



Albér™ Battery Xplorer Enterprise Software

System Installation Guide

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Technical Support Site

If you encounter any installation or operational issues with your product, check the pertinent section of this manual to see if the issue can be resolved by following outlined procedures.

Visit <https://www.vertiv.com/en-us/support/> for additional assistance.

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1 Getting Started

1.1 Overview

This section outlines how to successfully install and configure the Vertiv™ Albér™ Battery Xplorer Enterprise (BXE) battery management software. These instructions describe two setup types for installing Battery Xplorer Enterprise software components. These components can be installed on a single computer using the complete installation setup type or installed separately on multiple computers using the custom installation setup type. Reasons for installing the Albér BXE components separately include:

- **Performance** – The performance of the web User Interface (UI) improves when the components are installed separately, due to increased efficiency of data pulling, storage and refresh.
- **Stability** – Separate installation allows for server redundancy and data restoration. If one server goes down, a secondary server (such as a web UI server or driver) continues to work without interruption to the battery monitoring application. If the secondary server also goes down, data can be retrieved and restored. Due to the risk of losing all historical and current data if the database server is lost, it is recommended to perform weekly or periodic backups of the database. For backup purposes, clustering can be beneficial in case a server goes down in the process.
- **Scalability** – Whether installing each component on the same or different servers, users can increase the number of strings for monitoring. The number of permitted strings depends on CPU capacity and server CPU utilization. Contact Vertiv Technical Support to add additional strings and upgrade the license accordingly.
- **Security** – By using multiple machines, data can be housed on a separate machine for increased security. Additional security measures are in place for the Albér BXE server, which applies to all machines on which the server is installed.

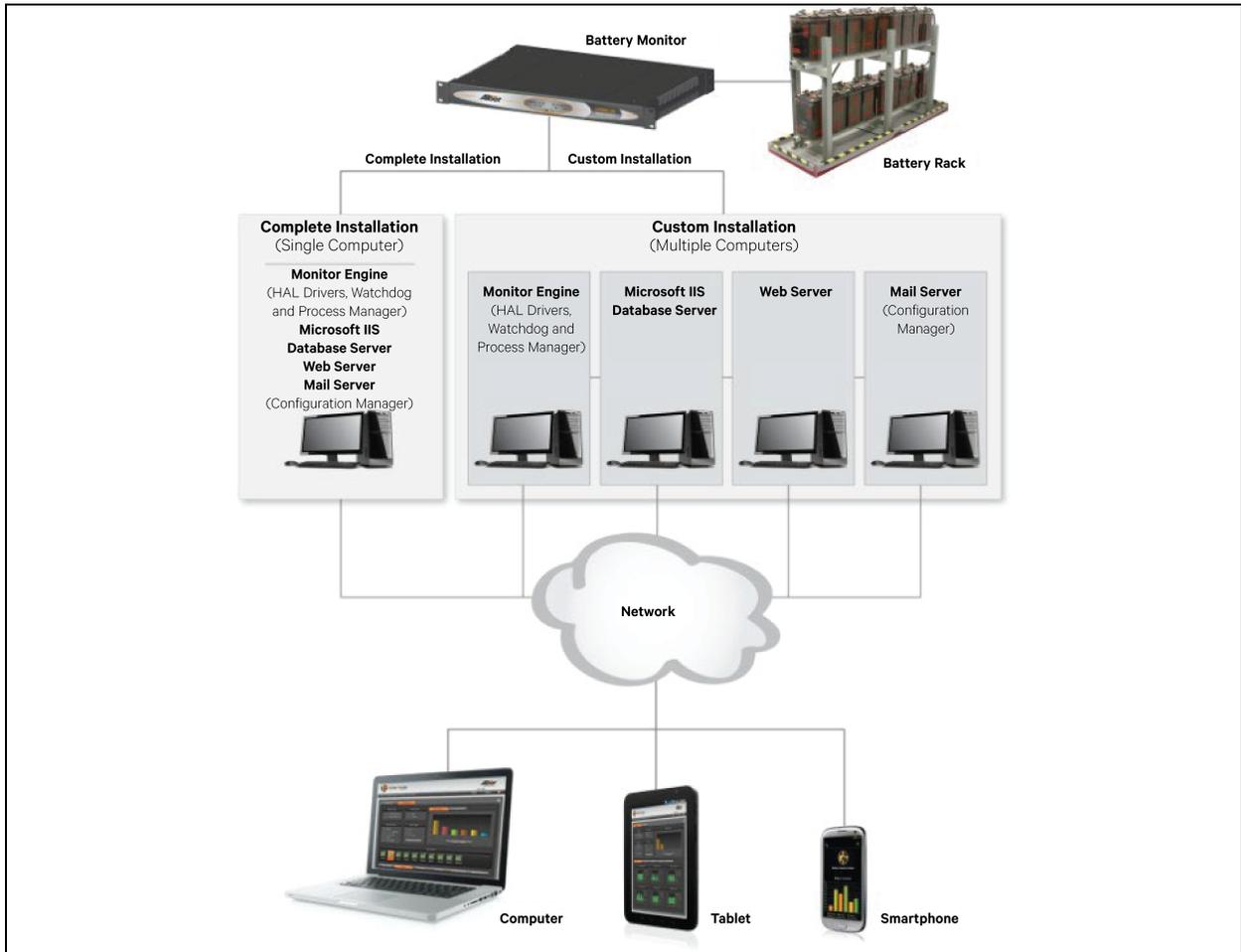
NOTE: For ease of installation for small stationary battery systems, it is recommended to install the components on a single computer using the complete installation setup.

NOTE: For installing specific software components on specific computers, use the custom installation setup.

1.2 System Diagram

Figure 1.1 on the next page shows the Albér BXE infrastructure system with a local, customer-owned network configuration.

Figure 1.1 Customer-Owned Environment for the Albér BXE



1.3 Monitoring Client Supported Platform

NOTE: The Albér BXE battery management software monitoring server can only be installed on a Microsoft operating system.

The Albér BXE monitoring client supports the following platforms and web browsers:

Platforms

- Windows
- Mac
- Linux
- Tablets that support Android, iOS, and Windows tablet operating systems

Web Browsers

- Google Chrome version 129 or above (preferred)
- Microsoft Internet Explorer version 11 or above
- Safari version 18 or above

- Microsoft edge 129 or above
- Firefox version 131 or above

1.4 Software Components

The following information describes each Albér BXE battery management software feature that can be installed separately on different machines. If you are performing a Complete Installation, skip this section and proceed to [Getting Started with Installation](#) on the next page.

1.4.1 Web Application Manager (WAM)

The WAM is used to configure the database and the Battery Xplorer Enterprise web settings and connections required for the Albér BXE battery management application to function properly. For instructions on configuring the WAM settings and connections, refer to [First Time Setup](#) on page 25.

1.4.2 Albér Battery Xplorer Enterprise (BXE) Web Application

The web application of the software shows the battery monitoring data on the UI by querying the SQL database.

1.4.3 SQL Server Database Engine (SQL)

The SQL Server Database Engine is used to install the SQL database engine required for the Albér BXE battery management application to function properly. The primary use for the SQL Server database engine is for storing, processing, and securing data. It also provides controlled access and fast transaction processing to meet the requirement needs of your data in the Battery Xplorer Enterprise application.

NOTE: If Microsoft SQL Server is not installed, the Battery Xplorer Enterprise software installation will automatically install Microsoft SQL Server Express. The installation can take up to 20 minutes.

1.4.4 Database Import Manager (DIM)

The Albér Battery Xplorer Enterprise Database Import Manager (DIM) is a comprehensive feature which allows system configuration and certain historical data to be imported from existing Vertiv™ Albér™ Battery Monitor Data Manager (BMDM) MS Access and SQL databases and from next generation products (such as Vertiv™ UXCM) to the Battery Xplorer Enterprise database. Database Import Manager also supports importing configuration of Vertiv™ UXCM, Vertiv™ UXTM devices, Samsung Lithium-Ion batteries, Vertiv HPL Lithium-Ion batteries, EnergyCore Lithium 5 and ZincFive. System configuration data includes information such as customer data, location data, battery, string, and cell setup data. Historical data contains information such as battery, string and cell data captured over time either periodically or by user request that can be used for trending and multiple data set comparisons.

The DIM provides an intuitive interface with instructions that guide a user through the process of importing data from a source database (a user selected database, such as an existing Vertiv™ Albér™ Battery Monitor Data Manager (BMDM) SQL or MS Access database) to the destination database (a user selected Battery Xplorer database). The process of importing is done in four steps:

1. **Source Data Connection** – Allows selection of the source database or device for import.
2. **Destination Data Connection** – Allows selection of the Battery Xplorer database to store the imported data.
3. **Configuration Data Import** – Collects the configuration data from the source and presents the information on the left pane (Source Database) of the application. User can later select the information that is desired for import into the destination database (Battery Xplorer). The Source Database pane is highlighted in different colors to indicate whether data already exists in the database (green) or is new data (red).

4. **Historical Data Import** – Transfers all data from the source database to the destination database. If the historical data from the source already exists in the destination database, it is skipped (not transferred/ not duplicated) in the destination database.

NOTE: Historical data input is only supported on Vertiv™ BMDM access database, Vertiv™ BMDM SQL database, and the Vertiv™ BDSU 50 device types. For Vertiv™ UXIME historical data import happens with Vertiv™ UXIME driver and not with Database Import Manager (DIM). Historical data import is not supported yet for Lithium-Ion and ZincFive batteries.

For details on how to import the database into the Albér BXE battery management software, refer to the **Vertiv™ Albér™ Battery Xplorer Enterprise Database Import Manager (DIM) Getting Started Guide** located on www.vertiv.com.

1.4.5 Monitor Service Manager (MSM)

The Monitor Service Manager (MSM) is a tool used to assign and start or stop the HAL Drivers for the Albér BXE battery management software.

1.5 Documentation

All the required supporting documentation to install and configure BXE is added to the Albér BXE battery management web application.

NOTE: The documentation will be located under this path: C:\Program Files (x86)\Alber\Battery Xplorer Enterprise\Documentation. If the software installation was not performed on the C drive, edit the path with the correct drive letter as needed.

Supporting documentations

- Vertiv™ Albér BXE User guide
- Vertiv™ Albér Database Import Manager guide
- Release notes
- Vertiv™ Albér BXE Quick Install guide

1.6 Getting Started with Installation

To get started with the installation, review the following areas in this guide:

- **Figure 1.1** on page 2: Provides high-level details on installation setup.
- **Internet Information Services (IIS)** on page 8 and **Standard Installation** on page 15: Provides instructions on performing a complete installation setup.

