

Power Insight v3.0

User Manual

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Technical Support Site

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

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

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1 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.

Vertiv™ Power Insight v3.0 User Manual

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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.

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 <u>www.vertiv.com</u> 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

🐼 VERTIV.	Products & Services Solutions Support About Partners Investors Contact Q
Clear All Filters Search within	13 Search Results Refine search
 All Results Products Services Support 	Q. SOFTWARE & FIRMWARE & Software & Most Recent ~
Solutions News & Insights About	1- 10 of 12 Results Show 10 25 50 All (Previous Page 1 2 Next Page) SOFTWARE AND FIRMMARE Trellis" Power Insight and Vertiv [™] Power Assist Software Downloads
Refine by CONTENT TYPE Software & Firmware (13) Wirranty & Registration (7) Articles (3) Manuale (0)	SOFTWARE AND PREMARE Alber CRT 400 - Software Downloads Fittmeare downloads for the Alber CRT 400
See Less PRODUCT CATEGORY MONITORING, CONTROL AND MANAGEMENT + CRITICAL POWER +	SOFTWARE AND FRIMMARE Trellis* Enterprise Software Downloads Software downloads portal for the Trellis Patform, Outdomers with entitiement can download the Trellis* Enterprise and Outck Start Solutions Software. A software evaluation can be requested as well.
BRANDS	SOFTWARE AND FIRMMARE Trellis ^w Power Insight Software Downloads The Trellis ^w Dower Insight Application is the monitoring software for the Liebert GXT2, GXT4, APM and APS UPS systems.

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 FIRMWA	RE		han a dan fitu yana
designed to m	onitor up to 100 Vertiv	ary web- v™ UPSs	and rPDUs.
To successfully instell	the latest version of the applicatio	n you must:	
 Register on Vertice 	iv™ software downloads portal		
Download and in	stall the <i>Trellis™</i> Power Insight	ica raad tha a	Il instructions linked below
Users with version 2: Insight User Guide, sec	1 only MUST FOLLOW ALL UPGRA ation 25 page 8.	DE INSTRUC	TIONS outlined in the: Power
Users with version 2. reinstall Power Insight	O or lower will need to uninstall th 2.2.	eir current v	ersion of Power Insight and
			Register Log in
Latest Releases			
Product		Release Version and Date	
<i>Trellis</i> ™ Power Insight Application		√2:21 March 21, 2019	Relesse Notes
	Installer (Windows)	v2:2:1 March 21, 2019	Power Insight 23.0 Windows.zip
	Installer (Linux)	v2:2:1 March 21, 2019	Power Insight 23.0 Linux.zip
	Treffis [™] Automation Agent (Linux Shutdown)	- October 05, 2018	trellis-automation-agent-installer- 1.11.0-linux.ta MD5 Checksum
	<i>Tre⊞s™</i> Automstion Agent (Windows Shutdown)	- October 05, 2018	trellis-sutomstion-sgent-installer- 1.11.0-windows. MD5 Checksum
	<i>Trellis</i> ™ Automation Agent (Windows x86 Shutdown)	- October 05, 2018	trellis-automation-agent-installer- 111.0-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.

Figure 2.3 Log In 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.

	nin		
	y 111.		
lea	ise login to verify your	r access to Software files.	
1	User name		
	Password		
	LOG IN	after 5 incorrect login attempts. Please Click "Forgotten Username or	
WARI Passv	NING: Your account will be locked a vord" to recover your credentials, if	f needed.	
WARN Passv Forg	NING: Your account will be locked a vord" to recover your credentials, if gotten Username or Password?	f needed.	

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

			Regist	r Login
reate an Account for Infrast	ructu	re Management Software Downl	oads	
Jser name *		Password *		
Enter user name		Enter password		
Confirm password *				
		Confirm password		
āmail address *				
Enter email				
litle		First Name *	Last Name *	
please-select	۳	Enter first name	Enter last name	
Company *				
Enter company				
cinci company				
anguage		Country *		
English	Ŧ	please-select		
(daress				
Enter address				
City *		US State *	Postal Code *	
Enter city		please-select •	Enter postal code	
Felephone *		Fax Number		
Enter telephone				
I agree to the Terms of Use *				
CREATE ACCOUNT		* Req	uired Fields	

- 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 25** on the next page.

Figure 2.5 Log In Page

Plea	se login to verify you	ur access to Software files.		
1	User name	The user name field is required.		
	Password	The password field is required.		
	LOG IN			
WARI Passv	NING: Your account will be locked word" to recover your credentials,	I after 5 incorrect login attempts. Please Click "Forgotten Username o if needed.)r	

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

atest Releases				
Product	Notes	Release Version and Date	Download	
<i>Tre⊞</i> s™ 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	
	Tre∰s™ Automation Agent (Linux Shutdown)	– October 05, 2018	trellis-automation-agent-installer-1.11.0-linux.ta MD5 Checksum	
	Tre∰s™ Automation Agent (Windows Shutdown)	– October 05, 2018	trellis-automation-agent-installer-1.11.0-windows. MD5 Checksum	
	<i>Tre⊞s</i> ™ Automation Agent (Windows x86 Shutdown)	– October 05, 2018	trellis-automation-agent-installer-1.11.0-windows_ MD5 Checksum	

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
for all the other monghe	Linux	Power Insight 3.0.0 Linux.zip
	Windows 32-bit operating system	trellis-automation-agent-installer-2.5.1-windows_x86.zip
Automation Agent	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

- ×
Welcome VERTIV.
to the
Power Insight
The easy way to manage UPS
English V OK

4. Click *Next* on the introduction interface.

Figure 2.8 Introduction Page

Power Insight	– ×
	Introduction
Introduction	Welcome to the Power Insight v 2.3.0.0 Setup wizard.
 License agreement Installation type 	This installer will guide you through the steps required to install the product on your computer.
 Choose install folders Choose data folder 	t is recommended you close all other application before starting the install.
 Choose shortcut folder Choose user/group 	
 Choose parameters Pre-installation summary 	
 Installing Install complete 	
InstallAnywhere	
Cancel	Previous Next

- 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

Power Insight		– ×
		Installation type
Introduction		
📀 License agreement	Select 'Typical' for a prompt free installation	
 Installation type Choose install folders Observe data folders 	Select 'Custom' to change default parameters	
Choose data tolder Choose shortcut folder		
Choose parameters	Typical	
Pre-installation summary	⊖ Custom	
🔘 Installing		
O Install complete		
InstallAnywhere		
Cancel		Previous Next

- 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.

Figure 2.10 Parameter Setup Page

Power Insight		- ×
		Choose parameters
 Introduction License agreement Installation type Choose install folders Choose data folder Choose shortcut folder 	Enter the following information to config database	ure the Power Insight services and its
 Choose user/group Choose parameters Pre-installation summary Installing 	Database port Database admin	27017 ^
Install complete	Database admin password	admin
	Database user	mtpuser
	Database user password	Passw0rd
	Service port	8443
InstallAnywhere Cancel		Previous Next

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

Power Insight	– ×
	Pre-installation summary
Introduction	Please review the following before continuing:
🧭 License agreement	^
📀 Installation type	Product Name:
🧭 Choose install folders	rowennaght
🤣 Choose data folder	Install Folder:
🤣 Choose shortcut folder	C:\Program Files\Trellis Application Manager
🤣 Choose user/group	Shortcut Folder:
🤣 Choose parameters	C:\Users\feng.jianmin.barry\AppData\Roaming\Microsoft\Windows\Start Menu\Pro
Pre-installation summary	Data Folder
🔘 Installing	C:\Users\Default\AppData\Local\PowerInsight
 Install complete 	
	Configuration Folder
	C:\Program Files\Trellis Application Manager\config
	Database IP
	127.0.0.1 🗸
	< >
InstallAnywhere	
Cancel	Previous

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

Figure 2.12 Installation Completion Page

Power Insight	– ×				
	Install complete				
Introduction	Congratulations! Power Insight has been successfully installed to:				
🤣 License agreement					
🤣 Installation type	C:\Program Files\Trellis Application Manager				
📀 Choose install folders	However, the initialization is taking longer than expected. Please, consult the				
🤣 Choose data folder	documentation for further troubleshooting.				
🤣 Choose shortcut folder					
📀 Choose user/group	Press "Done" to duit the installer.				
📀 Choose parameters					
📀 Pre-installation summary					
📀 Installing					
Install complete					
InstallAnywhere					
Cancel	Previous Done				

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

```
[root@localhost PI]# ./vertiv-powerinsight-installer.bin
Preparing to install
Extracting the JRE from the installer archive...
Unpacking the JRE...
Extracting the installation resources from the installer archive...
Configuring the installer for this system's environment...
Launching installer...
                                                 (created with InstallAnywhere)
PowerInsight
Preparing CONSOLE Mode Installation...
   _____
Introduction
   ____
Welcome to the Power Insight v2.3.0.0 Setup wizard.
This installer will guide you through the steps required to install the
product on your computer.
It is strongly recommended that you quit all programs before continuing with
this installation.
Respond to each prompt to proceed to the next step in the installation.
If you want to change something on a previous step, type 'back'.
You may cancel this installation at any time by typing 'quit'.
PRESS <ENTER> TO CONTINUE:
```

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

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 enterkey.

- 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

Ready t	co install
Ready t	o install Power Insight onto your system at the following location:
/opt	/trellisappmgr
PRESS -	ENTER> TO INSTALL:

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.

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.
- 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

Intelligence Engine	- ×
	Delete data?
> Maintenance Mode	
Maintenance Complete	In addition to deleting Intelligence Engine would you like to delete the data folder and all its content?
	Yes
	© No
Cancel	Previous Next

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.

Vertiv™ Power Insight v3.0 User Manual

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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.

 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.

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.



😯 Power Insig	Ϛ Power Insight		
Set Up Administrator Account	Set Up Administrator Account		
Email			
Used for password recovery and notify			
Please input email Password			
Please enter password	Ø		
Confirm Password			
🗈 Please enter password	Ś		
Confirm Information			

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

🐼 Power Insight
Confirm Information
Admin
Email 12345678@vertiv.com
Confirm
Reconfigure

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

Power Insight	
Username	
은 Username	
Password	
🗄 Please enter password 🛛 🕸	
Login wei Parta	
Forgot password?	

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.

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.



😯 Power Ir	sight
Login	
Username	
은 Username	
Password	
Please enter password	œ
Login	
	orgot password?

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

8 Invalid CAPTCHA	S Too many login attempts, please try again later
Incorrect username or password	
😯 Power Insight	🐼 Power Insight
Login	Login
Username	Username
은 Username	은 Username
Password	Password
Verification Code	Verification Code
САРТСНА	САРТСНА
Login	Login
Forgot password?	Forgot password?

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.

Figure 3.9 Window for Multi-user Login

Tip The current user is logged in elsewhere and will be logged out	
Confirm	

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

Nultiple users of	users cannot be logged into the same browser at the sa	same time
$\mathbf{\mathbf{v}}$	Power Insight	
Login	gin	
Usernam	ername	
은 Use	L Username	
Passwor	sword	
Verificati	ification Code	
CAPTO	APTCHA	
	Login	
	Forgot password?	

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

😯 Power In	sight
Change Password	
New Password	
Please enter password	ÅQ.
Confirm Password	
\land Please enter password	Ś
Confirm	

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

Password change timeout please	click "Back" to try again.
😯 Power In	sight
Change Password	
New Password	
🕆 Please enter password	8
Please input 10-108 characters, must incl lowercase letters, and numbers	
Confirm Password	
🕆 Please enter password	8
Password mismatch	
Confirm	

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.

Figure 3.14 Login with New Password Page

•	Change password successfully, p	please login with new password	
	😯 Power	Insight	
	Change Password		
	New Password		
	≙ 123456	٢	
	Confirm Password		
	⊕ ●●●●●	8	
	Confirm	n	
		Back	

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.

😯 Power Insigh
Forgot Password
Username
음 Please input username
Verification Code
Verification Code Send (1
Confirm

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.
The system has sent a verification code to the email associated with user {XXXX}. Please check your email inbox and enter the received verification code **ivercence of the email associated with user {XXXX}**. Please check your email inbox and enter the received verification code **ivercence of the email associated with user {XXXX}**. Please check your email inbox and enter the received verification code **ivercence of the email associated with user {XXXX}**. Please check your email inbox and enter the received verification code

Verification Code

If the mail server is not configured, the message The mail server is not configured, please contact the administrator is

Figure 3.16 Verification for Changing Password

Figure 3.17 E	Email Configurati	ion Failed Page
---------------	-------------------	-----------------

displayed as shown in Figure 3.17 below.

8 V	erification email failed to send, please contact the administrator	
	😯 Power Insight	
	Login	
	Username	
	은 Username	
	Password	
	🖞 Please enter password	
	une resource	
	Login	
	Forgot password?	

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.

