web Applications – Help Topics*, document number 7EN52-0412-00.

The following documents are available through the Power Monitoring Expert Exchange Community. Contact your Schneider Electric representative for further information.

- *Design Guide*, document number 7EN42-0141-00.

- *IT Guide*, document number 7EN42-0155-00.

- *Licensing Guide*.

- Documentation related to product upgrades.

Online information available in the product includes:

- *Power Monitoring Expert Help* – accessible from within installed components, such as Management Console, Vista, and Designer.

- *Alarm Configuration Help* – accessible in a browser-based help format from the Alarm Configuration application.

- *Hierarchy Manager Help* – accessible in a browser-based help format from the Hierarchy Manager application.

- *Web Applications Help* – accessible in a browser-based help format from the Web Applications application.

Before installing the software

Supported software environments

Review *Before installing your Power Monitoring Expert software* for detailed software requirements information.

Preparing the server

The software Installer performs many of the setup and configuration tasks during installation to ensure that the prerequisites for your Power Monitoring Expert system are met. Complete the following before proceeding with the installation.

Updating the operating system

Ensure that you log on to your supported Windows system using the built-in local Administrator account for the system, and not just as a user with administrator privileges.

Run the Windows Update service to install the latest security patches and hotfixes from Microsoft.

Naming the server

Verify that the computer name for the server conforms to Windows naming conventions. A computer name is limited to 15 characters and it must not contain blank spaces or any of the following prohibited characters:

\ (backslash)	; (semi-colon)
/ (slash)	< (less than)
* (asterisk)	> (greater than)
+ (plus)	? (question mark)
= (equals)	" (quotation mark)
	(vertical bar)	_ (underscore)
: (colon)	

For compatibility with Power Monitoring Expert software, use only letters and numbers, starting the name with a letter, for example `MyServer123`.

> **NOTE**: The computer name must not be changed after the Power Monitoring Expert software is installed. If the computer name is changed after the install, the software ceases to function correctly. Should this occur, contact Technical Support for assistance.

Adding the server to a network domain

Power Monitoring Expert software can be installed on servers in a domain environment, however it cannot be installed on domain controllers. If Power Monitoring Expert software is installed on a server that is subsequently changed to a domain controller, the software ceases to function correctly.

Installing .NET Framework

.NET Framework 3.5 (or 3.5 SP1) is required before you can install Power Monitoring Expert.

Most of the supported operating systems will have this framework version installed by default. However, it is not included by default in Windows 8 and Windows Server 2012.

To determine which .NET Framework versions are installed on your computer, refer to How to determine which versions and service pack levels of the Microsoft .NET Framework are installed.

For information on deploying the .NET Framework 3.5, refer to Microsoft .NET Framework 3.5 Deployment Considerations or search the Internet for alternate instructions

Preparing the clients

Web Client computers require network connectivity to a Power Monitoring Expert primary server to access the Web Applications component of Power Monitoring Expert.

Engineering Client and Reporting Client computers require .NET Framework 3.5 (or 3.5 SP1) for the Power Monitoring Expert installer to run. (See "Installing .NET Framework " on page 11for details.)

Power Monitoring Expert setup type considerations

Power Monitoring Expert supports 5 different setup types:

- Standalone Server
- Application Server
- Secondary Server
- Engineering Client
- Reporting Client.

Standalone Server setup type

A Standalone Server hosts Power Monitoring Expert configuration files, services, and a SQL Server instance for the Power Monitoring Expert databases all on the same computer.

For client computers to be able to connect to the Standalone Server, it must:

- Exists on the Local Area Network (LAN).
- Share full Read and Write permissions on the Power Monitoring Expert folder.
- Enable file and printer sharing on the LAN properties.

Application Server setup type

An Application Server setup type is used for a distributed installation where the SQL Server resides on a different computer than the Power Monitoring Expert software.

The Application Server hosts the Power Monitoring Expert configuration files and services. It communicates with the remote database server to access Power Monitoring Expert databases.

During the installation of the Application Server setup type, you need to specify the location for the Power Monitoring Expert databases that will be created on the remote server hosting your SQL Server edition. You need to install the SQL Server edition before installing the Application Server.

Before proceeding with the installation of your distributed system, ensure that you complete the following tasks:

- Create a folder on the remote database server where the Power Monitoring Expert databases will be installed during the installation process.

- Ensure that the Windows user or the SQL Server user specified on the **Database Software** page of the Installer is a member of the sysadmin SQL Server role.

- Ensure that all of the servers on the network can communicate with each other. For example, to test for this, open a command prompt on each server and type `ping` *computer_name*, where *computer_name* is the name of the computer you want to contact. A successful response shows 4 attempts to contact the computer, lists the IP Address, indicates `Packets: Sent = 4. Received = 4, Lost = 0 (0% loss),` plus timing data. If this is not the case, it indicates that the computers cannot communicate and that you need to resolve the connectivity situation. Note that the ping utility requires that Internet Control Message Protocol (ICMP) be enabled on your network. Contact your Network Administrator if ping does not work.

Secondary Server setup type

Secondary Server installations are not common, and are used only in exceptional circumstances. Secondary Server installations require advanced network configuration. Contact Technical Services if you require a Secondary Server installation type.

Engineering Client setup type

An Engineering Client provides administrators and power users access to the Power Monitoring Expert graphical user interface components (Management Console, Vista, Designer), and the Excel-based Reporter component. You can use these components to add and configure devices, troubleshoot your system, edit graphics, or perform ION programming tasks. An Engineering Client needs to be installed after a primary server (either a Standalone Server or an Application Server) is installed and running.

Reporting Client Only setup type

A Reporting Client provides administrators and power users with the ability to generate reports using the Excel-based Reporter component of Power Monitoring Expert. A Reporting Client needs to be installed after a primary server (either a Standalone Server or an Application Server) is installed and running.

Firewall configuration

Power Monitoring Expert TCP port assignments

Power Monitoring Expert depends on certain TCP ports for the communication between its components and the connected devices. Only TCP ports are used, UDP ports are not used. Which ports are required for a specific installation depends on the system configuration and the monitoring devices used. The following tables list all ports and their functions.

Core Components

Item	TCP Port
SQL Server	1433, 1434
Web Client	80, 443

Server/Engineering Client

Item	TCP Port
Diagnostic Viewer	13667, 13671, 6000-99 (variable), 57779
Vista	13666, 13670, 57777
Designer	13666
Management Console	13666
Device Upgrader	13666
Flexera Licensing	27000-09 (one port in this range)

Server/Monitoring Devices

Item	TCP Port
Modbus TCP Device Comms	502
Modbus RTU Device Comms	7701
ION Device Comms	7700
ACM Device Comms	3721
Devices through Ethernet Comms	7800/7801/7802/7803

External/Devices

Item	TCP Port
Telnet	23
FTP	20, 21
SMTP	25
Device web page access	80, 443

Other

Item	TCP Port
File sharing, Printer sharing	139, 445
OPC Client	135
EcoStruxure Web Services (EWS)	80

NOTE: If you intend to use Engineering Clients in a firewall-enabled environment, contact Technical Support for installation considerations.

Additional information for consideration

- The minimum display resolution for Power Monitoring Expert software is 1024 x 768.

- Install and configure the Terminal Server component if Terminal Server connection to the Power Monitoring Expert Primary Server is required. Refer to the "Terminal Server Licensing

Overview" topic in your Microsoft Windows documentation to learn about Terminal Server Licensing requirements.

- Configure the Remote Desktop Connection if you require remote connection to a Power Monitoring Expert primary server, see support information provided by Microsoft.

- If you plan to use TAPI modem drivers for Windows (WinModems) in your Power Monitoring Expert system, install and configure the WinModems. Additional WinModem information is available in the *StruxureWare Power Monitoring Expert User Guide*.

- The Database Manager tool, in Power Monitoring Expert, can only be used in standalone installations or distributed installations where the application server and the database server are in the same network domain. It cannot be used in distributed installations where the application server and the database server are members of workgroups.

Installing the software

The SQL Server software must be installed first, before installing Power Monitoring Expert.

You can install a supported edition of SQL Server with your own SQL Server installation media, or you can order the following SQL Server editions from Schneider Electric:

- SQL Server 2012 Standard Edition (English) with Service Pack 1. (Update to Service Pack 2 before installing Power Monitoring Expert.)
- SQL Server 2016 Standard Edition (English)

If no SQL Server instance is detected during the installation of a Power Monitoring Expert Standalone Server, the installer provides the option to install SQL Server 2014 Express.

If no SQL Server instance is detected during the installation of a Power Monitoring Expert Application Server, the installation cannot proceed.

To let the Power Monitoring Expert installer install the SQL Server 2014 Express edition, continue with "Installing Power Monitoring Expert software" on page 27.

To reuse an existing SQL Server Standard instance, continue with "Configuring an existing SQL Server" on page 24.

To install a new SQL Server Standard instance, follow the steps described in the following topics.

Installing a new SQL Server

Log into Windows as a user with administrative privileges. Make sure that no other programs are running; save your work, and close any open applications.

The installation steps are generally the same for all supported SQL Servers. For illustration purposes, the images in the following steps are from the SQL Server 2014 Standard edition installation unless indicated otherwise.

1. Insert the SQL Server Installation DVD in your DVD drive or access the installation media on your system, then navigate to the root directory on the DVD and double-click `setup.exe` to open the **SQL Server Installation Center**.

2. Select **Installation** in the left pane and **New SQL Server stand-alone installation or add features to an existing installation** on the right.

3. Follow the steps provided by the installation wizard pages until you reach the **Setup Role** page. For SQL Server 2016, follow the steps in the installation wizard until you reach the **Feature Selection** page.

   Whenever a validation process occurs during installation, if validation is not successful, follow the instructions in the wizard to resolve the problem and click **Re-run**.

   Click **Next** when the validation is successful.

4. The **Setup Role** page (not applicable to SQL Server 2016): Leave **SQL Server Feature Installation** selected and click **Next**.
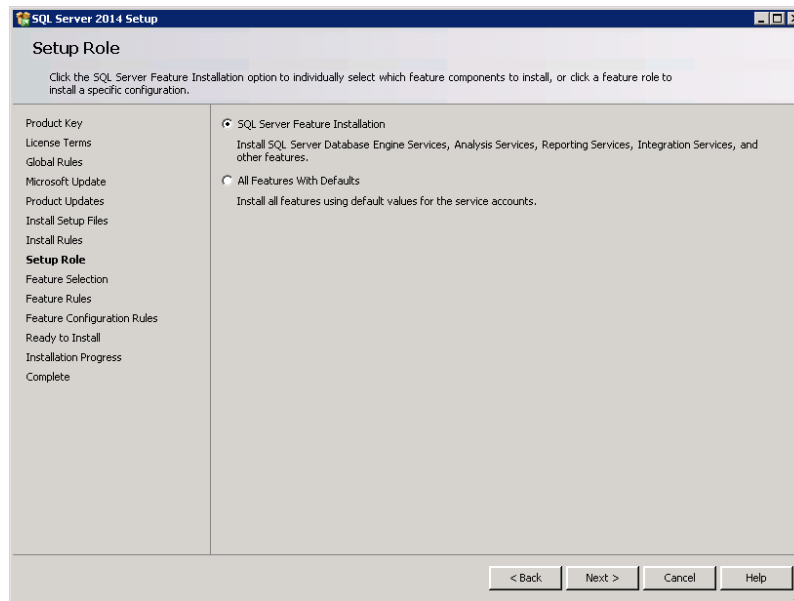
5. The **Feature Selection** page: Under **Instance Features**, select **Database Engine Services**. Under **Shared Features**, select **Management Tools - Basic** and **Management Tools - Complete**.

   For SQL Server 2016, you need to install the Management Tools feature in a separate Web-based process after completing the installation of SQL Server 2016.

   Select any of the other shared features that you want to install.

   Database Engine Services is required if you are installing on a Standalone Server or on a Database Server in a distributed system.
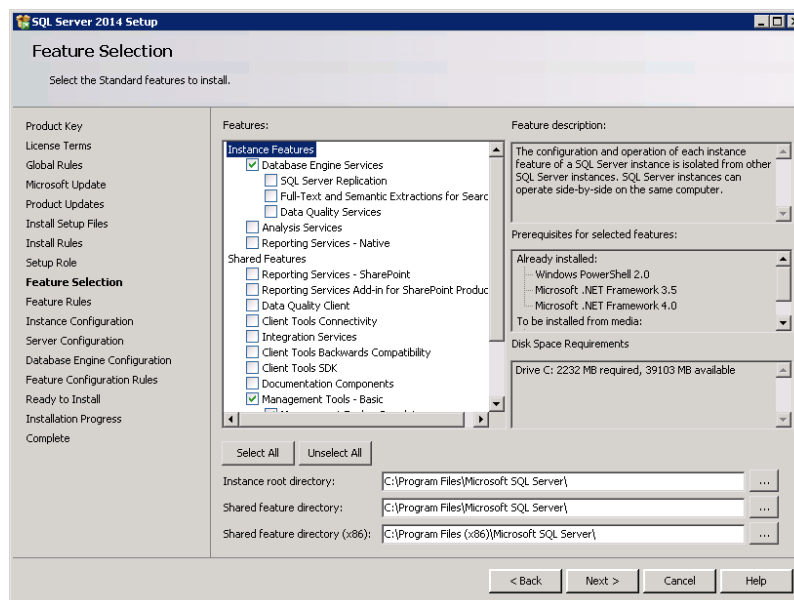
   Click **Next** when you complete your selections. The setup process validates that the installation can proceed.

