Power Insight v3.0

User Manual

The information contained in this document is subject to change without notice and may not be suitable for all applications. While every precaution has been taken to ensure the accuracy and completeness of this document, Vertiv assumes no responsibility and disclaims all liability for damages result from use of this information or for any errors or omissions.

Refer to local regulations and building codes relating to the application, installation, and operation of this product. The consulting engineer, installer, and/or end user is responsible for compliance with all applicable laws and regulations relation to the application, installation, and operation of this product.

The products covered by this instruction manual are manufactured and/or sold by Vertiv. This document is the property of Vertiv and contains confidential and proprietary information owned by Vertiv. Any copying, use, or disclosure of it without the written permission of Vertiv is strictly prohibited.

Names of companies and products are trademarks or registered trademarks of the respective companies. Any questions regarding usage of trademark names should be directed to the original manufacturer.

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.

Proprietary and Confidential ©2025 Vertiv Group Corp.

TABLE OF CONTENTS

1 Software Introduction **1**
1.1 Function 1
2 Software Installation **3**
2.1 Installation Requirements 3
2.1.1 Hardware 3
2.1.2 Software 3
2.2 Software Downloads 3
2.2.1 Account registration 4
2.2.2 Download 7
2.3 Software Installation 9
2.3.1 Power Insight Installation 9
2.3.2 Trellis™ Automation Agent Installation 17
2.4 Software Uninstallation 19
2.4.1 Uninstalling Vertiv™ Power Insight 19
2.4.2 Uninstalling the Automation Agent 20
3 Software Log In and User Interface **23**
3.1 System Initialization and Log In 23
3.1.1 User Registration 23
3.1.2 System Initialization 23
3.1.3 User Login 26
3.1.4 Changing Password 29
3.1.5 Forgot Password 30
3.2 User Interface 32
4 Uninterrupted Power Supply and Power Distribution Units Management **35**
4.1 Overview 35
4.1.1 Functional Modules 35
4.2 Get Started Quickly 35
4.2.1 Rapid Deployment Steps 35
4.3 UPS 35
4.3.1 View the List of UPSs 35
4.3.2 UPS Addition 36
4.3.3 UPS Deletion 41
4.3.4 UPS Details 42
4.4 PDU 47
4.4.1 View the List of PDUs 47
4.4.2 PDU Addition 48
4.4.3 PDU Deletion 54

4.4.4 PDU Details 55
5 Server and Shutdown Management 59
5.1 Overview 59
5.1.1 Functional Modules 59
5.2 Get Started Quickly 59
5.2.1 Rapid Deployment Steps 59
5.3 List of Servers 59
5.4 New Server Addition 59
5.5 Server Deletion 64
5.6 Server Details 65
6 Alarm Management 71
6.1 Overview 71
6.1.1 Functional Modules 71
6.2 Get Started Quickly 71
6.2.1 Rapid Deployment Steps 71
6.3 Active Alarm 71
6.3.1 List of Active Alarms 71
6.3.2 View the Details of Active Alarm 74
6.3.3 Exporting Active Alarms 76
6.4 Historical Alarm 76
6.4.1 Historical Alarm List 76
6.4.2 View the Details of Historical Alarms 78
6.4.3 Exporting Historical Alarms 80
7 Alarm Linkage Notification 81
7.1 Overview 81
7.1.1 Functional Modules 81
7.2 Get Started Quickly 81
7.2.1 Rapid Deployment Steps 81
7.3 Notification Settings 81
7.3.1 Editing Notification Settings 87
7.3.2 Deleting Notification Settings 90
7.4 Automation Settings 90
7.4.1 A List of Automation Settings 90
7.4.2 Adding Automation Settings 91
7.4.3 Editing the Automation Settings 97
7.4.4 Deleting Automation Settings 100
8 Power Management 103
8.1 Overview 103
8.1.1 Functional Modules 103
8.2 Get Started Quickly 103

Proprietary and Confidential ©2025 Vertiv Group Corp.

8.2.1 Rapid Deployment Steps 103
8.3 Electricity Statistics 103
8.3.1 A List of Usage and Bill Statistics 103
8.3.2 Adding Usage and Bill Statistics 104
8.3.3 Compiling Usage and Bill Statistics 106
8.3.4 Deleting Usage and Bill Statistics 108
8.4 Electricity Bill Calculation 109
8.4.1 Electricity Bill Calculation List 109
8.4.2 Adding Bill Calculation 110
8.4.3 Editing Bill Calculation 112
8.4.4 Deleting Bill Calculation 115
9 System Configuration 117
9.1 Overview 117
9.1.1 Functional Modules: 117
9.2 Get Started Quickly 117
9.2.1 Rapid Deployment Steps 117
9.3 Event Logs 117
9.4 Notification Configuration 118
9.4.1 Contact List 118
9.4.2 Email Server 121
9.4.3 SMS Modem 122
9.4.4 Notification Language 123
9.5 Security Configuration 124
9.5.1 Trusted Certificate 124
9.5.2 SSL Certificate 128
9.5.3 Session Timeout 129
9.6 Integrated Management 131
9.7 User Management 133
9.8 Backup, Restore, and System Upgrade 138
9.8.1 Backup 138
9.8.2 Restore 140
9.8.3 System Upgrade 144
10 Troubleshooting 149
Appendices 151
Appendix A: Technical Support and Contacts 151

This page intentionally left blank

Proprietary and Confidential ©2025 Vertiv Group Corp.

1 Software Introduction

Vertiv™ Power Insight is a web browser-based monitoring software for UPS, PDU facilities and equipment, and is a platform to view power status, alarms, and trends. It can support the access of up to 100 UPS\PDU and other facilities and equipment.

1.1 Function

Power Insight 3.0 and later versions have the following features and benefits:

- Centralized management and monitoring of power supply equipment.
- Automatically discover and monitor device status.
- Email and SMS notifications triggered by device alarms.
- Protect the server by notifying the server to shut down in advance in case of an accident.
- Shutdown scripts are supported, and any customized scripts can be executed before shutdown according to actual needs.
- Redundant shutdown, the server is shut down when the server is jointly powered by multiple UPSs and all UPSs trigger the server to shutdown.
- Support multi-user management.
- The UI interface is optimized.
- Calculate the power and electricity costs of power supply equipment.
- Manage server devices connected to power supply devices in batches.

Proprietary and Confidential ©2025 Vertiv Group Corp.

This page intentionally left blank

2 Software Installation

2.1 Installation Requirements

2.1.1 Hardware

- Minimum configuration
  - CPU: 4 cores
  - Memory: 8 GB
  - Hard Disk: 256 GB of free disk space
- Recommended configuration
  - CPU: 8 cores
  - Memory: 8 GB
  - Hard disk: 2T free disk space

NOTE: It is recommended that 2 TB space is required to store data of one year operation and historical data retention age.

2.1.2 Software

Vertiv™ Power Insight supported 64-bit operating system.

- 64-bit operating systems supported by Power Insight:
  - Microsoft Windows® 10 and 11
  - Microsoft Windows Server® 2016, 2019 and 2022
  - Red Hat® Enterprise Linux® 7.1 (with GUI), 7.9 (requires networking)
- Supported browsers by Power Insight:
  - Google Chrome™ 55 or above (desktop and tablet)
  - Microsoft Edge 38 or later (desktop)
  - Firefox® 51 or above (desktop)
- Operating systems supported by the Automation Agent (for server shutdown functions):
  - Microsoft Windows® 7, 8.1, and 10
  - Microsoft Windows Server® 2008 R2, 2012 R2, and 2016
  - Microsoft Hyper-V Server® 2012 R2 and 2016
  - Red Hat® Enterprise Linux® 6.7, 6.9, and 7.1 to 7.4

NOTE: The shutdown function supports virtual machines: VMWare ESXi 5.5, 6.0, and 6.5, but there is no need to install the Automation Agent for virtual machines.

NOTE: x64-bit only support for Hyper-V and Red Hat systems.

2.2 Software Downloads

The following sections provide instructions on how to register an official account and download Vertiv™ Power Insight and Automation Agent.

Proprietary and Confidential ©2025 Vertiv Group Corp.

2.2.1 Account registration

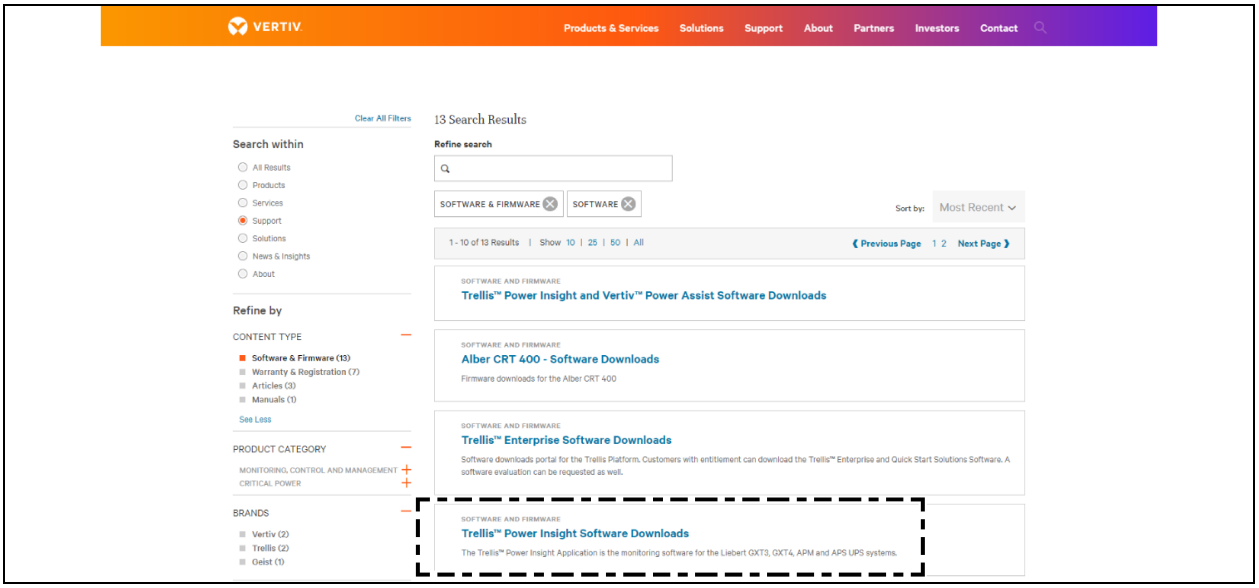
If you don't have a Vertiv account, you will need to register on the official Vertiv website. Once you have registered, you will be able to download the latest version of the program.

Registration Steps

NOTE: The official website of the Chinese version does not provide a download page for Vertiv™ Power Insight for the time being. If necessary, you can switch the official website to the English version or contact customer service. The following steps are based on the English version.

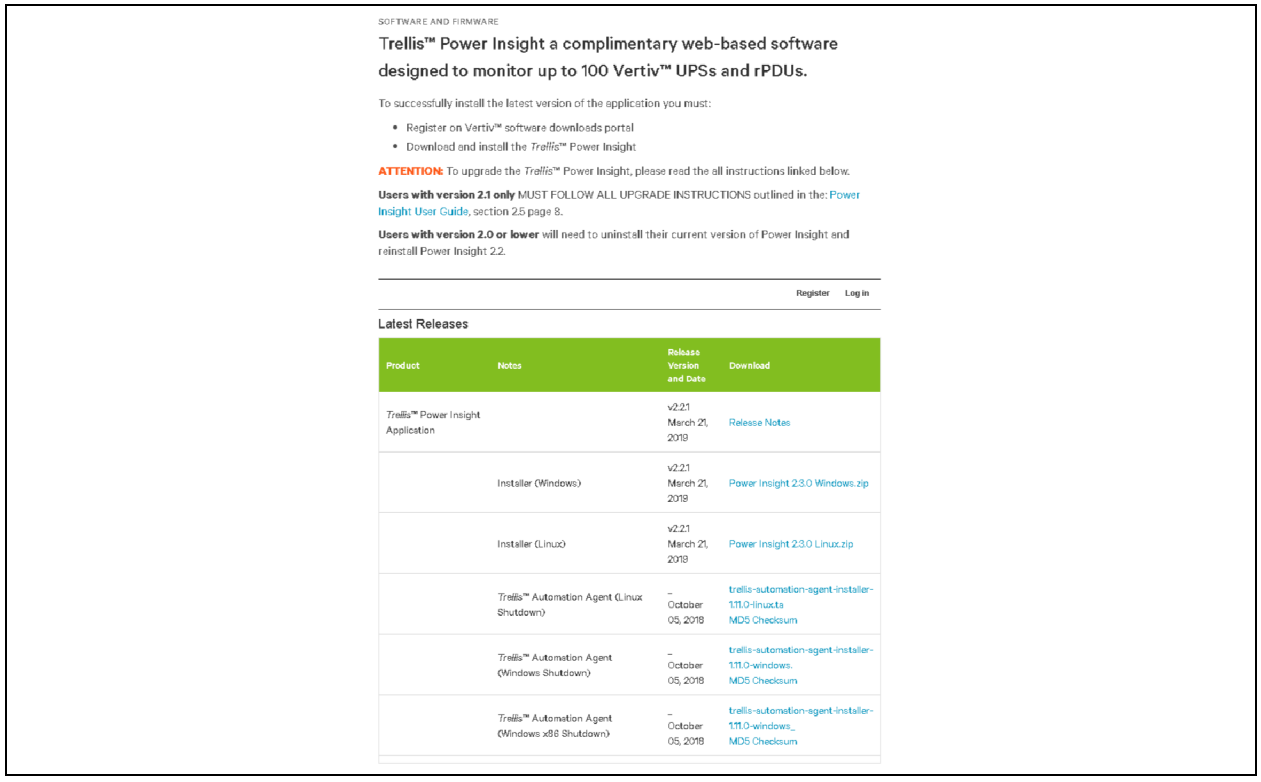
1. From a web browser, navigate to the www.vertiv.com and hover your mouse over the Support tab.
2. Click *Software/Firmware Updates* and click the *Software Product Downloads* menu option. The Software Download page appears.

Figure 2.1 Software Download Page



3. Find *Power Insight Software Downloads* on the page and click on it. Go to the following page:

Figure 2.2 Vertiv™ Power Insight Downloads Page



SOFTWARE AND FIRMWARE

Trellis™ Power Insight a complimentary web-based software designed to monitor up to 100 Vertiv™ UPSs and rPDUs.

To successfully install the latest version of the application you must:

- Register on Vertiv™ software downloads portal
- Download and install the *Trellis*™ Power Insight

ATTENTION: To upgrade the *Trellis*™ Power Insight, please read the all instructions linked below.

Users with version 2.1 only MUST FOLLOW ALL UPGRADE INSTRUCTIONS outlined in the: Power Insight User Guide, section 2.5 page 8.

Users with version 2.0 or lower will need to uninstall their current version of Power Insight and reinstall Power Insight 2.2.

Register Log in

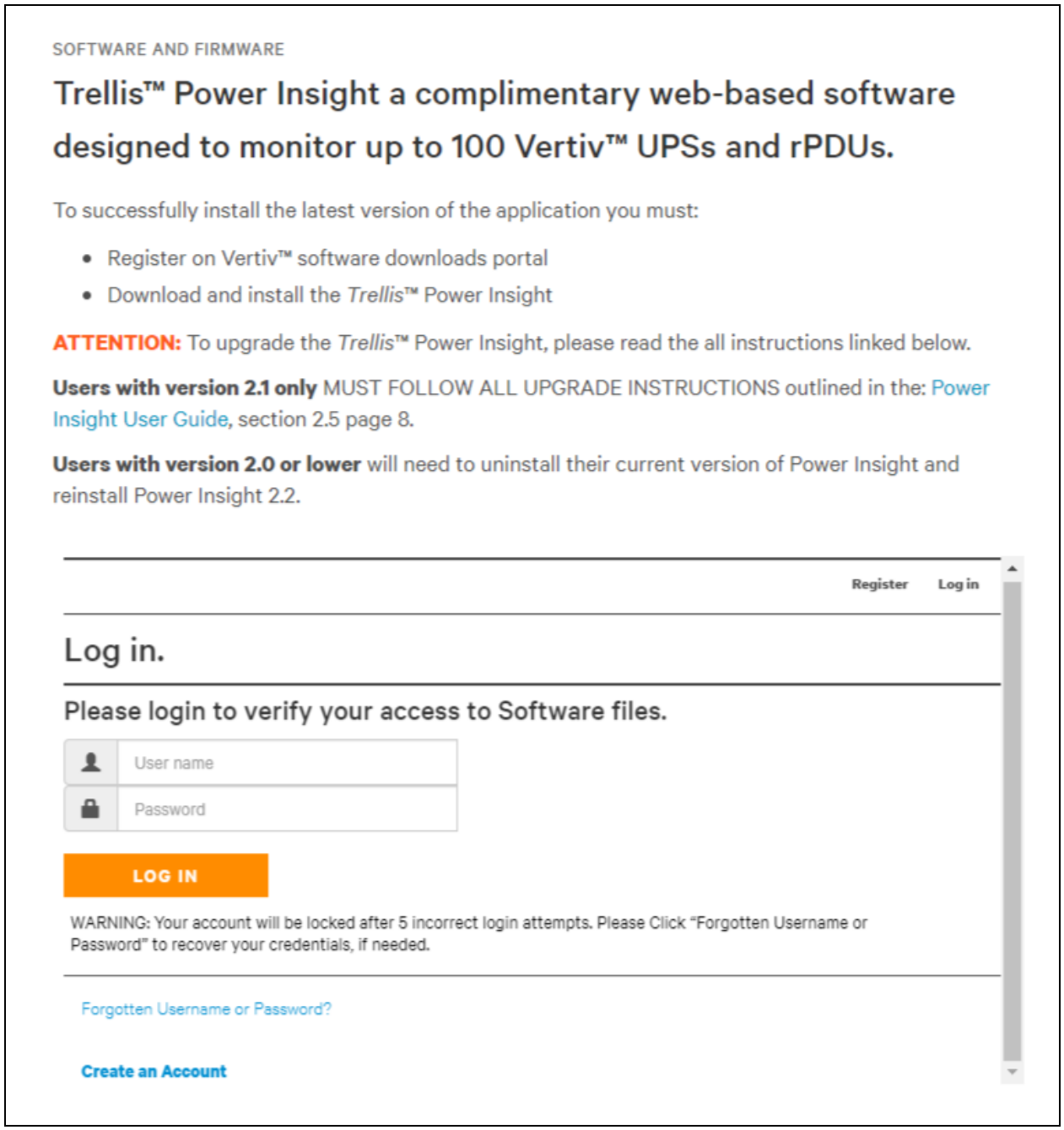
Latest Releases

Product	Notes	Release Version and Date	Download
Trellis™ Power Insight Application		v2.2.1 March 21, 2019	Release Notes
	Installer (Windows)	v2.2.1 March 21, 2019	Power Insight 2.3.0 Windows.zip
	Installer (Linux)	v2.2.1 March 21, 2019	Power Insight 2.3.0 Linux.zip
	Trellis™ Automation Agent (Linux Shutdown)	– October 05, 2018	trellis-automation-agent-installer-1.11.0-linux.ta MD5 Checksum
	Trellis™ Automation Agent (Windows Shutdown)	– October 05, 2018	trellis-automation-agent-installer-1.11.0-windows. MD5 Checksum
	Trellis™ Automation Agent (Windows x86 Shutdown)	– October 05, 2018	trellis-automation-agent-installer-1.11.0-windows_ MD5 Checksum

4. Click on the object you want to download at the bottom of the green box. A small window will take you to the login page.

Proprietary and Confidential ©2025 Vertiv Group Corp.

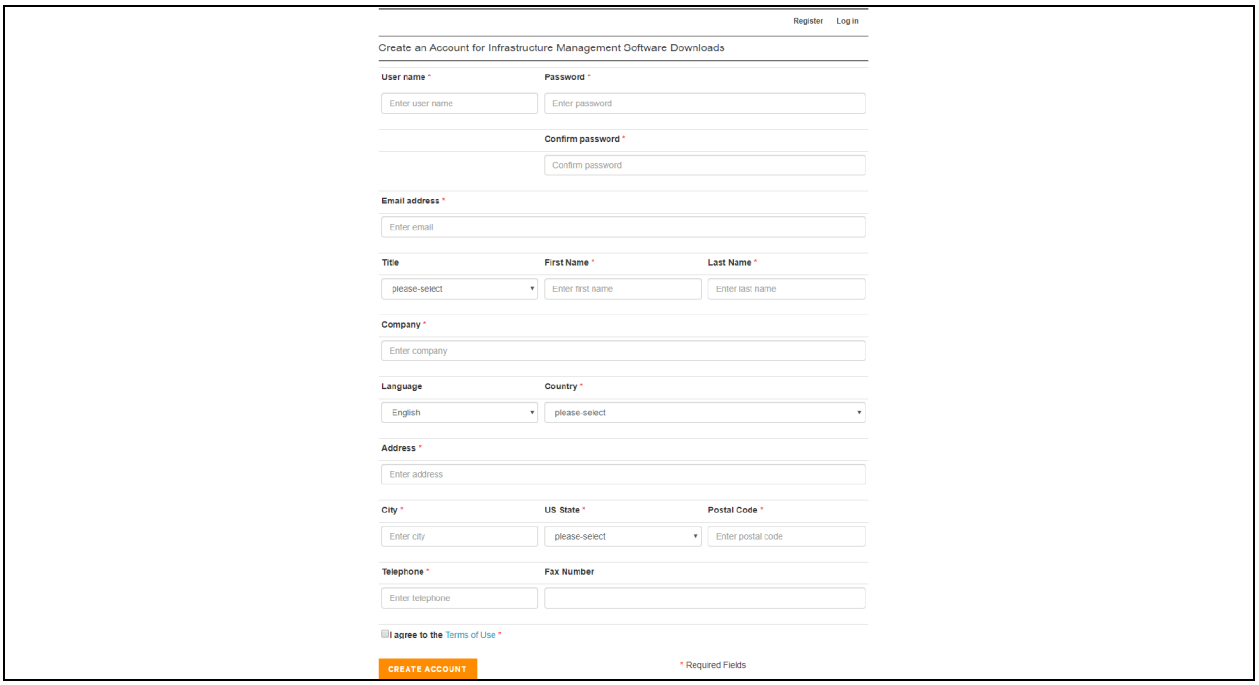
Figure 2.3 Log In Page



5. Click *Register* in the upper right corner previous to Log in. The browser appears a new window as shown in Figure 2.4 on the facing page.

   Enter the mandatory field details (fields marked by red asterisk are mandatory) and click *I agree to the Terms of Use*. Click the *Create Account*.

Figure 2.4 Registration Page



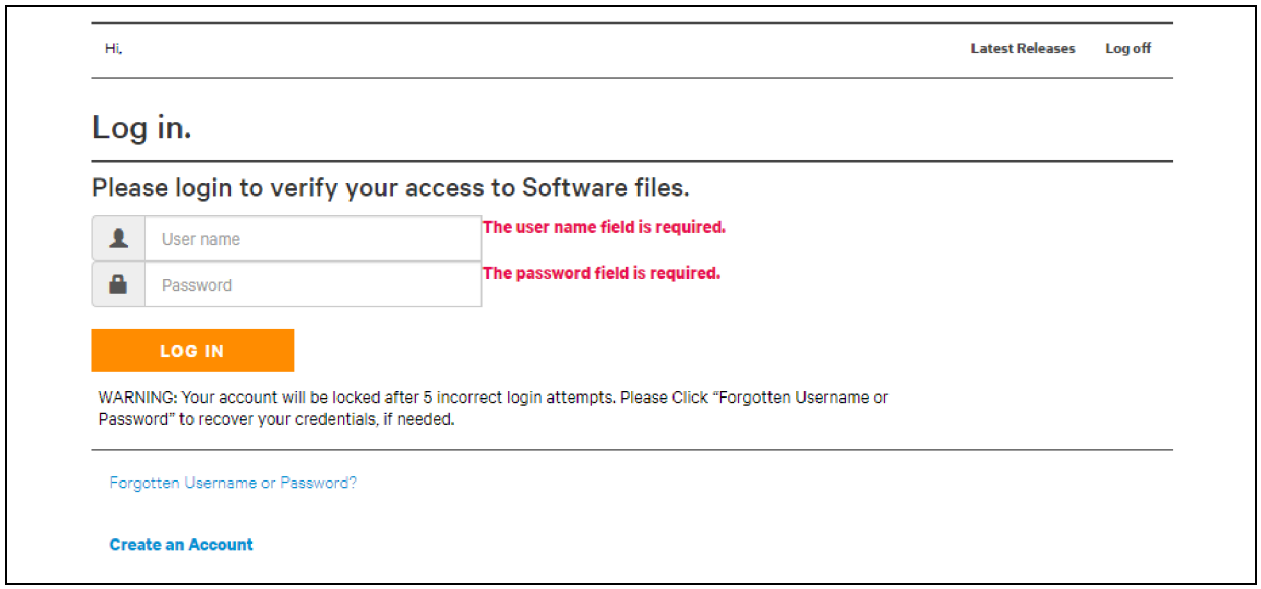
6. An activation code is sent to the email address you provided. Check your email.
7. Enter the activation code in the Code field on the Create an Account for Infrastructure Management Software registration form and click *Submit*.
8. Registration is completed.

2.2.2 Download

1. Access the page of Vertiv™ Power Insight Software Downloads by following the registration process mentioned in Account registration on page 4.
2. Click *Log In* in the upper right corner next to Register. A new window will appear in the browser as shown in Figure 2.5 on the next page.

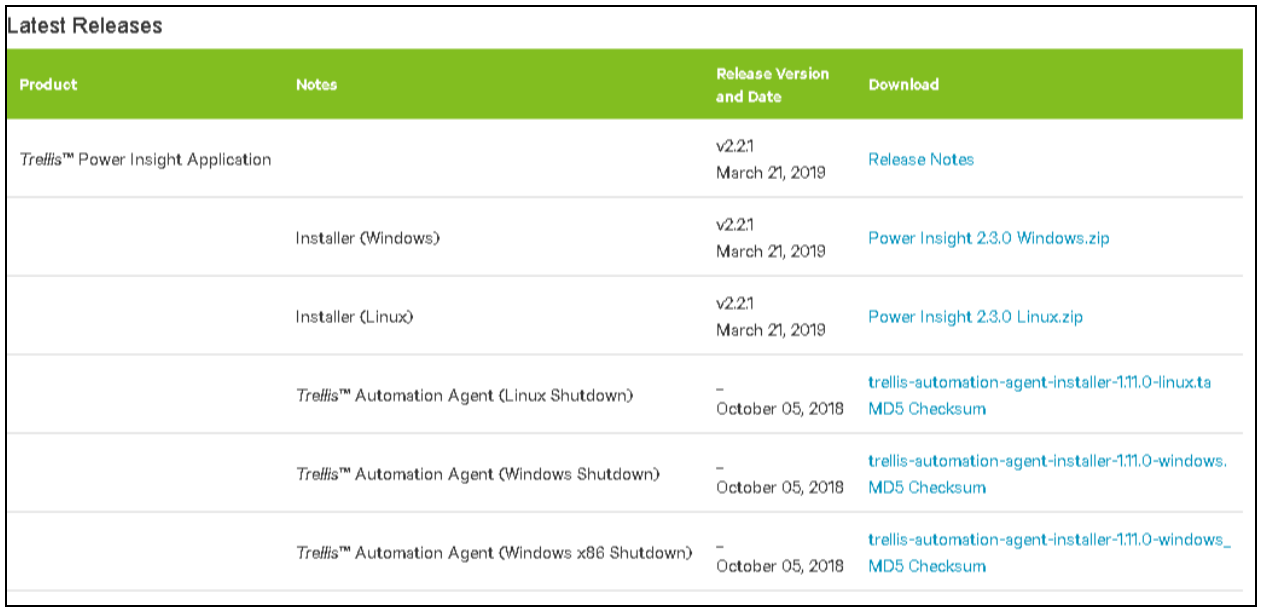
Proprietary and Confidential ©2025 Vertiv Group Corp.

Figure 2.5 Log In Page



3. After entering the previously registered username and password, click the *LOG IN*. Go to the download page. See Figure 2.6 below.

Figure 2.6 Latest Releases Software Download Page



4. Depending on the operating system, click the link to download the corresponding software versions.

Table 2.1 Software Version

Software Name	Operating System	System Installation Package
Vertiv™ Power Insight	Windows	Power Insight 3.0.0 Windows.zip
	Linux	Power Insight 3.0.0 Linux.zip
Automation Agent	Windows 32-bit operating system	trellis-automation-agent-installer-2.5.1-windows_x86.zip
	Windows 64-bit operating system	trellis-automation-agent-installer-2.5.1-windows.zip
	Linux	trellis-automation-agent-installer-2.5.1-linux.tar.gz

NOTE: For the specific operating system version, refer to Software on page 3 for the list of supported versions.

5. Wait for the download to complete.

2.3 Software Installation

2.3.1 Power Insight Installation

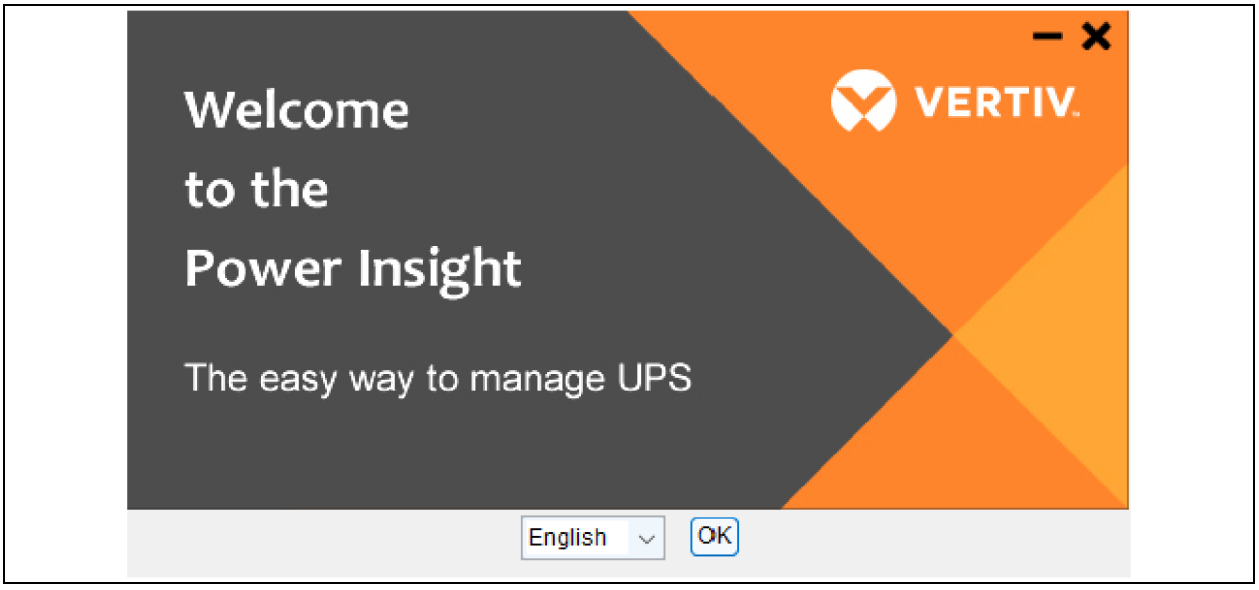
NOTE: Redhat 7.9 (with GUI) requires an internet connection to be installed if it has a license.

To install the application on the Windows operating system:

NOTE: You must be logged in as a local administration.

1. Go to the folder where Power Insight 2.3.0 Windows.zip is stored.
2. Double-click the *Trellispowerinsightinstaller.exe* file in the compressed file.
3. Select the preferred language from the drop-down list and click *OK*.

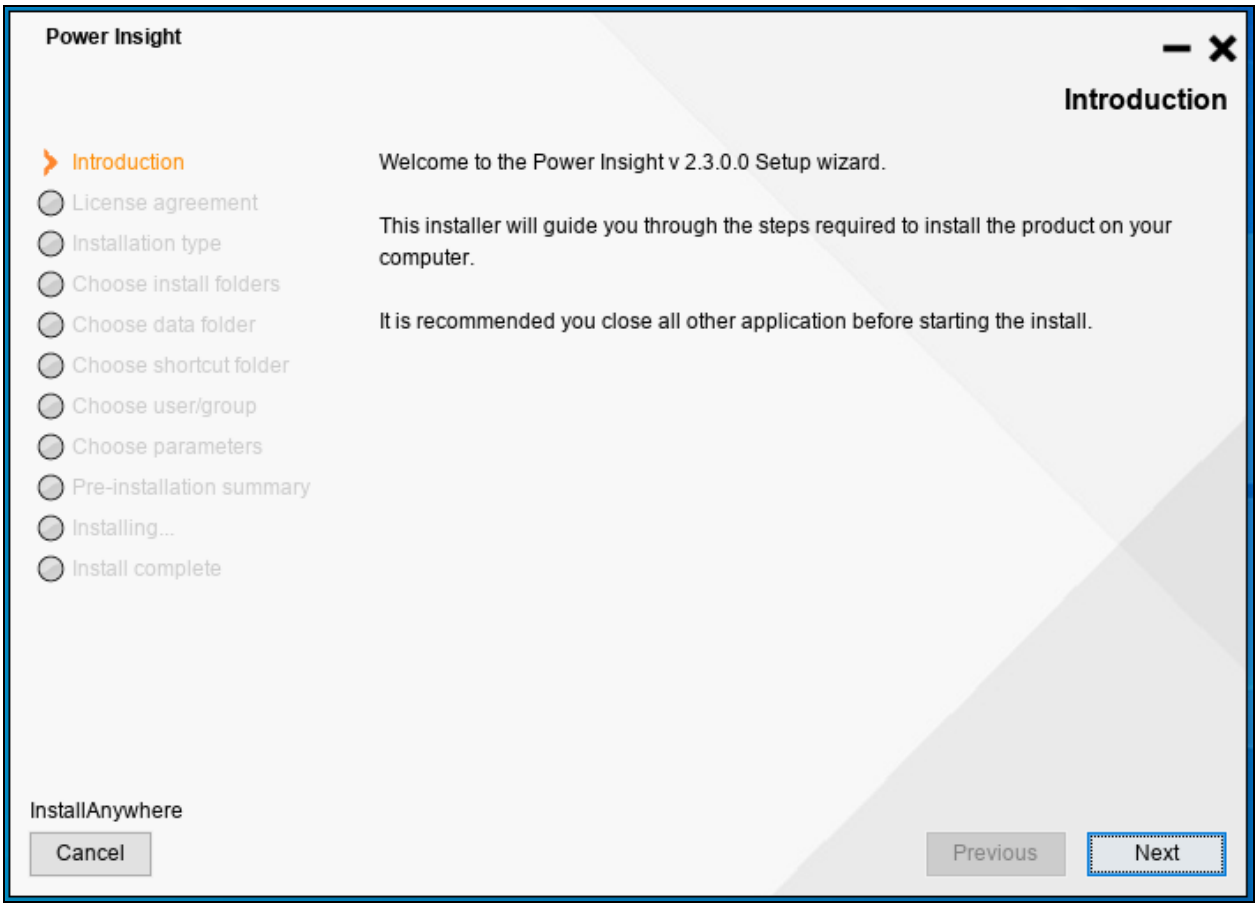
Figure 2.7 Power Insight Welcome Page



4. Click *Next* on the introduction interface.

Proprietary and Confidential ©2025 Vertiv Group Corp.

Figure 2.8 Introduction Page

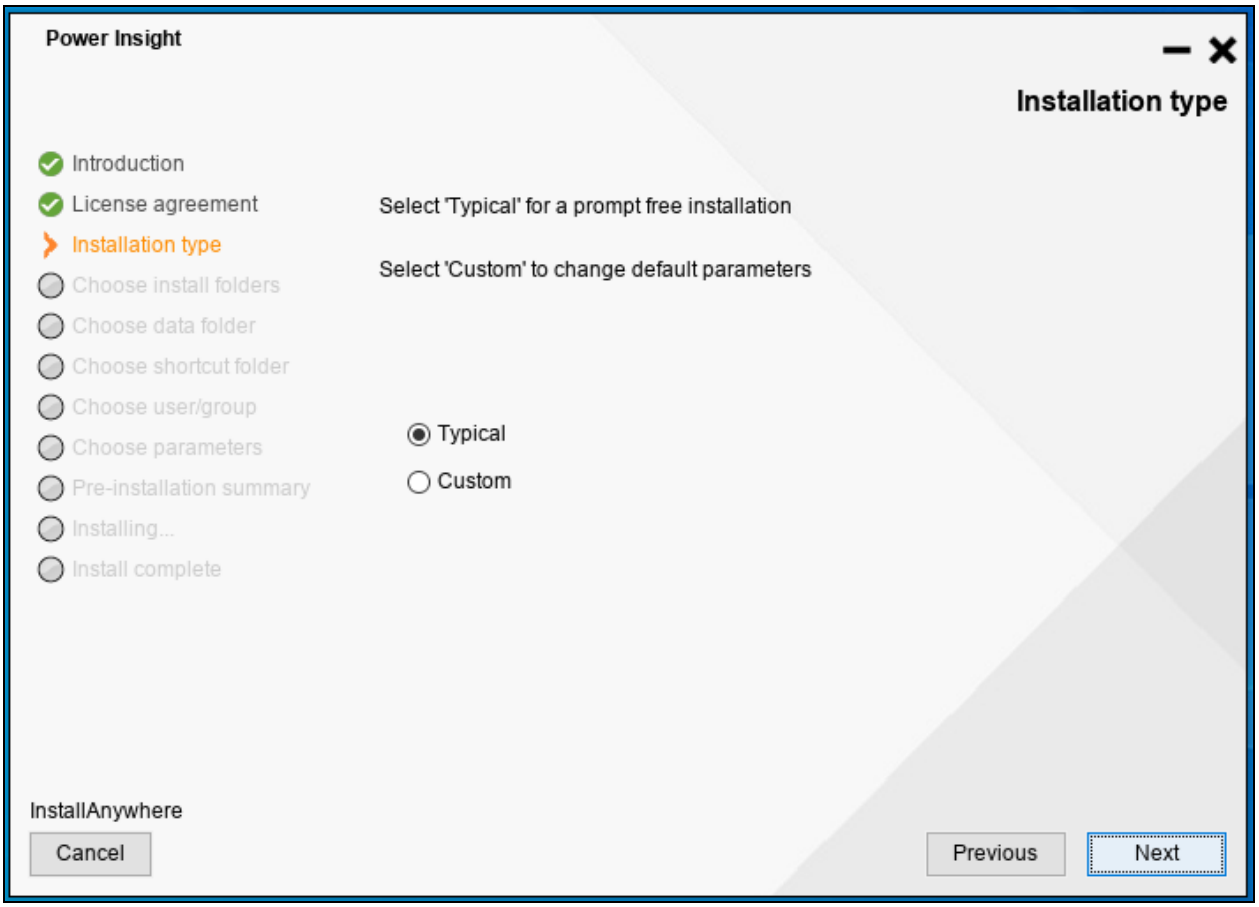


5. Click the checkbox to accept the license agreement and click *Next*.
6. Select the radio button for a typical installation. If you select a typical installation, proceed to step 9.

   -Or-

   Select the radio button for customized installation and click *Next*.

Figure 2.9 Installation Type Page



7. Enter the installation path of the program installation directory and click *Next*.
8. Enter the location of the data storage directory and click *Next*.
9. Select the shortcut folder and click *Next*.
10. Enter the parameters and click *Next*.

Proprietary and Confidential ©2025 Vertiv Group Corp.

Figure 2.10 Parameter Setup Page

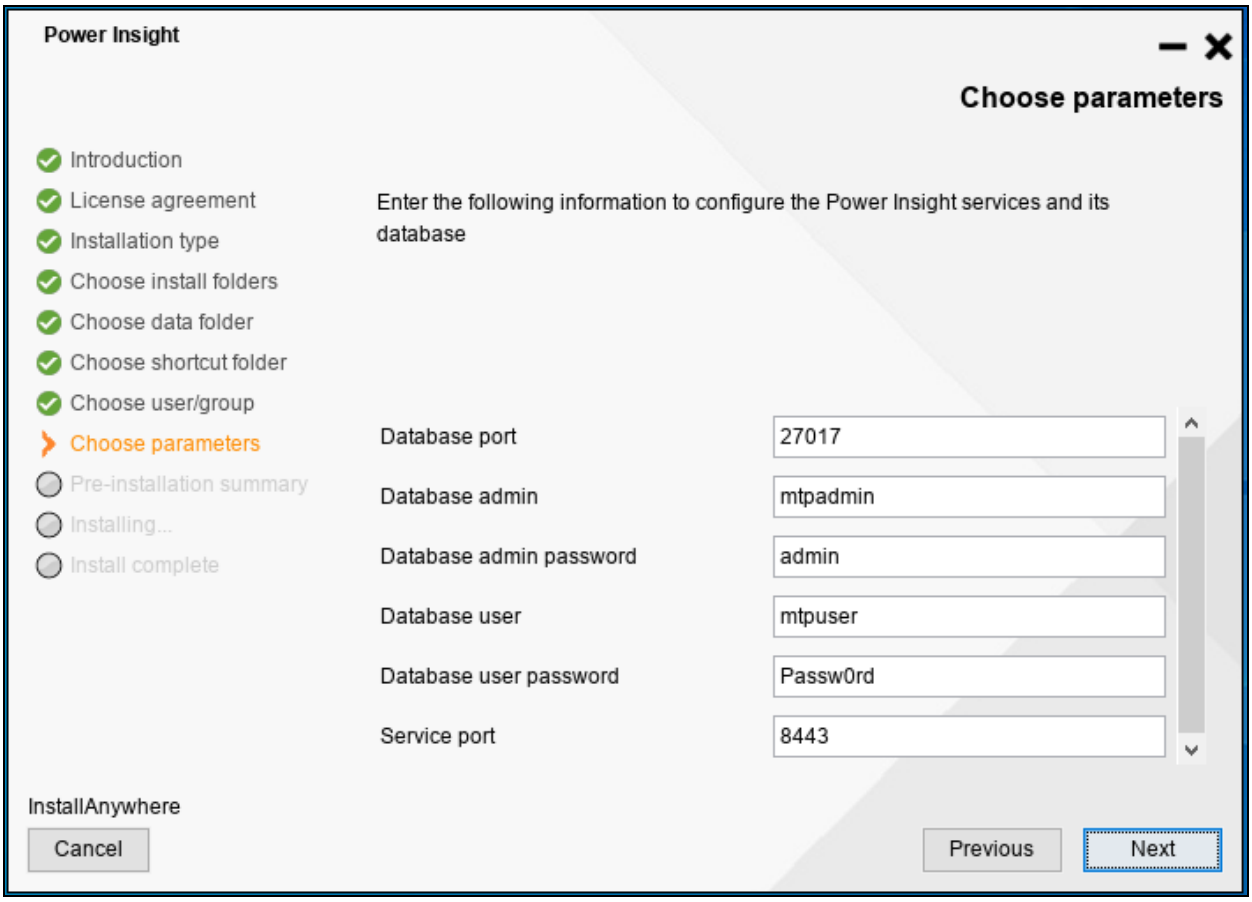


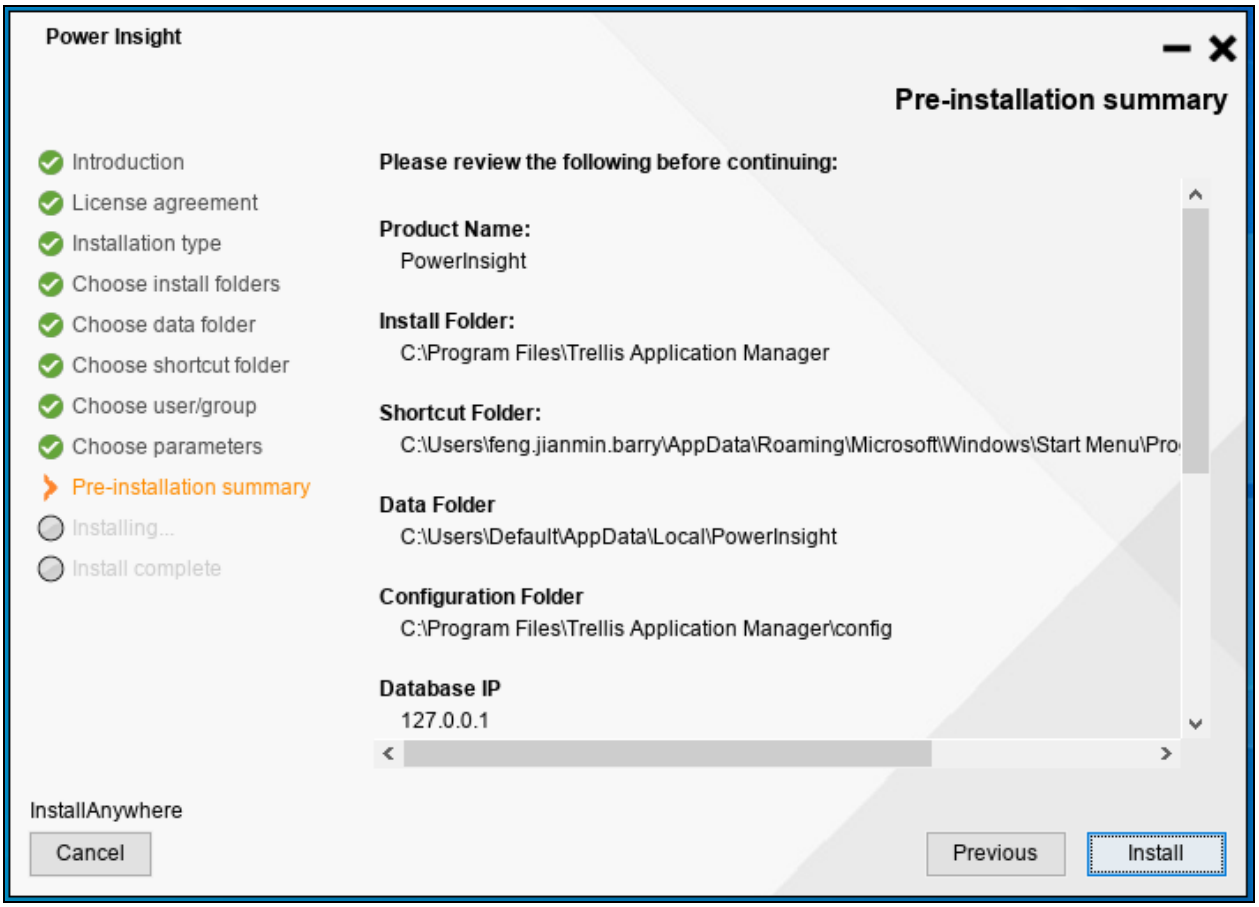
Table 2.2 Parameters and Description

Parameters	Description	Default Value
Database port	The default port used by the database. Make sure that the selected port is not in use.	27017
Database admin	Administrator of the database.	mtpadmin
Database admin password	The password shall be at least 8-16 characters long and shall use a combination of upper case letters, lower case letters, numbers, and special characters. Special characters only support !@#%^&*	-
Database user	The owner of the database.	mtpuser
Database user password	The password of the database owner. The password shall be at least 8 to 16 characters long and shall use a combination of upper case letters, lower case letters, numbers, and special characters. Special characters only support !@#%^&*	-
Server port	The port on which the service runs. Make sure that the selected port is not in use.	8443

NOTE: If there is a port error, you will be prompted to change the port.

11. Click the *Install* in the pre-installation window.

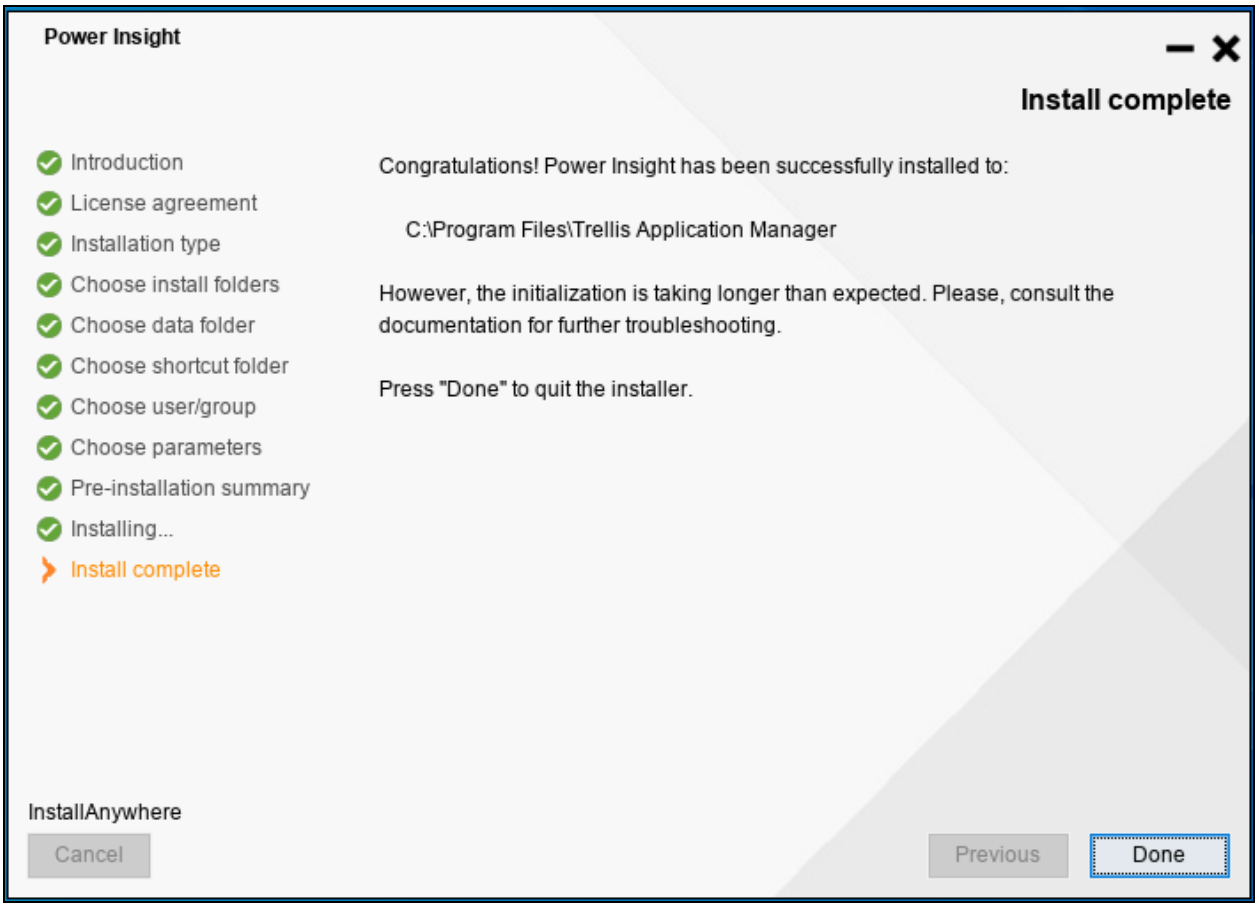
Figure 2.11 Pre-installation Summary Page



12. Once installed, click *Done*. Shortcuts are added to the location selected during the installation process.

Proprietary and Confidential ©2025 Vertiv Group Corp.

Figure 2.12 Installation Completion Page



To install the application on a Linux operating system:

NOTE: You must have root privileges to install the application.

NOTE: During custom installation, the data storage directory and its parent directory entered by the user must have the 755 permissions, otherwise the Vertiv™ Power Insight cannot be used normally.

1. Go to the folder where **Power Insight 3.0.0 Windows.tar.gz** is stored.
2. Extract the installer from the **tar.gz** file.
3. Open the terminal window.
4. Navigate to the directory where the installation files are installed.
5. If you log in to the terminal as the root user, enter **./trellispowerinsightinstaller.bin** and press **enter** key.

   -Or-

   If you have Superuser (SUDO) privileges, enter **sudo ./trellispowerinsightinstaller.bin** and press **enter** key.
6. If you are logged in to the graphical user interface (GUI) as a root user, enter **./trellispowerinsightinstaller.bin -i gui** and press **enter** key.

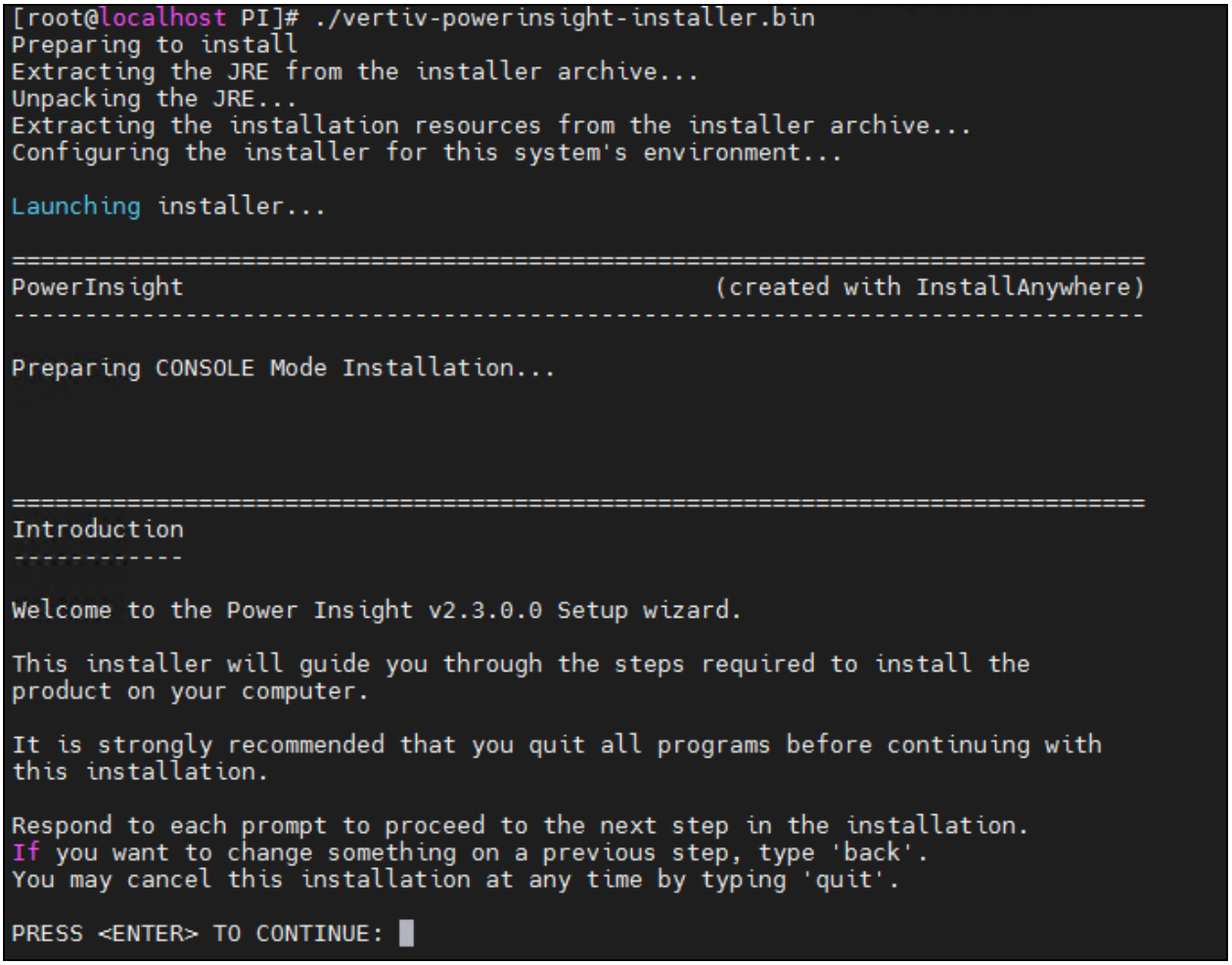
   -Or-

   If you have SUDO privileges, enter **sudo ./trellispowerinsightinstaller.bin -i gui** and press **enter** key.

For more information about the GUI installation steps, refer to the Power Insight Installation on page 9 section, and the following installation steps are based on the terminal window.

7. Install the dependencies and press **enter** key.

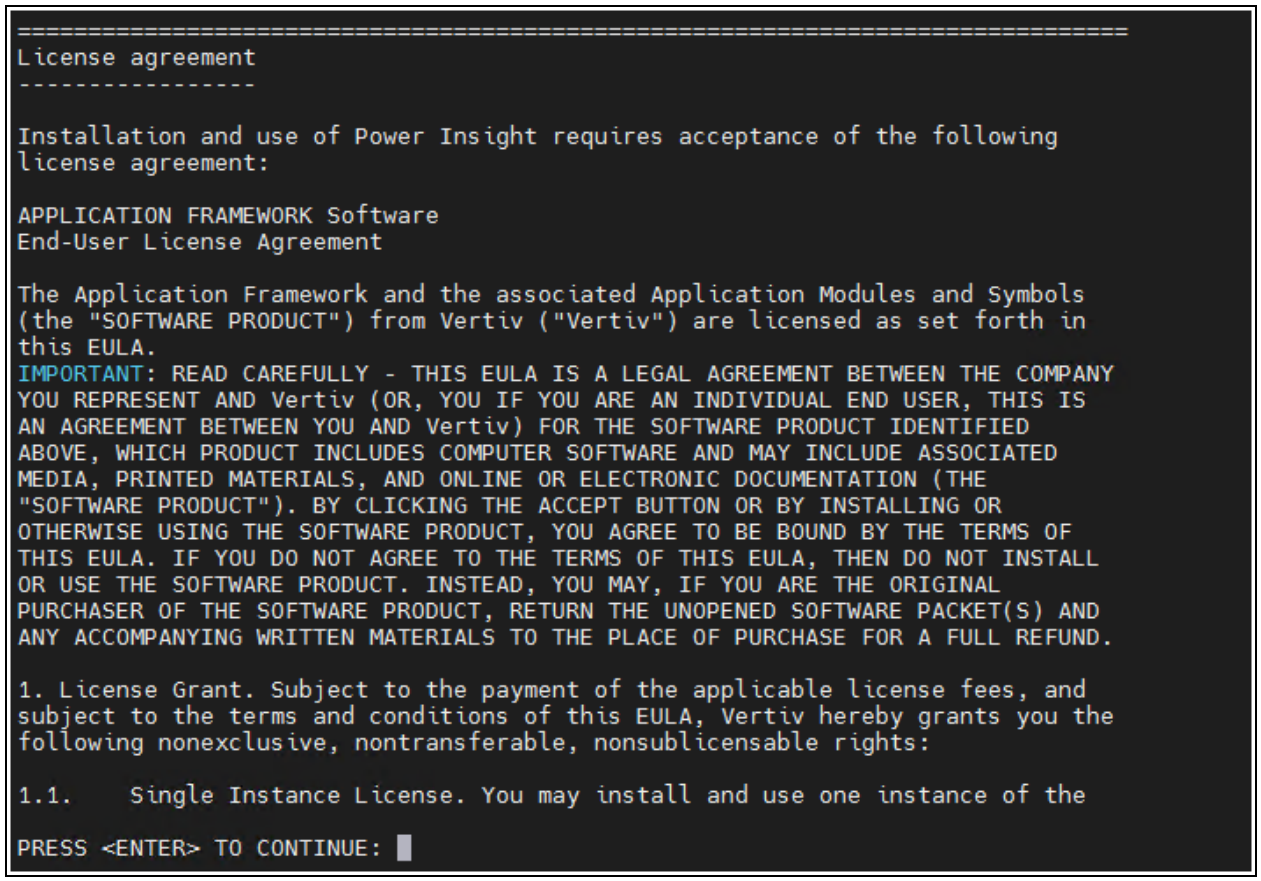
Figure 2.13 Installing the Dependencies Page



8. Read the end user license agreement (EULA) and enter **Y** to accept the license terms.

Proprietary and Confidential ©2025 Vertiv Group Corp.

Figure 2.14 License Agreement Page

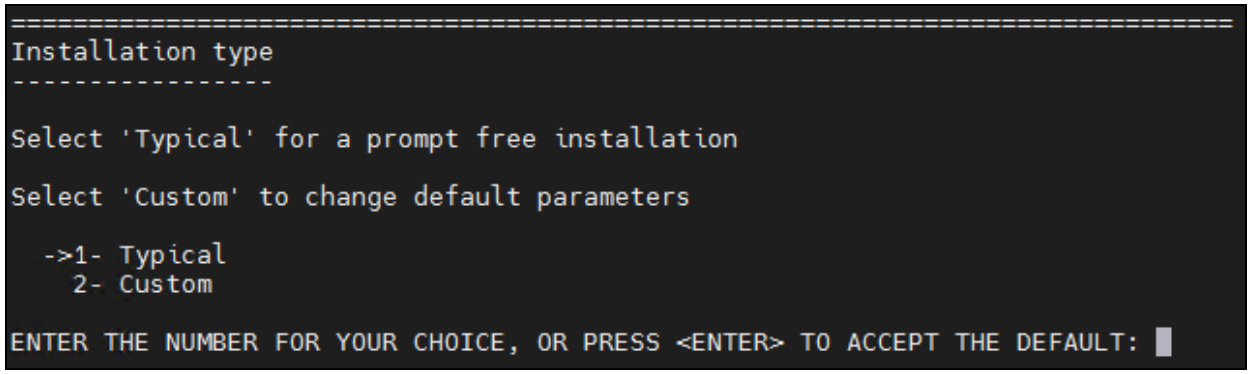


9. Select the installation mode. If you select a typical installation, enter **1**, press **enter** key, and skip to step 9.

   -Or-

   If you select Custom Installation, enter **2** and press **enter** key.

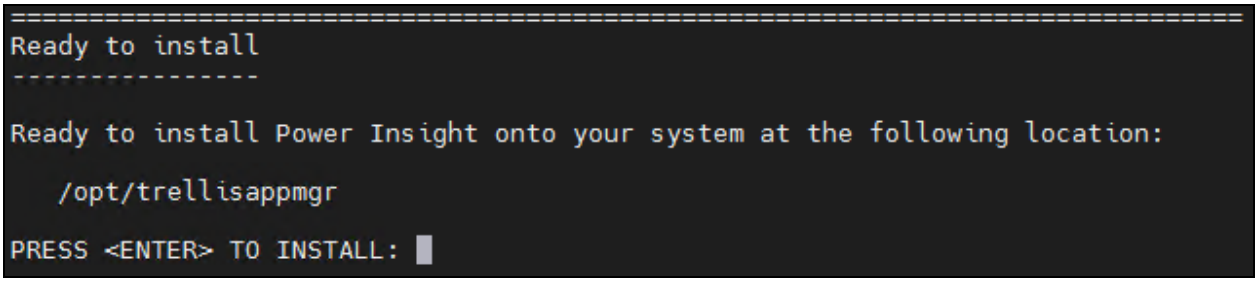
Figure 2.15 Installation Type Page



10. Enter the location of the program installation directory and press the **enter** key.
11. Enter the location of the data storage directory and press the **enter** key.
12. Select the shortcut folder and press **enter**key.

13. Enter the user/group, first enter the username, press the **enter** key, enter the group name, and press the **enter** key.
14. Select the parameters and enter the relevant parameters and refer to Table 2.2 on page 12 for specific parameter meanings.
15. After confirming the installation path again, press the **enter** key to start the installation.

Figure 2.16 Ready to Install Page



NOTE: If there is a port error, you will be prompted to change the port.

16. After the installation is completed, press the **enter** key.

NOTE: A /var/opt/trellisappmgr directory will be created during installation. The log files are stored in this directory.

2.3.2 Trellis™ Automation Agent Installation

The Automation Agent is installed on the remote server that needs to be shut down and is used to accept scripts and shutdown instructions from Vertiv™ Power Insight. The new Power Insight can only use the new automation agent, and the old agent is not supported.

To install the Automation Agent on the Windows server side:

1. Log in to the server with administrative privileges.
2. Find the downloaded installation package and unzip the file. Double-click *trellis-automation-agent-install.exe*.

NOTE: If you are Microsoft® Windows Server® or Microsoft® Hyper-V Server® operating system, log in, navigate to the installation file directory, type trellis-automation-agent-install.exe, and press enter key.

3. Select Chinese and English. Enter **1** for English language and press **enter** key. Enter **2** for Chinese language and press **enter** key.
4. Read the end user license agreement (EULA) and finally type **Y** to accept the license terms.
5. Enter the location of the program installation directory and press the **enter** key.
6. Enter the username and press the **enter** key.
7. Enter the password and press **enter** key.

NOTE: The password must be between 8 to 32 characters long. This password will be used when the server selects a new communication rule.

8. Enter the port and press the **enter** key.
9. Press the **enter** key to start installing the Automation Agent.

Proprietary and Confidential ©2025 Vertiv Group Corp.

To install Automation Agent on the Linux server side:

1. Log in to the Linux server.
2. Find the downloaded installation package and unzip the file. If you want to log in to the terminal as the root user, enter **./ trellis-automation-agent-install.bin**.

   -Or-

   If you have SUDO privileges, enter **sudo ./ trellis-automation-agent-install.bin**.
3. Select Chinese and English. Enter **1** for English language and press **enter** key. Enter **2** for Chinese language and press **enter** key.
4. Read the end user license agreement (EULA) and enter **Y** to accept the license terms.
5. Enter the location of the program installation directory and press the **enter** key.
6. Enter the username and press the **enter** key.
7. Enter the password and press **enter** key.

NOTE: The password must be between 8 to 32 characters long. This password will be used when the server selects a new communication rule.

8. Enter the port address and press the **enter** key.
9. Press the **enter** key to install the Automation Agent.

Import the Automation Agent trust certificate to Vertiv™ Power Insight

To import the Automation Agent trust certificate to Power Insight on Windows:

1. Install the automation agent.
2. Run the *cmd* command line to the agent installation directory (**C:\Program Files\VertivAutomationAgent by default**) and run the **jre\bin\keytool -exportcert -keystore keystore.p12 -storetype PKCS12 -alias trellis-agent -file trellis-agent.crt -storepass HoneyBadger@7775W**.
   a. **trellis-agent.crt** can export different certificate types and names as needed (you can add the server domain name and IP to identify which server).
   b. The **trellis-agent.crt** trust certificate will be exported to the agent installation directory.
3. Transfer the **trellis-agent.crt** trust certificate to the Power Insight client and import the agent trust certificate by using the Power Insight security certificate import function.

To import the Automation Agent trust certificate to Power Insight on Linux:

1. Install the agent.
2. Run the shell command line to the agent installation directory **(/opt/VertivAutomationAgent by default)** and run the **openssl pkcs12 -in keystore.p12 -clcerts -nokeys -out trellis-agent.crt -passin pass:HoneyBadger @7775W.**
   a. **trellis-agent.crt** can export different certificate types and names as needed (you can add the server domain name and IP to identify which server).
   b. The **trellis-agent.crt** trust certificate will be exported to the agent installation directory.
3. Transfer the **trellis-agent.crt** trust certificate to the Power Insight client and import the agent trust certificate by using the Power Insight security certificate import function.