Figure 3.18 Authorize Verification Code

Novalid verification	code	
Verification Code e	xpired	
😯 Power In	sight	
Forgot Password		
Username	A-0-4	
은 Please input username		
Verification Code		
12345	Send(59)	
Confirm		
	Back	

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

ltem	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

ltem	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 eigen and click UPS in the second level menu. See Figure 4.1 below.

Figure 4.1 Listed UPS in Power Insight

=	😯 Power Insight					A ⁰	Ð	lsk 👻
•	Monitoring	UPS						
	Homepage							
	UPS	Ple	ase enter your search	Q			Ŧ	0
*	PDU		UPS Name	Status 💠	Model	Address	Operati	ion
\$	Server			S	ITA2	1	Delet	e
			GXE2-VS-unitycard	S	GXE2	1	Delet	e
			ups_test1	0	GXT5		Delet	e
			Edge-UPS	©	EDGE		Delet	e
						Total 4 items 10 per page v K < 1		×

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

	Monitoring	UPS				
	Homepage					
	UPS	Please enter your search	Q			T O
4	PDU	UPS Name	Status 💠	Model	Address	Operation
\$	Server	Edge-UPS	Ø	EDGE	10.146.102.22	Delete
					Total 1 items 10 per page ~ IC C 1	/1 > э

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

ø	Monitoring	← Add UPS	
	Homepage		
—	UPS	Method	
*	PDU		
\$	Server	Device Computation •Device Address •Device Name •Device Address Please enter 132 characters IPvd v Please leput IPv4 address	
		-Model -communication Interface LIEBERT GXT5 V GXT5 RDU101 V	
		SNMP Protocol Config	
		-Communication Protocol -Port SNMP V2c ~ 161	
		-Timeout (second)Hetry (Times)	
		The input configuration below must match exactly with the corresponding configuration in the device to be monitored -Read Community String Wite Community String	
		public private	
		Envy as default enorty	
		Cancel Addition	

- 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

*Communication Protocol		*Port					
SNMP v2c v	r	161					
*Time Out (Second)		*Retry (Time)					
5		3					
The input configuration below must match exactly with the corresponding configuration in the device to be monitored *Read Community String Write Community String							
*Read Community String		Write Community String					
*Read Community String public		Write Community String private					

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

*Communication Protocol	*Port
SNMP v3 V	161
*Time Out (Second)	"Retry (Time)
5	3
The input configuration below must match exactly with the corresponding configuration in the device	e to be monitored
*Username	Security Level
Please enter 1-32 characters	noAuthNoPriv v
Save as default config	

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.

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 III. 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

•	Monitoring	UPS					
	Homepage						
-	UPS	Please enter your search	م			T (0
4	PDU	UPS Name	Status 💠	Model	Address	Operation	
\$	Server	Edge-UPS	•	EDGE	10.146.102.22	Delete	
					Total 1 items 10 per page v IK K 1 / 1	> >	

- 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 4.7 Range Search UPS

\leftarrow Add PDU		Search successful							
Method									
	Range Search Manual Addition								
Device Confi	Device Configuration								
	*Starting IP Address			*Ending IP Address					
ļ	192.169.0.33			192.168.0.35					
SNMP Proto	col Config								
	*Communication Protocol			*Port					
	SNMP v2c	~		161					
	*Time Out (Second)			*Retry (Time)					
	5			3					
	The input configuration below must match exactly with the con	responding configuration in the device	to be r	nonitored					
	*Read Community String			Write Community String					
	public			private					
	Save as default config			Search					

- 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

*Communication Protocol	*Port
SNMP v2c V	161
*Time Out (Second)	*Retry (Time)
5	3
The input configuration below must match exactly with the corresponding configuration in the device	to be monitored
*Read Community String	Write Community String
public	private
Save as default config	

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.

Figure 4.9 SNMP v3 Configuration

*Communication Protocol		*Port
SNMP v3		161
*Time Out (Second)		*Retry (Time)
5		3
The input configuration below must match exactly with the corresponding configuration in the dev	ice to be	monitored Security Level
Please enter 1-32 characters		noAuthNoPriv V
Save as default config		

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

Please enter 1-32 characters The device name cannot be duplicated with already monitored PDU or UPS devices Cancel Save	Edit Device Name	×	
Cancel Save	Please enter 1-32 characters The device name cannot be duplicated with already monitored PDU or UPS devices		
		Cancel	

Figure 4.11 List of Searched PDUs

Searc	h Result		<u>.</u> .	
	Status	IP Address	Device Name	Model
	Monitored	192.169.0.33	1_MPDU_MPS_1	MPDU
	Unmonitored	192.169.0.34	1_MPDU_MPS_2 &	MPDU
	Unmonitored	192.169.0.35	1_MPDU_MPS_3 🖉	MPDU
	Monitored	192.169.0.36	1_MPDU_MPS_4	MPDU
	Monitored	192.169.0.37	1_MPDU_MPS_5	MPDU
2 selecte	ed			
				Cancel Monitor

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

2	Monitoring	UPS				
۲	Homepage					
	UPS	Please enter your search	Q			τO
*	PDU	UPS Name	Status 💠	Model	Address	Operation
\$	Server	Edge-UPS	0	EDGE	10.146.102.22	Delete
					Total 1 items 10 per page v K K	1 /1 → →

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

Delete		×	
Are you sure you want to delete Edge-UPS?	2		
С	Cancel	Confirm	

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

Delete	×	
Are you sure to delete the selected 1 items?	9	
Cancel	Confirm	

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

Manitaning	LIDS			
Monitoring	UF3			
Homepage				- 0
UPS	Please enter your search	X		ŤŬ
PDU	UPS Name	Status 😄 Model	Address	Operation
Server	Edge-UPS	S EDGE	10.146.102.22	Delete
			Total 1 items 10 per page v IC <	1 /1 > >

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

Key Signals			
Communication Status:	Communication Normal	Power Supply Status:	Utility Supply
Remaining Battery Capacity:	96%	Phase A Output Load :	96%
Phase B Output Load:	96%	Phase C Output Load:	96%

• 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.

Figure 4.17 Asset Information

Key Signals			
Communication Status:	Communication Normal	Power Supply Status:	Utility Supply
Remaining Battery Capacity:	96%	Phase A Output Load 1	96%
Phase B Output Load :	96%	Phase C Output Load :	96%
Asset Info			
Name:	VERTIV 🖄	Model:	1.2.0.0
Device Address:	10.0.0.1 🖸	Firmware Version:	Smart Cabinet ID Cooler
Serial Number:		Communication Protocol:	SNMPv3
Monitoring Started At:	2023-11-11 18:30	Manufacturer:	XXXXXXX
Description:	This is a descriptive content. This i 🛛 🖉		

• 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

Active Alarm				
Alarm Name	Severity	Started at	Acknowledger	Operation
Device Communication Interruption	0	2023-11-22 10:30:29	-	End Acknowledge
System Output Turned Off	0	2023-11-22 10:30:29	User	End MAcknowledge
Output Overvoltage	0	2023-11-22-10:30:29	User	End Acknowledge
Output Overvoltage	A	2023-11-22 10:30:29	User	End Acknowledge
System Output Turned Off	0	2023-11-22 10:30:29	User	End Acknowledge
				Total 111 items
C. este	2037)

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

Acknowledge	×	
Cancel	Acknowledge	

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**.

Figure 4.20 End Alarm

End		×
Do you want to end alarm Output Overcurrent	?	
	Cancel	End

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

Send Control Co	mmand		×
Device Name:	UPS ITA-2		
Control Signal Name:	Turn Off Output		
Current Value:	False		
Set Value			
True			~
		Cancel	Confirm

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

≡	Power Insight		Prvice control failed	(⁵⁰⁰ A ⁵⁰⁰ () ⁵⁰⁰ ()	User Name 🔻
≅	Monitoring Homepage	← UPS device name 运择器属性选项 Overview Signal Control	Device control successful		
	UPS				
	PDU	Please enter your search	Q,		5
\$	Server	Control Signal	Current Value		Operation
		Remote Power On Delay Time	5second		Control
		Turn Off Output	True		Control
		Delay Turn Off Output	True		Control
		Turn On Output	False		Control
		Delay Turn On Output	True		Control
		Cancel Delay Turn Off Output	False		Control
		Remote Power On Delay Time	2second		Control
¢.		Remote Power Off Delay Time	2second		Control
		Text content	Text content		Control
		Text content	Text content		Control
				Total 111 items 10 per page \checkmark K K 1 / 12	> >I

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

J	
-	

Click on Control Record icon e 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

Control Records					×
Please enter your sea	ion	Q			
Control Time	Control Signal	Original Value	Set Value	Result	Username
2024-02-11 12:07:03	Text content		Text content	Success	Text content
2024-02-11 12:07:03	Text content	Text content	Text content	Success	Text.content
2024-02-11 12:07:03	Text content	Text content	Text content	Success	Text content
2024-02-11 12:07:03	Text content	Text content	Text content	Fail	Text content
2024-02-11 12:07:03	Text content	Text content	Text content	Success	Text content
2024-02-11 12:07:03	Text content	Text content	Text content	Success	Text content
2024-02-11 12:07:03	Text content	Text content	Text content	Fail	Text content
2024-02-11 12:07:03	Text content	Text content	Text content	Fail	Text content
2024-02-11 12:07:03	Text content	Text content	Text content	Success	Text content
2024-02-11 12:07:03	Text content	Text content	Text content	Success	Text content
		Total 111 items 10	perpage 🗸	К < 1	/ 12 >>>

4.4 PDU

4.4.1 View the List of PDUs

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

Figure 4.25 PDU Page

Homepage					
UPS	Please enter your search	٩			T O
PDU	PDU Name	Status 👳	Model	Address	Operation
Server	DU_TEST3_Geist IMD1	0	GEIST	10.169.82.203	Delete
	DU_TEST1_Geist IMD3	۲	GEIST	10.169.82.202	Delete
	DU_TEST2_Geist IMD3	0	GEIST	10.169.82.201	Delete
	Geist IMD3	0	GEIST	10.146.101.157	Delete
	Geist IMD3	S	GEIST	10.146.101.156	Delete
				Total 5 items 10 per page V	

4.4.2 PDU Addition

Rack PDU of GEIST firmware v5.0 is supported.

Manually add PDUs

1. Click on Monitoring icon III. 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

•	Monitoring	PDU					
	Homepage						
_	UPS		Please enter your search	٩			T O
4	PDU		PDU Name	Status 👳	Model	Address	Operation
\$	Server		PDU_TEST3_Geist IMD1	0	GEIST	10.169.82.203	Delete
			PDU_TEST1_Geist IMD3	0	GEIST	10.169.82.202	Delete
			PDU_TEST2_Geist IMD3	0	GEIST	10.169.82.201	Delete
			Geist IMD3	0	GEIST	10.146.101.157	Delete
			Geist IMD3	0	GEIST	10.146.101.156	Delete
						Total 5 items 10 per page v IC C	1 /1 > >I

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

Monitoring	← Add PDU	
Homepage	Method	
UPS	Range Search	
PDU	Device Configuration	
Server	*Device Name *Device Address	
	Please etter 1-32 Characters IPV4 v Please input IPV4 address	
	*Model *Specification	
	GEIST rPDU v Single Phase, 0 or 1 Circuit v	
	SNMP Protocol Config	
	*Communication Protocol *Port	
	SNMP v2c ~ 161	
	*Time Out (Second) *Retry (Time)	
	5	
	The input configuration below must match exactly with the corresponding contiguration in the device to be monitored	
	"Read Community String Write Community String	
	public private	
	Save as default config	
	Cancel Add de	

- 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

*Communication Protocol	*Port
SNMP v2c v	161
*Time Out (Second)	*Retry (Time)
5	3
The input configuration below must match exactly with the corresponding configuration in the device	to be monitored
The input configuration below must match exactly with the corresponding configuration in the device *Read Community String	to be monitored. Write Community String
The input configuration below must match exactly with the corresponding configuration in the device *Read Community String public	to be monitored Write Community String private

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.

Figure 4.29 Communication Protocol SNMP v3

*Communication Protocol	*Port
SNMP v3 V	161
*Time Out (Second)	*Retry (Time)
5	3
The input configuration below must match exactly with the corresponding configuration in the device	to be monitored
The input configuration below must match exactly with the corresponding configuration in the device *Username	to be monitored Security Level
The input configuration below must match exactly with the corresponding configuration in the device *Username Please enter 1-32 characters	to be monitored Security Level noAuthNoPriv ~
The input configuration below must match exactly with the corresponding configuration in the device *Username Please enter 1-32 characters	to be monitored Security Level noAuthNoPriv ~

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.