NOTE: All Battery Xplorer Enterprise components are automatically installed when performing a complete install setup type on one computer. Whereas if the custom setup is used the components can be installed on multiple computers.

- **Custom Installation** on page 19: Provides instructions on performing a custom installation setup.
- **Table 1.1** on the facing page: Provides explanation of the installation process and troubleshooting tips. Specific instructions can be found in the subsequent chapters.

Table 1.1 Installation Process and Troubleshooting

Sr. no	Installation Step/Description	Next Step	Troubleshooting
1	Enable Internet Information Services (IIS) from the Windows features. Refer to Installing IIS on Windows 10 or Higher on page 8.	Once IIS is installed and enabled, ensure all features are correctly selected. Refer to Installing IIS on a Windows Server on page 9. Then proceed to step 2.	If this step fails, verify that you have Admin rights, then try again.
2	Standard Installations - Install the Albér BXE software with all default values (run as Admin). Refer to Standard Installation on page 15.	From the Windows Start menu, open the Services window. Verify that the SQL engine is running. Then, proceed to 3.	<ul style="list-style-type: none"> • If an error occurs, send the error message to Vertiv Technical Support. • Verify you have adequate permissions to install any programs on your computer. • If the SQL program failed to install: <ol style="list-style-type: none"> 1. Open the IS Setup Prerequisite folder. 2. In that folder, open Microsoft SQL Server 2014 Express RTM (x86) for 32-bit and run it manually. Refer to SQL Server Database Engine (SQL) on page 3 for more information. 3. If the issue is still not resolved, call Vertiv Technical Support for additional assistance.
2b	Install the BXE software with a custom installation (run as Admin). Refer to Custom Installation on page 19.		
3	Run the Web Application Manager (WAM).	If this task is successful, proceed to step 4.	<ul style="list-style-type: none"> • If there are issues with this step, verify that the SQL server engine is up and running. • Call Vertiv Technical Support for additional assistance.
4	Double-click on the <i>BXE desktop</i> icon to open the BXE software web page (DIM, SMTP, and MSM may be ignored at this time).	Upon completion, enter the required details for the Admin Account login.	If the shortcut fails, enter http://localhost/BEEnterpriseWeb/ into the browser and press Enter to open the default page.

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2 Installation Prerequisites

2.1 Hardware Requirements

Certain hardware requirements must be met before the Albér BXE software can be installed.

NOTE: A dedicated BXE server is recommended.

To monitor up to 50 strings, you need:

- Processor – Quad core processor or better
- RAM – 4 GB minimum
- Software disk space – Approximately 2 GB or more
- Database disk space – 64 GB minimum
- Network topology – Ethernet 100 mbps or better

To monitor more than 50 strings, you need:

- Processor - Quad core or better (approximately 1 core of CPU with 2.59 GHz for every 1000 cells/jars monitored)
- Ram - 8 GB minimum
- Software disk space - Approximately 2 GB or more
- Database disk space - 64 GB minimum
- Network topology - Ethernet 100 mbps or better

NOTE: If the User wants to get the best performance out of the BXE, they can contact Vertiv Technical Support before purchasing the server with the number of cell count for getting to know which system is best suitable.

2.2 Software Requirements

Certain software requirements must be met before the Albér BXE software can be installed. The following list specifies the software components that are automatically installed during installation of the Albér BXE software:

- VC++ 2005 Runtime
- Microsoft .NET Framework version 4.8
- Microsoft SQL server 2012 Express or later

Install these additional software components:

- Microsoft Windows 10 Pro or higher

NOTE: It is recommended to use Windows Pro instead of Windows Home.

- Microsoft Windows Server 2012 or higher
- Adobe Reader version 9.0 or above
- Internet Information Services (IIS) Manager version 4.0 or above

NOTE: It is recommended to use the operating system's default version of IIS.

- Microsoft ASP.NET and Microsoft ASP.NET AJAX
- (Optional) The Albér BXE software can also be run on a Virtual Machine (VM)

2.3 Internet Information Services (IIS)

Before installing the Albér BXE software, the Internet Information Services (IIS and ASP.net) must be installed on one of the following platforms:

- Windows 10 - Refer to [Installing IIS on Windows 10 or Higher](#) below.
- Windows Server - Refer to [Installing IIS on a Windows Server](#) on the facing page.

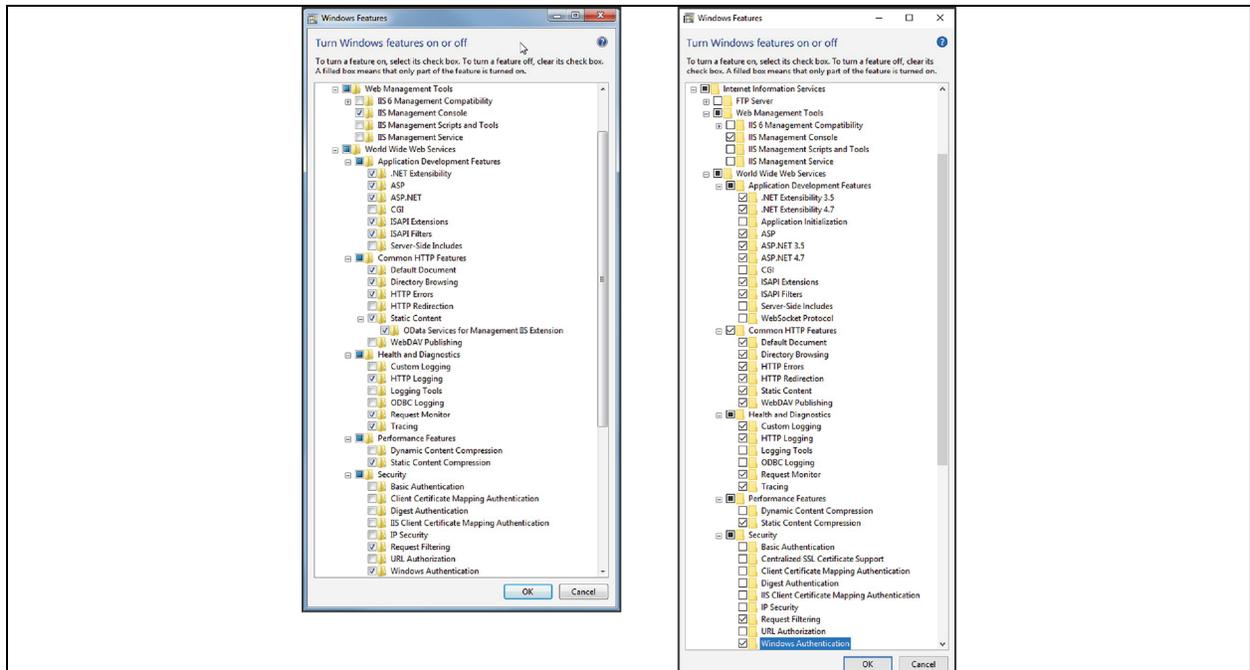
The following procedures explain how to install IIS and ASP.net on the web server to communicate with the Albér BXE battery management software.

2.3.1 Installing IIS on Windows 10 or Higher

To install IIS for Windows 10 or higher:

1. Press the **Windows key + R** to open the Run window.
2. Type **appwiz.cpl** and press **Enter** or click **OK**.
3. On the left-hand pane, click *Turn Windows features on or off*.
4. Check the box for Internet Information Services and click the plus (+) icon to expand the drop-down menu.
5. Expand the menu for World Wide Web Services, then again for the Application Development Features.
6. Check the boxes for the following features: ASP, ASP.NET 3.5, ASP.NET 4.7.
7. Expand the menu for Security, then check the box for Windows Authentication.
8. Click **OK** to apply the changes. A message appears stating that the changes are being made. Restart, if prompted.

Figure 2.1 Selecting IIS for Windows 10 or Higher



9. The Battery Xplorer Enterprise Web feature is now ready to be installed.

2.3.2 Installing IIS on a Windows Server

To install and configure IIS on a Windows Server:

1. From the Windows Start menu, select *Control Panel - Programs - Programs and features - Turn Windows features on or off*. The Before You Begin Add Roles and Features Wizard window appears.
2. Read the information in the previous window and click *Next*. The Select Installation Type window appears for the user to configure a single server by adding roles, role services and features.
3. Roles and features can be installed on a running physical computer or virtual machine, or on an offline Virtual Hard Disk (VHD). Click the dialog button for role-based or feature-based installation.

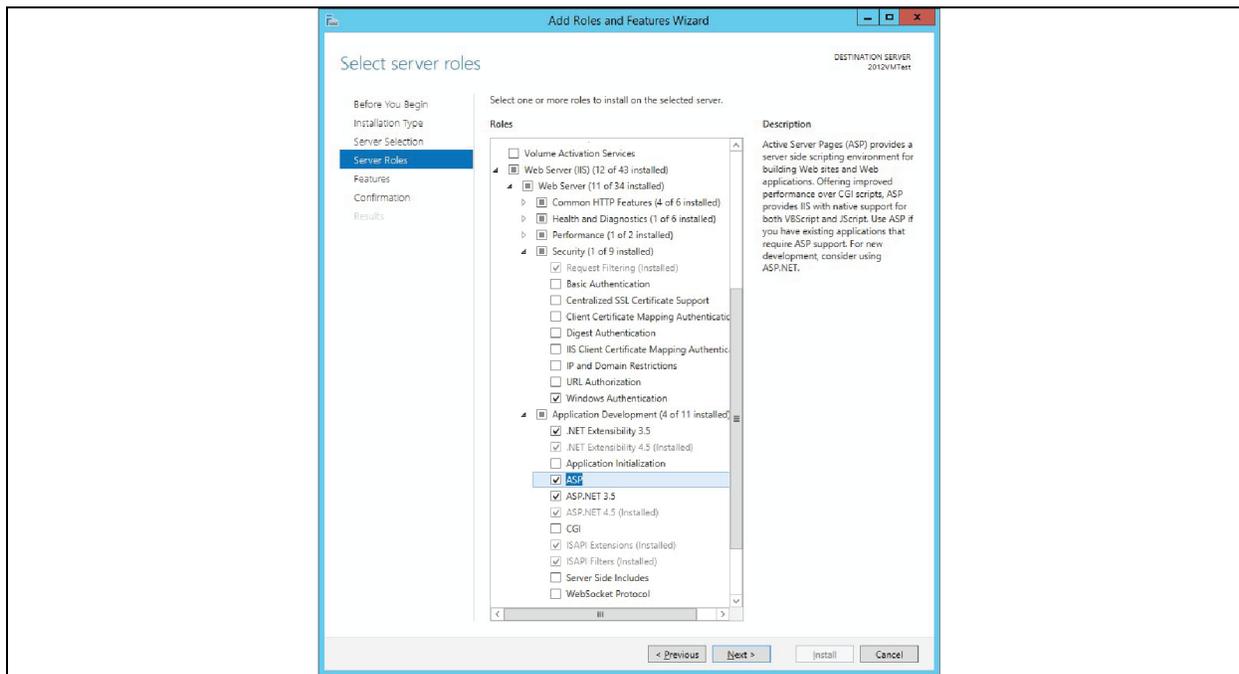
NOTE: Do not select Remote Desktop Services Installation at this time.