6. The **Instance Configuration** page: Select **Named instance** and enter a name in the **Instance Name** field, for example **ION**. (Do not use an underscore character (_) within the instance

name.) Click in the **Instance ID** field to automatically add your **Instance name** entry. Click **Next**.
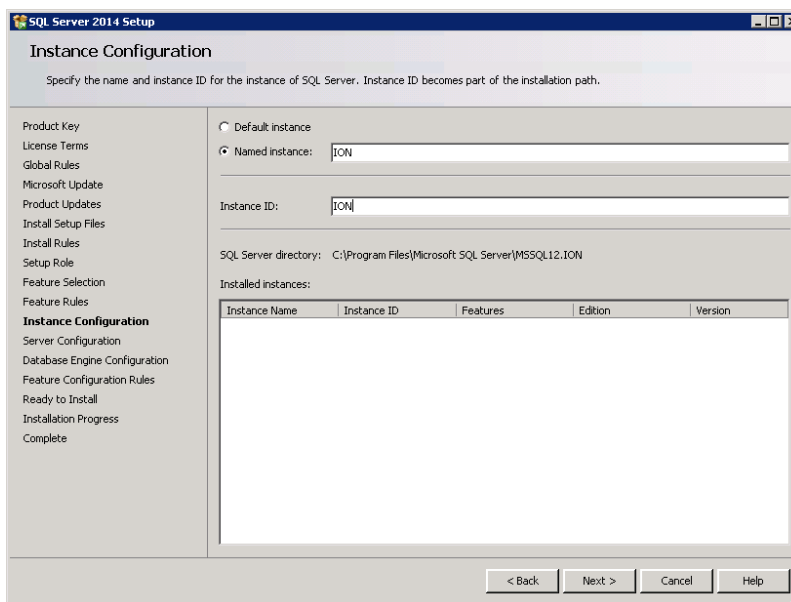
7. The **Server Configuration** page: For SQL Server 2012, 2014, and 2016 editions, change the **Account Name** for SQL Server Agent and SQL Server Database Engine to **NT AUTHORITY\SYSTEM** (your local system account). Highlight the existing entries in the **Account Name** column and enter `NT AUTHORITY\SYSTEM` for the two services. Click **Next**.
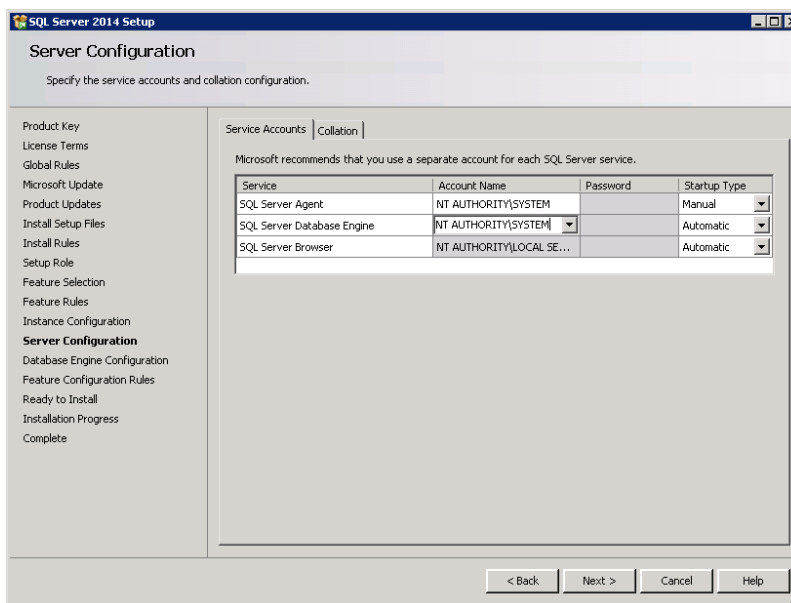
For SQL Server 2008 R2, select **Use the same account for all SQL Server services** to open the dialog.
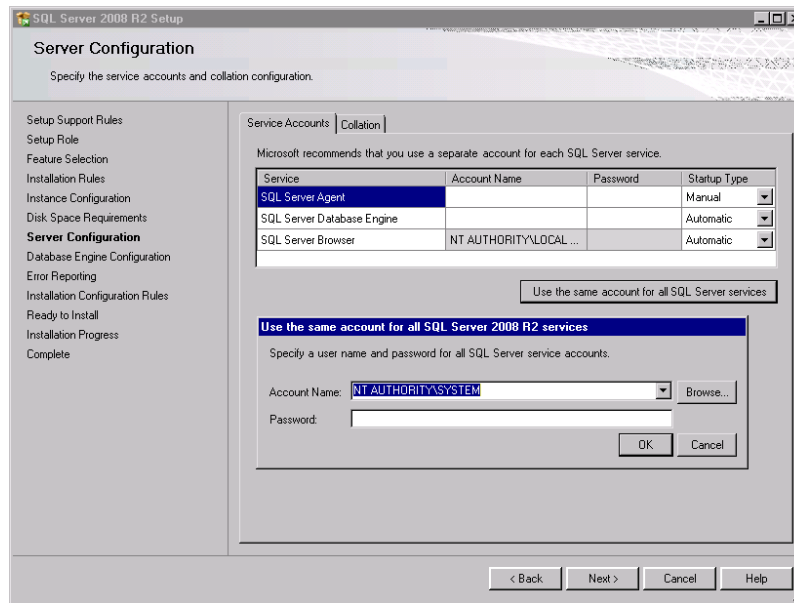
Select **NT AUTHORITY\SYSTEM** (your local system account) in the **Account Name** list. A
password is not required. Click **OK** to apply your selection and close the dialog.
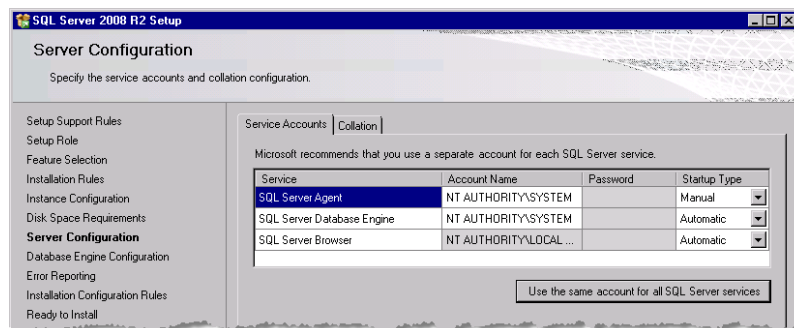
Note that if you specify a Windows account other than the local system account, when you
begin installing Power Monitoring Expert, the **Check System** page in the Installer indicates
that the service account under which the SQL Server currently runs does not have the required
system permissions. To resolve this situation, you need to do one of the following:

- Temporarily change the SQL Server service to run under an account that has Write per-
  missions to (1) the folder created for the product's databases (the default is the install loc-
  ation for ...\Schneider Electric\Power Monitoring Expert), and (2), for the current logged-in
  user's Temp folder. (To find the full path to the Temp folder, click **Start > Run**, enter
  %Temp% and click **OK**.) The default local system account is an example of an account
  with these privileges.

- Temporarily grant Write permission for the two folders mentioned above to the Windows
  account that the SQL Server service runs under. Use the Windows Services control panel
  to identify this account. (Click **Start > Administrative Tools > Services**, right-click **SQL
  Server**, click the **Log On** tab in the **SQL Server Properties** dialog.)

You can revert the temporary changes after the installation of Power Monitoring Expert
completes.

8. The **Database Engine Configuration** page: On the **Server Configuration** tab:

   a. Select **Mixed Mode**.

   b. Type a password for the SQL Server system administrator (sa) account in the **Enter password** and **Confirm password** fields. (Keep a record of the password for future use.)


NOTICE

LOSS OF DATA

- Use a strong password for the System Administrator account consisting of at least 6 characters that are a combination of uppercase and lowercase letters, numbers, and symbols such as @, #, $, %.

- Only allow users with advanced knowledge of SQL Server databases access to the SQL Server.

Failure to follow these instructions can result in unauthorized access to SQL Server databases.

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   c. Click **Add Current User** to add the SQL Server Administrator if it is not specified by default.
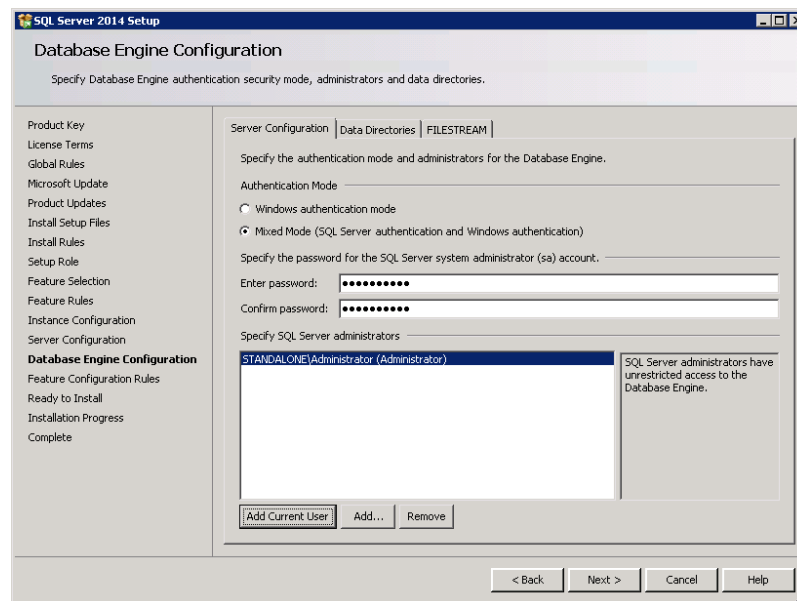
   d. Click the **Data Directories** tab.

9. The **Database Engine Configuration** page: On the **Data Directories** tab, specify a drive for the TempDB directories (Data and Log) that is different than the database directories. Click **Next** to proceed to the **Feature Configuration Rules** page.

   Specifying different drives is for performance reasons. If all of the files are located on the same drive, data that is being inserted, updated, or deleted can potentially result in slower write operations than if the Temp DB directories are located on a separate drive. The specification of different drives is dependent on your hardware configuration and may not be possible in all cases. Review the *Design Guide* for performance and hard drive considerations. See "Product documentation" on page 9 for details about the availability of the *Design Guide*.
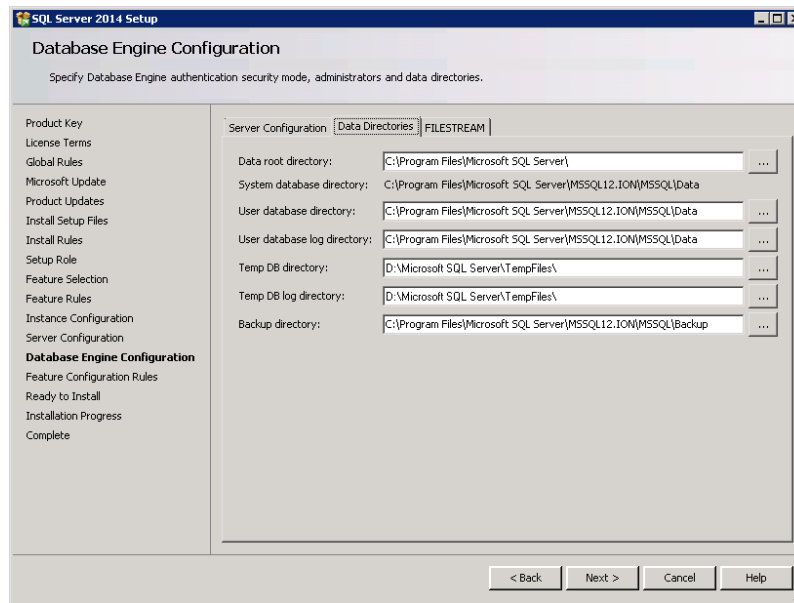
NOTE: For SQL Server 2016, the TempDB directories are specified on the **TempDB** tab.

10. The **Feature Configuration Rules** page: The rules are run automatically to validate that the installation can proceed. If validation is successful, the next page opens. If validation is not successful, follow the instructions on the page and click **Re-run**. Click **Next** when the validation is successful.
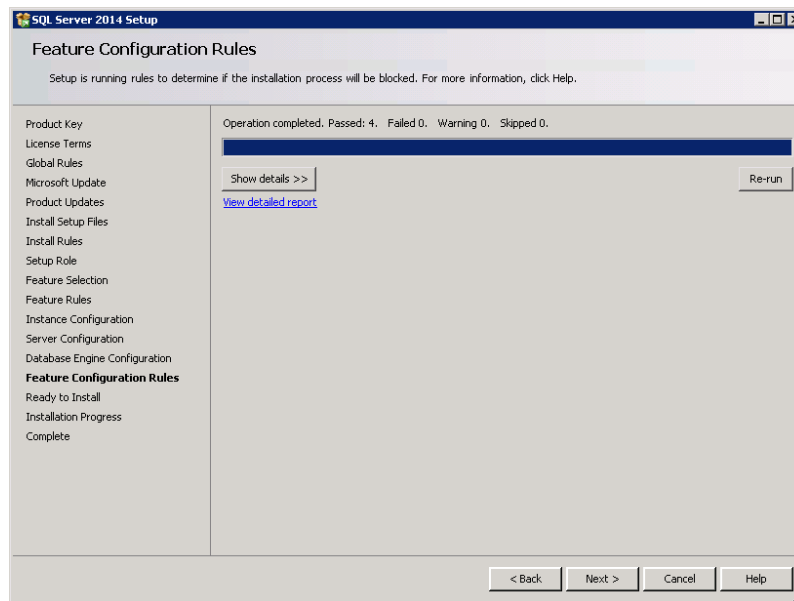

11. The **Ready to Install** page: Click **Install**.

The page shows the SQL Server features that are about to be installed.
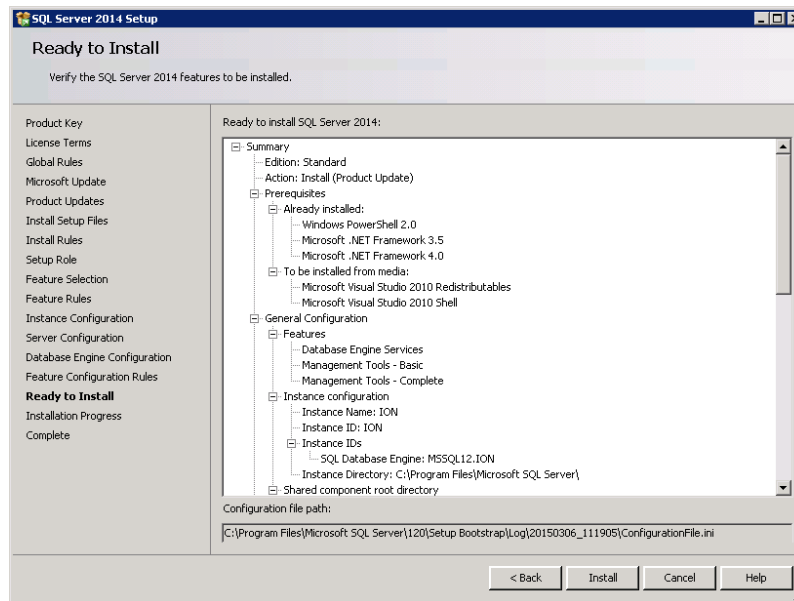
When the installation finishes, the **Complete** page opens.