Range Search PDUs

1. Click on Monitoring icon III. 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

•	Monitoring	PDU							
	Homepage								
_	UPS		Please	e enter your search	Q			Ŧ	0
4	PDU			PDU Name	Status ¢	Model	Address	Operation	
\$	Server			PDU_TEST3_Geist IMD1	0	GEIST	10.169.82.203	Delete	
				PDU_TEST1_Geist IMD3	0	GEIST	10.169.82.202	Delete	
				PDU_TEST2_Geist IMD3	0	GEIST	10.169.82.201	Delete	
				Geist IMD3	ø	GEIST	10.146.101.157	Delete	
				Geist IMD3	0	GEIST	10.146.101.156	Delete	
							Total 5 items 10 per page \checkmark ic < 1 / 1	>	>1

- 2. Click on Add icon I 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

Add PDU		
Method	je Search 🔿 Manual Addition	
Device Configuration		
*Starting	IP Address	*Ending IP Address
Please	e enter the starting IPv4 address	Please enter the terminating IPv4 address
SNMP Protocol Confi	ig	
*Commu	inication Protocol	*Port
SNMP	2v2c ~	161
*Time O	ut (Second)	'Retry (Time)
5		3
The inpu	t configuration below must match exactly with the corresponding configuration in the device to	be monitored
*Read C	ommunity String	Write Community String
public		private
	as default config	

- 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

*Communication Protocol		*Port
SNMP v2c	~	161
*Time Out (Second)		*Retry (Time)
5		3
The input configuration below must match exactly with the corresponding configura	ation In the device to b	e monitored
The input configuration below must match exactly with the corresponding configura *Read Community String	ation In the device to t	e monitored Write Community String
The Input configuration below must match exactly with the corresponding configura *Read Community String public	ation In the device to t	e monitored Write Community String private

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

*Communication Protocol	*Port	
SNMP v3	161	
*Time Out (Second)	*Retry (Time)	
5	3	
The input configuration below must match exactly with the corresponding configuration in the device	to be monitored	
The input configuration below must match exactly with the corresponding configuration in the device *Username	to be monitored Security Level	
The input configuration below must match exactly with the corresponding configuration in the device *Username Please enter 1-32 characters	to be monitored Security Level noAuthNoPriv	~

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. 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

Edit Device Name		×
Please enter 1-32 characters The device name cannot be duplicated with already monitored PDU or UPS devices		
	Cancel	Save

Figure 4.35 PDU Search Result

	ess Device Name	IP Address	Status	
MPDU	.0.33 1_MPDU_MPS_1	192.169.0.33	Monitored	
MPDU	.0.34 1_MPDU_MPS_2 &	192.169.0.34	Unmonitored	2
MPDU	.0.35 1_MPDU_MPS_3 🖉	192.169.0.35	Unmonitored	2
MPDU	.0.36 1_MPDU_MPS_4	192.169.0.36	Monitored	
MPDU	.0.37 1_MPDU_MPS_5	192.169.0.37	Monitored	
			d	lecte
	.0.37 1_MPDU_MPS_5	192.169.0.37	Monitored d	electe

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.

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 eigen and click on *PDU* in the secondary menu. See **Figure 4.36** below.

Figure 4.36 PDU

•	Monitoring	PDU			
1	Homepage				
	UPS	Please enter your search	Q		T O
4	PDU	PDU Name Status	© Model	Address	Operation
\$	Server	DU_TEST3_Geist IMD1	GEIST	10.169.82.203	Delete
		PDU_TEST1_Geist IMD3	GEIST	10.169.82.202	Delete
		PDU_TEST2_Geist IMD3	GEIST	10,169.82.201	Delete
		Geist IMD3	GEIST	10.146.101.157	Delete
<		Geist IMD3	GEIST	10.146.101.156	Delete
				Total 5 items 10 per page V	√1 /1 → >1
weipar					
32					

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

Delete	×
Are you sure you want to delete PDU_TEST2_Geist IN	1D3?
Cancel	Confirm

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.

Figure 4.38 Multiple Deletion Window

Are you sure to delete the selected 1 items? Cancel Confirm	Delete	×
Cancel Confirm	Are you sure to delete the selected 1 items?	
	Cancel	Confirm

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 eigen and click *PDU* in the second level menu. See **Figure 4.39** below.

Figure 4.39 PDU

ø	Monitoring	PDU				
	Homepage					
	UPS	Please enter your search	م			T O
4	PDU	PDU Name	Status ©	Model	Address	Operation
\$	Server	DU_TEST3_Geist IMD1	0	GEIST	10.169.82.203	Delete
		PDU_TEST1_Geist IMD3	0	GEIST	10.169.82.202	Delete
		PDU_TEST2_Geist IMD3	0	GEIST	10.169.82.201	Delete
		Geist IMD3	0	GEIST	10.146.101.157	Delete
4		Geist IMD3	0	GEIST	10.146.101.156	Delete
					Total 5 items 10 per page v K	/1 → →1
-si-Pa						
33 100						

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.

Figure 4.40 Key Signals

Key Signals			
Communication Status:	🥝 Communication Normal	Output Power:	780w
Energy:	600kWh		

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

Key Signals					
Communication Status:	📀 Communication Normal	Output Power:	_780w		
Energy:	600kWh				
Asset Info					
Name:	VERTIV 🖄	Model:	1.2.0.0		
Device Address:	10.0.0.1 🖸	Firmware Version:	Smart Cabinet ID Cooler		
Serial Number:	-	Communication Protocol:	SNMPv3		
Monitoring Started At:	2023-11-11 18:30	Manufacturer:	XXXXXXXXX		
Description:	This is a descriptive content. This i 🛛 🖉				

• 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

Active Alarm				
Alarm Name	Severity	Started at	Acknowledger	Operation
Device Communication Interruption	0	2023-11-22 10:30:29		End Acknowledge
System Output Turned Off	0	2023-11-22 10:30:29	User	End, PAcknowledge
Output Overvoltage	0	2023-11-22-10:30:29	User	End Acknowledge
Output Overvoltage	A	2023-11-22 10:30:29	User	End Acknowledge
System Output Turned Off	0	2023-11-22 10:30:29	User	End Acknowledge
386				Total 111 items

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

Figure 4.43 Alarm Acknowledgment

Do you acknowledge alarm Output Overcurrent? Cancel Acknowledge	Acknowledge	×
Cancel Acknowledge	Do you acknowledge alarm Output Overcur	ent?
	Cance	Acknowledge

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

End		×
Do you want to end alarm Output Overcurrent?		
	Cancel	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.

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.

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 is 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

Ple	ase enter your search		Q			0
٠	Server Name	Status	OS	Address	Associate Power Devices	Operation
	XXX server 11111111111111111111	0	Windows	10.146.102.22	UPS ITA2 1-3 kva	Delete
	XXX server	0	Linux	10.146.102.22	GEIST PDU 0360, GEIST PDU 0361	Delete
	XXX server	\odot	VMWare	10.146.102.22	None	Delete
	XXX server	0	ESXi	10.146.102.22	GEIST PDU 0360	Delete
	XXX server	9	Hyperv	10.146.102.22	None	Delete
	XXX server	\odot	Windows	10.146.102.22	None	Delete
	XXX server	0	Windows	10.146.102.22	UPS ITA2 1-3 kva	Delete
	XXX server	0	Windows	10.146.102.22	GEIST PDU 0360	Delete
	XXX server	0	Windows	10.146.102.22	None	Delete
	XXX server	0	Windows	10.146.102.22	GEIST PDU 0360, GEIST PDU 0361	Delete
	XXX server	•	Windows	10.146.102.22	GEIST PDU 0360, GEIST PDU 0361	Delete

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

Figure 5.2 Adding Server

← Add Server								
Method								
	🖲 Batch Upload 🛛 🔿 Manual J	Addition						
Download Te	mplate							
	Click to download blank server temp	late						
Upload and In	mport Template							
	Select file Please select the serve	er template file that needs to be uploaded						
	File Name	Size	Status					
		Click the "S	elect file' button above to upload the file					

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

Server Device Import Template.xlsx 13.1 KB • Done								
Server Na	ame(Required)	Address Type(Required)	Address(Required)	System Type(Required)	Agent Username or ESXi Username	Agent Password or ESXi P	Port	Ignore SSL Authentication
200								

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

Uploa	ad and In	iport Template		
		Select file Please select the server template file that needs to be uploaded		
		File Name	Size	Status
		File name XXX	40 KB	To be imported
				Import

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

Upload and Ir	Upload and Import Template									
	Select file Please select the server template file that needs to be uploaded									
	File Name	Size	Status							
	File name XXX	40 KB	Importing							

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

Figure 5.6 Import Result

Upload and In	Upload and Import Template							
	Select file Please select the server template file that needs to be uploaded							
	File Name	Size	Status					
	File name XXX	40 KB	Import successful					
lana di Dana (b	e .							
	_							
	Import successful		Import failed					
	б		1 ±					

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

1 🛃	🔞 Import failed
	1 上

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 Dupper right corner to enter the Add Server page and select *Manual Addition*.

Figure 5.8 Add Device Configuration Page

1.022				Cr.,	
← Add Serve	er	O The current configuration has been saved as the default configuration	ration f	for manually adding servers	
Method					4
	 Batch Upload 	Manual Addition			
Device Conf	figuration				
	*Name			*Device Address	
	Please enter 1-32	characters		IPv4 V Please input IPv4 address	
	Select Server Type			Agent Usemame Automation Agent on the server first	
	Windows	~		Please enter the username of the automation agent	
	Agent Password			Port	
	•••••	20 20		3029	
	Ignore SSL Authe	ntication			
	Save as default co	nfig			
				Cancel	Add device

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.

Figure 5.9 Device Configuration Page

← Add Serve	r		
Method			
	O Batch Upload		
Device Conf	iguration		
	*Name	*Device Address	
	Please enter 1-32 characters	IPv4 v Please input IPv4 address	
	Select Server Type	EXSI Server Username	
	ESXi	Please enter the ESXI server username	
	ESXI Server Password	Port	
	•••••	443.	
	Ignore SSL Authentication		
	Save as default config		
		Cancel Ad	

- 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

Delete Are you sure you want to delete Server2?	×
Canc	el Confirm

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

Please enter your search		Q			0	
	Server Name	Status	OS	Address	Associate Power Devices	Operation
	XXX server 111111111111111111	9	Windows	10.146.102.22	UPS ITA2 1-3 kva	Delete
	XXX server	0	Linux	10.146.102.22	GEIST PDU 0360, GEIST PDU 0361	
	XXX server	0	VMWare	10.146.102.22	None	
	XXX server	0	ESXi	10.146.102.22	GEIST PDU 0360	Delete
	XXX server	9	Hyperv	10.146.102.22	None	Delete
	XXX server	0	Windows	10.146.102.22	None	Delete
	XXX server	0	Windows	10.146.102.22	UPS ITA2 1-3 kva	Delete
	XXX server	0	Windows	10.146.102.22	GEIST PDU 0360	Delete
	XXX server	0	Windows	10.146.102.22	None	Delete
	XXX server	•	Windows	10.146.102.22	GEIST PDU 0360, GEIST PDU 0361	Delete
Batch	delete {{value}} Selected Cle	ear selection			Total 111 items 10 per page ~ IC C 1 / 12	> >I

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

Figure 5.12 Deletion of Selected Items

Are you sure to delete the selected 1 items? Cancel Confirm	Delete	×
Cancel Confirm	Are you sure to delete the selected 1 items?	
	Cancel	Confirm

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.