2.4 Software Uninstallation

2.4.1 Uninstalling Vertiv™ Power Insight

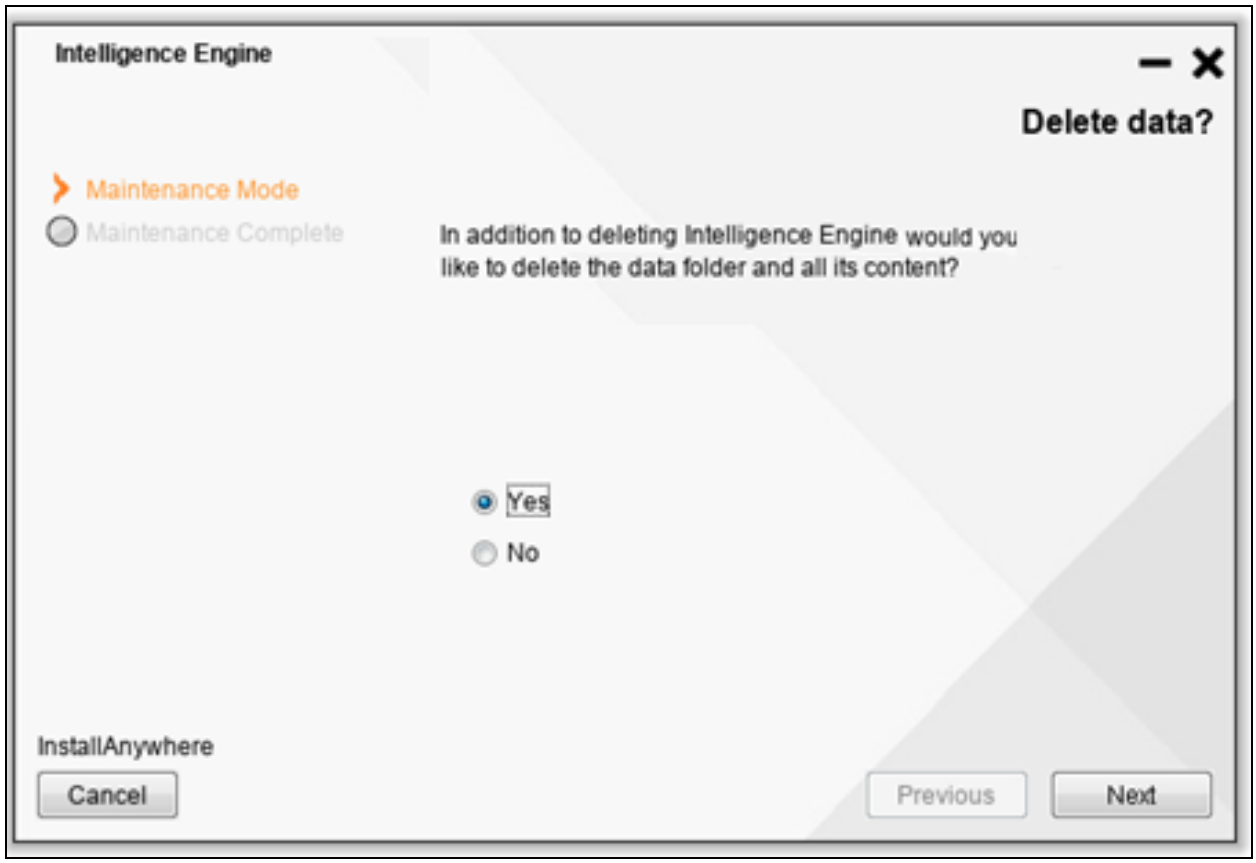
To uninstall from a Windows operating system:

1. Run *Control Panel - Programs and Functions*.
2. Find TrellisPowerInsight in the program list. Run the uninstaller.
3. Click *Next*.
4. In the Get User Input window, if you want to keep the software data, click *No*, and click *Next*.

   -Or-

   If you do not need to keep the data, click *Yes*, and click *Next*.

Figure 2.17 Get User Input Page



5. Click *Done* when the process is completed.

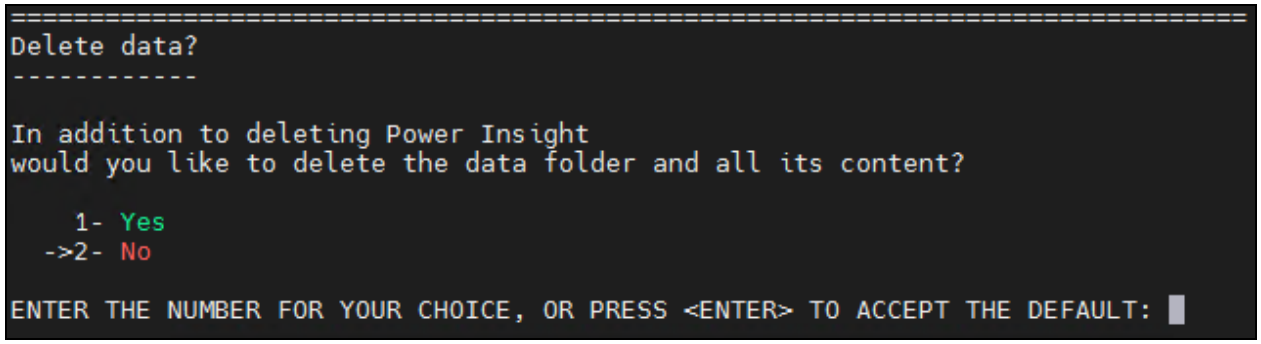
To uninstall from a Linux operating system:

1. If you are logged in to the console as a root user, enter /<install dir>/_installation/trellisappmgruninstall.
2. On the Delete Data window, enter Yes to delete the original data.

   -Or-

Enter 2 (Number) to retain the original data.

Figure 2.18 Delete Data Page



3. Press the enter key and wait for the uninstallation to complete.

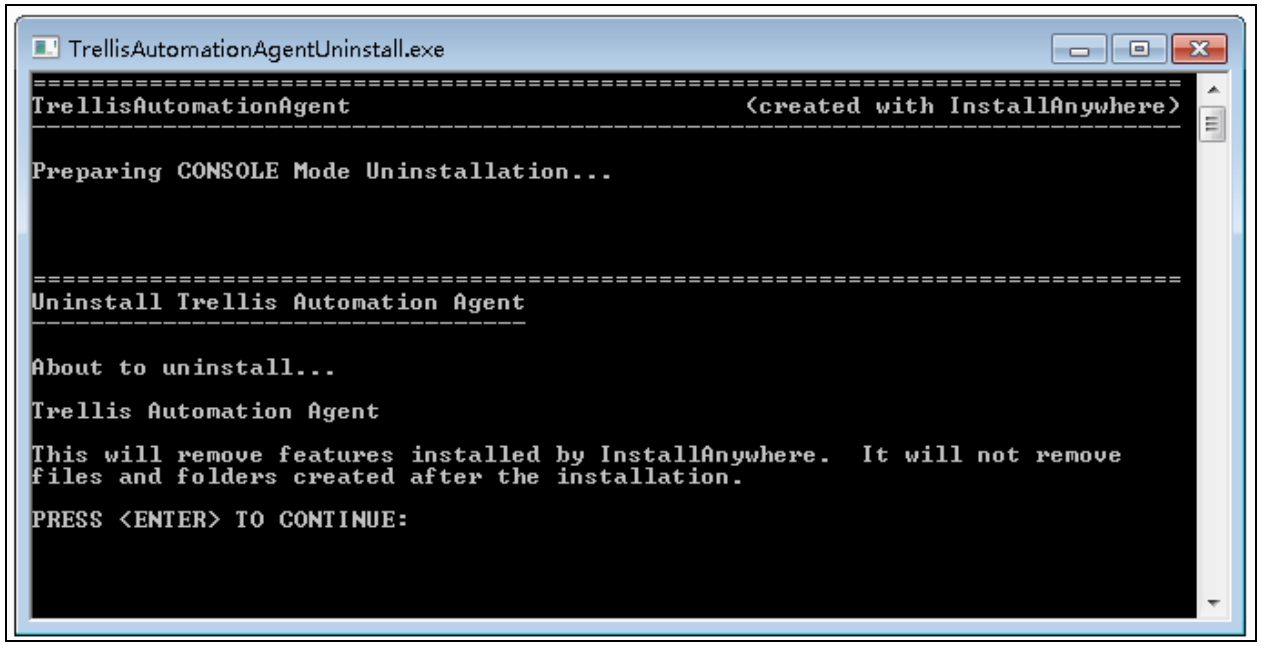
2.4.2 Uninstalling the Automation Agent

To uninstall the Windows server side:

1. Log in to the remote server and run *Control Panel - Programs and Functions*.
2. Find TrellisAutomationAgent in the program list. Run the uninstaller.

NOTE: If you are Microsoft® Windows Server® or Microsoft® Hyper-V Server® operating system, log in, navigate to the installation file directory, type TrellisAutomationAgentUninstall.exe, and press enter key.

Figure 2.19 Trellis™ Automation Agent Uninstall Page



3. Press the enter key to continue and wait for the uninstallation to complete.

To uninstall the Linux server side:

1. Log in to the Linux server as the root user.
2. Enter the terminal, enter **/<install dir>/_installation/TrellisAutomationAgentUninstall**, and press **enter** key to run the uninstaller. Wait for the uninstallation to complete.

Proprietary and Confidential ©2025 Vertiv Group Corp.

This page intentionally left blank

3 Software Log In and User Interface

3.1 System Initialization and Log In

3.1.1 User Registration

To sign up:

1. Open a web browser on your local computer and enter **https://localhost:< service port>**, where **<service port>** is the service port number, such as, 8443. In this example, the address is **https://localhost:8443**.

   - Or-

   On the computer where the application is installed, double-click the *Power Insight Console* shortcut icon.

Figure 3.1 Power Insight Console Shortcut Icon

2. To login on a remote computer, enter **https://<remote IP address>:<service port >** in the remote computer, where **<remote IP address>** is the IP address where Vertiv™ Power Insight is installed, and <service port> is the service port number. For example, 8443.

3.1.2 System Initialization

If you are accessing Power Insight for the first time, you will need to register as an admin user and password.

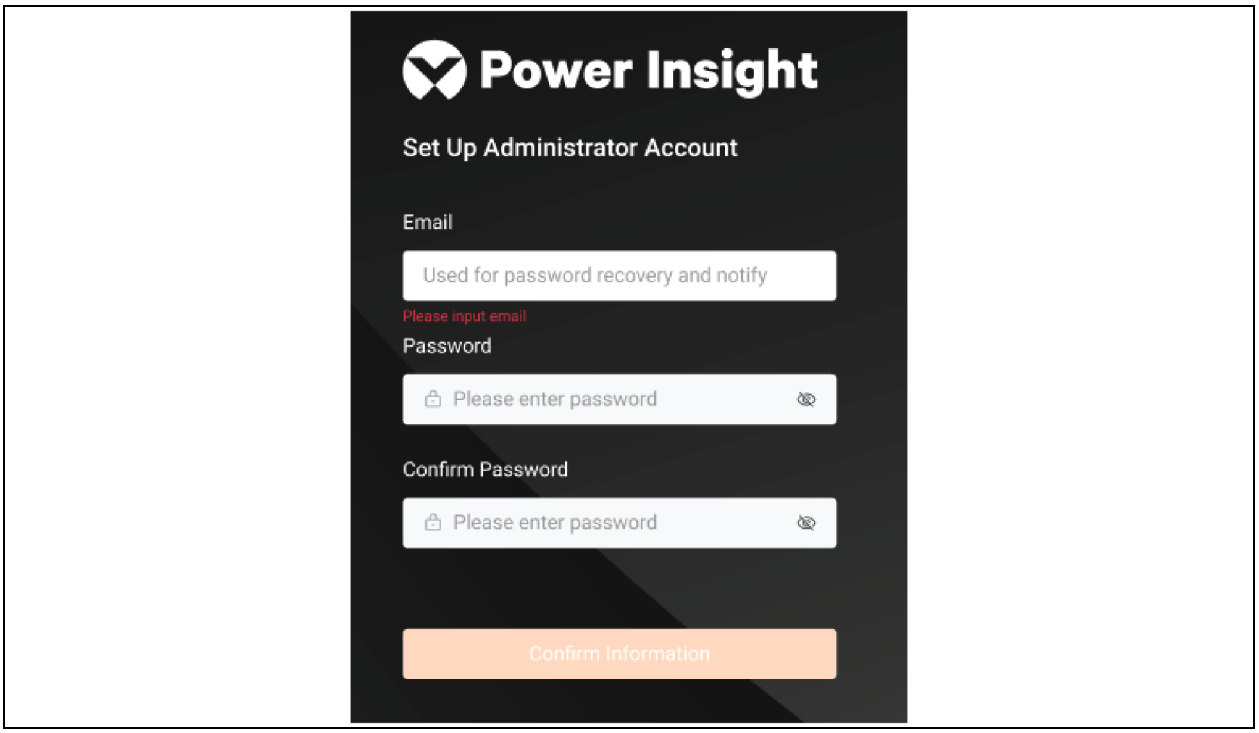
1. In the process of initializing the Power Insight, the page in Power Insight startup displays a progress bar, prompting the user to start the progress and prompting **XX% started**, please wait later, as shown in **Figure 3.2** on the next page.

 Proprietary and Confidential ©2025 Vertiv Group Corp.

Figure 3.2 Initialization Page

2. After the installation is started, it will move to the interface of setting the administrator account, as shown in Figure 3.3 below.

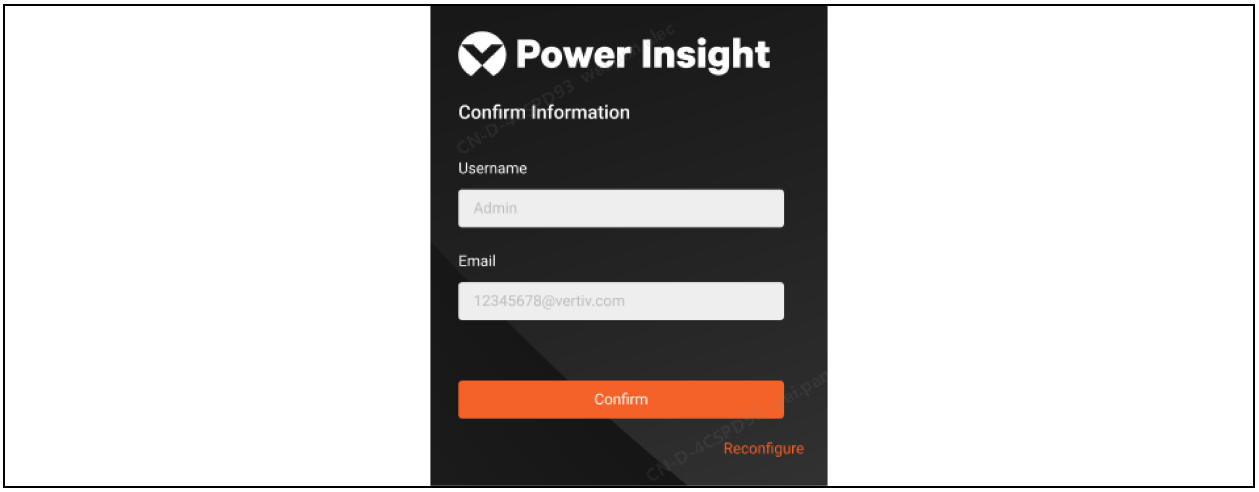
Figure 3.3 Set Up Administrator Account



NOTE: Passwords must be between 10 to 128 characters long and contain at least one uppercase letter, one lowercase letter, and one number.

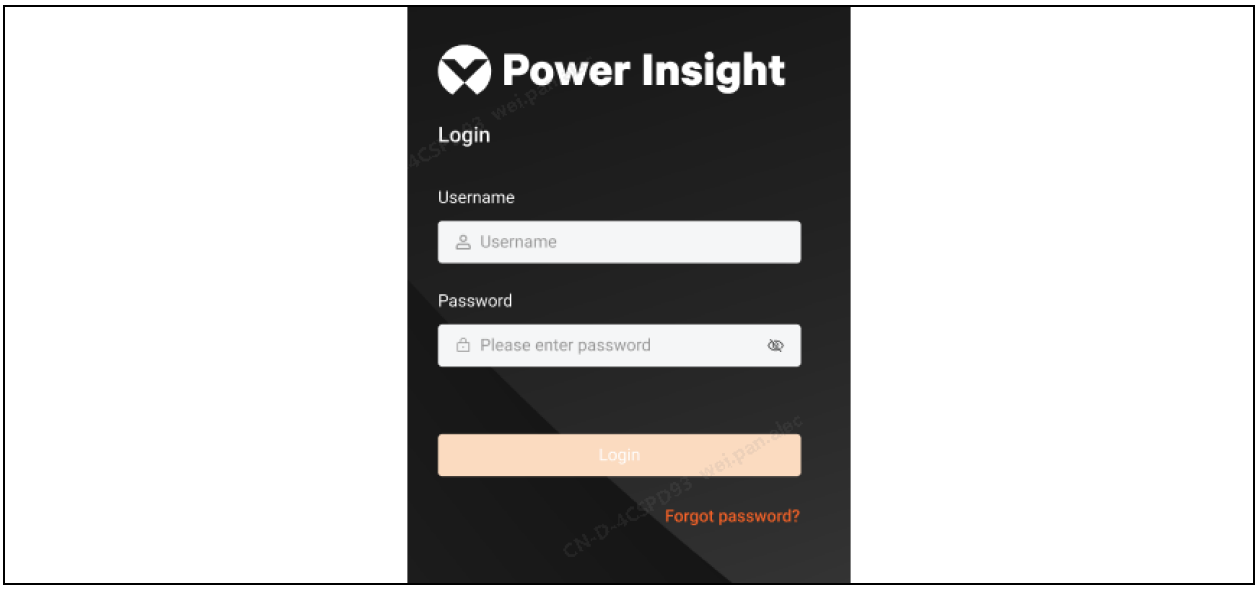
3. After the above operations are completed, it will move to the admin confirmation information interface, click *Confirm* to enter the Vertiv™ Power Insight system, access the **Status Panel** by default. If you click *Reconfigure*, you will access the initialization configuration page again, and automatically fill in the content entered before, and the admin confirmation information confirmation interface is as follows. See **Figure 3.4** below:

Figure 3.4 User Information Confirmation Interface



4. After completing the initial configuration, when you access the Power Insight page again, you need to enter the username and password. See **Figure 3.5** below.

Figure 3.5 Power Insight Login Interface



NOTE: When you visit a page without permissions or a page that does not exist, a 404 message is returned, prompting Sorry, the page you are visiting does not exist, and the Return to Homepage is displayed.

Proprietary and Confidential ©2025 Vertiv Group Corp.

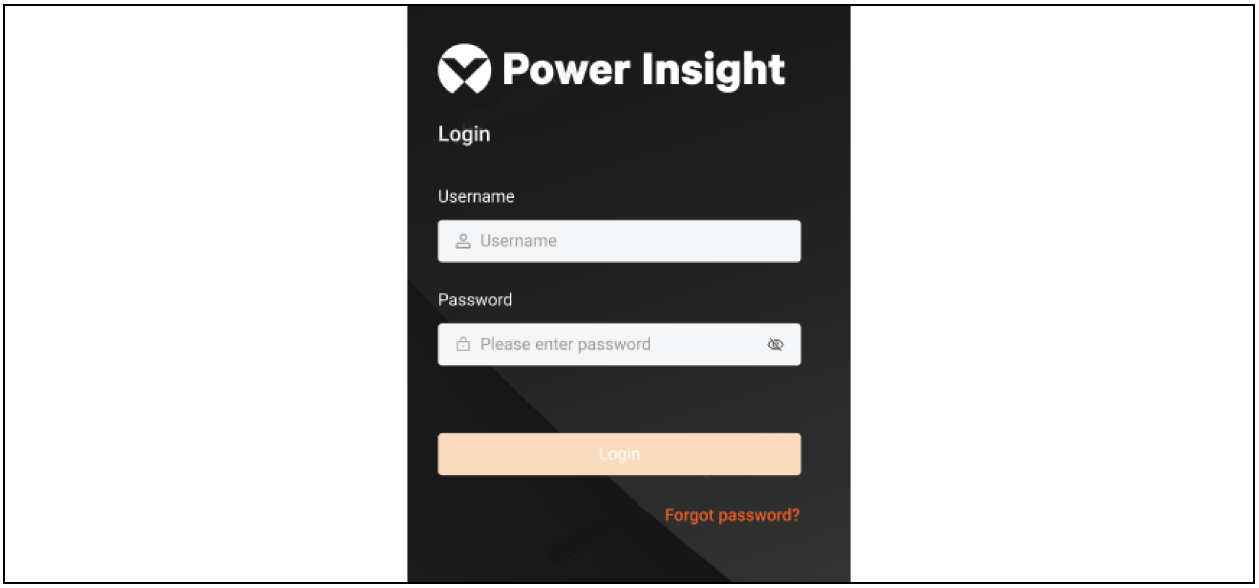
3.1.3 User Login

You can login once you are registered.

Single-User Login

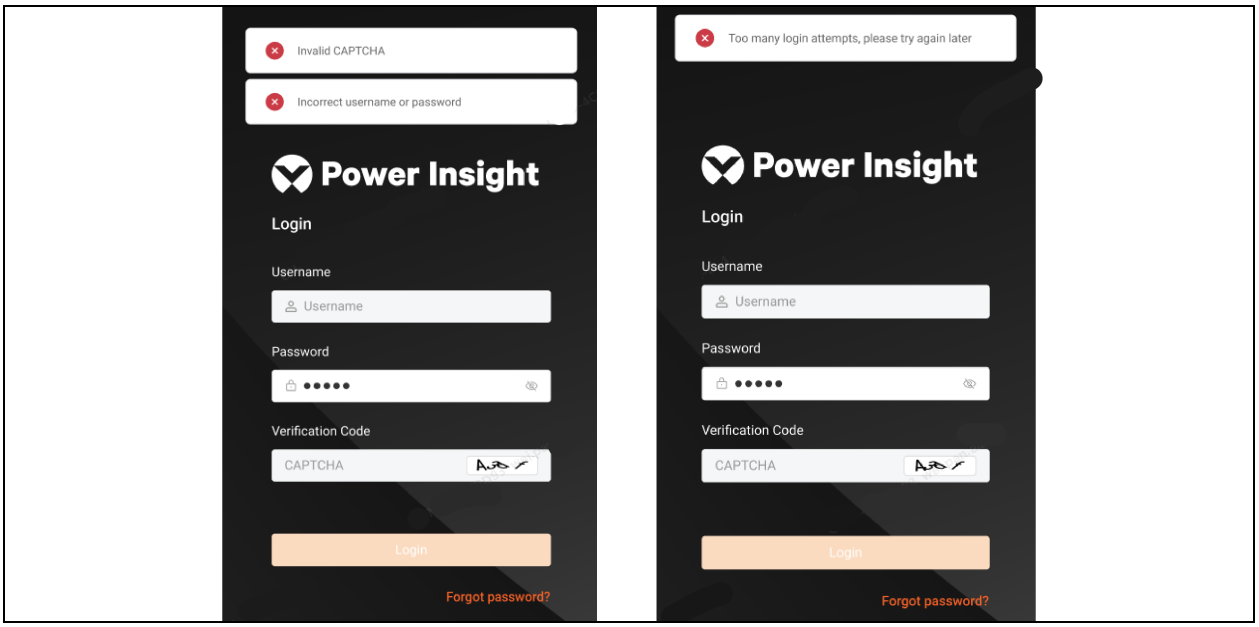
Enter your username (admin by default) and password, click *Login*. Complete the login. See Figure 3.6 below.

Figure 3.6 Vertiv™ Power Insight Login Page



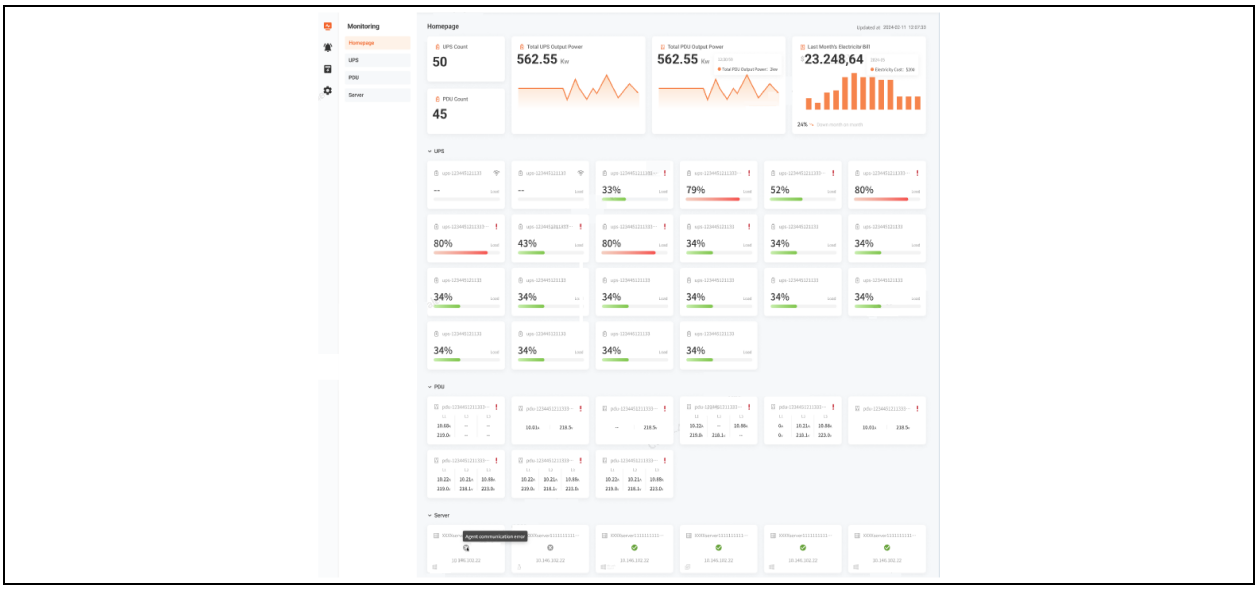
If the user and password fail to log in once, you need to enter a graphical verification code to log in again with the username within half an hour, and the graphical verification code input box will be displayed, which will be empty by default, and the graphical verification code can be switched by clicking the verification code picture. When the input is incorrect, the message Graphical verification code error is displayed, and the password of the same username is incorrect for 5 consecutive times, and the username is locked for half an hour.

Figure 3.7 Types of Errors while Login



After clicking *Login*, if the username and password match, you will be taken to the Vertiv™ Power Insight monitoring home page.

Figure 3.8 Power Insight Monitoring Home Page

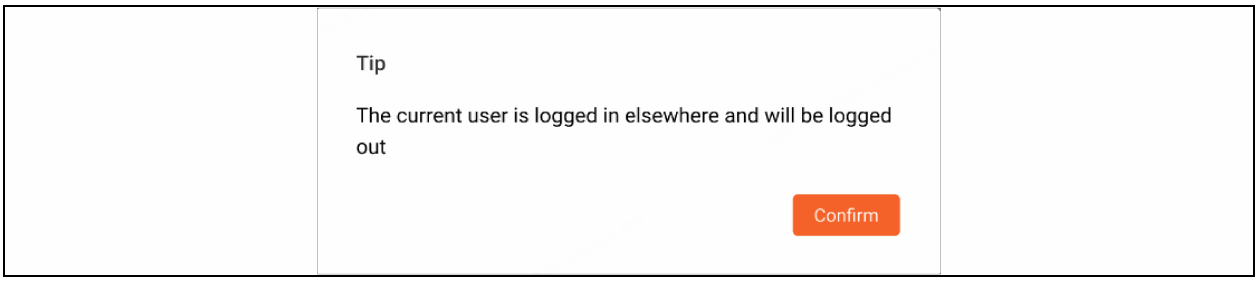


Multi-User Login

After the same user logs in to IP1, when IP2 also logs in successfully, a window will be displayed on the IP1 page: **The current user has logged in elsewhere and is about to log out**. Click *Confirm* to return to the login page; If you don't click it, wait 3 seconds and return to the login page. See **Figure 3.9** on the next page.

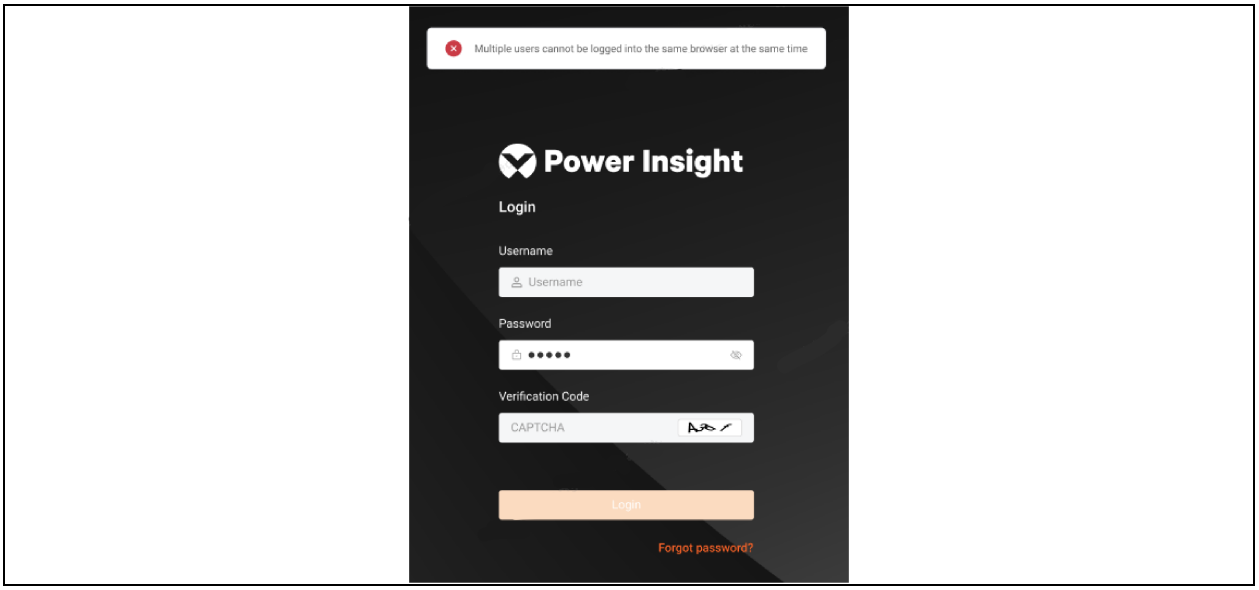
Proprietary and Confidential ©2025 Vertiv Group Corp.

Figure 3.9 Window for Multi-user Login



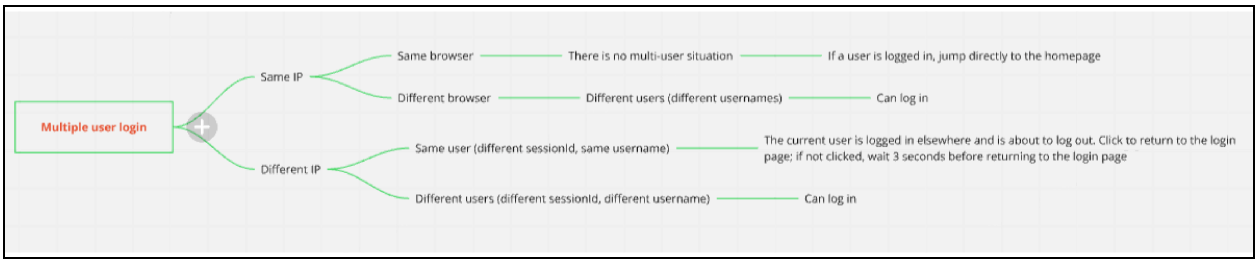
When user A is logged in on the first login page, and user B is logged in on the second login page, the message **Multiple users cannot be logged in to the same browser at the same time** is displayed before verifying the username and password of user B.

Figure 3.10 Multi-user Login Error Page



The complete multi-user login logic is as shown in **Figure 3.11** below.

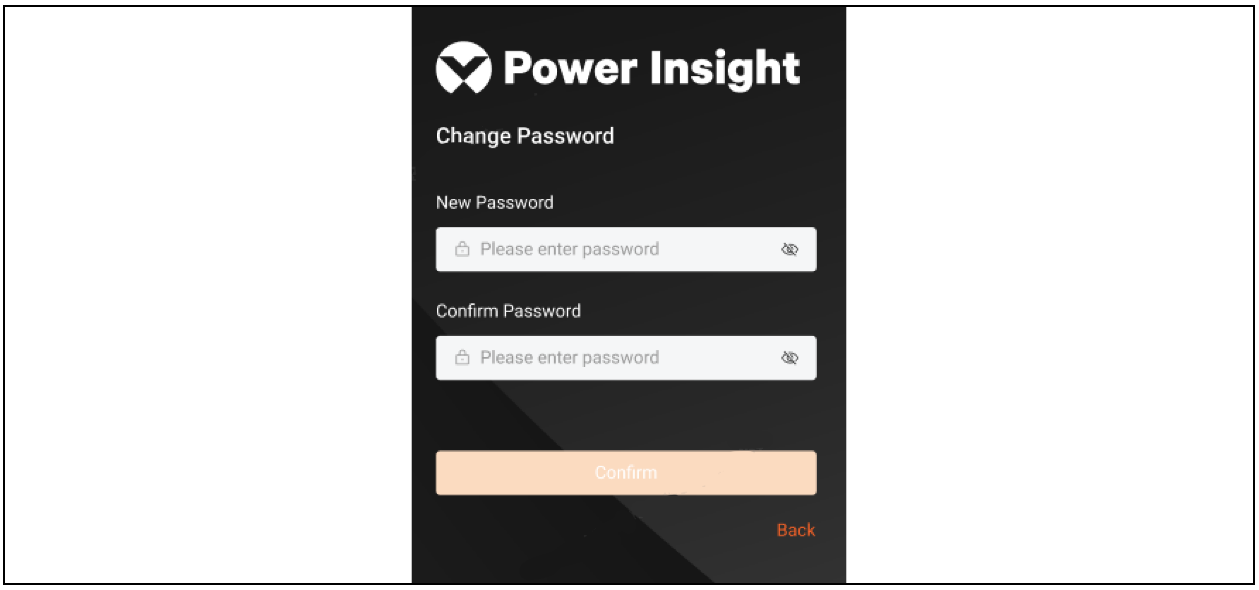
Figure 3.11 Multi-user Login Logic



3.1.4 Changing Password

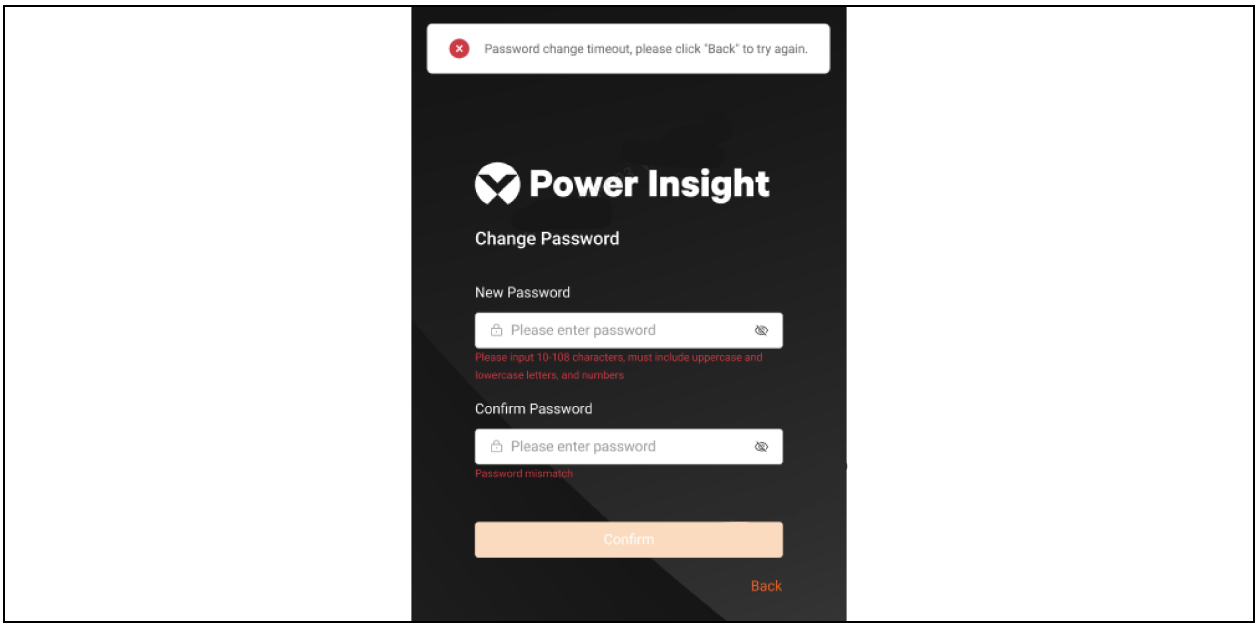
After the new user logs in for the first time, user is redirected to the Change Password page, as shown in **Figure 3.12** below.

Figure 3.12 Password Change Page



The validity period of changing the password is 30 minutes, and after 30 minutes, when you click *Save*, it display the message **Password change timeout, please click "Back" to try again**. If the password is inconsistent, the message **Password mismatch** is displayed. See **Figure 3.13** below.

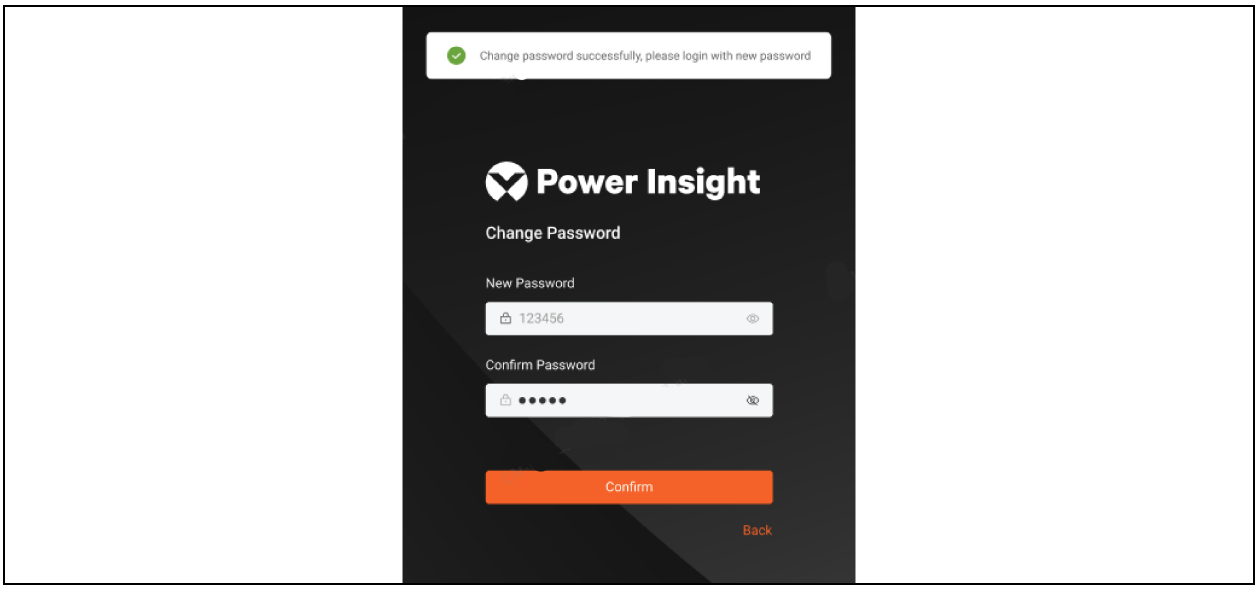
Figure 3.13 Password Change Timeout Error Page



When there are no errors in **New Password** and **Confirm Password**, click *Confirm*. Click it to return to the login page, and the user needs to log in again with the username and new password, as shown in **Figure 3.14** on the next page.

Proprietary and Confidential ©2025 Vertiv Group Corp.

Figure 3.14 Login with New Password Page

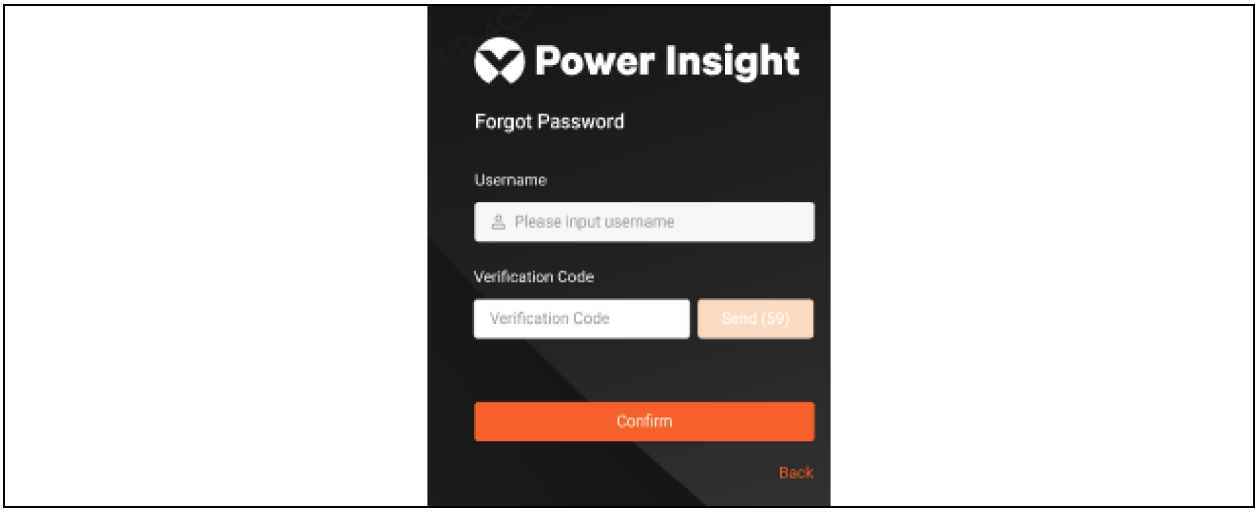


NOTE: The validity period of changing the password is the same as the Session Timeout Period set by the system. After the time is exceeded, when you click *Save*, it prompts Password change timeout, click *Return* to try again.

3.1.5 Forgot Password

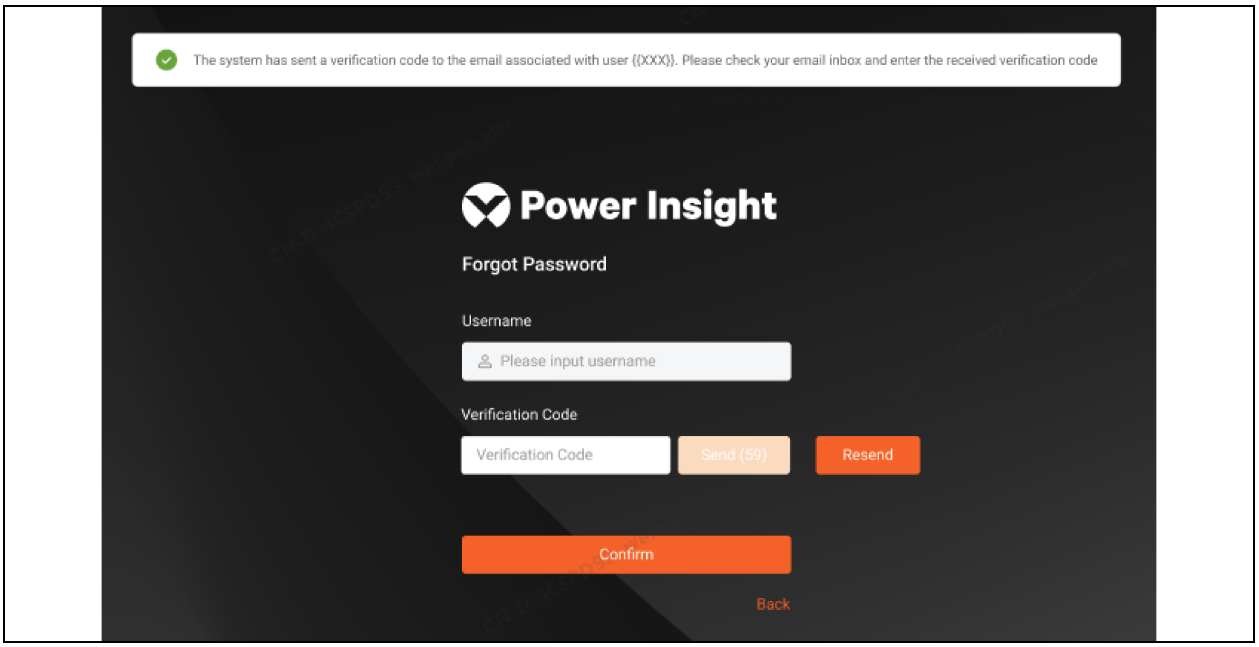
If you forget password during the login process, click *Forgot Password* on the login page, and you will be redirected to the forgot password interface. See Figure 3.15 below.

Figure 3.15 Forgot Password Page



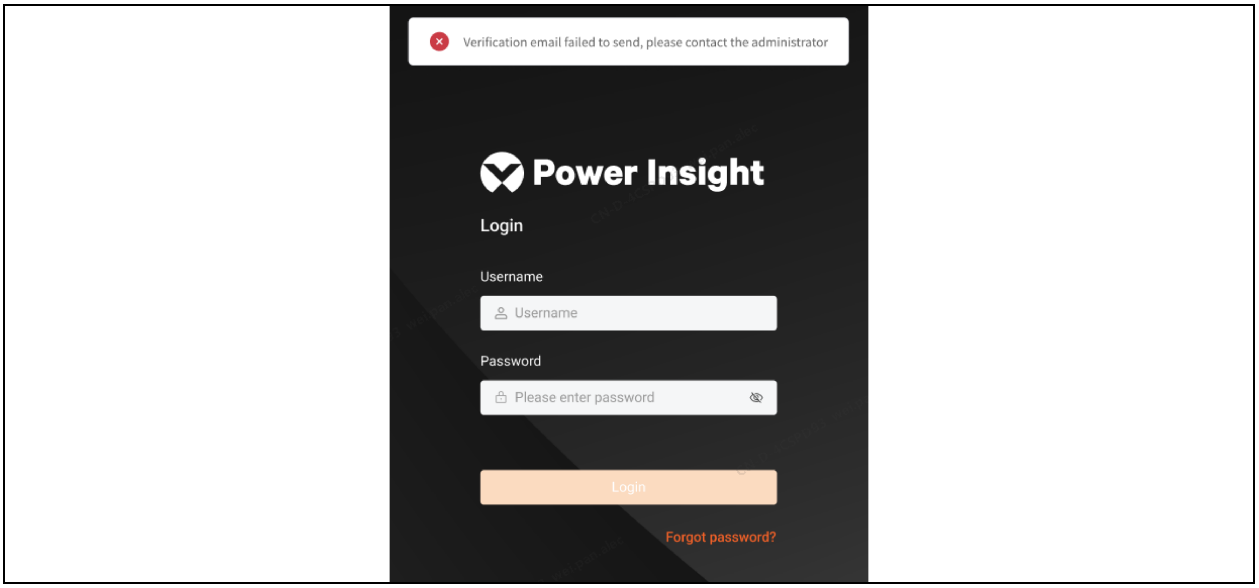
After clicking to enter the username, click *Send* to get the verification code immediately to the user's email, if you do not receive the verification code, you can resend it after 1 minute, and once verification code is sent, it will be grayed out. It cannot be clicked again. Check the verification code of the email address and fill it in the current page, as shown in Figure 3.16 on the facing page.

Figure 3.16 Verification for Changing Password



If the mail server is not configured, the message **The mail server is not configured, please contact the administrator** is displayed as shown in **Figure 3.17** below.

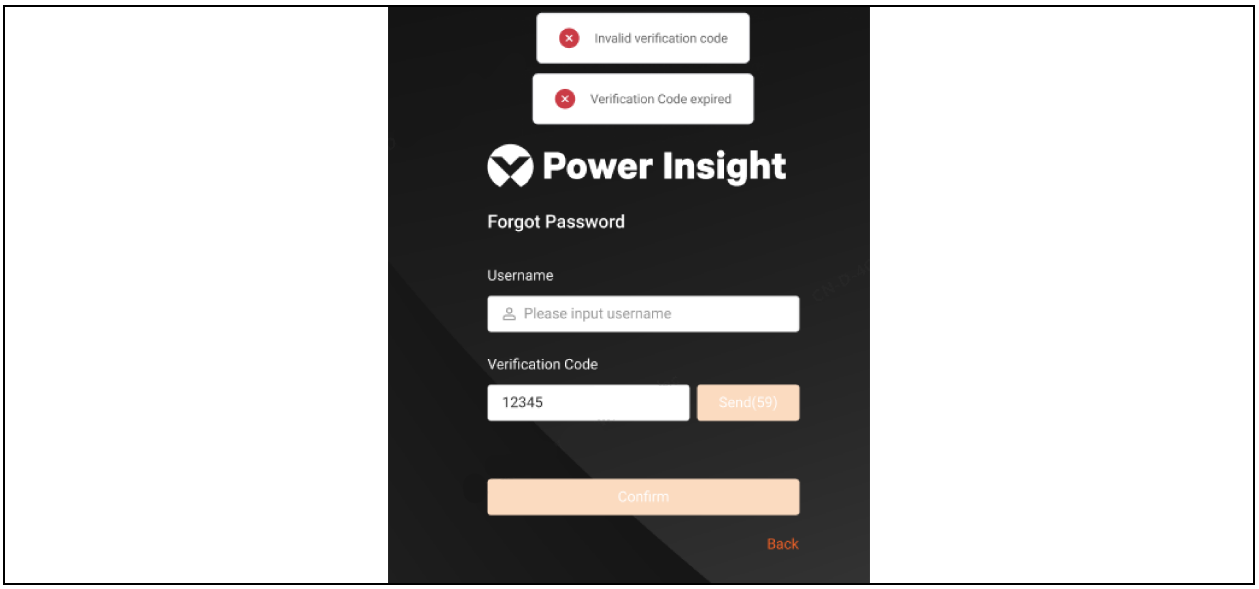
Figure 3.17 Email Configuration Failed Page



If the verification code does not match the username, message is displayed as **Invalid verification code**. If the verification code username matches, but the verification code times out (more than 10 minutes after the validity period), the message is displayed as **Verification Code expired**. See **Figure 3.18** on the next page.

Proprietary and Confidential ©2025 Vertiv Group Corp.

Figure 3.18 Authorize Verification Code



NOTE: Only the last sent verification code is valid.

NOTE: The verification code is valid for 10 minutes.

NOTE: The verification code is sent at an interval of 60 seconds.

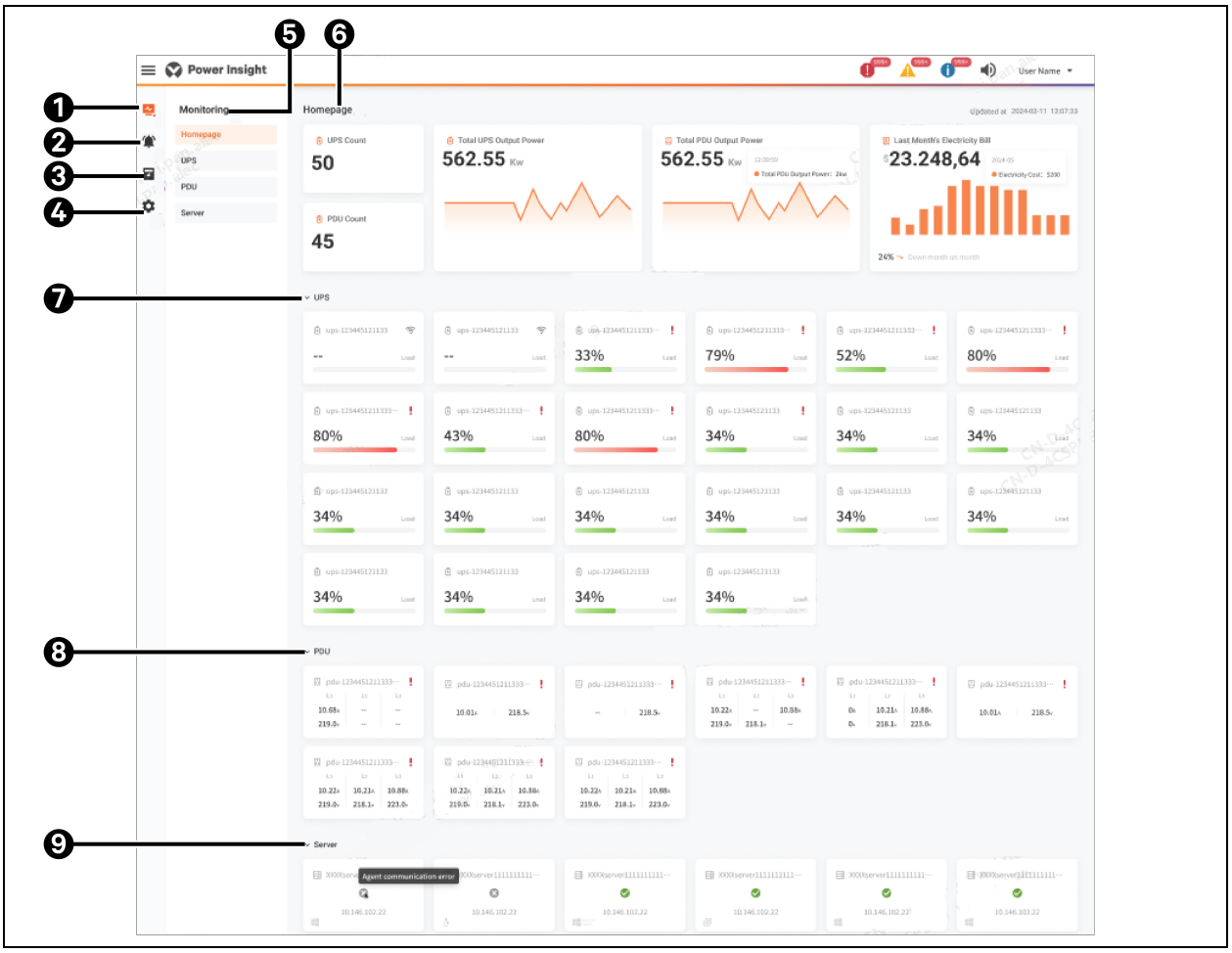
NOTE: The password change is valid for 30 minutes.

NOTE: After entering the username and clicking *Send*, if the user exists, but the email fails to be sent, the message prompts: Verification email delivery failed, please contact the system administrator; No page redirects.

3.2 User Interface

The user interface contains several areas to help you manage the devices that Vertiv™ Power Insight monitors. The options bar and context menu on the left mainly contain connected devices, generated alarms, various configurations, and system settings. The upper right corner is mainly the number of alarms. If you click the drop-down menu next to the username, help information, user profiles, and other information appear.. See Figure 3.19 on the facing page.

Figure 3.19 Vertiv™ Power Insight Homepage



Item	Name	Description
1	Monitoring module	Provides a general monitoring panel for device list collection, electricity bills, and alarms, covering the following modules: • Homepage • UPS • PDU • Server
2	Alarm module	Provides operations related to the display of alarm information and alarm notification, covering the following modules: • Active alarms • Historical alerts • Notification settings • Automation settings
3	Power management module	It provides the configuration of the calculation method of electricity charges and the display of electricity bill statistics, covering the following modules: • Usage and bill statistics • Bill calculation

Proprietary and Confidential ©2025 Vertiv Group Corp.

Item	Name	Description
4	System configuration module	Provides following modules: • Event logs • Notification settings • Security settings • Integrated management • User management • Backup and upgrade
5	List of features	Displays the capabilities of the specific feature list of the currently selected modules.
6	Monitor the core information of the homepage	Displays the total number and output power of UPSs and PDUs on the current monitoring page, as well as the summary of electricity bills.
7	UPS equipment fleet	All UPS devices monitored by the current system are displayed through the card group, and the UPS load rate and alarm information in the upper right corner are displayed in a separate card. You can click on an individual UPS to view the details.
8	PDU fleet	All PDU devices monitored by the current system are displayed through the card group, and the usage of the three PDU circuits and the alarm information in the upper right corner are displayed in a separate card. You can click on an individual PDU to view the details.
9	Server fleet	All server devices monitored by the current system are displayed through the card group, and the connection status and IP address of the server devices and the server category information in the lower left corner are displayed in a separate card. You can click on an individual PDU to view the details.

4 Uninterrupted Power Supply and Power Distribution Units Management

4.1 Overview

The first step in running Vertiv™ Power Insight is to add the UPS or PDU to the device list, and after the addition is completed, you can get real-time data and alarm information of the device.

4.1.1 Functional Modules

- Uninterrupted Power Supply (UPS)
- Power Distribution Units (PDU)

4.2 Get Started Quickly

4.2.1 Rapid Deployment Steps

There are two modes to add a UPS or PDU:

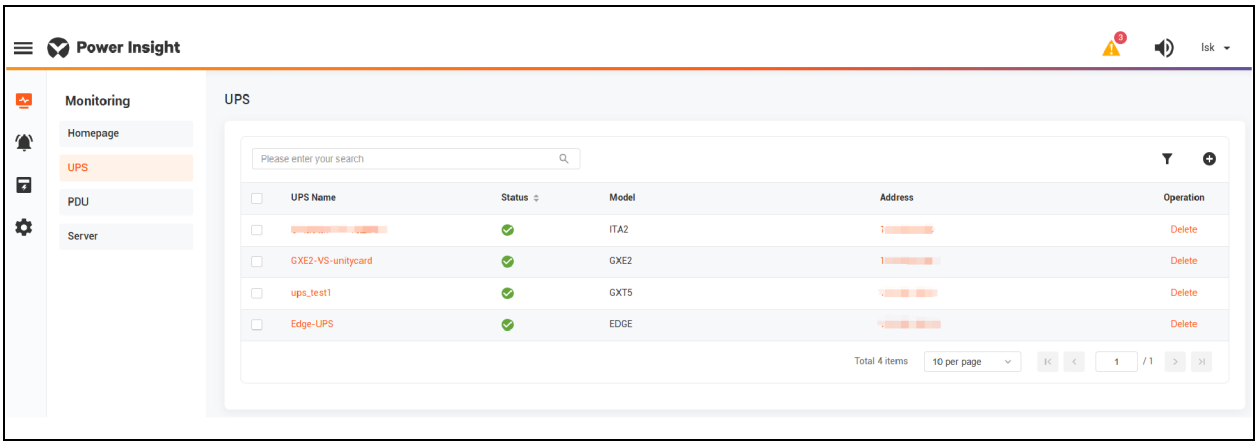
1. Add manually
2. Range search

4.3 UPS

4.3.1 View the List of UPSs

1. Click on Monitoring icon and click *UPS* in the second level menu. See Figure 4.1 below.

Figure 4.1 Listed UPS in Power Insight



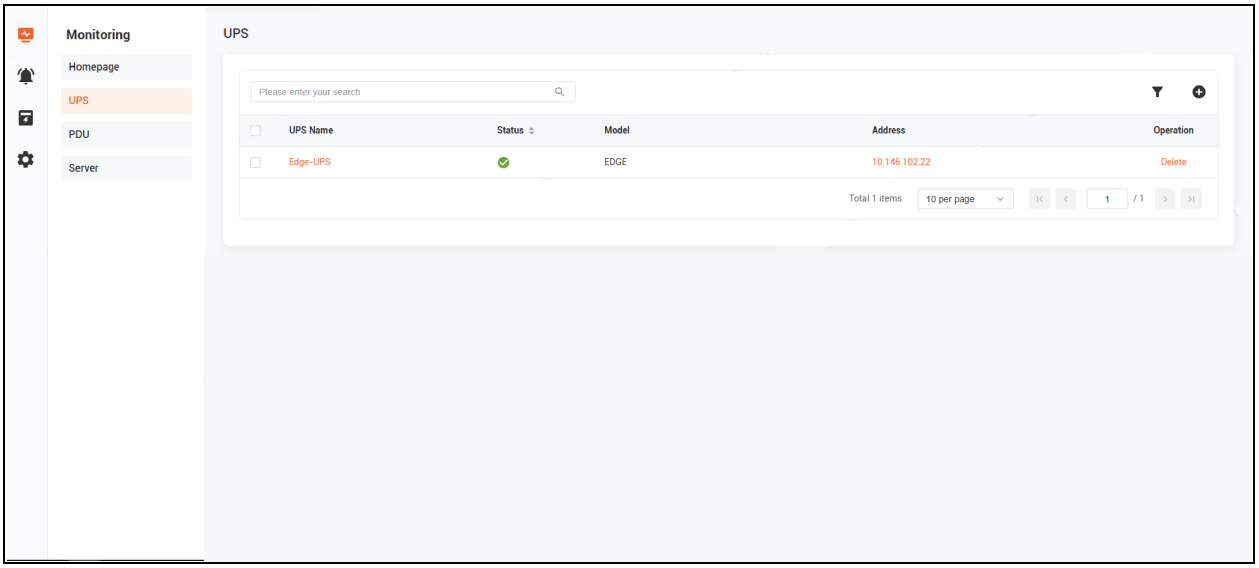
Proprietary and Confidential ©2025 Vertiv Group Corp.

4.3.2 UPS Addition

Manually Add a UPS

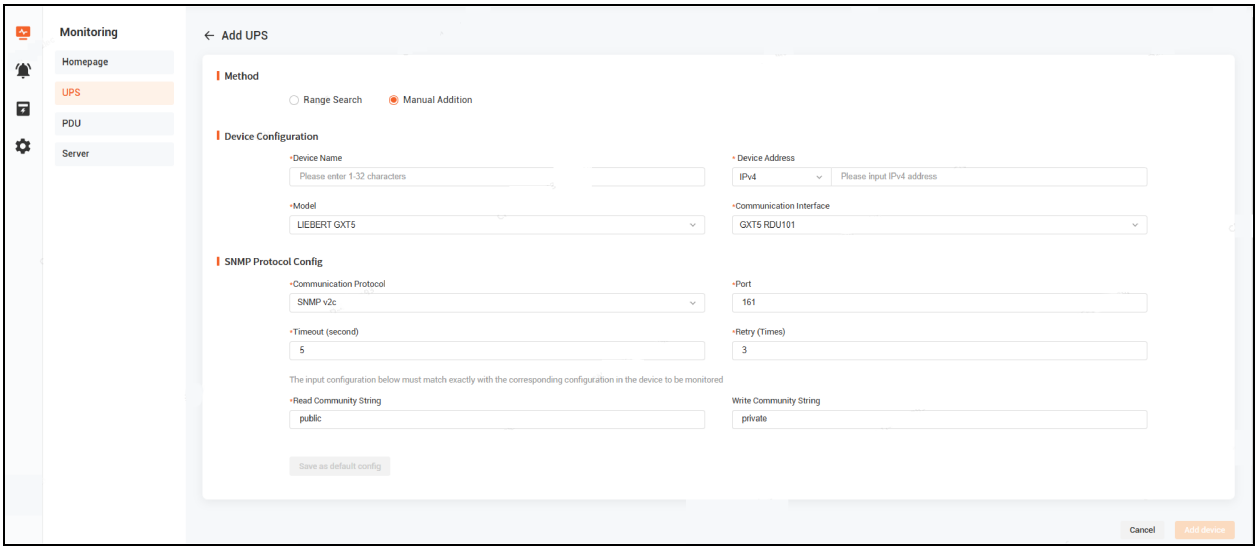
1. Click on Monitoring icon . If the device you need to add is UPS, click *UPS* in the second level menu. See Figure 4.2 below.

Figure 4.2 Adding UPS Manually



2. Click on Add icon in the upper right corner to enter the Add Device Configuration page. See Figure 4.3 below.

Figure 4.3 Add Device Configuration Page



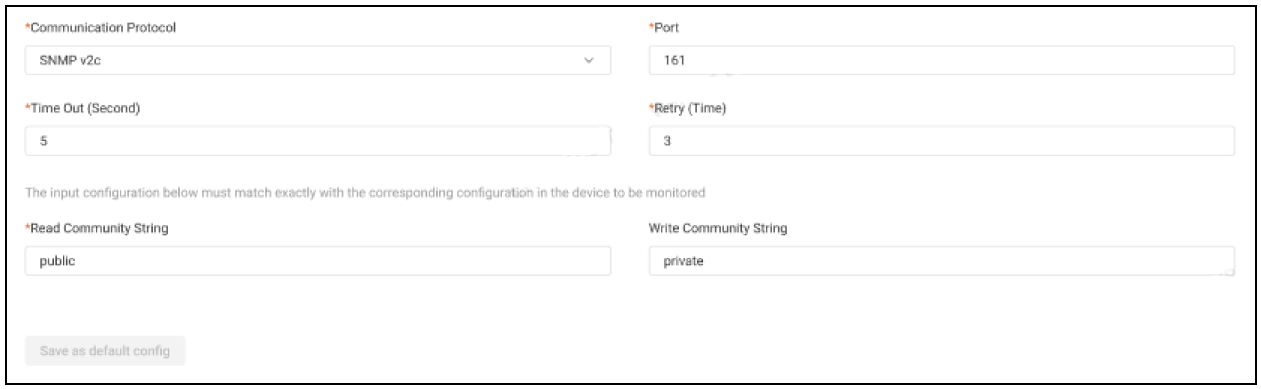
Proprietary and Confidential ©2025 Vertiv Group Corp.

3. Fill the device configuration, device name, device address (IPV4 and host name can be switched), select the model, and select the communication interface.
4. Configure SNMP protocol, which is divided into SNMP v2c and SNMP v3.

In the case of SNMP v2c:

Select the communication protocol, and enter the port, timeout period, number of retries, read the community string, write the community string. After filling in the above content, click *Add device* to add UPS device. See Figure 4.4 below.