4. Click *Next*. The Select Destination Server window appears.
5. Choose the option *Select a server from the server pool*.
6. Highlight the name of the server in the Server Pool dialog box. The Server Pool area shows the name, IP address and the operating system of the Windows Server machines that are currently running. Any offline servers or newly added servers from which data collection is still incomplete do not appear in the window.

NOTE: Do not select the Virtual Hard Disk option at this time.

7. Click *Next*. The Select Server Roles window appears.

Figure 2.2 Select Server Roles on a Windows Server



8. Select *Application Development (Installed)*, then expand it and verify that the following options are selected:
 - *Net Extensibility 3.5 (Installed)*
 - *Net Extensibility 4.5 (Installed)*
 - *ASP (Installed)*
 - *ASP.Net 3.5 (Installed)*

- ASP.Net 4.5 (Installed)
 - ISAPI Extensions (Installed)
9. Expand the Security menu, then check the box for Windows Authentication. These features are used for creating web content or extending IIS functionality. IIS sends the generated HTML output to fulfill client requests.
 10. Click *Next* to continue and follow the prompts to complete the installation of the roles and features for the Windows Server.

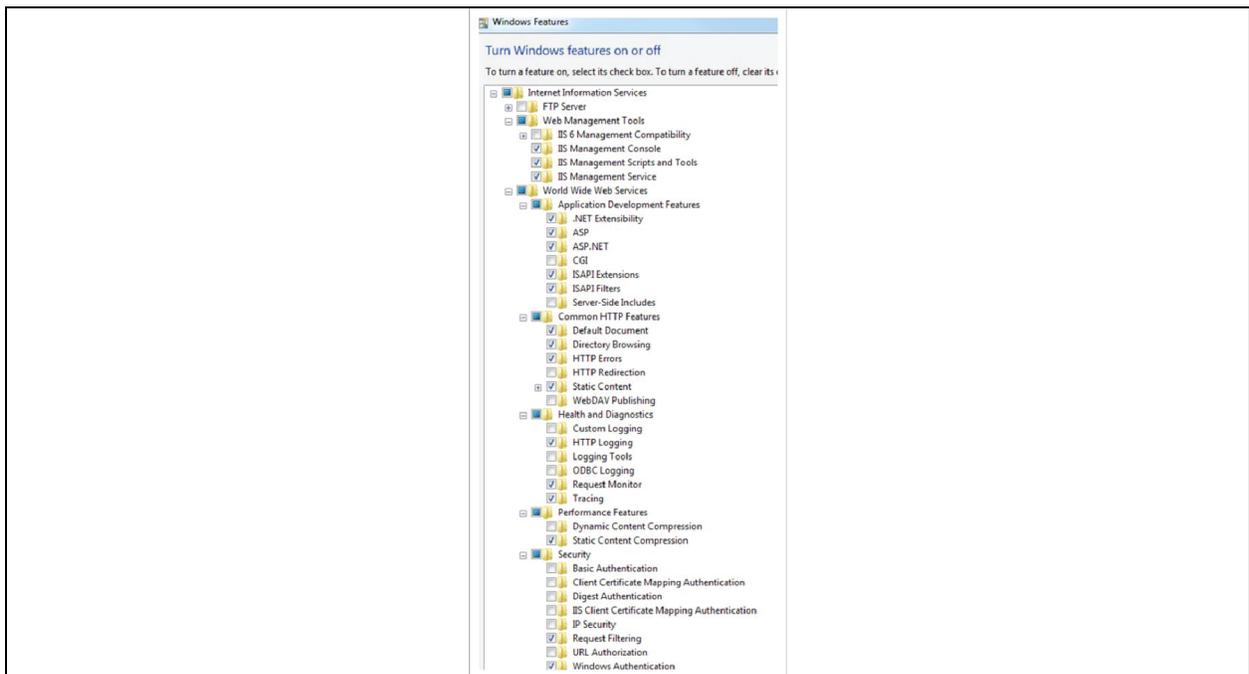
To verify the Handler Mappings feature in the IIS Manager:

1. From the Windows Start menu, click *Control Panel - Administrative Tools - Internet Information Services (IIS) Manager*. The IIS Manager window appears.
2. Double-click the Handler Mappings icon. The Handler Mappings window appears, showing all the resources that the handler responses for specific request types, such as DLLs and managed code.
3. Verify that all items in the State column are set to Enabled as shown in the **Figure 2.2** on the previous page.
4. From the main menu, click *File - Close* to exit the Internet Information Service (IIS) Window.

To verify IIS settings in a Windows operating system:

1. From the Windows Start menu, click *Start - Control Panel*.
2. Select *All Control Panel Items - Programs and Features - Turn Windows Features On or Off*. The Web Management Tools section shows which IIS settings are enabled. See **Figure 2.3** below.

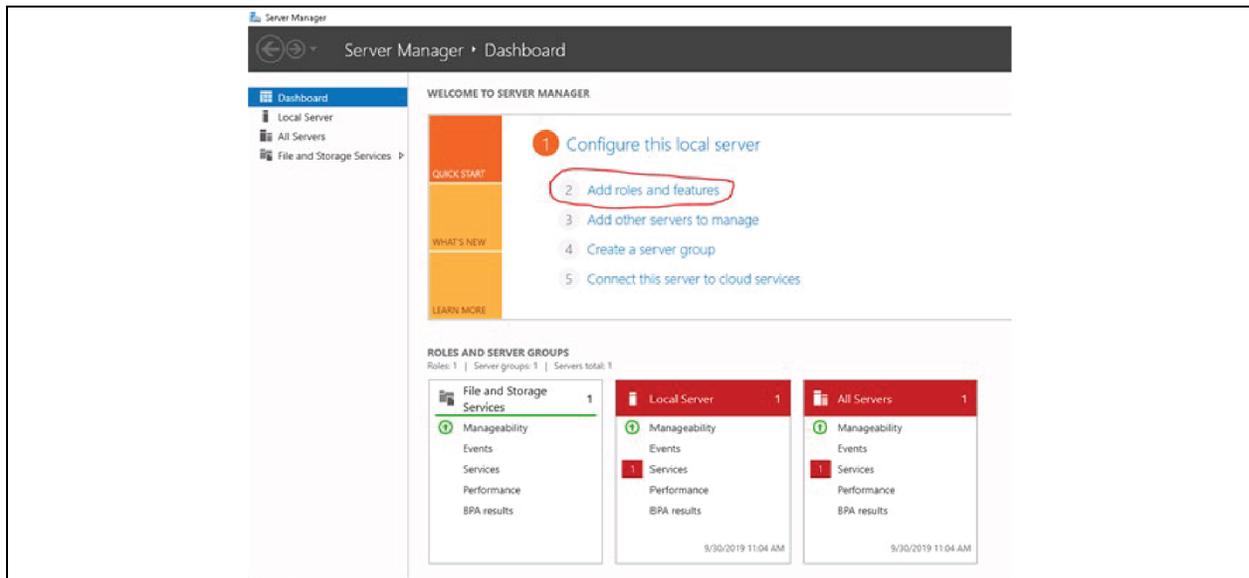
Figure 2.3 Verify IIS settings in a Windows Operating System



To verify IIS settings in a Windows server operating system:

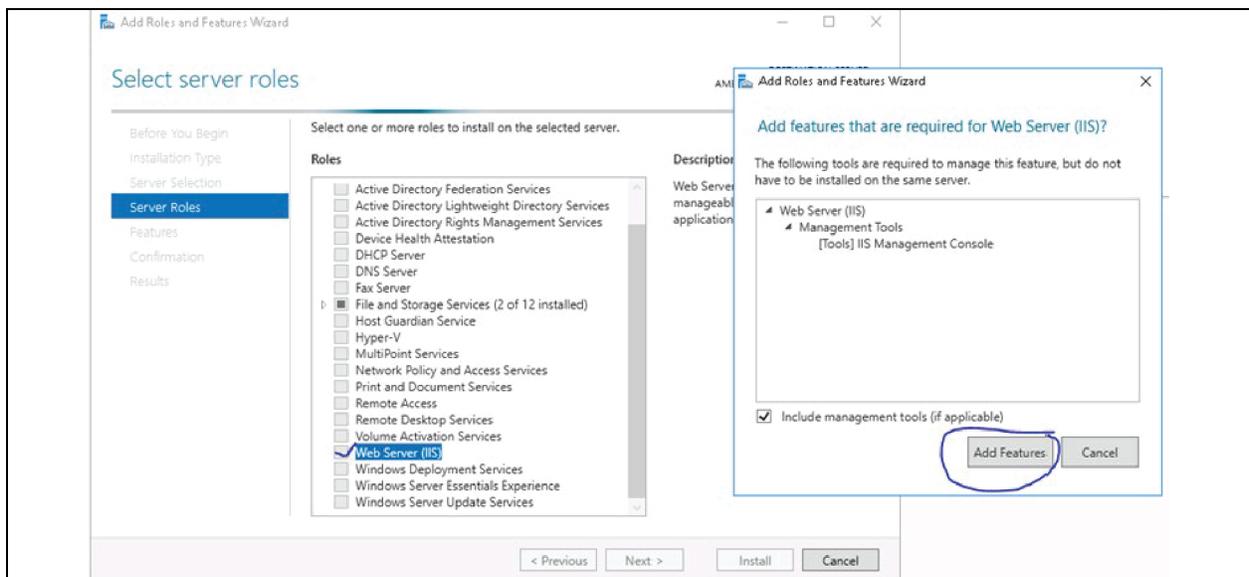
1. From the Albér BXE software, navigate to the Dashboard.
2. Select *Add roles and features*. See **Figure 2.4** on the facing page.