Figure 5.13 Server Interface

Overview	Shutdown Record					
Basic Info	rmation					Edit
Name:	Dell Server E870	Communication Status:	Agent communication is normal	Server Type:	Windows	
Agent Userna	me 🔀 : admin	Agent Password:		Port:	3029	
Description:	This is a description of 1111111111111	111111				
Shutdown Devices and a	Config kiames that can trigger server shadown In Rule 1 The server will shut down if any of the following als Device Name	Irms occur	Alarm			
			F-10100 - 1 - 1 - 1			
	UPS-ITA2-005		Battery mode, bypass mode, o mode, bypass mode, output pe bypass mode, output power too high, power too high, voltage too hig high voltage too high, current too high, current too high batter current too high	utput power too high, voltage too wer too high, voltage too high, cur oligh, voltage too high, current too high, voltage too high, current too high i h, current too high, Battery mode, too high battery mode, bypass mode, output pc	high, current too high, battery rent too high battery mode, so high, battery mode, bypass battery mode, bypass mode, output bypass mode, output power too de, output power too high, voltage wer too high, voltage too high,	
	UPS-ITA2-005 UPS-Industry S-10.0.2.3		Battery mode, bypass mode, o mode, bypass mode, output power to bypass mode, output power to mode, output power too high, power too high, voltage too hig high, voltage too high carrent too high, current too high bate current too high Battery mode, external temper	utput power too high, voltage too www too high, voltage too high, cu o high, voltage too high, current to o high, voltage too high, current too high h, current too high autery mode, oo high battery mode, bypass mc oo high battery mode, bypass mc of high battery mode, output power atture too high, output power too h	high, current too high, battery rent too high battery mode, so high, battery mode, byass sattery mode, byass mode, output bypass mode, output power too de, output power too high, voltage wer too high, voltage too high, sigh	
✓ Automatic	UPS-ITA2-005 UPS-Industry-S-10.0.2.3 in Rule 2 The server will shut down when all of the following	alams occur	Battery mode, bypass mode, o mode, bypass mode, output p bypass mode, output power to mode, output power to high, bigh, vortage too high, current too high, current too high batte current too high Battery mode, external temper	utput power too high, voltage too wwer too high, voltage too high, cu o high, voltage too high, current to oltage too high, current too high, dhate too high, sattery mode, too high battery mode, bypass mode, output power, y mode, bypass mode, output po ature too high, output power too h	high, current too high, battery mode, rent too high battery mode, too high, battery mode, bypass sattery mode, bypass mode, output bypass mode, output power too de, output power too high, voltage wer too high, voltage too high, sigh	
✓ Automatic	UPS-ITA2-005 UPS-industry-S-10.0.2.3 In Rule 2 The server will shut down when all of the following Device Name	alarms accur	Bettery mode, bypass mode, o mode, bypass mode, output power bypass mode, output power to mode, output power to high, output power to high, vurbage too high, high, vurbage too high, carrent too high, current too high batte current too high Battery mode, external temper	utput power too high, voltage too wwer too high, voltage too high, cu o high, voltage too high, current to olighage too high, current too high, dhage too high, current too high, dha high battery mode, loo high battery mode, by an high battery mode, by a high current too high, output power too h ature too high, output power too h	high, current too high, battery rent too high battery mode, too high, battery mode, bypass soltery mode, bypass mode, output bypass mode, output power too de, output power too high, voltage wer too high, voltage too high, ligh	
✓ Automatic	UPS-ITA2-005 UPS-industry-S-10.0.2.3 UPS-industry-S-10.0.2.3 Device Name UPS-ITA2-002	alarms essur	Bettery mode, bypass mode, o mode, bypass mode, output power to bypass mode, output power to mode, output power to bigh, bigh, varbage too bigh, current too high, varbage too bigh, current too high, current too high bette current too high Bettery mode, external temper Alarm Bypass mode, output power to	utput power too high, voltage too www too high, voltage too high, cu o high, voltage too high, current to o high, voltage too high, current too high, b, current too high, suttery mode, loo high battery mode, bypass mode, bypass mode, output po ature too high, output power too h	high, current too high, battery mode, too high, battery mode, bypass so high, battery mode, bypass soltery mode, bypass mode, output bypass mode, output power too de, output power too high, voltage we too high, voltage too high, sigh	

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

Basic Information ×	<
*Name	
Dell Server E870	
ESXi Server Username	
admin	
ESXi Server Password	
Port	
443	
Describe	
Please enter 1-1000 characters	
Ignore SSL Authentication	
Test connection Cancel Save	

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

Basic Information	×
*Name	
Dell Server E870	
Agent Login Name 🌘	
admin	
Agent Password	
•••••	8
Port	
3029	
Describe	
Please enter 1-1000 characters	11
✓ Ignore SSL Authentication	
Test connection Car	ncel Save

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

Corriew Shutdown Record			
Shutdown Record			
Shutdown Time	Devices and Alarms Triggering Shutdown	Script Execution	
2023-07-25 13:46:16	UPS-APM038: Bypass mode, output power too high, voltage too high, current too high UPS-APM039: Battery mode, external temperature too high, output power too high, voltage too high, current too high, battery mode	Execute script serverscript.sh	
2023-07-25 13:46:16	UPS-APM038: Battery Mode	None	
2023-07-25 13:46:16	UPS-APM038: Battery Mode	Execute script testxe	
			共111项

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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.

Figure 6.1 Active Alarm

Active Alarm									
Alarm History	Plea	se enter your :	search	Q,					T D
Alarm Triggering		Severity	Alarm Name	Device Name	Source Address	Started at	Acknowledged at	Acknowledger	Operation
Notification		0	Device communication interr	Edge-UPS	10.146.102.22	2023.11.22 10:30:29		-	End Acknowledge
Automation		0	Output overvoltage	Edge-UPS	10.146.102.22	2023.11.22 10:30:29	2023.11.22 10:30:59	Admin	End Acknowledge
		0	System output turned off	PDU_TEST1_Geist IMD3	10.146.102.22	2023.11.22 10:30:29	2023.11.22 10:30:59	Admin	End Acknowledge
		0	Output overvoltage	GXT5-750IRT2UXL-10.146.1	10.146.102.22	2023.11.22 10:30:29	-		End Acknowledge
		A	Device communication interr	PDU_TEST3_Geist IMD1	10.146.102.22	2023.11.22 10:30:29		-	End Acknowledge
		A	Device communication interr	PDU_TEST3_Geist IMD1	10.146.102.22	2023.11.22 10:30:29	2023.11.22 10:30:59	Admin	End Acknowledge
		A	Device communication interr	PDU_TEST3_Geist IMD1	10.146.102.22	2023.11.22 10:30:29	2023.11.22 10:30:59	Admin	End Acknowledge
		A	Output overvoltage	PDU_TEST3_Geist IMD1	10.146.102.22	2023.11.22 10:30:29	2023.11.22 10:30:59	Admin	End Acknowledge
		A	Output overvoltage	PDU_TEST3_Geist IMD1	10.146.102.22	2023.11.22 10:30:29	2023.11.22 10:30:59	Admin	End Acknowledge
		0	System output turned off	PDU_TEST3_Geist1MD1	10.146.102.22	2023.11.22 10:30	2023.11.22 10:30:59	Admin	End Acknowledge
						Total 111	tems 10 per page ~	к < 1	712 > Э

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

Acknowledge Do you acknowledge alarm Output Overcurrent?	×
Cancel	Acknowledge

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

Figure 6.3 Acknowledging Multiple Alarms

Acknowledge Do you acknowledge the selected 2 alarm?	×
Cancel	Acknowledge

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

Figure 6.4 Alarm End Confirmation

End Do you v	× vant to end alarm High Real Power?	
	Cancel End	

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

Figure 6.5 Multiple Alarm End Confirmation

End	×
Do you want to end the selected 2 alarms?	
	Cancel End

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

Active Alarm Airm Triggering Adam Triggering Atam Triggering Atam Triggering Atam Triggering Automation Output overvolage Outpu	<u>*</u>	Alarm	Active Alarm 🥏 Alarm successfully ackr	nowledged	
Airm History Alarm Triggering Atima Triggering Notification Automation Image: Comparison of the policy compari		Active Alarm			
Amm Triggering Airm Aringering Notification Notification Option communication intern. Option		Alarm History	Please enter your search Q		T D
Notification Device communication intern. ldge/UPS 10.146.102.22 2023.11.22 10.30.29 - - End Acknowledge Automation 0 Output overvoltage Edge/UPS 10.146.102.22 2023.11.22 10.30.29 2023.11.22 10.30.59 Admin End Acknowledge 0 0 Output overvoltage Edge/UPS 10.146.102.22 2023.11.22 10.30.29 2023.11.22 10.30.59 Admin End Acknowledge 0 Output overvoltage EKT57SGRT2DLC101461 10.146.102.22 2023.11.22 10.30.59 Admin End Acknowledge 0 Output overvoltage EKT57SGRT2DLC101461 10.146.102.22 2023.11.22 10.30.59 Admin End Acknowledge 0 Output overvoltage EKT57SGRT2DLC101461 10.146.102.22 2023.11.22 10.30.59 Admin End Acknowledge 0 Output overvoltage POU_TEST1_Gest IM01 10.146.102.22 2023.11.22 10.30.59 Admin End Acknowledge 0 Output overvoltage POU_TEST1_Gest IM01 10.146.102.22 2023.11.22 10.30.59 Admin End Acknowledge 0 Output overvoltage POU_TEST1_Gest IM01 10.146.102.22 2023.11.2		Alarm Triggering	Severity Alarm Name Device Name S	Source Address Started at Acknowledged at Acknowledger	Operation
Automation 0 Uuput overvoltage EdgeUPS 10.146.102.22 2023.11.22 10.30.29 2023.11.22 10.30.59 Admin End Advance/edge 0 0 Uuput overvoltage 6X5 730RT2/DL-10.146.1 10.146.102.22 2023.11.22 10.30.29 2023.11.22 10.30.59 Admin End Advance/edge 0 0 Uuput overvoltage 6X5 730RT2/DL-10.146.1 10.146.102.22 2023.11.22 10.30.29 - - End Advance/edge 0 0 Uuput overvoltage 6X5 730RT2/DL-10.146.1 10.146.102.22 2023.11.22 10.30.29 - - End Advance/edge 0 0 Uuput overvoltage 6X1 7530RT2/DL-10.146.1 10.146.102.22 2023.11.22 10.30.29 Admin End Advance/edge 0 0 Proice communication interr. POU_TEST3_0eist IM01 10.146.102.22 2023.11.22 10.30.29 Admin End Advance/edge 0 0 Uuput overvoltage POU_TEST3_0eist IM01 10.146.102.22 2023.11.22 10.30.29 Admin End Advance/edge 0 0 Uuput overvoltage POU_TEST3_0eist IM01 10.146.102.22 2023.11.22 10.30.29 Admin End Advance/edge 0 System output turned off POU_TEST3_0eist IM01 10.146.102.22	¢	Notification	Device communication interr EdgeUPS 1	10.146.102.22 2023.11.22 10:30:29 Em	id Acknowledge
Image: Spatien output turned off POULTEST1.Gent MOD 10.146.102.22 2023.11.22 10.30.29 Admin End Acknowledge Image: Device communication intern POULTEST3.Gent MOD 10.146.102.22 2023.11.22 10.30.29 - - End Acknowledge Image: Device communication intern POULTEST3.Gent MOD 10.146.102.22 2023.11.22 10.30.29 - - End Acknowledge Image: Device communication intern POULTEST3.Gent MOD 10.146.102.22 2023.11.22 10.30.29 - - End Acknowledge Image: Device communication intern POULTEST3.Gent MOD 10.146.102.22 2023.11.22 10.30.29 Admin End Acknowledge Image: Device communication intern POULTEST3.Gent MOD 10.146.102.22 2023.11.22 10.30.29 Admin End Acknowledge Image: Device communication intern POULTEST3.Gent MOD 10.146.102.22 2023.11.22 10.30.29 Admin End Acknowledge Image: Device communication intern POULTEST3.Gent MOD 10.146.102.22 2023.11.22 10.30.29 Admin End Acknowledge Image: Device communication intern POULTEST3.Gent MOD 10.146.102.22 2023.11.22 10.30.29 Admin End Acknowledge Image:		Automation	Output overvoltage Edge-UPS 1	0.146.102.22 2023.11.22 10:30:29 2023.11.22 10:30:59 Admin En	id Acknowledge
0 Output overvaltage 6KT5750RT2UDL0.10.14.1 10.146.102.22 2023.11.22 10.30.29 - - End Acknowledge A Device communication interr. POU_TEST3,GeitIMD1 10.146.102.22 2023.11.22 10.30.29 - - End Acknowledge A Device communication interr. POU_TEST3,GeitIMD1 10.146.102.22 2023.11.22 10.30.29 2023.11.22 10.30.89 Admin End Acknowledge A Device communication interr. POU_TEST3,GeitIMD1 10.146.102.22 2023.11.22 10.30.29 2023.11.22 10.30.89 Admin End Acknowledge A Output overvoltage POU_TEST3,GeitIMD1 10.146.102.22 2023.11.22 10.30.29 2023.11.22 10.30.59 Admin End Acknowledge A Output overvoltage POU_TEST3,GeitIMD1 10.146.102.22 2023.11.22 10.30.59 Admin End Acknowledge A Output overvoltage POU_TEST3,GeitIMD1 10.146.102.22 2023.11.22 10.30.59 Admin End Acknowledge A Output overvoltage POU_TEST3,GeitIMD1 10.146.102.22 2023.11.22 10.30.59 Admin End Acknowledge B System output turned off POU_TEST3,GeitIMD1 <td< th=""><th></th><th></th><th>System output turned off PDU_TEST1_Geist IMD3 1</th><th>0.146.102.22 2023.11.22 10:30.29 2023.11.22 10:30:59 Admin Em</th><th>d Acknowledge</th></td<>			System output turned off PDU_TEST1_Geist IMD3 1	0.146.102.22 2023.11.22 10:30.29 2023.11.22 10:30:59 Admin Em	d Acknowledge
A Device communication interr. POU_TEST3_Gest IMO1 10.146.102.22 2023.11.22 10.30.29 End Acknowledge A Device communication interr. POU_TEST3_Gest IMO1 10.146.102.22 2023.11.22 10.30.29 2023.11.22 10.30.59 Admin End Acknowledge A Device communication interr. POU_TEST3_Gest IMO1 10.146.102.22 2023.11.22 10.30.29 2023.11.22 10.30.59 Admin End Acknowledge A Device communication interr. POU_TEST3_Gest IMO1 10.146.102.22 2023.11.22 10.30.29 2023.11.22 10.30.59 Admin End Acknowledge A Output overvoltage POU_TEST3_Gest IMO1 10.146.102.22 2023.11.22 10.30.59 Admin End Acknowledge A Output overvoltage POU_TEST3_Gest IMO1 10.146.102.22 2023.11.22 10.30.59 Admin End Acknowledge A Output overvoltage POU_TEST3_Gest IMO1 10.146.102.22 2023.11.22 10.30.59 Admin End Acknowledge B System output turned off POU_TEST3_Gest IMO1 10.146.102.22 2023.11.22 10.30.59 Admin End Acknowledge Total 111 Items ID per page v K < I			Output overvoltage GXTS-750IRT2UXL-10.146.1 1	0.146.102.22 2023.11.22 10:30:29 En	d Acknowledge
▲ Device communication interr. POU_TEST3_Gest MO1 10.146.102.22 2023.11.22 10.30.29 2023.11.22 10.30.59 Admin End Acknowledge ▲ Device communication interr. POU_TEST3_Gest MO1 10.146.102.22 2023.11.22 10.30.59 Admin End Acknowledge ▲ Output overvaltage POU_TEST3_Gest MO1 10.146.102.22 2023.11.22 10.30.59 Admin End Acknowledge ▲ Output overvaltage POU_TEST3_Gest MO1 10.146.102.22 2023.11.22 10.30.59 Admin End Acknowledge ● ▲ Output overvaltage POU_TEST3_Gest MO1 10.146.102.22 2023.11.22 10.30.59 Admin End Acknowledge ● ▲ Output overvaltage POU_TEST3_Gest MO1 10.146.102.22 2023.11.22 10.30.59 Admin End Acknowledge ● ● System output turned off POU_TEST3_Gest MO1 10.146.102.22 2023.11.22 10.30.59 Admin End Acknowledge □ ● System output turned off POU_TEST3_Gest MO1 10.146.102.22 2023.11.22 10.30.59 Admin End Acknowledge □ □ System output turned off POU_TEST3_Gest MO1 10.146.102.			A Device communication interr PDU_TEST3_Geist IMD1 1	0.146.102.22 2023.11.22 10:30:29 ·· · · En	d Acknowledge
▲ Device communication interr. POULTEST3_Geist IMO1 10.146.102.22 2023.11.22 10.30.29 Admini End Acknowledge ▲ Output overvoltage POULTEST3_Geist IMO1 10.146.102.22 2023.11.22 10.30.29 2023.11.22 10.30.59 Admini End Acknowledge ▲ Output overvoltage POULTEST3_Geist IMO1 10.146.102.22 2023.11.22 10.30.59 Admini End Acknowledge ▲ Output overvoltage POULTEST3_Geist IMO1 10.146.102.22 2023.11.22 10.30.59 Admini End Acknowledge ● System output turned off POULTEST3_Geist IMO1 10.146.102.22 2023.11.22 10.30.59 Admini End Acknowledge ■ System output turned off POULTEST3_Geist IMO1 10.146.102.22 2023.11.22 10.30.59 Admini End Acknowledge ■ System output turned off POULTEST3_Geist IMO1 10.146.102.22 2023.11.22 10.30.59 Admini End Acknowledge ■ Total III1 Items 10.per page × K < 1 /12 ×			A Device communication interr PDU_TEST3_Geist IMD1 1	0.146.102.22 2023.11.22 10:30:29 2023.11.22 10:30:59 Admin En	d Acknowledge
▲ Output overvoltage POU_TCST3_Gent IMO1 10.146.102.22 2023.11.22 10:30.59 Admin End Acknowledge ▲ Output overvoltage POU_TCST3_Gent IMO1 (0.146.102.22 2023.11.22 10:30.59 Admin End Acknowledge ● System output turned off POU_TCST3_Gent IMO1 10.146.102.22 2023.11.22 10:30.59 Admin End Acknowledge ● System output turned off POU_TCST3_Gent IMO1 10.146.102.22 2023.11.22 10:30.59 Admin End Acknowledge ■ Total 111 Items 10.19er page × K < 1 /12 ×			A Device communication interr PDU_TEST3_Geist IMD1 1	.0.146.102.22 2023.11.22 10:30.29 2023.11.22 10:30:59 Admin En	d Acknowledge
A Output overvoltage POU_TEST3_Geist IMO1 (0.146.102.22 2023.11.22 10:30.29 2023.11.22 10:30.59 Admin End Acknowledge Image: Comparison of the comparison of th			A Output overvoltage POU_TEST3_Geist IMD1 1	0.146.102/22 2023.11.22 10:30:29 2023.11.22 10:30:59 Admin En	d Acknowledge
Image: System curput turned off POULTEST3_Getst IMO1 10.146.102.22 2023.11.22 10:30 2023.11.22 10:30 Admin End Acknowledge Total 111 Items 10 per page v K < 1 / 12 > XI			Output overvoltage POU_TEST3_Geist IMD1	0.146.102.22 2023.11.22 10:30:29 2023.11.22 10:30:59 Admin End	d Acknowledge
Total 111 Items 10 per page \vee K C 1 /12 > 31			System output turned off PDU_TEST3_Geist IMD1 1	0.146.102.22 2023.11.22 10:30 2023.11.22 10:30:59 Admin End	d Acknowledge
				Total 111 Items 10 per page ~ K < 1 / /	12 > >1