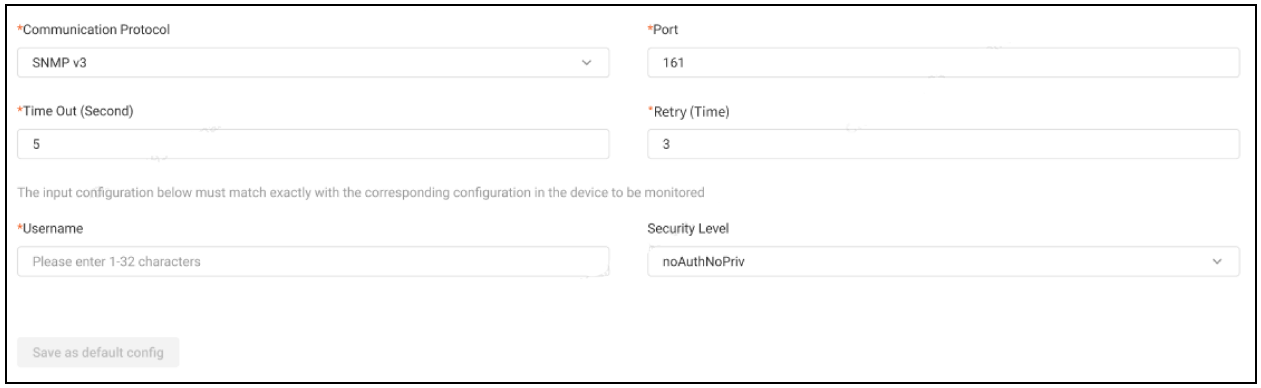
Figure 4.4 SNMP v2c Configuration



In the case of SNMP v3:

Select the communication protocol and enter the port, timeout period, number of retries, username, and security level. After filling in the above content, click *Add device* to add UPS device. See Figure 4.5 below.

Figure 4.5 SNMP v3 Configuration



Click *Save as default config* once you entered all the fields. After clicking, the message The current configuration has been saved as the default configuration of the UPS is added displays, and all the current configurations and inputs on the New UPS Equipment page will be saved as the default New UPS Equipment configuration, and the default configuration will be used the next time when you enter the New UPS Equipment page.

NOTE: It cannot be duplicated with the PDU or UPS device name that has already been monitored IPv4 allows input formats and ranges from 0.0.0.0 to 255.255.255.255.

Hostname: Between 1 to 63 characters in length, the maximum length of the entire hostname including dots is 253 characters. Valid characters for a hostname are ASCII(7) letters (from a to z), numbers (from 0 to 9), and hyphens (-). The hostname must not start with a hyphen.

Proprietary and Confidential ©2025 Vertiv Group Corp.

Port: You can enter an integer from 0 to 65535.

Timeout: You can enter an integer from 1 to 5.

Retry: You can enter an integer from 0 to 3.

If the number of monitored devices (UPS+PDUs) exceeds 100, the message Failed to join monitoring, the number of monitored UPSs and PDUs cannot exceed 100.

After entering all the information in Add UPS page, the Add device is highlighted; After clicking *Add device*, return to the UPS list, the new device is displayed at the top of the UPS list, showing the status of Monitoring, and the message displays Adding Device Successfully.

Use the Retry and Timeout configurations to connect to the device, and the device status will display the Communication Normal icon when the connection is successful. If the device fails to connect after the number of retries is exceeded, the device status displays the Communication Failed icon.

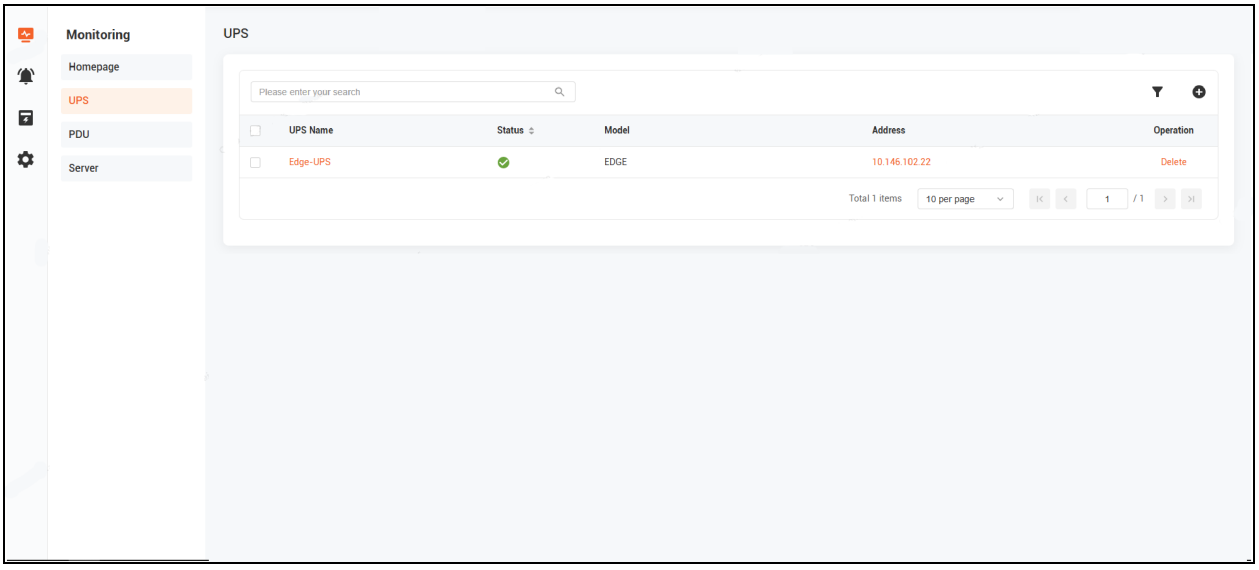
If there is no device corresponding to the hostname, the message Failed to join the monitoring and the device corresponding to the hostname cannot be found displays.

If the device with the hostname has been monitored, the message Failed to join monitoring, the device has been monitored displays.

Range Search UPS

1. Click on Monitoring icon . If the device you need to add is UPS, click *UPS* in the second level menu. See **4.3** on page 35.

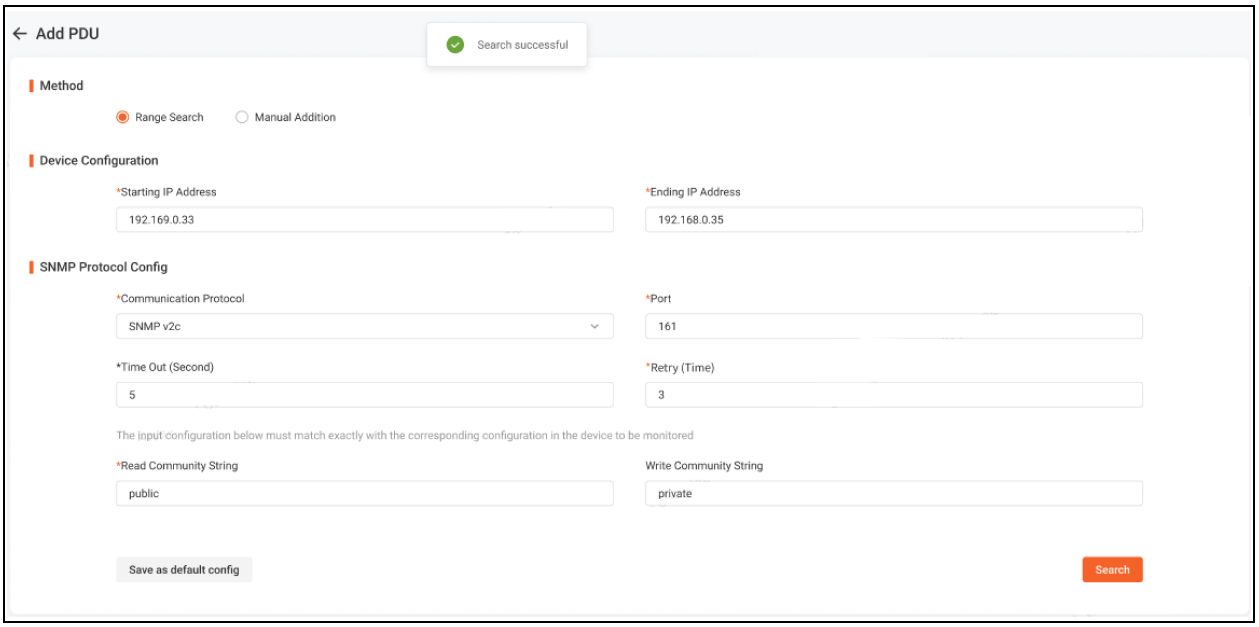
Figure 4.6 UPS



2. Click on Add icon in the upper right corner to enter the Add Device Configuration page.
3. Select the scope search in the new method.

Proprietary and Confidential ©2025 Vertiv Group Corp.

Figure 4.7 Range Search UPS

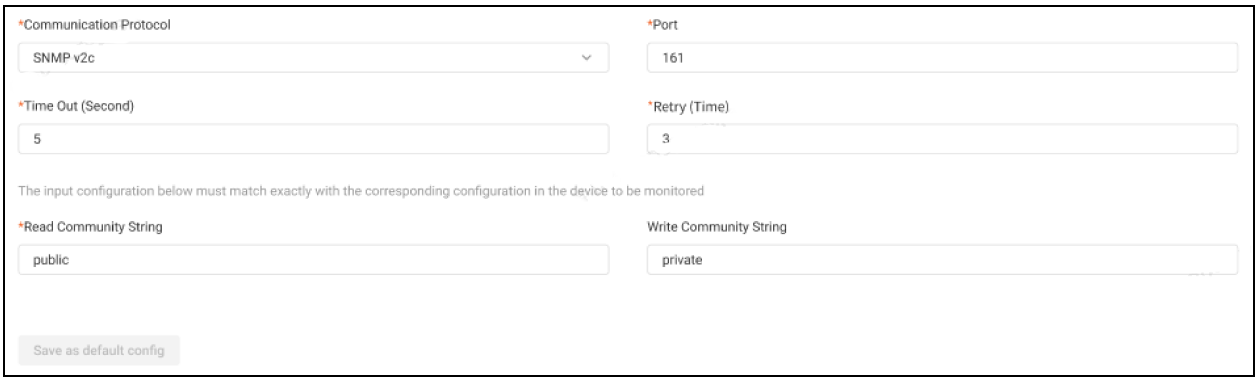


4. Enter the starting IP address and the end IP address in the device configuration, complete the SNMP protocol configuration, and enter the relevant configuration information such as reading and writing the community string.
5. Configure SNMP protocol, which is divided into SNMP v2c and SNMP v3.

In the case of SNMP v2c:

Select the communication protocol, enter the port, timeout, number of retries, read the community string, write the community string. After filling in the above content, you can click *Add device* to add UPS device. See Figure 4.8 below.

Figure 4.8 SNMP v2c Configuration

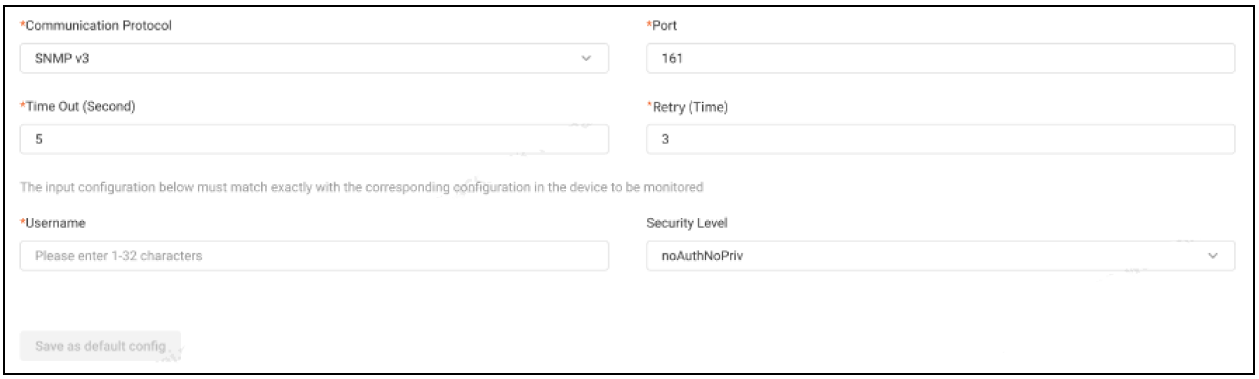


In the case of SNMP v3:

Select the protocol and enter the port, timeout period, number of retries, username, and security level. After filling in the above content, you can click *Add device* to add UPS device. See Figure 4.9 on the next page.

Proprietary and Confidential ©2025 Vertiv Group Corp.

Figure 4.9 SNMP v3 Configuration



Click *Save as default config* once you entered all the fields. After clicking, the message **The current configuration has been saved as the default configuration of the UPS is added** displays, and all the current configurations and inputs on the **New UPS Equipment** page will be saved as the default **New UPS Equipment** configuration, and the default configuration will be used the next time you enter the **New UPS Equipment** page.

6. Click *Search*, the following search results display table, covering the list of devices that can be added to the monitoring, if you need to modify the name of the device in the device list, click the Edit icon , and enter the name you want to modify in the window. Select the devices that need to be added to the monitoring and click *Add* to monitoring to complete the scope search and add function. See **Figure 4.10** below and **Figure 4.11** below.

Figure 4.10 Edit Device Name

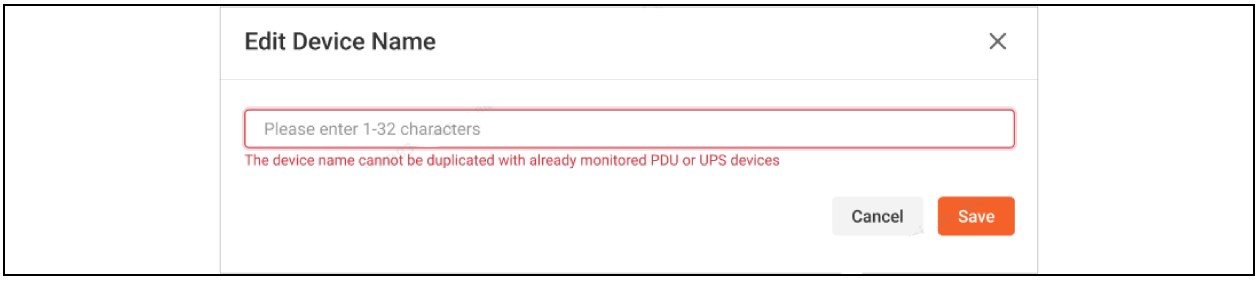


Figure 4.11 List of Searched PDUs

Proprietary and Confidential ©2025 Vertiv Group Corp.

NOTE: It cannot be duplicated with the PDU or UPS device name that has already been monitored IPv4 allows input formats and ranges from 0.0.0.0 to 255.255.255.255.

Hostname: Between 1 to 63 characters in length, the maximum length of the entire hostname including dots is 253 characters. Valid characters for a hostname are ASCII(7) letters (from a to z), numbers (from 0 to 9), and hyphens (-). The hostname must not start with a hyphen.

Port: You can enter an integer from 0 to 65535.

Timeout: You can enter an integer from 1 to 5.

Retry: You can enter an integer from 0 to 3.

If the number of monitored devices (UPS+PDUs) exceeds 100, the message Failed to join monitoring, the number of monitored UPSs and PDUs cannot exceed 100.

After entering all the information in Add UPS page, the Add device is highlighted. After clicking *Add device*, return to the UPS list, the new device is displayed at the top of the UPS list, showing the status of Monitoring, and the message Adding Device Successfully displays.

Use the Retry and Timeout configurations to connect to the device, and the device status will display the Communication Normal icon when the connection is successful. If the device fails to connect after the number of retries is exceeded, the device status displays the Communication Failed icon.

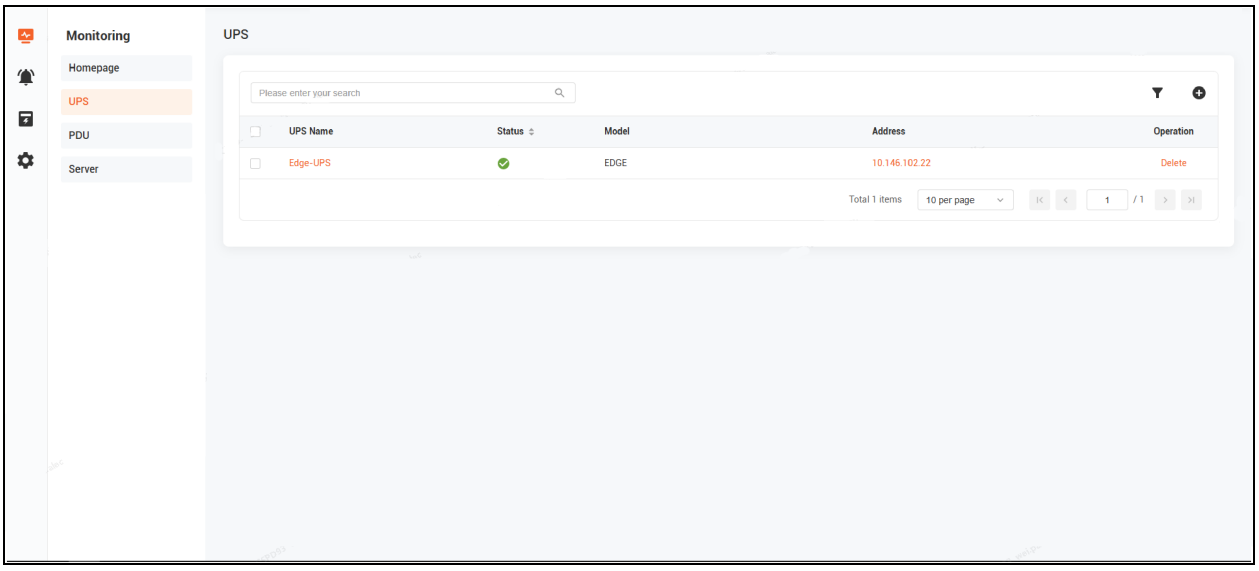
If there is no device corresponding to the hostname, the message Failed to join the monitoring and the device corresponding to the hostname cannot be found displays.

If the device with the hostname has been monitored, the message Failed to join monitoring, the device has been monitored displays.

4.3.3 UPS Deletion

Click on Monitoring icon and click on *UPS* in the secondary menu. See Figure 4.12 below.

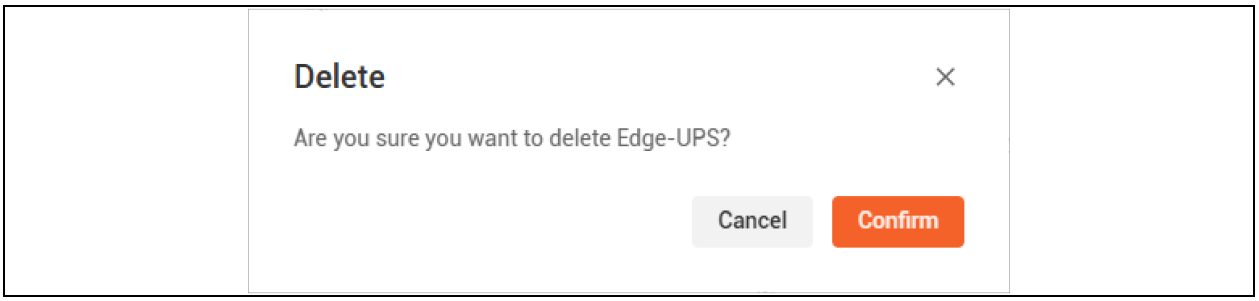
Figure 4.12 UPS Page



Proprietary and Confidential ©2025 Vertiv Group Corp.

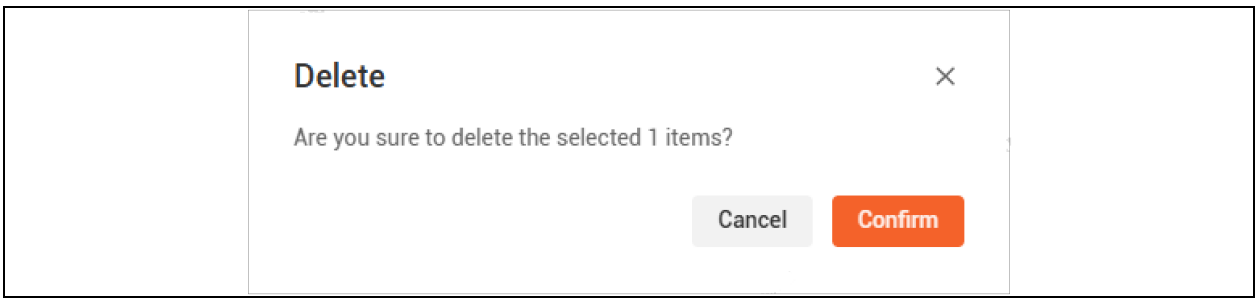
Single deletion: Click on *Delete* on the right side of the UPS device to be deleted to trigger the deletion window, as shown in **Figure 4.13** below.

Figure 4.13 Single Deletion Page



Multi-delete: Select the checkbox on the left side of the UPS list and click the *Delete* to trigger the deletion window, as shown in **Figure 4.14** below.

Figure 4.14 Multiple Deletion Page

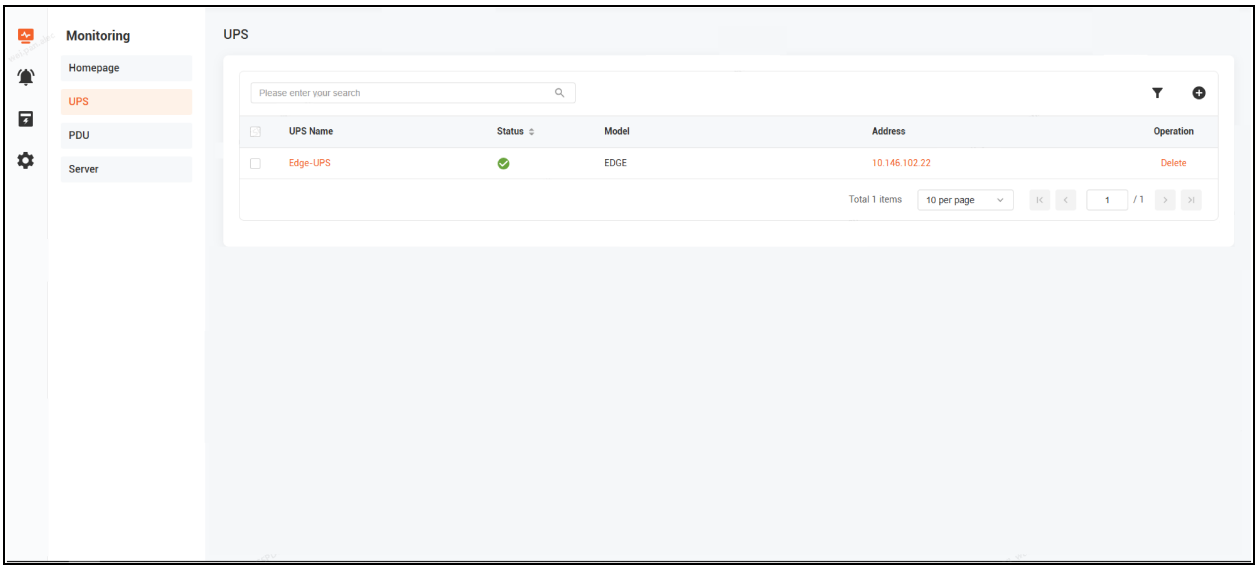


Click the *Confirm* to delete successfully, return to the UPS list, and refresh the latest data in real time.

4.3.4 UPS Details

1. Click on Monitoring icon and click *UPS* in the second level menu. See **Figure 4.15** on the facing page.

Figure 4.15 UPS Page



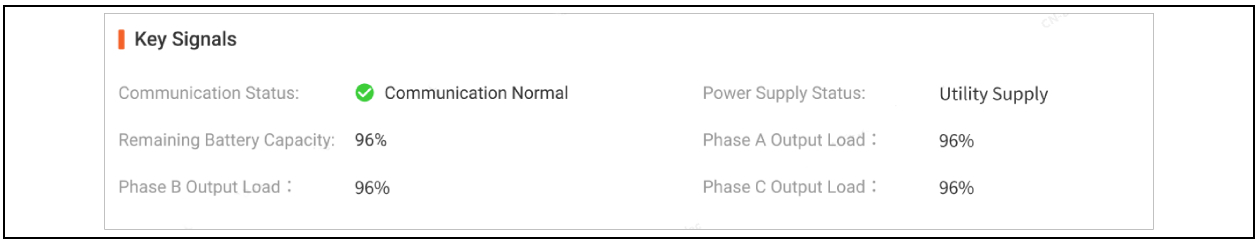
2. Click on a single UPS name to view the UPS details.

Overview

- Key signals

  Displays the communication status, power supply status and rest of the information of the UPS. See **Figure 4.16** below.

Figure 4.16 Key Signals

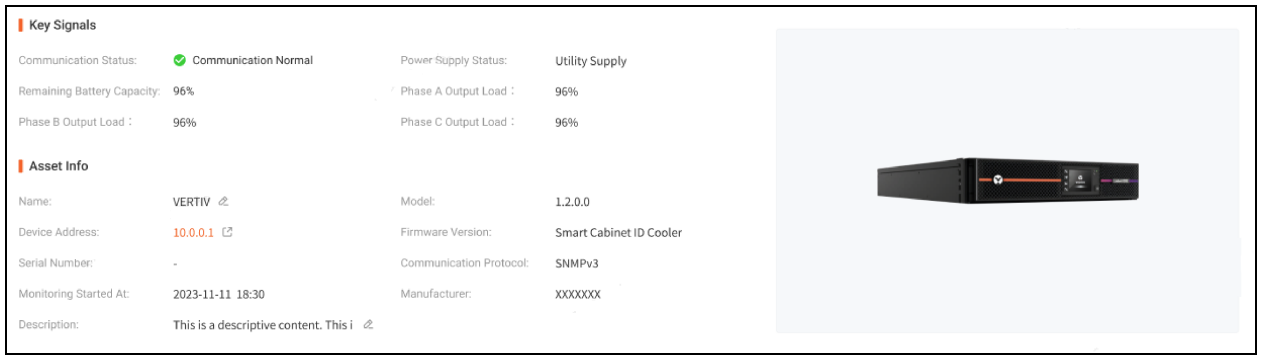


- Asset information

  Displays the current UPS name, model, device address and other information and editable description, the right side shows the equipment picture, as shown in **Figure 4.17** on the next page.

Proprietary and Confidential ©2025 Vertiv Group Corp.

Figure 4.17 Asset Information

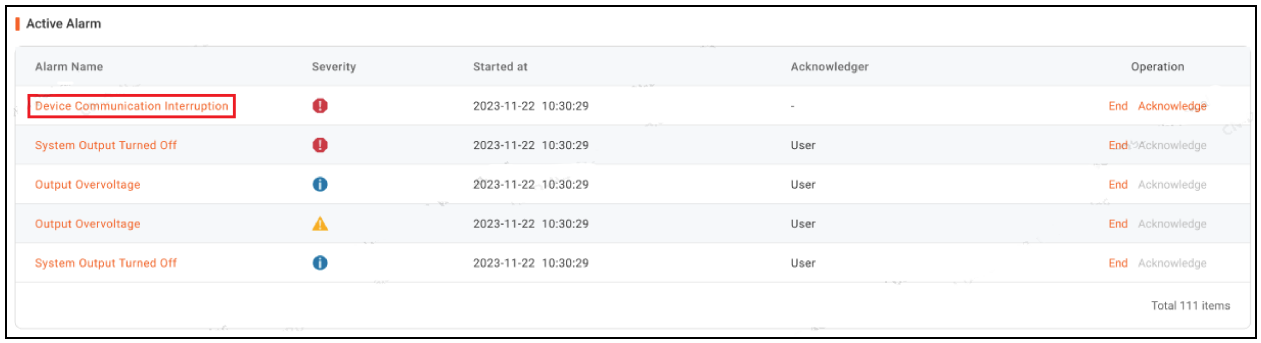


- Active Alarms

  Displays the active alarm list of the device, and a single alarm covers the alarm name, alarm level and other fields, and the following three fields have special click effects.

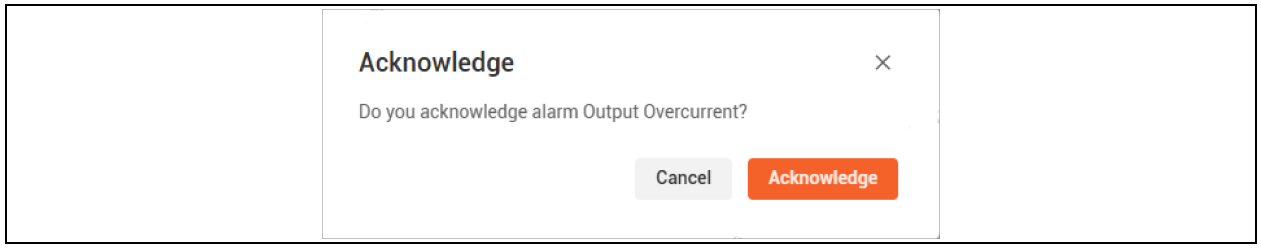
1. Click the alarm name to go to the alarm details page.

Figure 4.18 Active Alarms



2. Click *Acknowledge* to display a Acknowledge window, refresh the list after confirmation, and message appears that the Confirm that the alarm is successful.

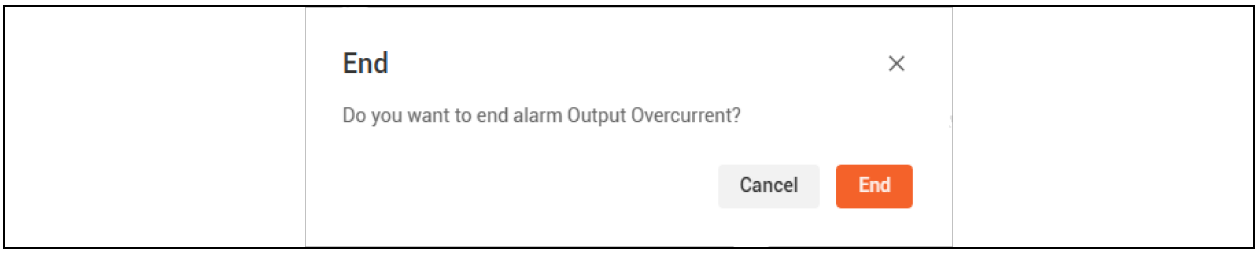
Figure 4.19 Alarm Acknowledgement



3. Click *End* to display an End window, and after confirmation, the alarm will become a historical alarm, refresh the active alarm list, and the message will appears that the Alarm has been terminated successfully.

Proprietary and Confidential ©2025 Vertiv Group Corp.

Figure 4.20 End Alarm



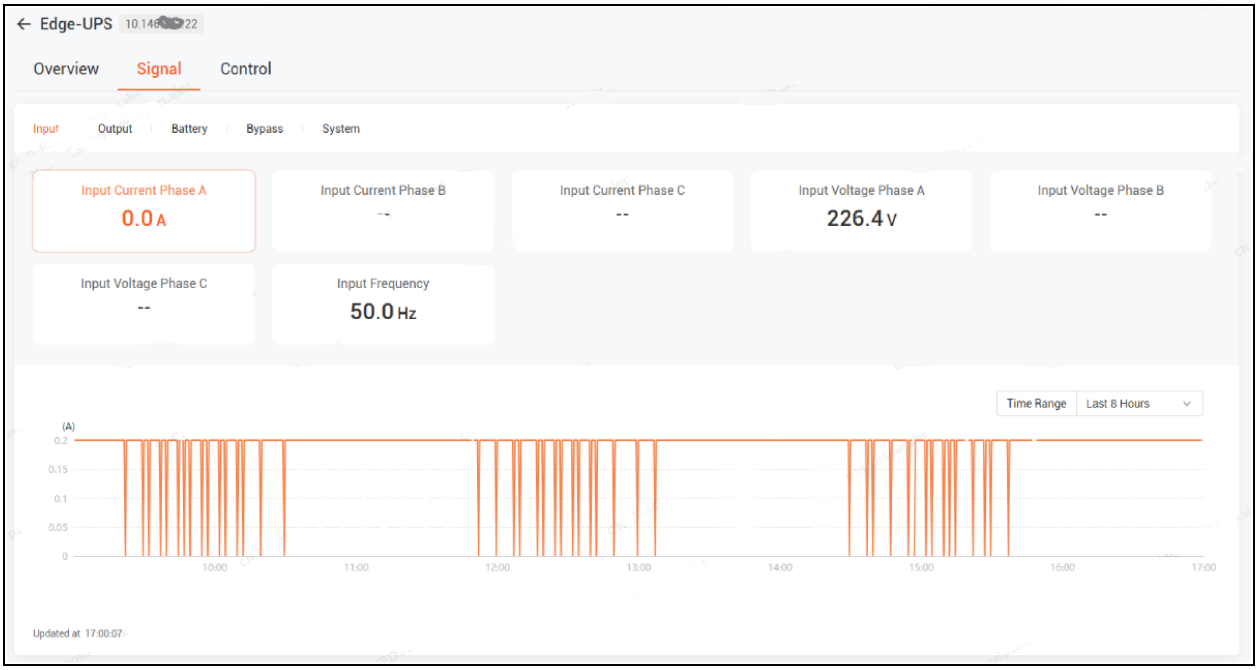
Real-time signals

This function displays the device signal in real time and refreshes all real-time signals every 30 seconds. Single-phase equipment displays a single-signal, and three-phase equipment displays a three-phase signal. The storage period of the signal is 8 hours, and when the signal cannot be obtained, the **--** signal is displayed, which mainly covers the following parts:

- **Input:** Input current, input voltage, input frequency.
- **Output:** Output current, output voltage, output power, output load rate.
- **Battery:** Remaining battery capacity, battery health, remaining battery time, battery voltage, battery current.
- **Bypass:** Bypass voltage.
- **System:** Power supply status.

Another part of the real-time signal is the signal line chart, below the position of the signal mentioned above. By default, the time range is set to the last 8 hours, and you can view the brief information of the signal float point on the line chart, and the chart data update time will be displayed at the bottom left of the chart. See **Figure 4.21** below.

Figure 4.21 Signal Line Chart



NOTE: If there are too many signals, a scroll bar will appear, and you need to scroll to see the content of the signal you need to view.

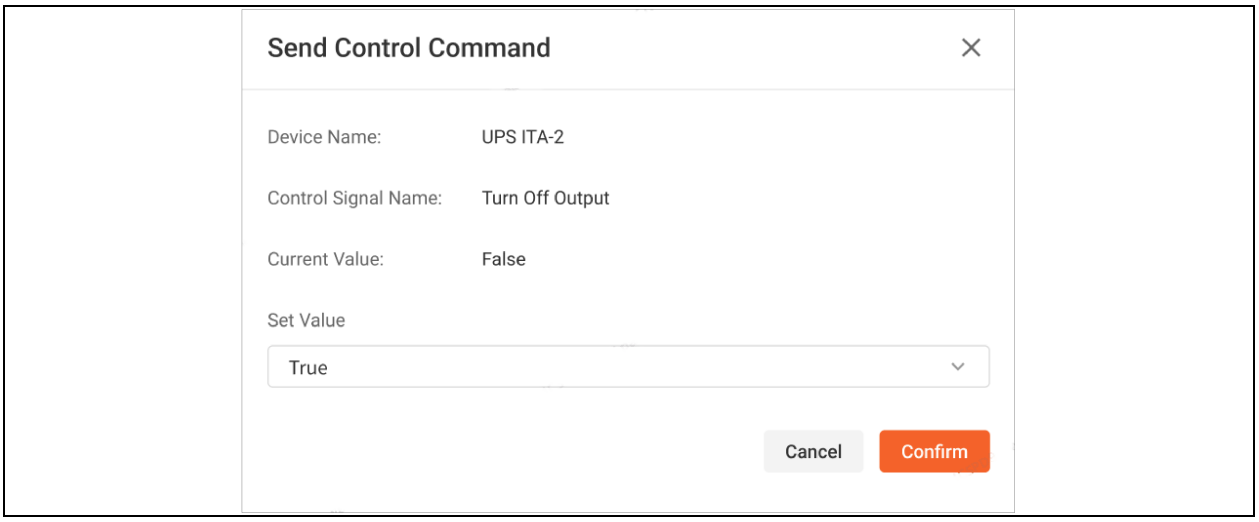
NOTE: Hide certain signals if they are missing for certain models.

Control

The control function is mainly used to remotely control the UPS equipment to perform a certain operation, display all the operable items through the table, and provide the control record viewing function on the right side of the table head.

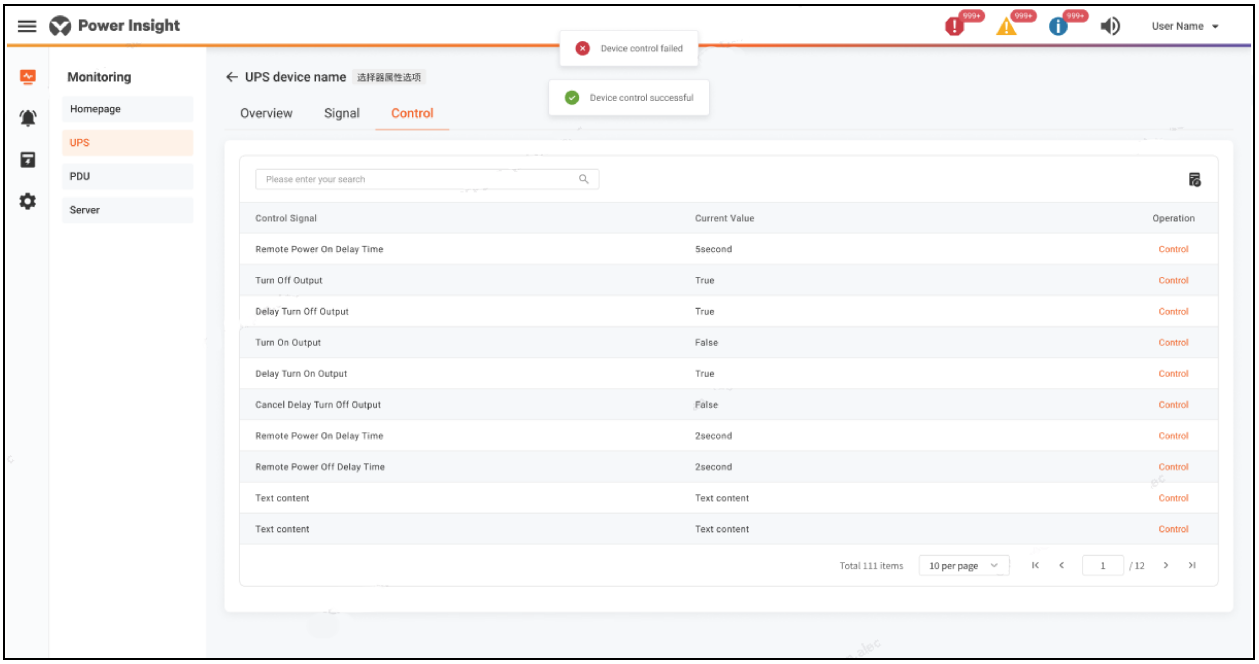
Click on *Control* the right side of a single piece of data in the table to display remote control, click the window to send the control command window, and click the *OK* to realize the control after setting the time. See Figure 4.22 below.

Figure 4.22 Send Control Command Window



After clicking *Confirm*, you will return to the control list and display the control result information, as shown in Figure 4.23 below.

Figure 4.23 Control Result Information

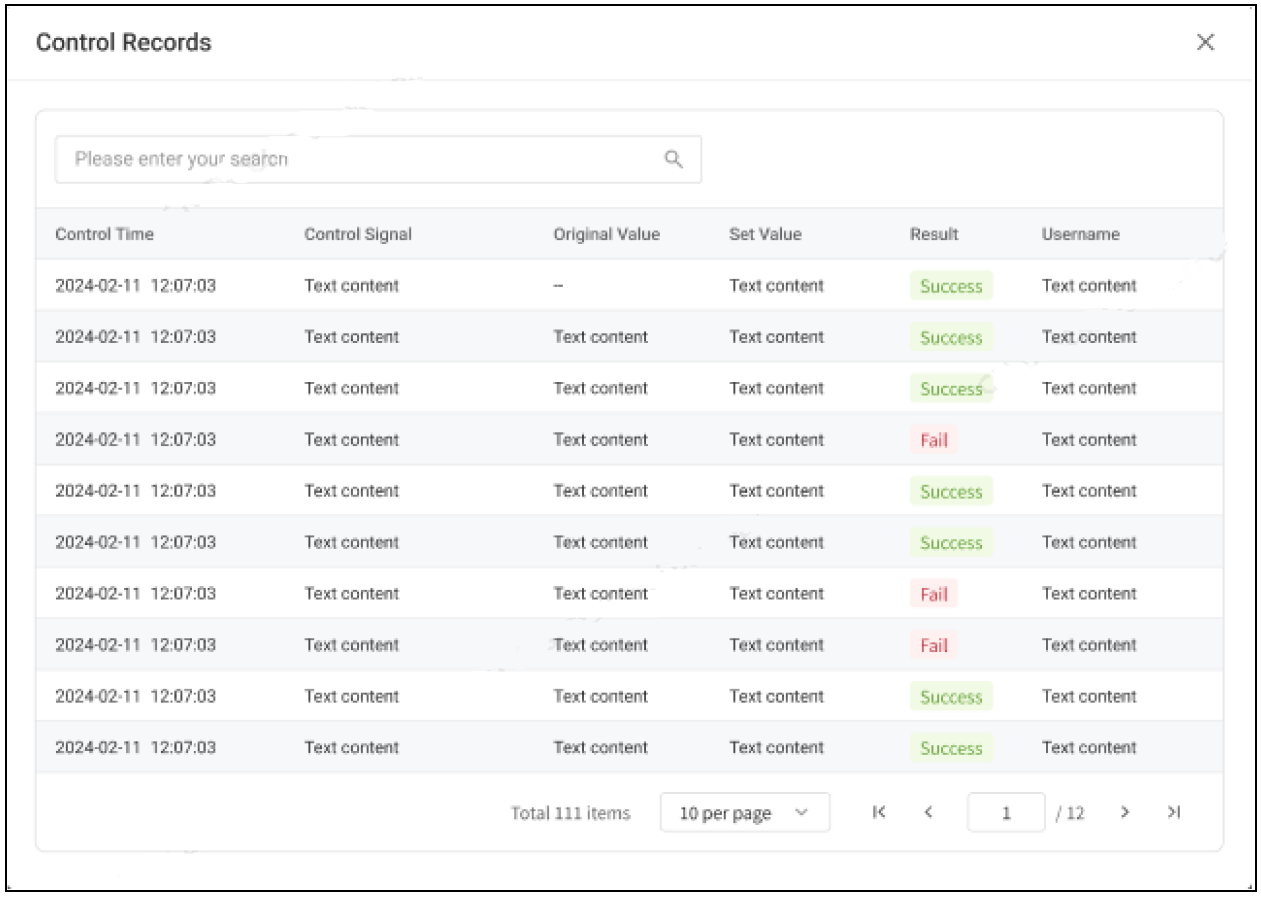


Proprietary and Confidential ©2025 Vertiv Group Corp.

After the command is completed, you can view the updated current value of the command after 30 seconds.

Click on Control Record icon on the right side of the table header to trigger the function of viewing operation records, and the operation record table will appear in the window, providing the basic table operation function, as shown in Figure 4.24 below.

Figure 4.24 Control Records



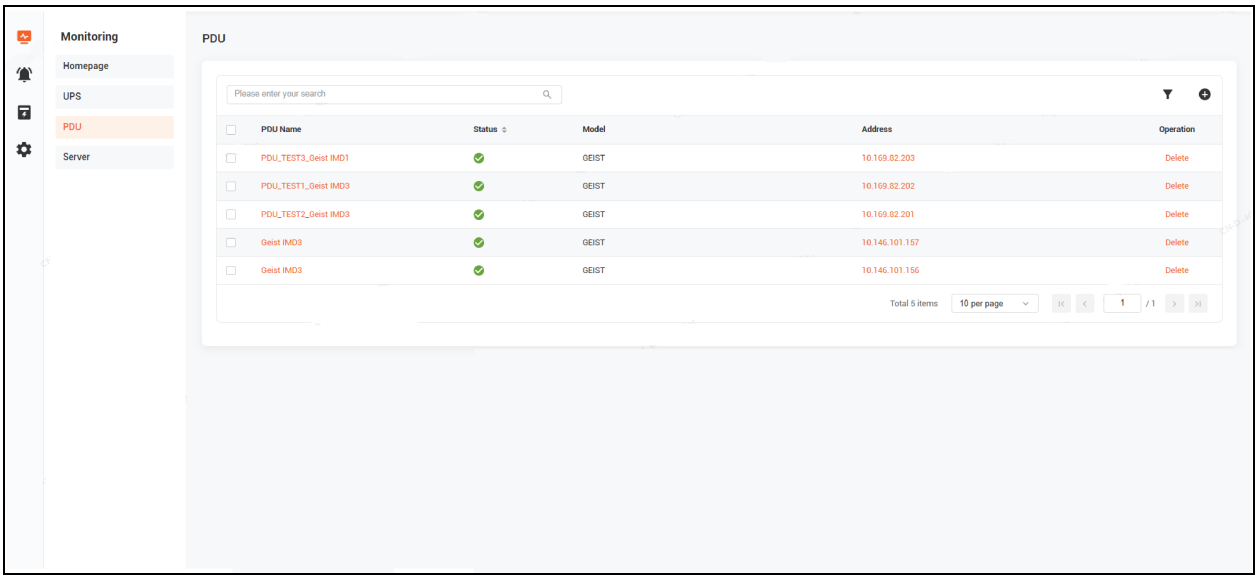
4.4 PDU

4.4.1 View the List of PDUs

1. Click on Monitoring icon and click *PDU* in the second level menu. See Figure 4.25 on the next page.

Proprietary and Confidential ©2025 Vertiv Group Corp.

Figure 4.25 PDU Page



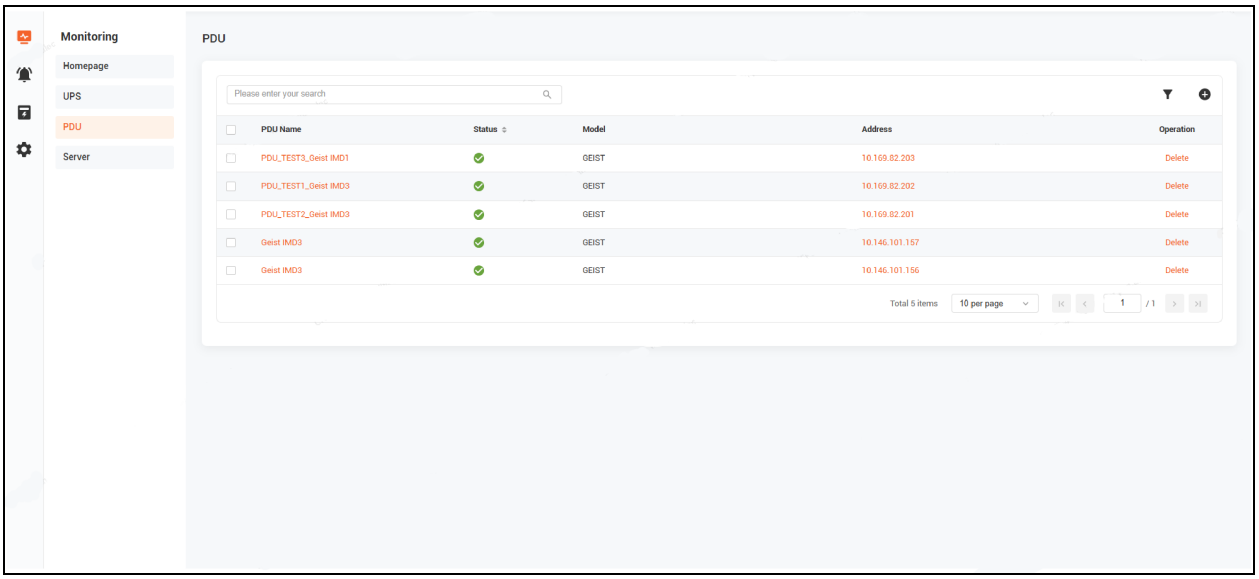
4.4.2 PDU Addition

Rack PDU of GEIST firmware v5.0 is supported.

Manually add PDUs

1. Click on Monitoring icon . If the device you need to add is a PDU, click *PDU* in the second level menu. See Figure 4.26 below.

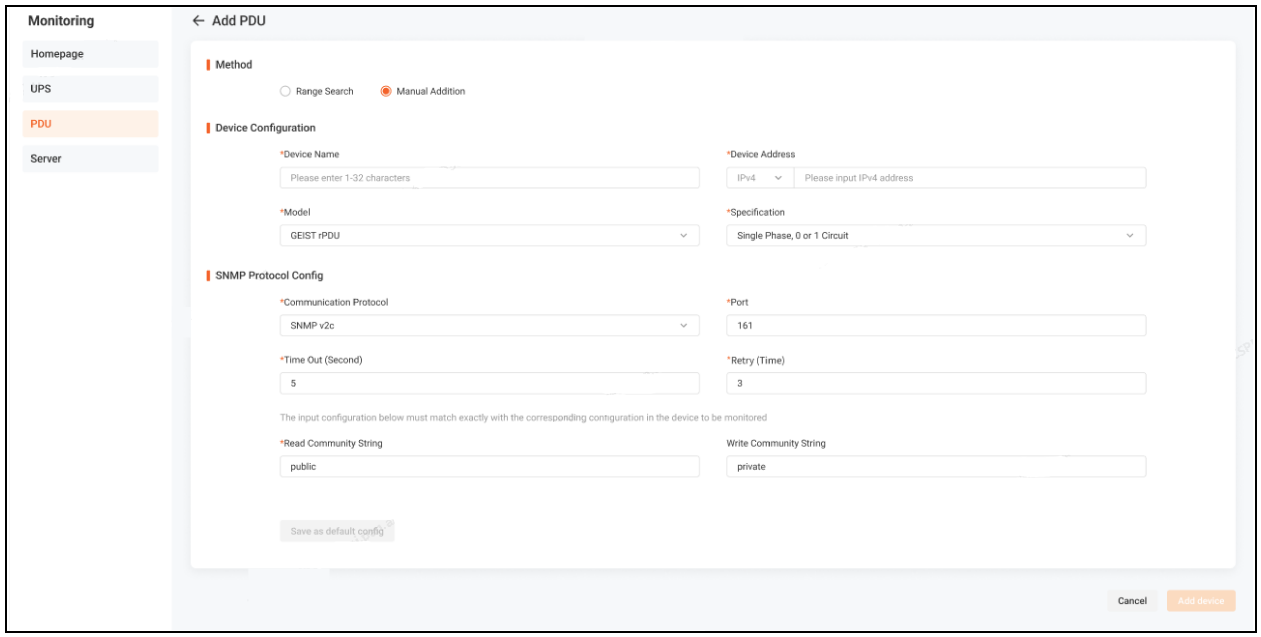
Figure 4.26 PDU



2. Click on Add icon in the upper right corner to enter the Add Device Configuration page.

Proprietary and Confidential ©2025 Vertiv Group Corp.

Figure 4.27 Add Device Configuration Page—PDU

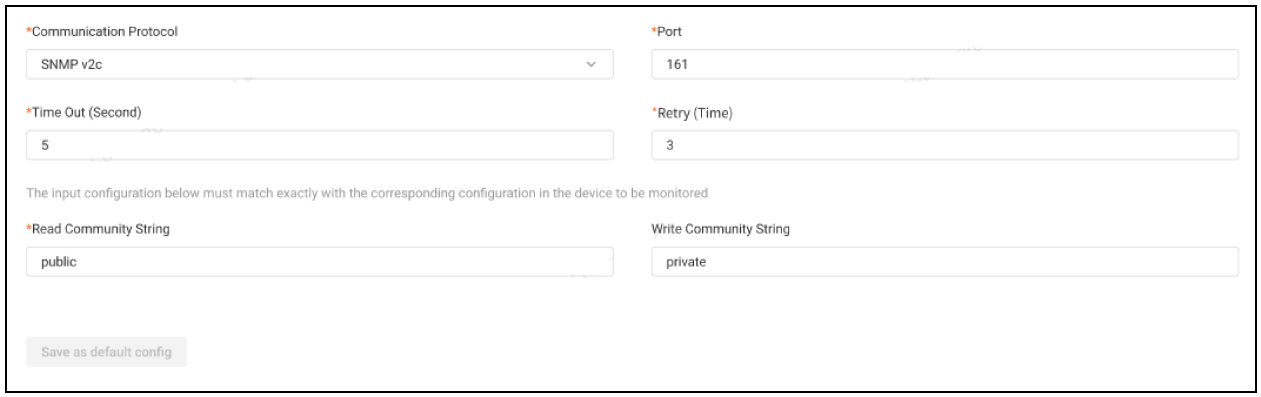


3. Fill in the device configuration, device name, device address (IPV4 and host name can be switched), model, and specifications.
4. Configure SNMP protocol, which is divided into SNMP v2c and SNMP v3.

In the case of SNMP v2c:

Select the communication protocol, enter the port, timeout period, number of retries, read the community string, write the community string. After filling in the above content, click *Add device* to add PDU device. See Figure 4.28 below.

Figure 4.28 Communication Protocol SNMP v2c

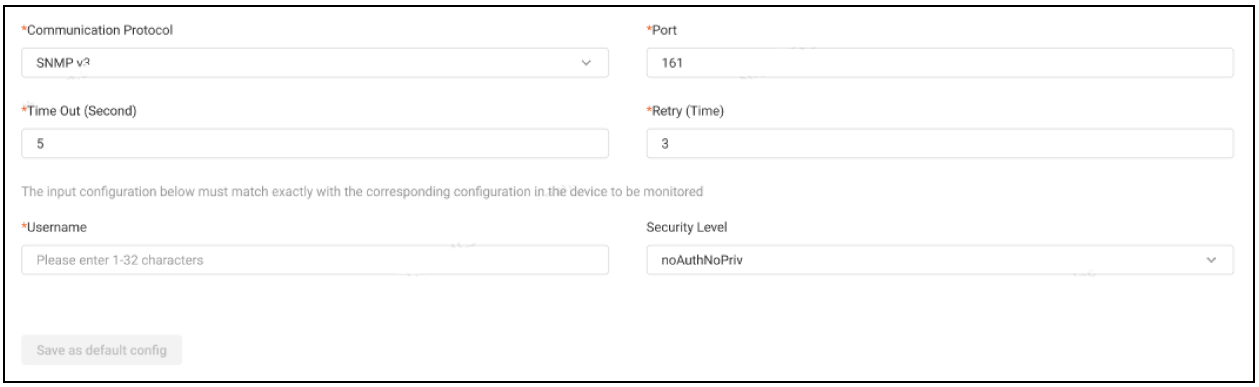


In the case of SNMP v3:

Select the protocol and enter the port, timeout period, number of retries, username, security level, authentication algorithm, authentication password, encryption algorithm, and encryption authorization password. After filling in the above content, click *Add device* to add PDU device. See Figure 4.29 on the next page.

Proprietary and Confidential ©2025 Vertiv Group Corp.

Figure 4.29 Communication Protocol SNMP v3



Click *Save as default config* once you entered all the fields. After clicking it, the message The current configuration has been saved as the default configuration for adding a PDU displays, and all the current configurations and inputs on the Add PDU device page are saved as the default Add PDU device configuration, and the default configuration will be used the next time you enter the Add PDU device page.

NOTE: It cannot be duplicated with the PDU or UPS device name that has already been monitored.

IPv4 allows input formats and ranges from 0.0.0.0 to 255.255.255.255.

Hostname: Between 1 to 63 characters in length, the maximum length of the entire hostname including dots is 253 characters. Valid characters for a hostname are ASCII(7) letters (from a to z), numbers (from 0 to 9), and hyphens (-). The hostname must not start with a hyphen.

Port: You can enter an integer from 0 to 65535.

Timeout: You can enter an integer from 1 to 5.

Retry: You can enter an integer from 0 to 3.

If the number of monitored devices (UPS+PDUs) exceeds 100, the message Failed to join monitoring, the number of monitored UPSs and PDUs cannot exceed 100.

When a monitored device is found, the IP address of the monitored UPS, PDU, or server device is duplicated, or the device is actually monitored.

After entering all the information, the Add device is highlighted. After clicking *Add device*, the PDU list is returned, and the new device is displayed at the top of the PDU list, showing the status of Monitoring, and the message prompts Successfully added device.

Use the Retry and Timeout configurations to connect to the device, and the device status will display the Communication Normal icon when the connection is successful. If the device fails to connect after the number of retries is exceeded, the device status displays the Communication Failed icon.

If there is no device corresponding to the hostname, the message Failed to join the monitoring and the device corresponding to the hostname cannot be found.

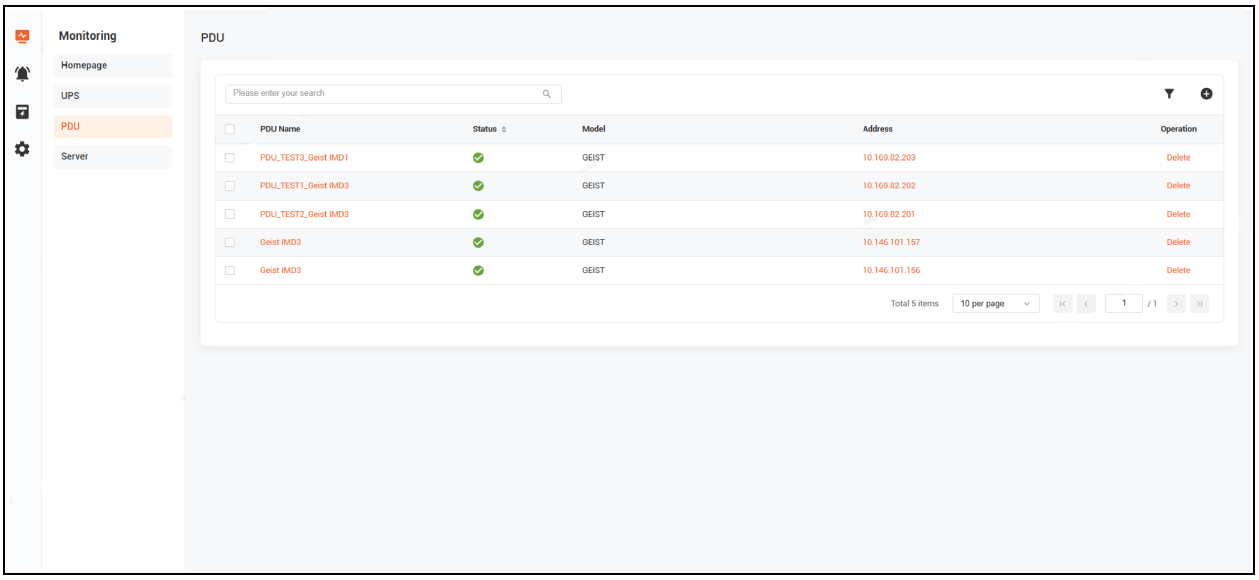
If the device with the hostname has been monitored, the message Failed to join monitoring, the device has been monitored.

Proprietary and Confidential ©2025 Vertiv Group Corp.

Range Search PDUs

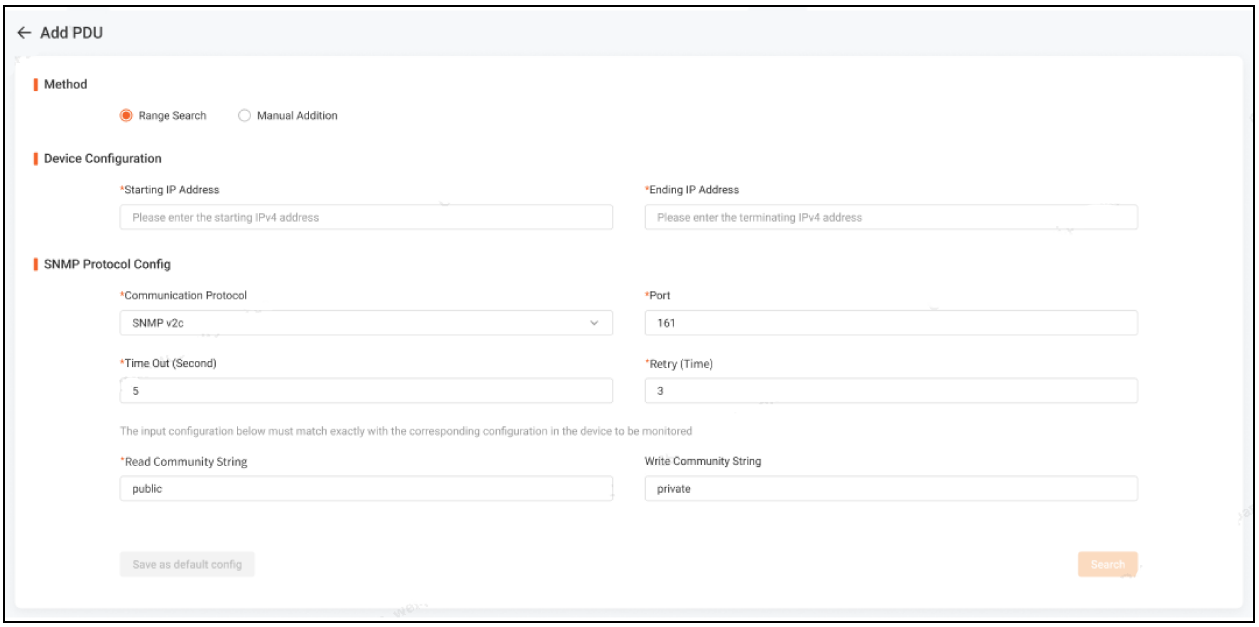
1. Click on Monitoring icon . If the device you need to add is a PDU, then click *PDU* in the second level menu. See **Figure 4.30** below.

Figure 4.30 PDU



2. Click on Add icon in the upper right corner to enter the Add Device Configuration page.
3. Select the scope search in the new method.

Figure 4.31 Range Search PDU



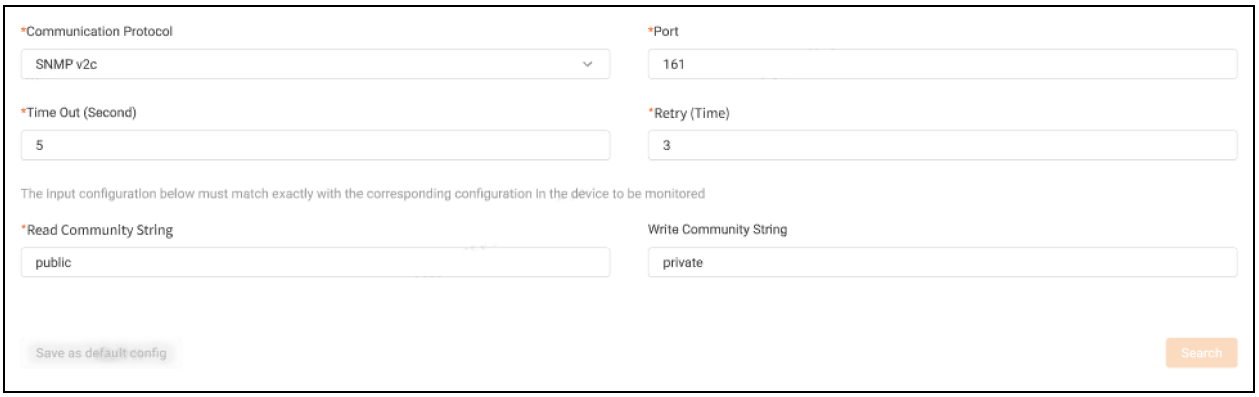
Proprietary and Confidential ©2025 Vertiv Group Corp.

4. Enter the starting IP address and the end IP address in the search configuration, complete the SNMP protocol configuration, and enter the relevant configuration information such as reading and writing the communication word.
5. Configure SNMP protocol, which is divided into SNMP v2c and SNMP v3.

In the case of SNMP v2c:

Select the communication protocol, enter the port, timeout, number of retries, read the communication word, write the communication word. After filling in the above content, you can click *Add device* to add PDU device. See Figure 4.32 below.

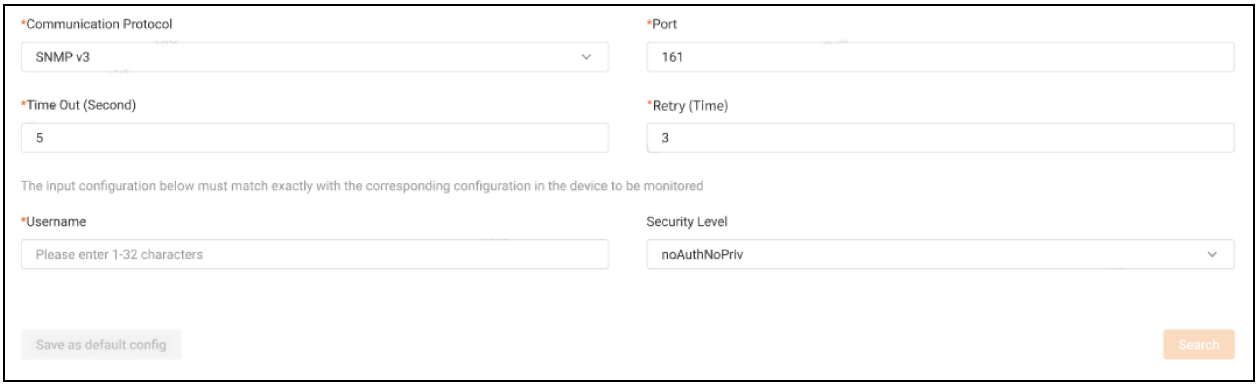
Figure 4.32 Communication Protocol SNMP v2c



In the case of SNMP v3:

Select the protocol and enter the port, timeout period, number of retries, username, security level, authentication algorithm, authentication password, encryption algorithm, and encryption authorization password. After filling in the above content, click *Add device* to add PDU device. See Figure 4.33 below.

Figure 4.33 Communication Protocol SNMP v3



Click *Save as default config* once you have entered all the fields. After clicking it, the message **The current configuration has been saved as the default configuration for adding a PDU**displays, and all the current configurations and inputs on the **Add PDU device** page are saved as the default **Add PDU device** configuration, and the default configuration will be used the next time you enter the **Add PDU device** page.

Proprietary and Confidential ©2025 Vertiv Group Corp.

6. Click *Search*, the following search results display table, covering the list of devices that can be added to the monitoring, if you need to modify the name of the device in the device list, click on Edit icon , and enter the name to modify in the window. Select the devices that need to be added to the monitoring and click *Add* to monitor to complete the scope search and add function. See Figure 4.34 below and Figure 4.35 below.

Figure 4.34 Edit Device Name

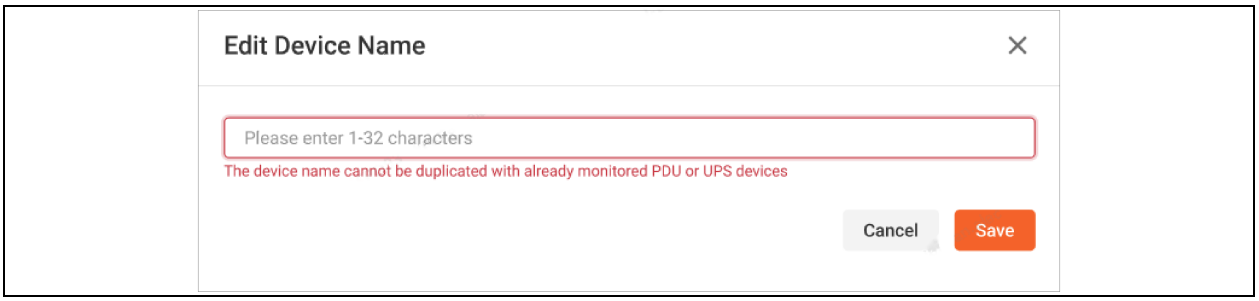


Figure 4.35 PDU Search Result

NOTE: It cannot be duplicated with the PDU or UPS device name that has already been monitored. IPv4 allows input formats and ranges from 0.0.0.0 to 255.255.255.255.