Figure 2.4 Add roles and features



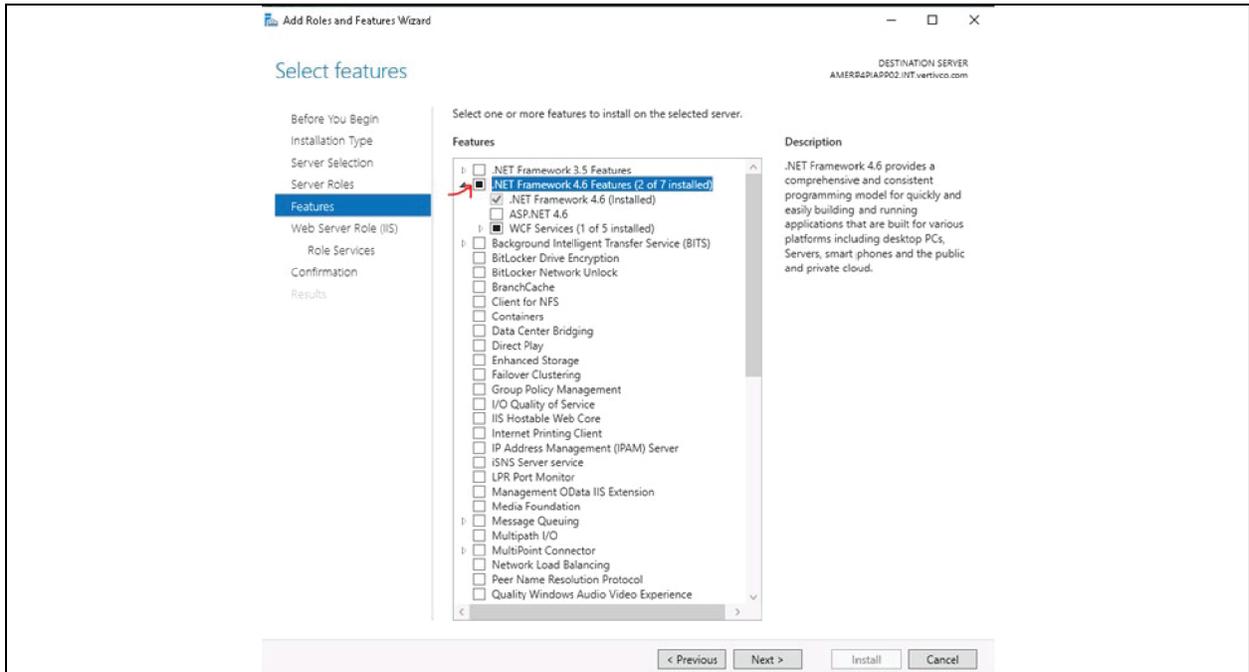
3. The Add Roles and Features Wizard opens to the Before You Begin section. Select *Skip* or *Next*.
4. When the Installation Type section appears, click the radio button for role-based or featured-based installation, then select *Next*.
5. When the Server Selection section appears, click the radio button for Select a server from the server pool.
6. Select the desired server from the Server Pool list, then select *Next*.
7. When the Server Roles section appears, click the checkbox for Web Server (IIS), then select *Add Features* in the dialog box. See **Figure 2.5** below.

Figure 2.5 Select Server Roles



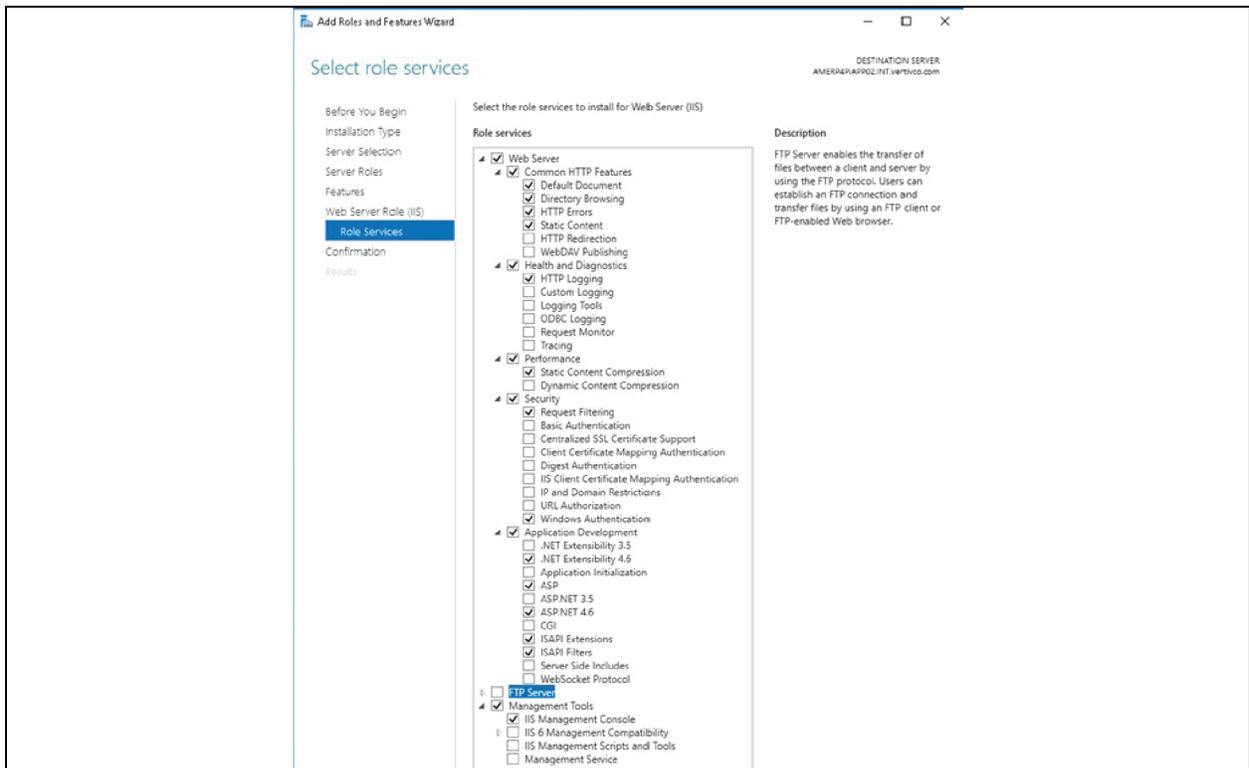
8. When the Features section appears, click the checkbox for NET Framework 4.6 Features, then select *Next*. See **Figure 2.6** on the next page.

Figure 2.6 Selecting Feature



9. In the Web Server Role (IIS) Role Services sub-section, click the checkboxes for the appropriate role services that need to be installed for the IIS Web Server. See Figure 2.7 below.

Figure 2.7 Role Services



10. The Albér BXE battery management software is ready to be installed.

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3 Standard Installation

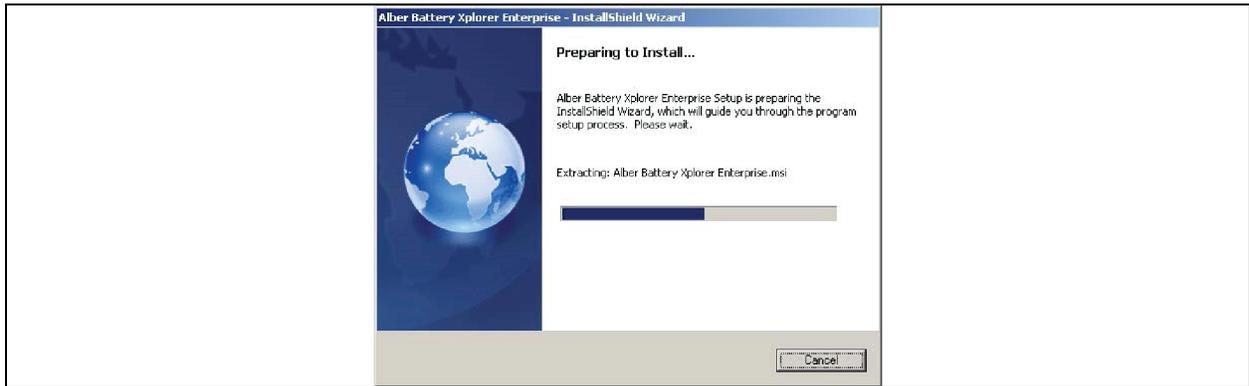
To perform a standard installation of the Albér BXE battery management software:

1. Insert the Albér Battery Xplorer Enterprise CD and browse the CD for the setup.exe file. The software begins the installation preparation.

or

Unzip the contents from the Albér BXE battery management software file you received.

Figure 3.1 Installation Preparation

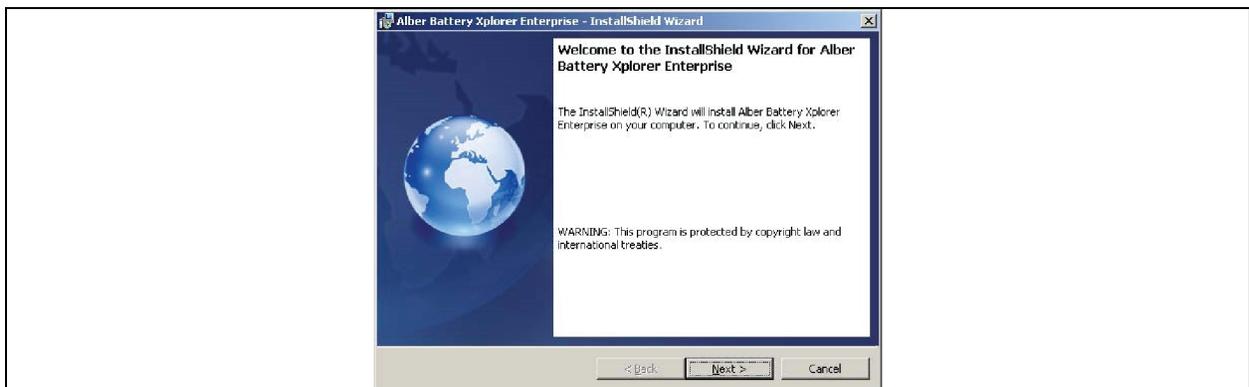


2. The Welcome to the InstallShield Wizard for Alber Battery Xplorer Enterprise window appears. Follow the prompts in the wizard by clicking Next.
 - If Complete is clicked, all program features are installed at once.
 - If Custom is clicked, refer to Custom Installation on page 21 for more information.