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

<u>*</u>	Alarm	Active Alarm	 Alarm successfully 	acknowledged				
	Active Alarm							
	Alarm History	Please enter your search	Q,					TD
	Alarm Triggering	Severity Alarm Name	Device Name	Source Address	Started at	Acknowledged at	Acknowledger	Operation
¢	Notification	Device communication interr	Edge-UPS	10.146.102.22	2023.11.22 10:30:29		-	End Acknowledge
	Automation	Output overvoltage	Edge-UPS	10.146.102.22	2023.11.22 10:30:29	2023.11.22 10:30:59	Admin	End Acknowledge
		System output turned off	PDU_TEST1_Geist IMD3	10.146.102.22	2023.11.22 10:30:29	2023.11.22 10:30:59	Admin	End Acknowledge
		Output overvoltage	GXT5-750IRT2UXL-10.146.1	10.146.102.22	2023.11.22 10:30:29		-	End Acknowledge
		Device communication interr	PDU_TEST3_Geist IMD1	10.146.102.22	2023.11.22 10:30:29		-	End Acknowledge
		Device communication interr	PDU_TEST3_Geist IMD1	10.146.102.22	2023.11.22 10:30:29	2023.11.22 10:30:59	Admin	End Acknowledge
		Device communication interr	PDU_TEST3_Geist IMD1	10.146.102.22	2023.11.22 10:30:29	2023.11.22 10:30:59	Admin	End Acknowledge
		A Output overvoltage	PDU_TEST3_Geist IMD1	10.146.102.22	2023.11.22 10:30:29	2023.11.22 10:30:59	Admin	End Acknowledge
		Output overvoltage	PDU_TEST3_Geist IMD1	10.146.102.22	2023.11.22 10:30:29	2023.11.22 10:30:59	Admin	End Acknowledge
		System output turned off	PDU_TEST3_Geist IMD1	10.146.102.22	2023.11.22 10:30	2023.11.22 10:30:59	Admin	End Acknowledge
					Total 111 i	tems 10 per page 🗸	к < 1	/12 > >I

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

	- Alarm Details					
Active Alarm	Basic Information					
Alarm History	Severity: 0 Critical		Alarm Name:	Device communication interruption	Detailed Description:	The monitored device did not respond to the
Alarm Triggering	Device Name: Edge-UPS		Source Address:	10.146.102.22	Started at:	2023-10-30 16:03:42
Notification	Status: Alarm ende	d	Notes:	This is a descriptive content. This is a 🏾 🕸		
Trout to the total of tota	Notification Record					
Automation	Executed at	Notification Name	Action Type		Receiver	
	2023-10-31 17:10:58	Notification Rule 1	Send Email		XXXXX@XX.com, XXXXX	ğжX.com
	2023-10-31 17:10:58	Notification Rale 1	Send SMS		+8613132244663, +8618	933883394, +8613322221123
	2023-10-31 17:10:58	Notification Rule 1	Send Email		XXXXX@XX.com	
	2023-10-31 17:10:58	Notification Rule 1	Send SMS		+8613132244663, +8618	933883394, +8613322221123
	2023-10-31 17:10:58	Notification Rule 1	Send Email		XXXXX@XX.com	
				Total 111 i	tems 5 per page ~	$\left[\begin{array}{c} & & \\ & & \\ & & \\ \end{array} \right] / 12 \rightarrow $
	Automation Record					
	Executed at	Automation Name	Action Type	Execution Obj	ject	Execution Content
	2023-10-31 17:10:58	Linkage Rule 1	Shut Down Server	Windows serve	901	Shutdown
	2023-10-31 17:10:58	Linkage Rule 2	Shut Down Server	Windows serve	±02	Shutdown after executing script (DD)
	2023-10-31 17:10:58	Linkage Rule 3	Shut Down Server	Linux server01		Shutdown
	2023-10-31 17:10:58	Linkage Rule 4	Send Control Comm	and UPS ITA2 10kv	8	Turn Off Output: True
	2023-10-31 17:10:58	Linkage Rule 5	Send Control Comm	and Geist rPDU 01		Delay Turn On Output: True
				Total 111 i	terns 5 per page 🗸	K ← 1 /12 → M
	Status Change					
	Changed at	Status Change		Operat	tor	
	2023-10-31 17:10:58	Alarm started		-		

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

Edit Notes ×
Supports inputting 0-1000 characters
Cancel Save

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

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

					Export file fail	ed		C"	· • •	User Name
				T C	٩					T D
	Acknowledged at	Ended at	Duration	Acknowledger						
-2		2023-10-30 16:03:42	8h 13m 20s	Admin	Source Address	Started at	Acknowledged at	Ended at	Duration	Acknowledger
					10.146.102.22	2023-10-30 16:03:42	-	2023-10-30 16:03:42	8h 13m 20s	Admin
-2	2023-10-30 16:03:42	2023-10-30 16:03:42	8h 13m 20s	Admin	10.146.102.22	2023-10-30 16:03:42	2023-10-30 16:03:42	2023-10-30 16:03:42	8h 13m 20s	Admin
-2		2023-10-30 16:03:42	8h 13m 20s		10.146.102.22	2023-10-30 16:03:42		2023-10-30 16:03:42	8h 13m 20s	
-2	2023-10-30 16:03:42	2023-10-30 16:03:42	8h 13m 20s	Admin	10.146.102.22	2023-10-30 16:03:42	2023-10-30 16:03:42	2023-10-30 16:03:42	8h 13m 20s	Admin
2	2022 10 20 16 02 42	2022 10 20 16:02:42	8h 12m 20a	Admin	10.146.102.22	2023-10-30 16:03:42	2023-10-30 16:03:42	2023-10-30 16:03:42	8h 13m 20s	Admin
-2	2023-10-30 16.03.42	2023-10-30 10.03.42	011 13111 205	Admin			Total 111 items	10 per page 🗸	K < 1	/12 > >
	Total 111 items	10 per page 🗸 🗸	K < 1	/1 > >						

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

Severity	Alarm Nan	Device Na	Source Ad	Started at	Acknowled	Acknowledg	jer
Warning	Output Ov	PDU_TEST:	10.169.82.2	2024/12/0			
Warning	High Real I	Geist IMD3	10.146.101	2024/12/0			

6.4 Historical Alarm

6.4.1 Historical Alarm List



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

Figure 6.12 Alarm History

	Alarm	Alorm Hi	interi									
<u> </u>	Alarm	Alarm Hi	istory									
1	Active Alarm											
	Alarm History	P	lease enti	er your search		Q,					T D	1
	Alarm Triggering	Seve	erity	Alarm Name	Device Name	Source Address	Started at	Acknowledged at	Ended at	Duration	Acknowledger	r
4	Notification	0		Device communication int	Edge-UPS	10.146.102.22	2023-10-30 16:03:42		2023-10-30 16:03:42	8h 13m 20a	Admin	
	Automation	0		Output overvoltage	GXT5-750IRT2UX	10.146.102.22	2023-10-30 16:03:42	2023-10-30 16:03:42	2023-10-30 15:03:42	8h 13m 20s	Admin	
		A		Device communication int	PDU_TEST3_Geis	10.146.102.22	2023-10-30 16:03:42	-	2023-10-30 16:03:42	8h 13m 20s	-	
				Device communication int	PDU_TEST3_Geis	10.146.102.22	2023-10-30 16:03:42	2023-10-30 16:03:42	2023-10-30 16:03:42	8h 13m 20s	Admin	
		0		System output turned off	PDU_TEST3_Geis	10.146.102.22	2023-10-30 16:03:42	2023-10-30 16:03:42	2023-10-30 16:03:42	8h 13m 20s	Admin	
								Total 111 items	10 per page 🛛 🗸	10 0	$/1 \rightarrow \neg$	

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.