Hostname: Between 1 to 63 characters in length, the maximum length of the entire hostname including dots is 253 characters. Valid characters for a hostname are ASCII(7) letters (from a to z), numbers (from 0 to 9), and hyphens (-). The hostname must not start with a hyphen.

Port: You can enter an integer from 0 to 65535.

Timeout: You can enter an integer from 1 to 5.

Retry: You can enter an integer from 0 to 3.

If the number of monitored devices (UPS+PDUs) exceeds 100, the message Failed to join monitoring, the number of monitored UPSs and PDUs cannot exceed 100.

When a monitored device is found, the IP address of the monitored UPS, PDU, or server device is duplicated, or the device is actually monitored.

After entering all the information, the Add device is highlighted. After clicking *Add device*, return to the UPS list, the new device is displayed at the top of the UPS list, showing the status of Monitoring, and the message Adding Device Successfully displays.

Proprietary and Confidential ©2025 Vertiv Group Corp.

Use the **Retry** and **Timeout** configurations to connect to the device, and the device status will display the **Communication Normal** icon when the connection is successful. If the device fails to connect after the number of retries is exceeded, the device status displays the **Communication Failed** icon.

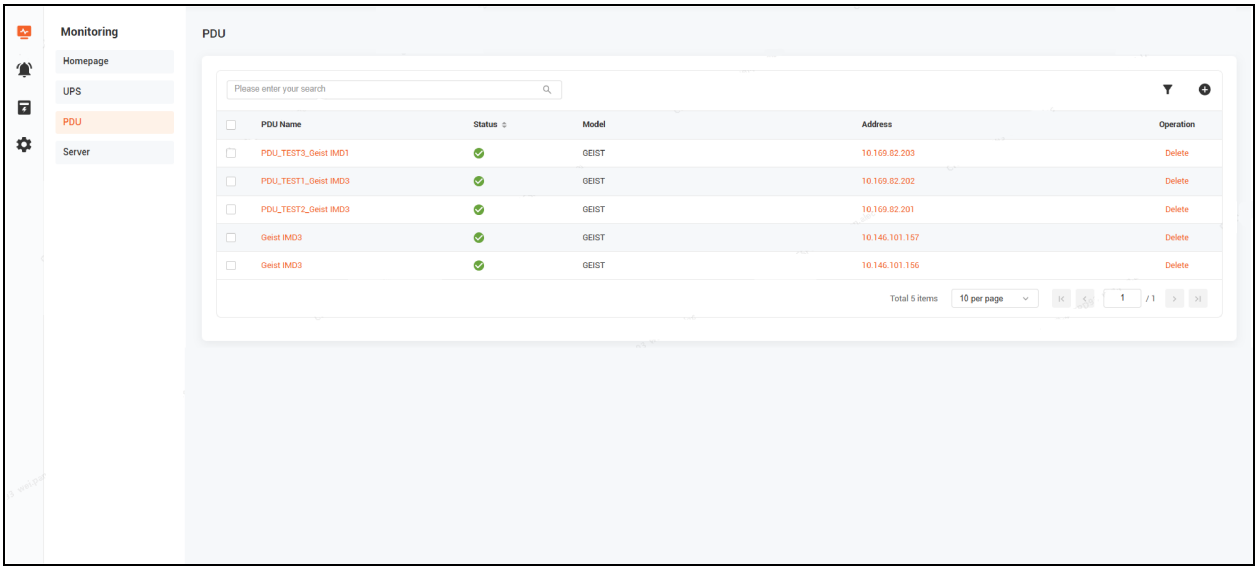
If there is no device corresponding to the hostname, the message **Failed to join the monitoring and the device corresponding to the hostname cannot be found** displays.

If the device with the hostname has been monitored, the message **Failed to join monitoring, the device has been monitored**displays.

4.4.3 PDU Deletion

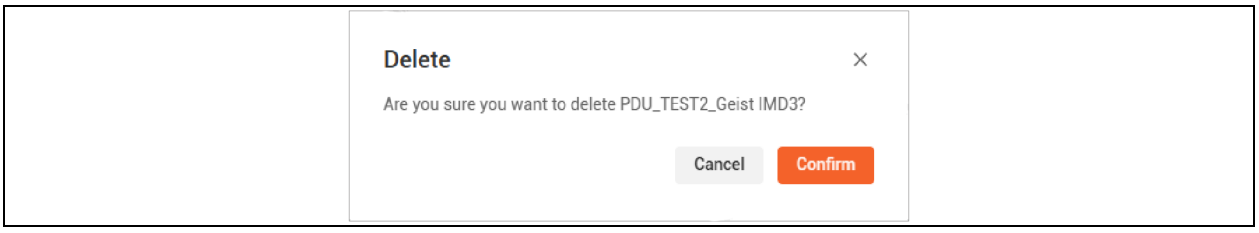
Click on Monitoring icon and click on *PDU* in the secondary menu. See **Figure 4.36** below.

Figure 4.36 PDU



Single deletion: Click on *Delete* on the right side of the PDU device to be deleted to trigger the deletion window, as shown in **Figure 4.37** below.

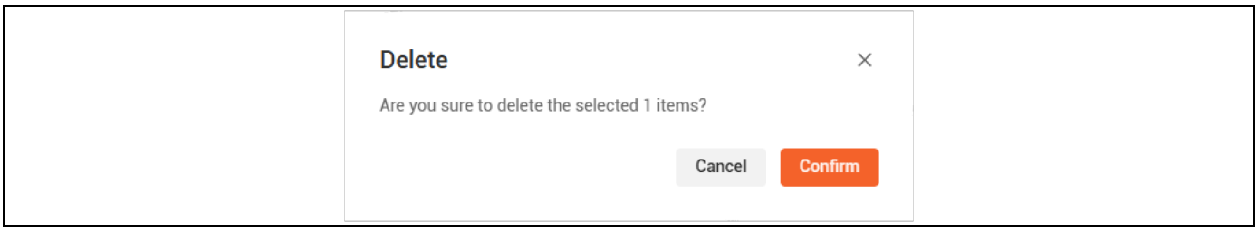
Figure 4.37 Single Deletion Window



Multi-delete: Select the checkbox on the left side of the UPS list and click the *Delete* to trigger the deletion window, as shown in **Figure 4.38** on the facing page.

Proprietary and Confidential ©2025 Vertiv Group Corp.

Figure 4.38 Multiple Deletion Window

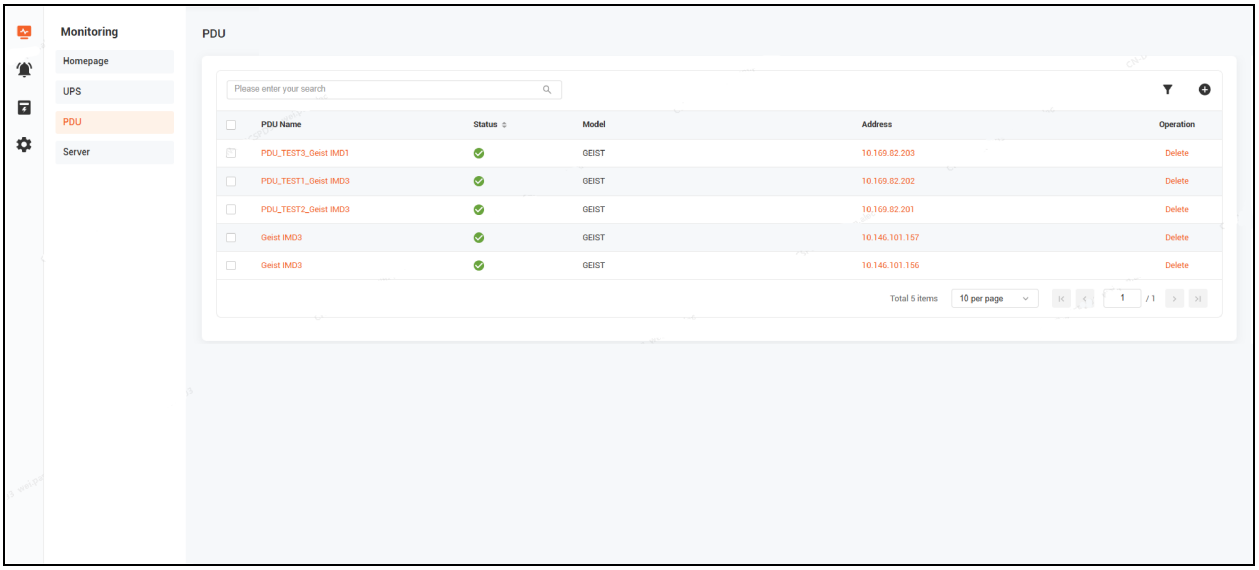


Click the *Confirm* to delete the PDU successfully, return to the PDU list, and refresh the latest data in real time.

4.4.4 PDU Details

1. Click on Monitoring icon and click *PDU* in the second level menu. See Figure 4.39 below.

Figure 4.39 PDU



2. Click the PDU name to view the PDU details.

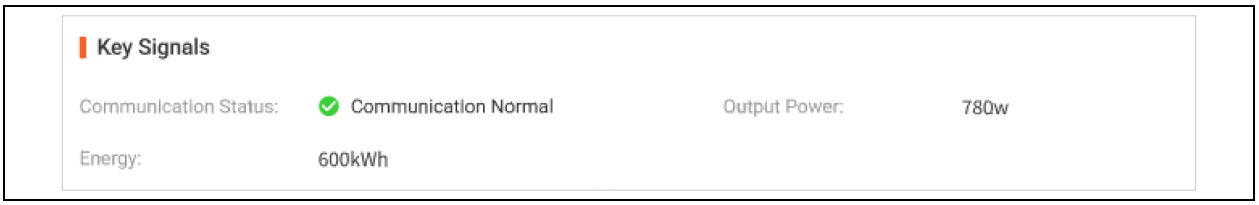
Overview

- Key signals

  The communication status, power supply status and other information of the PDU are displayed, as shown in Figure 4.40 on the next page.

Proprietary and Confidential ©2025 Vertiv Group Corp.

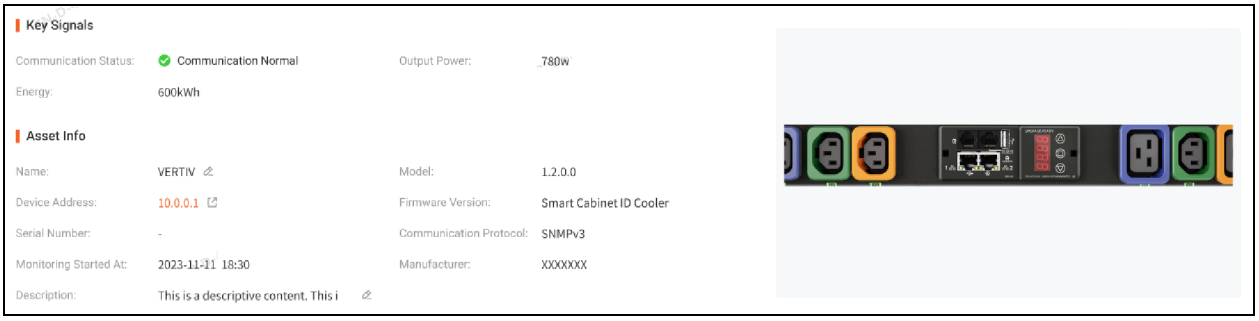
Figure 4.40 Key Signals



- Asset information

  The current PDU name, model, device address, and other information can be edited, and the device picture is displayed on the right, as shown in **Figure 4.41** below.

Figure 4.41 Asset Information

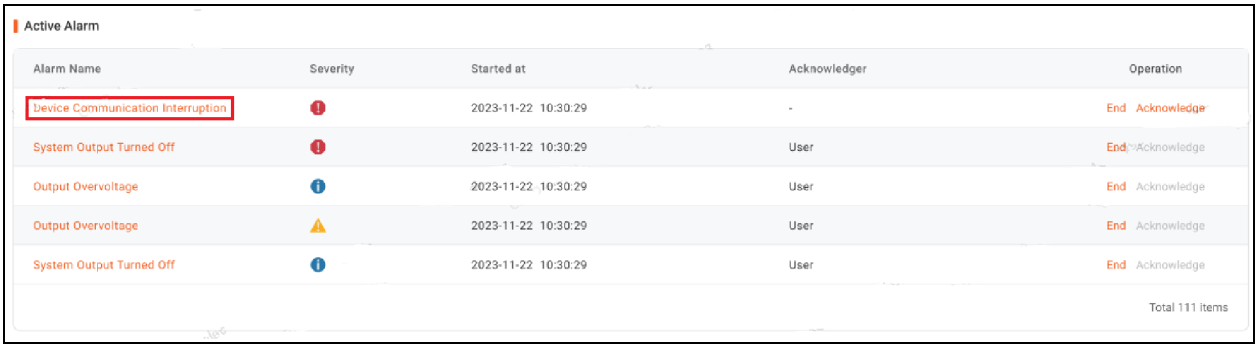


- Active alarms

  Displays the active alarm list of the device, and a single alarm covers the alarm name, alarm level and other fields, and the following three fields have special click effects.

1. Click the alarm name to go to the alarm details page.

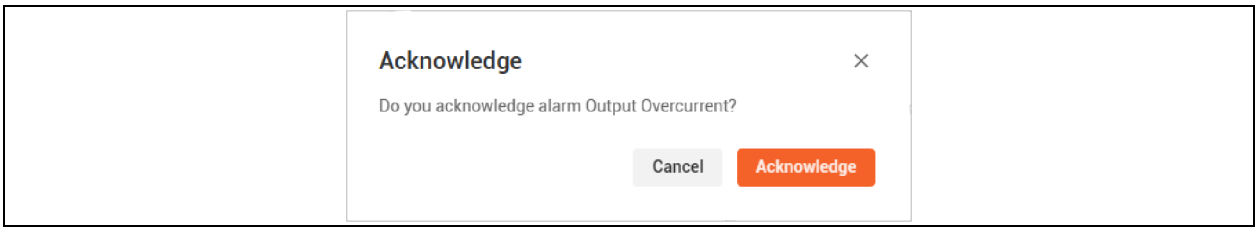
Figure 4.42 Active Alarms



2. Click *Acknowledge* to display a Acknowledge window, refresh the list after confirmation, and message is displayed as confirm that the alarm is successful.

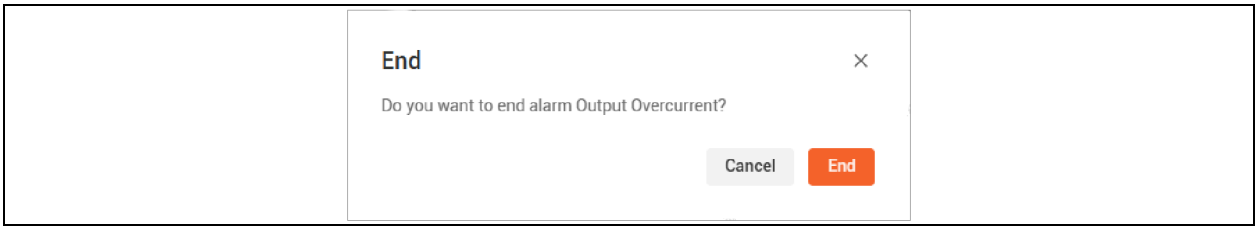
Proprietary and Confidential ©2025 Vertiv Group Corp.

Figure 4.43 Alarm Acknowledgment



3. Click *End* to display an End window, and after confirmation, the alarm will become a historical alarm, refresh the active alarm list, and the message will appear that the alarm has been terminated successfully.

Figure 4.44 Alarm End



Real-time Signals

This function displays the device signal in real time, and refreshes all real-time signals and socket signals every 30 seconds. The storage period of the signal is 8 hours, and when the signal cannot be obtained, the **--** signal is displayed, which mainly covers the following parts:

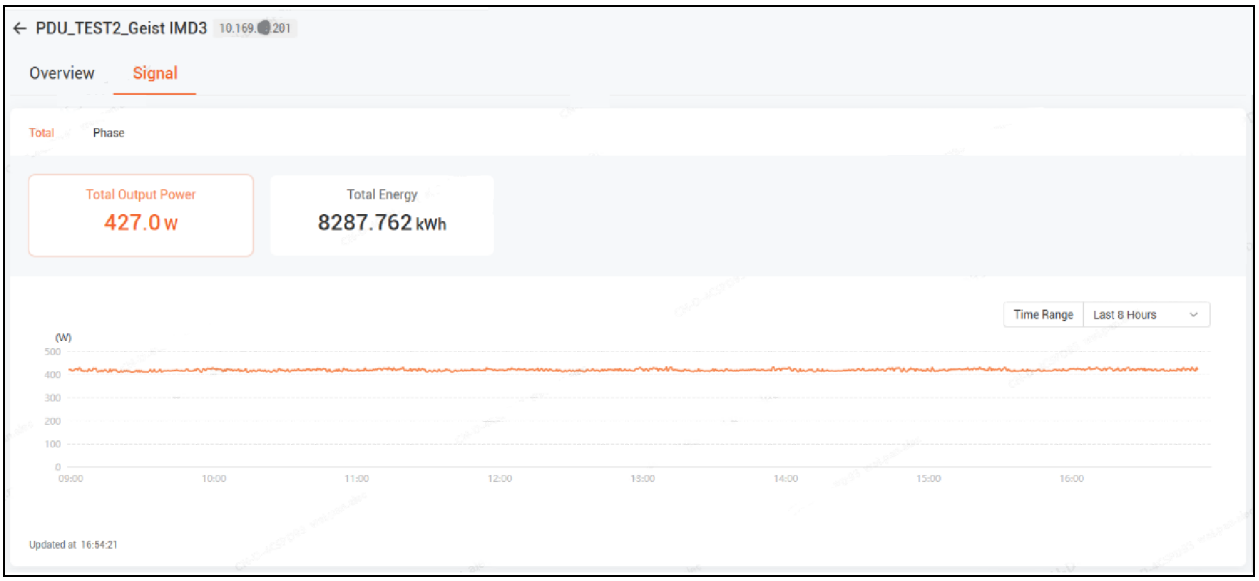
Total machine: The Total machine energy, the output power of the whole machine

Phase: Phase voltage, phase current, phase balance

Another part of the real-time signal is the signal line chart, below the position of the signal mentioned above. By default, the time range is set to the last 8 hours, and you can view the brief information of the signal float point on the line chart, and the chart data update time will be displayed at the bottom left of the chart. See Figure 4.45 on the next page.

Proprietary and Confidential ©2025 Vertiv Group Corp.

Figure 4.45 Chart Data Update Time



NOTE: Hide certain signals if they are missing for certain models. Only super administrators and power users can modify the asset information of PDU devices, issue control commands, and acknowledge and terminate alarms.

Proprietary and Confidential ©2025 Vertiv Group Corp.

5 Server and Shutdown Management

5.1 Overview

The functions of the server and shutdown management module include server addition, deletion and modification, and the view function of server shutdown records.

5.1.1 Functional Modules

Server and shutdown management includes the following functional modules:

- List of servers
- Add a new server
- Server details

5.2 Get Started Quickly

5.2.1 Rapid Deployment Steps

The steps to quickly deploy a new server are as follows:

- Add a new server

5.3 List of Servers

1. Click on Monitoring icon and click on *Server* in the second level menu. See **Figure 5.1** on the next page.

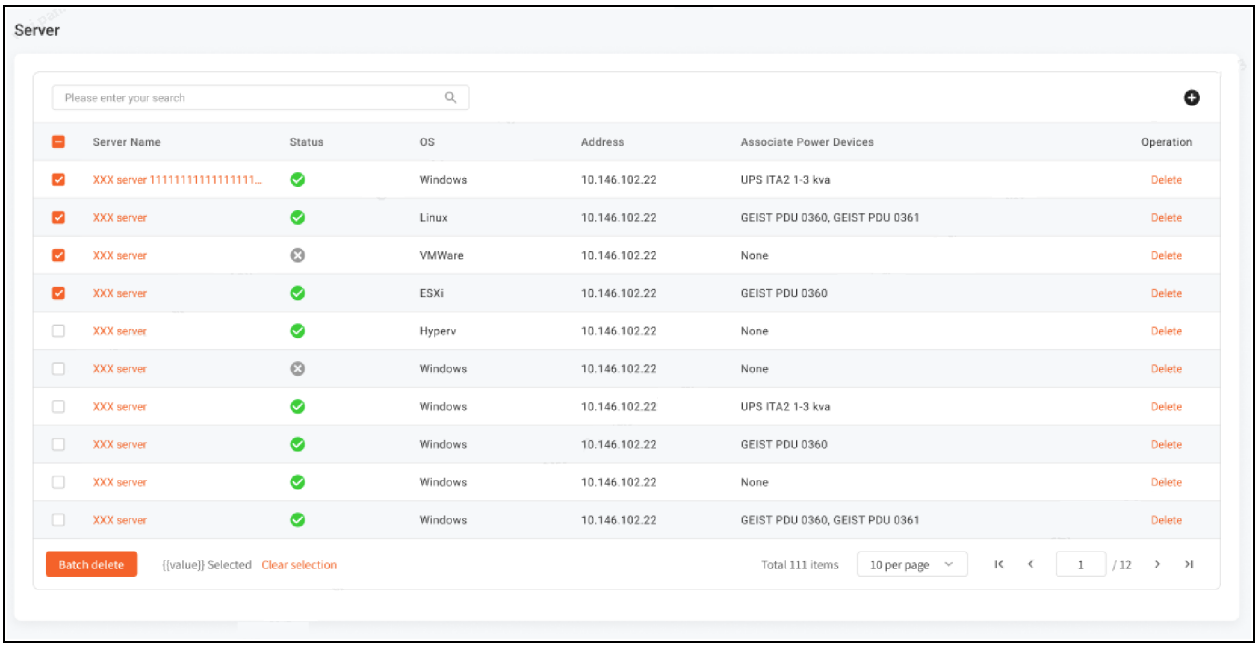
5.4 New Server Addition

When Vertiv™ Power Insight install Windows, ESXi, and Linux servers for SSL verification. refer corresponding user guide to guide you on how to import the certificates of these servers, and refer to Import the Automation Agent trust certificate to Vertiv™ Power Insight on page 18 for the agent trust certificate import manual.

Bulk Uploads

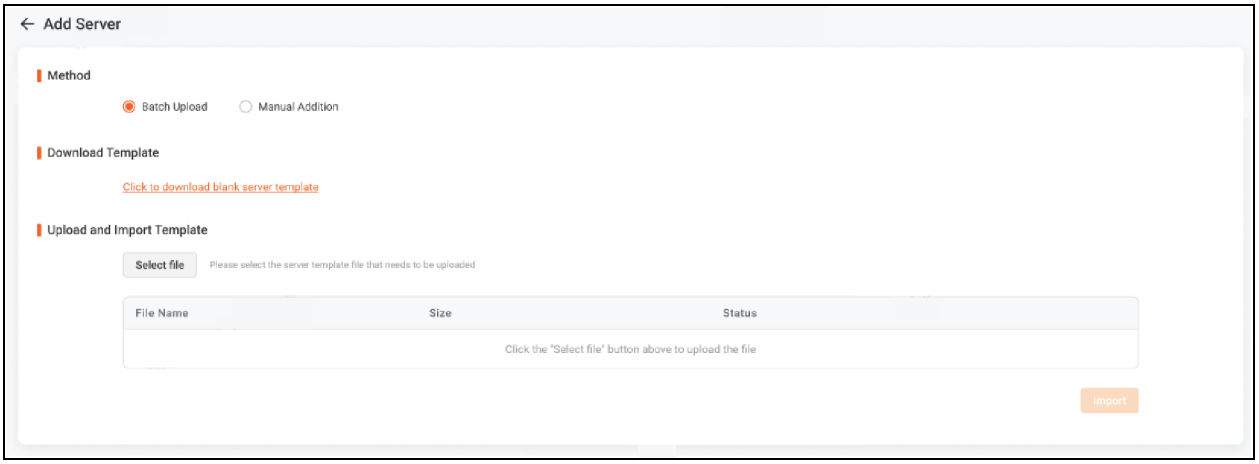
1. Click on Monitoring icon and click *Server* in the second level menu. See **Figure 5.1** on the next page.

Figure 5.1 Server



2. Click on Add icon in the upper right corner to enter the Add Device Configuration page.

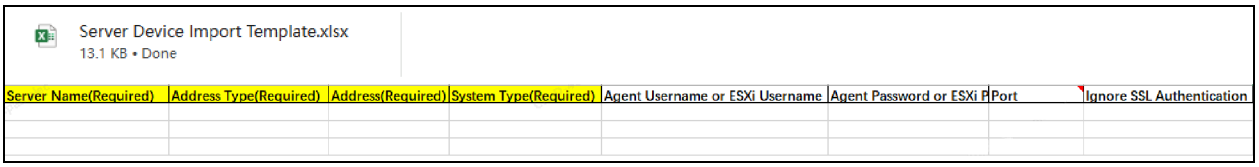
Figure 5.2 Adding Server



3. To download server template, click on *Click to download the blank server template.*

The content of the template includes server name, address type (IPv4 or hostname), address, system type (Windows, Linux, ESXi, HyperV), agent username or ESXi username, agent password or ESXi password, port (443 for ESXi servers and 3029 for agents), and ignore SSL verification fields. Enter the template and pass the template verification. See Figure 5.3 on the facing page.

Figure 5.3 Server Device Import Template



NOTE: Check whether the names of the servers to be imported are duplicated.

NOTE: Server Name Input Range and Special Character Input: Required, length 1 to 32.

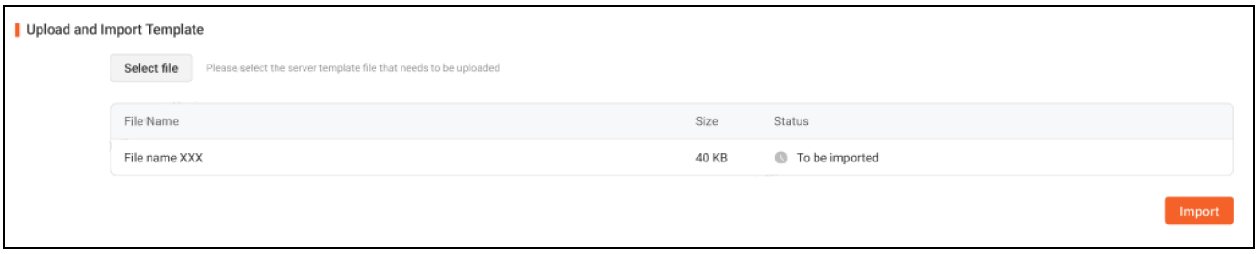
NOTE: Check whether the addresses of the devices to be imported are duplicated.

NOTE: System Type and Ignore SSL Authentication are required and must be within the optional range.

NOTE: If you do not enter a port, the default port is 443 when the system type is set to ESXi, and the default port is 3029 for other system types.

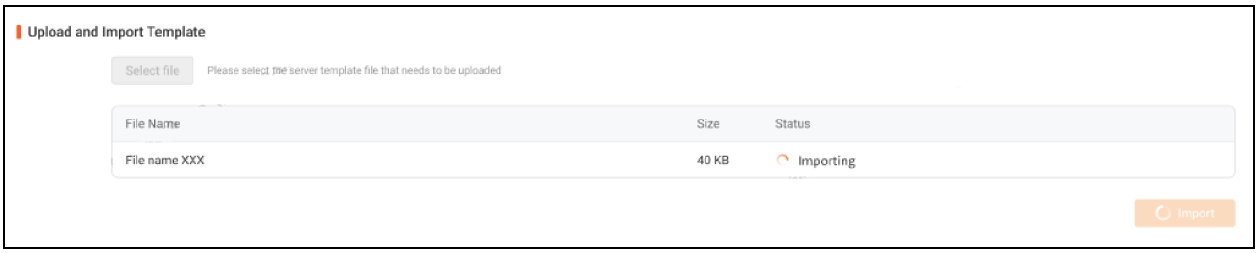
4. Click the *Select file* and select the completed template, as shown in Figure 5.4 below.

Figure 5.4 Upload and Import the Template



5. Click the *Import* to upload the file, and you cannot select the file and import it again at the time of uploading, as shown in Figure 5.5 below.

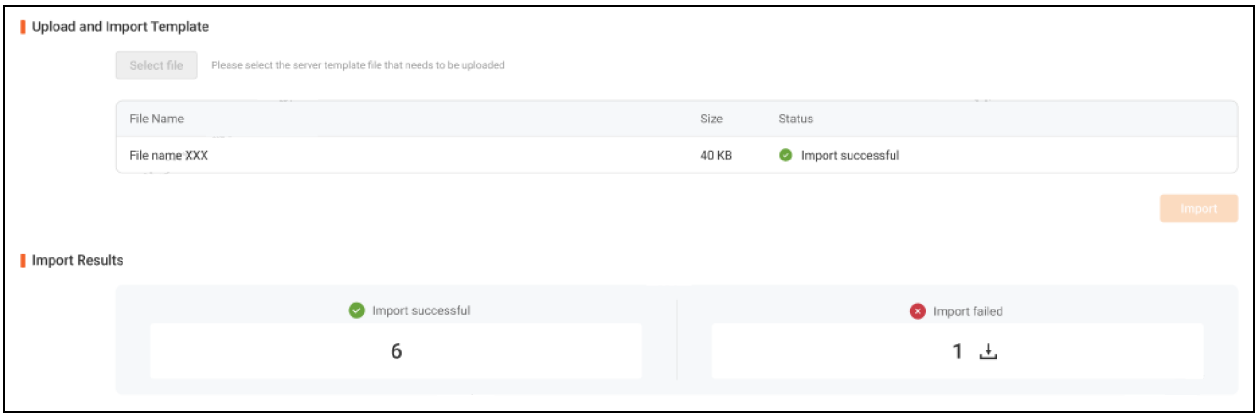
Figure 5.5 Upload and Import the Template



6. After the file is uploaded, the import result will be displayed, as shown in Figure 5.6 on the next page.

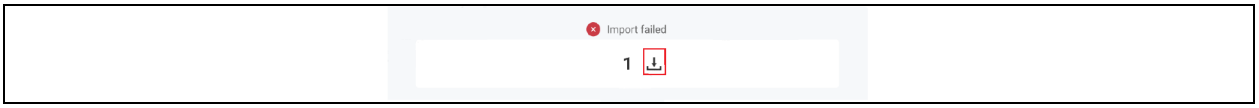
Proprietary and Confidential ©2025 Vertiv Group Corp.

Figure 5.6 Import Result



You can download a list of assets that failed to import (the content is the same as the original upload list), the downloaded file name is Import Failed Assets, and a comment shows the reason for the import failure on the field that caused the import failure. Click on Download icon to download, as shown in Figure 5.7 below.

Figure 5.7 Import Failed



NOTE: Check whether the names of the servers to be imported are duplicated.

NOTE: The size of the uploaded file cannot exceed 5 MB.

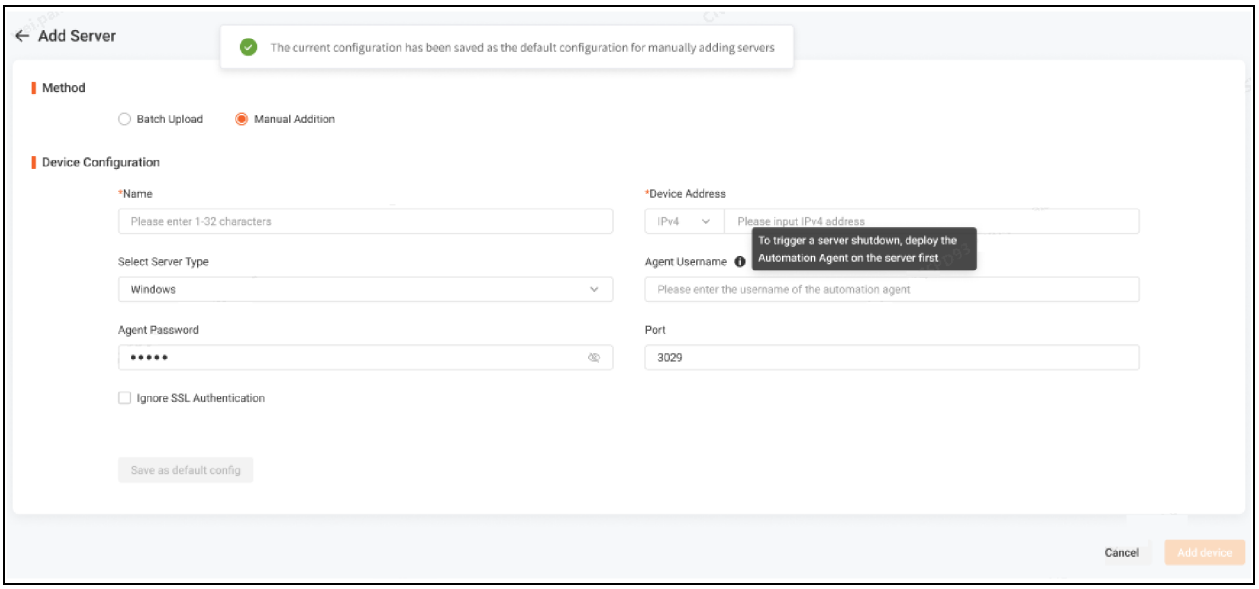
NOTE: The number of servers that can be imported at one time cannot exceed 500.

NOTE: After you change the time of the server where the Vertiv™ Power Insight resides, you need to restart the server to restart the Power Insight process to ensure that the Power Insight runs normally.

To add manually:

1. Click on Monitoring icon and click *Server* in the second level menu. See Figure 5.1 on page 60.
2. Click on the Add icon upper right corner to enter the Add Server page and select *Manual Addition*.

Figure 5.8 Add Device Configuration Page



3. Enter the name, device address (IPv4 or hostname), select the server type, agent username, agent password, port, confirm whether you need to check ignore SSL verification, and click *Add device*.

NOTE: The IPv4 input range is 0.0.0.0-255.255.255.255.

NOTE: Each element of a hostname must be between 1 and 63 characters long, with a maximum length of 253 characters for the entire hostname, including dots. Valid characters for a hostname are ASCII(7) letters (from a to z), numbers (from 0 to 9), and hyphens (-). The hostname must not start with a hyphen.

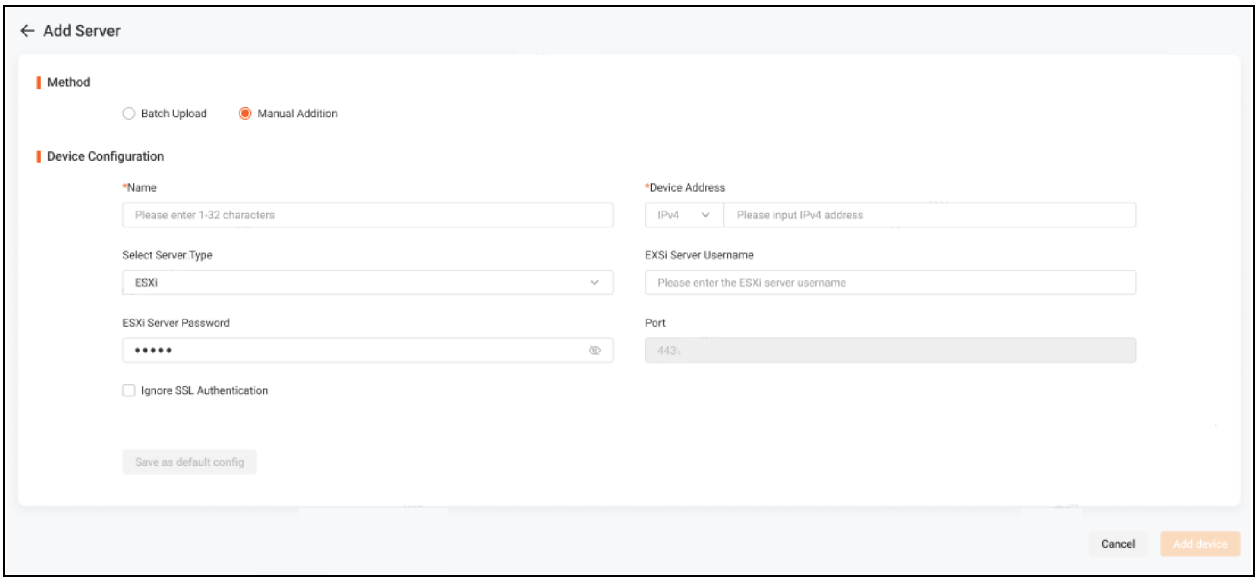
NOTE: When you select *Windows* or *Linux* or *HyperV*, if the port is not entered, it is automatically saved as 3029.

NOTE: After you change the time of the server where the Power Insight resides, you need to restart the server to restart the Power Insight process to ensure that the Power Insight runs normally.

In particular, if you select the server type as ESXi, you need to enter the ESXi server username and password, and the port defaults to 443 and becomes non-editable.

Proprietary and Confidential ©2025 Vertiv Group Corp.

Figure 5.9 Device Configuration Page



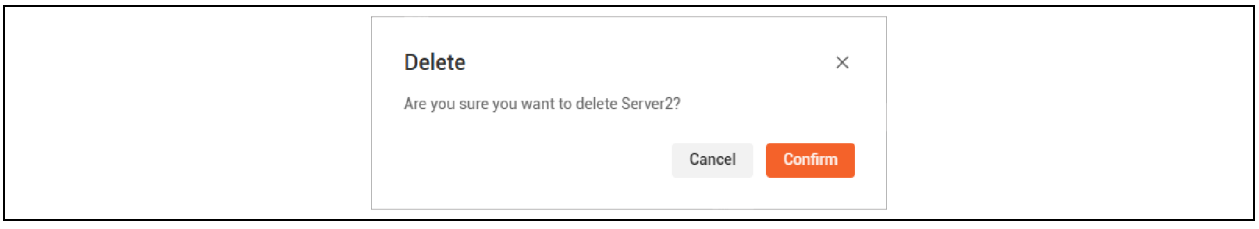
4. After clicking *Save*, there are the following display situations:
    a. If there is no device corresponding to the hostname, the message **Failed to join the monitoring and the device corresponding to the hostname cannot be found** displays.
    b. If the device with the hostname has been monitored, the message **Failed to join monitoring, the device has been monitored** displays.
    c. If the IP address corresponding to the hostname or the IP address corresponding to the hostname is occupied by another device, the message **The IP address corresponding to the IP address or hostname is occupied by another device** displays.

5.5 Server Deletion

Click on Monitoring icon and click on *Server* in the second level menu.

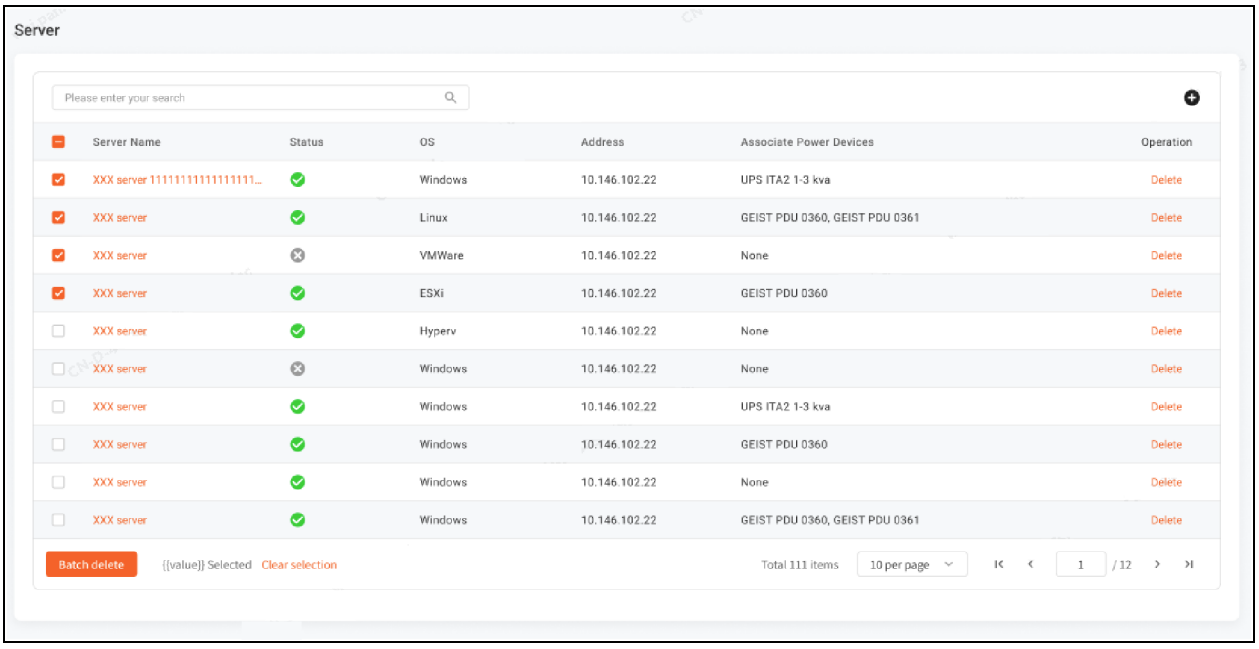
Single deletion: Click on *Delete* on the right side of a single server in the table to trigger the window, as shown in **Figure 5.10** below.

Figure 5.10 Single Deletion Window



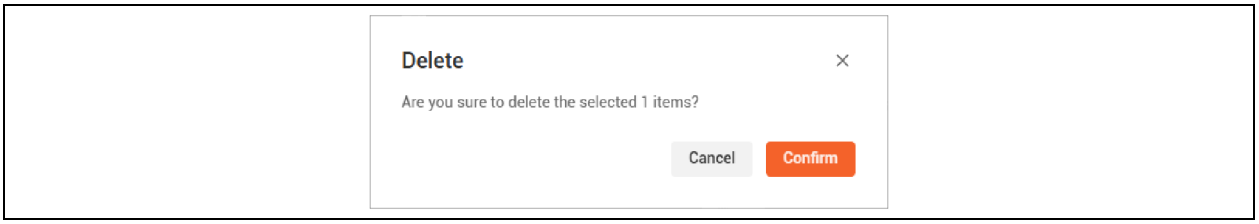
Multi-delete: Click the checkbox on the left side of the table to select multiple servers that need to be deleted together, as shown in **Figure 5.11** on the facing page.

Figure 5.11 Multiple Deletion Window



Click the *Batch Delete* to trigger the delete window, as shown in **Figure 5.11** above.

Figure 5.12 Deletion of Selected Items



Click the *Confirm* to complete the deletion operation.

5.6 Server Details

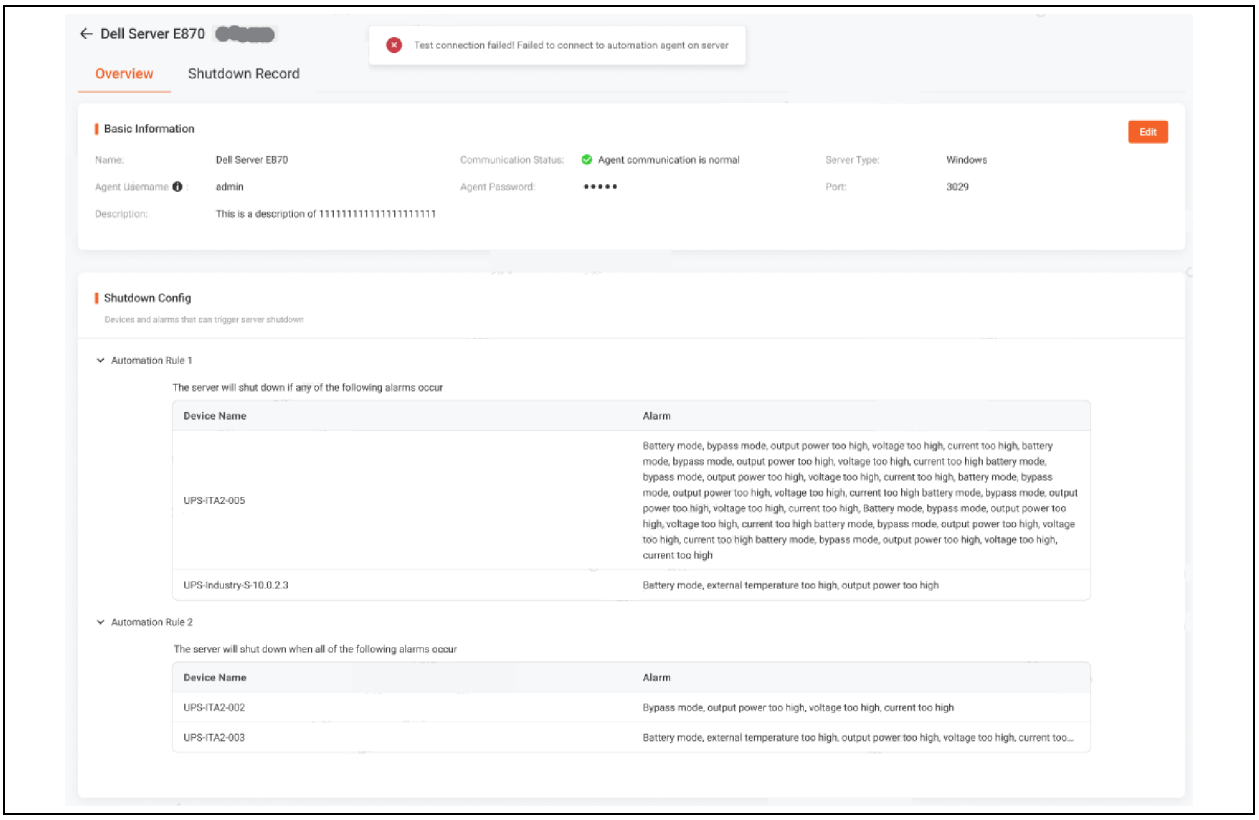
Overview

The current function displays the basic information of the server that you view and the linkage rules in the shutdown configuration.

If the server type is Windows, Linux, or HyperV, the page displays as shown in **Figure 5.13** on the next page.

Proprietary and Confidential ©2025 Vertiv Group Corp.

Figure 5.13 Server Interface

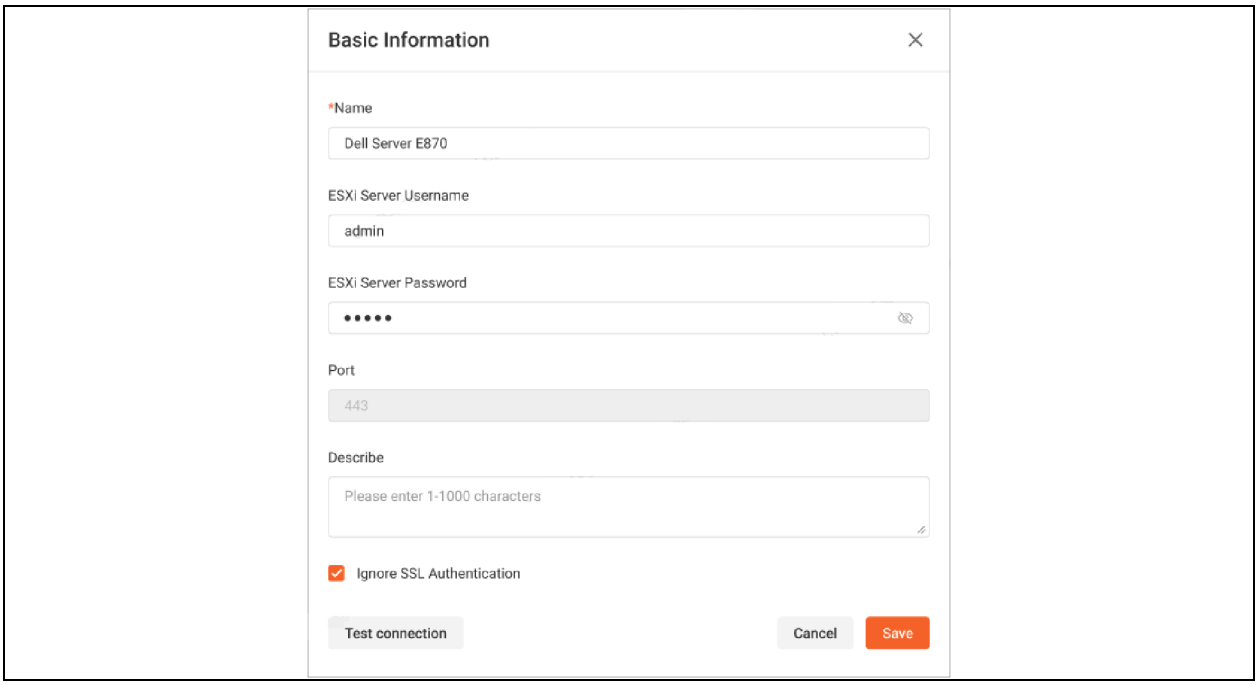


If the server type is ESXi, the page is displaced as shown in **Figure 5.14** on the facing page.

There are three types of communication status: normal communication, abnormal communication, and monitoring.

Click *Edit*, and the basic information window appears, you can edit the basic information, if the server type is ESXi, as shown in **Figure 5.14** on the facing page.

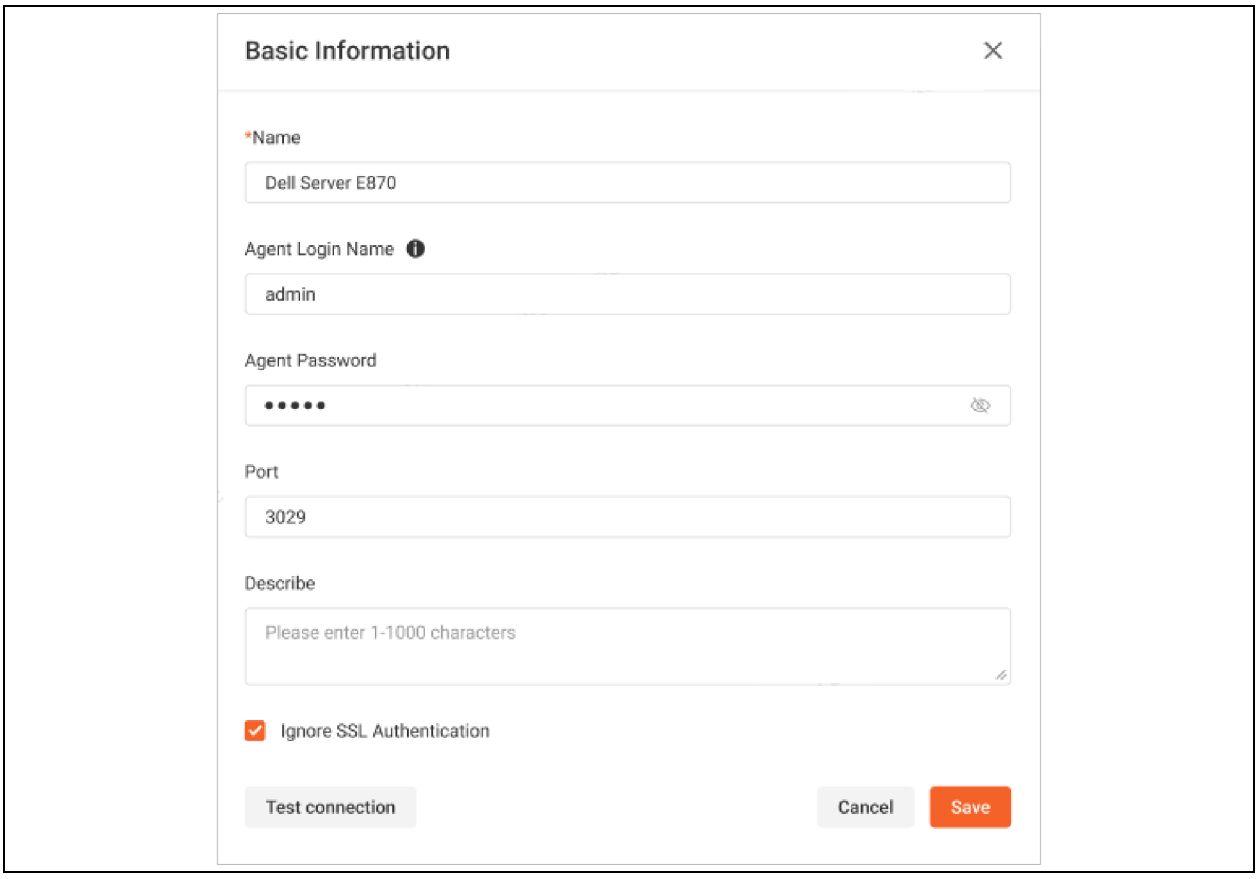
Figure 5.14 Basic Information Edit for ESXi



If the server type is Windows, Linux, or HyperV, the page is display as shown in **Figure 5.15** on the next page.

Proprietary and Confidential ©2025 Vertiv Group Corp.

Figure 5.15 Basic Information Edit for Windows, Linux, or HyperV



Click *Test Connection* to test the connection to the ESXi server. If the connection is successful message displays **Test the connection is successful!**. The connection to the ESXi server was successful/the automation agent on the server was successful.

If the connection fails, message displays**Test the connection failed! Failed to connect to the ESXi server/automation agent failed on the server**.

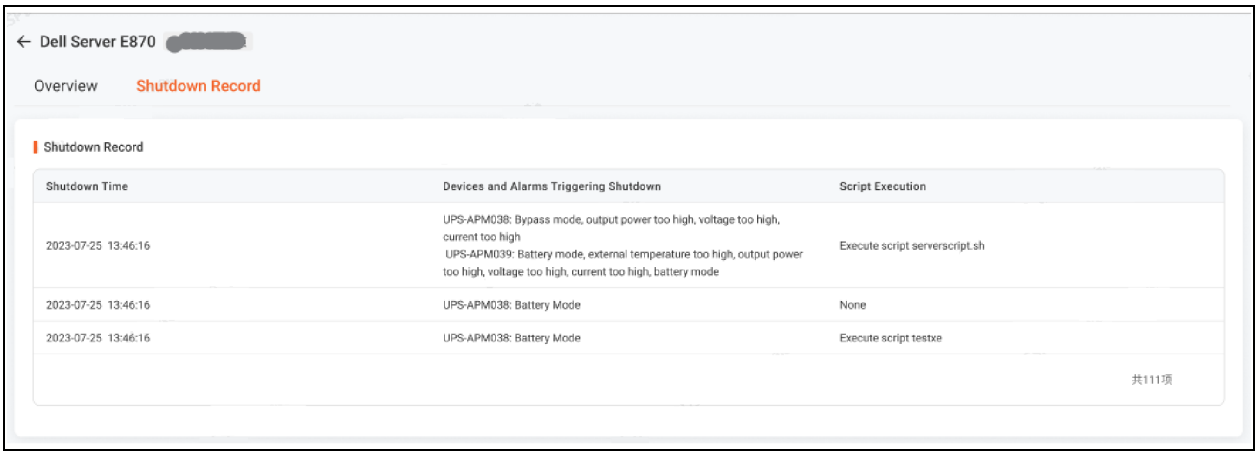
After clicking *Save*, the message displays **Save successful**, hide the window, refresh the server details page, and re-establish a connection with the server with the new configuration.

NOTE: If the server does not enter the login name, password, or port, or the device is not added to the monitoring for more than 10 seconds, the device displays the Communication Abnormal status.

Shutdown Record

Click the *Shutdown Record* tab to display the previous shutdown records of the current server in descending order through the unpaginated table. See **Figure 5.16** on the facing page.

Figure 5.16 Shutdown Record



Proprietary and Confidential ©2025 Vertiv Group Corp.

This page intentionally left blank

6 Alarm Management

6.1 Overview

Alarms are the primary functional modules of the Vertiv™ Power Insight platform to monitor alarms. To monitor the alarm status of the devices listed on the website, users can export the alarm list, and access both the active and historical alarm lists.

6.1.1 Functional Modules

Power Insight Alerts Include the following functional modules:

- Active Alarms
- Historical Alarms

6.2 Get Started Quickly

6.2.1 Rapid Deployment Steps

The steps to quickly deploy a new alarms are as follows:

1. View the active alarm list.
2. View the historical alarms list.

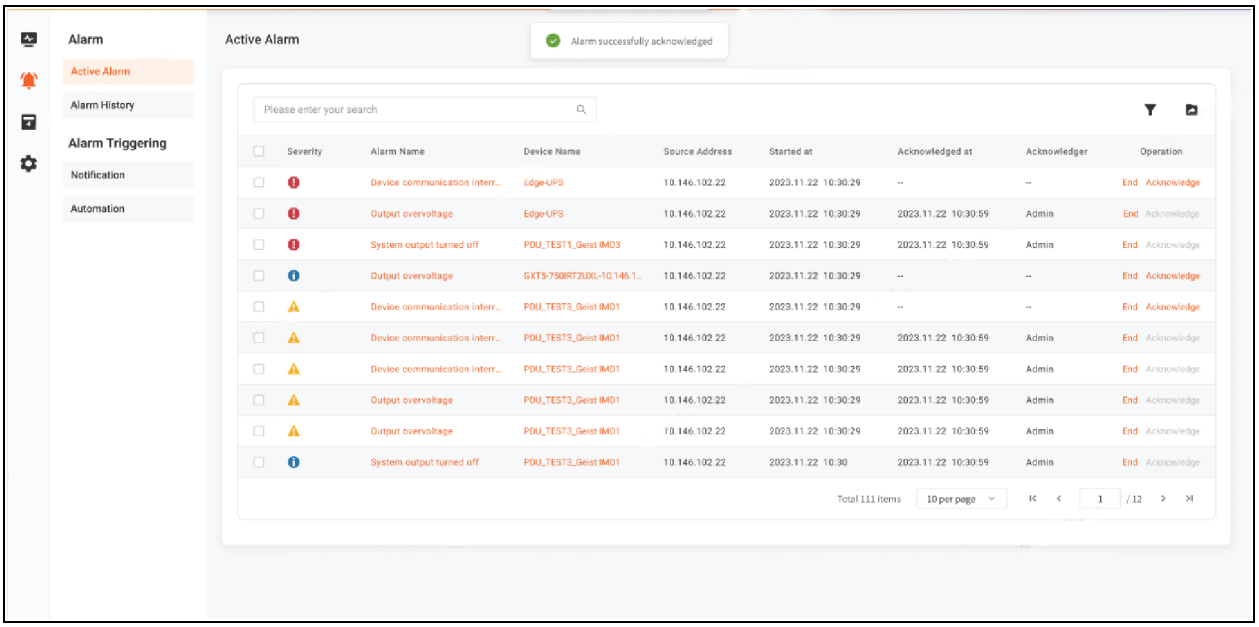
6.3 Active Alarm

6.3.1 List of Active Alarms

1. Click on Alarm icon and click *Active Alarm* in the second level menu. See **Figure 6.1** on the next page.

Proprietary and Confidential ©2025 Vertiv Group Corp.

Figure 6.1 Active Alarm

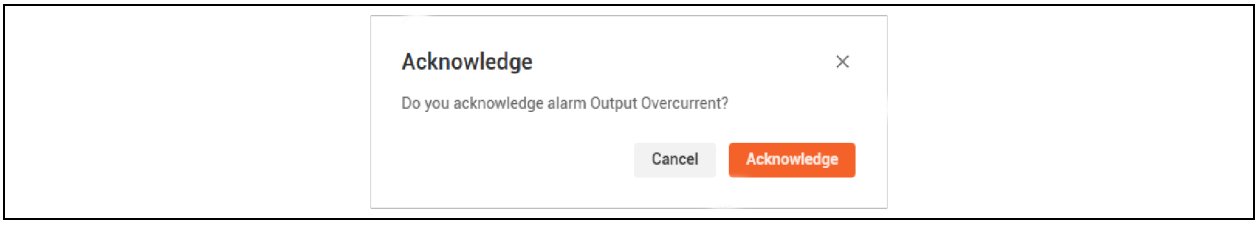


NOTE: If no alarm is activated, No Alarm is displayed in the list.

The table has basic functions, including filtering, searching, pagination, and other functions. The filter function can be filtered by time and alarm level, and you can select the last 1 day, the past 7 days, the last 30 days, custom, and all (default), respectively. You can filter all (default), emergency, important, and general alarms by alarm level.

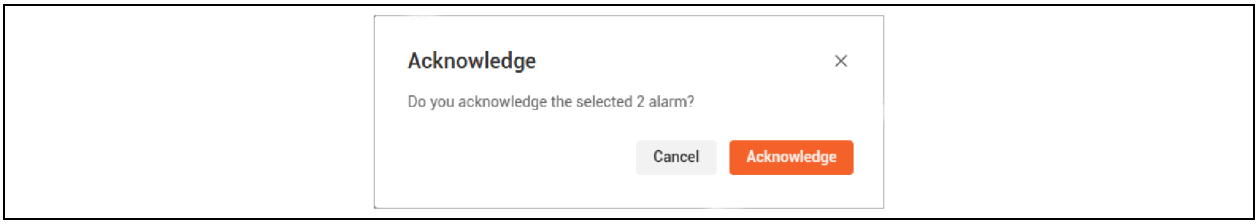
At the end of each row, a acknowledge and End button is displayed, divided into single and multiple choices. Click *Acknowledge* to select single alarm. See Figure 6.2 below.

Figure 6.2 Alarm Acknowledgment



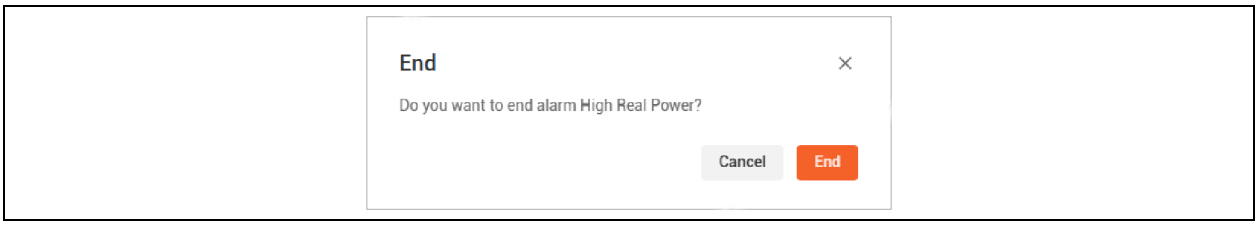
For multi-select, select the two or more alarms and click *Acknowledge*. See Figure 6.3 below.

Figure 6.3 Acknowledging Multiple Alarms



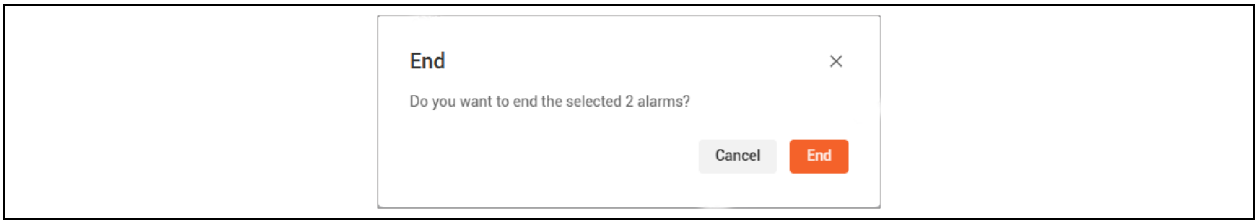
For single alarm selection, click *End*. See Figure 6.4 on the facing page.

Figure 6.4 Alarm End Confirmation



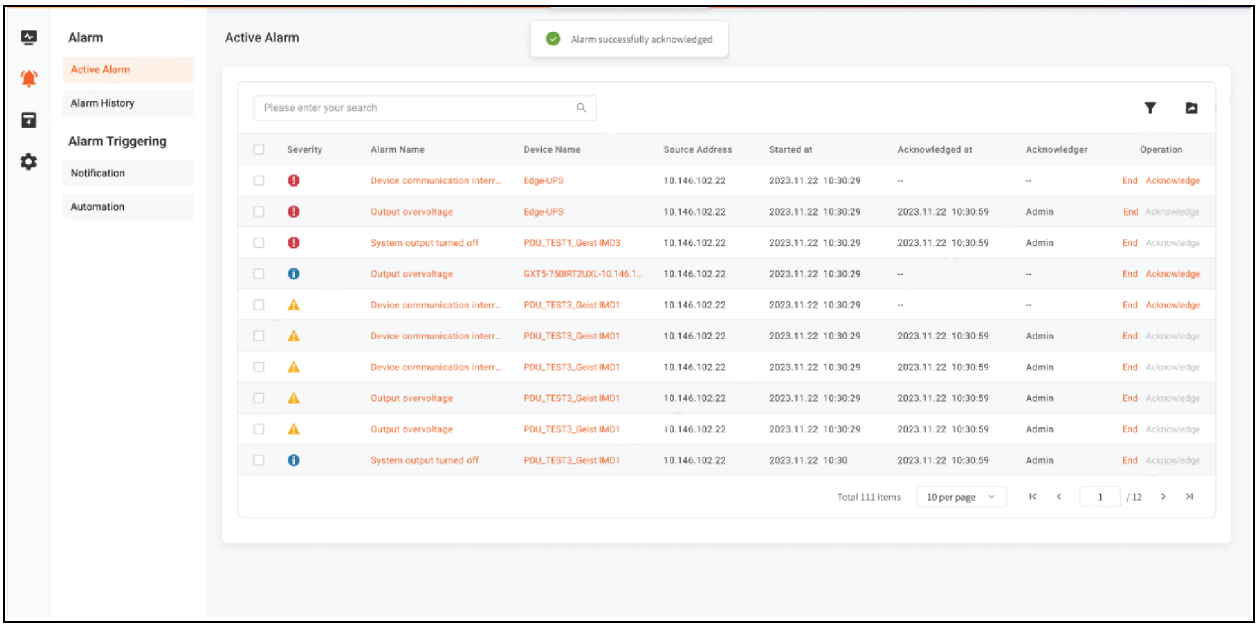
For multi-select, select the two or more alarms and click *End*. See Figure 6.5 below.

Figure 6.5 Multiple Alarm End Confirmation



Click *Acknowledge* or *End* to display to the current list interface and a message will appears. See Figure 6.6 below.