-or-

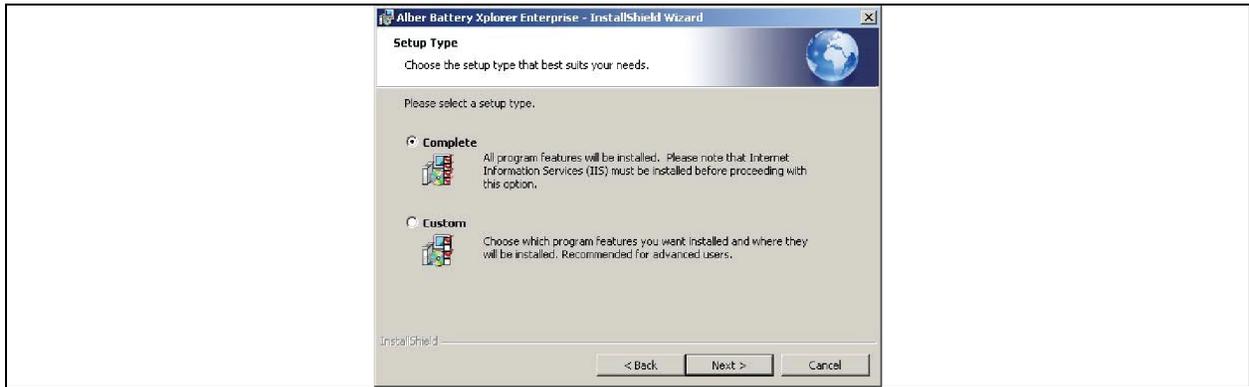
As an Administrator, run the Albér BXE executable file and agree to the terms and conditions.

Figure 3.2 Welcome to the InstallShield Wizard



3. Click Next.

Figure 3.3 Setup Type



4. When installing the Albér BXE battery management software through the file you received, a message appears and prompts you to verify if the SQL server has already been installed. If a SQL server instance is already installed, select *No* at the SQL installation prompt.

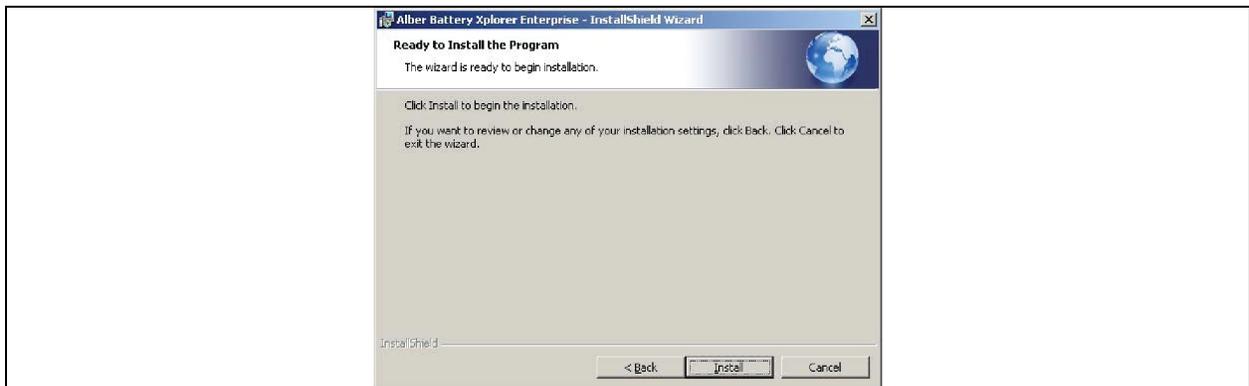
-or-

If a SQL server instance is not yet installed, select *Yes* to install the server.

NOTE: If Microsoft SQL Server is not installed, the Battery Xplorer Enterprise (BXE) software installation will automatically install the Microsoft SQL Server.

5. Click *Install* to begin software installation.

Figure 3.4 Ready to Install Battery Xplorer



NOTE: If Internet Information Services (IIS) is not installed, the following window appears. See Figure 3.5 on the facing page. Click *Cancel* to abort the installation wizard, then refer to Internet Information Services (IIS) on page 8 for installing IIS. Re-run the installation wizard after IIS has been installed.

Figure 3.5 Battery Xplorer Error Message if Internet Information Services is not Installed

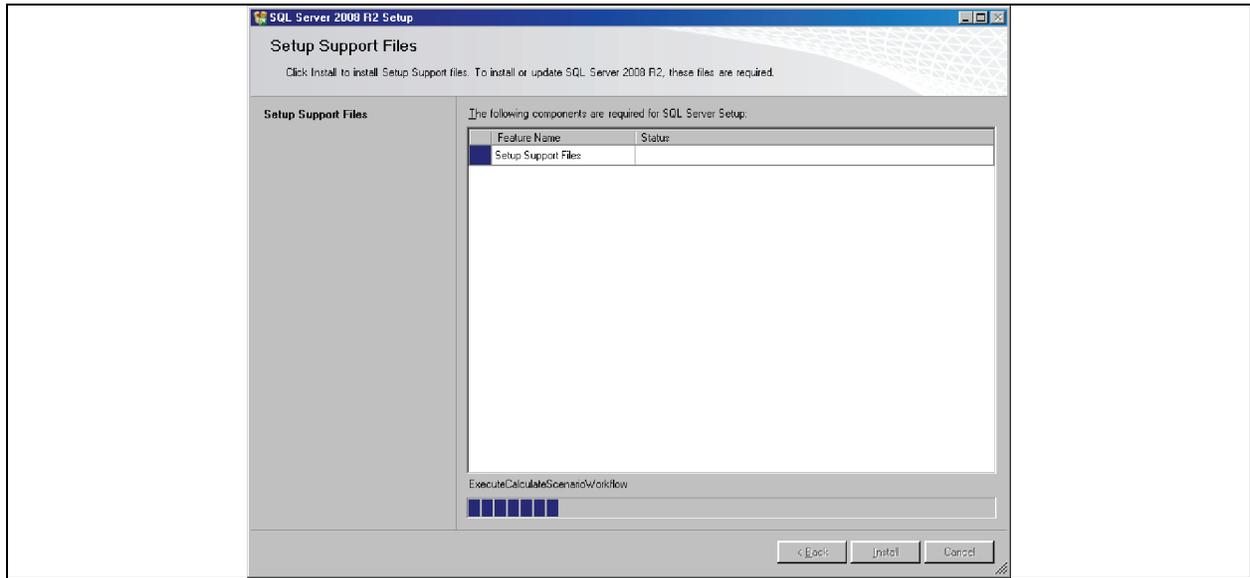


NOTE: A progress bar will appear showing the installation progress. Expect to see Microsoft SQL installation screens throughout the installation process as shown in **Figure 3.6** below.

Figure 3.6 Battery Xplorer Installation In Progress



Figure 3.7 Installing Microsoft SQL Server Setup Support Files



6. After the installation is complete, ensure the checkbox is checked to automatically launch the Web Application Manager (WAM). The WAM will guide you through the software setup process. Click *Finish* to continue. Refer to [First Time Setup](#) on page 25 for further instructions.

NOTE: For additional information, please refer to the [Vertiv™ Albér™ Battery Xplorer Enterprise Software User Guide](#) located on www.vertiv.com.

4 Custom Installation

The following procedure describes how to install specific components of the Albér BXE battery management software on separate computers using the Custom Installation option.

NOTE: For a single machine installation, it is recommended to use the Complete Installation option to ensure all software components are installed appropriately.

To perform a custom installation:

1. Insert the Albér Battery Xplorer Enterprise CD and browse the CD for the setup.exe file. The software begins the installation preparation.
2. Follow the prompts in the Albér Battery Xplorer InstallShield wizard by clicking *Next*. The Setup Type window appears. For a customized installation, choose *Custom*.

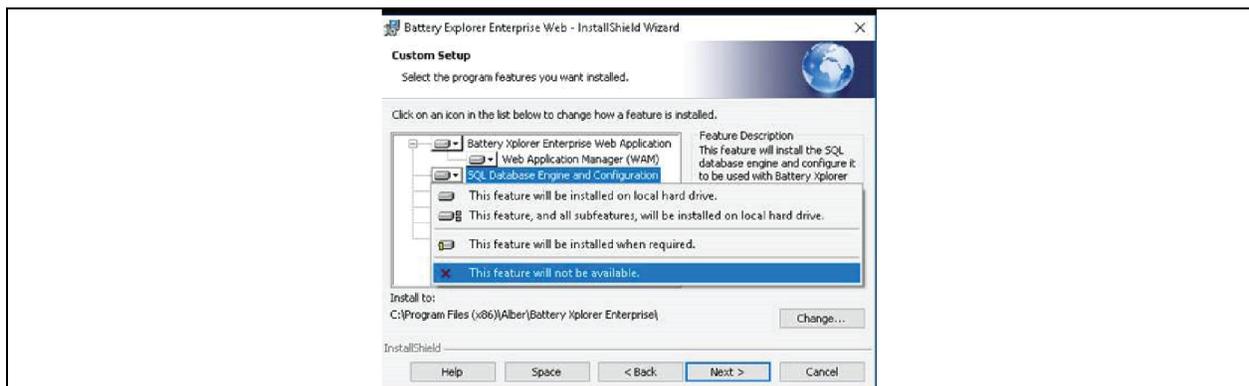
4.1 Installing the Albér BXE Software on a Different Drive

By default, the Albér BXE software is installed on the C drive. In order to install the Albér BXE software on another drive, the SQL server must be installed. You can use an existing instance of an SQL server or install a new SQL instance as described in [Installing the SQL Database on a Different Drive](#) below.

To install the Albér BXE software on a different drive:

1. Run the BXE executable file as an Administrator and select the *custom installation* option.
2. On the Custom Setup screen of the InstallShield Wizard, select *This feature will not be available* from the SQL Database Engine and Configuration drop-down list and click *Next*. See **Figure 4.1** below.

Figure 4.1 Custom Setup



3. Continue through the other features and enter the correct path.
4. After all paths are changed, click *Next* until the software installation is complete.

4.2 Installing the SQL Database on a Different Drive

In order to install the Albér BXE software on any computer with the Custom Installation option, you must first install SQL Express, then the SQL database, and finally the Albér BXE components.