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

~	Alarm	Alarm History								
۲	Active Alarm									
	Alarm History	Please er	iter your search		٩					T D
	Alarm Triggering	Severity	Alarm Name	Device Name	Source Address	Started at	Acknowledged at	Ended at	Duration	Acknowledger
¢	Notification	0	Device communication int	Edge-UPS	10.146.102.22	2023-10-30 16:03:42		2023-10-30 16:03:42	8h 13m 20s	Admin
	Automation	0	Output overvoltage	GXT5-750IRT2UX	10.146.102.22	2023-10-30 16:03:42	2023-10-30 16:03:42	2023-10-30 15:03:42	8h 13m 20s	Admin
		A	Device communication int	PDU_TEST3_Geis	10.146.102.22	2023-10-30 16:03:42		2023-10-30 16:03:42	8h 13m 20s	
		A	Device communication int	PDU_TEST3_Geis	10.146.102.22	2023-10-30 16:03:42	2023-10-30 16:03:42	2023-10-30 16:03:42	8h 13m 20s	Admin
		0	System output turned off	PDU_TEST3_Geis	10.146.102.22	2023-10-30 16:03:42	2023-10-30 16:03:42	2023-10-30 16:03:42	8h 13m 20s	Admin
							Total 111 item	s 10 per page ~ ~	K < 1	$/1 \rightarrow \supset$

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

	← Alarm Details							
Active Alarm	Basic Information							
Alarm History	Severity: 🕒 Critical		Alarm Name:	Device communication interruption		Detailed Description:	The monitore	d device did not respond to the requ
Alarm Triggering	Device Name: Edge-UPS		Source Address:	10.146.102.22		Started at:	2023-10-301	6:03:42
	Ended at: 2023-10-30 16:0	3.42	Duration:	8h 13m 20s		Status:	Alarm ended	
Notrication	Notes: This is a descrip	tive content. This is adsadasdaa ർ.						
Automation	Notification Record							
	Executed at	Notification Name	Action Type			Receiver		
	2023-10-31 17:10:58	Notification Rule 1	Send Email			XXXXX(gXX.com, XXX)	0Kg)0K.com	
	2023/10/31 17:10:58	Notification Rule 1	Send SMS			+8613132244663, +86	18933883394,	+8613322221123
	2023-10-31 17:10:58	Notification Rule 1	Send Email			XXXXXgIXX.com		
	2023/10/31 17:10:58	Notification Rule 1	Send SMS			+8613132244663, +86	18933883394,	+8613322221123
	2023-10-31 17:10:58	Notification Rule 1	Send Email			XXXXXgIXX.com		
					Total II1 item	s 5 per page	× IK	4 <u>1</u> /12 > H
	Automation Record							
	Executed at	Automation Name	Action Type		Execution Object		E	xecution Content
	2022/10/31 17:10:59	Linkage Rule 1	Shut Down Sor		Windows count?		0	hutdawn affar araa dina sarist 1999
	2023-10-31 17-10-58	Linkage Rule 2	Shut Down Ser		Linux server01		5	huddawn
	2023-10-31 17:10:58	Linkage Rule 4	Send Control C	Command	UPS ITA2 10kva		T	um Off Output: True
	2023-10-31 17:10:58	Linkage Rule 5	Send Control C	lommand	Geist rPOU 01		R	emote Power On Delay Time : 30se
					Total 111 itaan	Enermana	4 IK	4 1 (12 3 3)
					1010122210211	2 per page		
	Status Change							
	Changed at	Status Change			Operator			
	Status Change Changed at 2023-10-31 17:10:58	Status Change Alarm started			Operator			
	Status Change Changed at 2023-10-31 2023-10-31 17:10:58	Status Change Alarm started Alarm acknowled	lged		Operator admin			

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

Edit Notes ×
Supports inputting 0-1000 characters
Cancel Save

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

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

					8	导出文件失败			O	6	Use Use	er Name
				T C	۹						Ŧ	
	Acknowledged at	Ended at	Duration	Acknowledger		源地址	开始时间	确认时间	结束时间	持续时间	确认人	
.2	-	2023-10-30 16:03:42	8h 13m 20s	Admin		10.146.102.22	2023-10-30 16:03:42		2023-10-30 16:03:42	8h 13m 20s	Admin	
-2	2023-10-30 16:03:42	2023-10-30 16:03:42	8h 13m 20s	Admin	RT2UXL-1…	10.146.102.22	2023-10-30 16:03:42	2023-10-30 16:03:42	2023-10-30 16:03:42	8h 13m 20s	Admin	
.2		2023-10-30 16:03:42	8h 13m 20s		[3_Geist I…	10.146.102.22	2023-10-30 16:03:42		2023-10-30 16:03:42	8h 13m 20s		
-2	2023-10-30 16:03:42	2023-10-30 16:03:42	8h 13m 20s	Admin	[3_Geist I…	10.146.102.22	2023-10-30 16:03:42	2023-10-30 16:03:42	2023-10-30 16:03:42	8h 13m 20s	Admin	
-2	2023-10-30 16:03:42	2023-10-30 16:03:42	8h 13m 20s	Admin	13_Geist I…	10.146.102.22	2023-10-30 16:03:42	2023-10-30 16:03:42	2023-10-30 16:03:42	8h 13m 20s	Admin	
	Total 111 items	10 per page \vee	K < 1	/1 > $>$				共111项	10条/页 ~	К (1	/12 →	ы

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 Nal Source Ad Started at Ended at Acknowled Acknowledger
Warning	Output Ov Geist IMD310.146.101 2024/12/1 2024/12/1
Warning	Output Ov Geist IMD310.146.101 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.

Figure 7.1 Notification

≡	🗙 Power Insight					🔹 admin 🗸
Ł	Alarm	Notification				
	Active Alarm					
	Alarm History	Please enter the notification name	Q			O
4	Alarm Triggering	Name	Selected Alarm Count	Created at	Creator	Operation
\$	Notification	Notification1	2	2024-12-17 17:39:31	admin	Edit Delete
	Automation				Total 1 items 10 per page ~	$\langle 1 /1 \rangle > 1$
						-

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

Figure 7.2 Alarm Selection

Notification					
Select Alarm	(2) Select Recipi	ent		(3) Confirm Information
• Name Please enter 1-32 characters		, (Narm Selection Method D By model		v
Select Model	Select Alarm	Selected	Alarms		
EDGE Unity	Please input alarm name Q	Disease	innud alarma manna		
GEIST 1 phase	All Alarms 🗸	Picase	input alarm name		
GEIST 3 phase WYE	Battery Discharging	Severity	Alarm Name	Device Model	Operation
	A Battery Low		Battery Discharging	EDGE Unity	Delete
	Battery Replacement Indicated	•	Detter Leve	PDOC UNIX.	Delate
	Battery Self Test	*	Battery Low	EDGE Onity	Deleve
	Battery Test Failed	0	Battery Replacement Indicated	EDGE Unity	Delete
	A Bypass Not Available	0	Battery Self Test	EDGE Unity	Delete
	Bypass Warning		Battery Test Failed	EDGE Unity	Delete
	A Charger Failure		Process Mat Includes	EDGE LI-IV-	Delay
	Device Converter Fault		Bypass Not Available	EDGE Unity	Delete
	O Emergency Primary Major Failure	0	Bypass Warning	EDGE Unity	Delete
	Children Children Children Children	A	Charger Failure	EDGE Unity	Delete
	Comprises over remperade				

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

← Add Notifi	cation							
	Select Alarm		2 Selec	t Recipient			— ③ Confirm Information	
	Receiver All users and contacts		~	Notification 0	Delay Time Minute 5	Second		
	Username	Email	Mobile Number	Receive Email	Receive Escalation Email	Receive SMS	Receive Escalation SMS	
	AlecAlec	Wei.Pan.Alec@vertiv.com	+86 18754564654					
	admin	Wei.Pan.Alec@vertiv.com						
	wp	Wei.Pan.Alec@vertivco.co	+86 18754654654					
	Advanced Config >							
							Cancel Previou	us step No

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

Figure 7.4 Selecting Users

All users and contacts	^
All users and contacts	
Users only	
Contacts only	

- 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:

- 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.
- 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

✓ Select	t Alarm ———		Sele	ect Recipient ——			– 3 Confirm Information
Basic In	ormation						
Notification	Name: T1						
Selected	Alarms						
Alarm Selec	tion Method: By m	odel					
Severity	Device Model			Alarm	Name		
A	EDGE Unity			Batter	y Discharging		0
A	EDGE Unity			Batter	y Low		
0	EDGE Unity			Batter	y Replacement Indicated		
0	EDGE Unity			Batter	y Self Test		
	EDGE Unity			Batter	y Test Failed		
Receiver	Delay Time: 0 Min	ute 5 Second					
Usernamo	2	Email	Mobile Number	Receive Email	Receive Escalation Email	Receive SMS	Receive Escalation SMS
AlecAlec		Wei.Pan.Alec@vertiv.com	+86 18754564654		0	0	0
admin		Wei.Pan.Alec@vertiv.com			0	0	
wp		Wei.Pan.Alec@vertivco.c	+86 18754654654	0		0	
Advance	d Config						
Email Subject	et						
Device Nan	Alarm Name	Severity					
Alarm Notifu	Autori Content						
Alarm Notifi Device Nan	Alarm Name	Severity Alarm time					
Alarm Notifi Device Nar Repeat send	Alarm Name	Severity Alarm time					
Alarm Notifi Device Nar Repeat send Repeat 2 til	Alarm Name	Severity Alarm time 0 minutes					
Alarm Notifi Device Nar Repeat send Repeat 2 tii Alarm Escal	Alarm Name ing rule mes Interval 120 ation Delay	Severity Alarm time					
Alarm Notifi Device Nar Repeat send Repeat 2 tii Alarm Escali 30 Minute	Alarm Name	Severity Alarm time					
Alarm Notifi Device Nat Repeat 2 ti Alarm Escali 30 Minute Send End No	Alarm Name ing rule Interval 121 ation Delay	Severity Alarm time O minutes m ends					
Alarm Notifi Device Nai Repeat 2 ti Alarm Escal 30 Minute Send End No Yes	ie Alarm Name ing rule mes Interval 12/ ation Delay	0 minutes					

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.

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

=	😯 Power Insight					admin 🗸
2	Alarm	Notification				
	Active Alarm					
	Alarm History	Please enter the notification name	Q			G
4	Alarm Triggering	Name	Selected Alarm Count	Created at	Creator	Operation
\$	Notification	Notification1	2	2024-12-17 17:39:31	admin	Edit Delete
	Automation				Total 1 items 10 per page V	$\langle 1 /1 \rangle > 1$

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

Figure 7.7 Alarm Selection

Select Alarm	(2) Sele	ect Automation	Action		(3) Confirm Information	
+Automation Name Test		C	ondition for Triggering Automation Acti When any selected alarm occurs	ons	×]	
Select Device	Select Alarm	Selected	Alarms			
B Edge-UPS	Please input alarm name Q	Please	input alarm name		Q. Clear selection	
Geist IMD3 Geist IMD3	All Alarms	Severity	Alarm Name	Device Name	Operation	
PDU_TEST1_Geist IMD3	A Battery Low	A	UPS Output on Bypass	Edge-UPS	Delete	
PDU_TEST2_Geist IMD3 PDU_TEST3_Geist IMD1	Battery Replacement Indicated	A	UPS Inverter Off	Edge-UPS	Delete	
	Battery Self Test A Battery Test Failed	A	Too Many Sensors	Edge-UPS	Delete	
	Bypass Not Available	-	Charger Failure	EdgesLIPS	Delete	
	Bypass Warning		Less of Deductore	Edge UP0	Delete	
	Charger Failure		Loss of Hedundancy	Edge-UPS	Delete	
	A DC to DC Converter Fault	A	Parallel Cable Failure	Edge-UPS	Delete	
	Device Communication Lost	0	Battery Replacement Indicated	Edge-UPS	Delete	
		A	Slots not available	Edge-UPS	Delete	
						Cancel Next

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.

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.