Figure 6.6 Alarm Successfully Acknowledge Windows

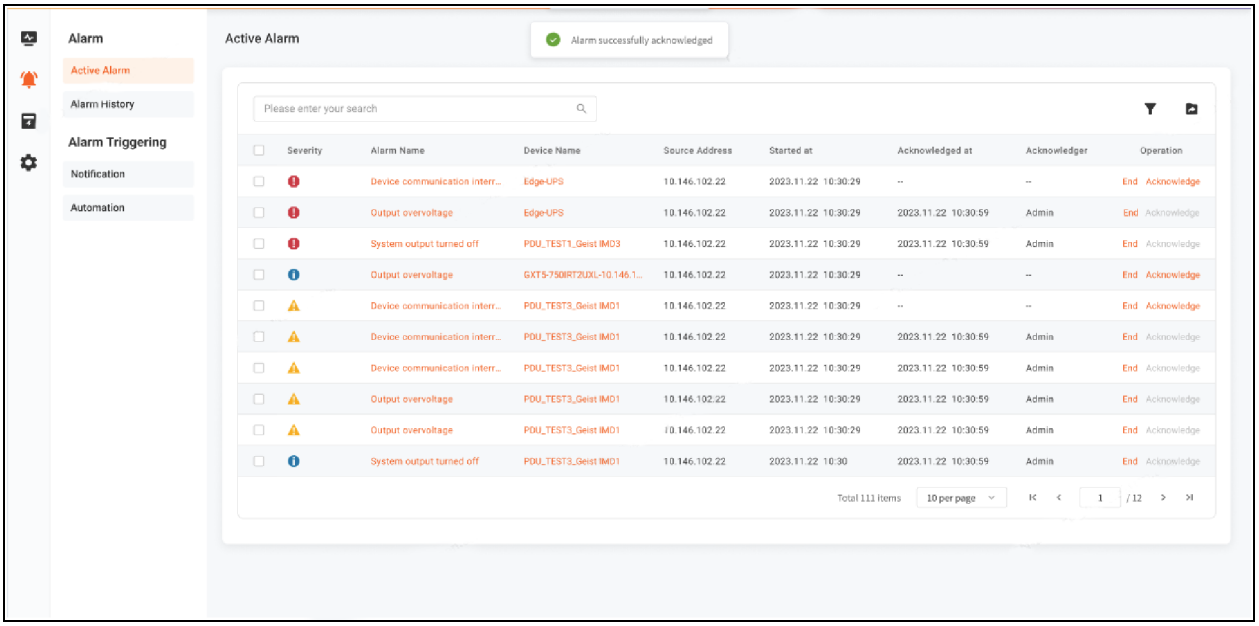


Proprietary and Confidential ©2025 Vertiv Group Corp.

6.3.2 View the Details of Active Alarm

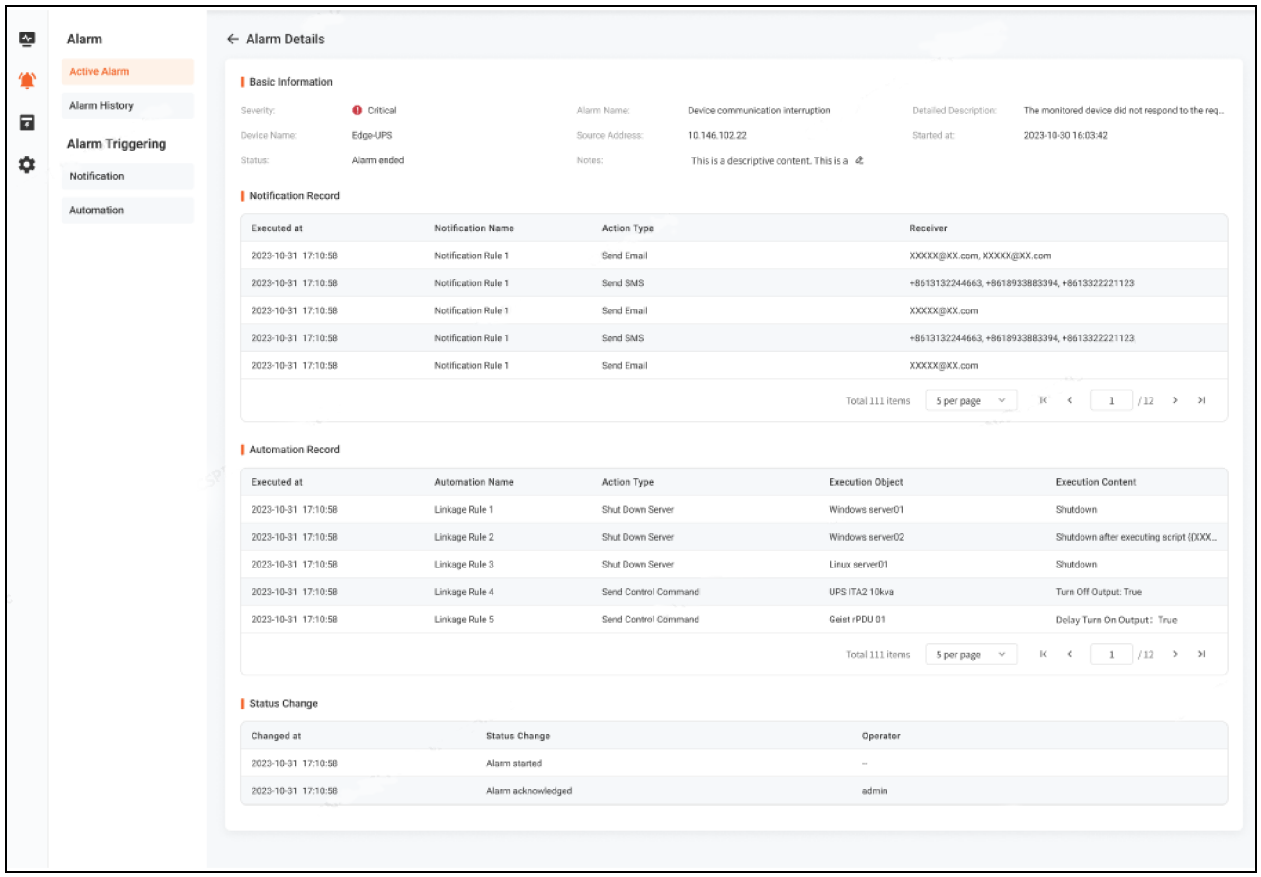
1. Click on Alarm icon and click *Active Alarm* in the second level menu. see **Figure 6.7** below.

Figure 6.7 Active Alarm Details



2. Click the alarm name of a single item in the active alarm list to view the alarm details, which are divided into four sections: basic information, notification record, automation record, and status change. See **Figure 6.8** on the facing page.

Figure 6.8 Alarm Related Information



3. Click on Edit icon in the Notes field under the Basic Information to display the Edit Notes window, as shown in **Figure 6.9** below.

Figure 6.9 Edit Notes

After the input is complete, click the *Save* to modify the remarks of the Active Alarm.

Proprietary and Confidential ©2025 Vertiv Group Corp.

6.3.3 Exporting Active Alarms

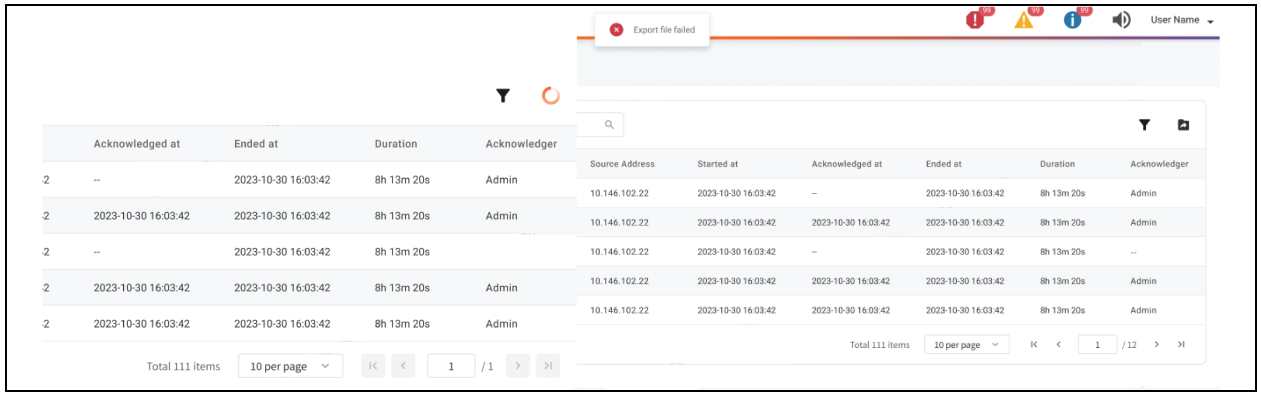
Click on Export icon in the upper right corner of the alarm list page to export all the currently filtered alarms as **.csv** files. The file name is the active alarm **_XXX.xlsx**, and **XXX** is the time when the export file is generated.

The fields include the following fields:

- Alarm Level (text display)
- Alarm Name
- Device Name
- Source Address
- Start Time
- Acknowledgment Time
- Acknowledgment User

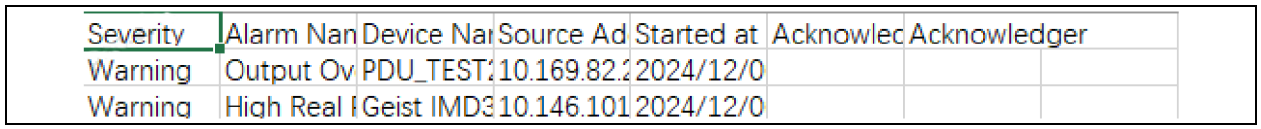
After clicking *Export*, loading icon will display, and if the export fails, the message **Failed to export the file** displays. See **Figure 6.10** below.

Figure 6.10 Exporting Failed Window



After the export is successful, a message will be displayed in the lower right corner that the header fields contained in the file are the same as those selected in the **Figure 6.11** below.

Figure 6.11 Exported File Data

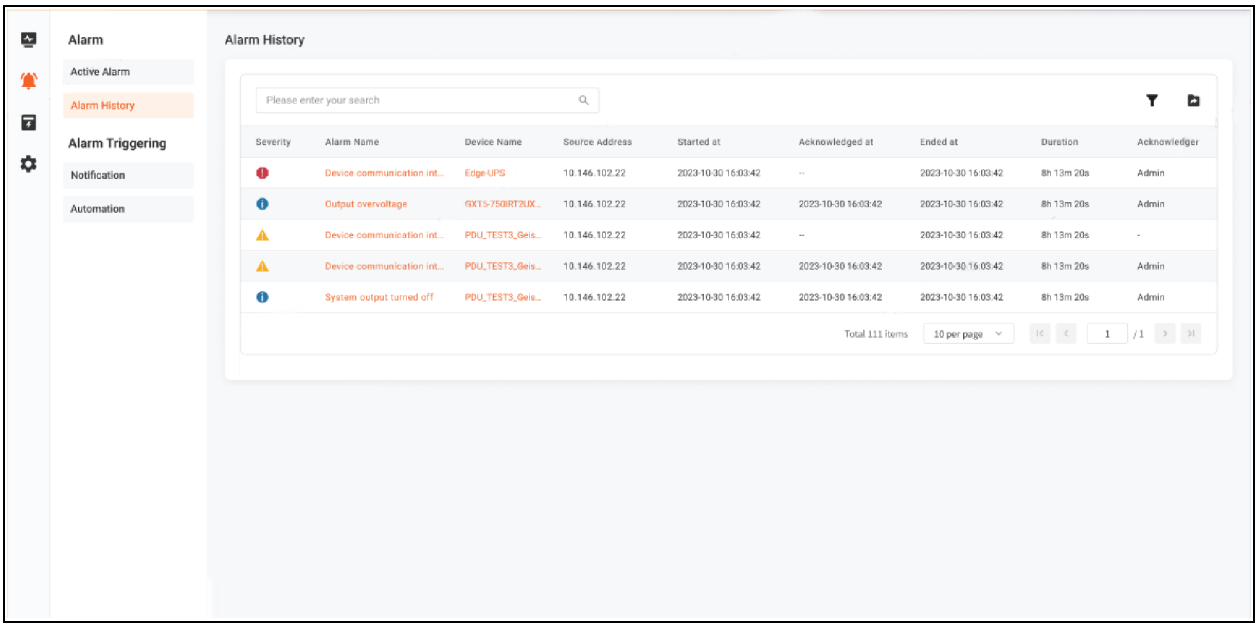


6.4 Historical Alarm

6.4.1 Historical Alarm List

Click on Alarm icon and click *Active Alarm* in the second level menu. See **Figure 6.12** on the facing page.

Figure 6.12 Alarm History



NOTE: If no alarm is activated, No Alarm is displayed in the list.

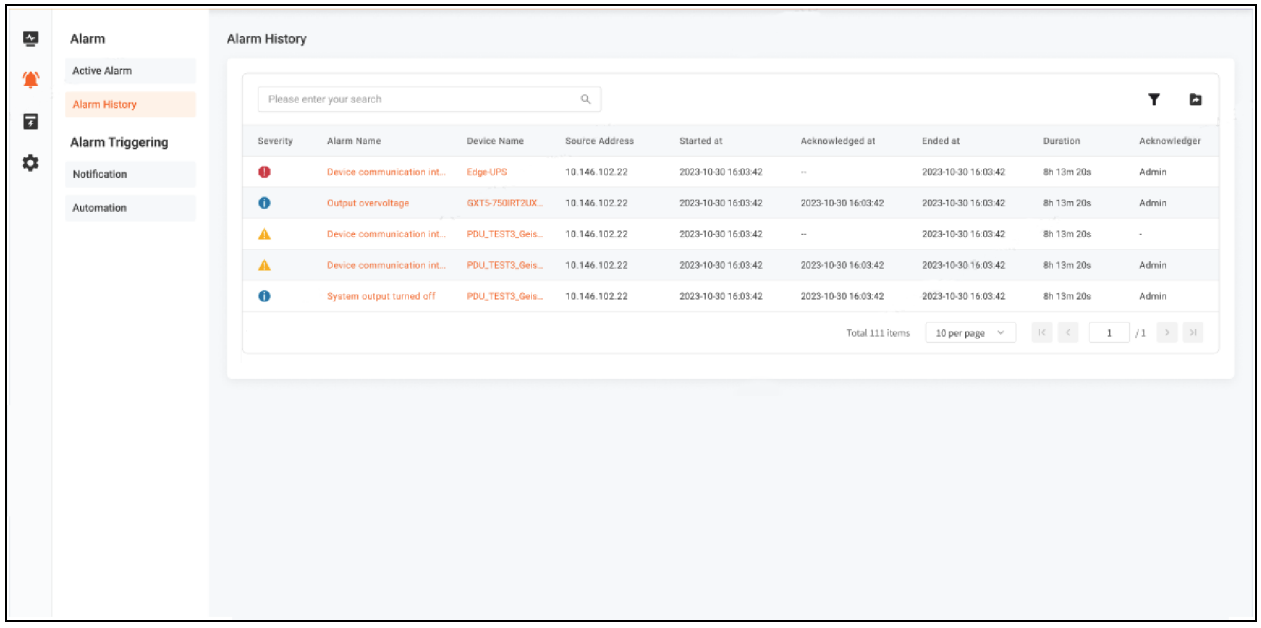
The table has basic functions, including filtering, searching, pagination, and other functions. The filter function can be filtered by time and alarm level, and you can select the last 1 day, the past 7 days, the last 30 days, custom, and all (default), respectively. You can filter all (default), emergency, important, and general alarms by alarm level.

Proprietary and Confidential ©2025 Vertiv Group Corp.

6.4.2 View the Details of Historical Alarms

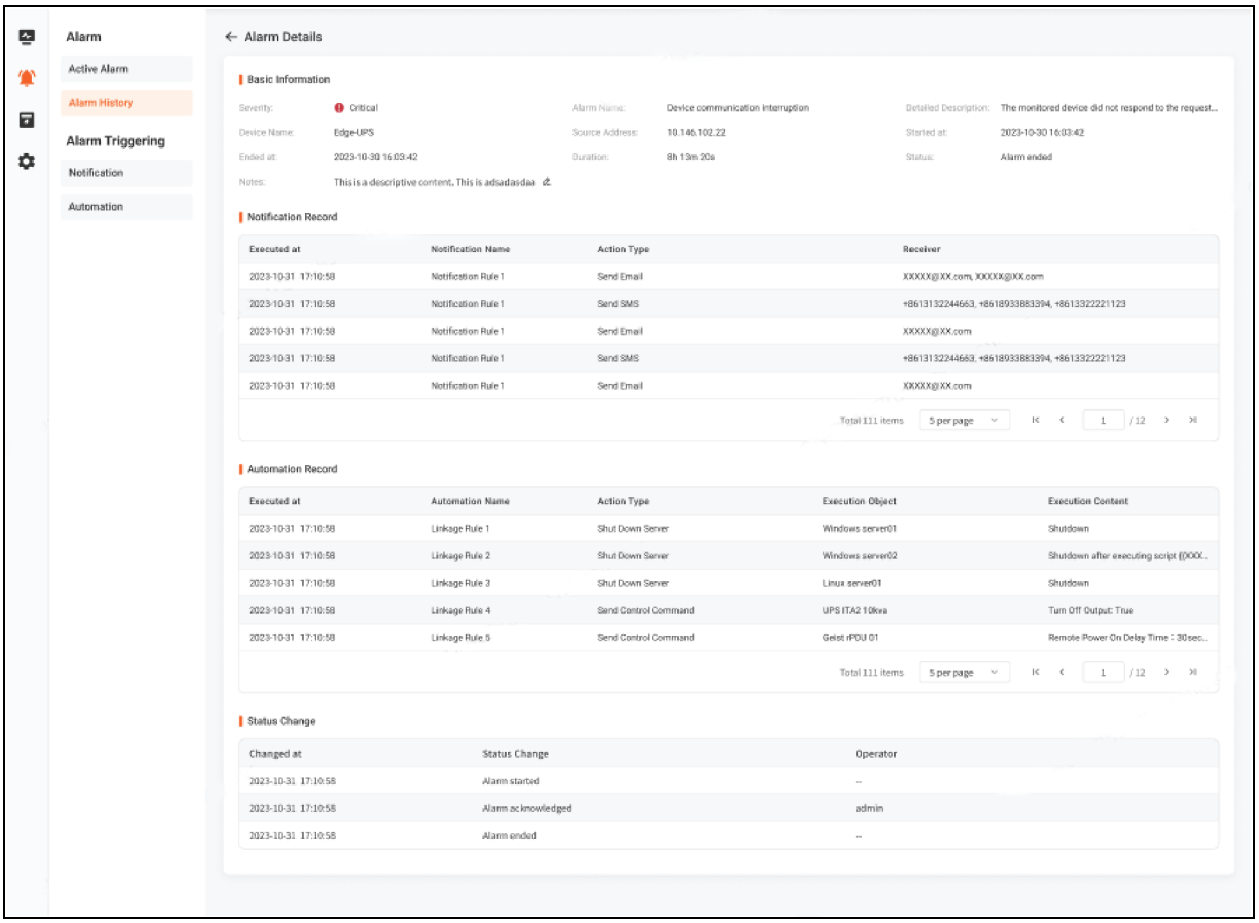
1. Click on Alarm icon and click *Active Alarm* in the second level menu. See **Figure 6.13** below.

Figure 6.13 Alarm History



2. Click the alarm name of a single item in the active alarm list to view the alarm details, which are divided into four sections: basic information, notification record, automation record, and status change. See **Figure 6.14** on the facing page.

Figure 6.14 Alarm Information



3. Click on Edit Icon in the Notes field under Basic Information to display the Edit Notes window, as shown in Figure 6.15 below.

Figure 6.15 Edit Notes

After the input is complete, click the *Save* to modify the remarks of the active alarm.

Proprietary and Confidential ©2025 Vertiv Group Corp.

6.4.3 Exporting Historical Alarms

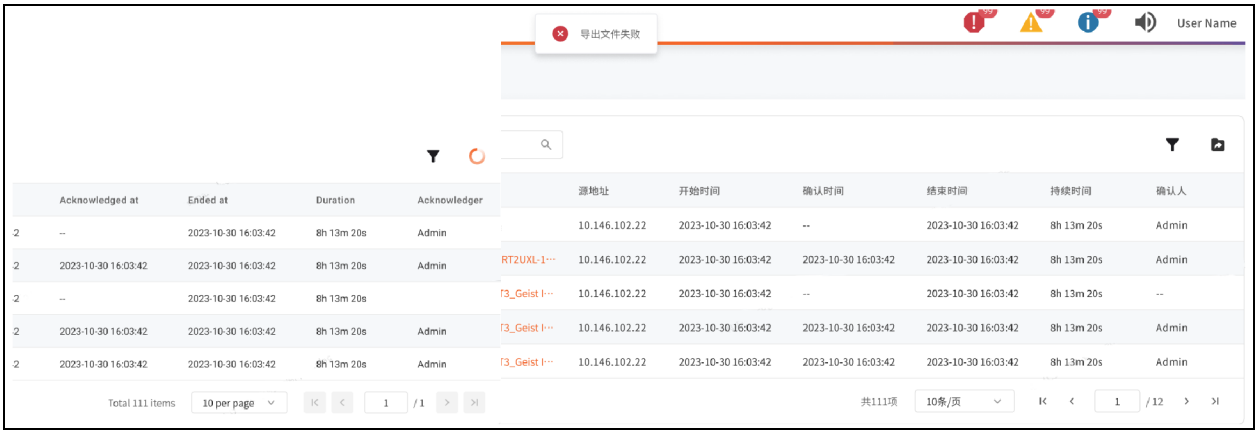
Click Export icon in the upper right corner of the alarm list page to export all the currently filtered alarms as **.csv** files. The file name is the active alarm **_XXX.xlsx**, and **XXX** is the time when the export file is generated.

The fields include the following fields:

- Alarm Level (text display)
- Alarm Name
- Device Name
- Source Address
- Start Time
- Acknowledgment Time
- Acknowledgment User

After clicking *Export*, loading icon will display, and if the export fails, the message **Failed to export the file** displays. See **Figure 6.16** below.

Figure 6.16 Exporting Failed Window



After the export is successful, a message will be displayed in the lower right corner that the header fields contained in the file are the same as those selected in the **Figure 6.17** below.

Figure 6.17 Exported File Data

Severity	Alarm Nan	Device Nai	Source Ad	Started at	Ended at	Acknowlec	Acknowledger	
Warning	Output Ov	Geist IMD3	10.146.101	2024/12/1	2024/12/1			
Warning	Output Ov	Geist IMD3	10.146.101	2024/12/1	2024/12/1			

7 Alarm Linkage Notification

7.1 Overview

This section describes how to set up these two notification methods. After receiving the alarm, Vertiv™ Power Insight automatically triggers the server to shut down or sends a control signal to the monitored power equipment to ensure that the data of key facilities can be kept intact, and the equipment will not be damaged in an emergency.

7.1.1 Functional Modules

The following function modules are set for alarm linkage notification, and for the detailed description of each function module, please refer to the detailed function introduction of this module:

- Notification settings
- Automation settings

7.2 Get Started Quickly

7.2.1 Rapid Deployment Steps

The main deployment steps for setting up alarm notifications are as follows:

1. Select Alerts
2. Select Recipient
3. Confirm Information

The following steps are required to deploy alarm automation:

1. Select Alerts
2. Select Automation Action
3. Confirm Information

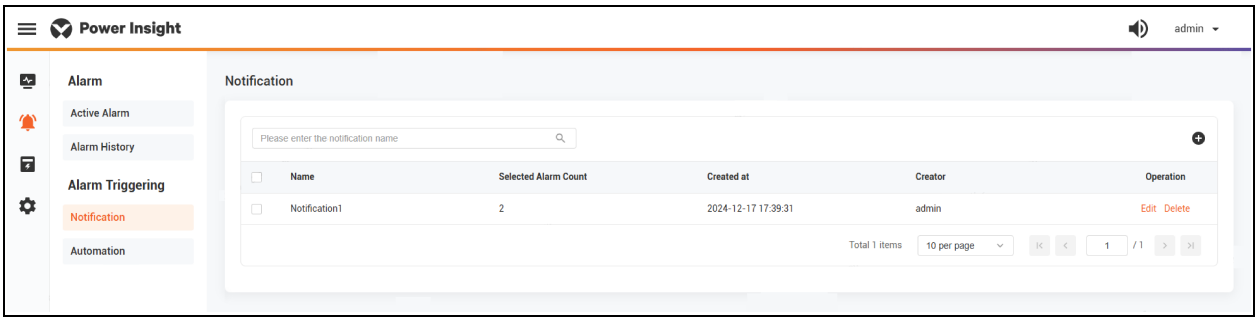
7.3 Notification Settings

Select Alerts

1. Click on Alarm icon and in the secondary menu, click *Notification Settings*. See **Figure 7.1** on the next page.

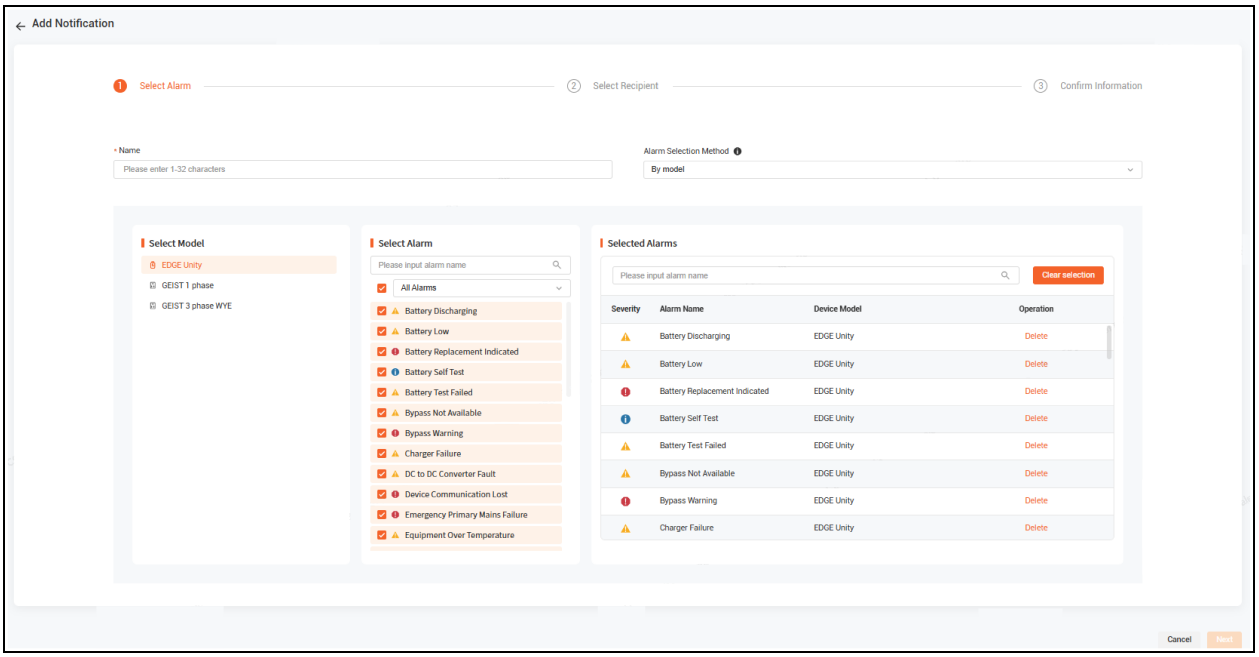
Proprietary and Confidential ©2025 Vertiv Group Corp.

Figure 7.1 Notification



2. Click on Add icon to add the new notification setting function, see Figure 7.2 below.

Figure 7.2 Alarm Selection



Select Alarm

Enter the name in order, select the alarm selection method (by model, by device), and when the selection is completed, the following device and alarm information will be matched.

a. Select the model or select the device, click on a single model or device, and select the alarm column to refresh.

b. You can enter the alarm name in the selected alarm column, filter the alarm level through the drop-down box, check the checkbox to determine the alarm signal that needs to be added, and the selected alarm signal will enter the third column of the selected alarm column.

c. Confirm whether you need to delete some alarm signals in the selected alarm column. If so, click on *Delete* on the right side of the alarm signal. If you need to clear the selected alarm column, click *Clear selection* to clear the list, and select the alarm signal that was previously checked in the alarm column to restore the unchecked state.

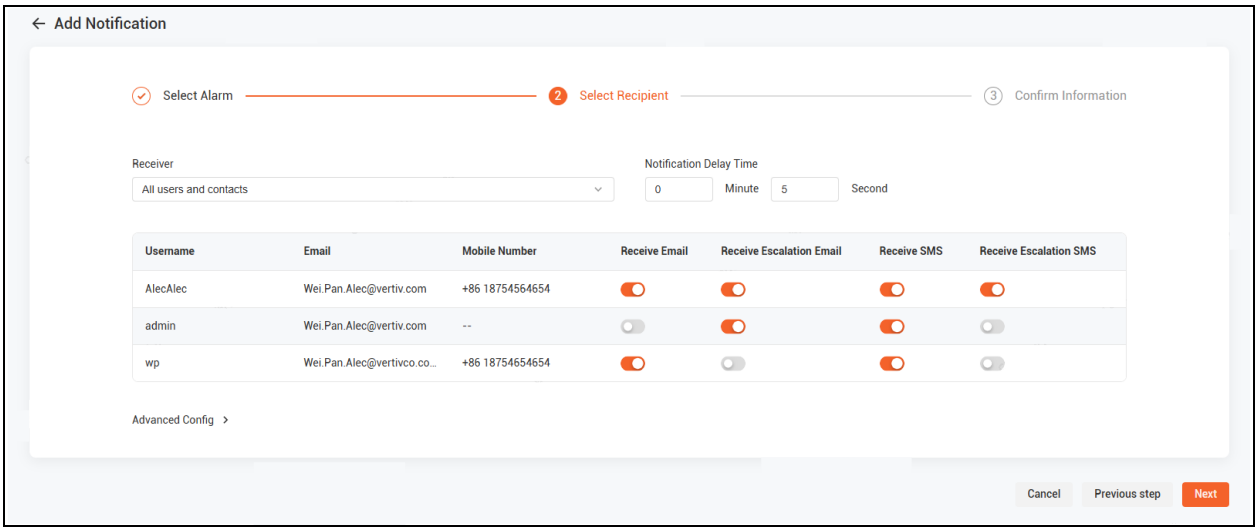
NOTE: The name cannot be the same as the name of an existing notification setting.

NOTE: When you switch Alarm Selection Mode, clear all selected alarms.

Select Recipient

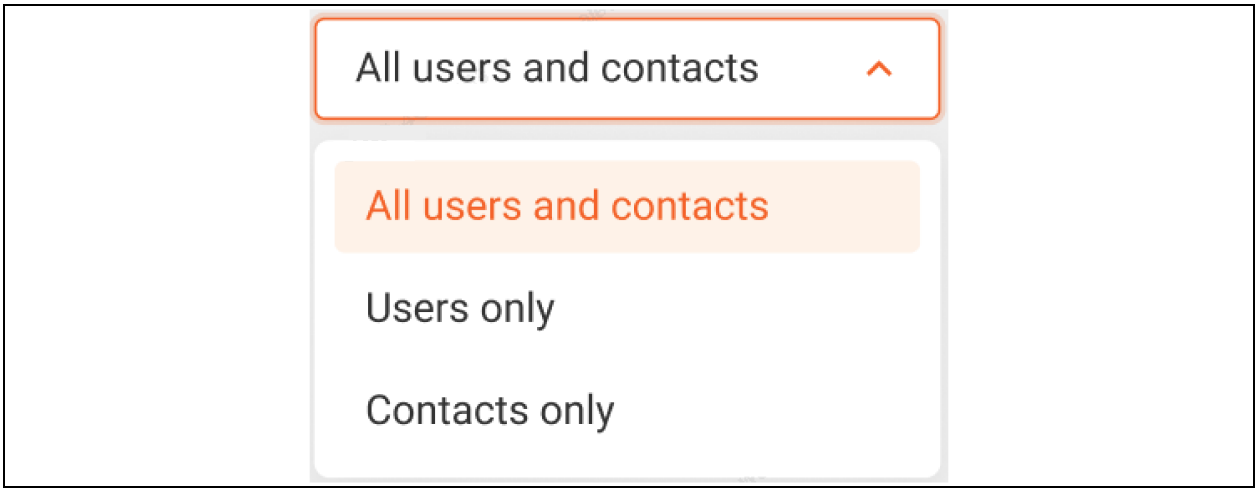
After the alarm is selected, click on *Next* to enter the process of selecting a recipient, as shown in Figure 7.3 below.

Figure 7.3 Selection of Recipient



1. Click the selection box below the recipient to display the options, as shown in Figure 7.4 below.

Figure 7.4 Selecting Users



2. Enter the minutes and seconds of the notification delay time.
3. Enable the receiving method in the user list, if the selected field is highlighted, it is considered to be checked, and if it is grayed out, it is considered not checked.
4. Click *Advanced Configuration* to expand the Advanced Configuration content panel (not required).
5. Confirm whether the advanced configuration section needs to be changed, covering the following items:

Proprietary and Confidential ©2025 Vertiv Group Corp.

a. Email subject (only applicable to alarm email notifications), select the display content of the alarm email title (all selected by default): alarm level, alarm name (cannot be canceled), and device name.

b. You can select the content displayed in the alarm SMS and alarm email (all are selected by default), the alarm level: emergency/ important/ normal, device name, alarm name (cannot be canceled), and alarm time.

c. Again, click on the *Send*, and then configure the notification recurrence sending rule (selected by default). Number of repetitions: You can enter an integer from 1 to 5 (times), the default is 2, and the interval time: You can enter an integer (minutes) from 10 to 480, and the default is 120 minutes. When the alarm is escalated, you can enter an integer number (minutes) from 1 to 1440, which is 30 minutes by default.

d. Send End Notification When Alarm Ends: (Default Check) If this option is selected, an end notification is sent when an alarm ends.

6. Click *Next*.

NOTE: The default notification delay time is 0 minutes and 5 seconds; Set to a maximum of 30 minutes and 59 seconds.

NOTE: During the waiting delay, the Vertiv™ Power Insight service stops, and after the Power Insight service is restored: if the delay time has been exceeded and the alarm has not ended, the notification will be triggered. If the alarm has ended, no notification is triggered, and if the delay time is not exceeded, the remaining delay time is waited.

NOTE: During the waiting delay, the Power Insight service stops, and after the Power Insight service is restored: if the delay time has been exceeded, the alarm is not confirmed or ended, and the upgrade notification will be triggered. If the alarm is acknowledged or closed, the escalation notification is not triggered, and if the delay time is not exceeded, the alarm continues to wait for the remaining delay time.

NOTE: The notification content is the same as that of the alarm start notification, and the end time is increased.

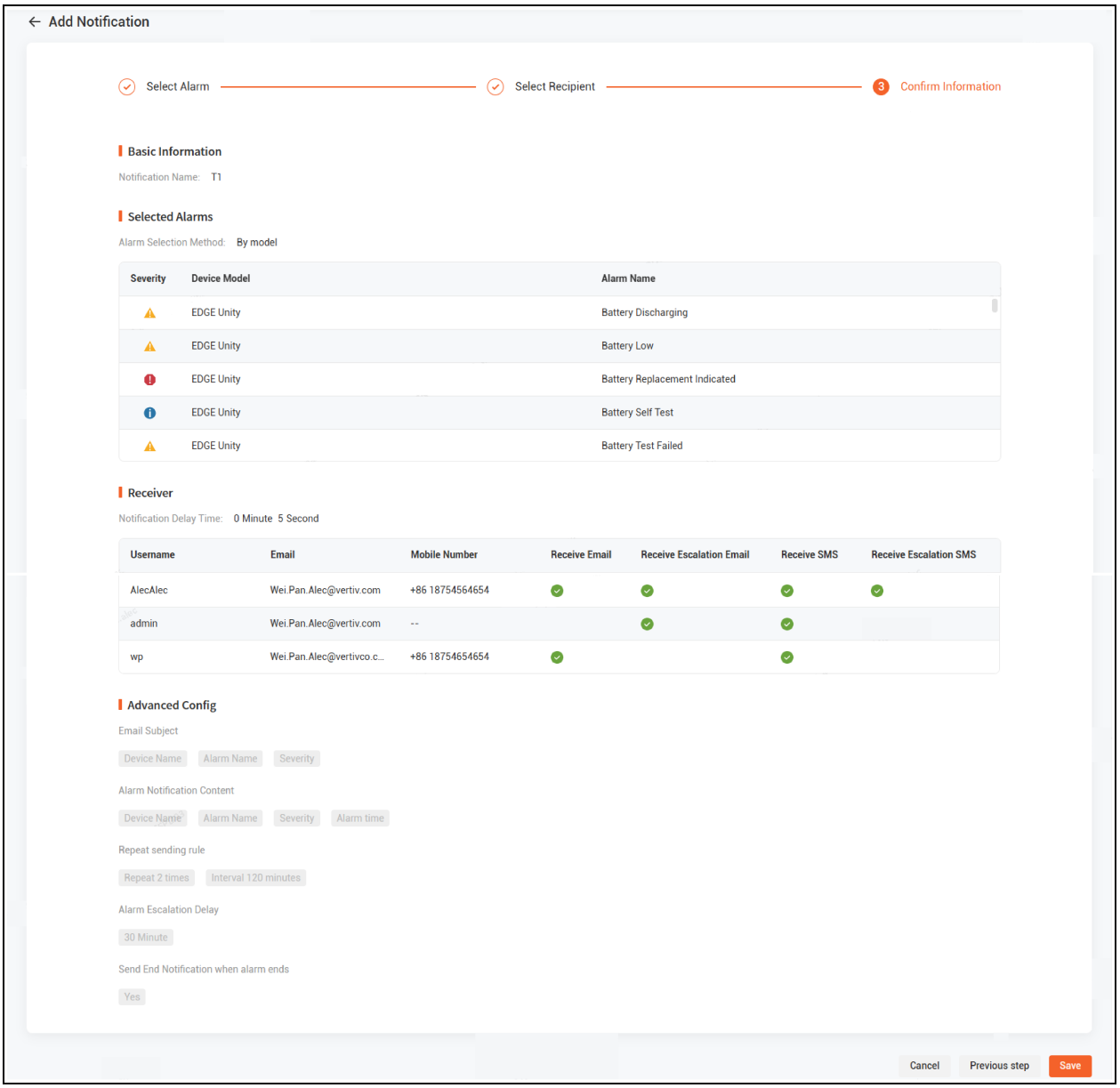
NOTE: If the alarm is not completed for more than 15 days, no end notification will be sent.

NOTE: If the recipient is deleted, or the recipient's email address or mobile phone number is deleted, no notification will be sent to the corresponding recipient, and no notification record will be recorded for the corresponding recipient.

Confirm Information

1. After completing Select Recipient step, the current step is to confirm whether the input and check items are as expected, as shown in Figure 7.5 below.

Figure 7.5 Confirmation of Information



If it meets the expectations, click the *Save*. If it does not meet the expectations, click on *previous step* to go back to the previous step to modify. Click *Next* until you return to the confirmation information page and click the *Save* to complete the configuration of this notification setting.

NOTE: When the device is deleted, the recipient is deleted, or the recipient's email address or phone number is deleted, the device can be saved successfully, and no email or SMS will be sent if the notification recipient is missing.

Proprietary and Confidential ©2025 Vertiv Group Corp.

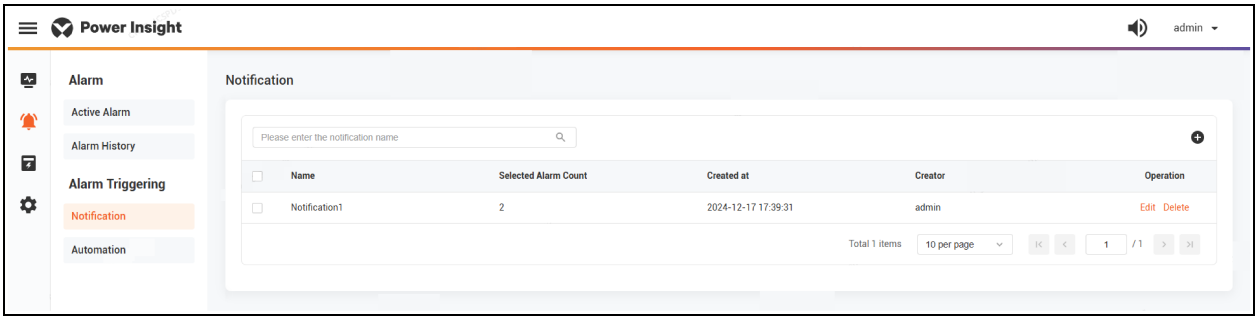
NOTE: The time of the notification SMS and notification email is based on the time of the server where the Power Insight is located.

7.3.1 Editing Notification Settings

Select Alerts

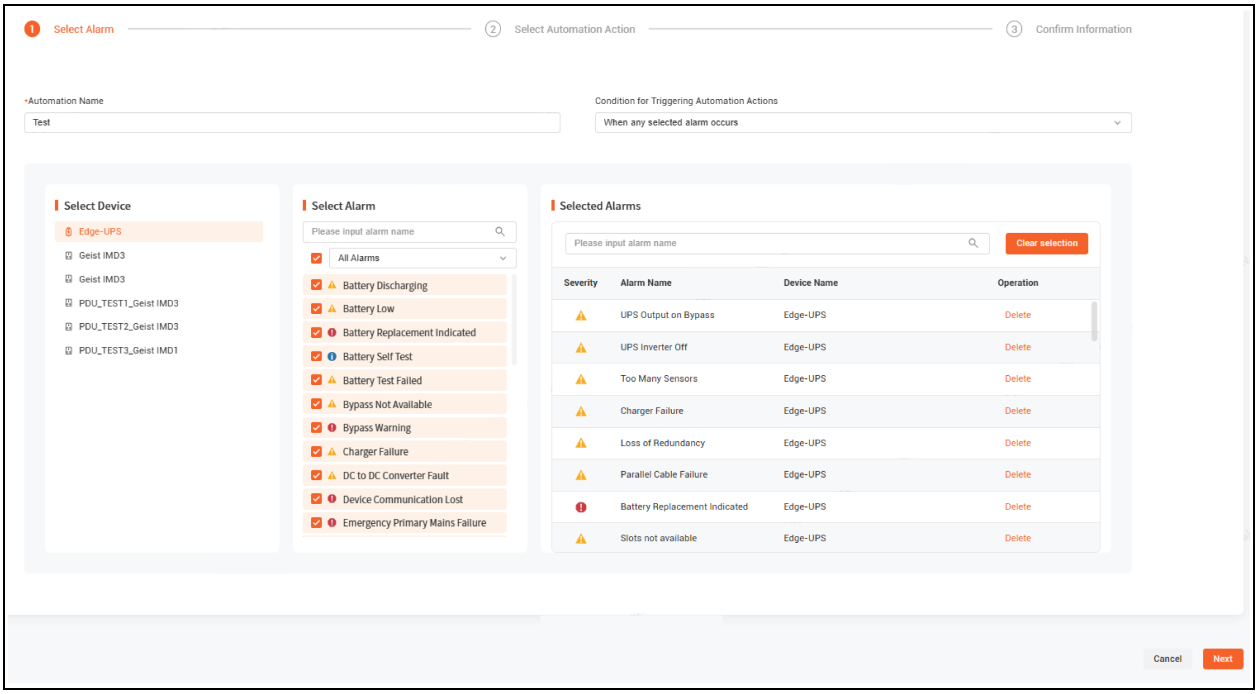
1. Click on Alarm icon and click *Notification Settings* in the secondary menu. See **Figure 7.6** below.

Figure 7.6 Edit Notification Settings



2. Click on *Edit* to enter the edit page, see **Figure 7.7** below

Figure 7.7 Alarm Selection



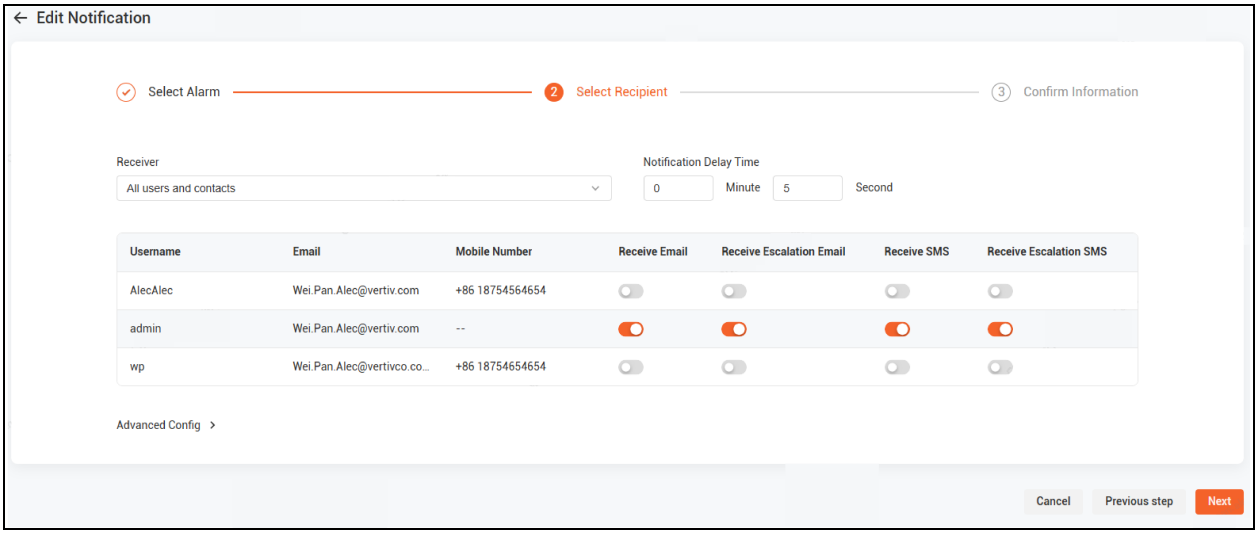
3. Click the device from the Select Device list. Click the checkbox of alarm from the Select Alarm list. Click *Next* to enter the recipient selection step.

Proprietary and Confidential ©2025 Vertiv Group Corp.

Select Recipient

In the process of selecting a recipient, reselect the recipient range, and at the same time modify the notification delay time, and after the user's related services are modified, click *Next* to enter the confirmation information stage, as shown in Figure 7.8 below.

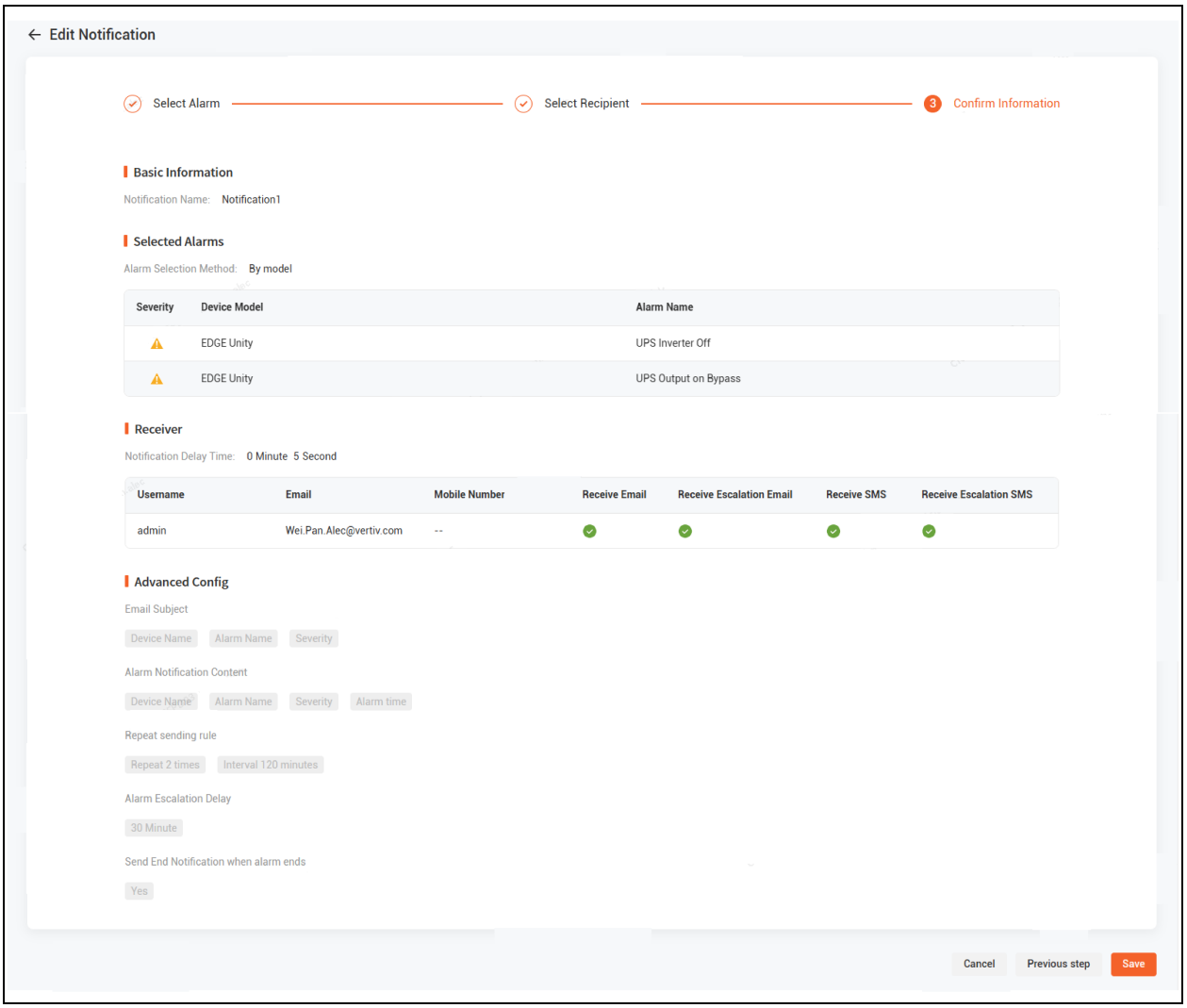
Figure 7.8 Selecting Recipient



Confirm Information

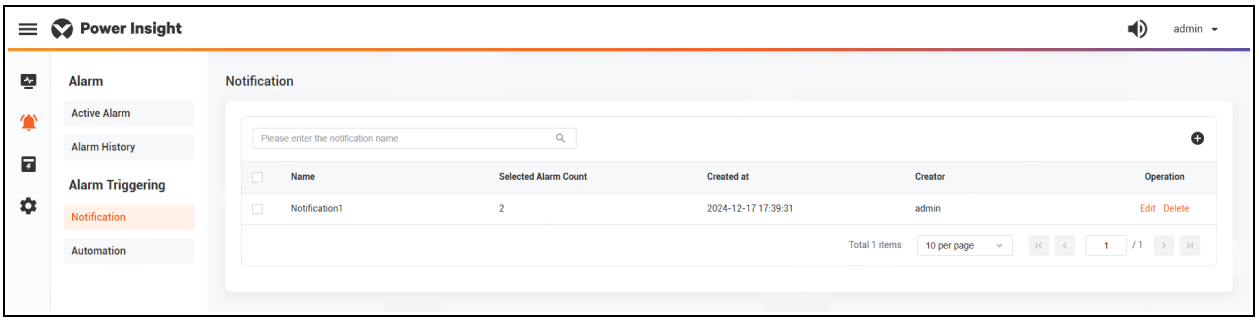
After completing Select Recipient step, check whether the modified part has been updated again, and click the *Save* to complete the editing function after confirming that it is correct, as shown in Figure 7.9 on the facing page.

Figure 7.9 Confirmation of Information



Once completed, the page will appear the notification settings list, as shown in Figure 7.10 below.

Figure 7.10 Notification Settings List

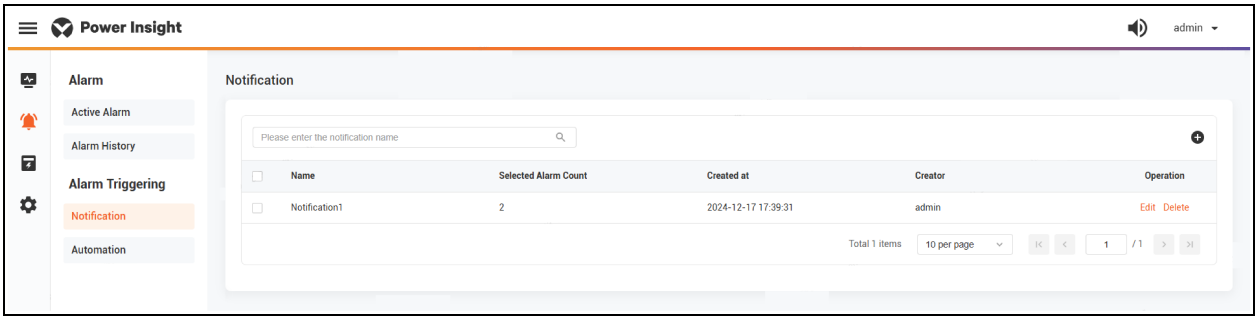


Proprietary and Confidential ©2025 Vertiv Group Corp.

7.3.2 Deleting Notification Settings

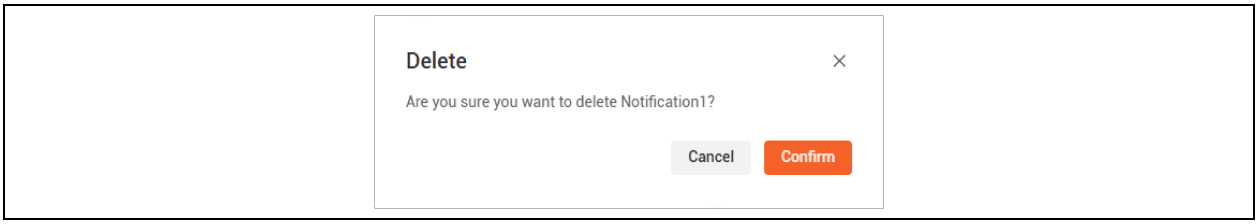
1. Click on Alarm icon and click *Notification Settings* in the secondary menu. See **Figure 7.11** below.

Figure 7.11 Delete Notification Settings



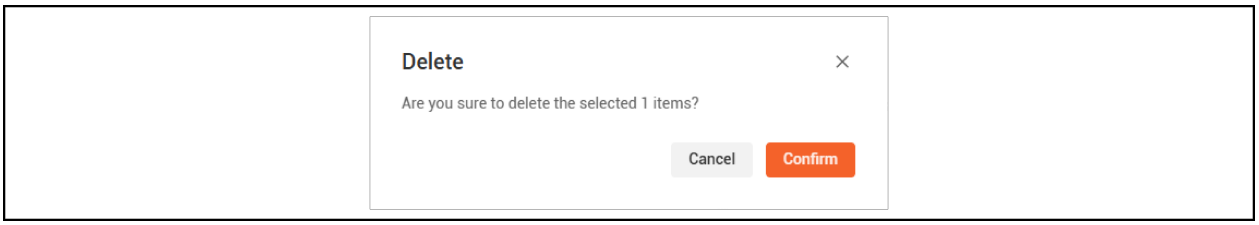
Single deletion: Click on *Delete* on the right of the single notification setting to trigger the deletion window, as shown in **Figure 7.12** below.

Figure 7.12 Single Deletion Window



Multi-delete: Select the checkbox in the notification settings list and click on *Batch Delete* to trigger the deletion window, as shown in **Figure 7.13** below.

Figure 7.13 Multiple Deletion Window

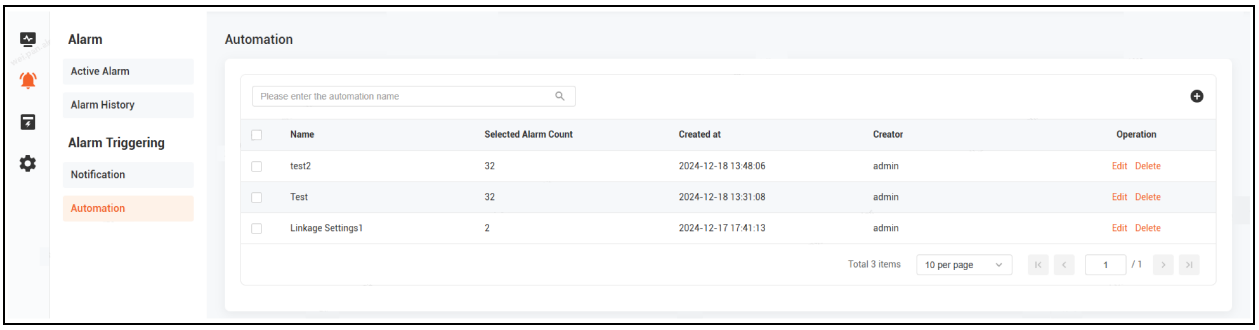


7.4 Automation Settings

7.4.1 A List of Automation Settings

1. Click on Alarm icon and click *Automation Settings* in the second level menu. See **Figure 7.14** on the facing page.

Figure 7.14 List of Automation Setting



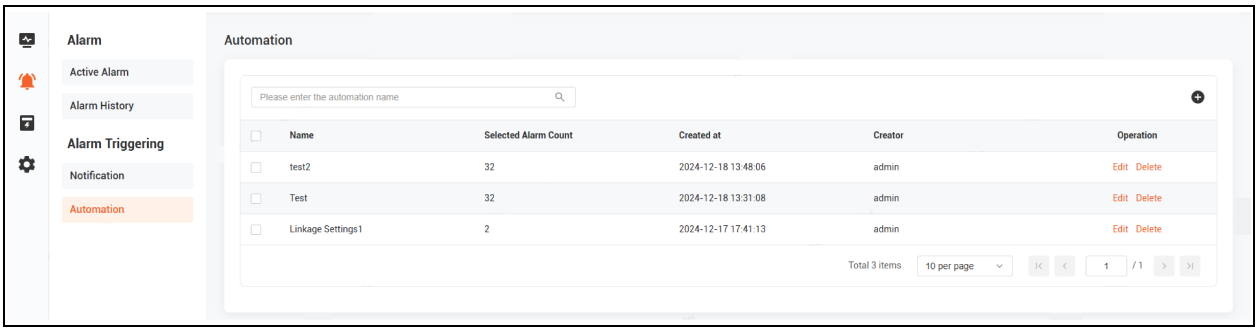
It has the input box search function of the basic table, and the pagination function.

7.4.2 Adding Automation Settings

Select Alerts

1. Click on Alarm icon and click *Automation* Settings in the second level menu. See **Figure 7.15** below.

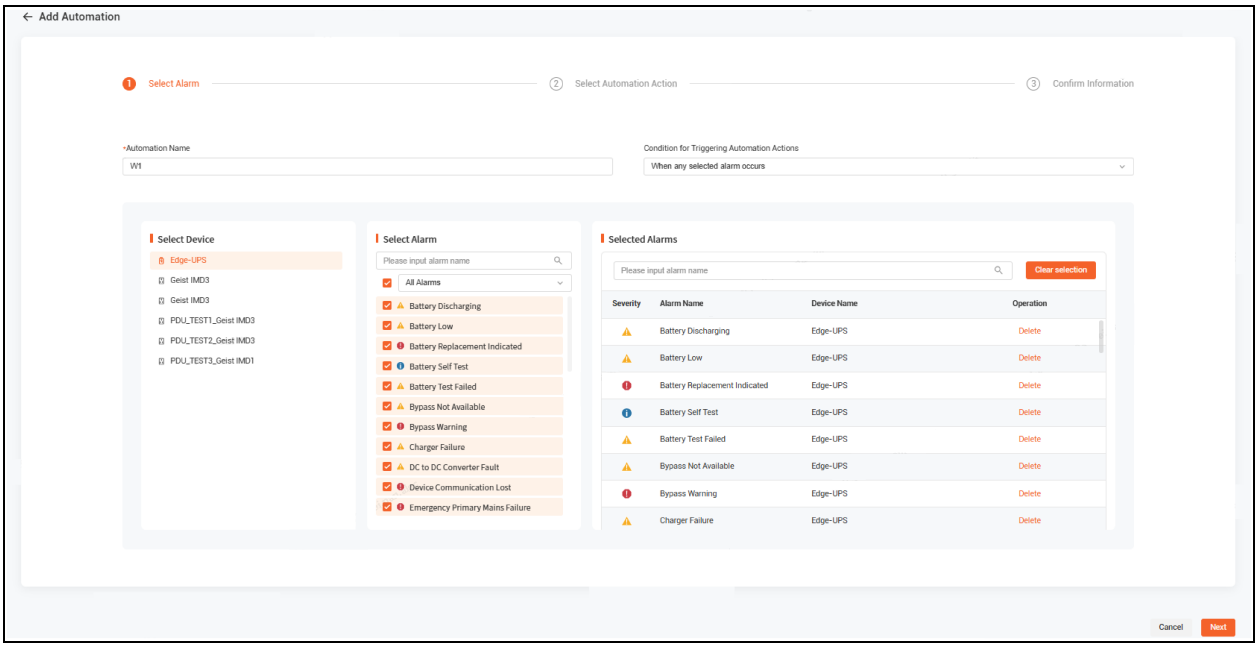
Figure 7.15 Automation Settings



2. Click on Add icon to add the new notification setting function, as shown in **Figure 7.16** on the next page.

Proprietary and Confidential ©2025 Vertiv Group Corp.

Figure 7.16 New Notification Setting



Enter the automation name in order and select the conditions for triggering the automation action (when any of the selected alarms appear, when all the selected alarms appear).

a. Select the device, click on a single device, and select the alarm column to refresh.

b. Enter the alarm name in the selected alarm column, filter the alarm level through the drop-down box, check the checkbox to determine the alarm signal that needs to be added, and the selected alarm signal will enter the third column of the selected alarm column.

c. Confirm whether you need to delete some alarm signals in the selected alarm column, if so, click on *Delete* on the right side of the alarm signal. If you need to clear the selected alarm column, click on *Clear selection* to clear the list, and select the alarm signal that was previously checked in the alarm column to restore the unchecked state.

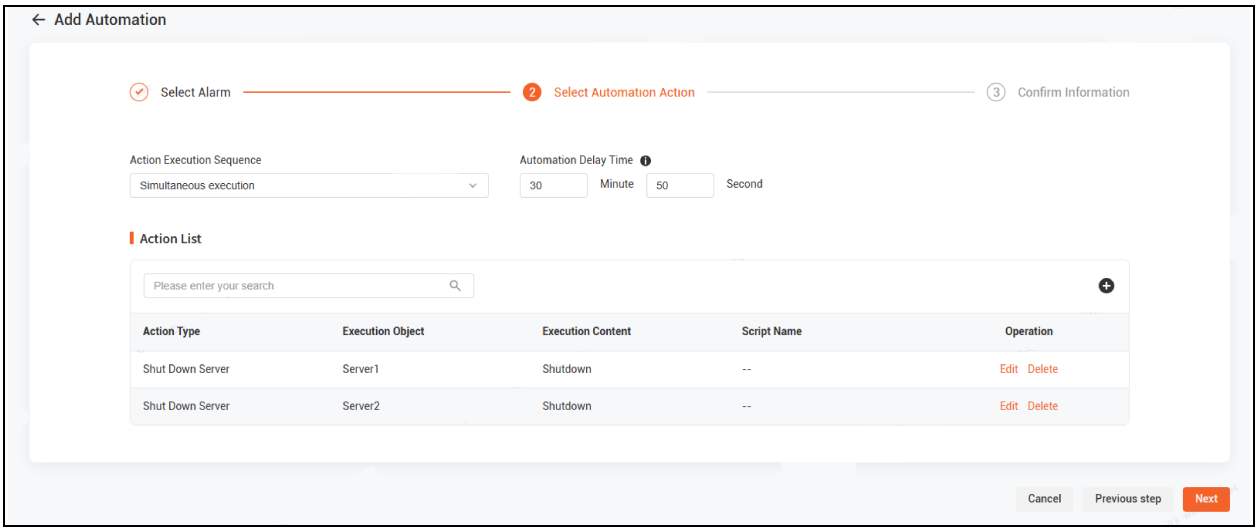
NOTE: The name cannot be duplicated with the name of the existing notification setting

NOTE: After multiple alarms meet the conditions at the same time: if there is no alarm delay, only one automation action will be triggered within 10 seconds; If there is an alarm delay, only one alarm delay will be initiated within 10 seconds to 3 seconds.

Select Automation Action

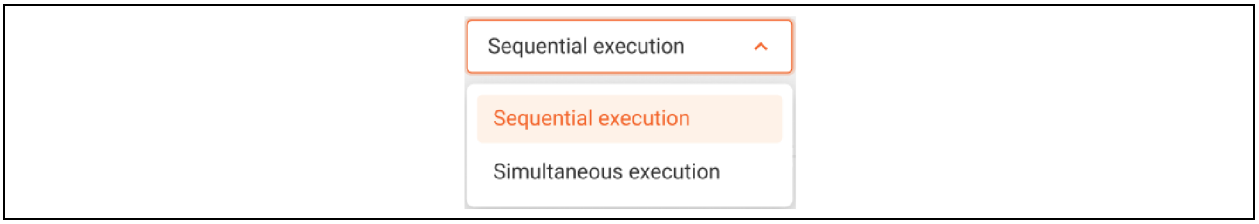
1. After the alarm is selected, click on *Next* to enter the process of selecting the automation action, as shown in Figure 7.17 on the facing page.

Figure 7.17 Select Automation Action



2. Click the selection box below the action execution order and the options will appear, and you can choose to execute them at the same time, as shown in Figure 7.18 below.

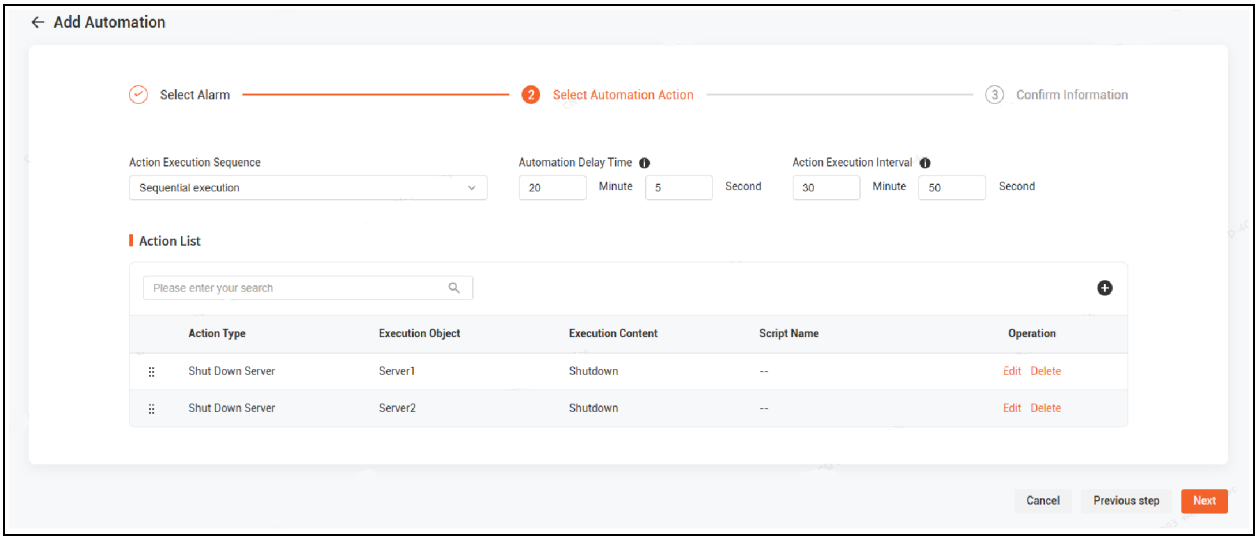
Figure 7.18 Action Execution Order



3. Enter the minutes and seconds of the automation delay notification time.

If you select sequential execution, the display action execution interval needs to be filled, as shown in Figure 7.19 below.