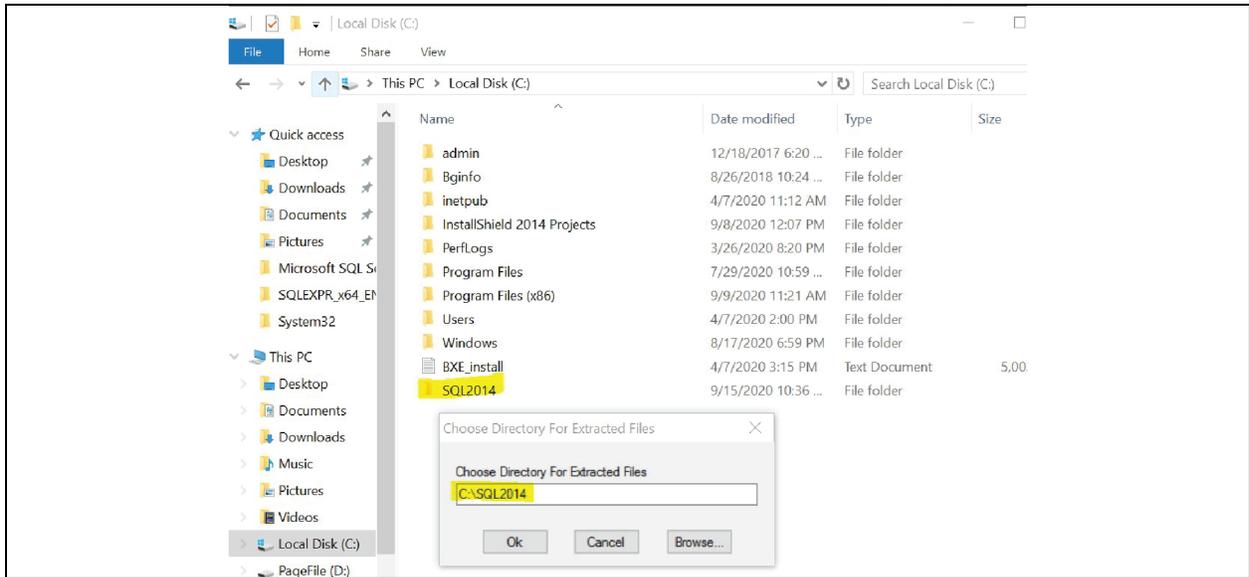
To install SQL Express:

1. Create a new SQL2014 folder as the location to which you will extract the SQL 2014 media files on the C drive (or another drive).
2. In the IS set-up Prerequisites folder, open Microsoft SQL Server 2014 Express RTM (x64) and run the executable as Administrator for a 64-bit operating system.

NOTE: If you are installing for a 32-bit system, contact Vertiv Technical support for assistance.

3. In the pop-up window, click *Browse* and select the SQL2014 folder you created in Step 1. See **Figure 4.2** below.

Figure 4.2 Installation of SQL Database

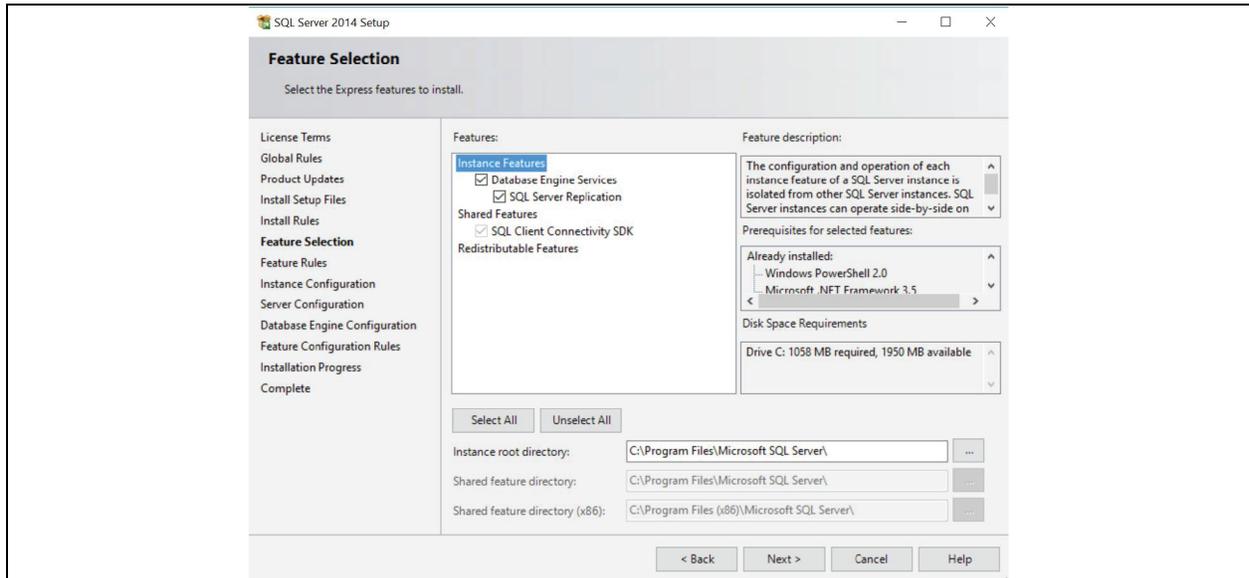


4. For creating standalone installations or adding features on existing installations, select the *New SQL Server stand-alone installation or add features to an existing installation* option. See **Figure 4.3** on the facing page.
5. In the License Terms section, click the checkbox to accept the license terms and select *Next*.
6. In the Feature Selection section, select the default features and select *Next* to proceed with a default install.

-or-

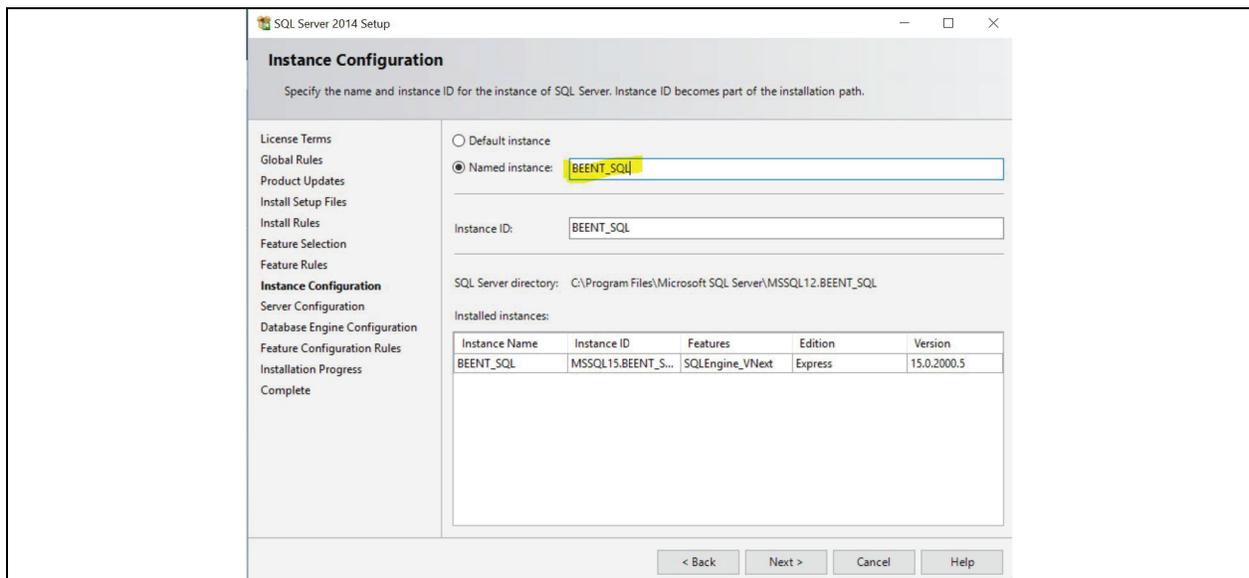
If you wish to install SQL on any other drive, replace **C:** with your desired drive letter in the applicable instance root and/or shared featured directory fields at the bottom of the window prior to selecting *Next*. See **Figure 4.3** on the facing page.

Figure 4.3 Selection of Instance Root Directory



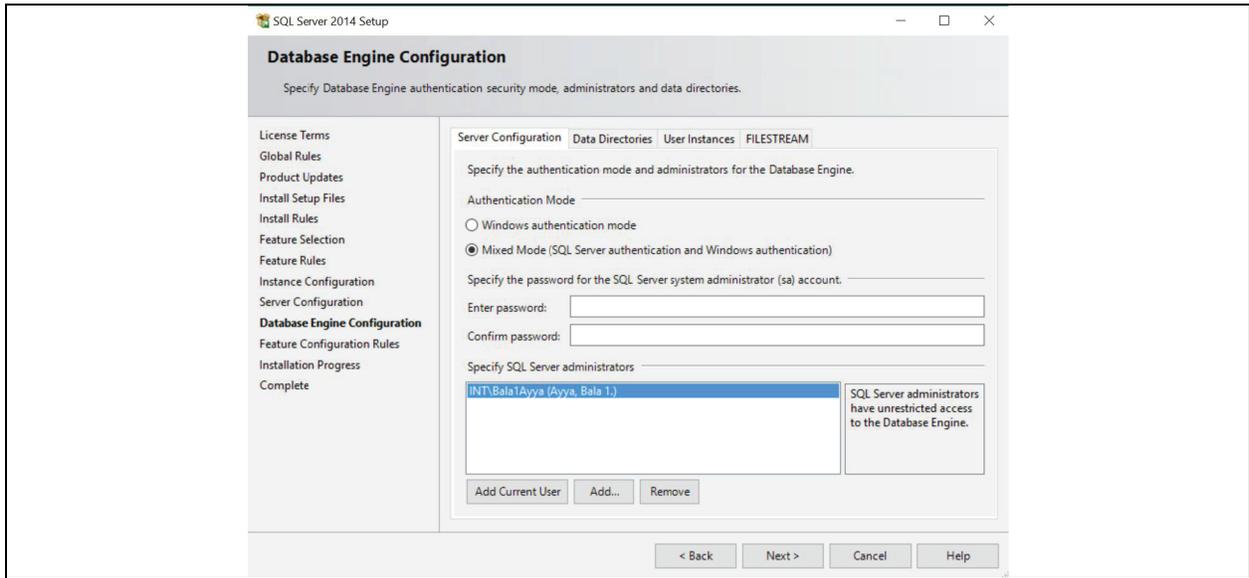
7. In the Instance Configuration section, click the Named instance radio button, type **BEENT_SQL** in the corresponding field and select *Next*. See Figure 4.4 below.

Figure 4.4 Instance Configuration Section and Giving Named Instance



8. In the Database Engine Configuration section, click the Mixed Mode radio button, enter **Welcome1** as the password, then select *Next*. See Figure 4.5 on the next page.

Figure 4.5 Database Engine Configuration Section



NOTE: You may choose a password other than the default (Welcome1); however, that same password must be used for initiating WAM.

9. Click *Next* on each window that appears until the SQL is installed on the server.

4.3 Manually Installing the Albér BXE Watchdog

If the Albér BXE Watchdog is not listed in the Services window (opened from the Windows Start menu), there are two options for manual installation.

To manually install from the BXE software server:

1. From the BXE server, open the BXE folder located under Program Files. The default path is: C:\Program Files (x86)\Alber\Battery Xplorer Enterprise\Watchdog.

NOTE: If the software is installed on a different drive, ensure you adjust the file path accordingly.

2. Run the Install Service batch file (InstallService.bat Windows Batch File).

To manually install from the command prompt:

1. Open the command prompt as an Administrator.
2. If the Watchdog is installed on the default drive, enter the following command to change the directory, then press **Enter**.
`cd C:\Program Files (x86)\Alber\Battery Xplorer Enterprise\Watchdog`
3. Enter the InstallService.bat, then press **Enter**.
4. From the Windows Start menu, open the Services window, and verify that the Albér BXE Watchdog is now listed.