← Edit Notific	ation							
	Select Alarm		2 Selec	t Recipient		- (3) Confirm Information		
	Receiver All users and contacts		~	Notification E	Delay Time Minute 5 So	econd		
	Username	Email	Mobile Number	Receive Email	Receive Escalation Email	Receive SMS	Receive Escalation SMS	
	AlecAlec	Wei.Pan.Alec@vertiv.com	+86 18754564654		0			
	admin	Wei.Pan.Alec@vertiv.com						
	wp	Wei.Pan.Alec@vertivco.co	+86 18754654654					
	Advanced Config >							
							Cancel Previou	s step Next

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

tification						
Select Alarm		🕑 Sele	ct Recipient —			- 3 Confirm Information
Basic Information Notification Name: Notificatio	nl					
Selected Alarms	nodel					
Severity Device Model			Alarm	Name		
A EDGE Unity			UPS I	nverter Off		
A EDGE Unity			UPS (lutput on Bypass		
Receiver Notification Delay Time: 0 Mir Username	nute 5 Second	Mobile Number	Receive Email	Receive Escalation Email	Receive SMS	Receive Escalation SMS
admin	Wei.Pan.Alec@vertiv.com		0	0	0	0
Advanced Config Email Subject Device Name Alarm Name Alarm Notification Content Device Name Alarm Name Repeat Sending rule Repeat 2 times Interval 12 Alarm Escalation Delay 30 Minute Send End Notification when alar	e Severity Alarm time 20 minutes					
						Cancel Previous

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

Figure 7.10 Notification Settings List

≡	Power Insight					🜒 admin 🗸
	Alarm	Notification				
	Active Alarm					
	Alarm History	Please enter the notification name	٩			G
4	Alarm Triggering	Name	Selected Alarm Count	Created at	Creator	Operation
\$	Notification	Notification1	2	2024-12-17 17:39:31	admin	Edit Delete
	Automation				Total 1 items 10 per page v K	< 1 /1 → ×

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

=	Power Insight					admin 🗸
	Alarm	Notification				
	Active Alarm					
	Alarm History	Please enter the notification name	٩			G
4	Alarm Triggering	Name	Selected Alarm Count	Created at	Creator	Operation
\$	Notification	Notification1	2	2024-12-17 17:39:31	admin	Edit Delete
	Automation				Total 1 items 10 per page v K	$\langle 1 /1 \rangle > 1$

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

Delete		×
Are you sure you want to delete Notific	Canaal	Confirm
	Cancel	Confirm

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

Delete Are you sure to delete the selected 1 items?	×
Ca	ncel Confirm

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

Alarm	Automation				
Active Alarm					
Alarm History	Please enter the automation name	Q			0
Alarm Triggering	Name	Selected Alarm Count	Created at	Creator	Operation
Notification	test2	32	2024-12-18 13:48:06	admin	Edit Delete
Automation	Test	32	2024-12-18 13:31:08	admin	Edit Delete
	Linkage Settings1	2	2024-12-17 17:41:13	admin	Edit Delete
				Total 3 items 10 per page	✓ K < 1 /1 > >I

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

₽	Alarm	Automation				
	Active Alarm					
-	Alarm History	Please enter the automation name	Q			0
Ŧ	Alarm Triggering	Name	Selected Alarm Count	Created at	Creator	Operation
\$	Notification	test2	32	2024-12-18 13:48:06	admin	Edit Delete
	Automation	Test	32	2024-12-18 13:31:08	admin	Edit Delete
		Linkage Settings1	2	2024-12-17 17:41:13	admin	Edit Delete
5					Total 3 items 10 per page ~	$ \langle \langle 1 \rangle /1 \rangle > $

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

Figure 7.16 New Notification Setting

•Automatis Wi	elect Alarm	(2) s	Select Automation	Action		Onfirm Information	
-Automati	ion Name						
WI I			0	Indition for Triggering Automation Action	ns		
				vinen any selected alarm occurs		· · · · · · · · · · · · · · · · · · ·	
	Select Device	Select Alarm	Selected A	Marms			
	Edge-UPS	Please input alarm name Q.	Please in	nnut alarm name		Q Clear selection	
	g Geist IMD3	All Alarms 🗸		gen menn nerne			
	g Geist IMD3	A Battery Discharging	Severity	Alarm Name	Device Name	Operation	
	g PDU_TEST1_Geist IMD3	A Battery Low	A	Battery Discharging	Edge-UPS	Delete	
	PDU_TEST2_Geist IMD3	Battery Replacement Indicated	Δ.	Battery Low	Edge-LIPS	Delete	
	D PD0_TEST3_Gelst IMD1	Battery Self Test	*	balley con	Loge of o	June 1	
		Battery Test Failed	0	Battery Replacement Indicated	Edge-UPS	Delete	
		A Bypass Not Available	0	Battery Self Test	Edge-UPS	Delete	
		Bypass Warning	A	Battery Test Failed	Edge-UPS	Delete	
		Charger Failure			-		
		A DC to DC Converter Fault	A	bypass Not Available	Euge-UPS	Desete	
		Device Communication Lost	0	Bypass Warning	Edge-UPS	Delete	
		Chiergency minary Mains Failure	A	Charger Failure	Edge-UPS	Delete	

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

Select Alarm		— 2 Select Automation Action		3 Confirm Information
Action Execution Sequence		Automation Delay Time 🌘		
Simultaneous execution	~	30 Minute 50	Second	
Action Type	Q Execution Object	Execution Content	Script Name	Operation
Shut Down Server	Server1	Shutdown		Edit Delete
Shut Down Server	Server2	Shutdown		Edit Delete
char boun certer				

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

Sequential execution
Sequential execution
Simultaneous execution

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

← Add Aut	omation												
	⊘ s	elect Alarm		– 2 Se	lect Automatic	on Action					Confirm Inf	formation	
с.	Action E	Execution Sequence	Automation Delay Time			Action Execution Interval			0	Crond			
	Seque	ential execution	×	20	Minute	5	Second	30	Minute	50	Second		
	Actio	on List											
	Ple	ease enter your search	Q									0	
		Action Type	Execution Object		Execution Conte	ent	Scrip	ot Name			Operation		
	8	Shut Down Server	Server1		Shutdown	vn					Edit Delete		
	:	Shut Down Server	Server2		Shutdown						Edit Delete		
											Cancel	Previous	step Next

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

Action List	0.			
Please enter your search	Q			٥
Action Type	Execution Object	Execution Content	Script Name	Operation
:: Shut Down Server	Server1	Shutdown		Edit Delete
:: Shut Down Server	Server2	Shutdown		Edit Delete

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

4. Click on Add icon 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

Add	d Automation Action		×
Selec	ct Action Type sue control command		~
Selec	st Device MPDU_MPS_1		~
Selec	ct Control Signal		
	Control Signal	Control Setting Value	
	XXX	0-999	Second
	XXX	XXX ~	
	XXX	XXX ~	
	ХХХ	XXX ~	
	XXX	XXX ~	
	ХХХ	X0X ~	
	XXX	× ×	
	XXX	× ×	
	XXX	XXX ~	
	XXX	XXX ~	
		Cance	Add 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

Issue control command 🔷
Shut down server
Issue 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

Issue control command 🔷
Shut down server
Issue control command

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

Add A	utomation Act	ion			×							
Select A	ction Type											
Shut [ut Down Server 🗸											
Select S	ervers to Shutdown											
	System	Server Name	IP Address	Script Name	Shutdown Script							
~	Windows	Server1	10.146.102.23		Select file							
~	Windows	Server2	10.146.102.24		Select file							
					Cancel Add Action							

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.

Add Au	tomation Action				×
Select Ac	tion Type own Server				¥
Select Se	rvers to Shutdown				
	System	Server Name	IP Address	Script Name	Shutdown Script
~	Windows	Server1	10.146.102.23		Select file
	Windows	Server2	10.146.102.24	login_jenkins 2.bat	Reselect Delete
				Car	Add Action

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

← Add Auton	nation											
	Select	Alarm ————	⊘	Select Automatio	on Action	(3 Confirm Information					
	Basic Info	rmation ame: W1										
	Selected Alarms											
	Condition for	Triggering Automation Actions: Whe	en any selected alarm occurs									
	Severity	Device Name			Alarm Name							
	A	Edge-UPS			Battery Discharging		1					
	A	Edge-UPS			Battery Low							
	0	Edge-UPS			Battery Replacement Indicated							
	0	Edge-UPS			Battery Self Test							
	A	Edge-UPS			Battery Test Failed							
	Automation D	on Action elay Time: 30 Minute 50 Second	Action Execution Sequence:	Simultaneous execu	ion							
	Action Type	2	Execution Object	I	Execution Content	Script Name						
	Shut Down	Server	Server1		Shutdown							
	Shut Down	Server	Server2		Shutdown							
							Cancel Previous	s step Save				

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

Figure 7.27 Automation Window

	Alarm	Automation				
	Active Alarm					
	Alarm History	Please enter the automation name	٩			0
*	Alarm Triggering	S Name	Selected Alarm Count	Created at	Creator	Operation
\$	Notification	test2	32	2024-12-18 13:48:06	admin	Edit Delete
	Automation	Test	32	2024-12-18 13:31:08	admin	Edit Delete
		Linkage Settings1	2	2024-12-17 17:41:13	admin	Edit Delete
					Total 3 items 10 per page	✓ K < 1 /1 > >
				safe		

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.

Figure 7.28 Editing Automation Setting

2	Alarm	Auto	matic	on								
	Active Alarm											
_	Alarm History		Pleas	se enter the automation name	Q						0	
F	Alarm Triggering			Name	Selected Alarm Count	Created at	Creator				Operation	
\$	Notification			test2	32	2024-12-18 13:48:06	admin				Edit Delete	
	Automation			Test	32	2024-12-18 13:31:08	admin				Edit Delete	
				Linkage Settings1	2	2024-12-17 17:41:13	admin				Edit Delete	
							Total 3 items	10 per page	~	K	1 /1 > >	
						surf.						

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

Figure 7.29 Edit Automation Page

Select Alarm	(2) Select	t Automátion Actio	on		Gonfirm Information
*Automation Name		Conditio	n for Triggering Automatior	Actions	
Test		When	any selected alarm occurs		~
Select Device	Select Alarm	Selected /	larms		
Edge-UPS	Please input alarm name Q	Diesse it	Nut alarm name		O Clear selection
Geist IMD3	All Alarms 🗸	T lease i	put alarminante		
Geist IMD3	A Battery Discharging	Severity	Alarm Name	Device Name	Operation
PDU_TEST1_Geist IMD3	A Battery Low	A	UPS Output on Bypass	Edge-UPS	Delete
PDU_TEST2_Geist IMD3 PDU_TEST2_Coint IMD3	Battery Replacemen…	A	UPS Inverter Off	Edge-UPS	Delete
E PD0_1E313_00stimD1	Battery Self Test	-	Tee Manu Concern	Card Upo	Dalata
	A Battery Test Failed	A	Too Many Sensors	Edge-UPS	Delete
	Bypass Not Available	A	Charger Failure	Edge-UPS	Delete
	A Charger Failure	A	Loss of Redundancy	Edge-UPS	Delete
	✓ ▲ DC to DC Converter F…	A	Parallel Cable Failure	Edge-UPS	Delete
	☑ ❶ Device Communicati…		Battery Replacement	Edge-UPS	Delete
	Emergency Primary ···	A	Slots not available	Edge-LIPS	Delete
	A Faulament Over Te	-	SIGT NOT AVAILABLE	Luge of 0	Delete

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

← Edit Auto	omation				
	Select Alarm		— 2 Select Automation Action		(3) Confirm Information
	Action Execution Sequence		Automation Delay Time		
	Simultaneous execution		30 Minute 59	Second	
	Action List				Add
	Please enter your search	٩			0
	Action Type	Execution Object	Execution Content	Script Name	Operation
	Shut Down Server	Server1	Shutdown		Edit Delete
					Cancel Previous step Next

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.

← Edit Auto	omation							
	Select	Alarm	⊙	Select Automation Ac	ction	(3 Confirm Information	
	Basic Info	ormation lame: Test						
	Selected	Alarms						
	Condition for	Triggering Automation Actions: Wh	en any selected alarm occurs					
	Severity	Device Name			Alarm Name			
	A	Edge-UPS			UPS Output on Bypass			
	A	Edge-UPS			UPS Inverter Off			
	A	Edge-UPS			Too Many Sensors			
	A	Edge-UPS			Charger Failure			
	A	Edge-UPS			Loss of Redundancy			
	Automati	on Action						
	Automation D	elay Time: 30 Minute 59 Second	Action Execution Sequence:	Simultaneous execution				
	Action Type	2	Execution Object	Execu	tion Content	Script Name		
	Shut Down	Server	Server1	Shutd	own			
							Cancel Previous st	tep Save

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.

Figure 7.32 Notification Settings List

	Alarm	Automation				
	Active Alarm					
Ť	Alarm History	Please enter the automation name	٩,			0
*	Alarm Triggering	Name	Selected Alarm Count	Created at	Creator	Operation
\$	Notification	test2	32	2024-12-18 13:48:06	admin	Edit Delete
	Automation	Test	32	2024-12-18 13:31:08	admin	Edit Delete
		Linkage Settings1	2	2024-12-17 17:41:13	admin	Edit Delete
					Total 3 items 10 per page	✓ R < 1 /1 > >

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

~	Alarm	Automation				
	Active Alarm					
Ξ	Alarm History	Please enter the automation name	٩			0
4	Alarm Triggering	Name	Selected Alarm Count	Created at	Creator	Operation
\$	Notification	test2	32	2024-12-18 13:48:06	admin	Edit Delete
	Automation	Test	32	2024-12-18 13:31:08	admin	Edit Delete
		Linkage Settings1	2	2024-12-17 17:41:13	admin	Edit Delete
					Total 3 items 10 per page	к к 1 /1 > Э

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

Delete	×
Are you sure you want to delete Linkage Setting	s1?
Cano	el Confirm

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

Delete	×
Are you sure to delete the selected 1 items?	Confirm
346	

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

Vertiv™ Power Insight v3.0 User Manual

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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

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.