12. The **Complete** page: Click **Close** to close the setup dialog.

The **Complete** page contains information about the Setup operations or possible next steps, as well as supplemental information related to your installation.
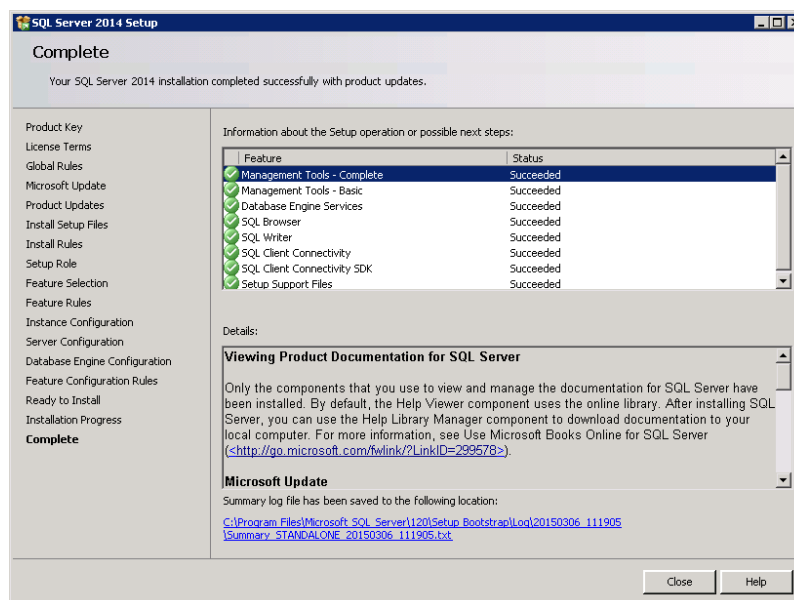
13. For SQL Server 2016, click **Install SQL Server Management Tools** in the **SQL Server Installation Center** to launch the download page for the installation of SQL Server Management Studio. Internet access is required.

14. Go to the **Maintenance** page in the **SQL Server Installation Center** and click **Launch Windows Update to search for product updates** that you can install.

15. Close the **SQL Server Installation Center**.

Setting SQL Server memory options

Note the following recommendations for setting SQLServer memory options on the server where you install SQL Server:

- Where only SQL Server is running on the host server, set the SQL Server maximum memory at the system physical memory less at least 2GB for the Windows operating system. For example, if your server has 8GB of memory, set the SQL Server maximum memory to no more than 6GB. This leaves at least 2GB for the operating system.

- Where the SQL Server is sharing the host server with other server processes, including Internet Information Services (IIS) and ION services, set the SQL Server maximum memory to no more than half the physical memory on the server. For example, if your server has 8GB of memory, set the SQL Server memory to no more than 4GB. This leaves at least 4GB for the operating system and all other server processes.

In addition to setting the maximum memory option, consult with your site administrator to determine whether or not to enable the **Lock pages in memory** permission setting in Windows for the SQL service account on all SQL Server instances.

To set the maximum memory setting for your SQL Server:

1. Start **SQL Server Management Studio** and log in to your SQL Server instance.

2. Right-click the SQL Server name and click **Properties** in the menu to open the **Server Properties** dialog.

3. Select **Memory** in the left pane and adjust the value in the **Maximum server memory** field.

4. Click **OK** to apply the changes and close the dialog.

5. Close **SQL Server Management Studio**.

   A server reboot or a restart of the SQL Server service is not required.

To enable the lock pages in memory option:

1. Click **Start > Run** and type `gpedit.msc` in the **Run** dialog to open the **Local Group Policy Editor**.

2. In the left pane, navigate to **Computer Configuration > Windows Settings > Security Settings > Local Policies**.

3. Expand **Local Policies** and select **User Rights Assignment**.

   The policies are listed in the right pane.
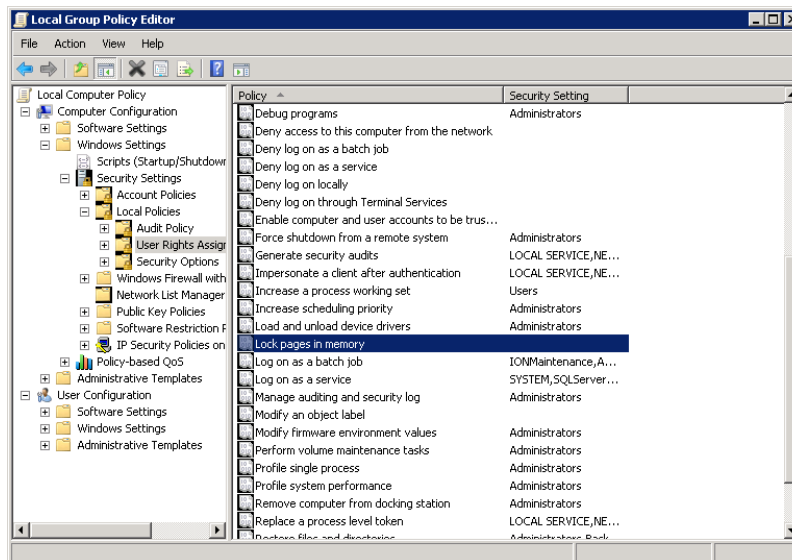
4. Locate **Lock pages in memory** in the list and then double click the policy name to open the **Lock pages in memory Properties** dialog.

5. Click **Add User or Group** on the **Local Security Setting** tab.

6. Add an account with the privileges to run sqlserver.exe and then click **OK** to close the dialog.

7. Click **OK** to close the **Local Group Policy Editor**.

A server reboot or a restart of the SQL Server service is not required.

Configuring an existing SQL Server

If you have an existing installation of SQL Server Express, the Power Monitoring Expert Installer adds the instance that is required by Power Monitoring Expert.

If you have an existing installation of SQL Server Standard Edition, then rerun the SQL Server Setup wizard and follow the steps described in "Installing a new SQL Server" on page 16.

In most cases, fewer steps are required. The **Feature Selection** page and the **Instance Configuration** page are slightly different, as noted below.

The **Feature Selection** page:

1. Under **Instance Features**, select **Database Engine Services**.

2. Under **Shared Features**, select **Management Tools - Basic** and **Management Tools - Complete** if they are not already selected.

Note that for SQL Server 2016, if the Management Tools feature has not previously been installed, you need to install the feature in a separate Web-based process after completing the installation of the SQL Server instance.

Select any of the other shared features that you want to install.
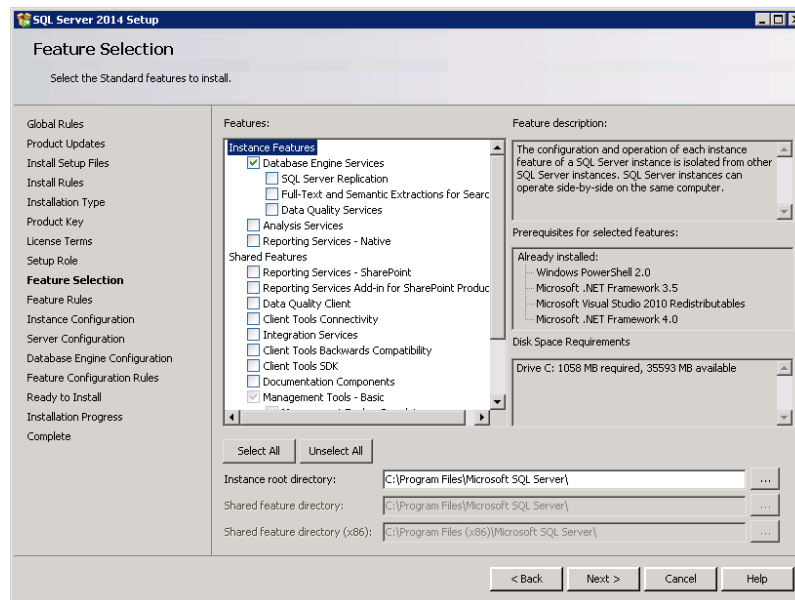
The **Instance Configuration** page:

1. Enter a name in the **Instance Name** field, for example **ION**. (Do not use an underscore character (_) within the instance name.)

2. Click in the **Instance ID** field to automatically add your **Instance name** entry.

3. Click **Next**.

   Any existing instance names appear in the **Installed Instances** area on the page. If Management Studio Tools have previously been installed, they are identified as the shared components **SSMS**, and **Adv_SSMS**.
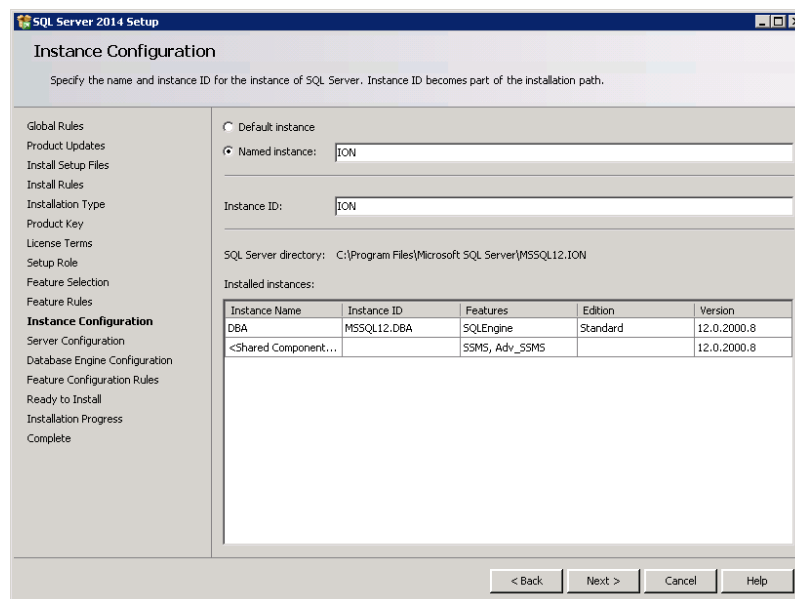
Complete the remaining steps in the instance addition process and close the **SQL Server Installation Center**.

For SQL Server 2016, if SQL Server Management Tools need to be installed, click **Install SQL Server Management Tools** in the **SQL Server Installation Center** to launch the download page for their installation. Internet access is required.

Power Monitoring Expert installation

The Power Monitoring Expert installation consists of running the Installer and selecting options as you proceed through the installation process. Perform the software installation directly on the server. Remote installation is not recommended.

Setup Types and applicable Installer pages

The following table indicates the pages in the Installer associated with each setup type. Because Secondary Server installations are not common, the Secondary Server setup type is excluded from the table. The "Y" indicates that the Installer page appears during the installation of that setup type, and the "n/a" indicates that the page is not applicable and does not appear during the installation process.

Installer Pages	Setup Types			
	Standalone	**Application Server**	**Engineering Client**	**Reporting Client Only**
Application Language	Y for all setup types			
Welcome	Y for all setup types			
License Agreement	Y for all setup types			
Setup Type	Y for all setup types			
System Key	Y	Y	n/a	n/a
Import System Key	Y	Y	Y	n/a
Export System Key	Y	Y	n/a	n/a
User Information	Y for all setup types			
Web Application	Y	Y	n/a	n/a
Application Server	n/a	n/a	Y	Y
Diagnostic and Usage	Y	Y	n/a	n/a
File Destination	Y for all setup types			
Supervisor Account	Y	Y	n/a	n/a
Windows Accounts	Y	Y	n/a	n/a
Database Accounts	Y	Y	n/a	n/a
Database Software	Y	Y	n/a	n/a
Database Files Destination	Y	Y	n/a	n/a
Check System	Y for all setup types			
Ready to Configure	Y for all setup types			
Copy Files	Y for all setup types			
Configure System	Y for all setup types			
Complete	Y for all setup types			

Installing Power Monitoring Expert software

Start the installation process by inserting the Power Monitoring Expert DVD into the DVD drive. If the installation does not start automatically, use Windows Explorer to navigate to the DVD drive and double-click `MainSetup.exe`.