Figure 7.19 Display Action Execution Interval

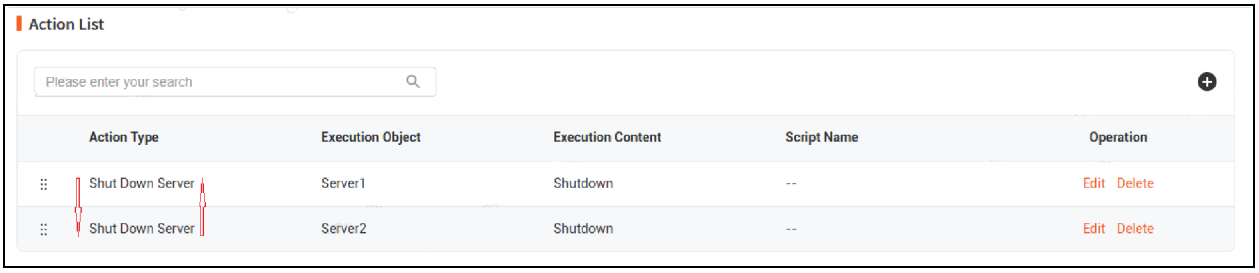


Proprietary and Confidential ©2025 Vertiv Group Corp.

Action Execution Interval: You can configure the execution interval of the automation action, that is, how long to wait before the next action is executed after the previous action is executed, and the configurable time range is 0 minutes 0 seconds to 30 minutes 59 seconds, and the default value is 0 seconds.

At the same time, the order of execution can be changed by dragging the mouse, as shown in **Figure 7.20** below.

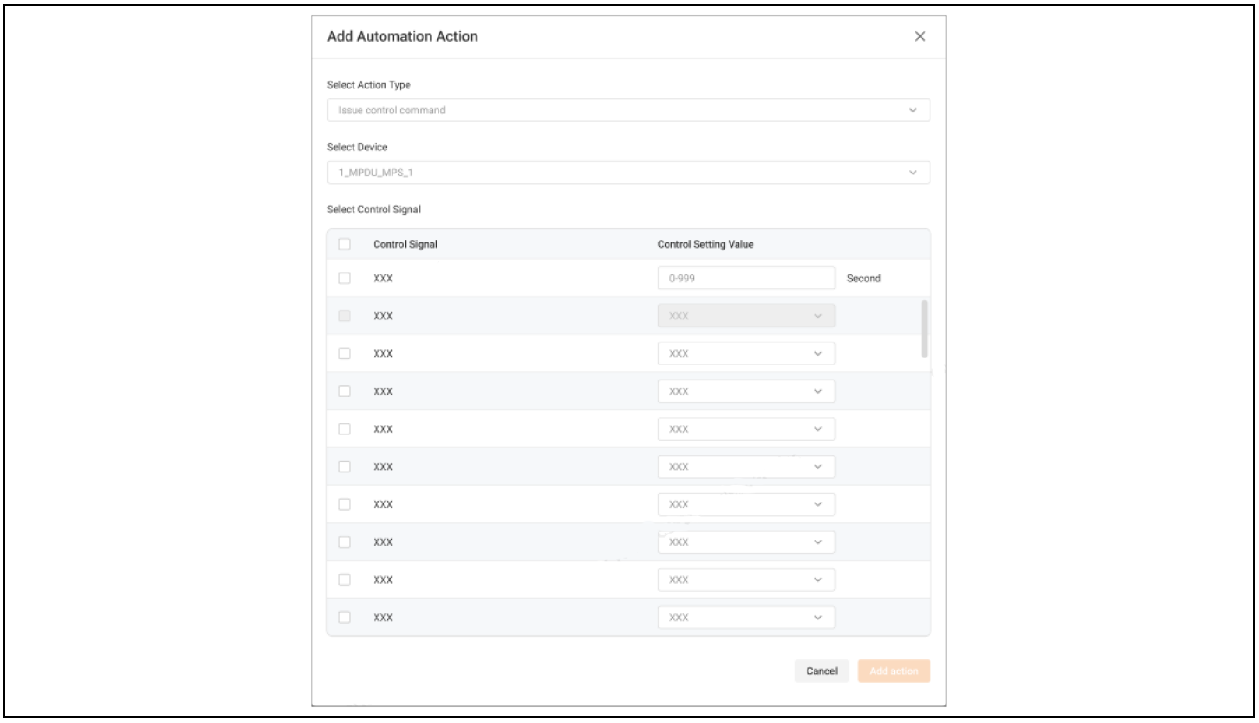
Figure 7.20 Action List



NOTE: The Edit on the ESXi server is grayed out and cannot be clicked.

4. Click on Add icon on the right side of the action list table to display of the new automation action, as shown **Figure 7.21** below.

Figure 7.21 Adding Automation Action



5. Click the dropdown box to select the action type, and there will be the following options, select the delivery control command, as shown in **Figure 7.22** on the facing page.

Figure 7.22 Delivery Control Command

In the dropdown list for selecting a control signal, select and fill in the setting value of the control signal, and if the control signal is selected in the Automation Action List, the multi-check box is grayed out. The control signal setting value is an enumerated value, and a drop-down radio box is displayed: the first setting value is selected by default, and the setting value can be selected as True. After the settings are complete, click the *Add Action* to move the interface of selecting automation actions.

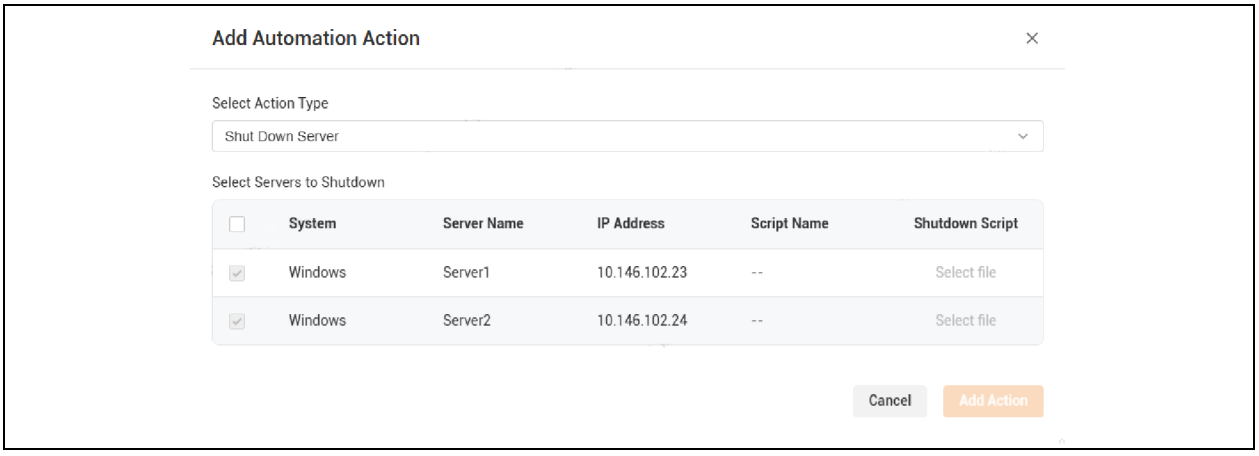
NOTE: The default automation delay time is 0 minutes and 5 seconds, and can be set from 0 minutes 0 seconds to 30 minutes and 59 seconds Sequential Execution (Default Selection): Execute actions in order from top to bottom by clicking the Automation Action List Simultaneous execution: All automation actions are executed at the same time.

6. Click the drop-down box to select the action type, and there will be the following options, select the server to shut down, as shown in Figure 7.23 below.

Figure 7.23 Selecting Server Shutdown

A change can be observed in the contents of the lower side, as shown in Figure 7.24 below.

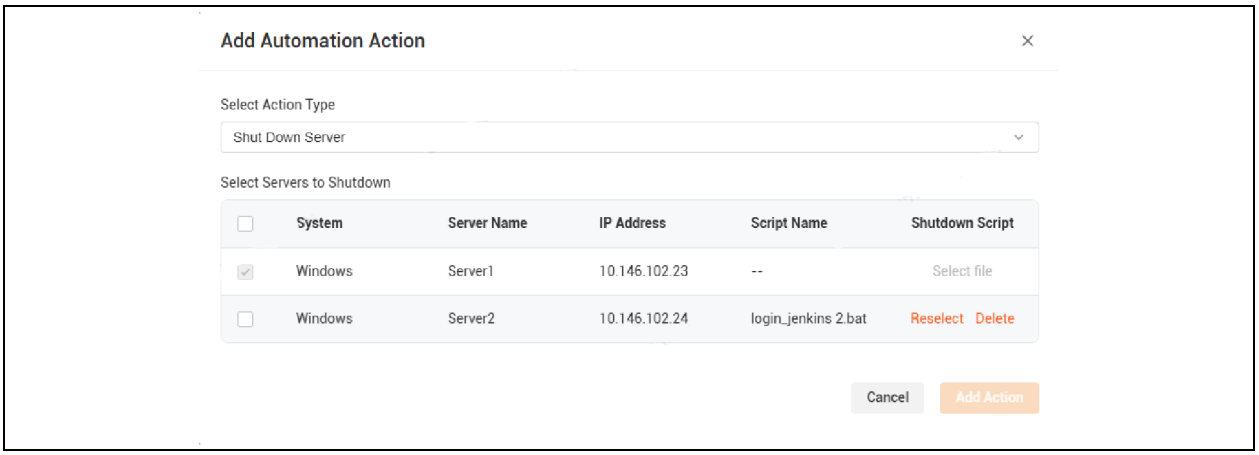
Figure 7.24 Selecting Server to Shutdown



Proprietary and Confidential ©2025 Vertiv Group Corp.

Click *Add Action* to upload the script, select the script file to upload, and when you see the status of the script has been saved, click the *Save* to complete the saving. If there is an error in the uploaded file, click the *Clear File* and the upload list will be canceled. See Figure 7.25 below.

Figure 7.25 Add Automation Action—Error in Uploading File



When you click on *Reselect*, the script upload window appears. Reselect the script to upload, you can clear and other operations and click the *Save* to refresh the script content bound to the server after the operation is completed. When the *Delete* is clicked, the shutdown script content bound to the target server will be deleted.

NOTE: When the server is selected in the automation action list to perform shutdown, the multi-check box is grayed out.

NOTE: The file formats supported by the shutdown script :.cmd, .bat, and .sh.

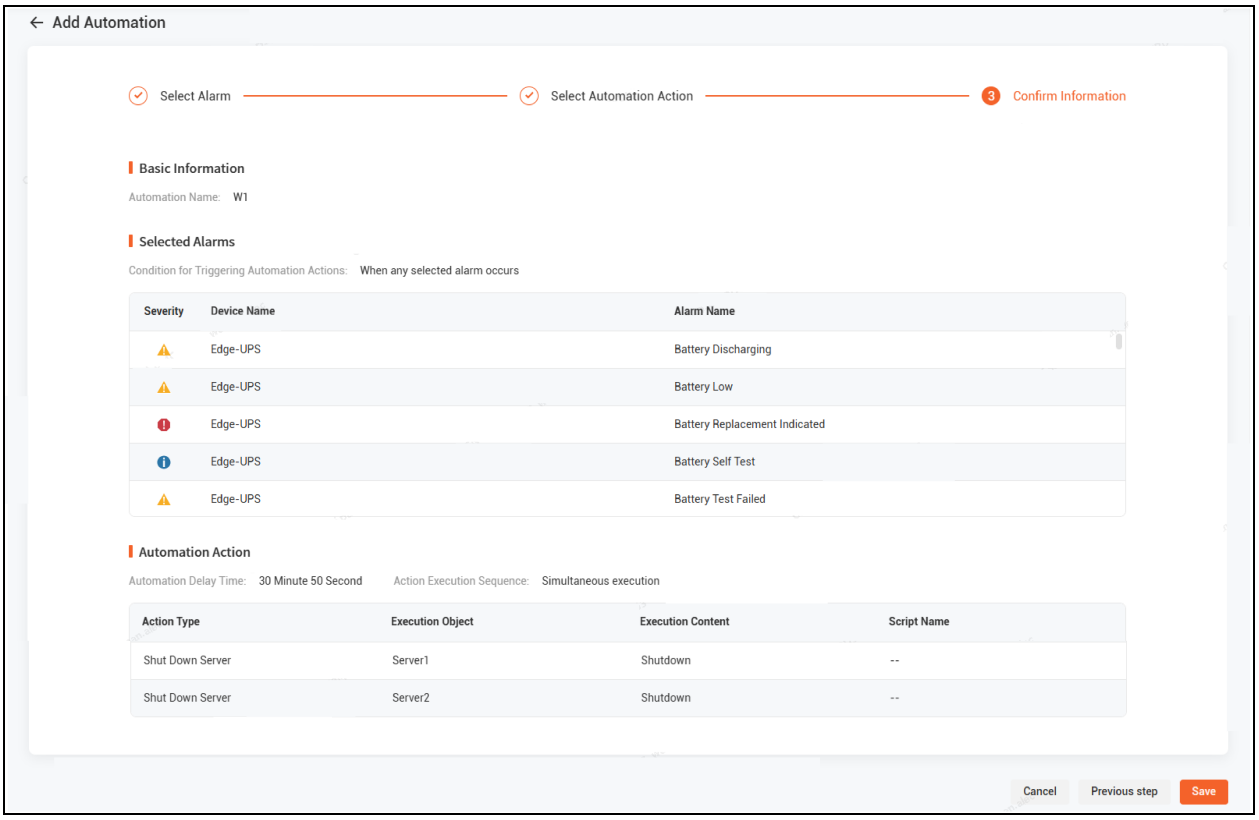
NOTE: The size of the uploaded file cannot exceed 5 MB.

NOTE: The Select Script of the ESXi server is grayed out and cannot be clicked.

Confirm the Information

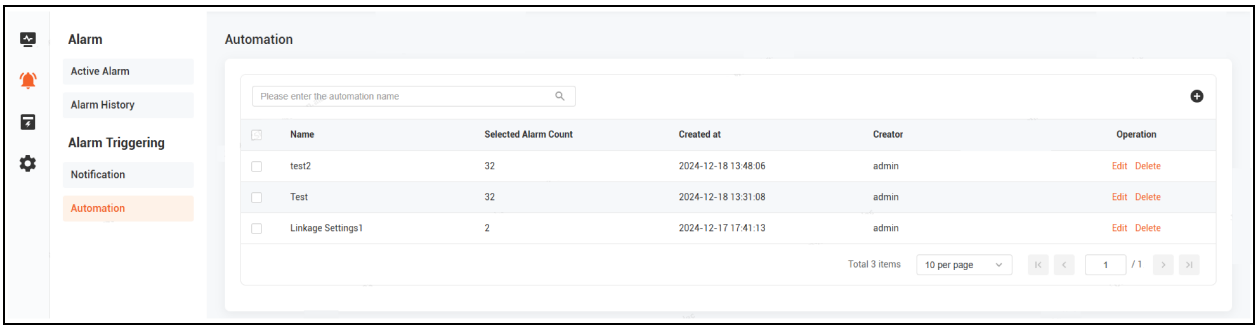
1. After the above steps are completed, click *Next* to display the confirmation information step, as shown in Figure 7.26 on the facing page.

Figure 7.26 Confirmation of Information



2. Click *Save* and messages appears as **save is successful**, and a new window of automation settings list appears.

Figure 7.27 Automation Window



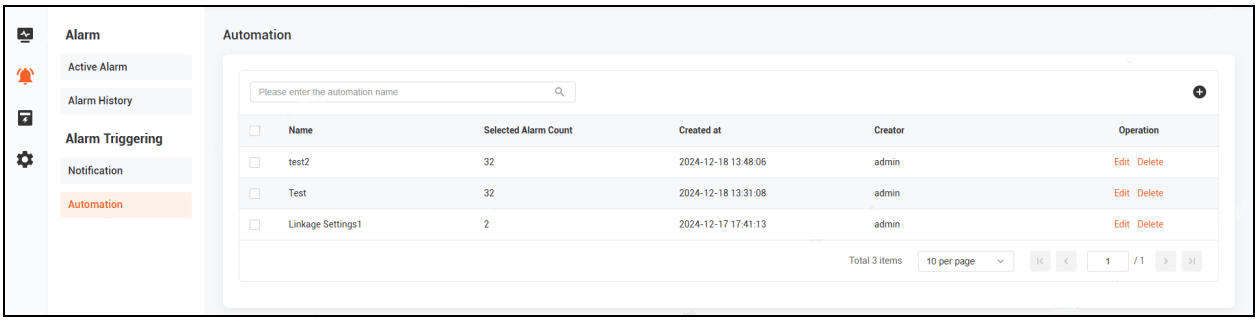
7.4.3 Editing the Automation Settings

Select Alerts

1. Click on Alarm icon and click *Automation Settings* in the second level menu. See **Figure 7.28** on the next page.

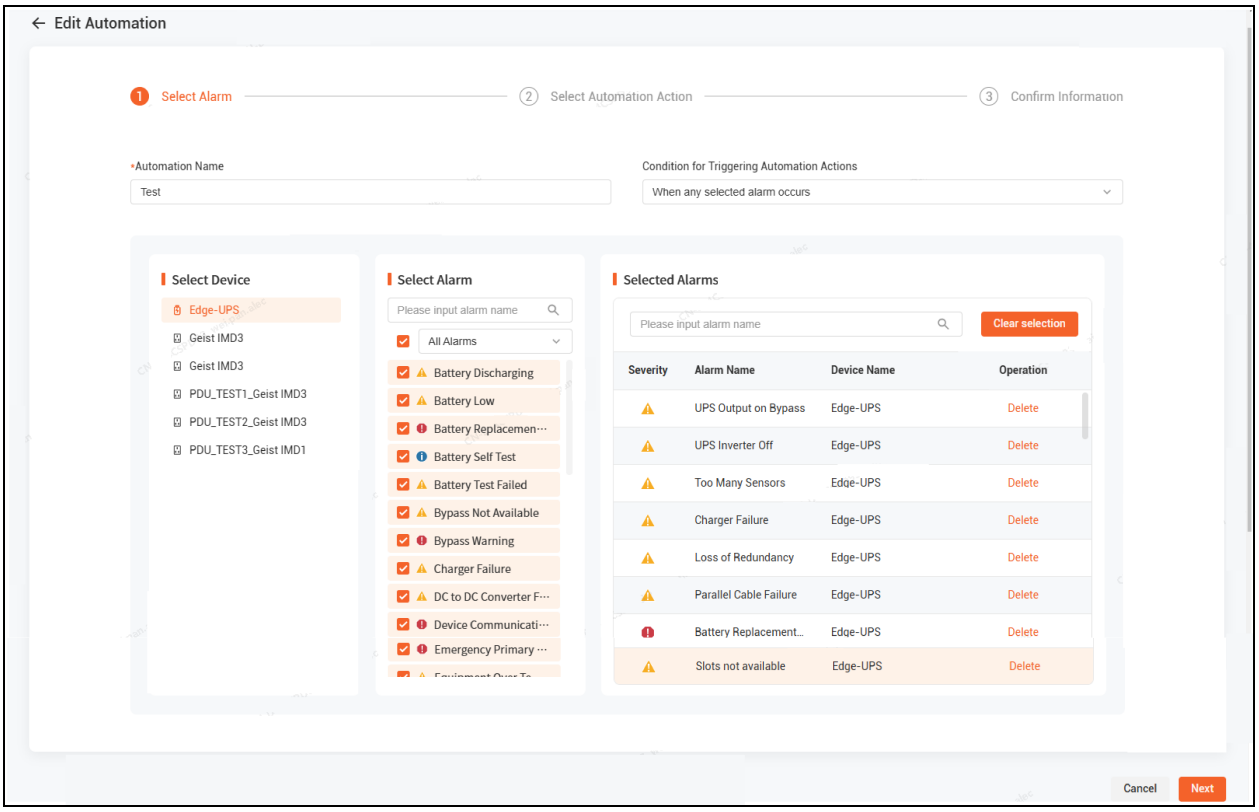
Proprietary and Confidential ©2025 Vertiv Group Corp.

Figure 7.28 Editing Automation Setting



2. Click *Edit* to enter the edit page, as shown in Figure 7.29 below.

Figure 7.29 Edit Automation Page

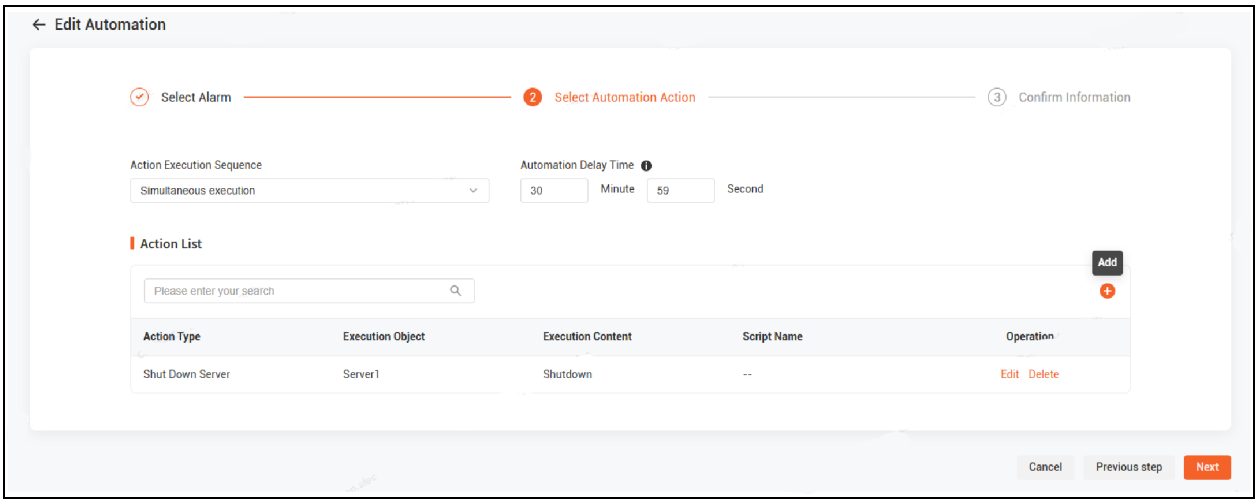


3. Click the device from the Select Device list. Click the checkbox of alarm from the Select Alarm list. Click *Next* to enter the select automation action.

Select Automation Action

In the selection of the automation action step, the execution order of the selected action can be reselected, and the automation delay, action execution interval, can be modified, the order can be changed in the action list, or the script modification and re-upload of the server shutdown can be completed. After the user's automation actionrelated services are modified, click *Next* to enter the confirm information stage, as shown in Figure 7.30 on the facing page.

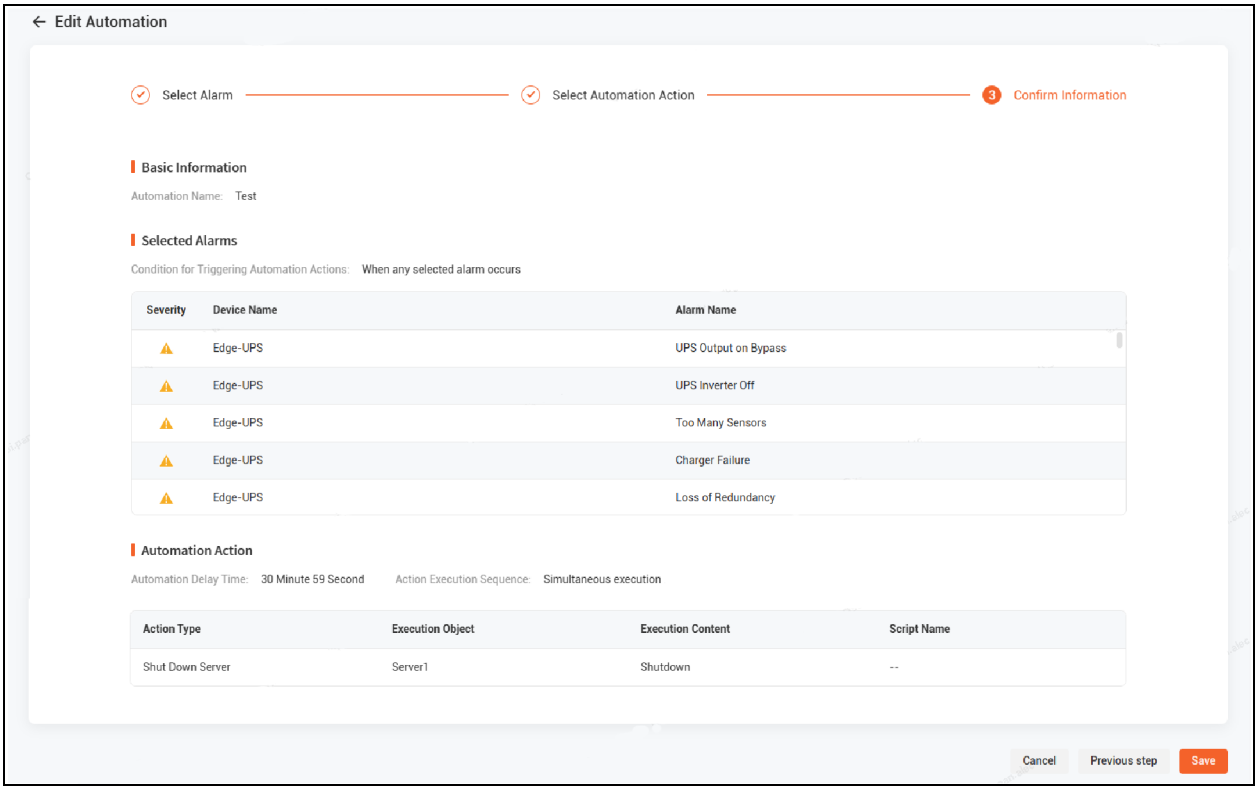
Figure 7.30 Selecting Automation Action



Confirm Information

Check whether the modified part has been updated again, and click the *Save* to complete the editing function after confirming that it is correct, as shown in Figure 7.31 below.

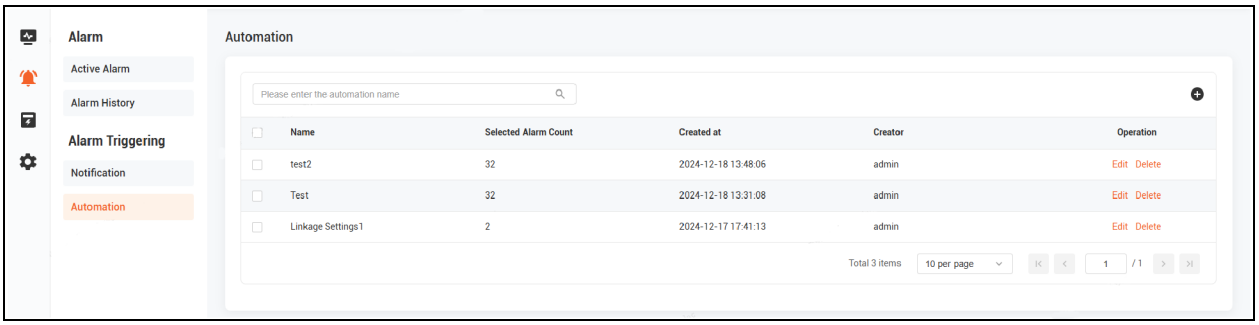
Figure 7.31 Confirmation of Information



Once completed, the page will display to the notification settings list, as shown in Figure 7.32 on the next page.

Proprietary and Confidential ©2025 Vertiv Group Corp.

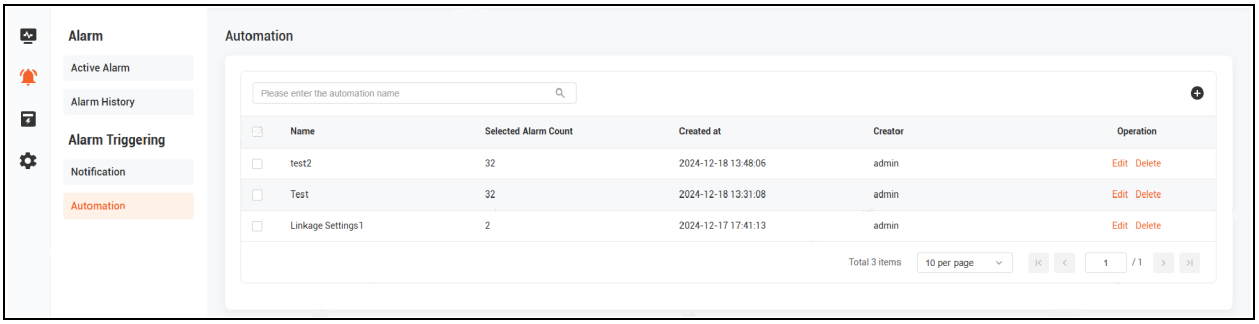
Figure 7.32 Notification Settings List



7.4.4 Deleting Automation Settings

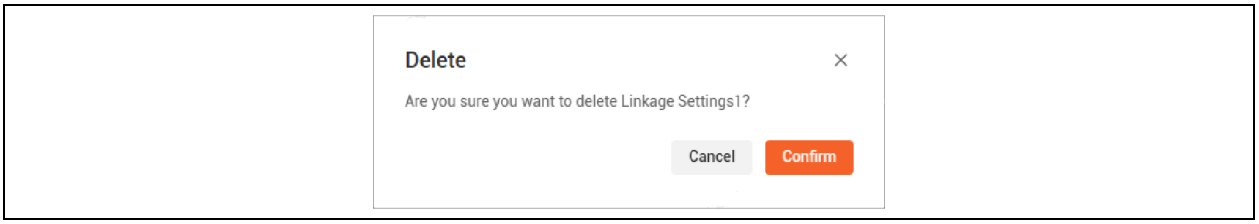
1. Click on Alarm icon and click *Automation* in the second level menu. See **Figure 7.33** below.

Figure 7.33 Automation



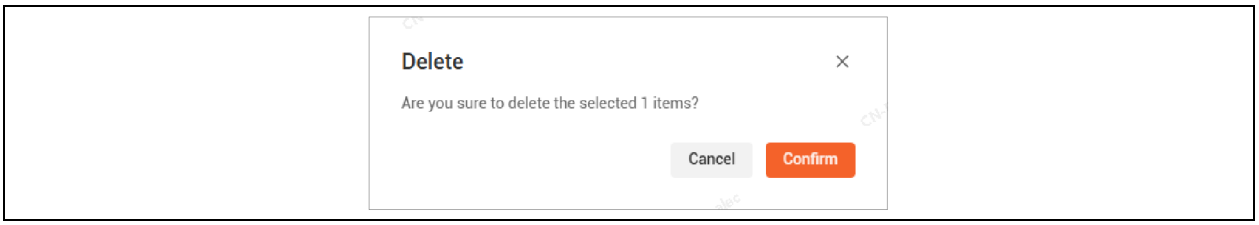
Single deletion: Click on *Delete* right of the single notification setting to trigger the deletion window, as shown in **Figure 7.34** below

Figure 7.34 Single Deletion Window



Multi-delete: Select the checkbox in the notification settings list and click *Batch Delete* to trigger the deletion window, as shown in **Figure 7.35** on the facing page.

Figure 7.35 Multiple Deletion Window



NOTE: If the server is deleted, the automation action will not be executed, but the interval between the automation action will remain.

Proprietary and Confidential ©2025 Vertiv Group Corp.

This page intentionally left blank

8 Power Management

8.1 Overview

The user uses the Vertiv™ Power Insight to monitor the PDU power equipment and uses the historical output data of the PDU on the Power Insight to calculate the power resource usage and electricity charges. Power Insight provides an electricity bill scheme configuration tool, which can calculate the electricity bill under different pricing schemes; The user can generate a report on the power and electricity charges of a certain period of time by counting the power signals of the UPS and PDUs on the Power Insight.

8.1.1 Functional Modules

Power management includes the following functional modules, refer to the detailed functions of this module for detailed information about each functional module:

- Usage and bill statistics
- Electricity bill calculation

8.2 Get Started Quickly

8.2.1 Rapid Deployment Steps

The main deployment steps of the energy and electricity bill statistics configuration are as follows:

1. Click the *Add* in the configuration table of electricity and electricity bill statistics.
2. Enter a statistic name.
3. Select the statistic content.
4. Select a time dimension.
5. Select a time range.
6. Select the devices that participate in the statistics.

The main deployment steps of the electricity bill calculation configuration are as follows:

1. Click the *Add* in the configuration table of electricity and electricity bill statistics.
2. Enter a name and description and select a billing unit.
3. Select a billing method.
4. Enter the base tariff and fixed monthly fee, as well as the time-of-use tariff.
5. Select a time range (only available in winter and summer).
6. Select Associated devices.

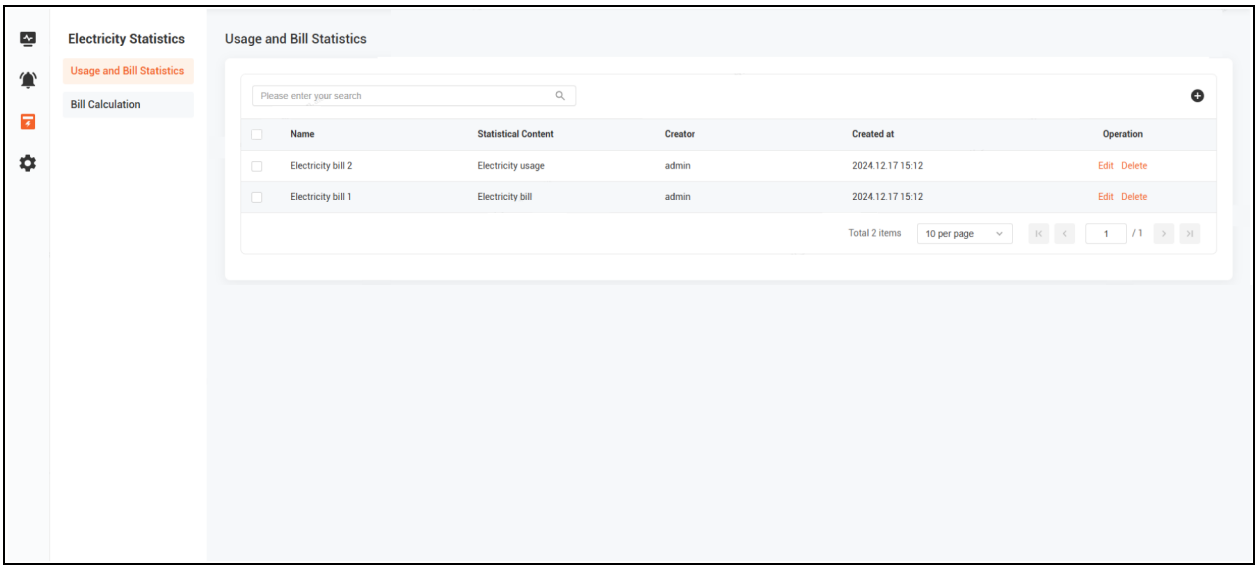
8.3 Electricity Statistics

8.3.1 A List of Usage and Bill Statistics

1. Click on Electricity Statistics icon and in the second level menu, click on *Usage and Bill Statistics*. See Figure 8.1 on the next page.

Proprietary and Confidential ©2025 Vertiv Group Corp.

Figure 8.1 Electricity Usage and Bill Statistics

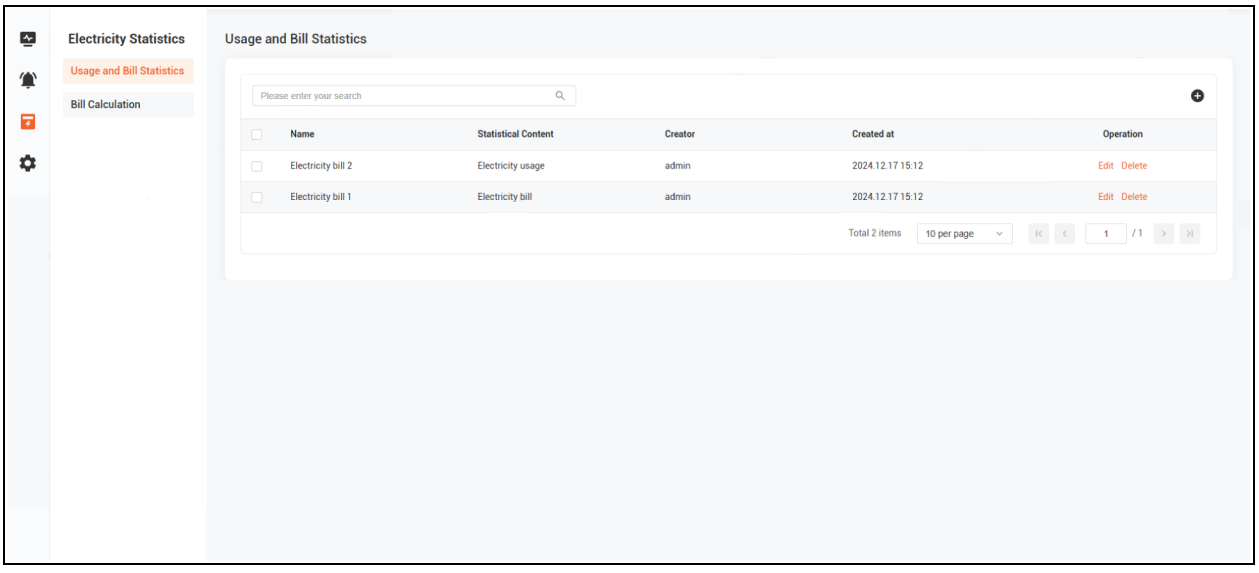


It has the input box search function of the basic table, and the pagination function.

8.3.2 Adding Usage and Bill Statistics

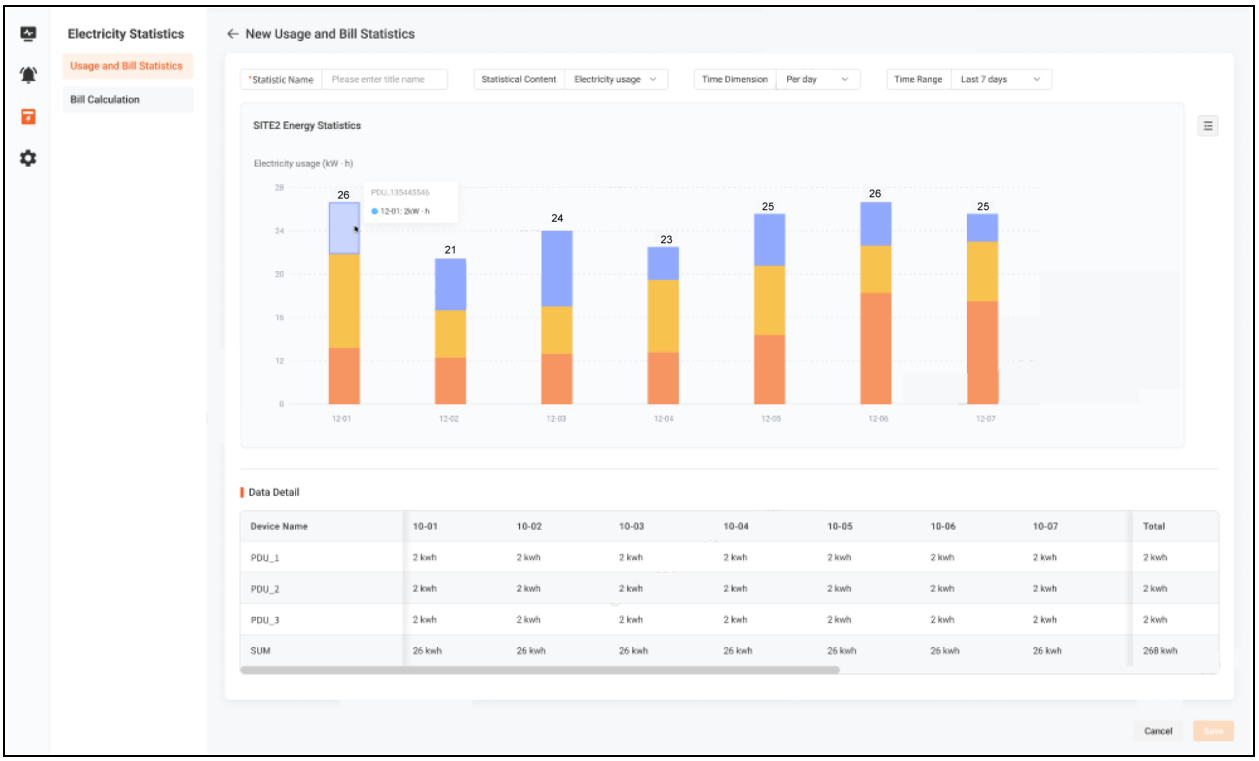
1. Click on Electricity Statistics icon and click on *Usage and Bill Statistics* in the second level menu. See Figure 8.2 below.

Figure 8.2 Electricity Statistics



2. Click on Add icon to display the new notification setting function, See Figure 8.3 on the facing page.

Figure 8.3 Electricity Bill Usage and Statistics



a. Enter a statistic name.

b. Select the statistical content (electricity bill).

c. Select the time dimension (if the statistical content is electric energy, you can select monthly/daily.) If the statistical content is electricity bill, only monthly options are selected).

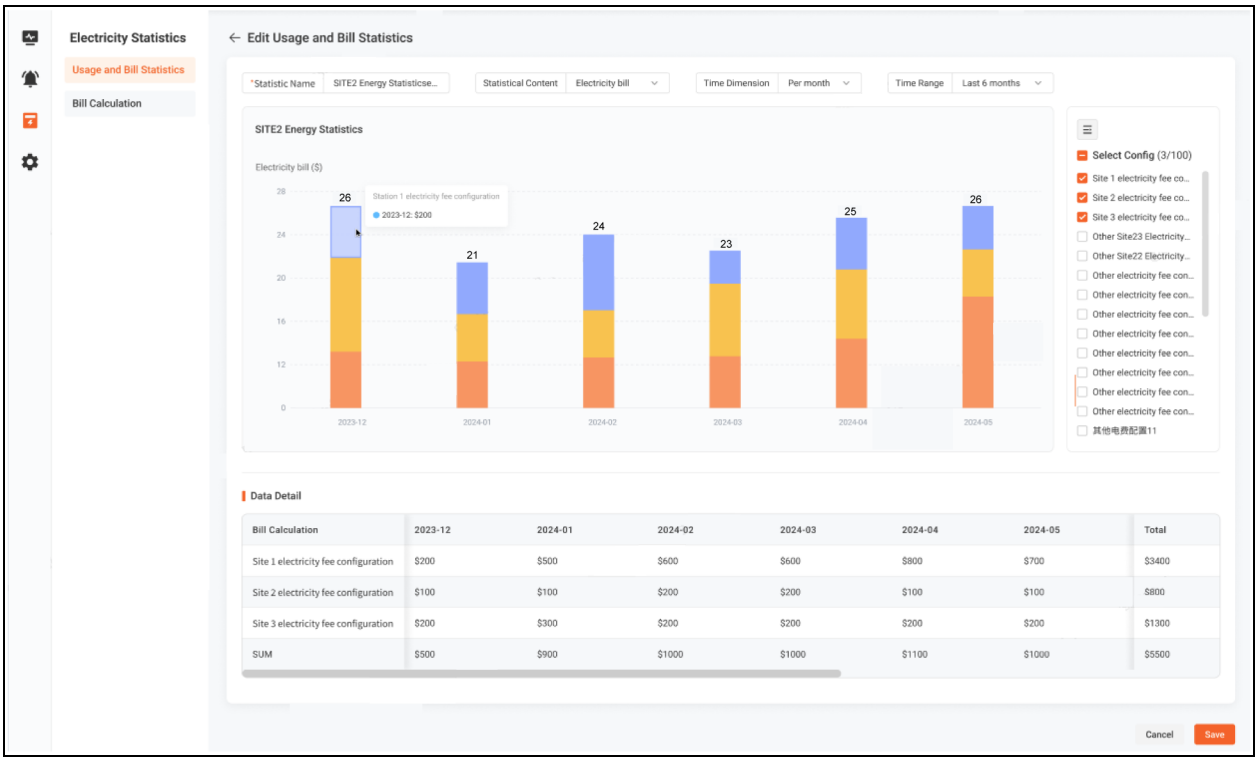
d. Select a time range (for monthly, you can select the past 6 months, the past 12 months, or the last 24 months.) By day, select the last 7 days/the last 30 days/the custom time range is up to 90 days).

e. Check the configuration area, which is expanded by default. Click on the checkbox to select the device that needs to be checked. The chart area is updated and configuration area will display.

f. If you need to view the details of a single histogram, right-click the mouse after hovering over the target area, the chart will be refreshed, and the detailed data area will be refreshed to view the details, as shown in the Figure 8.4 on the next page.

Proprietary and Confidential ©2025 Vertiv Group Corp.

Figure 8.4 Histogram for Energy Statistics



NOTE: Keep three decimal places in electricity consumption.

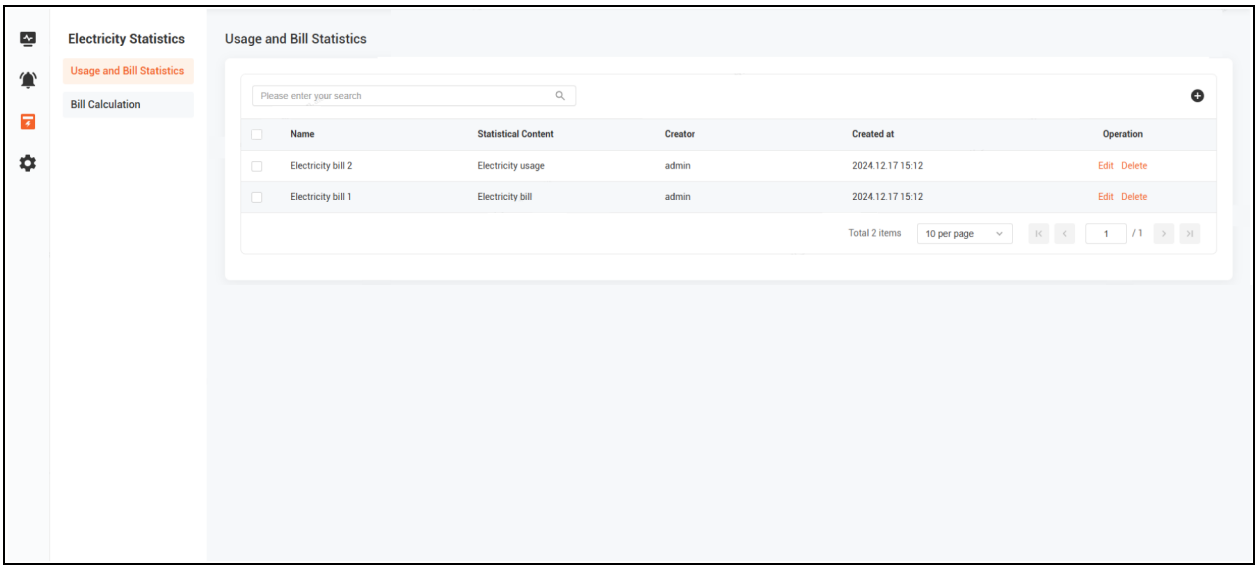
NOTE: Keep four decimal places in the electricity bill.

NOTE: When different billing units are selected for multiple electricity billing schemes, the display area shows message **The billing unit of the selected electricity bill calculation configuration is inconsistent and cannot be counted.**

8.3.3 Compiling Usage and Bill Statistics

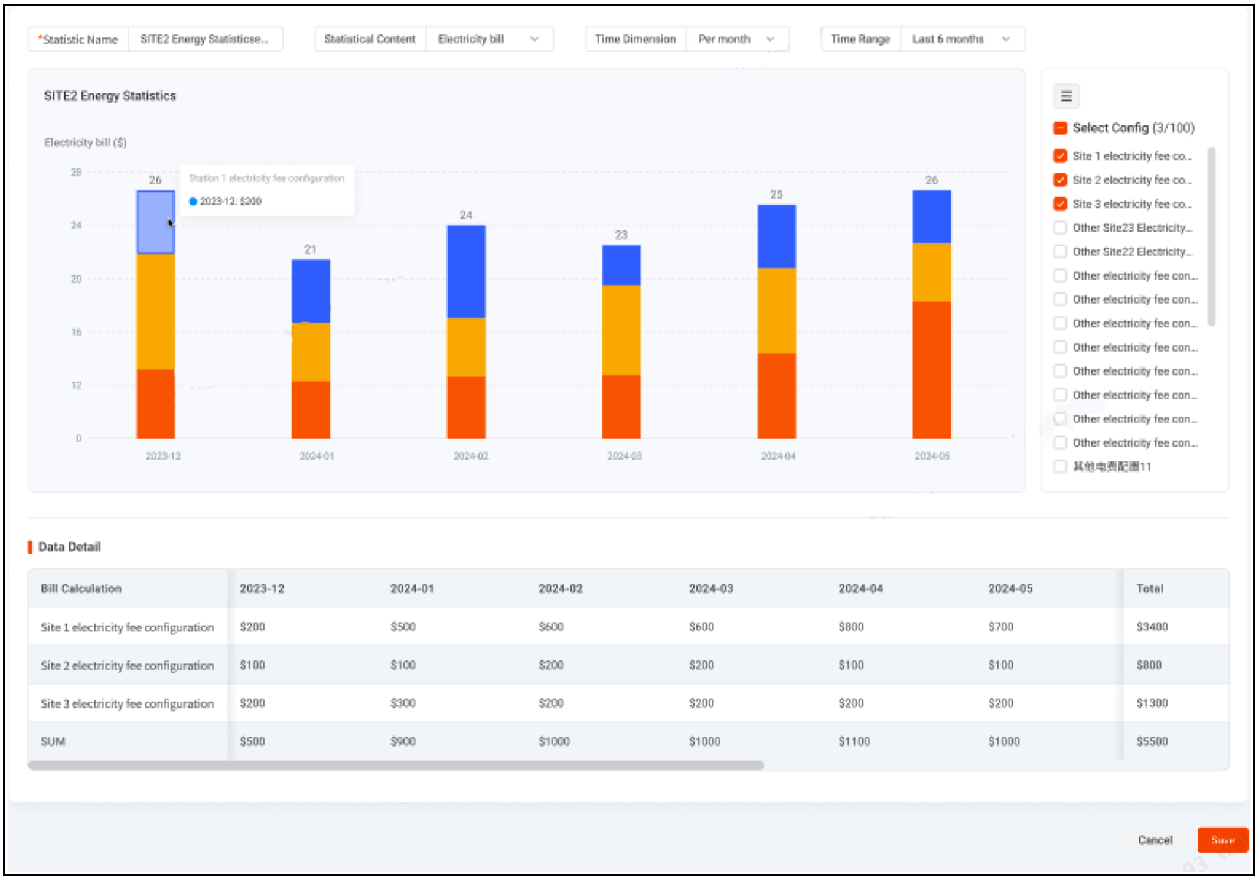
1. Click on Electricity Statistics icon and click on *Usage and Bill Statistics* in the second level menu. See Figure 8.5 on the facing page.

Figure 8.5 Electricity Statistics



2. Click *Edit* to enter the edit page, as shown in Figure 8.6 below.

Figure 8.6 Energy Statistics Histogram



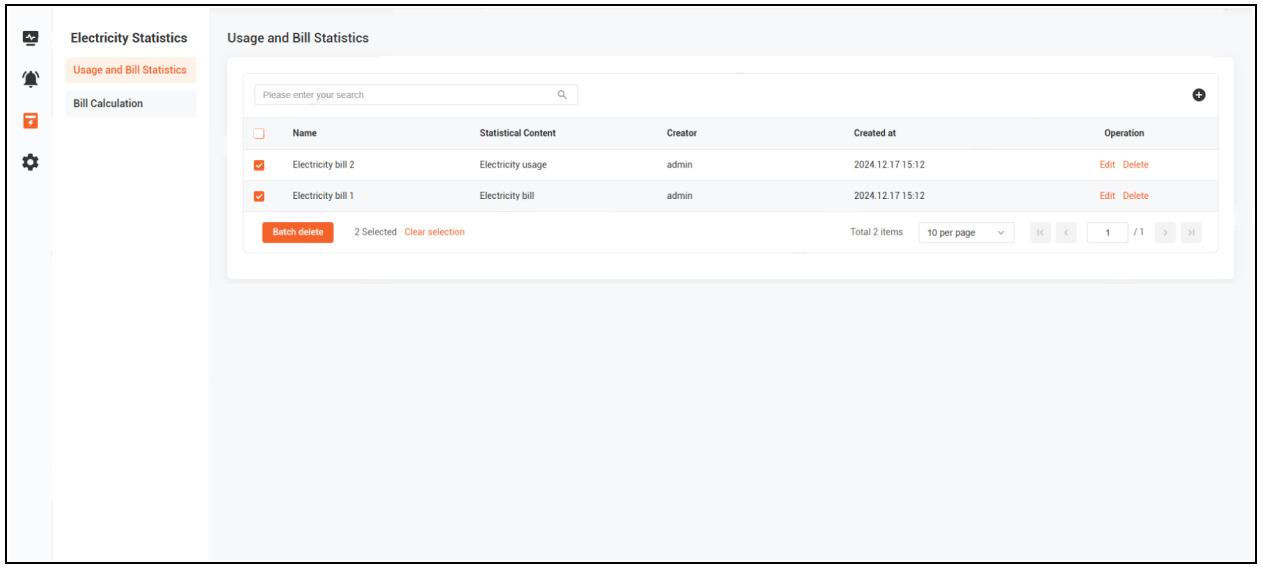
Proprietary and Confidential ©2025 Vertiv Group Corp.

By modifying the name or adjusting the statistical content, the time dimension and range, and selecting the configuration to meet the expected requirements, when the adjustment is completed and confirmed, click the *Save* to complete the editing and modification.

8.3.4 Deleting Usage and Bill Statistics

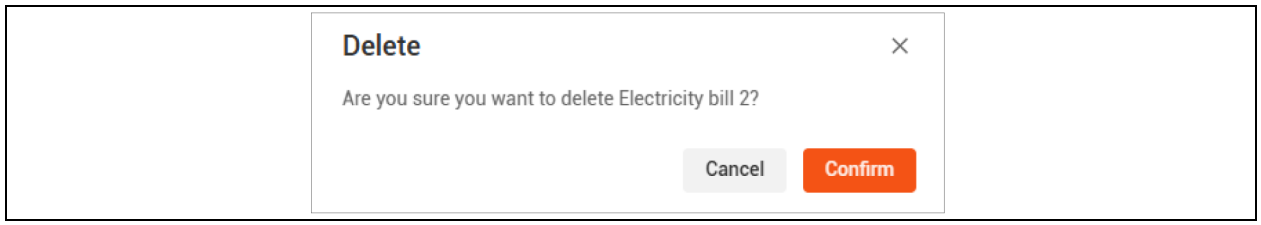
1. Click on Electricity Statistics icon and click on *Usage and Bill Statistics* in the second level menu. See Figure 8.7 below.

Figure 8.7 Electricity Statistics



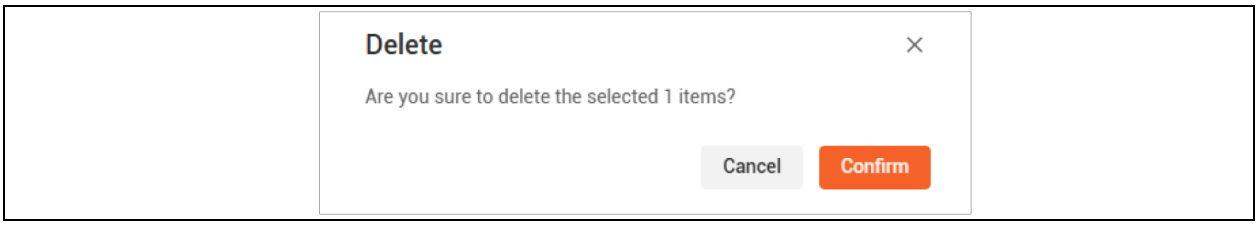
Single deletion: Click on *Delete* on the right of the single notification setting to trigger the deletion window, as shown in Figure 8.8 below.

Figure 8.8 Single Deletion Window



Multi-delete: Select the checkbox in the notification settings list and click the *Batch Delete* to trigger the deletion window, as shown in Figure 8.9 on the facing page.

Figure 8.9 Multiple Deletion Window

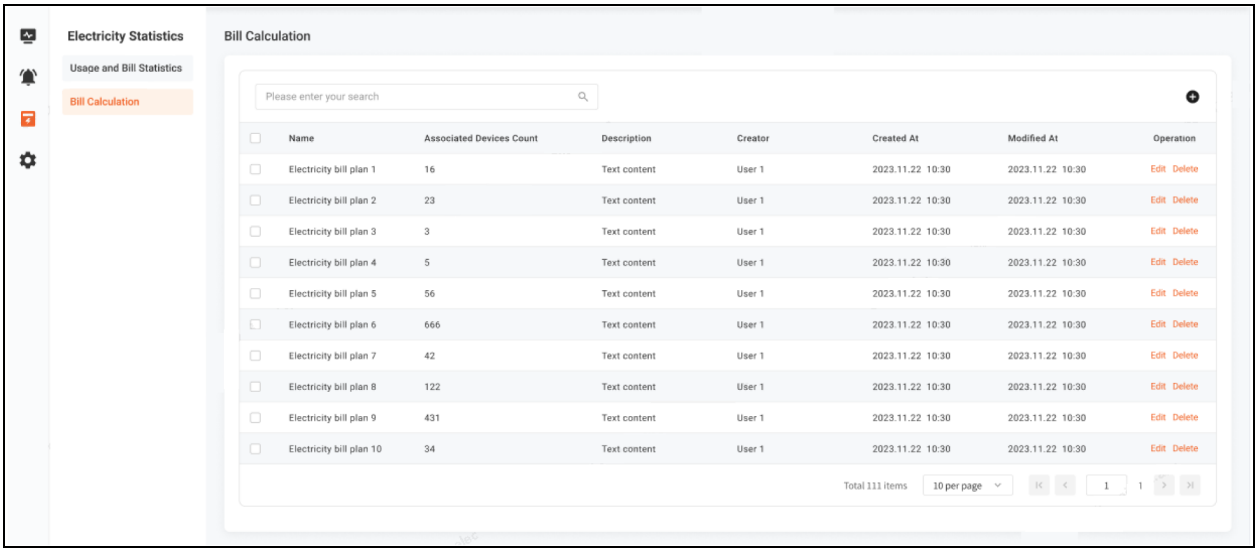


8.4 Electricity Bill Calculation

8.4.1 Electricity Bill Calculation List

1. Click on Electricity Statistics icon and click on *Bill Calculation* in the second level menu. See **Figure 8.10** below.

Figure 8.10 Electricity Bill Calculation



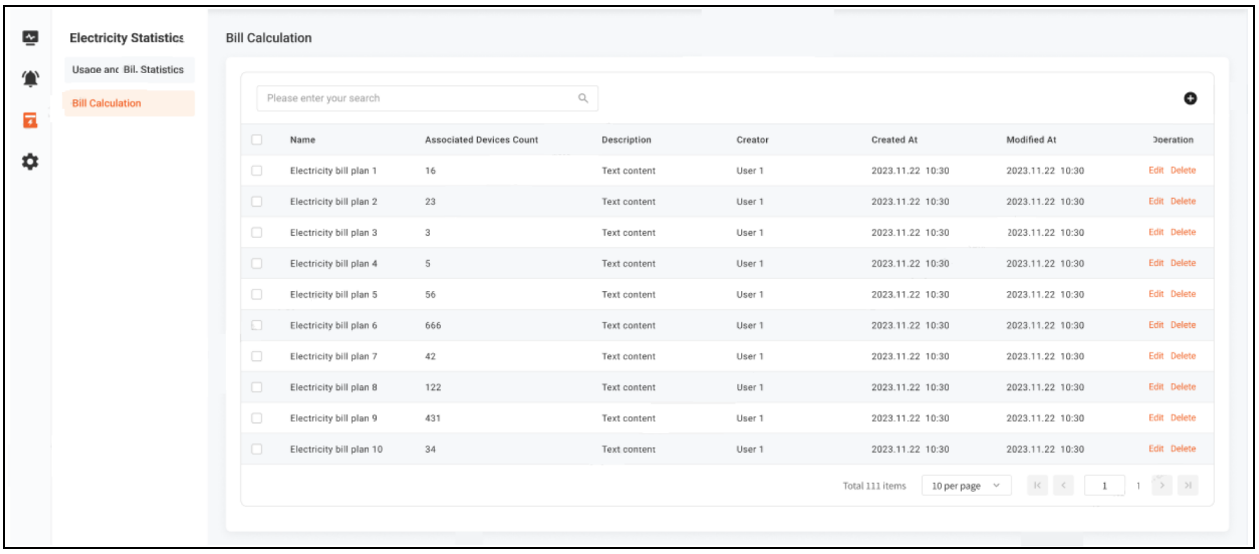
It has the input box search function of the basic table, and the pagination function.

Proprietary and Confidential ©2025 Vertiv Group Corp.

8.4.2 Adding Bill Calculation

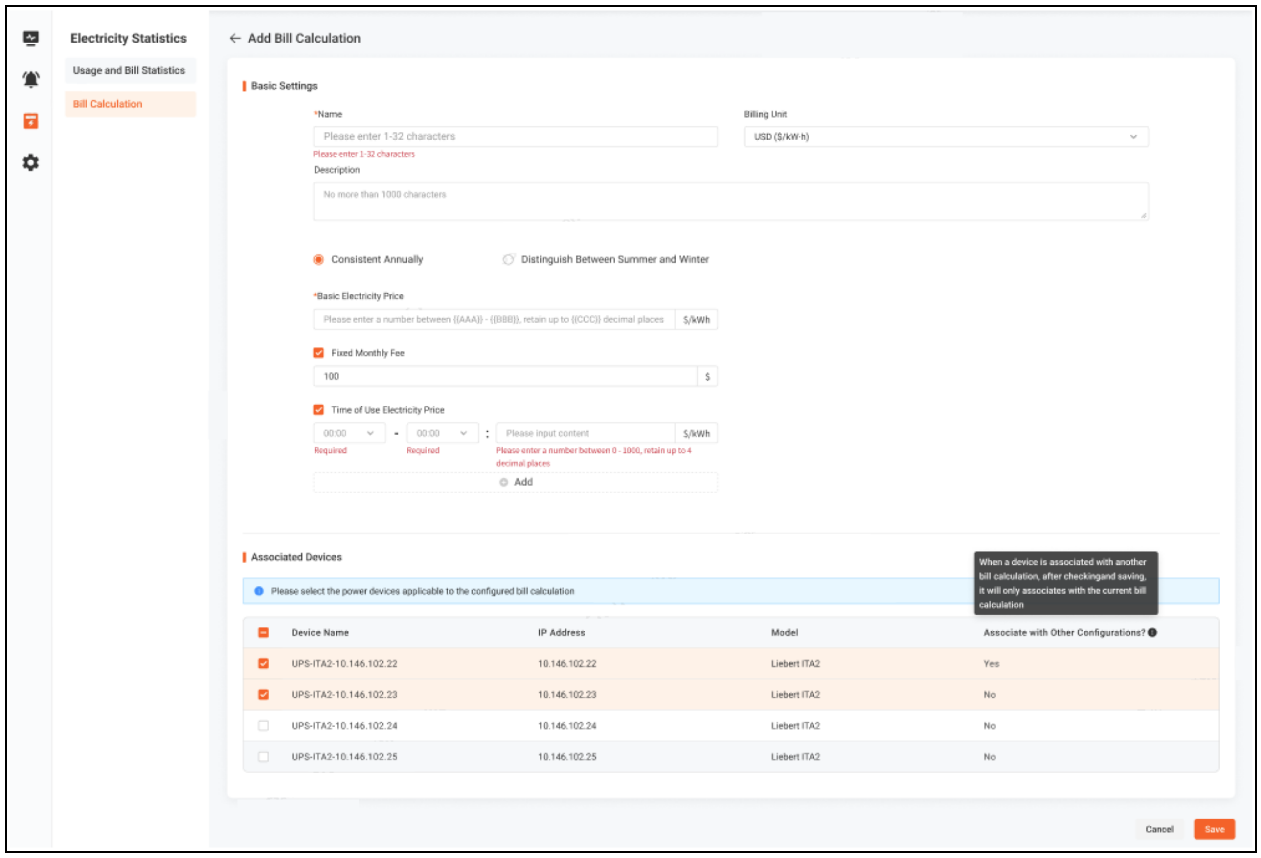
1. Click on Electricity Statistics icon and click on *Bill Calculation* in the second level menu. See **Figure 8.11** below.

Figure 8.11 Electricity Statistics



2. Click to Add icon to display the new notification setting function, as shown in **Figure 8.12** on the facing page.

Figure 8.12 Add Bill Calculation



a. Enter a name and description for the statistics.

b. Select the settlement unit (RMB (¥/kW·h), USD ($/kW·h), EUR (€/kW·h), GBP (£/kW·h)).

3. Select the calculation method (unify throughout the year/distinguish between summer and winter)

- Uniform throughout the year

  Enter the basic electricity price, the fixed monthly fee and time of use electricity price are not checked by default, if necessary, check the checkbox in front of both.

  After entering a fixed monthly fee, select the time period for the time sharing. Click the first drop-down box to enter the start time, and the second to enter the end time. The time of use tariff termination time must be greater than the start time.

  If you need to enter more time of use electricity prices, click Add icon to add new row. One row will be added to the number of existing lines. To delete row of time of use electricity prices, click the *Delete* to delete the current line, and the range of time of use electricity prices cannot coincide.

- Distinguish between summer and winter

  The default season is Summer.

a. Enter the basic electricity price, the fixed monthly fee and time of use electricity price are not checked by default, if necessary, check the checkbox in front of the two.

Proprietary and Confidential ©2025 Vertiv Group Corp.

b. Select the time range, the optional range is 1 to 12 months, and the summertime range and the wintertime range complement each other, a total of 12 months. The default month range for summer is April to September.