5 Post-Installation Checks

After installation, ensure the SQL server is installed and the BXE software is monitoring your strings.

To verify the SQL server is installed:

1. From the Windows Start menu, open the Services window, and verify that MSSQL\$BEENT_SQL service or any other service that is used to install the Albér BXE software is running.
2. While still in the Services window, verify that the BX Enterprise Watchdog service is also running.

NOTE: If the services are missing, they must be manually installed.

To verify that BXE software is monitoring your strings:

1. Open the Monitoring Service Manager (MSM) and click *OK* on the initial database connection prompt.
2. In the upper right-hand corner of the MSM window, the monitoring status displays. If you wish to start or stop monitoring, select *Monitor Engine* and follow the applicable next steps.

Higher CPU Usage For Li-Ion/Z5 Discharge Detection

If the customer has Lithium-Ion and/or ZincFive systems and is experiencing excessive CPU usage, and cannot allocate more CPU to the BXE system, the **Higher CPU Usage For Li-Ion/Z5 Discharge Detection** parameter should be unchecked and the Monitor Engine restarted.

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6 First Time Setup

6.1 Configuring the Albér BXE Software

To set up the Albér BXE battery management software for the first time:

NOTE: After installation, the Web Application Manager (WAM) should launch automatically if the checkbox was checked in the Albér Battery Xplorer Wizard. If the checkbox was not checked, follow the steps below.

1. Click *Start - All Programs - Alber - Battery Xplorer Enterprise - Web Application Manager*. The Web Application Manager window appears.
2. Click *Start* to configure the web application. A previous connection dialog box appears. If the path to the database is correct, select *Yes*. Otherwise, select *No*.
3. The Connect to SQL Server window appears. For complete installations, the default database is already pre-populated in the connection field (LOCALHOST\BEENT_SQL). Click *Connect* to connect to the default database.

-or-

For custom installations, browse to the database you wish to connect, then enter the SQL server IP address or server name in the connection field.

4. A window appears indicating the database does not exist yet and prompts you to create a new database. Click *Yes* to create a new database.
5. A window appears indicating the database creation was successful. Click *OK* to acknowledge the creation of the Battery Xplorer database.
6. On the Initialization Complete window, click *OK*.
7. A window appears indicating the web application initialized. Click *Exit*. The system launches the Database Import Manager (DIM) next.
8. On the DIM window, click *Connect to Data Source* to choose your desired data source for import.

NOTE: Refer to the Vertiv™ Albér™ Battery Xplorer Enterprise Database Import Manager Getting Started Guide for details on how to utilize the Database Import Manager.

9. Choose your data source and click *Next*. Follow the steps in the **Vertiv™ Albér™ Battery Xplorer Enterprise Database Import Manager Getting Started Guide** located on www.vertiv.com to connect to the selected device.
10. After connecting to the selected device, click the *Connect to BX Enterprise* button to connect to the database.
11. Check the desired check boxes on the Source Database field to import configuration. Click *Import Selected Configuration Items* button to continue.
12. The Previous Connection Data Found window appears. Click *Yes* to connect to the database and populate the destination database field.
13. Click the *Import History* button to import history, then press *Exit*.
14. Click *Yes* to launch the Configuration Management window.
15. After configuring and exiting the Database Import Manager, a BXE Configuration Management window appears prompting to you enter your SMTP Server information (Port, Username, and Password are optional). Click *Save*, then click *Test Settings* to test your email settings.

NOTE: If the SMTP server requires SSL encryption, check the Use SSL Security checkbox.

16. Enter the email address to which the test message will be sent.

17. Click *Send Test Email*. A message appears confirming that the email was sent successfully. Click *Close*.
18. Check your email to verify the message was received. Click *OK*, then click *Exit*.
19. The Previous connection Data found window appears. Click *Yes* to connect to the database and the system will launch the Monitor Service Manager (MSM).
20. In the MSM window, click *Start* to automatically configure the connections to the monitors.
21. The Monitor Service Manager completed message appears. On the Complete window, click *OK*.
22. On the MSM window, click *Exit*.
23. Double-click on the Battery Xplorer Enterprise icon on your desktop. The system opens the Battery Xplorer Enterprise Web application using the default browser.

NOTE: To launch the Albér BXE battery management software web page from another computer, type the following address into a browser: <http://computer name/BEEnterpriseWeb/default.aspx>, where “computer name” is the name or IP address of the computer on which the battery management software is installed.

NOTE: Contact your systems administrator if you want to use a custom computer name to make the necessary DNS changes.

24. The System Initialization page appears. An administrator must fill out the page. Enter the following information:
 - User Name (Note: Cannot be changed on the Administrator account)
 - Password
 - Confirm Password
 - First Name
 - Last Name
 - E-mail
25. Click *Submit* after entering the administrator account information.
26. A login page appears. Enter your username and password.
27. A confirmation notification message will be sent to the email provided for your administrative account confirming that the Battery Xplorer has been setup successfully. Click *Continue*.
28. Enter your newly created administrator username and password and click *Log In*.

The Albér BXE battery management software main window appears. Congratulations! Your Battery Xplorer Enterprise installation and configuration is complete.

For more information on how to use the Battery Xplorer Web application, refer to the context sensitive help text link in the upper right-hand side corner of the page

6.2 Modifying the Albér BXE Software Email

6.2.1 Using an existing SMTP server

To use an existing SMTP server to configure the Albér BXE software email:

1. Log into the BXE software and select the *Administration* tab.
2. Open the Email Server Manager and fill in all applicable details.

NOTE: Contact your IT representative if you have questions regarding your email server.

To verify the configuration and email server is working using an SMTP server:

1. Log into the BXE software and select the *Administration* tab.

2. Open the Email Server Manager, select *Test Email* and provide your email ID.

6.2.2 Configuring an SMTP server

The built-in Windows SMTP server can be configured through the following procedure:

To configure an SMTP server:

1. From the Windows Start menu, search for IIS, and run the Internet Information Services (IIS) 6.0 Manager.
2. Right-click on the server name and select *Properties*.
3. Go to the *Access* tab and select *Connection*.
4. Click the *Only the list below* radio button and select *Add*.
5. Select the *Single computer* option, enter **127.0.0.1** as the IP address, then click *OK*.
6. On the *Connection* window, click *OK*.
7. On the *Properties* window, select *Apply*.

NOTE: The built-in Windows SMTP server does not function with the latest versions of Windows, it stops working with Windows 2022 and above. Despite being listed among the installable features, it will not function in these versions.

6.3 Activating the Albér BXE Software Features

The Albér BXE battery management software monitoring system comes with a 30-day demo period during which you have access to full functionality. After this period, the system features require activation keys to allow continued functionality within the software application. Without the activation keys, the features are inaccessible.

To obtain the activation keys:

1. On the Battery Xplorer home page, click the *Administration* icon. The *Administration Access* page appears.
2. Scroll down to the bottom of the list and click *Features Activation Manager*. The *Features Activation Manager* page appears.
3. On this page, locate your *Purchase Order* number and *Installation Key*, then contact customer service to register for the activation keys.
 - Customer Service Email: customerservicerequest@vertiv.com
 - Customer Service Phone: 1-800-543-2378

To activate the Battery Xplorer Enterprise features:

1. On the Battery Xplorer home page, click the *Administration* icon. The *Administration Access* page appears.
2. Scroll down to the bottom of the list and click *Features Activation Manager*. The *Features Activation Manager* page appears.
3. After obtaining your activation keys from customer service, enter the 16-digit *Activation Key* number and click *Apply Activation Key*. A message appears informing you the activation was successful.
4. Verify that your purchased feature has a status of *Active*.

NOTE: If the activation of any of your purchased features are not successfully active, contact Vertiv Customer Service.

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7 Enabling Auto-Login (Optional)

Login permissions can be configured to log you into the Albér Battery Xplorer Enterprise system automatically without entering a username and password. The auto-login feature can be enabled via either a browser or an active directory.

7.1 Setting Up a Browser for Auto-Login

Your browser can save your username and password for future logins, eliminating the need for you to retype the credentials for each login attempt.

To set up the browser auto-login feature:

1. Double-click the Battery Xplorer Enterprise Web icon.

-or-

Click *Start - All Programs - Albér - Albér Battery Xplorer Enterprise - Battery Xplorer Enterprise Web* to open the login page.

2. Enter your credentials, then click *Log In*.
3. The first time you login to the Battery Xplorer Enterprise web site, your browser prompts you to save your username and password. Click *Yes* to save your username and password. The login fields are prefilled, the next time you login to the Battery Xplorer Enterprise login page.

7.2 Setting Up an Active Directory for Auto-Login

If you are logged into your PC as an Active Directory user and the same Active Directory user (or group) account has been added to the Battery Xplorer Enterprise User Management page, you may be automatically logged into the Albér Battery Xplorer Enterprise web site. The auto-login feature can be enabled through active directory either within IIS or the Albér BXE software.

To set up the Active Directory auto-login feature within IIS:

1. Click the *Start* button, select *All Programs - Accessories - Run*. Type **INETMGR** and click *OK*.
2. On the left side of the pane, click the plus sign or arrow next to your machine name to expand the sites below.
3. Click the plus sign or arrow next to *Sites*.
4. Click the plus sign or arrow next to *Default Web Site*.
5. Click *BEEnterpriseWeb*.
6. Under the IIS area in the center of the pane, double-click *Authentication*.
7. Select *Forms Authentication* and right-click and select *Disabled*.
8. Select *Windows Authentication*, then right-click and select *Enabled*.
9. Close the IIS window.

To set up the Active Directory auto-login feature within the Albér BXE software:

1. Double click the *Battery Xplorer Enterprise Web* icon.

-or-

Click *Start- All Programs -Albér - Albér Battery Xplorer Enterprise - Battery Xplorer Enterprise Web* to open the login page.

2. Enter your credentials, then click *Log In*.
3. On the main Battery Xplorer page, click *Administration*.
4. On the Administration Access page, click *System Manager*.
5. In the System Configuration area, enter your Active Directory Server name.
6. Click the checkbox to select and enable Active Directory Auto Login.

NOTE: IIS Windows Authentication must be enabled, and Forms Authentication must be disabled.

7. Click *Save - Exit*.
8. On the main Battery Xplorer page, click *Administration Access - User Manager*. The User Management page appears. Use this page to search for existing Active Directory users or groups for logging into the Albér Battery Xplorer Enterprise Web application. Complete the following steps:
 - a. In the Edit User area, click *New* and enter an existing or partial Battery Xplorer Enterprise Web username.
 - b. To find Active Directory Users, click *Search Users*. The users are based on username, first name, last name, and/or email addresses.
 - c. To search for groups of users, click *Search Groups* that are based on username.
 - d. Select a user or group from the list of results and click *Save*.
9. On the System Management page, verify that the Auto Login box is checked.