1. Install Microsoft .NET Framework if prompted.

   After installing the .NET Framework, you are prompted to restart your system. After the restart, double-click `MainSetup.exe` to continue the Power Monitoring Expert installation.
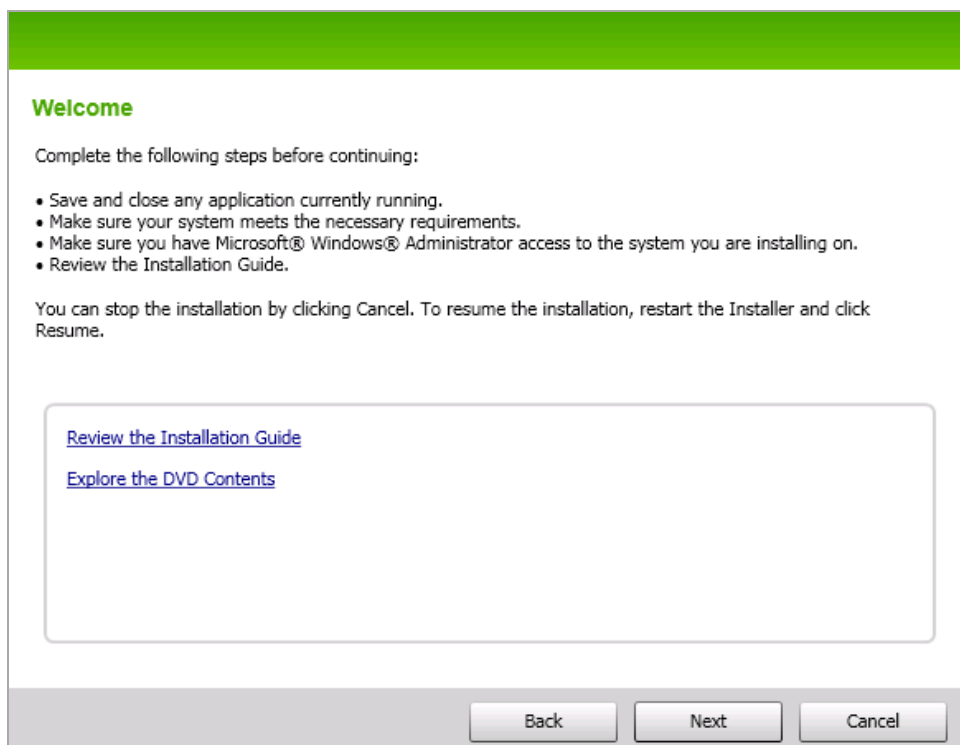
2. **Application Language** page for all setup types:

   Select the **Application Language** from the list and click **Next**.
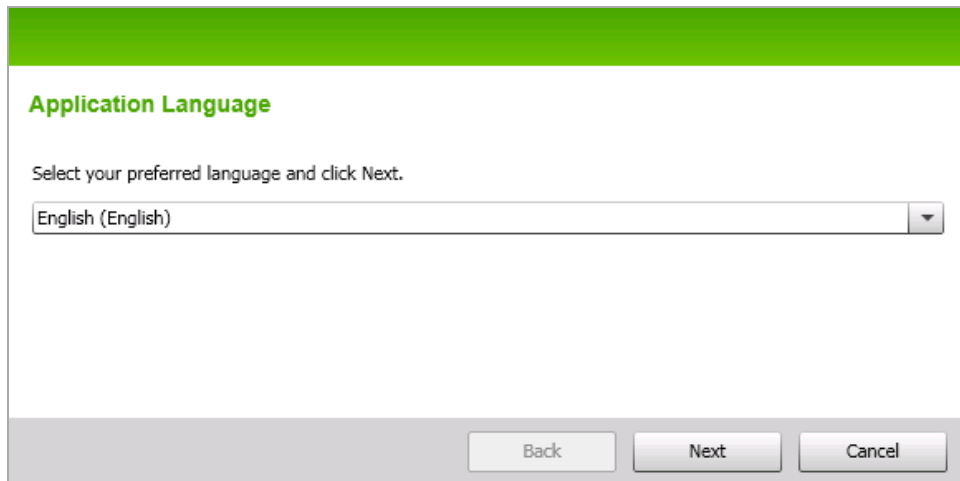
3. **Welcome** page for all setup types:

   Click **Next** on the **Welcome** page to proceed to the **License Agreement** page.

The **Welcome** page provides reminders for tasks to complete before continuing with the installation.
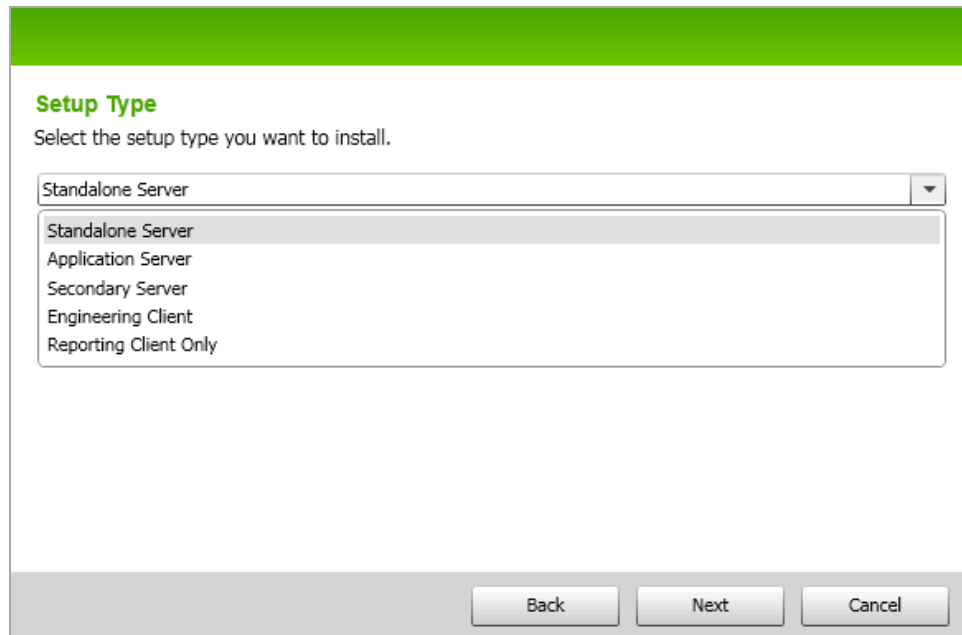
4. **License Agreement** page for all setup types:

Read the End User License Agreement (EULA) on the **License Agreement** page.
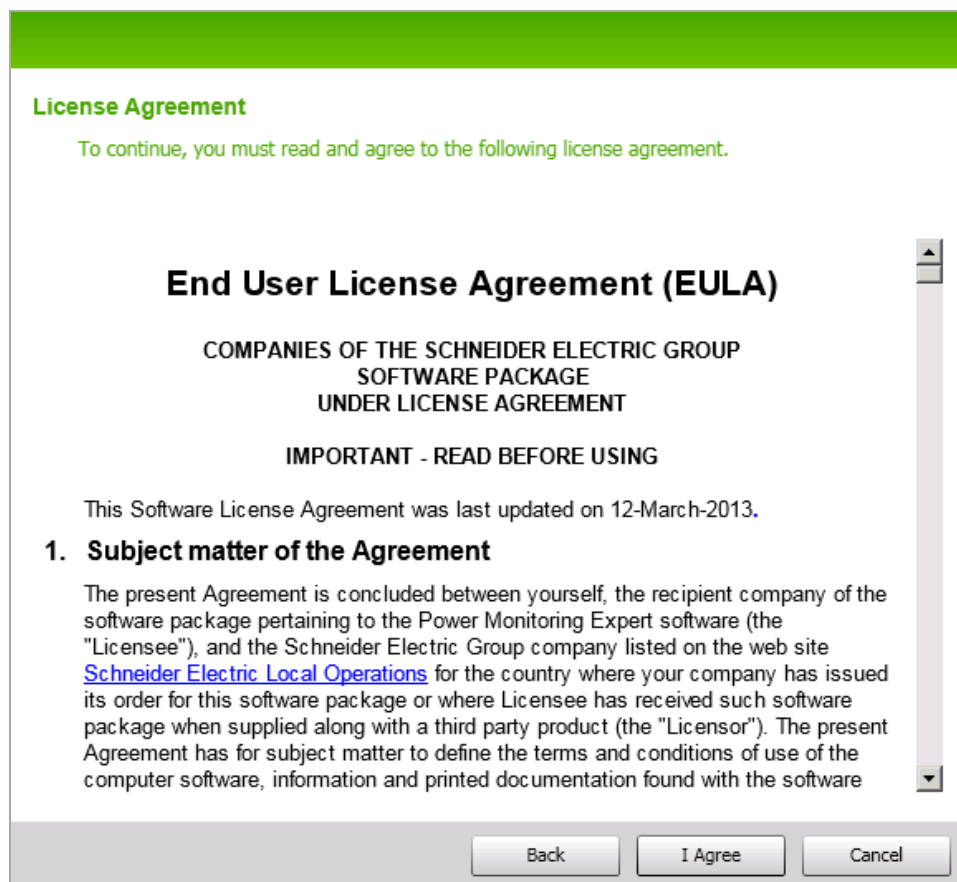
If you accept the terms of the license agreement, click **I Agree** to proceed to the **Setup Type** page.

5. Select the setup type you want to install from the list if it is not already selected, and click **Next**.

Standalone Server:

Application Server:

Engineering Client:

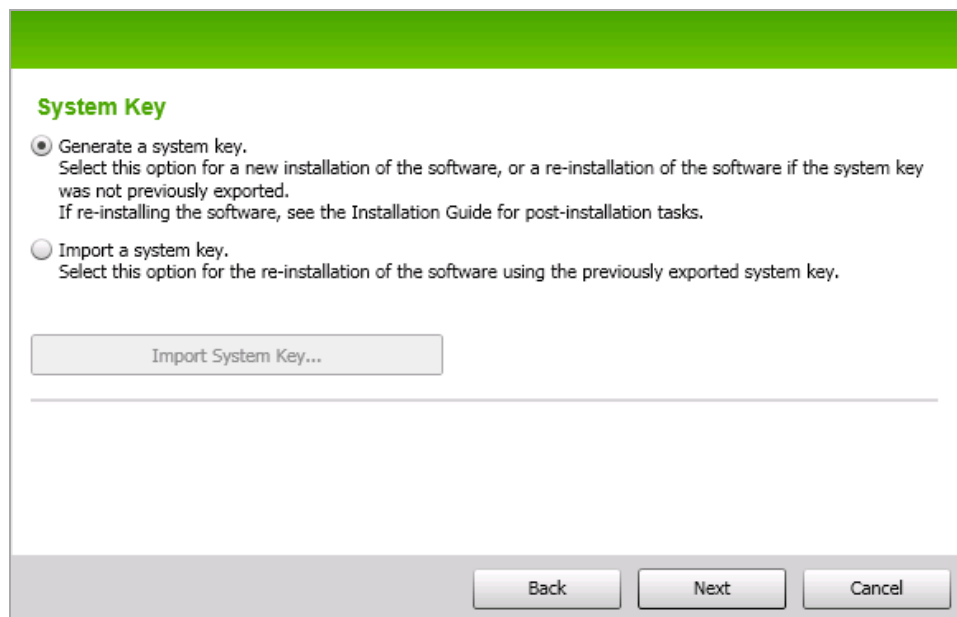**Reporting Client Only**:

6. **System Key** page for **Standalone Server** and **Application Server** setup types.

   This page provides the options to **Generate a system key** or to **Import a system key**.

   Use **Generate a system key** for the initial installation of a Standalone Server or Application Server setup type, or when you are re-installing one of those setup types and a system key is not available.

Use **Import a system key** when you are re-installing a Standalone Server or an Application Server setup type and you have the system key that you previously exported.

Select an option and click **Next**.

7. **Export System Key** page for **Standalone Server** and **Application Server** setup types.

It is mandatory that you export the system key. **Next** is enabled after you complete the export.

    a. Click **Export System Key** to open the file explorer.

    b. Navigate to the location where you want to store the system key.

    c. Type a file name for the system key and click **Save**.

    d. Click **Next**.

The system key is required if you install an Engineering Client, or if you need to uninstall then reinstall Power Monitoring Expert.