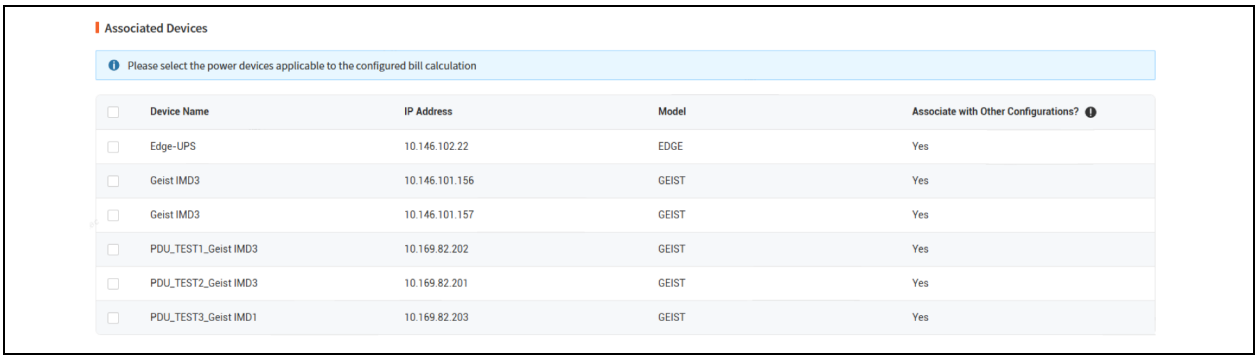
c. After entering the fixed monthly fee, select the time period for the time-sharing. Click the first drop-down box to enter the start time, and the second to enter the end time. The time of use tariff termination time must be greater than the start time.

d. If you need to enter more time of use electricity prices, click Add icon to add new row. One line will be added to the number of existing lines. To delete row of time of use electricity prices, click the *Delete* to delete the current line, and the range of time of use electricity prices cannot coincide.

e. Select the season as winter and repeat the above steps a to d.

4. Check the devices that need to be associated in the Associated Equipment area, as shown in **Figure 8.13** below.

Figure 8.13 Associated Devices



NOTE: The name of the electricity charge calculation configuration cannot be duplicated with the name of the existing electricity cost calculation configuration.

NOTE: Keep at least 1 line in the time of use electricity price input box, and add a maximum of 10 lines, and the add button will be grayed out after the restrictions are met.

NOTE: At least one device must be associated with the electricity cost calculation configuration.

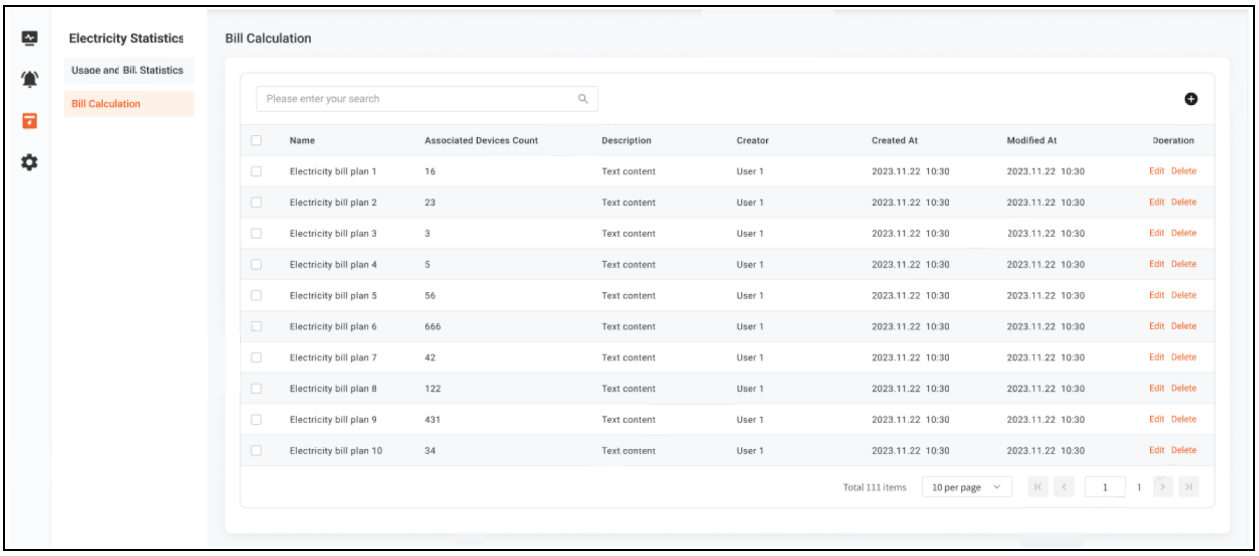
NOTE: Under the calculation method of distinguishing between winter and summer, both summer and winter must be filled in before they can be saved.

NOTE: In the configuration of power statistics and electricity charges, the electricity charges and power statistics in different time periods are subject to the server time deployed by the Vertiv™ Power Insight.

8.4.3 Editing Bill Calculation

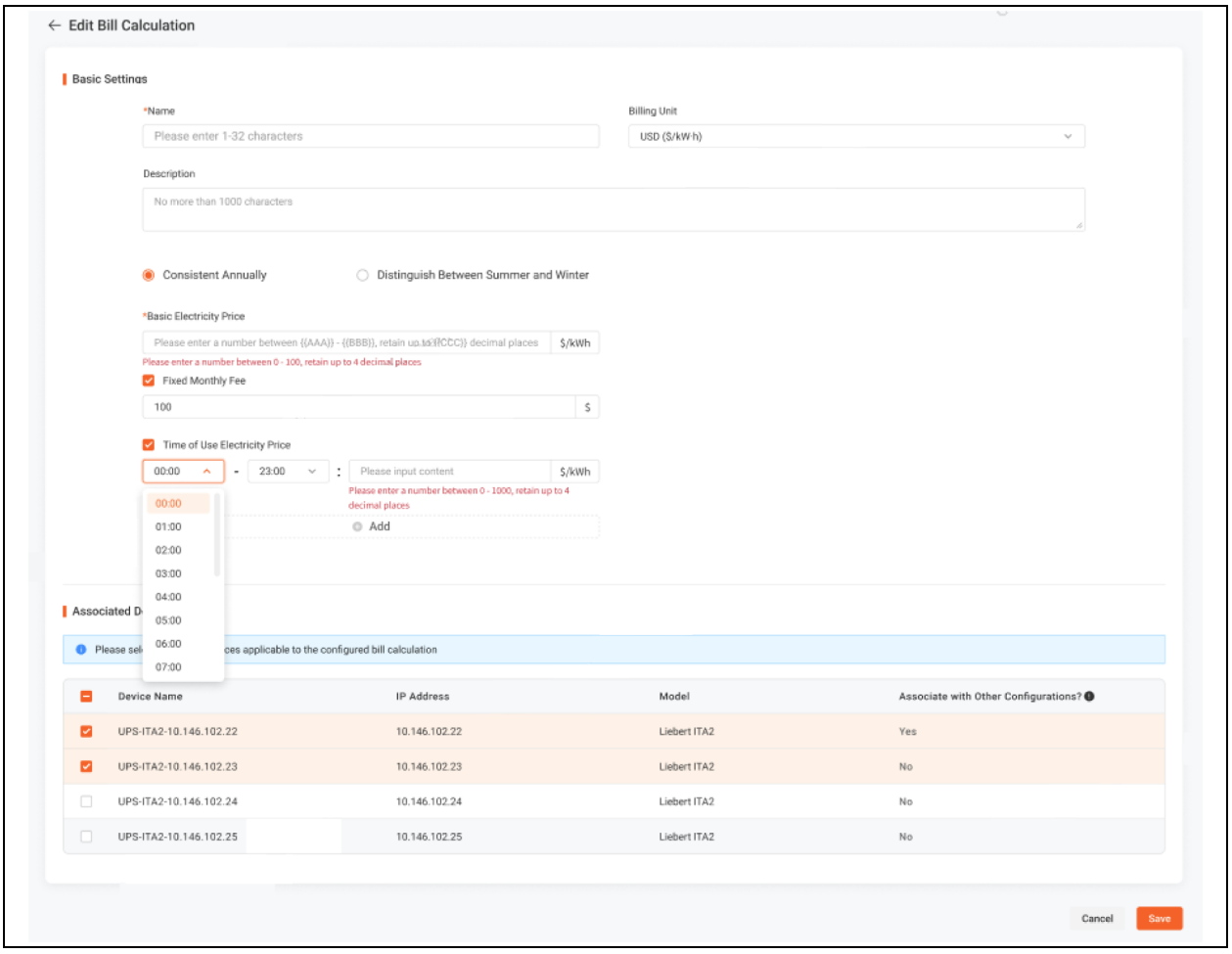
1. Click on Electricity Statistics icon and click on *Bill Calculation* in the second level menu. See **Figure 8.14** on the facing page.

Figure 8.14 Electricity Calculation



2. Click *Edit* to enter the edit page, as shown in **Figure 8.15** below.

Figure 8.15 Edit Electricity Bill Calculation



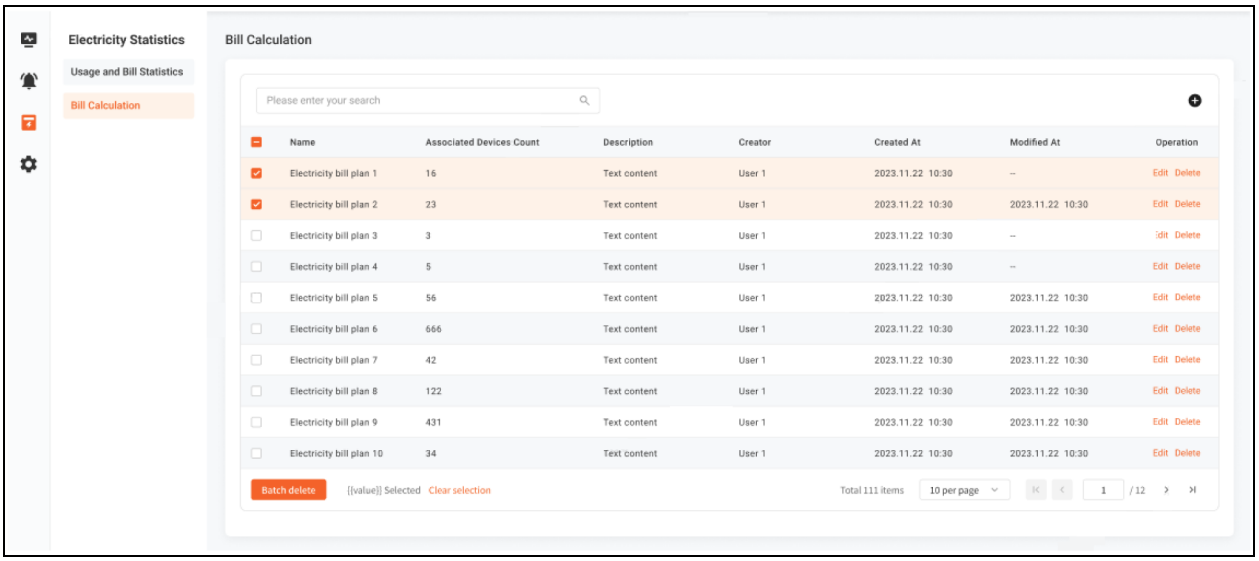
Proprietary and Confidential ©2025 Vertiv Group Corp.

By modifying the name or adjusting the settlement unit, the calculation method, the basic electricity price, the fixed electricity price, the time of use electricity price, and the associated equipment. When the adjustment is complete, click the *Save* to complete the editing.

8.4.4 Deleting Bill Calculation

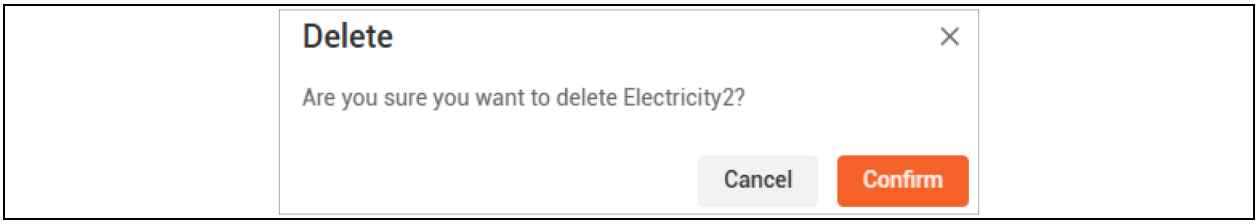
1. Click on Electricity Statistics icon and click on *Bill Calculation* in the second level menu. See **Figure 8.16** below.

Figure 8.16 Bill Calculation



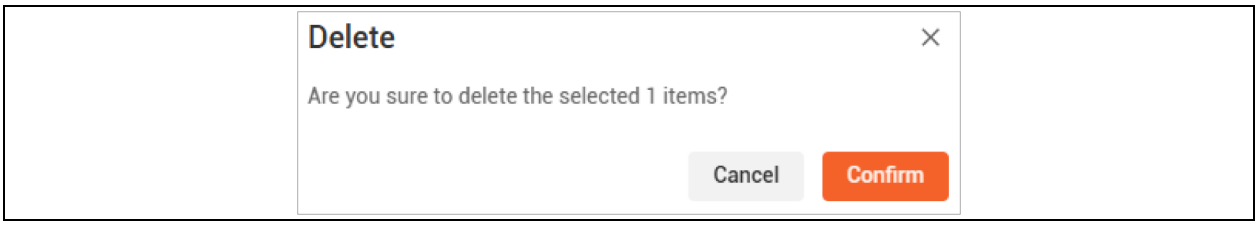
Single deletion: Click on *Delete* on the right of the single notification setting to trigger the deletion window. See **Figure 8.17** below.

Figure 8.17 Single Deletion Window



Multi-delete: Select the checkbox in the notification settings list and click the *Batch Delete* to trigger the deletion window. See **Figure 8.18** below.

Figure 8.18 Multiple Deletion Window



Proprietary and Confidential ©2025 Vertiv Group Corp.

This page intentionally left blank

9 System Configuration

9.1 Overview

System settings are where Vertiv™ Power Insight can view all event logs, configure notification emails, SMS, security settings, user-defined attributes, contacts, trust certificates, and backups, restores, and upgrades.

9.1.1 Functional Modules:

The system setup includes the following functional modules:

- Event logs
- Notification settings
- Security settings
- Integrated management
- User management
- Backup, restore and upgrade

9.2 Get Started Quickly

9.2.1 Rapid Deployment Steps

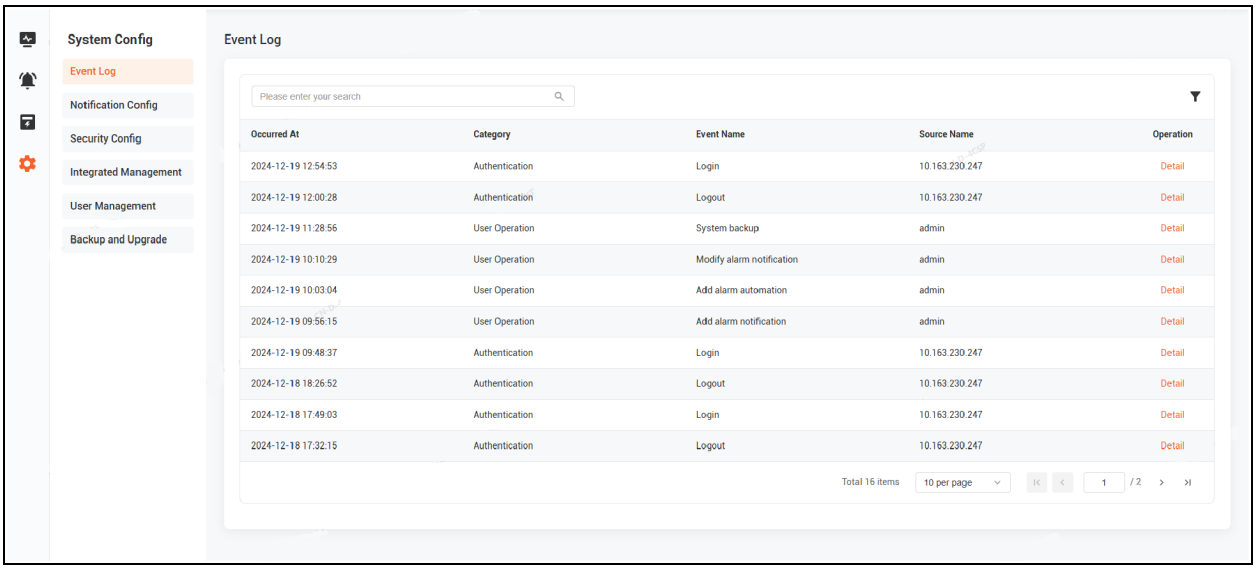
1. Notification configuration
2. Added trust certificates
3. Added SSL certificate
4. Added integrated management
5. Add users
6. Add backups
7. Fast restoration
8. Quick upgrade

9.3 Event Logs

Click on System config icon and click *Event Log* in the second level menu, see **Figure 9.1** on the next page.

Proprietary and Confidential ©2025 Vertiv Group Corp.

Figure 9.1 Event Log



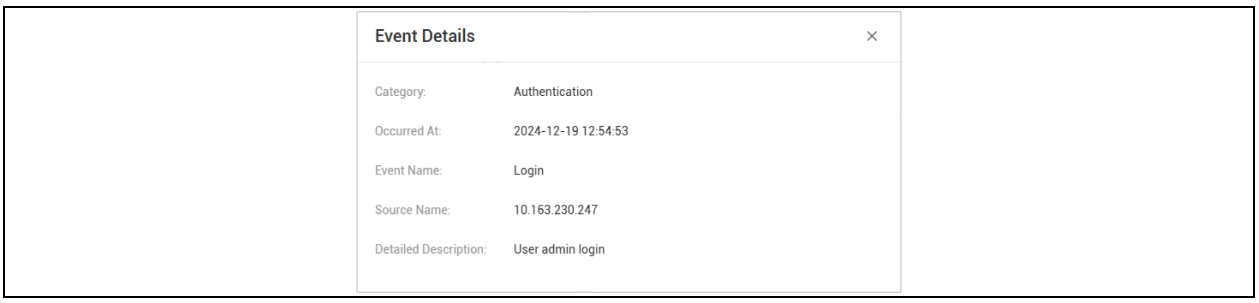
The event log function is mainly displayed in a table, with search and filtering and pagination capabilities. Click on Filter icon to expand or close the filter conditions, which are divided into two conditions: date and event.

You can choose from the following date conditions: Last 1 day (default), Last 3 days, Last 7 days, Last 30 days, All, Custom

The event conditions are as follows: All (default selection), User Operation, Authentication, Alarm Notification, Alarm Linkage, and Others.

Click *Details* to view log details to the right of each row in the event log table, and the details window appears, See **Figure 9.2** below.

Figure 9.2 Event Details



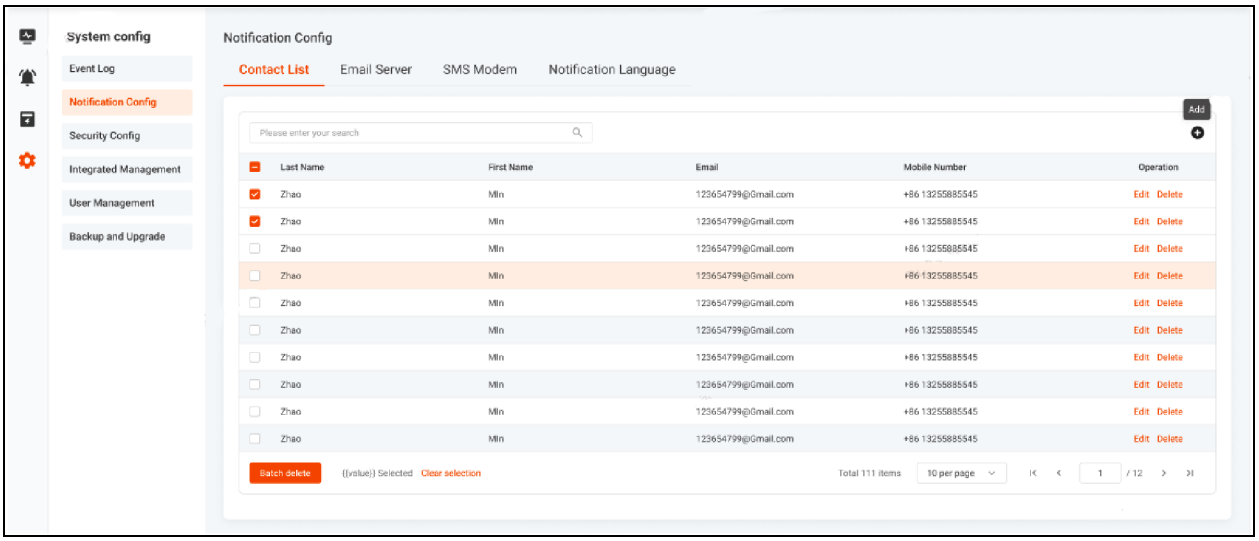
9.4 Notification Configuration

9.4.1 Contact List

View contacts members

1. Click on System config icon and click *Notification Config* in the second level menu, and the content of the address book page will be entered by default. See **Figure 9.3** on the facing page.

Figure 9.3 Contact List

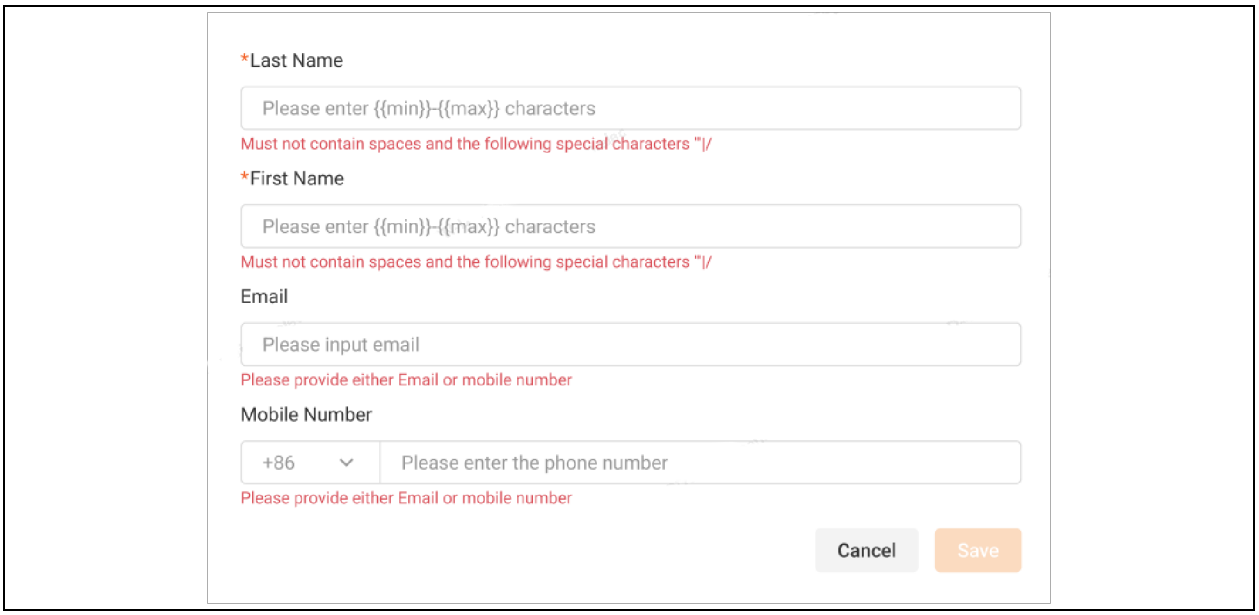


The address book form provides basic functions, including first name, email address, and mobile phone number information. You can perform functions such as searching, adding, deleting, and editing.

To add a member of address book:

1. Click Sytem config icon and click *Notification Config* in the second level menu, and the content of the address book page will be entered by default. See **Figure 9.3** above.
2. Click on Add icon to display the Add Contacts window, as shown in **Figure 9.4** below.

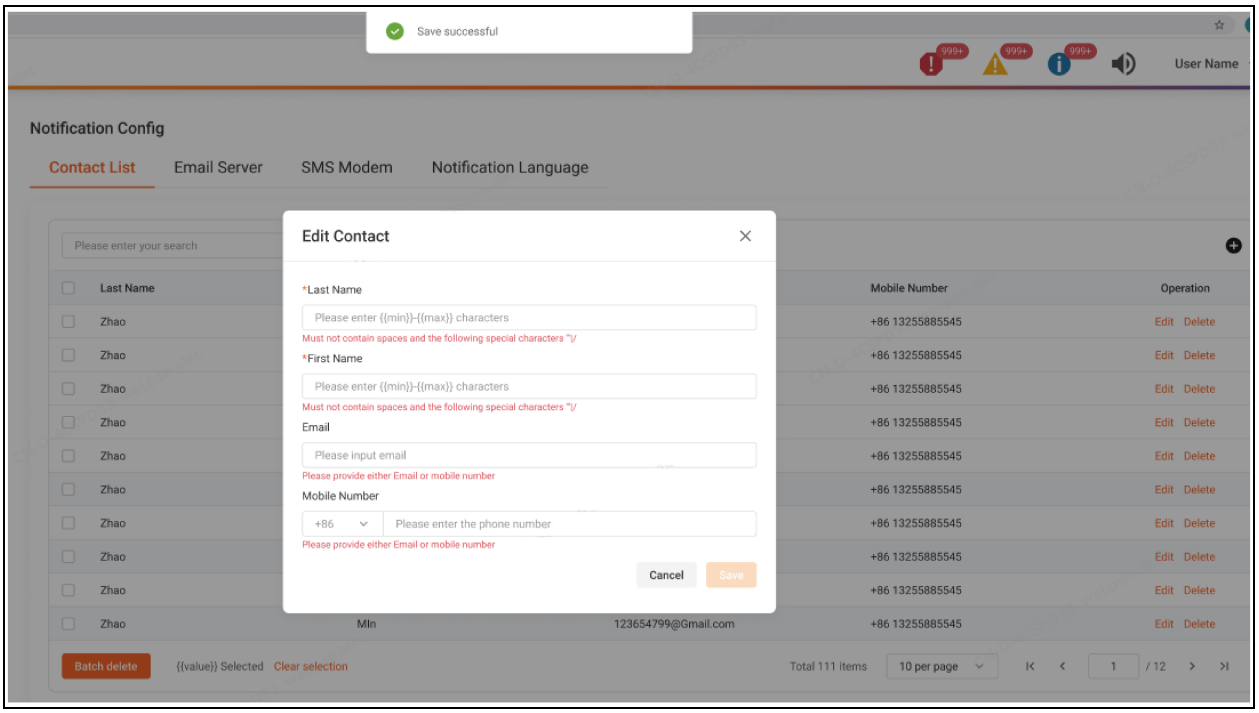
Figure 9.4 Add Contacts Window



Proprietary and Confidential ©2025 Vertiv Group Corp.

Enter the last name, first name, email, and mobile phone number, click on dropdown to modify the area code, enter the mobile phone number, all the verification conditions are passed, click the *Save*, and complete the addition of contacts members. After the addition is successful, the window disappears, and a message is displayed at the top of the screen. See Figure 9.5 below.

Figure 9.5 Edit Contact Window



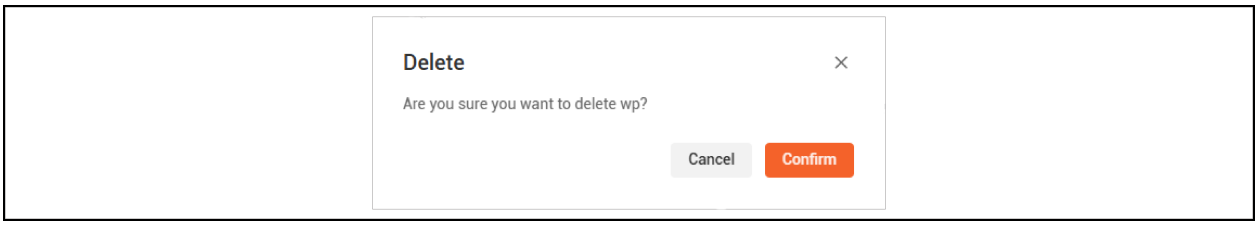
NOTE: Only super admins can view event logs.

To delete a member of address book:

1. Click on System configuration icon and click *Notification Config* in the second level menu, and the content of the address book page will be entered by default. See Figure 9.3 on the previous page.

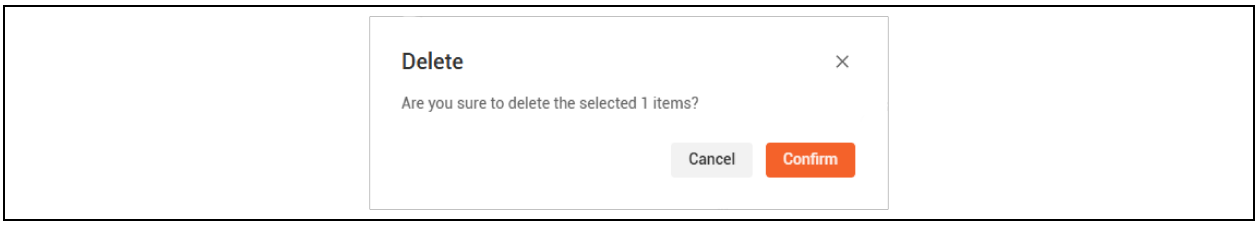
Single deletion: Click on *Delete* on the right side of a single address book member to trigger the deletion window, as shown in Figure 9.6 below.

Figure 9.6 Single Deletion Window



Multi-delete: Select the checkbox in the address list and click *Batch Delete* to trigger the delete window, as shown in Figure 9.7 on the facing page.

Figure 9.7 Multiple Deletion Window

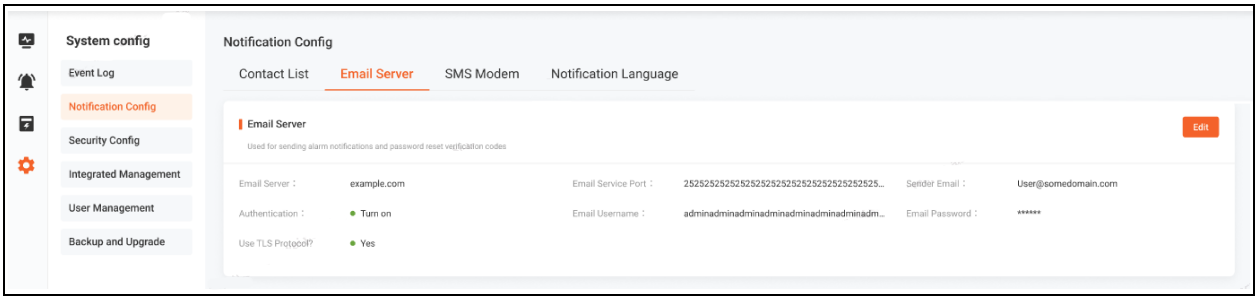


9.4.2 Email Server

To configure email server:

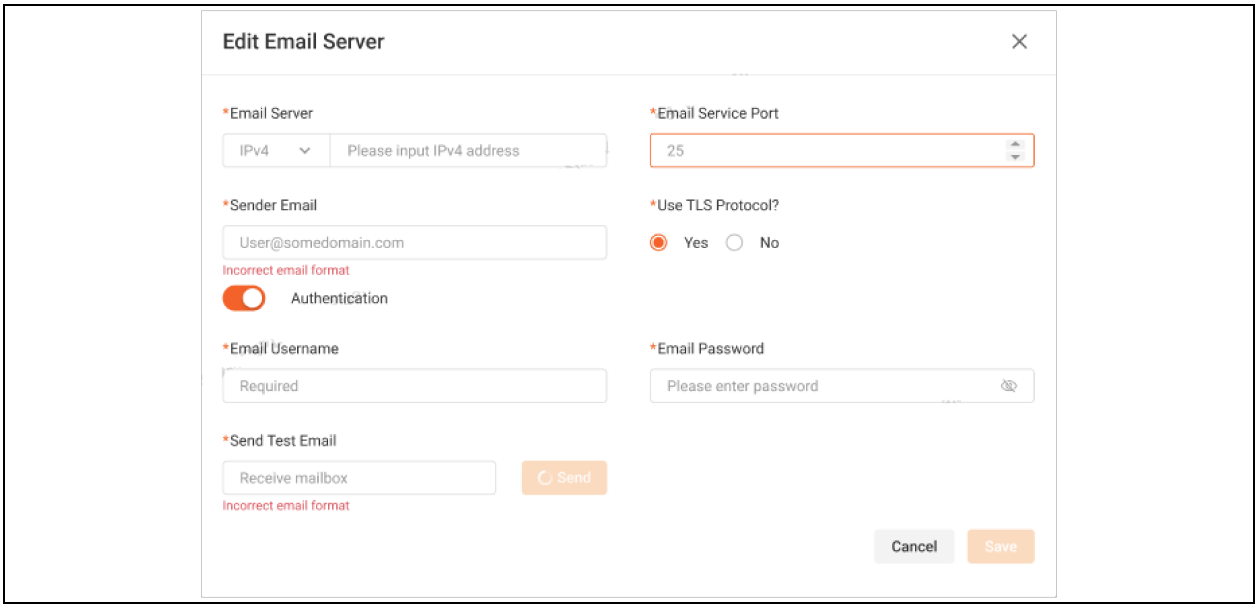
1. Click on System config icon and click *Notification Config* in the second level menu, and click on the *Email Server* tab, see Figure 9.8 below.

Figure 9.8 Email Server



2. Click the *Edit* to display the Add Contacts windows. See Figure 9.9 below.

Figure 9.9 Edit Email Server



Proprietary and Confidential ©2025 Vertiv Group Corp.

Enter IPv4 or host name, email service port, sender email address, check whether to use TLS protocol, enable identity authentication, enter email username, email password, and test email address information.

After filling in the above content, click on *Send*, if the content is returned above the window displays message **Test email sent successfully**. Click *Save* to complete the mail server configuration, if it returns and system displays message **Test SMS sending fails, please make sure the phone card and SMS modem configured correctly and try again**. Check the mail server configuration again, confirm that it is correct, and try again.

9.4.3 SMS Modem

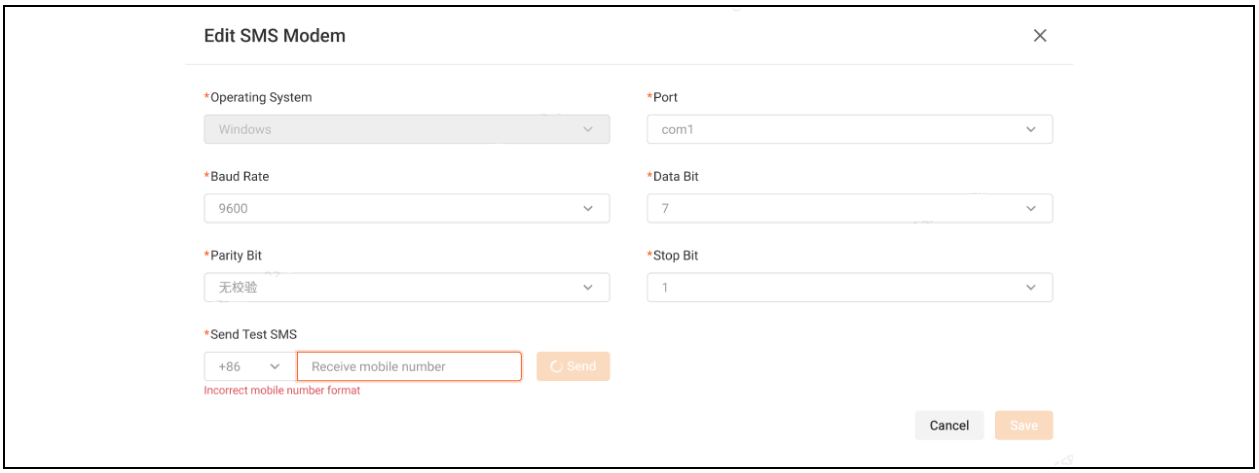
To configure SMS Modem:

1. Click on System config icon and click *Notification Config* in the second level menu, and click on the *SMS Modem* configuration tab. See **Figure 9.10** below.

Figure 9.10 SMS Modem Configuration

2. Click on Add icon to display the Add Contacts window, as shown in **Figure 9.11** below.

Figure 9.11 Edit SMS Modem



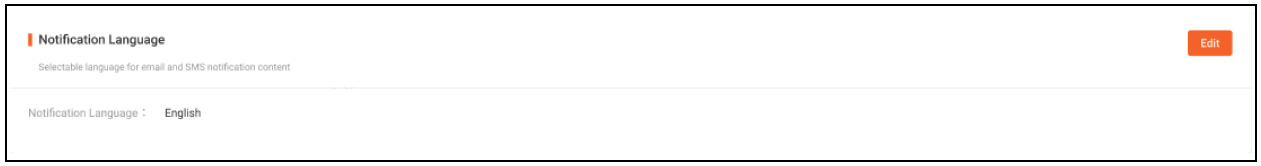
The operating system is automatically populated based on the operating system currently used by Vertiv™ Power Insight and cannot be edited. Select port, baud rate, data bit, parity bit, stop bit, and enter the mobile phone number to receive the test SMS. Click on the front of the mobile phone number to modify the area code, after entering the mobile phone number, all the verification conditions are passed, click the *Send*. If the all the information is correct, the window displays message **Test SMS sent Successfully**. Click the save to complete the SMS modem configuration. If you return and system displays message **Test SMS sending fails, please make sure the phone card and SMS modem configured correctly and try again**. Check the mail server configuration again and try again after confirming that it is correct.

9.4.4 Notification Language

To configure notification language:

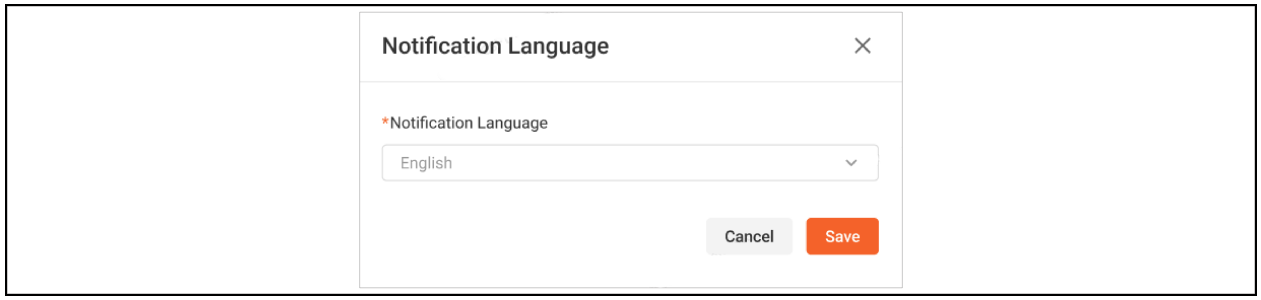
1. Click on System config icon and click *Notification Config* in the second level menu. Click the *Notification Language* configuration tab. See Figure 9.12 below.

Figure 9.12 Notification Language



2. Click on Add Icon to display the Add Contacts window, as shown in Figure 9.13 below.

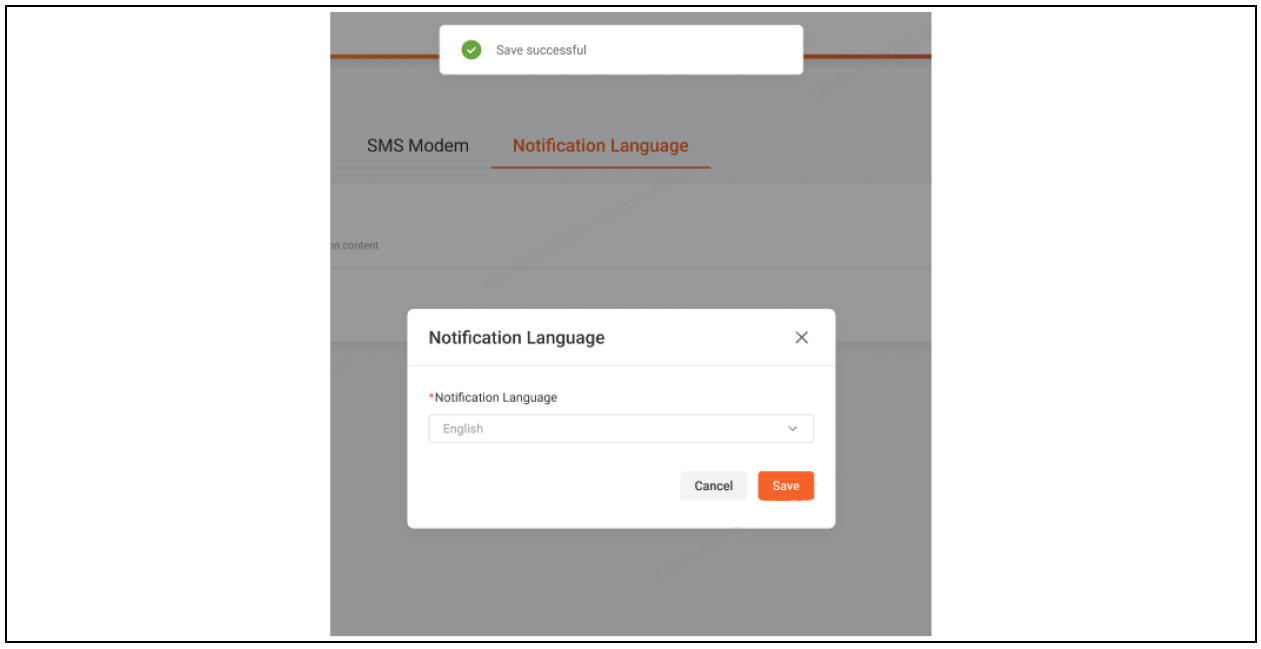
Figure 9.13 Notification Language Dropdown



3. The default notification language is set to English, and the options are Chinese and English. After confirming the language configuration, click *Save* to complete the configuration.

Proprietary and Confidential ©2025 Vertiv Group Corp.

Figure 9.14 Saving Notification Language



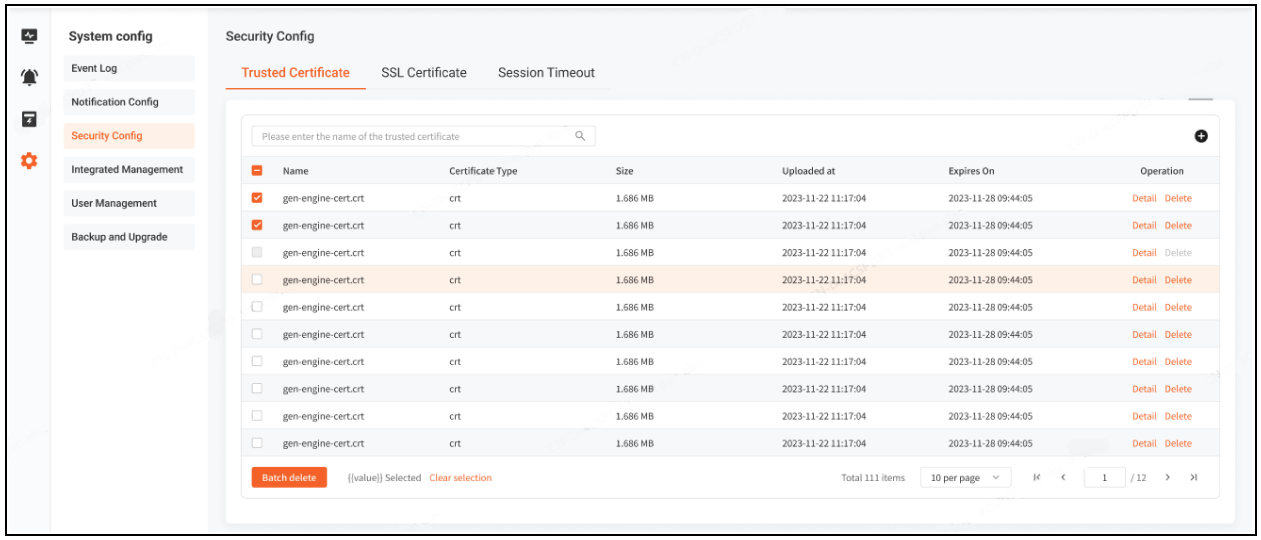
9.5 Security Configuration

9.5.1 Trusted Certificate

To view the list of trusted certificates:

1. Click on System Config icon and click *Security Config* in the second level menu, and the content of the Trusted Certificate page will be entered by default. See Figure 9.15 below.

Figure 9.15 Trusted Certificate

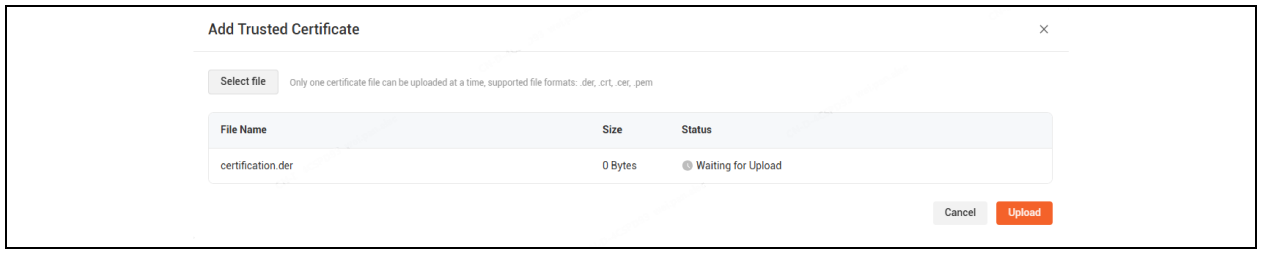


The trust certificate form provides basic functions, including the name, certificate type, size, upload time, and expiration date.

A trust certificate is added.

2. Click on Add icon to display the trust certificate window, as shown in the Figure 9.16 below.

Figure 9.16 Add Trusted Certificate



After the file is uploaded, the file will be verified, and if the upload fails, there are several possibilities:

1. The format of the imported certificate does not meet the requirements, and the message The file format is incorrect is displayed.
2. The certificate has expired.
3. If the uploaded certificate already exists (based on the certificate fingerprint), the message indicates that the certificate already exists.
4. If the imported certificate cannot obtain the complete certificate information due to encryption or data loss, the message The complete information of the certificate cannot be obtained, please make sure that the certificate is not encrypted and the information is complete is displayed.
5. The certificate cannot exceed 5 MB, and the message The uploaded file size cannot exceed {{XX}} is displayed when it is exceeded.

Click on the *Select file* to upload the trust certificate file, the file format is indicated by the file type on the right side of the reference, confirm that the file is correct, and click the *Upload* to complete the upload of the trust certificate. After the upload is complete, check whether the trust certificate file exists in the trust certificate list.

NOTE: The certificate cannot exceed 5 MB.

NOTE: Trust certificate files 0 KB to 1000 KB show KB, and more than 1000 KB show MB.

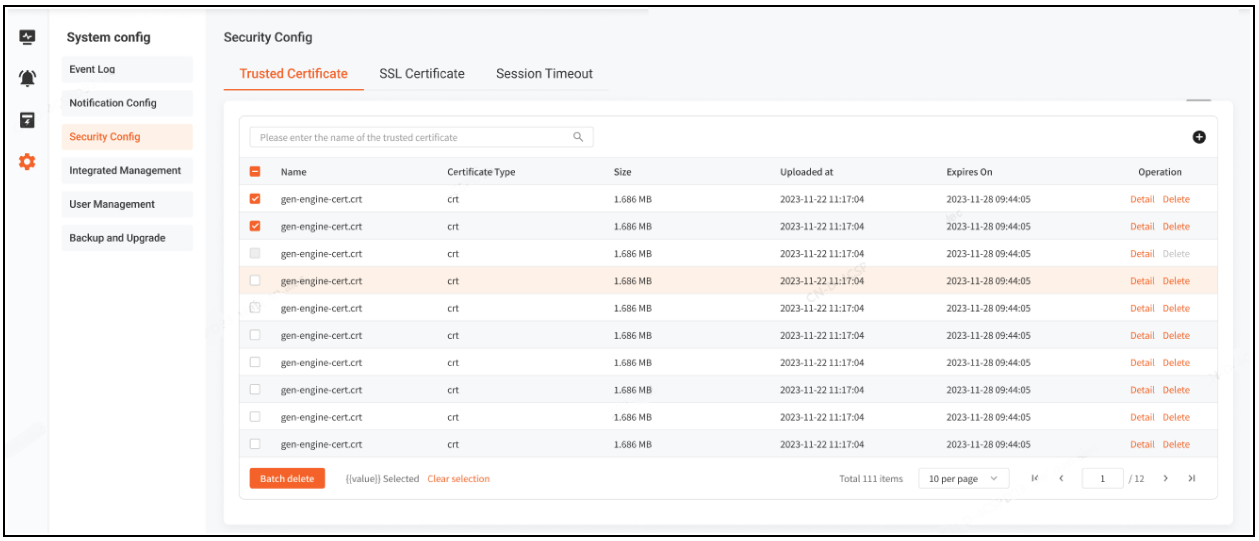
NOTE: Only one certificate file can be uploaded at a time, and the supported file formats are: .der, .crt, .cer, .pem.

To view the Details of the Trusted Certificate:

1. Click on System Config icon and click *Security Config* in the second level menu, and the content of the trust certificate page will be entered by default. See Figure 9.17 on the next page.

Proprietary and Confidential ©2025 Vertiv Group Corp.

Figure 9.17 Trusted Certificate



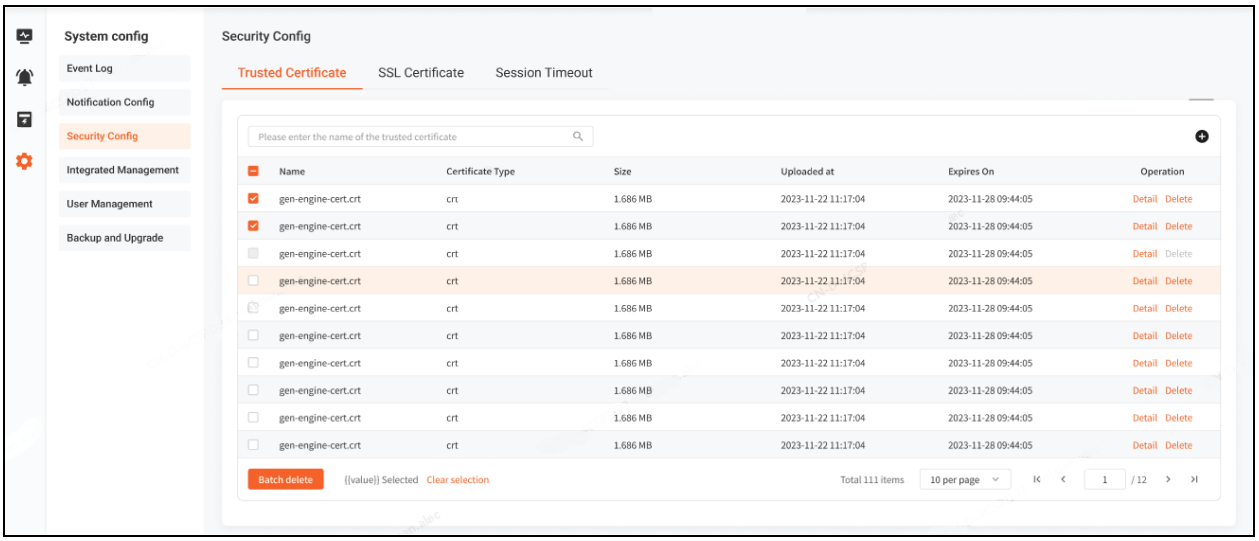
2. Click on *Details* to display the trust certificate details window, as shown in Figure 9.18 below.

Figure 9.18 Trust Certificate Details Window

To delete the trust certificate:

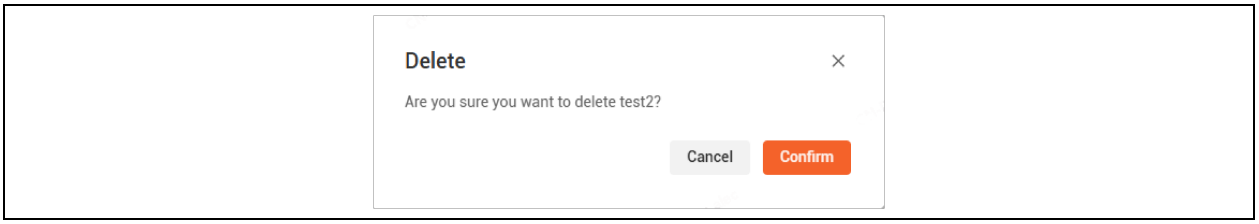
1. Click in the System Config icon . Click *Security Configuration* in the second level menu, and the content of the trust certificate page will be entered by default. See Figure 9.19 on the facing page.

Figure 9.19 Deletion of Selected Trusted Certificate



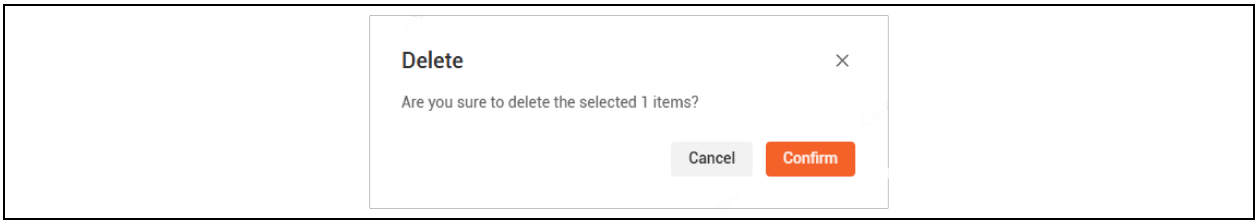
Single deletion: Click on *Delete* on the right of a single trust certificate to trigger the deletion window, as shown in **Figure 9.20** below.

Figure 9.20 Single Deletion Window



Multi-deletion: Select the checkbox in the list of trusted certificates and click *Batch Delete* to trigger the deletion window, as shown in **Figure 9.21** below.

Figure 9.21 Multiple Deletion Window



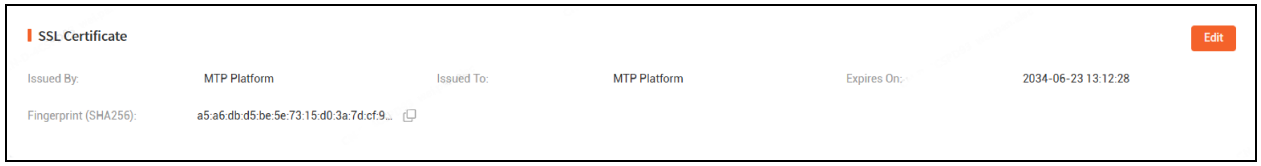
Proprietary and Confidential ©2025 Vertiv Group Corp.

9.5.2 SSL Certificate

To view the SSL certificate:

1. Click on System Config icon . Click *Security Configuration* in the second level menu, and click the *SSL Certificate* tab, see Figure 9.22 below.

Figure 9.22 SSL Certificate

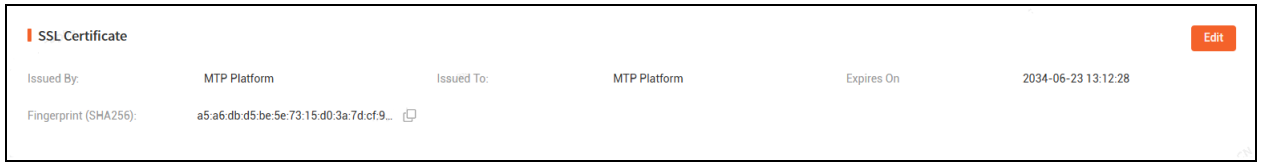


On the SSL certificate page, the fields are displayed, including the issuing authority, issuance object, expiration date, and certificate thumbprint (SHA256), and the certificate fingerprint can be copied by clicking the Copy icon at the end of the certificate fingerprint.

Replace the SSL certificate:

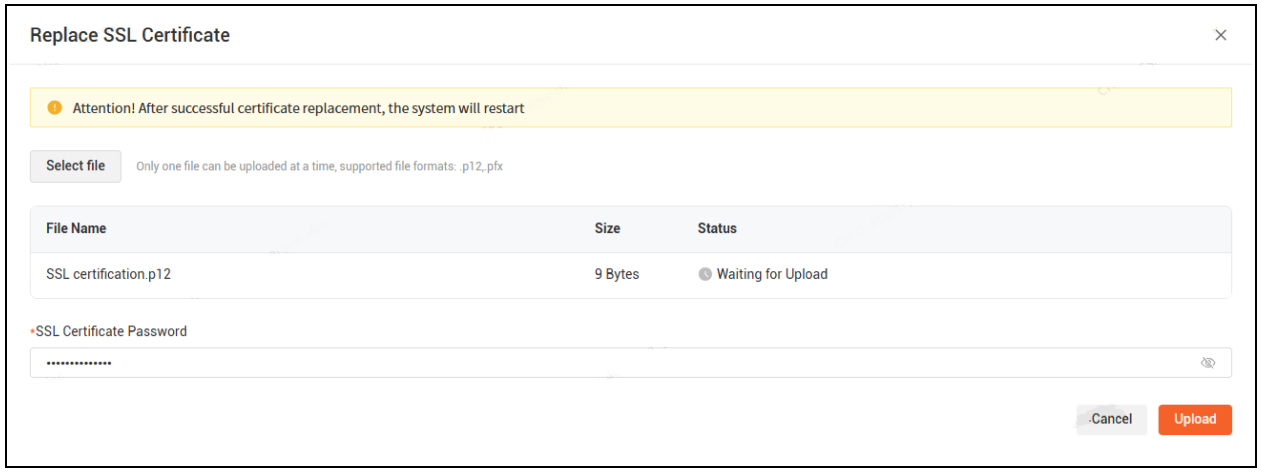
1. Click on the System Config icon . Click *Security Configuration* in the second level menu, and click the *SSL certificate* tab, see Figure 9.23 below.

Figure 9.23 SSL Certificate



2. Click *Edit* to enter the edit page, see Figure 9.24 below.

Figure 9.24 Replace SSL Certificate

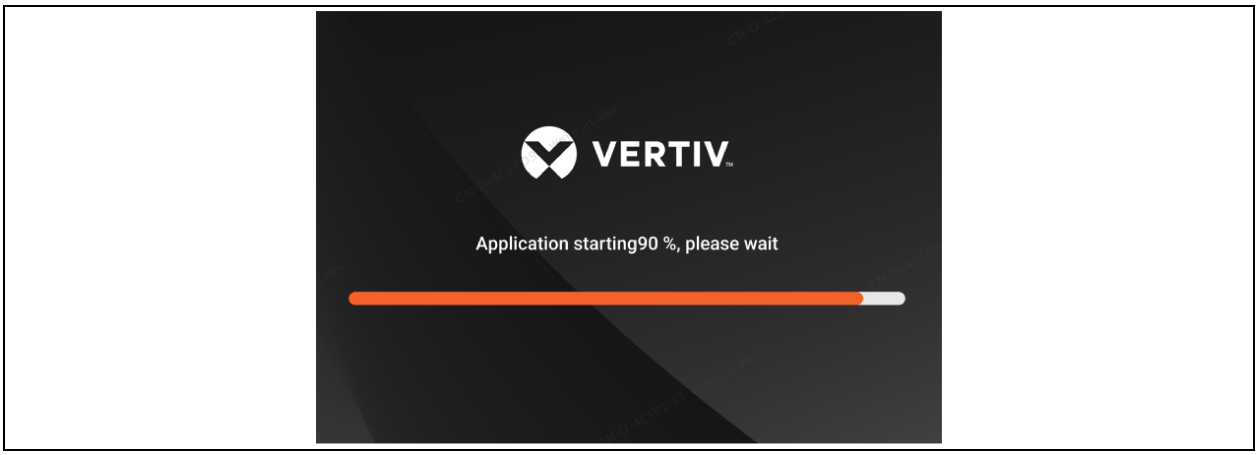


After the file is uploaded, the file will be verified, and if the upload fails, there are several possibilities:

1. If the certificate password error prompts: The certificate replacement failed, and the certificate password entered is incorrect, enter the correct certificate password.
2. If the certificate has expired, upload it again.
3. The uploaded certificate is the same as the current certificate.
4. If the uploaded **.p12** certificate store contains 0 or more certificates: Replacing the certificate failed, make sure that there is only one certificate in the uploaded certificate file.
5. If the uploaded certificate does not meet the requirements of RSA 2048, the uploaded certificate does not meet the requirements of RSA 2048.

Click the *Select file* to upload the SSL certificate file, the file format is prompted by the file type on the right side of the reference, confirm that the file is correct, enter the SSL certificate password, confirm the password, and click the *Upload* to complete the upload of the SSL certificate. After the upload is complete, you will receive a message indicating that the replacement certificate is successful, and the system will restart the system soon, and the system will display to the following page, see Figure 9.25 below.

Figure 9.25 Application Starting Interface



NOTE: The fingerprint of an SSL certificate is encrypted using SHA256.

NOTE: When the certificate is regenerated, the validity period is set to 10 years. After the certificate is replaced, the system restarts.

NOTE: Upload files: You can only upload one file at a time. The file size cannot exceed 5 MB.

NOTE: When you upload a file in .p12 or .pfx format, the file name is displayed.

NOTE: If the certificate replacement is abnormal, the Certificate Replacement window is not hidden.

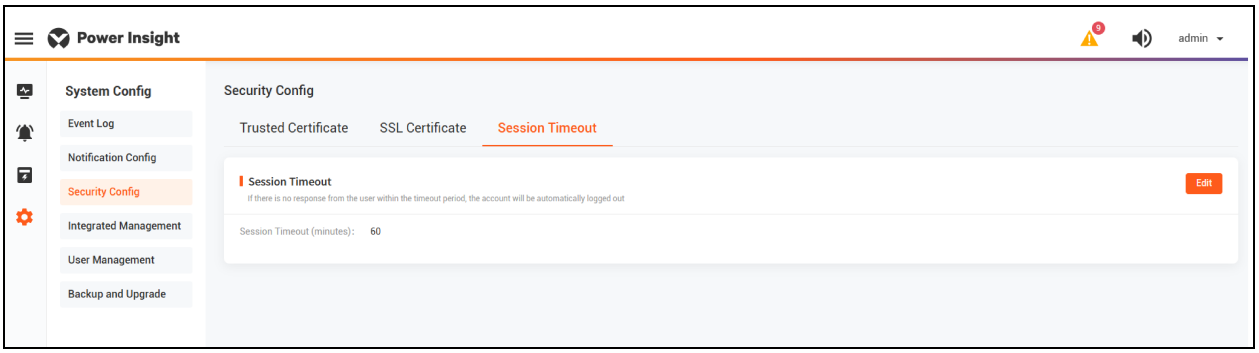
9.5.3 Session Timeout

To view the session timeout:

1. Click in the System Config icon . Click *Security Configuration* in the second level menu, and click the *Session Timeout* tab, and the page is displayed as follows:

Proprietary and Confidential ©2025 Vertiv Group Corp.

Figure 9.26 Session TImeout Window

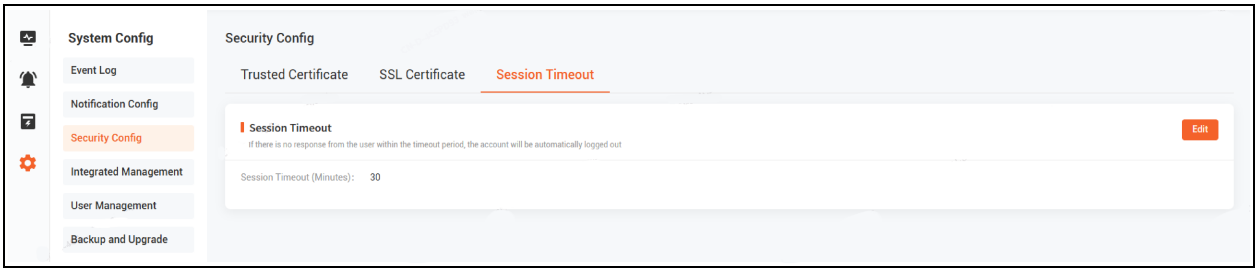


You can view the session timeout limit and support editing and modification functions.

To edit the session timeout:

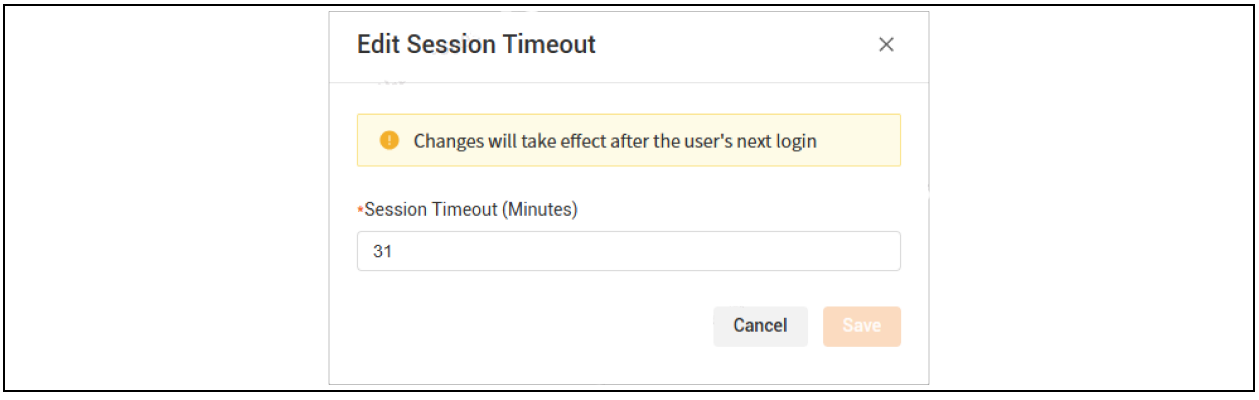
1. Click in the System Config icon . Click *Security Configuration* in the second level menu, and click the *Session Timeout* tab. See Figure 9.27 below.

Figure 9.27 Session Timeout



2. Click *Edit* to enter the edit page, as shown in Figure 9.28 below.

Figure 9.28 Edit Session Timeout



After clicking *Edit*, the session timeout period is set to 30 minutes by default, and enter an integer from 1 to 60, when you click *Save*, the message appears that modification is successful, the window disappears, and the session timeout modification is completed.