You can now auto-login to the battery Xplorer Enterprise Web site the next time you login. The browser displays a login prompt for the Active Directory Username and Password on the first login attempt. In the browser, a prompt appears requesting you to save your credentials. Depending on your browser, the following appears the next time you go to the Login page:

- In Firefox and Chrome, the browser popup login prompt is already pre-filled with the Username and Password (as all asterisks or dots).

NOTE: In Internet Explorer, you still have to re-enter the password every time by default.

8 System Upgrade

To upgrade to the latest Albér BXE battery management software:

1. Contact customer service by phone at 1-800-543-2378 or by email at customerservicerequest@vertiv.com.
2. Open the Monitor Service Manager (MSM) or DIM and stop the BXE monitoring engine by selecting *Monitor Engine* from the top right corner.
3. From the Windows Start menu, open the Services window and ensure the BX Enterprise Watchdog status indicates it has stopped.
4. Download the .zip file from the link, then extract the files to your desired location.
5. Open the folder and right-click on the setup.exe file (executable file) and select *Run as administrator*. The Albér Battery Xplorer Enterprise – InstallShield Wizard window appears.
6. Accept the terms and conditions, then proceed with the complete installation.
7. Click Yes. The Albér Battery Xplorer Enterprise – InstallShield Wizard prepares to install the software.

NOTE: If prompted, select **No** to SQL installation.

8. Click *Next*.
9. When the Battery Xplorer Enterprise Upgrade is complete, click *Finish*.
10. After installation is complete, launch the WAM if it does not automatically launch.
11. Click *Start - All Programs - Albér - Battery Xplorer Enterprise - Web Application Manager*. The Web Application Manager window appears.

NOTE: If prompted, skip the DIM imports.

12. Run WAM with all default values and ensure initialization is complete.
13. Click *Start*. The Previous Connection Data Found window appears. Click *Yes* and follow the prompts.
14. Run MSM and start the BXE monitoring process engine.

To downgrade to a previous version:

1. Back up the BXE software database.
2. Uninstall the existing BXE software (this will not delete existing databases).
3. Check and delete any remaining files from C:\Programs(x86)\Alber\BatteryXplorerEnterprise (default location), or wherever the installation files exist.
4. Install the previous software version.
5. Establish the connection with the BXE software again by running WAM against the existing database.
6. Start monitoring from MSM.

To retain your old database:

1. Select *Administration Access – Database Backup Manager* to begin a backup of the existing database in the BXE software.
2. Complete the backup using the SQL Server Management Studio
3. Save both .bak files to an external data storage location.
4. From the Windows Start menu, open the Services window.
5. Right-click on *MSSQL\$BEENT_SQL* and select *Stop*, then save the following files to an external data storage location:

- BEEnterprise
 - BEEnterprise_log
 - BEEnterpriseHistory
 - BEEnterpriseHistory_log
6. Upgrade the operating system.
 7. Install the BXE software again with the SQL database, but do not run WAM, DIM, or MSM yet.
 8. Restore the databases using the SQL Server Management Studio and the .bak files.

-or-

Restore the databases by opening the Services window from the Windows Start menu, right-clicking on *MSSQL\$BEENT_SQL* and selecting *Stop*. Then, paste the following files in this folder ([enter drive letter here]:\ProgramFiles\MicrosoftSQLServer\MSSQL10_50.BEENT_SQL\MSSQL\DATA\):

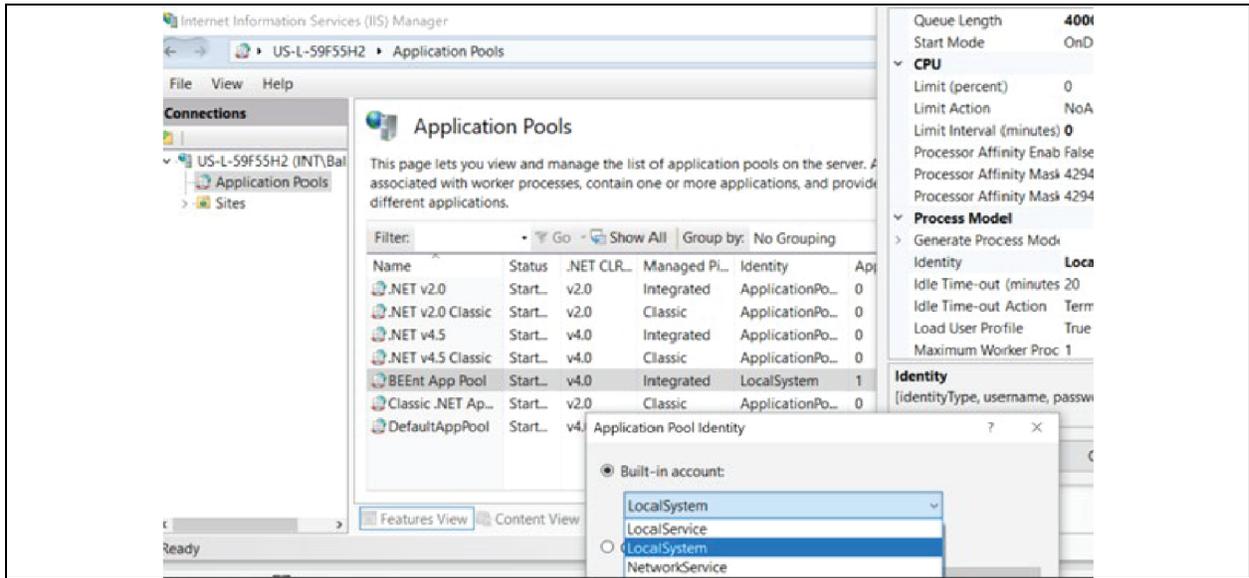
- BEEnterprise
 - BEEnterprise_log
 - BEEnterpriseHistory
 - BEEnterpriseHistory_log
9. Run the WAM and MSM applications.

8.1 Troubleshooting the LDAP/AD Account After an Upgrade

If the LDAP/Active Directory (AD) account is not working after upgrading the Albér BXE software, refer to the following steps for a resolution.

1. Open the IIS manager and select *Application Pools*.
2. Right-click on *BEEnt App Pool* and open the *Advanced Settings* option.
3. In the Application Pool Identity menu, select *NetworkService*.
4. Recycle the Application Pool and log in again with your AD credentials. See **Figure 8.1** on the facing page on the facing page .

Figure 8.1 Application Pools



9 System Migration

Use the following steps to transfer Albér BXE battery management software from one system to another. This system migration procedure will prevent two Battery Xplorer Enterprise systems from polling hardware at the same time.

To transfer the BXE software from one system to another:

1. Backup the two BEEnterprise and BEEnterpriseHistory databases using the Microsoft SQL Server Management Studio software.
2. Disable Battery Xplorer Enterprise (BXE) Service or uninstall Battery Xplorer Enterprise on the original system.
3. Install the Battery Xplorer Enterprise software on the new system.
4. Run the Web Application Manager on the new system.
5. Delete Battery Xplorer Enterprise Databases (BEEnterprise and BEEnterpriseHistory) using the Microsoft SQL Server Management Studio created by the Web Application Manager on the new system.
6. Restore the original databases (BEEnterprise and BEEnterpriseHistory) using the Microsoft SQL Server Management Studio to the new system.
7. In Microsoft SQL Server Management Studio, complete the following tasks:
 - a. Click the server name to expand the menu, then click *Databases – BEEnterprise - Security - Users* folders.
 - b. Rename the current **BEEnterprise** user to **BEEnterprise_OLD user**.
 - c. Click *Databases – BEEnterpriseHistory – Security - Users* folders.
 - d. Rename the current **BEEnterprise** user to **BEEnterprise_OLD user**.
 - e. Click the *Security* folder (Do not expand the Databases folder), then click the *Logins* folders and select *BEEnterprise user*.
8. Map the user to the BEEnterprise and BEEnterpriseHistory databases by right clicking and selecting *Properties*. Under Login Properties window, select *User Mapping*. Check the checkboxes to map the BEEnterprise and BEEnterpriseHistory databases and select the db_owner checkbox role for each database.
9. Delete the Albér (HKEY_CURRENT_CONFIG\Software\Alber) registry entry created by the WAM using regedit (Click *Start* and type **regedit**).
10. Re-run the WAM on the new system.
11. Run the Monitor Service Manager Program, then click the Clear MSM Config option located on the Tools menu. Press the *Start* button to assign and start the BX Enterprise Watchdog service.
12. Contact customer service by phone at 1-800-543-2378 or by email at customerservicerequest@vertiv.com to obtain an activation key.

To migrate your software to another location:

1. Select *Administration Access – Database Backup Manager* to begin a backup of the existing database in the BXE software.
2. Save both .bak files to an external data storage location.
3. Complete the backup using the SQL Server Management Studio.
4. From the Windows Start menu, open the Services window, right-click on *MSSQL\$BEENT_SQL* and select *Stop*.
5. Save the following files to an external data storage location:
 - BEEnterprise
 - BEEnterprise_log
 - BEEnterpriseHistory
 - BEEnterpriseHistory_log

6. Install the BXE software on the new server with the SQL database, but do not run WAM, DIM, or MSM yet.
7. Restore the databases using the SQL Server Management Studio and the .bak files.

-or-

Restore the databases by opening the Services window from the Windows Start menu, right-clicking on *MSSQL\$BEENT_SQL* and selecting *Stop*. Then, paste the following files in this folder: [enter the drive letter here]:\ProgramFiles\MicrosoftSQLServer\MSSQL10_50.BEENT_SQL\MSSQL\DATA\:

- BEEnterprise
 - BEEnterprise_log
 - BEEnterpriseHistory
 - BEEnterpriseHistory_log
8. Run the WAM and MSM applications.

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Appendices

Appendix A: Technical Support and Contacts

A.1 Technical Support/Service in the United States

Vertiv Group Corporation

24x7 dispatch of technicians for all products.

1-800-543-2378

Liebert® Thermal Management Products

1-800-543-2378

Liebert® Channel Products

1-800-222-5877

Liebert® AC and DC Power Products

1-800-543-2378

A.2 Locations

United States

Vertiv Headquarters

505 N Cleveland Ave

Westerville, OH 43082

Europe

Via Leonardo Da Vinci 8 Zona Industriale Tognana

35028 Piove Di Sacco (PD) Italy

Asia

7/F, Dah Sing Financial Centre

3108 Gloucester Road, Wanchai

Hong Kong

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