NOTE: You can export the system key at any time after the installation. See "Additional Installer operations" on page 49 for details.
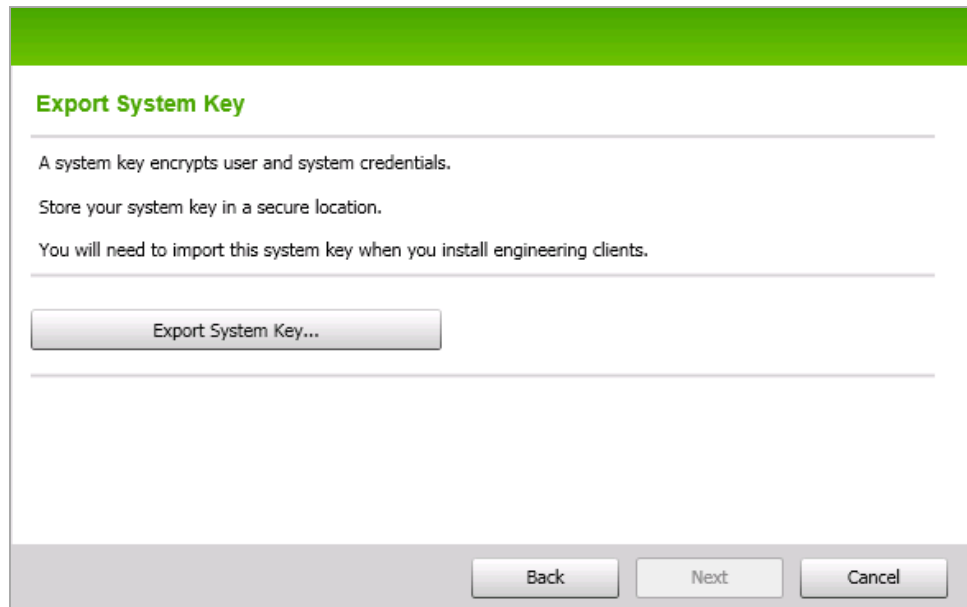
8. **Import System Key** page for **Engineering Client** setup type.
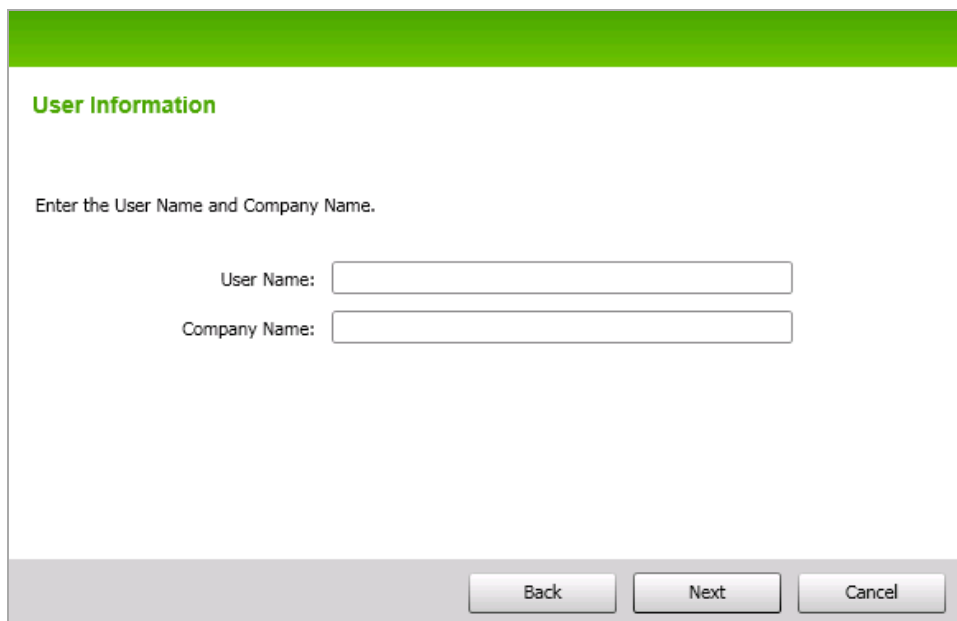
    The Engineering Client installation needs to use the system key that you exported when you
    installed a Standalone Server or an Application Server.

    a. Ensure that the system key is available.

    b. Click **Import System Key** to open a file explorer.

    c. Navigate to and click the system key file.

    d. Click **Open** to add the system key location to the **Import System Key** page.

    e. Click **Next**.
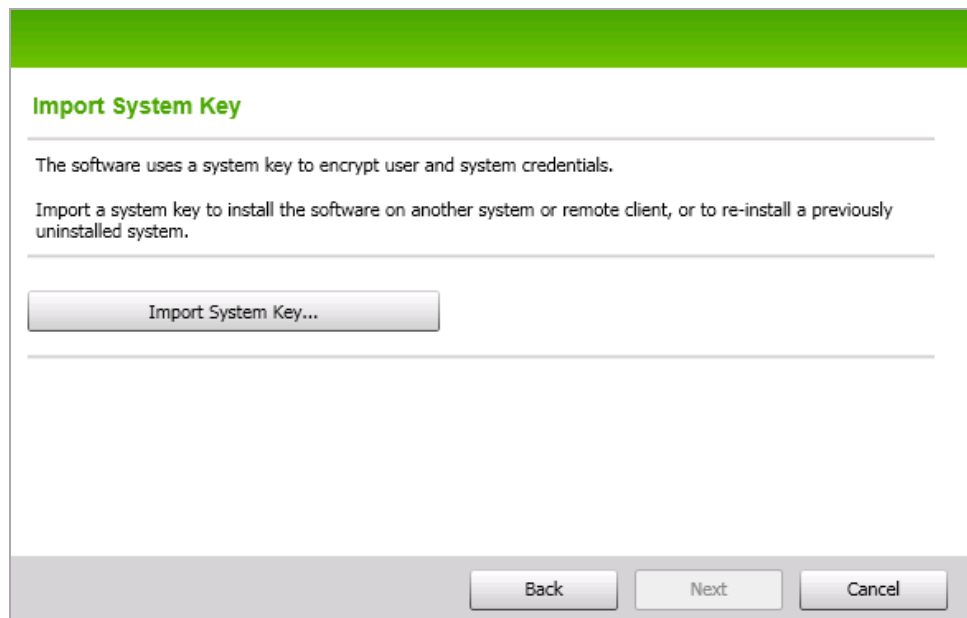
9. **User Information** page for all setup types:

    Enter the user-related information in the **User Name** and **Company Name** fields on the **User
    Information** page and then click **Next**.

User Information

Enter the User Name and Company Name.

User Name:

Company Name:

Back Next Cancel

10. **Web Application** page for **Standalone Server** and **Application Server** setup types only:

Use the **Web Application** page to change the default URL path for the Web Applications component of the product, or use the default values and click **Next**.
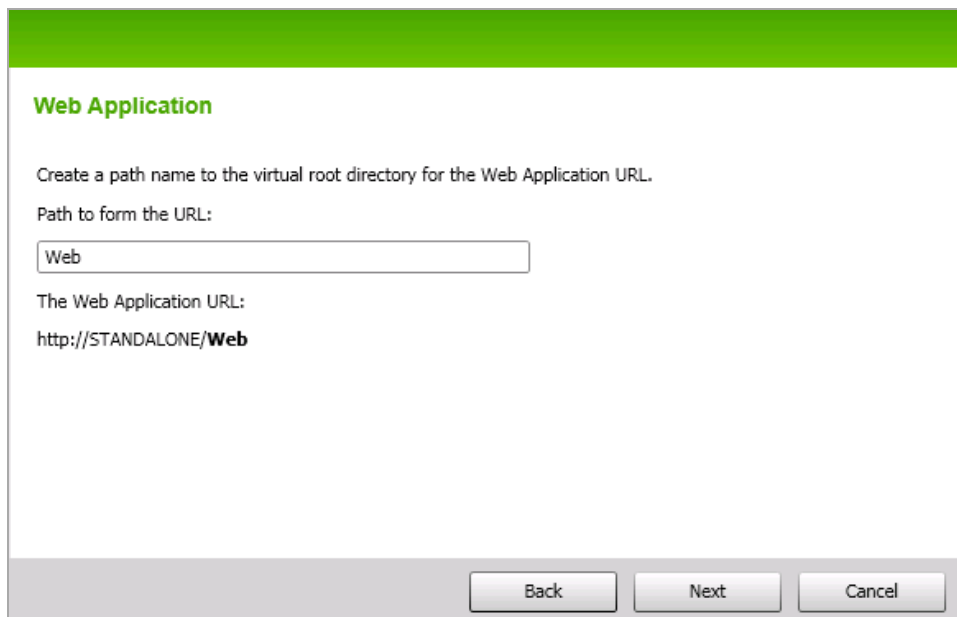
Web Application

Create a path name to the virtual root directory for the Web Application URL.

Path to form the URL:

Web

The Web Application URL:
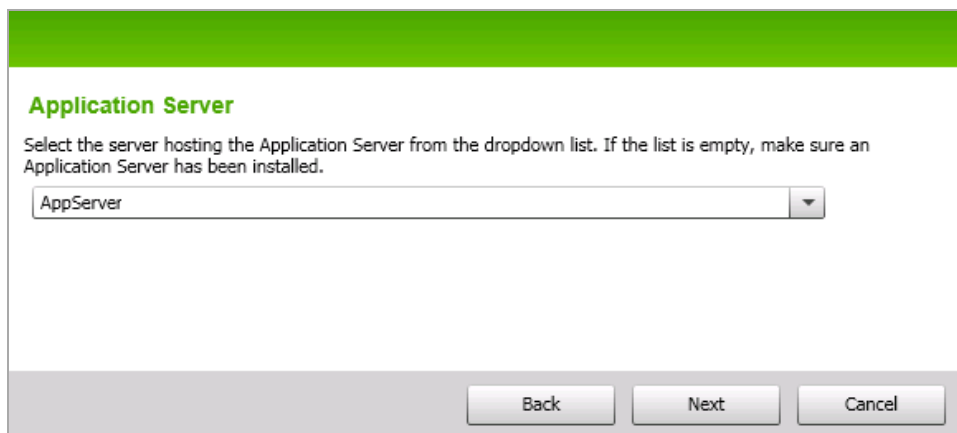
http://STANDALONE/**Web**

Back Next Cancel

11. **Application Server** page for **Engineering Client** or **Reporting Client Only** setup types:

This page identifies the server hosting the graphical user interface components (Management Console, Vista, Designer) that administrators and power users can access from an **Engineering Client**. **Reporting Client Only** allows administrators and power users to generate reports using the Excel-based Reporter component.

If this is the first time that you are installing a client setup type, the dropdown field on this page is empty. Ensure that your application server is defined in your system network and type its name in this field.

Application Server

Select the server hosting the Application Server from the dropdown list. If the list is empty, make sure an Application Server has been installed.

AppServer ▼

Back   Next   Cancel

12. **Diagnostics and Usage** data page for **Standalone Server** and **Application Server** setup types.

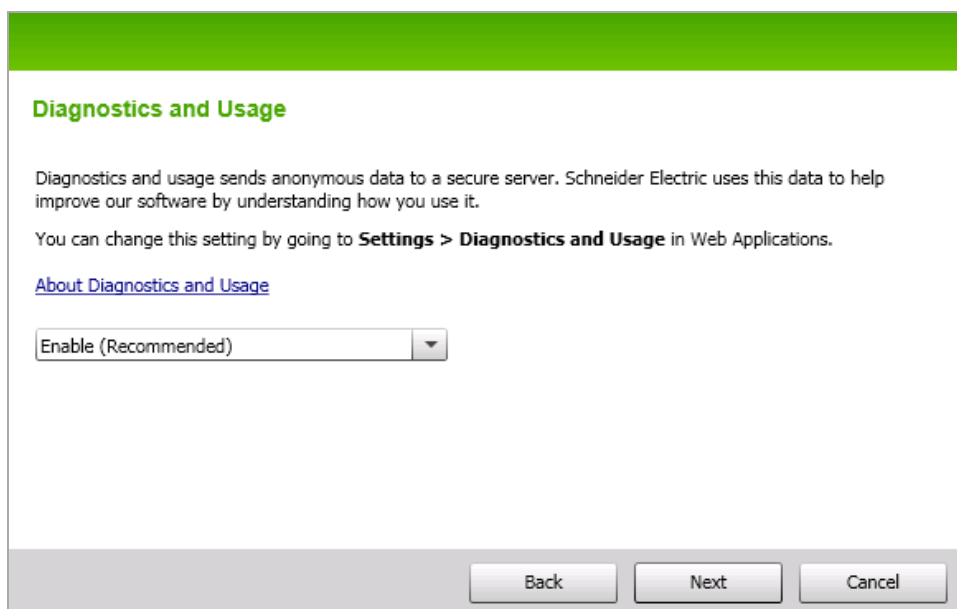The default setting of **Enable** indicates that the diagnostics and usage service will collect and send data to Schneider Electric weekly on Monday at 2:00 a.m. (server time). Each time the service runs, it creates a log file in the `system\bin` folder in the Power Monitoring Expert install location.

All diagnostics and usage data is sent to Schneider Electric anonymously. None of the collected information identifies you or your company.

Select **Disable** in the list to exclude sending any diagnostic and usage data to Schneider Electric.

Click **Next**.

Diagnostics and Usage

Diagnostics and usage sends anonymous data to a secure server. Schneider Electric uses this data to help improve our software by understanding how you use it.

You can change this setting by going to **Settings > Diagnostics and Usage** in Web Applications.
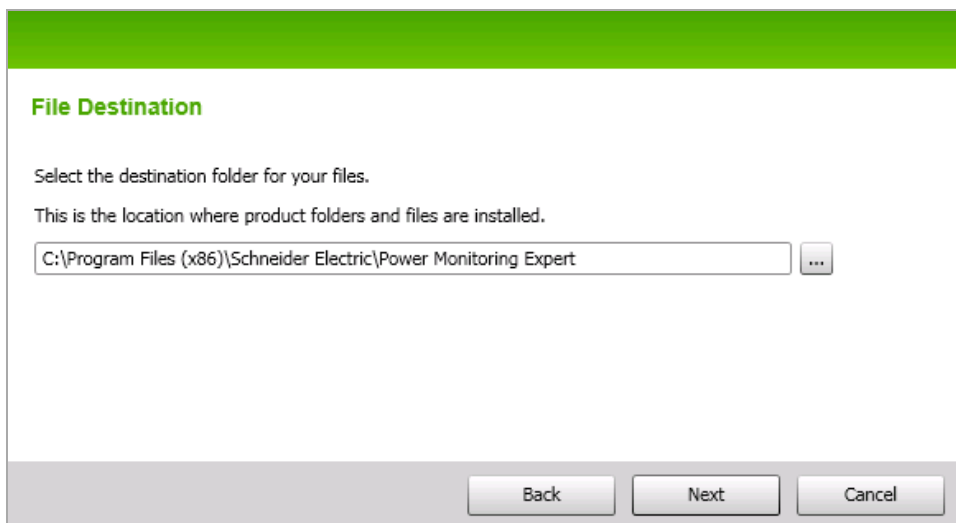
About Diagnostics and Usage

Enable (Recommended) ▼

Back   Next   Cancel

13. **File Destination** page for all setup types:

This page indicates the default installation location for the product folders and files. Use the browse button to select a different location if desired. Click **Next**.

Click **Yes** if you are prompted to create the folder.