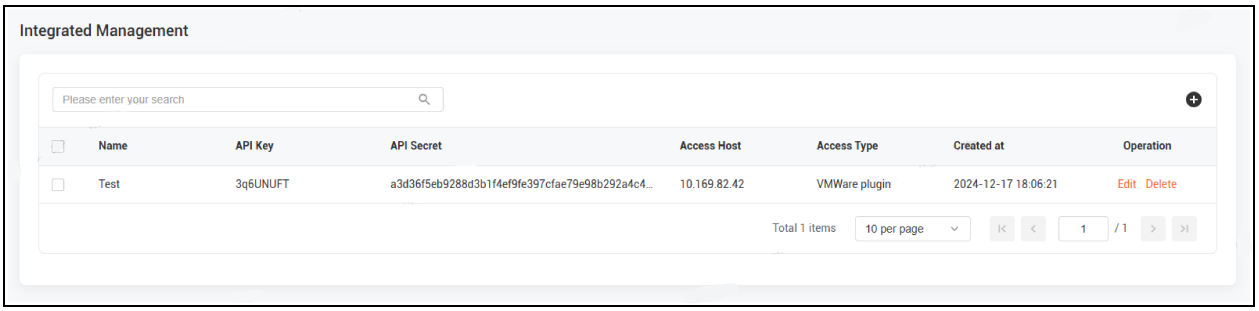
NOTE: The changes will take effect after the user's next login.

9.6 Integrated Management

To check out integration management:

1. Click on System config icon and click *Integrated Management* in the second level menu. See **Figure 9.29** below.

Figure 9.29 Integrated Management

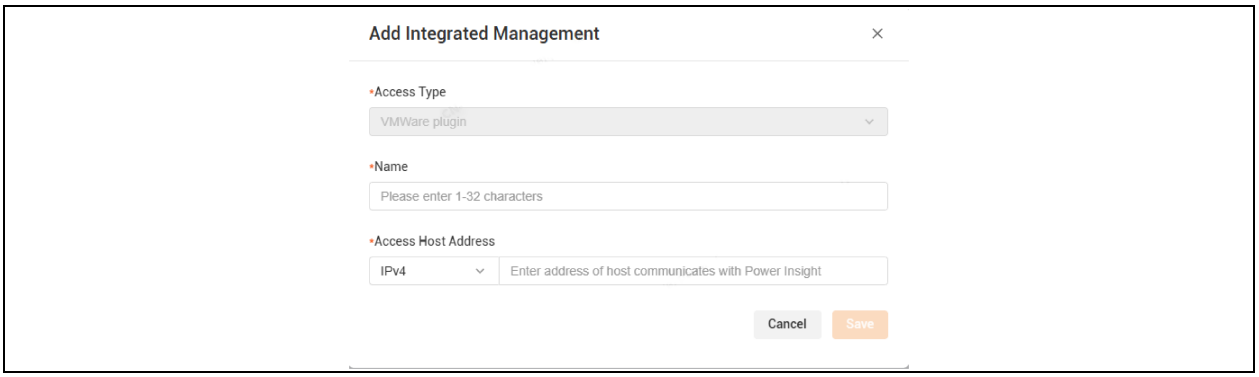


On the integrated management page, hover the mouse to directly copy a single piece of data in an API Key or API Secret, and click the Copy icon to complete the copy.

To add integrated management:

1. Click on System config icon and click *Integrated Management* in the second level menu. See **Figure 9.29** above.
2. Click on Add icon to display the new integrated management, as shown in **Figure 9.30** below.

Figure 9.30 Add Integrated Management



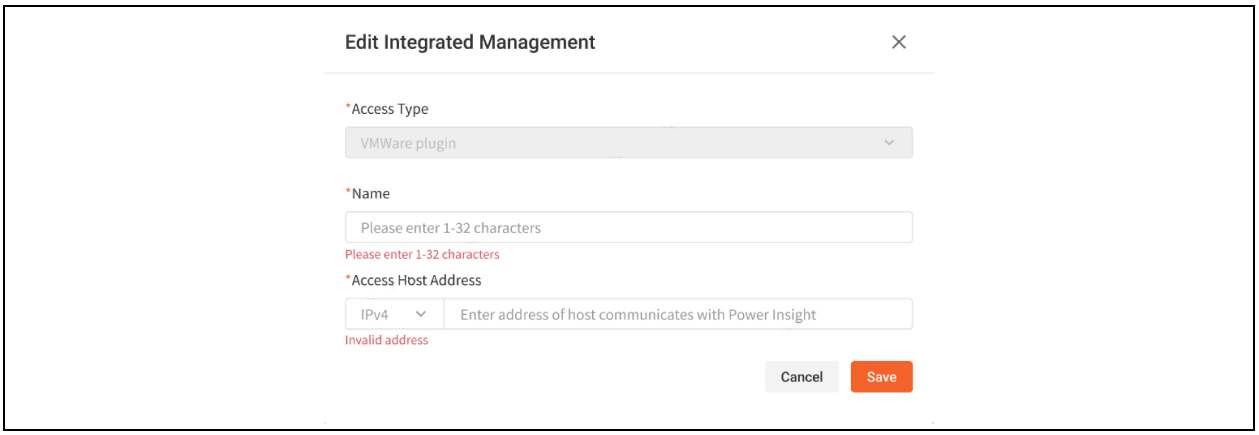
Added the content of the integrated management window, the access host type cannot be selected, and the default is VMware Plugin. Enter the name and host address interface in turn, click the switchable address type in dropdown arrow (IPv4, IPv6, hostname), make sure that the information is filled in correctly and pass the verification, and click the *Save* to complete the new integration management.

Proprietary and Confidential ©2025 Vertiv Group Corp.

To edit integration management:

1. Click in the System Config icon . Click *Integrated Management* in the second level menu. See Figure 9.29 on the previous page.
2. Click the *Edit* to display the edit integration management, as shown in Figure 9.31 below.

Figure 9.31 Saving Integration Management



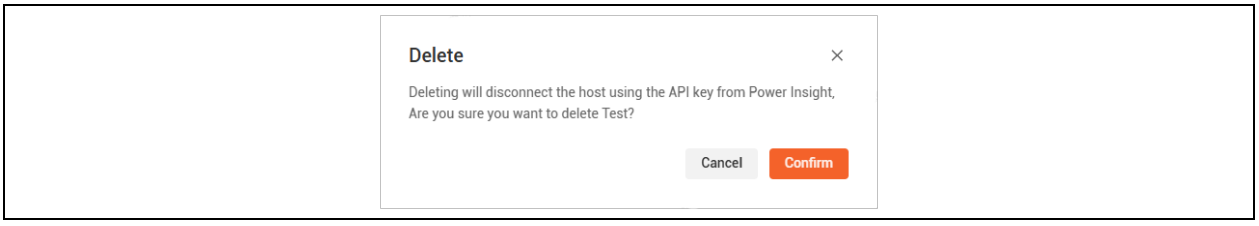
3. Edit the content of the integration management window, the access host type cannot be selected, and the default is VMware Plugin. Enter the name and host address interface in turn, click the switchable address type (IPv4 hostname). Ensure that the information is filled in correctly and pass the verification, and click the *Save* to complete the new integration management.

To delete integration management:

1. Click on System config icon and click *Integrated Management* in the second level menu. See Figure 9.29 on the previous page.

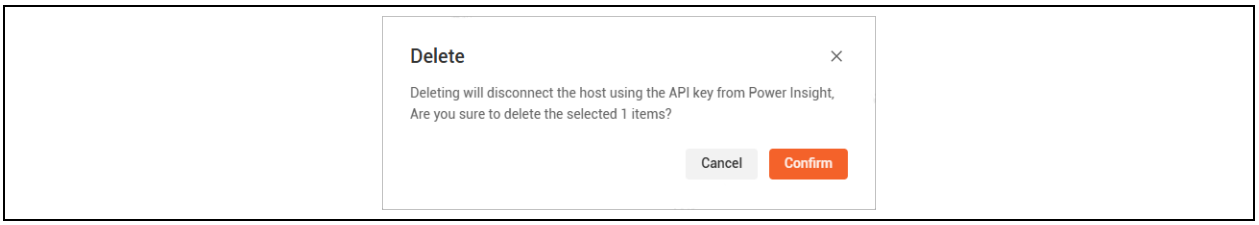
Single deletion: Click on *Delete* on the right side of the single integration management to trigger the deletion window, as shown in Figure 9.32 below.

Figure 9.32 Single Deletion Window



Multi-delete: Select the checkbox in the integrated management list and click the *Batch Delete* to trigger the deletion window, as shown in Figure 9.33 on the facing page.

Figure 9.33 Multiple Deletion Window

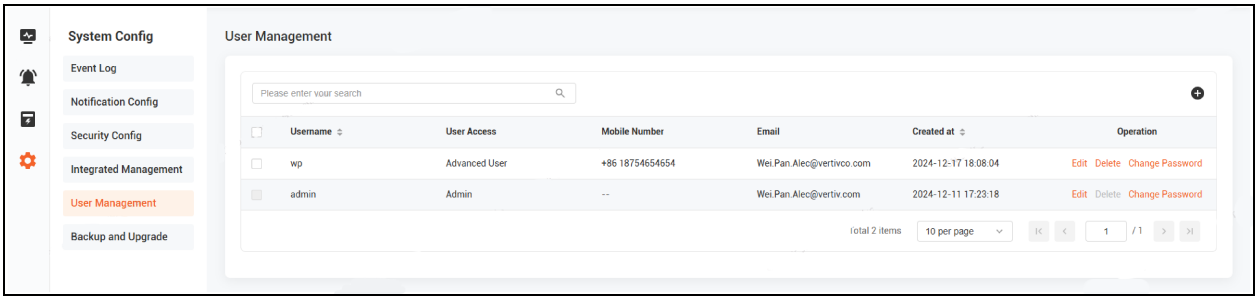


9.7 User Management

To view the list of user management:

1. Click on System config icon and click *User Management* in the second level menu. See **Figure 9.34** below.

Figure 9.34 User Management



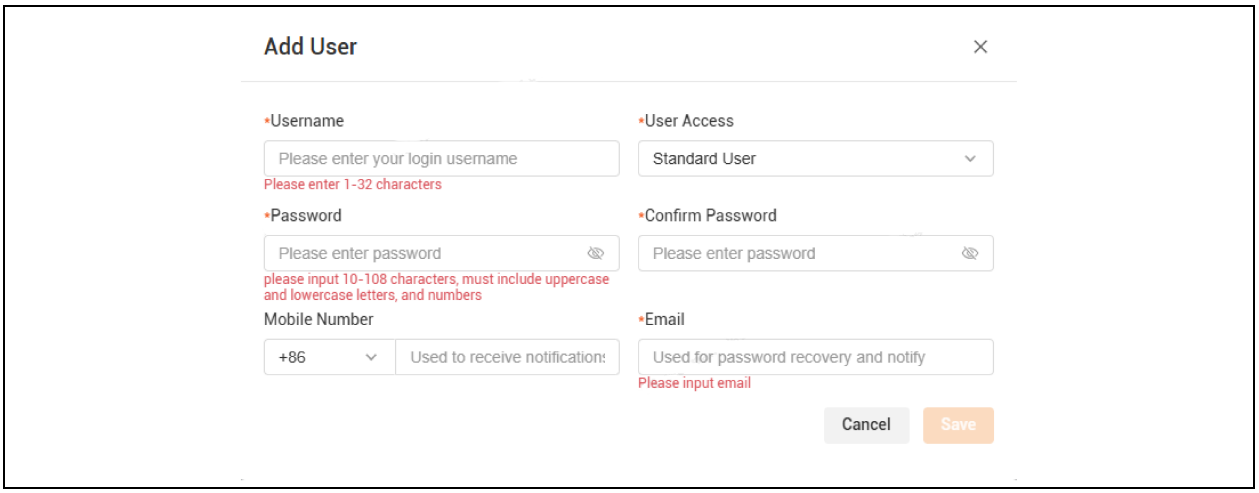
In the integrated management interface, you can view the basic information of user management, including username, user permissions, mobile phone number, email address, and Created at, and can operate basic functions such as search, pagination, addition and deletion.

To add a new user:

1. Click on System config icon and click *User Management* in the second level menu. See **Figure 9.34** above.
2. Click on Add Icon to display the Add User window, as shown in **Figure 9.35** on the next page.

Proprietary and Confidential ©2025 Vertiv Group Corp.

Figure 9.35 Adding New User



Enter the username, select the user permission (standard user/advanced user), enter the password and confirm the password (the two must be the same), enter the mobile phone number and email address, and after passing all the verifications, click the *Save* to complete the new user operation.

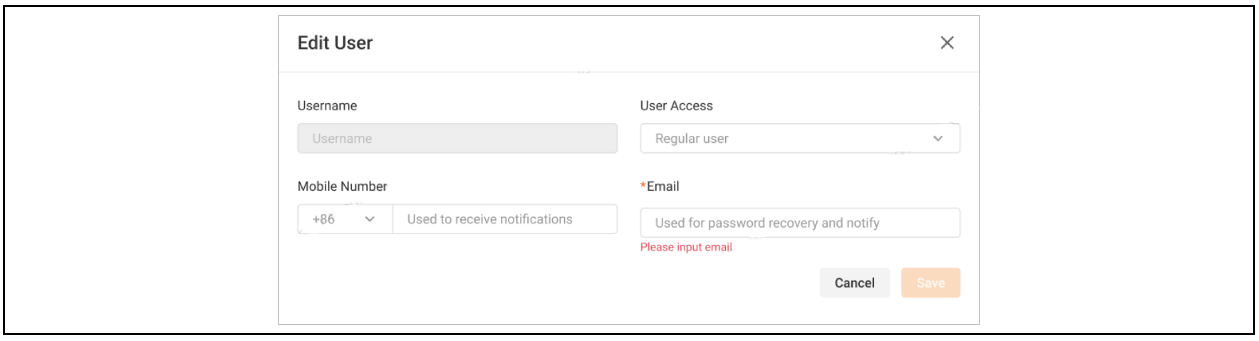
NOTE: The username cannot be the same as an existing username.

NOTE: Please enter 10 to 108 characters for the password and must contain uppercase and lowercase characters and numbers.

To edit the user:

1. Click on System config icon and click *User Management* in the second level menu. See **Figure 9.34** on the previous page.
2. Click *Edit*, to display the Edit User window, as shown in **Figure 9.36** below.

Figure 9.36 Edit User Information

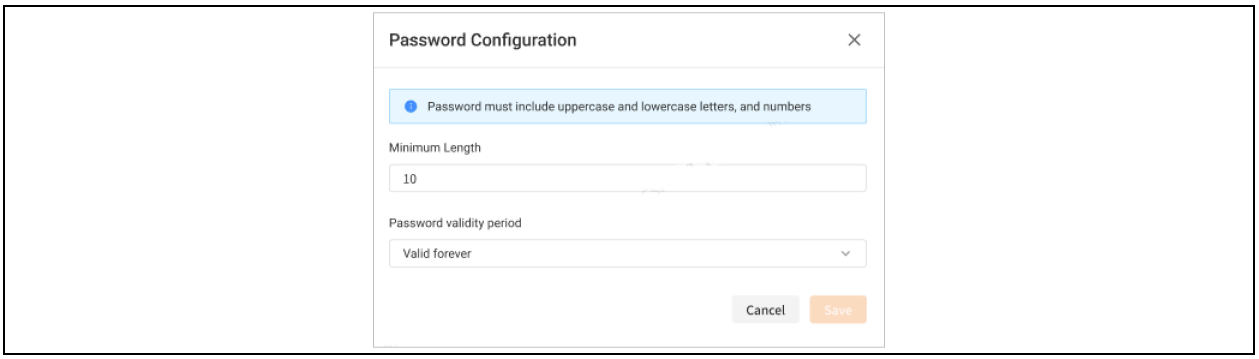


In edit mode, the username cannot be modified. You can adjust the permissions, mobile phone number, and email address, and click the *Save* to complete the editing operation after confirming that they are correct.

To change password:

1. Click on System config icon and click *User Management* in the second level menu. See **Figure 9.34** on page 133.
2. Click *Edit* to display the Edit User window, as shown in **Figure 9.37** below.

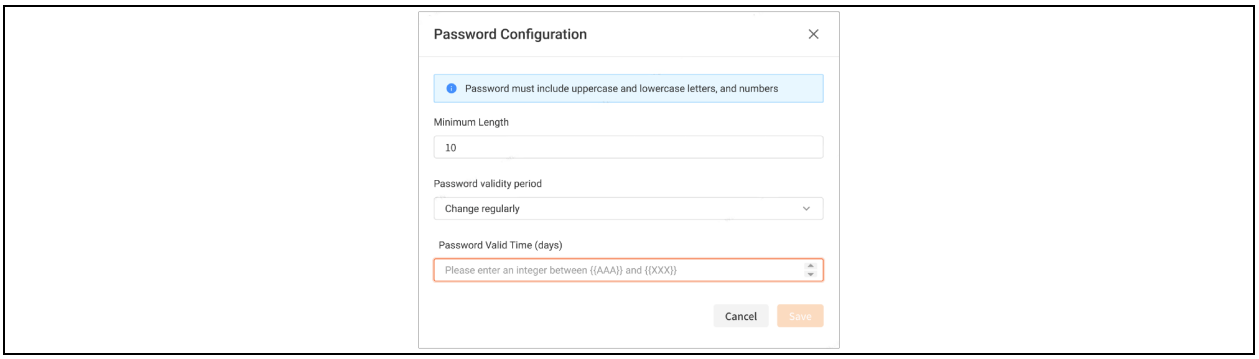
Figure 9.37 Password Configuration



In the password configuration window, two options are displayed: password complexity and password expiration date. The password complexity displays the minimum length integer input box. The default is 10. It is recommended to enter an integer from **10 to 108** in the placeholder **Please enter an integer from 10 to 108**.

If you select Periodic Change, the integer input box of **Password Validity Time** will be displayed, the default is 365, the unit is days, you can enter an integer of **1-9999**, and the placeholder is **Please enter an integer between 1-9999.** See **Figure 9.38** below.

Figure 9.38 Password Configuration



When the password complexity takes effect:

- **System Configuration:** When creating a new user/changing a user's password, the user's initial password is restricted to the new password complexity requirement, and the message is updated to the new password complexity requirement.
- **System Login Page:** Forgot Password/New User Login, When Changing Password, the new password of the user needs to use the new password complexity requirement, and the message is updated to the new password complexity requirement.

Proprietary and Confidential ©2025 Vertiv Group Corp.

- Click on the username in the upper right corner to enter the profile, and when changing the password, the user's new password needs to use the new password complexity requirements, and the information is also updated to the new password complexity requirements.

When the password expires:

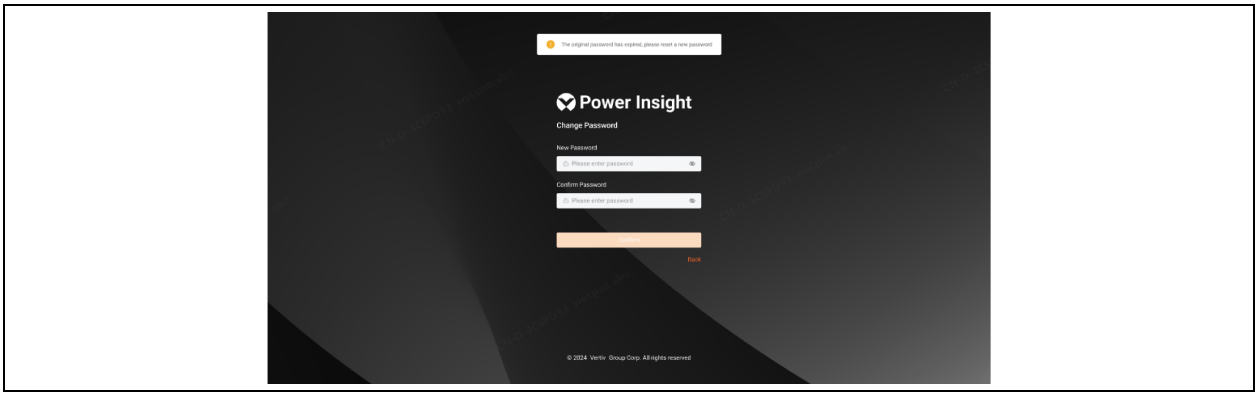
NOTE: Password validity calculation is valid for all users of the system.

- After a user's password is changed, the validity period is restarted.
- After the validity period of the password is changed from **Forever valid** to **Regularly changed**, the validity period will be calculated.
- After the validity period of the password is changed from **Regularly Changed** to **Forever**, the validity period will no longer be calculated.
- Password expiration window.
- Three days before the expiration of a user's password, after the user logs in, the message displays **The password is about to expire, please change the password**.

After the password expires:

After the user logs in with the original password, user will be redirected to the **Password Change Page**, and the message **The original password has expired, please set a new password** displays, as shown in **Figure 9.39** below.

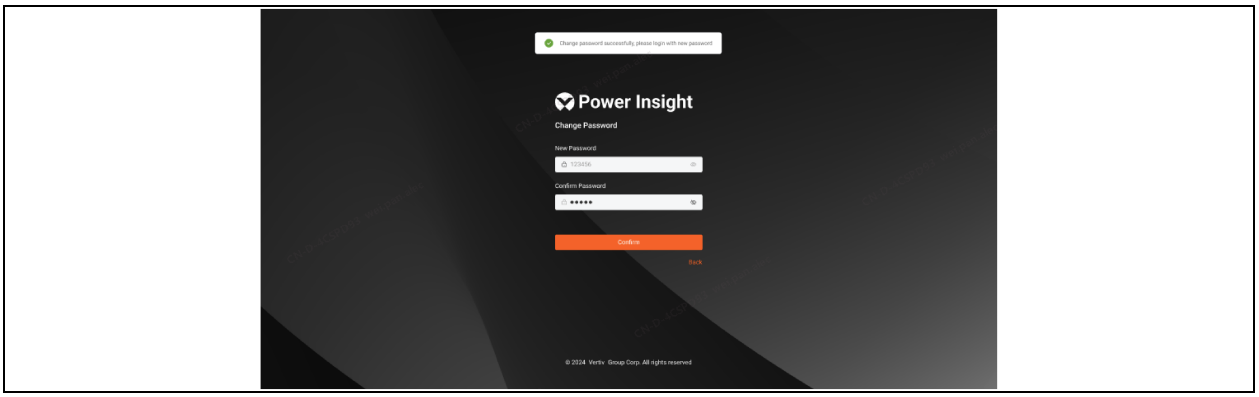
Figure 9.39 Password Change



After entering the new password and confirming the password, click the *OK* to confirm that it is correct.

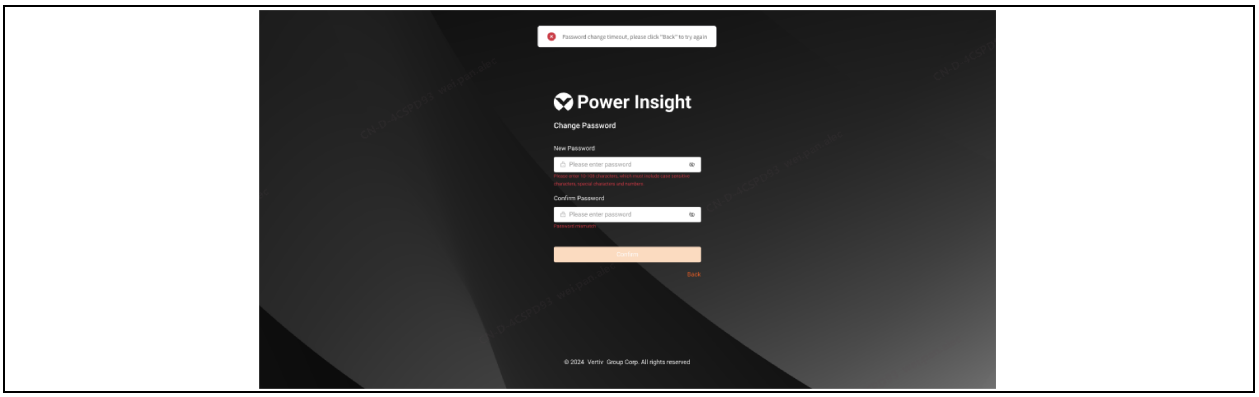
If the password is successfully changed, the message **Password change successful, please log in with a new password** is displayed, and the login page is returned, and the user needs to log in again with the new password. Click the *Back* to return to the login page. See **Figure 9.40** on the facing page.

Figure 9.40 Password Change Successful



If the password change fails and the message displays that the password change has timed out, click *Back* to try again and return to the login page, which requires the user to log in again with the new password. Click the *Back* to return to the login page. See **Figure 9.41** below.

Figure 9.41 Password Change Fail



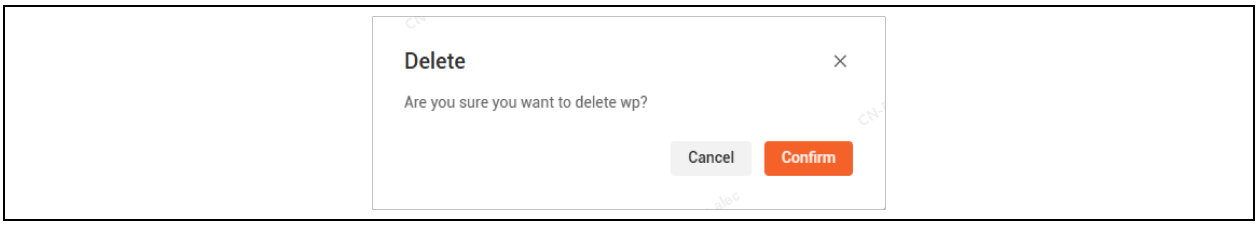
NOTE: Only the super administrator can enter the User Management function, modify the user password configuration, and delete the user.

To delete the user:

1. Click on System config icon and click *User Management* in the second level menu. See **Figure 9.34** on page 133.

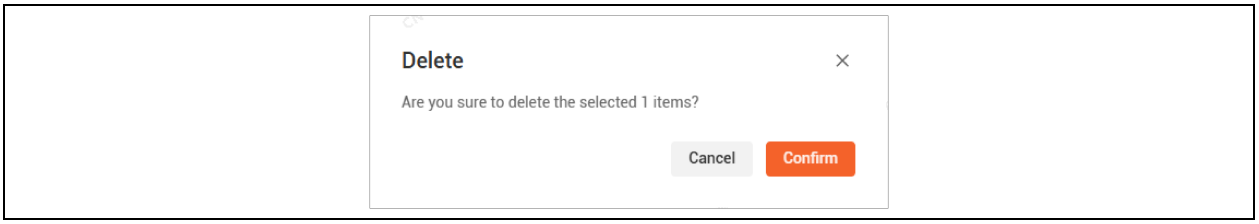
Single deletion: Click on *Delete* on the right side of the single integration management to trigger the deletion window, as shown in the **Figure 9.42** on the next page.

Figure 9.42 Single Deletion Window



Multi-delete: Select the checkbox in the integrated management list and click *Batch Delete* to trigger the deletion window, as shown in Figure 9.43 below.

Figure 9.43 Multiple Deletion Window



9.8 Backup, Restore, and System Upgrade

9.8.1 Backup

1. Click on System config icon and click *Backup and Upgrade* in the second level menu. See Figure 9.44 below.

Figure 9.44 Backup and Upgrade

Backup

The backup function obtains the backup path by default and displays the backup file save path based on the system where Vertiv™ Power Insight is located.

Linux: /var/opt/VertivBackup

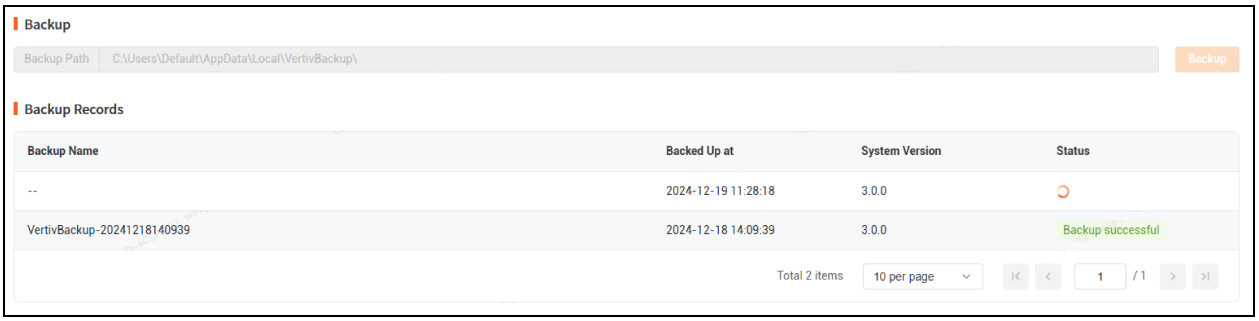
Windows: C:\\Users\Default\AppData\Local\VertivBackup

1. Click on *Backup* to display the backup confirmation box, as shown in Figure 9.45 below.

Figure 9.45 Backup Confirmation Box

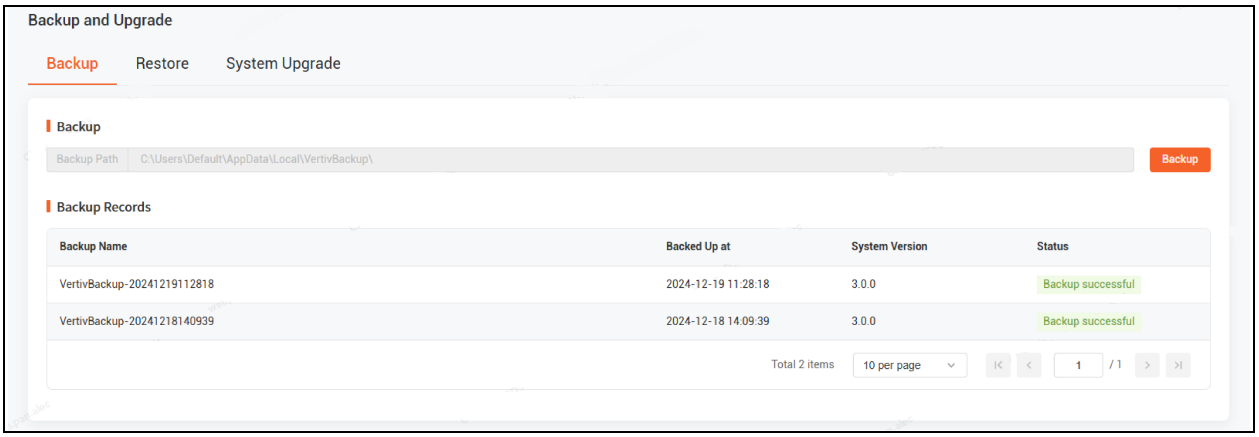
After confirming that the space is sufficient, click the *Confirm*, and the page will return to the backup interface, and the backup record shows that the backup is in progress. See Figure 9.46 below.

Figure 9.46 Backup Record



After the backup is complete, the backup result is displayed. See Figure 9.47 below.

Figure 9.47 Backup Result



NOTE: If the Expected Required Hard Disk Space is greater than the Available Hard Disk Space, a message indicating that the remaining hard disk space is insufficient is displayed and cannot be backed up.

NOTE: If a backup path does not exist, the system automatically creates a backup path.

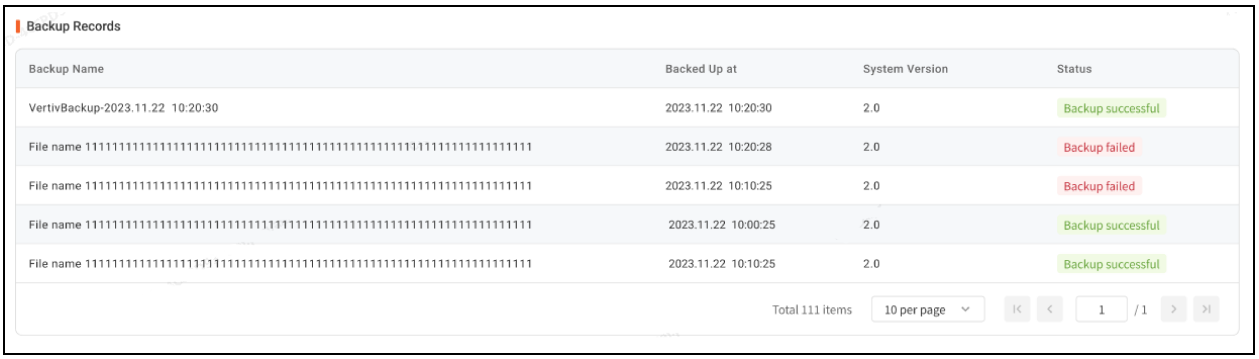
NOTE: During the backup process, the system cannot be backed, restored, or upgraded.

Proprietary and Confidential ©2025 Vertiv Group Corp.

Backup Records

The backup recording function mainly records the user's previous backup operations, which is displayed through a table and has a pagination function, as shown in Figure 9.48 below.

Figure 9.48 Backup Records

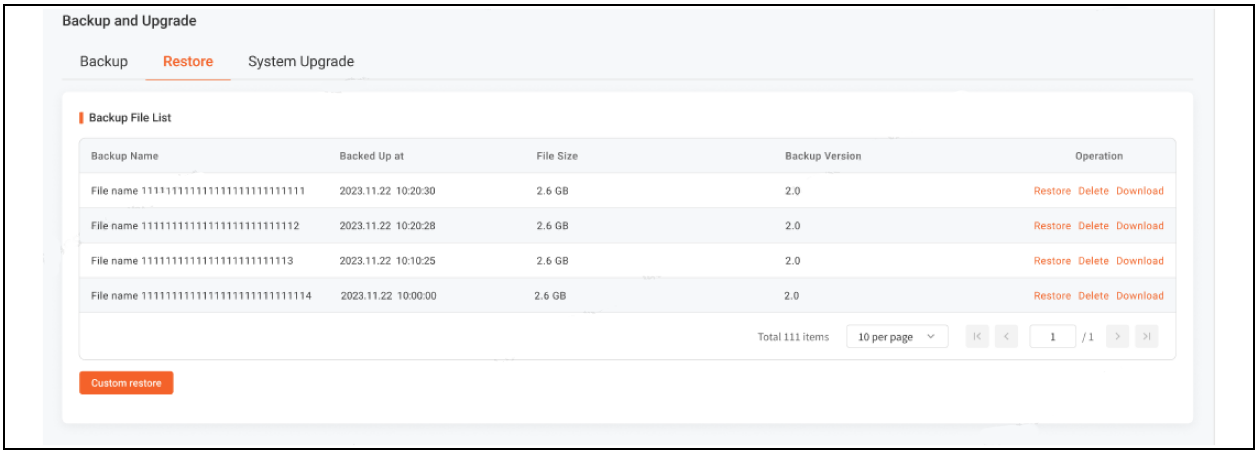


9.8.2 Restore

Restore files cannot be recovered across operating systems, that is, files backed up by Vertiv™ Power Insight on windows cannot be recovered from Power Insight on Linux.

Click on System config icon and click *Backup and Upgrade* in the second level menu, and click the *Restore* tab, see Figure 9.49 below.

Figure 9.49 Restore

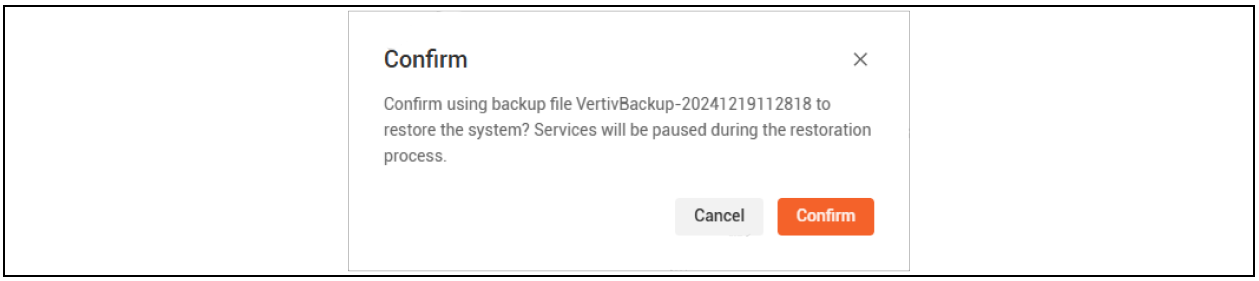


The restore list provides pagination, deletion, and download functions to facilitate users to operate the existing backup content.

Restore Quickly

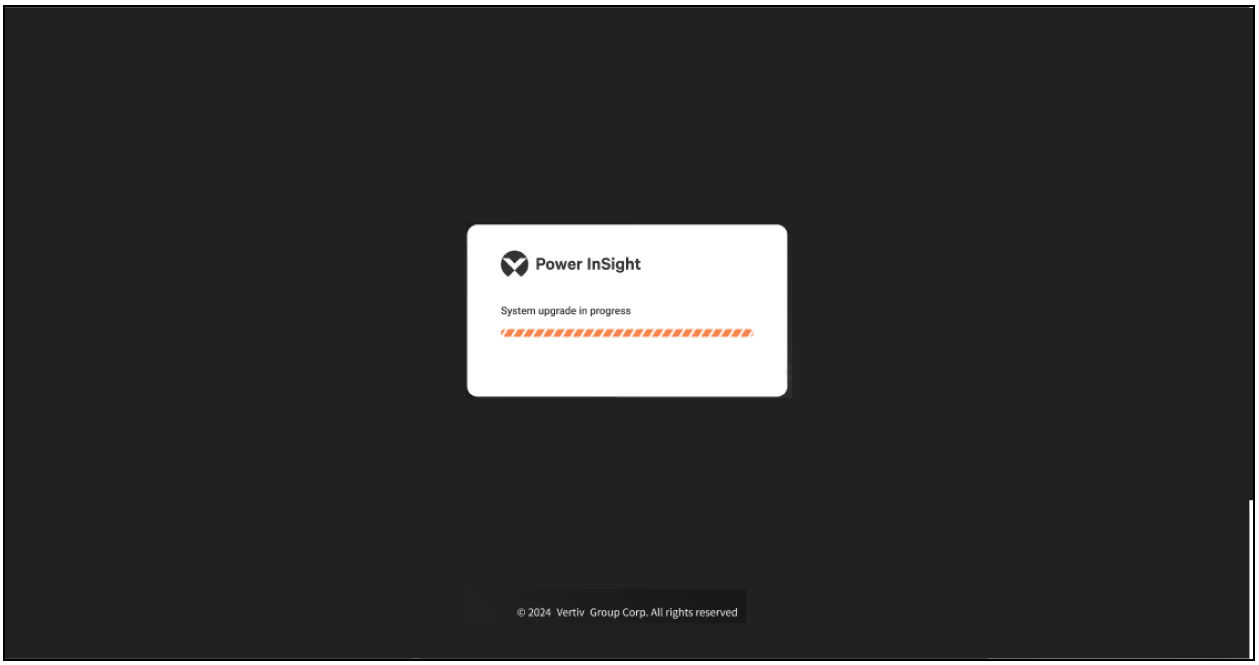
Find the expected restore file in the backup file list, click on *Restore* on the right to turn on the restore function, and a second confirmation will appear, see Figure 9.50 on the facing page.

Figure 9.50 Backup Confirmation



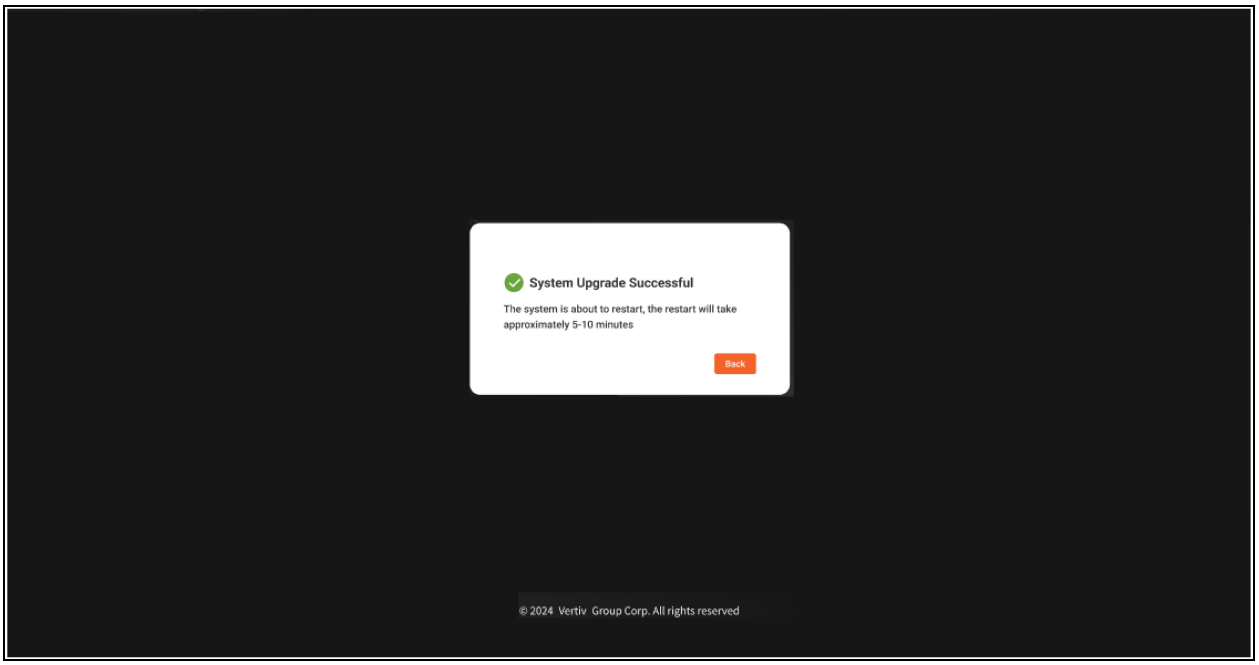
After clicking *Confirm*, turn on the Quick System Restore function, and enter the restore interface when the backup file is correct, as shown in Figure 9.51 below.

Figure 9.51 System Upgrade in Process



After completing the system restore process, move to the interface.

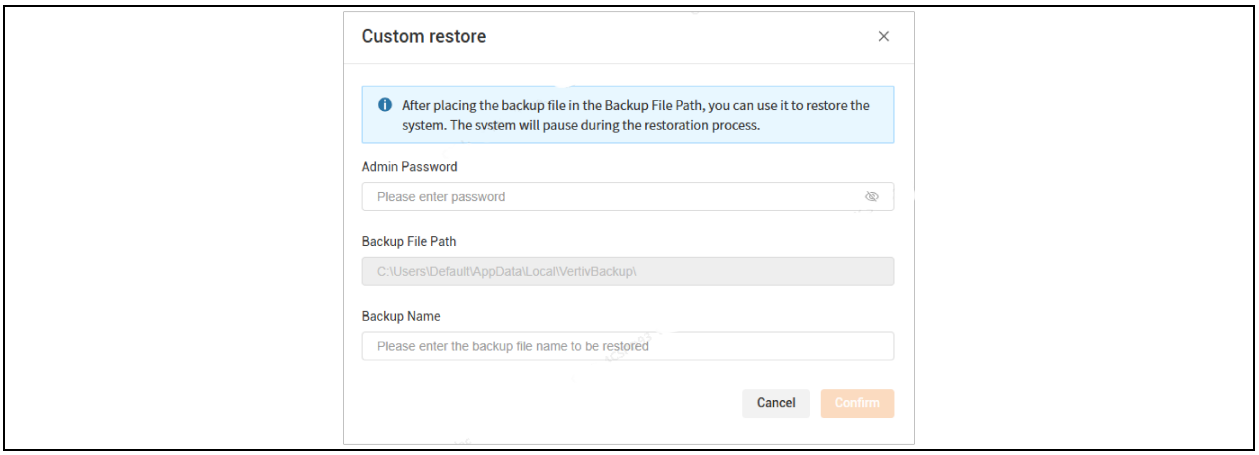
Figure 9.52 System Upgrade Successful



Custom Restore

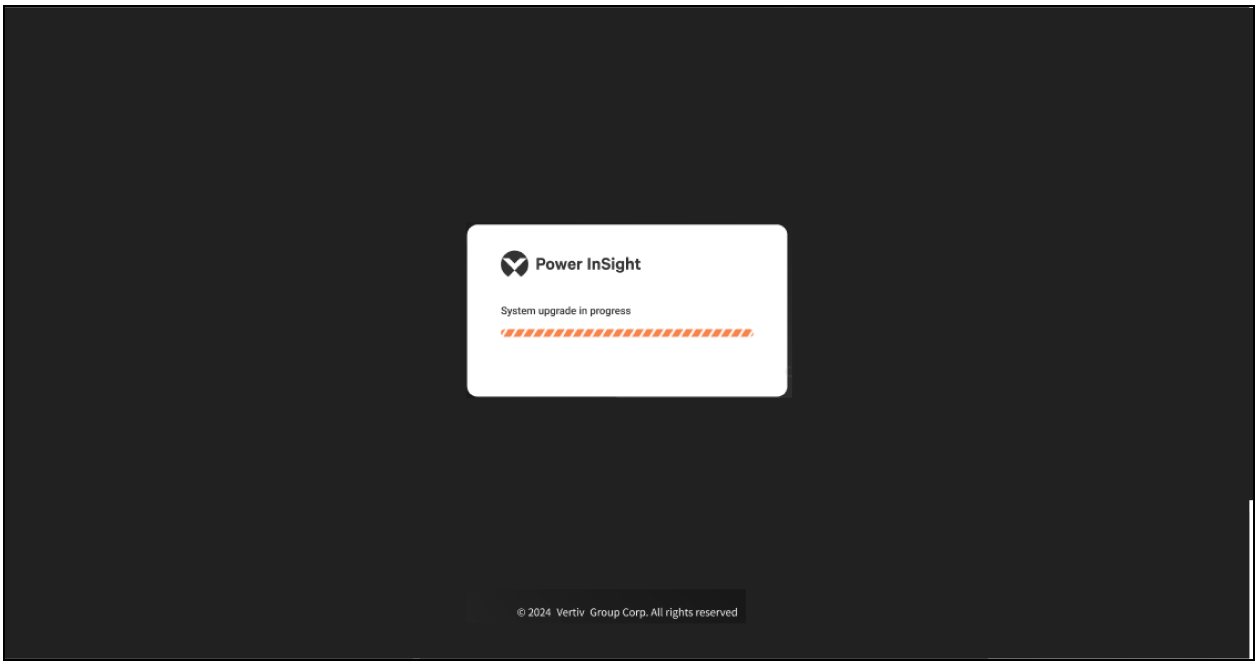
Click the *Custom restore* below the list of backup files, and a window will appear, as shown in Figure 9.53 below.

Figure 9.53 Custom Restore



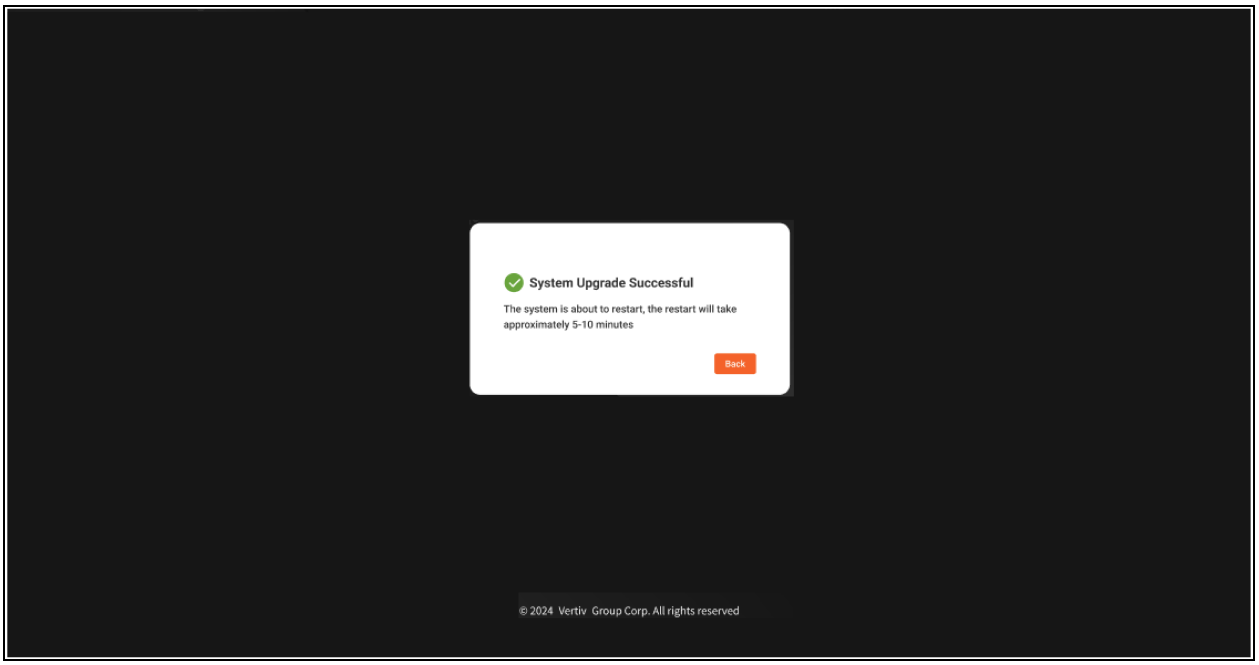
The system automatically obtains the backup path and cannot modify it. After filling in the super administrator password and the name of the backup file, confirm again that no modification is required, and click *Confirm* to enable the custom restore function, as shown in Figure 9.54 on the facing page.

Figure 9.54 System Upgrade in Progress



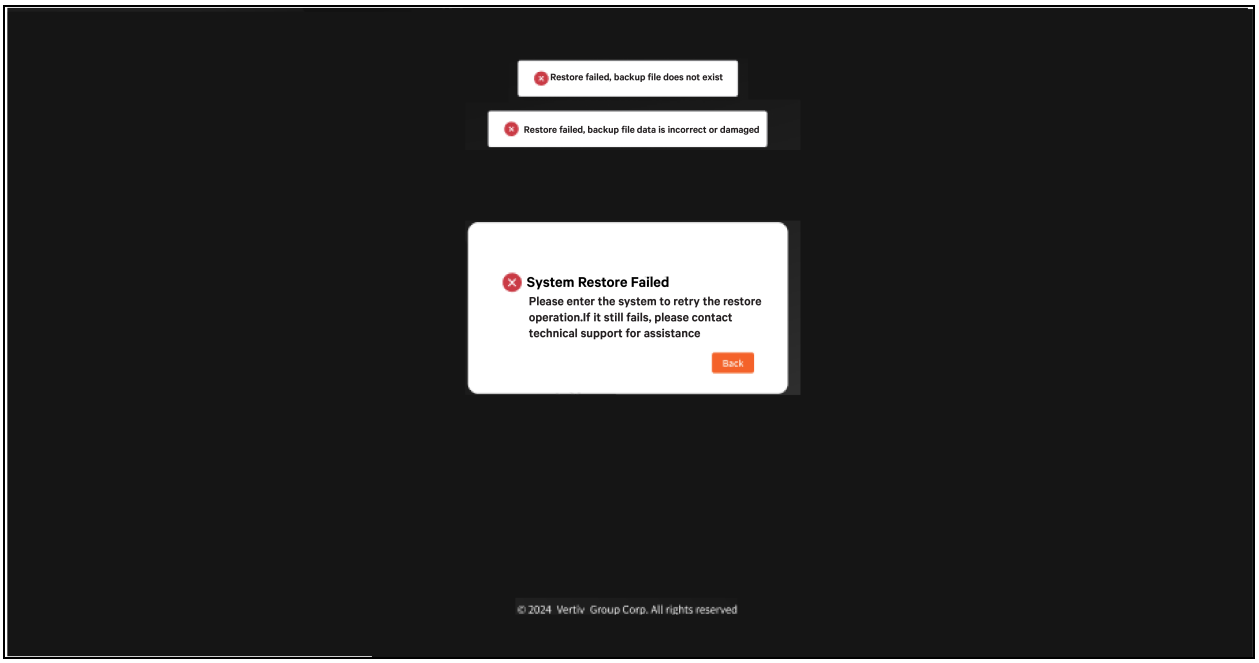
After completing the system restore process, move to the interface:

Figure 9.55 System Upgrade Successful



If the system restore fails, you will be redirected to the following page, see Figure 9.56 on the next page.

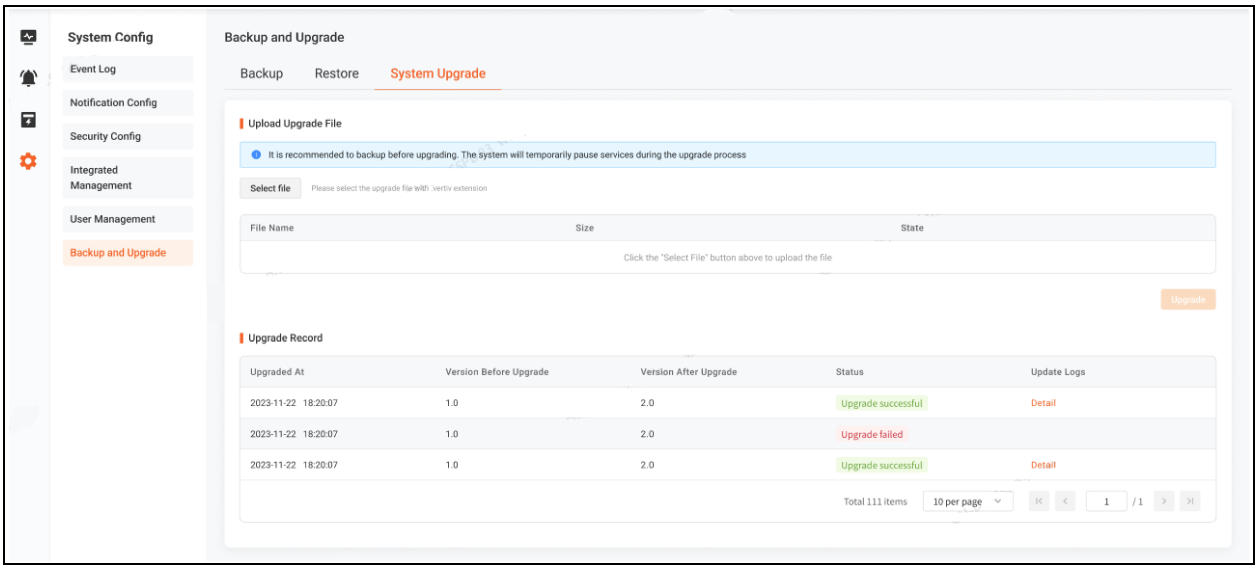
Figure 9.56 System Restore Failed



9.8.3 System Upgrade

Click on System Config icon and click *Backup and Upgrade* in the second level menu, and click the *System Upgrade* tab, see Figure 9.57 below.

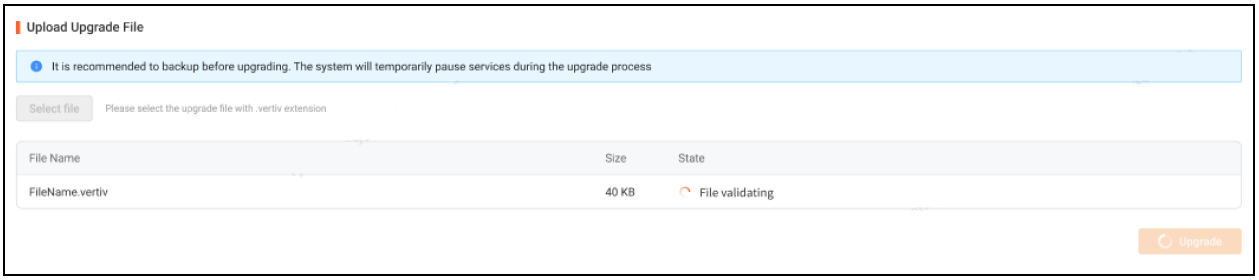
Figure 9.57 System Upgrade



To upload the upgrade file:

Click the *Select file* to upload the upgrade file, the file format refers to the file type appears on the right side, confirm that the file is correct, and click the *Upgrade* to trigger the upgrade file verification, as shown in Figure 9.58 below.

Figure 9.58 Upload Upgrade File

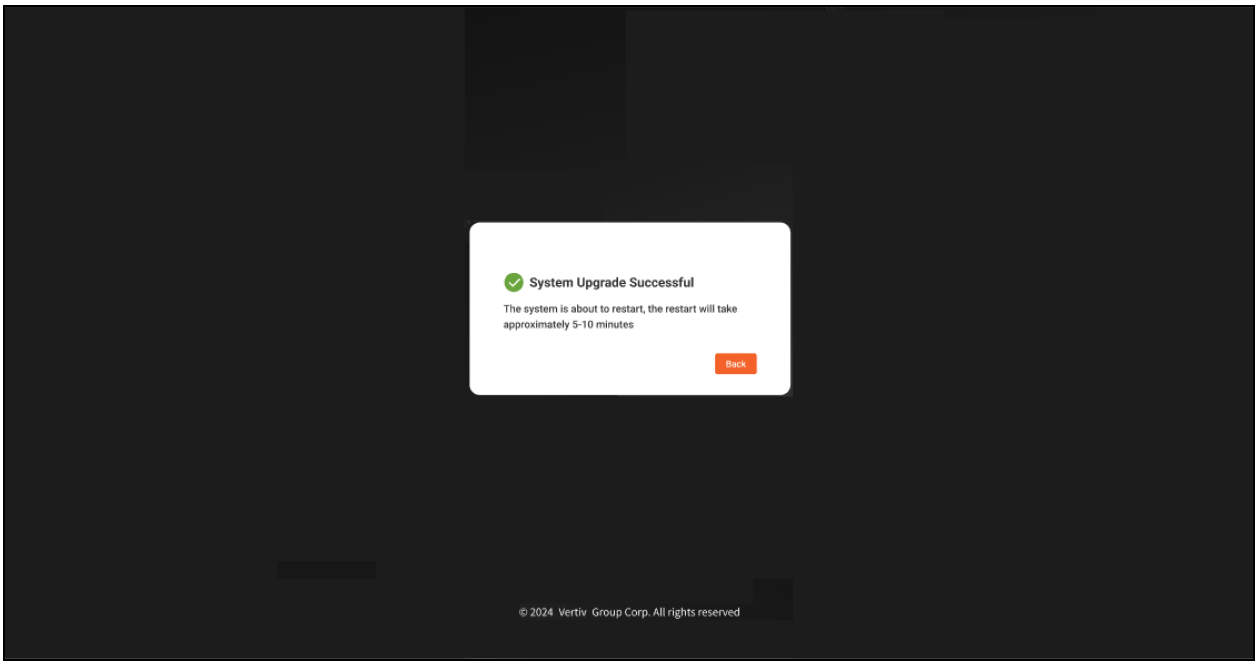


After the file verification is completed, you will enter the system upgrade process interface, as shown in Figure 9.59 below.

Figure 9.59 System Upgrade in Progress

When the upgrade is successful, complete the rapid system upgrade, as shown in Figure 9.60 on the next page.

Figure 9.60 System Upgrade Successful



NOTE: The upgrade file cannot exceed 500 MB.

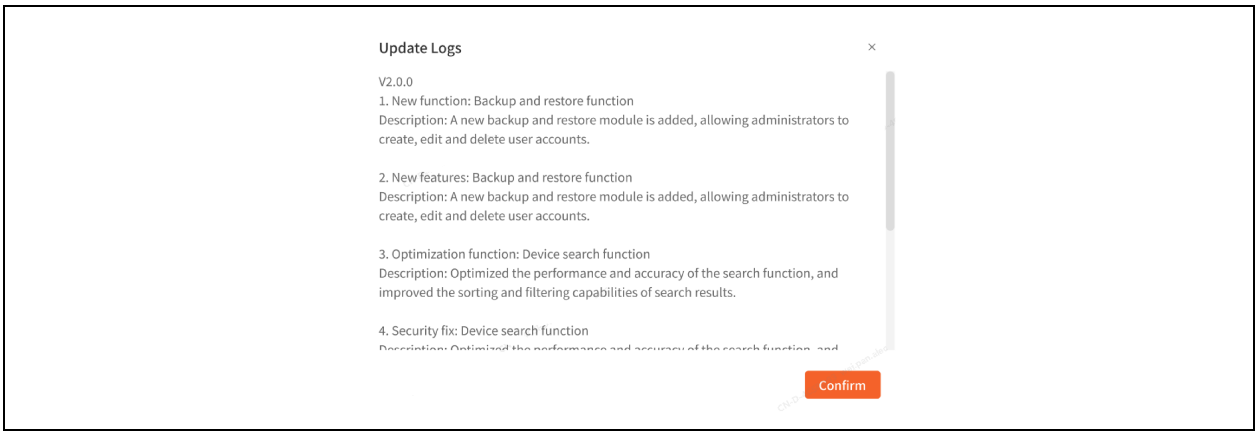
To upgrade records:

The upgrade history list allows you to view previous upgrade records, including the upgrade time, pre-upgrade version, post-upgrade version, status, pagination, and the ability to view detailed logs. See Figure 9.61 below.

Figure 9.61 Upgrade Record

When you need to view the detailed upgrade record date, click on *Details* to trigger the window as shown in Figure 9.62 on the facing page.

Figure 9.62 Update Logs



Click *Confirm*, and the window will disappear to end this detailed view.

Proprietary and Confidential ©2025 Vertiv Group Corp.

This page intentionally left blank

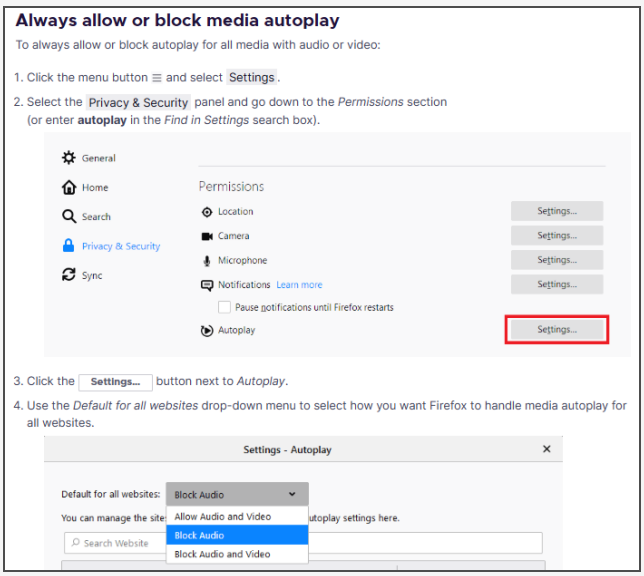
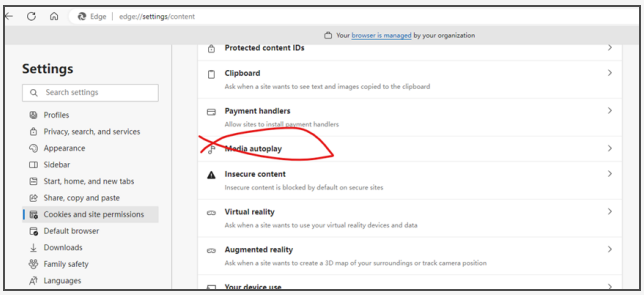
10 Troubleshooting

Table 10.1 Common Problems

Item	Problem Description	Cause	Resolution
1	Vertiv™ Power Insight is not uninstalled in Windows.	A failed Power Insight uninstall results in program files and database files remaining on disk.	1. Enable the Windows **Show Hidden Files and Folders** feature. 2. Delete the Power Insight program folder, the default path is **C:\Program Files\TrellisPowerInsight** . 3. Delete the Power Insight database folder in **C:\Users\Default\AppData\Local\TrellisPowerInsight**. 4. Delete the Power Insight registry folder at **C:\Program Files\Zero G Registry**.
2	Intelligence Engine data loss after updating Windows 10	If the default data directory for PostgreSQL is **C:\Users\Default**, it will be overridden by C:\Users\Default.migrated during the Windows 10 update.	1. Go to the Windows registry. 2. Locate **\HKEY_LOCAL_ MACHINE\SYSTEM\CurrentControlSet\Services\postgresql-x64-9.5**. Register entries. 3. Click **ImagePath** to change the default data directory to **C:\Users\Default**. 4. Restart the following services in Services: a. Postgresql-x64-9.5 b. TRELLIS Intelligence Engine MSS Engine Service c. Trellis Application Framework
3	Power Insight Linux version failed to install under Red Hat (7.5, 7.6 or 7.7 repository).	The installation package for Power Insight Linux does not contain any third-party dependencies.	1. Power Insight is installed with a World Wide Web connection, and third-party libraries are automatically downloaded when installed. 2. First, install the following dependencies in various ways: a. Net-tools b. Psmisc c. Log4cpp d. jsoncpp e. net-snmp f. openssl g. postgresql h. postgresql-contrib i. postgresql-server j. libpqxx k. glibmm24 3. Install it again.
4	After the remote automation agent is installed, it cannot communicate with Power Insight.	Windows or Linux firewall disables port 3029 by default (the communication port used by the automation agent).	1. Turn off the firewall or turn on port 3029 of the remote computer.

Proprietary and Confidential ©2025 Vertiv Group Corp.

Table 10.1 Common Problems (continued)

Item	Problem Description	Cause	Resolution
5	There is no alarm sound.	After the browser is refreshed, according to the default settings of the browser, if the user does not operate the page, there will be no alarm sound. If you need to play an alarm sound at all times, refer to the reference image and link.	Firefox:  Edge:  Google: https://support.mozilla.org/en-US/kb/block-autoplay
6	**Uninstall Failed:** A message indicating that the Java VM cannot be found, resulting in a failure to uninstall the software.	Power Insight data affects offloading	In this case, you need to manually delete the data of the Power Insight, and the deleted data directory includes: 1. Delete the installation directory: The default directory is: **C:\Program Files\Trellis Application Manager**. If the user selected a different directory during installation: it is {user-defined directory}\Trellis Application Manager. 2. Delete the data directory: The default directory is: **C:\Users\Default\AppData\Local\PowerInsight**. If a user wants to keep a data directory, they can delete it. If the user selected a different directory during installation, remove: **{user-defined directory}\PowerInsight**. 3. Delete registry data: **C:\Program Files\Zero G Registry**.
7	Failed to receive the SMS alert notification	A 3G network is required to send SMS.	The 3G network is required to send SMS messages (operators are gradually turning off the 3G network, and SMS modems can only use 3G to send SMS). Only TD8411 (3G) SMS modems are supported.

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

Proprietary and Confidential ©2025 Vertiv Group Corp.

This page intentionally left blank

Connect with Vertiv on Social Media

https://www.facebook.com/vertiv/

https://www.instagram.com/vertiv/

https://www.linkedin.com/company/vertiv/

https://www.x.com/Vertiv/

Vertiv.com | Vertiv Headquarters, 505 N Cleveland Ave, Westerville, OH 43082 USA

©2025 Vertiv Group Corp. All rights reserved. Vertiv™ and the Vertiv logo are trademarks or registered trademarks of Vertiv Group Corp. All other names and logos referred to are trade names, trademarks or registered trademarks of their respective owners. While every precaution has been taken to ensure accuracy and completeness here, Vertiv Group Corp. assumes no responsibility, and disclaims all liability, for damages resulting from use of this information or for any errors or omissions.

AV-50004_REVA_03-25