File Destination

Select the destination folder for your files.

This is the location where product folders and files are installed.

C:\Program Files (x86)\Schneider Electric\Power Monitoring Expert   ...

Back   Next   Cancel

14. **Supervisor Account** page for **Standalone Server** and **Application Server** setup types only:

Use the **Supervisor Account** page to enter and confirm a password for the supervisor account for the software. Click **Next**.

The strength of the password is evaluated as you type, and the evaluation is included on the page. The password strength evaluation ranges from very weak to very strong.
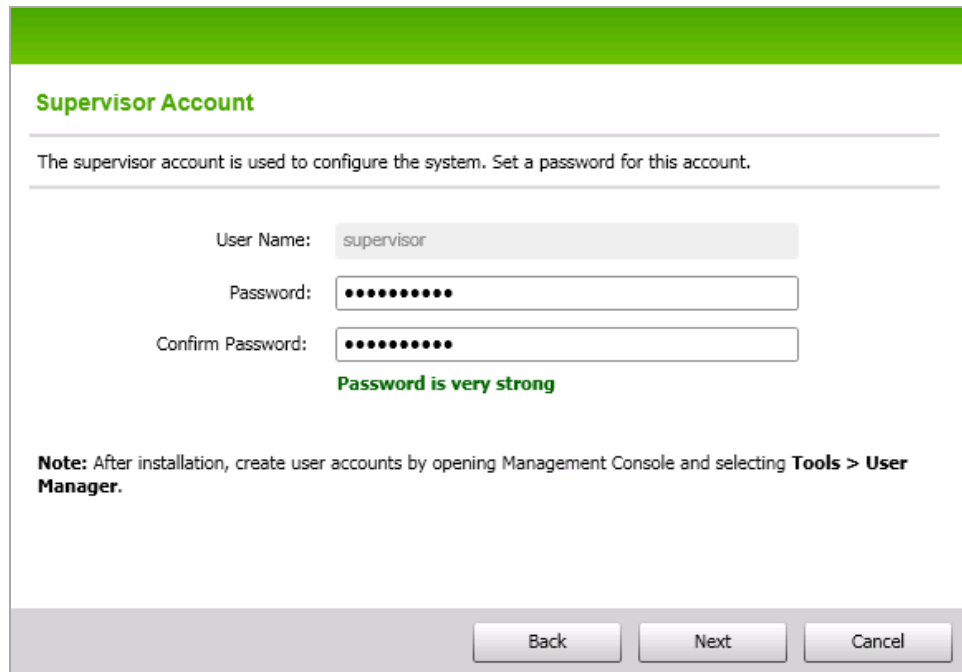
NOTICE
LOSS OF DATA • Use a strong password for the supervisor account consisting of at least 6 characters that are a combination of uppercase and lowercase letters, numbers, and symbols such as @, #, $, %. • Only allow users with advanced knowledge of site administration supervisor account access. **Failure to follow these instructions can result in unauthorized access to Power Monitoring Expert system components.**

The supervisor account has the highest level of access to the system.

Use the supervisor account to configure the system. To add users, assign passwords, and select the appropriate access level for each user, open **Management Console** and select **Tools > User Manager**.

If you continue to the next pages in the Installer and then return to this page by clicking **Back**, the page contains a **Change Password** button. If you want to change the password that you initially entered, click **Change Password**, type the new password in the fields, and click **Next** to proceed.

15. **Windows Accounts** page for **Standalone Server** and **Application Server** setup types.

    The same default password is used for the `IONMaintenance` and `IONUser` Windows accounts. Click **Change Password** and specify your own password in the fields, if desired. Password must comply with the Windows password policy for your company. For example, mix upper, lower case letters, numbers, symbols, over a certain length, do not use username in password, etc.

    The IONMaintenance account is used to run Power Monitoring Expert database jobs in Windows Task Scheduler. The IONUser account is used for subscriptions created in the Reports application when the generated report is created using the fileshare option.

    For example, you need the password for the IONMaintenance account if you intend to change the settings for the database scheduled jobs. The password that you need to use in Task Scheduler is the one you specify on this Windows Accounts page. Click **Next**.

    > **NOTE**: You can change the Windows Accounts password at any time after the installation. See "Additional Installer operations" on page 49 for details.
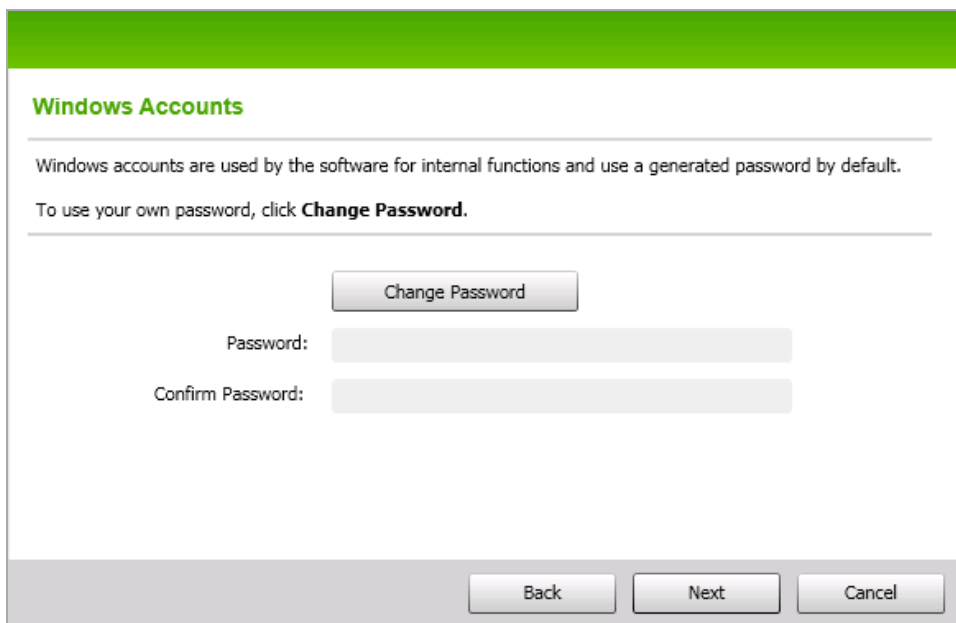
16. **Database Accounts** page for **Standalone Server** and **Application Server** setup types.

The same default password is used for internal Power Monitoring Expert accounts used to access the ION database accounts and the Application Modules accounts. Click **Change Password** and specify your own password in the fields, if desired. Password must comply with the SQL Server password policy. For example, mix upper, lower case letters, numbers, symbols, over a certain length, do not use username in password, etc. Click **Next**.

> **NOTE**: You can change the Database Accounts password at any time after the installation. See "Additional Installer operations" on page 49 for details.
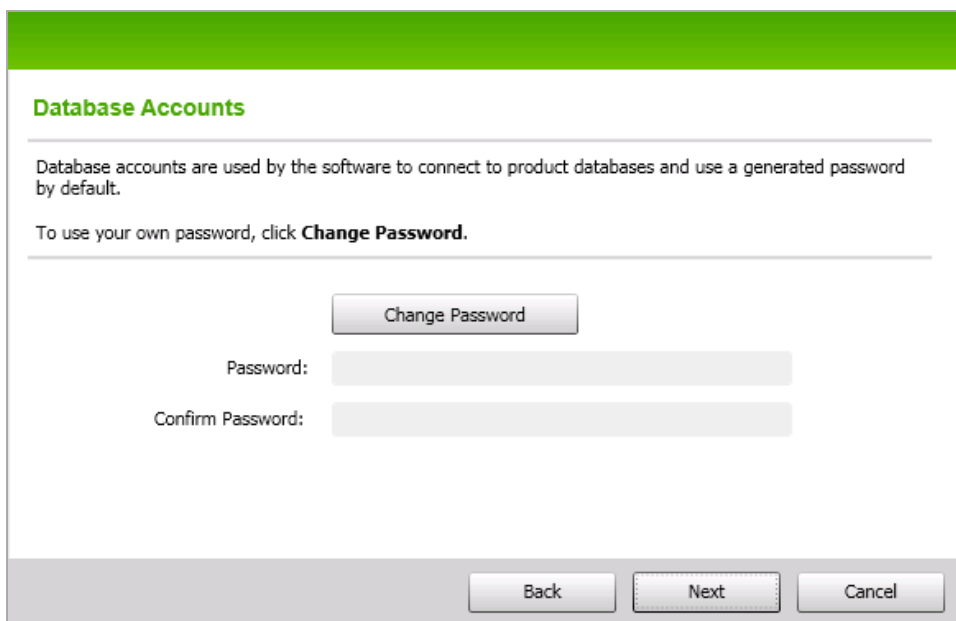

17. The **Database Software** page is applicable to **Standalone Server** and **Application Server** setup types.

For a Standalone Server setup type when no SQL Server instance is detected

- The page indicates that SQL Server Express will be installed. Click **Next** to continue with the installation.

Database Software

SQL Server® was not found on this computer

SQL Server® Express will be installed

Click 'Next' to continue

| Back | Next | Cancel |
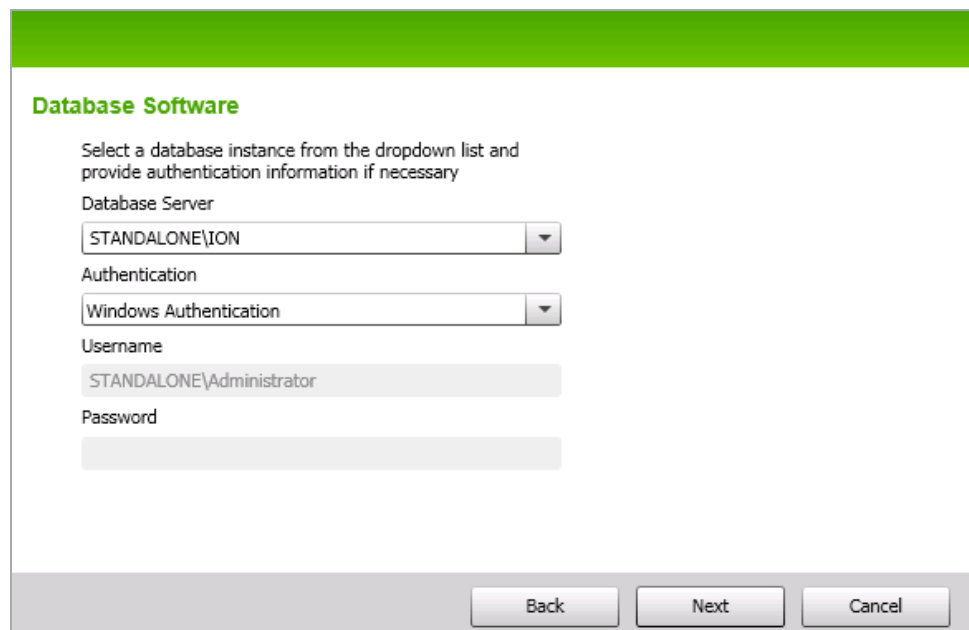
For a Standalone Server setup type when the SQL Server instance is intended for PME

- Select the database instance for your SQL Server and instance, provide the necessary authentication values, and click **Next**.

> **NOTE**: For the Windows Authentication option, the current Windows user needs to be a member of the sysadmin SQL Server role. For the specified SQL Server authentication option, the SQL Server user needs to be a member of the sysadmin SQL Server role.

The SQL Server instance that you want to select is the one that you specified for use with Power Monitoring Expert when you installed or reconfigured the SQL Server.

Database Software

Select a database instance from the dropdown list and provide authentication information if necessary

Database Server

STANDALONE\ION ▼

Authentication

Windows Authentication ▼

Username

STANDALONE\Administrator
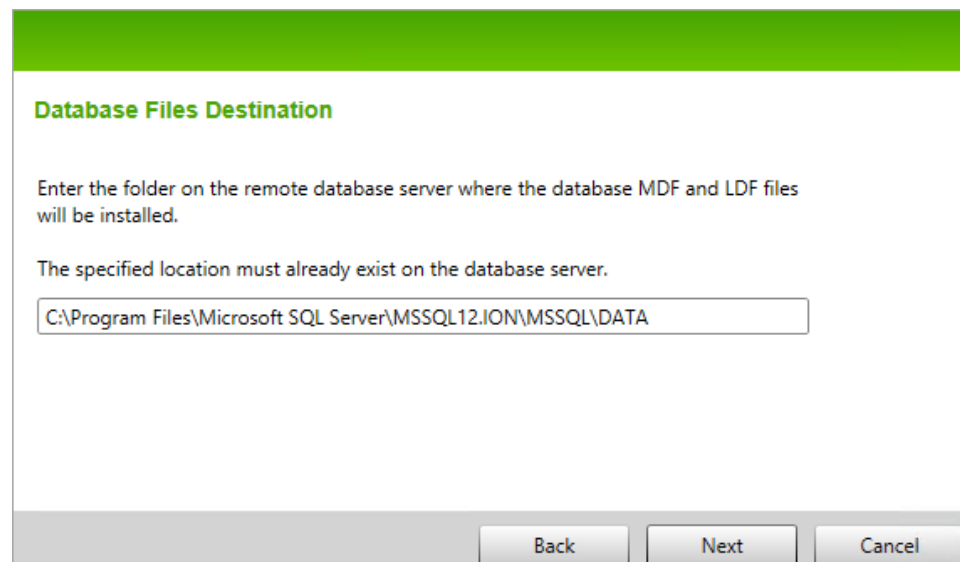
Password

| Back | Next | Cancel |

For a Standalone Server setup type when the detected SQL Server instance is not intended for PME

- Select the **Install SQL Server Express on this computer** option to install an instance specifically for use with Power Monitoring Expert. Click **Next** to continue with the

installation.

Upon completion of the SQL Server Express installation, a system check is performed to verify that the mandatory prerequisites have been met. The results of the verification are shown on the **Check System** page.

> **NOTE**: After installing Power Monitoring Expert, it is recommended that you change the SQL Server Express sa account password.

For an Application Server setup type

- If this is the first time that you are installing an application server, the dropdown field for the remote database server is empty. Ensure that your database server is defined in your system network and type its name and the SQL Server instance in the **Database Server** field, where the format is *server_name\instance_name*.

Click **Next**.

> **NOTE**: For the Windows Authentication option, the current Windows user needs to be a member of the sysadmin SQL Server role. For the specified SQL Server authentication option, the SQL Server user needs to be a member of the sysadmin SQL Server role.

18. **Database Files Destination** page is applicable to **Standalone Server** and **Application Server** setup types.

For the Standalone Server setup type

This page indicates the default installation location for the Power Monitoring Expert databases. Click **Next**. Click **Yes** if you are prompted to create the folder.

For the Application Server setup type

This page indicates the database file location on the database server that you identified on the **Database Software** page.

> **NOTE**: If you want to install the MDF and LDF files in a different location, create the folder on that database server **prior to** specifying the folder location on this page.

Database Files Destination

Enter the folder on the remote database server where the database MDF and LDF files will be installed.

C:\Program Files\Microsoft SQL Server\MSSQL12.ION\MSSQL\DATA

| Back | Next | Cancel |

19. **Check System** for all setup types:

    The **Check System** page verifies that the mandatory prerequisites have been met before proceeding. (For Windows Server 2012 or Windows 8.1, the **Check ASP.NET** item is replaced by **Check .NET 3.5**.) If a problem occurs during the system check, the item is identified and clicking on it displays additional information about the situation. Click **Next**.

Check System

System Verified
Verification successful. Click 'Next' to continue.

✓ Check Server Name	▮▮▮▮▮▮▮▮	Success
✓ Check Disk Space	▮▮▮▮▮▮▮▮	Success
✓ Check SQL Server Agent...	▮▮▮▮▮▮▮▮	Success
✓ Check ASP.NET	▮▮▮▮▮▮▮▮	Success
✓ Check User Privileges	▮▮▮▮▮▮▮▮	Success
✓ Check SQL Server Connection	▮▮▮▮▮▮▮▮	Success
✓ Check Database Location	▮▮▮▮▮▮▮▮	Success
✓ Check 64 bit SQL Server Version..	▮▮▮▮▮▮▮▮	Success
✓ Check SQL Server Service Accoun	▮▮▮▮▮▮▮▮	Success
✓ Setup Type	▮▮▮▮▮▮▮▮	Success

| Back | Next | Cancel |

Note that if you specified a Windows account other than the local system account when you installed a supported edition of SQL Server Standard or Enterprise, the **Check System** page will indicate that the service account under which the SQL Server currently runs does not have the required system permissions. To resolve this situation you need to do one of the following:

- Temporarily change the SQL Server service to run under an account that has Write permissions to (1) the folder created for the product's databases (the default is the install location for ...\Schneider Electric\Power Monitoring Expert), and (2), for the current logged-in user's Temp folder. (To find the full path to the Temp folder, click **Start > Run**, enter %Temp% and click **OK**.) The default local system account is an example of an account with these privileges.

- Temporarily grant Write permission for the two folders mentioned above to the Windows account that the SQL Server service runs under. Use the Windows Services control panel to identify this account. (Click **Start > Administrative Tools > Services**, right-click **SQL Server**, click the **Log On** tab in the **SQL Server Properties** dialog.)

You can revert the temporary changes after the installation of Power Monitoring Expert completes.

20. **Ready to Configure** page for all setup types:

The **Ready to Configure** page summarizes your configuration for the installation of the software. Click **Install** to begin the installation.

21. **Copy Files** page for all setup types:

The **Copy Files** page indicates the progress as files are copied to the server as part of the installation.
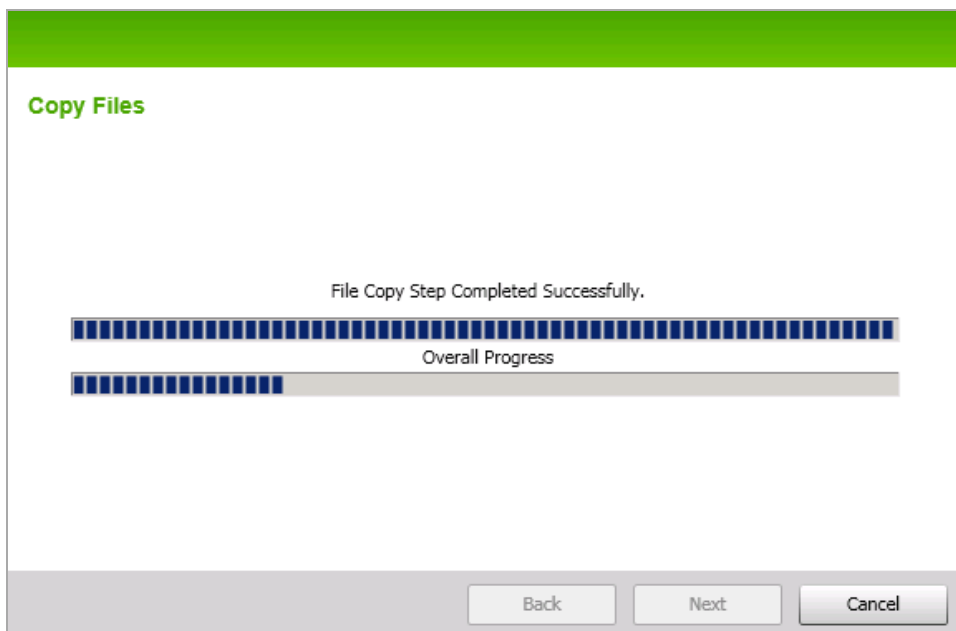
When the copy operation is complete, the system configuration process begins and is shown on the **Configure System** page.
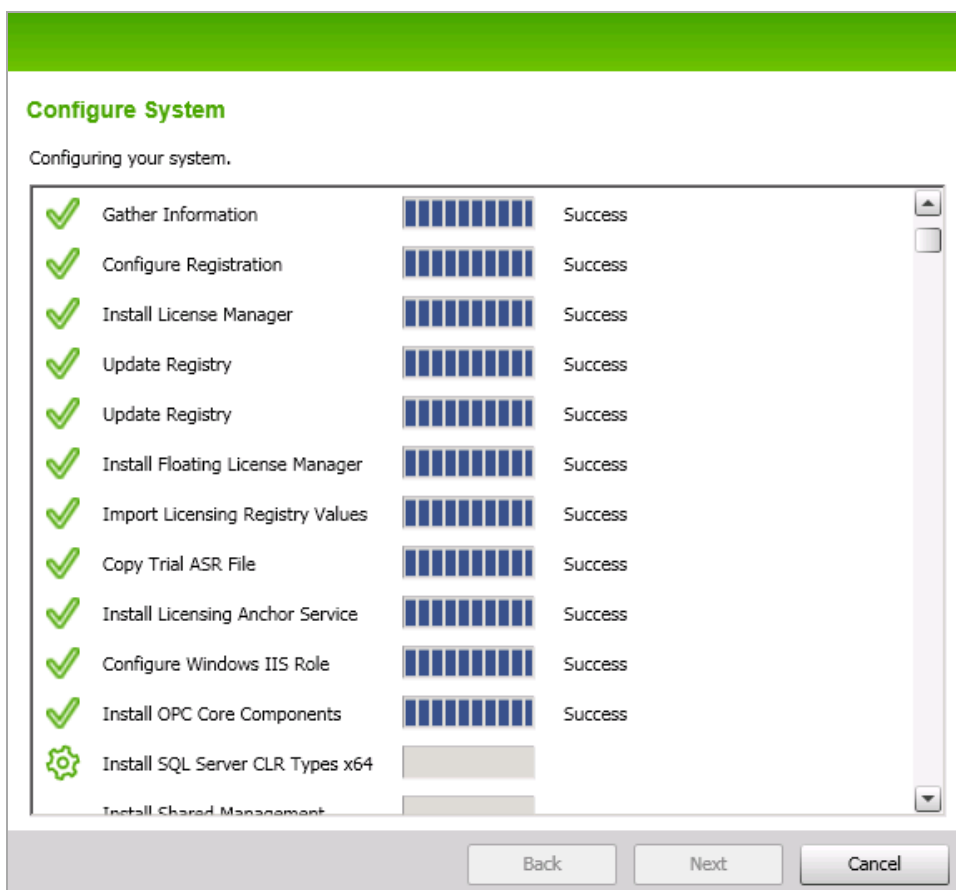
The **Configure System** page indicates each of the configuration actions taking place during the installation. If a configuration step is not successful, an X appears in a column to the left of the item. You can click the link on the message text on the right of the item to display instructions for resolving the error. If you correct the problem, click **Try Again** to continue with the installation. Otherwise, cancel the install process until you can resolve the problem.

Click **Next** when the configuration process ends to open the **Complete** page.

22. **Complete** page for all setup types:

The **Complete** page contains links that open the Installation Log and start the Web Applications component, respectively.
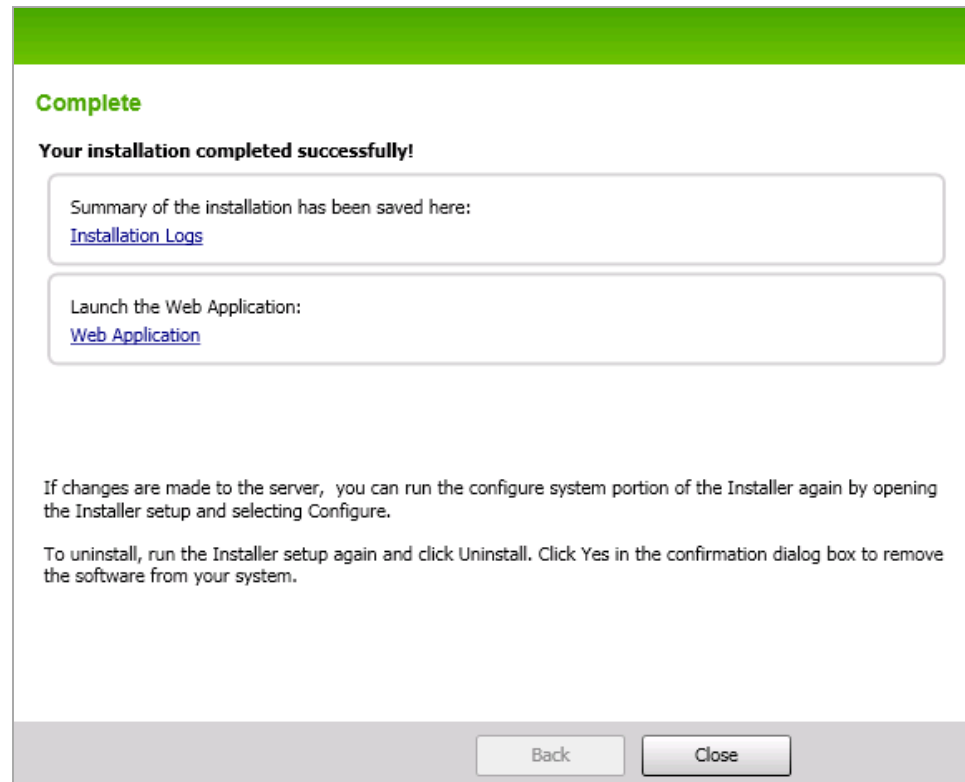
The Installation Log summarizes the processing that took place during the installation process. (You can access the installation log at a later time in the install location within ...\Schneider Electric\Power Monitoring Expert\SetupLogs).

Click the Web Application link to verify that Web Applications component launches successfully in a browser.

23. Click **Close** to close the installer.

After installing the software

Perform the following procedures after you install the Power Monitoring Expert software.

Restart the system

Restart (reboot) your system after installing the software.

Clear the browser cache after upgrading

After upgrading from a previous version of Power Monitoring Expert, clear the browser cache on each client computer used to access the Web Applications component. Review the help for your browser for instructions on clearing the cache.

Complete the product registration

When you log in to Management Console, a registration reminder message opens. You can complete the product registration by following the instructions in the Product Registration dialog. The message continues to appear at each log in until you complete the registration.

Activate software licenses

The installed software includes a 90-day trial license for all features of the product. You must activate valid purchased software licenses within 90 days, otherwise some software functionality is disabled.

NOTICE
LOSS OF COMMUNICATION
• Be sure to activate product and component licenses prior to the expiry of the trial license.
• Ensure that you activate sufficient licenses for the servers and devices in your system.
Failure to follow these instructions can result in loss of data.

You need to purchase and activate licenses for the following software features:

- Communications Server – requires Server and Device licenses.

- Vista/Designer – requires an Engineering Client license.

- OPC Server – requires an OPC DA Server license.

- Application Modules – requires the appropriate Application Module license.

- Event Notification Module (ENM) – requires the ENM license.

- Web Clients – require Web Client licenses.

When your order is processed, a Software Certificate with your unique Authorization Code is sent to you. (If you provided an email address, it is sent from softwarelicensing@schneider-electric.com. You may need to change the settings in your email application to ensure that this email arrives in your inbox and is not routed to your spam folder.)

When you receive your Authorization Code, use the PME Licensing Portal to obtain your software licenses. The portal, at pme-licensing.schneider-electric.com, is accessible through the internet or the Schneider Electric intranet. Mobile devices are supported.

1. Ensure that you have your Authorization Code.

   It is required in order to obtain your software licenses.

2. Log in to the PME Licensing Portal.

   If this is your first time accessing the portal, you need to register before you can log in.

3. Select **Generate Licenses**, then follow the instructions to obtain your software licenses.

To activate your software licenses:

1. Locate your Entitlement Certificate.

2. Follow these instructions to activate your licenses:

   a. Open the **Schneider Electric Floating License Manager** from **Start > All Programs > Schneider Electric**.

   b. Click **Activate** to open the **Activation Method** dialog.

   c. Choose one of the available activation methods and follow the detailed instructions provided in the dialog.

      Note that you can activate Power Monitoring Expert software licenses:

      – By Web, if your system is connected to the Internet.

      – By Web portal, if you do not have access to the Internet, but you have access to another system that is connected to the Internet.

      – By email, if you can send and receive emails on your system.

      Phone activation is not available at this time.

   d. Follow the directions on the **Activation ID** page of the dialog and enter the Activation IDs obtained from the PME Licensing Portal.

   e. Click **Finish** to complete the process.

For Secondary communication servers or Engineering Client computers, additional steps may need to be completed before the software detects the licenses. It is recommended that you contact Technical Support for instructions in completing these steps.

Contact the Software Registration Center if you experience any problems activating your software licenses. Click **Help > Support** in **Schneider Electric Floating License Manager** for the contact information.

Refer to the online help in **Schneider Electric Floating License Manager** for additional information.

Revert write permissions for the SQL Server service

If you implemented write permissions for the SQL Server service during installation of SQL Server, you should now revert those changes since they are only intended as a temporary measure to ensure a successful installation of SQL Server. See the information related to specifying the **Account Name** in "Installing a new SQL Server" on page 16.

(Distributed installation only) Manually start SQL Server Agent

In SQL Server Management Studio, SQL Server Agent on the Database Server. If you do not do this, report subscriptions will not work.

Check services

Open the Windows Services dialog and ensure that all of the necessary ION and Schneider Electric services are started. The services run under the Local System account, by default. You can change the **Log On As** attribute of a service by specifying the account and password. Use the **Log On** tab on the service properties dialog to do this. The **Log On As** account must have read/write permissions on the product's installation directory, which by default is `...\Schneider Electric\Power Monitoring Expert`.

For more information, see the "ION Services" topic in the online *Power Monitoring Expert Help*.

Create Windows user groups

You can create Microsoft Windows local user groups on a Power Monitoring Expert primary server (that is, on the Standalone Server or the Primary Server) as a way to manage user access through group permissions. The table below shows the permissions assigned to an administrator group and a user group:

Group Name	Access to ...\Power Monitoring Expert\system[1]	Access to ...\Power Monitoring Expert\config[1]
Administrator_Group_Name, which is the name you create for your administrator group.	Full Control	Full Control
User_Group_Name, which is the name you create for your user group.	Read	Change
[1]On a 32-bit server, this is under ...\Program Files\Schneider Electric\. On a 64-bit server, this is under ...\Program Files (x86)\Schneider Electric\.		

Review Windows Task Scheduler

The Windows Task Scheduler has preconfigured scheduled jobs for performing backups, maintenance, size notification, trims, and archiving (on the ION_Data database) on the Power Monitoring Expert databases. Review these schedules and make any modifications that you require.

For more information, refer to the Database Manager and Windows Task Scheduler section in the online *Power Monitoring Expert Help*.

Verify that IIS is working

Ensure that Internet Information Services (IIS) is working by typing the URL `http://localhost/` in the address field of your browser to display an IIS image. In some cases, security restrictions may block access to this web page.

Set up Web Clients

A Web Client can be used by operators and others to access the Web Applications component of Power Monitoring Expert on a day-to-day basis. Web Applications encompass Dashboards, Diagrams, Tables, Trends, Alarms, and Reports.

To access Web Applications from a Web Client, enter an IP address or an address in the following format in your browser:

```
http://domain_name/Web
```

where *domain_name* is the fully-qualified name of the server hosting Power Monitoring Expert and `Web` is the default root directory, which can be changed during installation. For example, for server name **srv1**, company name **MyCompany**,and a root directory of **Web**, enter the address in the browser as:

```
http://srv1.MyCompany.com/Web
```

By default, the first application on the Navigation Bar in Web Applications opens in the browser. To specify which application should open first, add one of the following application parameters to the Web address. Note that the parameters are case-sensitive.

```
/#Dashboards
/#Diagrams
/#Tables
/#Trends
/#Alarms
/#Reports
```

For example, `http://srv1.MyCompany.com/Web/#Tables` opens the Tables application in the browser.

Silverlight support

Silverlight version 5.0 or later is required to access Alarms and Tables. If Silverlight is not installed, a Web page indicates that you need to install it before you can proceed. Click **Click now to install** to open a download pop-up. Select **Run** to install it over the Internet.

Unable to install Silverlight?

If a message indicates that the Internet Explorer Security settings prevent the downloading of the file, you need to update the browser's Internet options:

1. Click the Tools icon or the Tools menu item and select **Internet options**.

2. Click the **Security** tab, click **Internet** in the **Select a zone to view or change security settings** area, then click **Custom level**.

3. Scroll through the **Settings** list and locate **Downloads > File download**.

4. Select **Enable** and then click **OK** to close the Security Settings dialog.

5. Click **OK** to close the Internet Options dialog.

6. Click **Click now to install** to open a download pop-up and proceed with installation of Silverlight.

If your site restricts access to the Internet, you should contact your System Administrator, as indicated when you click **Unable to install Silverlight?**.

Your System Administrator can use an Internet-enabled computer to review the Silverlight deployment methods described in the Microsoft Silverlight Deployment Guide at

http://download.microsoft.com/download/C/D/5/CD5AAAE3-21F7-47A8-B7D5-39E36BAF9AC8/Silverlight_Deployment_Guide.docx

After the installation is complete, change the Internet Explorer Security settings for file download back to their original settings.

Configure SQL Express for Engineering Client access

An Engineering Client can connect to a Standalone Server if the TCP/IP protocol is enabled in SQL Express.

To enable the TCP/IP protocol:

1. Click **Start > All Programs > Microsoft SQL Server 20xx > Configuration Tools > SQL Server Configuration Manager**, where 20xx is the SQL Server version.

2. Expand **SQL Server Network Configuration** in the left pane and click **Protocols for ION**.

3. If the TCP/IP protocol status is **Disabled**, right-click **TCP/IP**, and:

   a. Select **Enable** in the menu,

      or,

b. Click **Properties** to open the **TCP/IP Properties** dialog, select **Yes** for **Enabled**, and click **OK**.

When you enable the TCP/IP protocol, an informational message indicates that you need to restart the service before the change takes effect.

4. Click **SQL Server Services** in the left pane under **SQL Server Configuration Manager**.

5. Click **SQL Server (ION)** to select it and then click the **Restart service** icon in the toolbar to stop the service and restart it.

6. Close SQL Server Configuration Manager.

Additional Installer operations

After installing Power Monitoring Expert, there may be situations that require you to rerun the Installer.

The operations that are available are:

- Reconfigure
- Reset Accounts
- Export System Key
- Import System Key
- Uninstall

To restart the Installer:

1. Open the Control Panel and select **Programs and Features**.

2. Select Power Monitoring Expert within the list of programs.

3. Click **Change** in the header area of the list of programs.

Reconfigure

Reconfigure lets you rerun the configuration part of the Power Monitoring Expert install process. **Reconfigure** reverts many of the system settings and components to the install defaults.

Typically, you would use **Reconfigure** to repair or troubleshoot a damaged system. Consult with Technical Support before running a reconfigure if you are not familiar with the details of this operation.

Reset Accounts

As part of the initial installation of Power Monitoring Expert, you were given the option to set or change the default passwords for the supervisor account, the Windows accounts, and the database accounts. **Reset Accounts** lets you change those passwords.

The dialog sequence is as follows: (1) Supervisor Account page, (2) Windows Accounts page, (3) Database Accounts page, (4) Database Software page, (5) Reset Accounts progress dialog

You can rerun **Reset Accounts** as often as required, and you can use it to change none, some, or all of the passwords.

Export System Key

As part of the initial installation of Power Monitoring Expert, you had to export the system key. **Export System Key** lets you export the system key again in case the originally exported key has been lost.

The system key is required for the installation of an Engineering Client, or if you need to uninstall and then reinstall Power Monitoring Expert.

Import System Key

Import System Key lets you import a key into an existing Power Monitoring Expert system.

Typically, you would import a system key during a side-by-side upgrade or migration of the Power Monitoring Expert server.

Uninstall

Uninstall removes those system files and components that would prevent a re-installation of the software. **Uninstall** prepares the computer for a successful re-installation of Power Monitoring Expert; it does not remove all traces of the system from the machine.

Typically, you would use **Uninstall** to repair or troubleshoot a damaged system. Consult with Technical Support before performing an uninstall if you are not familiar with the details of this operation.

Security considerations

This section outlines specific security considerations after the Power Monitoring Expert installation.

Power Monitoring Expert User Accounts and Groups

Select **Help** in **User Manager** for further information about creating users and groups, and in setting system access levels.

For more information, refer to the "User Manager" section under "Management Console Tools" in *Power Monitoring Expert Help*.

The Diagrams application and user authentication

User authentication for the Diagrams application is enabled by default. It is also enabled if you upgrade from previous versions of the product.

If you access Diagrams from a browser on a Web Client computer using the URL `http://server_name/ion` (where `server_name` is the fully-qualified name of the server or its IP address), you are prompted to log in using your Power Monitoring Expert user name and password.

This also applies to Web Viewer gadgets configured to show a diagram in the Diagrams application. The user credentials of the logged in user also permit access to the applications (in the Web Applications component), during the session.

Contact your Schneider Electric representative if you want to disable user authentication for Diagrams.

Accessing the Web applications from a server computer

Using a Web browser on a server computer increases the vulnerability of the server and the network. Access the Power Monitoring Expert web applications from client computers – not from the Power Monitoring Expert server – using a Windows user account other than the built-in administrator account.

Using SSL to secure Web-site communications

Power Monitoring Expert can be configured to use TLS/SSL to secure the web connection between the server and client computers. This will allow users to access the Power Monitoring Expert web applications (Dashboards, Diagrams, Tables, Trends, Alarms, and Reports) using the HTTPS protocol.

TLS/SSL is not enabled by default. To enable it, configuration changes to IIS and Power Monitoring Expert are required. Contact your Schneider Electric representative if you want to enable TLS/SSL for Power Monitoring Expert.

Managing the Power Monitoring Expert System Key

During the installation of Power Monitoring Expert, a system key is generated and a copy of this key is exported as a .key file. This system key is the encryption key used by the software to encrypt user and system credentials. A Power Monitoring Expert server securely retains the original key in the registry. The exported copy is needed for the installation of Engineering clients and Secondary servers. It is also needed in case of a future side-by-side system upgrade or migration.

As long as the Power Monitoring Expert server has the original key stored securely in the registry it is possible to export a copy at any time using the installer. (See "Additional Installer operations" on page 49.) However, should the original key get deleted from the server somehow, it cannot be recreated or exported.

Keep the exported system key in a safe location, protected from unauthorized access.

SQL Server Express sa account password

If you are using the SQL Server Express edition that is installed by the Power Monitoring Expert installer, change the sa account password after the installation is complete.

Running anti-virus software on your SQL Server

If you determine that you need to run anti-virus software on your SQL Server, follow the recommendations described in Microsoft Support article (ID: 309422) at http://support.microsoft.com/kb/309422.

NTFS and Share permissions on the product directory

All share permissions are automatically set to "Read" permissions for the "Everyone" group; this includes the Power Monitoring Expert share (the product's installation directory).

Change the product directory's share permission to Read/Write for users of Engineering Client computers who need to modify files, such as Vista diagrams, and for users of Reporting Client computers who need to generate reports.

Reference

Tasks performed by the product Installer

The following Installer tasks are performed. Some of these are dependent on the software configuration to be installed:

- Checks if you are running the installation using the built-in local administrator account, and if not, instructs you to run the installation on the server using that account.

- Checks for the presence of .NET Framework 4.6 and initiates its installation if required.

- Checks that adequate disk space is available for the files that are written to the hard disk.

- Verifies that the SQL Server Agent is installed for SQL Server Standard editions.

- Validates that a supported SQL Server edition and service pack level that are installed.

- Verifies the connection to the SQL Server instance.

- Checks for the presence of ASP.NET. For Windows Server 2012, Windows 8.1, or Windows 10, it checks for the presence of .NET Framework 3.5. See "Installing .NET Framework " on page 11 for installation instructions.

- Verifies that the Windows account that the SQL Server service runs under has the proper folder permissions to proceed.

The Installer performs configuration tasks during the installation process. Some of these tasks are listed below. See the Installation log that is available at the conclusion of the installation process to view all of the actions performed by the Installer.

- Installs SQL Server components for backwards compatibility.

- Installs Schneider Electric License Manager, Schneider Electric Floating License Manager, and trial licenses. See "Activate software licenses" on page 44 for further information.

- Configures SQL Server Agent for SQL Server Standard editions.

- Configures ASP.NET.

- Configures SQL Server.

- Registers, verifies the registration of, and starts services.

- Installs and configures Internet Information Services (IIS).

Troubleshooting

This section lists supporting information to help you troubleshoot the Power Monitoring Expert installation.

Power Monitoring Expert Web applications

Problem: Microsoft Windows displays a "How do you want to open this website" dialog when you open the Web Applications from the shortcut folder.

Solution: Windows displays this dialog because no default app is set for the Web browser function.

To set the default app for Web browser:

1. Click **Settings > System > Default apps > Web Browser**.

2. Select a browser that is supported by Power Monitoring Expert.

NOTE: For cybersecurity reasons, access the Power Monitoring Expert web applications from client computers only – not from the Power Monitoring Expert server – using a Windows user account other than the built-in administrator account.

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