Electricity Statistics	Usage and Bill Statistics				
Usage and Bill Statistics					
Bill Calculation	Please enter your search	٩			G
	Name	Statistical Content	Creator	Created at	Operation
	Electricity bill 2	Electricity usage	admin	2024.12.17 15:12	Edit Delete
	Electricity bill 1	Electricity bill	admin	2024.12.17 15:12	Edit Delete
				Total 2 items 10 per page ~	κ < 1 /1 > π

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

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	Electricity Statistics	Usage and Bill Statistics				
	Usage and Bill Statistics					
	Bill Calculation	Please enter your search	٩			G
4		Name	Statistical Content	Creator	Created at	Operation
φ.		Electricity bill 2	Electricity usage	admin	2024.12.17 15:12	Edit Delete
		Electricity bill 1	Electricity bill	admin	2024.12.17 15:12	Edit Delete
					Total 2 items 10 per page \sim	κ < 1 /1 > \varkappa

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.



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

	Electricity Statistics	Linear and Bill Statistics				
÷	Electricity Statistics	Usage and Bill Statistics				
٢	Usage and Bill Statistics	Please enter your search	Q			0
4	Bill Calculation	Name	Statistical Contant	Creator	Created at	Operation
		Fleetricity hill 2	Elactricity usage	admin	2024 12 17 15-12	Edit Delete
*		Electricity bill 2	Electricity usage	admin	2024.12.17 13.12	Edit Delete
		Electricity bill 1	Electricity bill	admin	2024.12.17.15:12	Edit Delete
					Total 2 items 10 per page ~ K <	1 /1 > >I

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

Figure 8.6 Energy Statistics Histogram



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

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

Usage and Bill Statistics Bill Calculation	Please enter your search	٩			•
	Name	Statistical Content	Creator	Created at	Operation
	Electricity bill 2	Electricity usage	admin	2024.12.17 15:12	Edit Delete
	Electricity bill 1	Electricity bill	admin	2024.12.17 15:12	Edit Delete
	Batch delete 2 Selected Clear select	ion		Total 2 items 10 per page V	1 /1 > >
Bì	II Calculation	Please enter your search Please enter your search Please enter your search Please enter your search Rane E Bectricity bil 1 E B	II Calculation Please enter your search Rest Statistical Content Electricity bill 2 Electricity bill 1 Electricity bill 1 Electricity bill 2 Selected Clear selection	Il Calculation Please enter your search Name Statistical Content Creator Electricity bill 2 Electricity bill 1 Electricity bill 2 Selected Clear selection	Il calculation Pesse enter your search Pesse enter your your your your your your your you

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

Delete	×
Are you sure you want to delete Electricity bill 2?	
Cancel	Confirm

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

Delete		×
Are you sure to delete the selected 1 items?		
Ca	incel	Confirm

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

~	Electricity Statistics	Bill Calo	culation						
۲	Usage and Bill Statistics		Please enter your search		0				•
-	Bill Calculation		lease enter your search		~				Ŭ
			Name	Associated Devices Count	Description	Creator	Created At	Modified At	Operation
\$			Electricity bill plan 1	16	Text content	User 1	2023.11.22 10:30	2023.11.22 10:30	Edit Delete
			Electricity bill plan 2	23	Text content	User 1	2023.11.22 10:30	2023.11.22 10:30	Edit Delete
			Electricity bill plan 3	3	Text content	User 1	2023.11.22 10:30	2023.11.22 10:30	Edit Delete
			Electricity bill plan 4	5	Text content	User 1	2023.11.22 10:30	2023.11.22 10:30	Edit Delete
			Electricity bill plan 5	56	Text content	User 1	2023.11.22 10:30	2023.11.22 10:30	Edit Delete
			Electricity bill plan 6	666	Text content	User 1	2023.11.22 10:30	2023.11.22 10:30	Edit Delete
			Electricity bill plan 7	42	Text content	User 1	2023.11.22 10:30	2023.11.22 10:30	Edit Delete
			Electricity bill plan 8	122	Text content	User 1	2023.11.22 10:30	2023.11.22 10:30	Edit Delete
			Electricity bill plan 9	431	Text content	User 1	2023.11.22 10:30	2023.11.22 10:30	Edit Delete
			Electricity bill plan 10	34	Text content	User 1	2023.11.22 10:30	2023.11.22 10:30	Edit Delete
							Total 111 items 10 per page	✓ K < 1	1 🏹 H
				218 ^C					

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

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

~	Electricity Statistics	Bill Cal	culation						
۲	Usage and Bil. Statistics								
	Bill Calculation		Please enter your search		۵,				0
			Name	Associated Devices Count	Description	Creator	Created At	Modified At	Doeration
\$			Electricity bill plan 1	16	Text content	User 1	2023.11.22 10:30	2023.11.22 10:30	Edit Delete
			Electricity bill plan 2	23	Text content	User 1	2023.11.22 10:30	2023.11.22 10:30	Edit Delete
			Electricity bill plan 3	3	Text content	User 1	2023.11.22 10:30	2023.11.22 10:30	Edit Delete
			Electricity bill plan 4	5	Text content	User 1	2023.11.22 10:30	2023.11.22 10:30	Edit Delete
			Electricity bill plan 5	56	Text content	User 1	2023.11.22 10:30	2023.11.22 10:30	Edit Delete
			Electricity bill plan 6	665	Text content	User 1	2023.11.22 10:30	2023.11.22 10:30	Edit Delete
			Electricity bill plan 7	42	Text content	User 1	2023.11.22 10:30	2023.11.22 10:30	Edit Delete
			Electricity bill plan 8	122	Text content	User 1	2023.11.22 10:30	2023.11.22 10:30	Edit Delete
			Electricity bill plan 9	431	Text content	User 1	2023.11.22 10:30	2023.11.22 10:30	Edit Delete
			Electricity bill plan 10	34	Text content	User 1	2023.11.22 10:30	2023.11.22 10:30	Edit Delete
							Total 111 items 10 per page	✓ I< < 1	1 🎽 🖂

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

~	Electricity Statistics	← Add Bill Calculation			
	Usage and Bill Statistics				
÷	Bill Calculation	Basic Settings			
-		*Name		Billing Unit	
_		Please enter 1-32 characters		USD (\$/kW·h)	v
\$		Please enter 1-32 characters Description			
		No more than 1000 characters			4
		 Consistent Annually Basic Electricity Price 	O Distinguish Between Summer and Winter		
		Please enter a number between	{(AAA)} - {(BBB)}, retain up to {(CCC)} decimal places \$/kWh		
		Fixed Monthly Fee			
		100	\$		
		Time of Use Electricity Price			
		00:00 ~ - 00:00	Y : Please input content \$/kWh		
		Required Required	Please enter a number between 0 - 1000, retain up to 4 decimal places		
			Add		
		Associated Devices			When a device is associated with another bill calculation after charking and saving
		Please select the power devices applicable to	the configured bill calculation		it will only associates with the current bill calculation
		Device Name	IP Address	Model	Associate with Other Configurations? ●
		UPS-ITA2-10.146.102.22	10.146.102.22	Liebert ITA2	Yes
		UPS-ITA2-10.146.102.23	10.146.102.23	Liebert ITA2	No
		UPS-ITA2-10.146.102.24	10.146.102.24	Liebert ITA2	No
		UPS-ITA2-10.146.102.25	10.146.102.25	Liebert ITA2	No
					Cancel Save

- 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.

- 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

Associ	Associated Devices								
1 Pl	lease select the power devices applicable to the configu	red bill calculation							
	Device Name	IP Address	Model	Associate with Other Configurations?					
	Edge-UPS	10.146.102.22	EDGE	Yes					
	Geist IMD3	10.146.101.156	GEIST	Yes					
	Geist IMD3	10.146.101.157	GEIST	Yes					
	PDU_TEST1_Geist IMD3	10.169.82.202	GEIST	Yes					
	PDU_TEST2_Geist IMD3	10.169.82.201	GEIST	Yes					
	PDU_TEST3_Geist IMD1	10.169.82.203	GEIST	Yes					

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

Electricity Statistics	Bill Calcul	ation						
Usage and Bill Statistics								
Bill Calculation	Plei	ase enter your search		Q				0
		Name	Associated Devices Count	Description	Creator	Created At	Modified At	Doeration
		Electricity bill plan 1	16	Text content	User 1	2023.11.22 10:30	2023.11.22 10:30	Edit Delete
		Electricity bill plan 2	23	Text content	User 1	2023.11.22 10:30	2023.11.22 10:30	Edit Delete
		Electricity bill plan 3	3	Text content	User 1	2023.11.22 10:30	2023.11.22 10:30	Edit Delete
		Electricity bill plan 4	5	Text content	User 1	2023.11.22 10:30	2023.11.22 10:30	Edit Delete
		Electricity bill plan 5	56	Text content	User 1	2023.11.22 10:30	2023.11.22 10:30	Edit Delete
		Electricity bill plan 6	666	Text content	User 1	2023.11.22 10:30	2023.11.22 10:30	Edit Delete
		Electricity bill plan 7	42	Text content	User 1	2023.11.22 10:30	2023.11.22 10:30	Edit Delete
		Electricity bill plan 8	122	Text content	User 1	2023.11.22 10:30	2023.11.22 10:30	Edit Delete
		Electricity bill plan 9	431	Text content	User 1	2023.11.22 10:30	2023.11.22 10:30	Edit Delete
		Electricity bill plan 10	34	Text content	User 1	2023.11.22 10:30	2023.11.22 10:30	Edit Delete
						Total 111 items 10 per page	× K < 1	1 > H

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

Figure 8.15 Edit Electricity Bill Calculation

			Dillion Hole	
	"Name		Billing Unit	
	Please enter 1-32 characters		USD (\$/kW·h)	Ý
	Description			
	No more than 1000 characters			
	 Consistent Annually *Basic Electricity Price 	O Distinguish Between Summer and Wi	nter	
	Please enter a number between {{	AAA)) - {(BBB)}, retain up.td2({CCC)} decimal places \$/	kWh	
	Please enter a number between 0 - 100, r Fixed Monthly Fee	etain up to 4 decimal places		
	100		Ś	
	Time of Use Electricity Price			
	00:00 ^ - 23:00	 Please input content Please enter a number between 0 - 1000, retain up to 4 	kWh	
	00:00	decimal places		
	01:00	Add		
	02:00			
	03:00			
Associated [05:00			
Please se	06:00 ces applicable to t	he configured bill calculation		
• Fielde de	07:00	re configured on carculation		
Devi	ce Name	IP Address	Model	Associate with Other Configurations?
UPS	ITA2-10.146.102.22	10.146.102.22	Liebert ITA2	Yes
UPS	ITA2-10.146.102.23	10.146.102.23	Liebert ITA2	No
UPS	ITA2-10.146.102.24	10.146.102.24	Liebert ITA2	No
	1710 10 146 100 05	10 146 102 25	Liebert ITA2	No

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

2	Electricity Statistics	Bill Calco	ulation						
٢	Usage and Bill Statistics								
	Bill Calculation	P	lease enter your search		Q				0
		•	Name	Associated Devices Count	Description	Creator	Created At	Modified At	Operation
¢			Electricity bill plan 1	16	Text content	User 1	2023.11.22 10:30	-	Edit Delete
			Electricity bill plan 2	23	Text content	User 1	2023.11.22 10:30	2023.11.22 10:30	Edit Delete
			Electricity bill plan 3	3	Text content	User 1	2023.11.22 10:30	-	idit Delete
			Electricity bill plan 4	5	Text content	User 1	2023.11.22 10:30		Edit Delete
			Electricity bill plan 5	56	Text content	User 1	2023.11.22 10:30	2023.11.22 10:30	Edit Delete
			Electricity bill plan 6	666	Text content	User 1	2023.11.22 10:30	2023.11.22 10:30	Edit Delete
			Electricity bill plan 7	42	Text content	User 1	2023.11.22 10:30	2023.11.22 10:30	Edit Delete
			Electricity bill plan 8	122	Text content	User 1	2023.11.22 10:30	2023.11.22 10:30	Edit Delete
			Electricity bill plan 9	431	Text content	User 1	2023.11.22 10:30	2023.11.22 10:30	Edit Delete
			Electricity bill plan 10	34	Text content	User 1	2023.11.22 10:30	2023.11.22 10:30	Edit Delete
		Bat	tch delete {{value}} Sele	cted Clear selection			Total 111 items 10 per page	× K < 1	/12 X H

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

Delete		×	
Are you sure you want to delete Electric	ity2?		
	Cancel	Confirm	

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

Delete		×
Are you sure to delete the selected 1 iter	ns?	
[Cancel	Confirm

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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.

Figure 9.1 Event Log

System	Config E	vent Log				
Event Log	g					
Notificati	ion Config	Please enter your search	٩			Ŧ
4 Security	Config	Occurred At	Category	Event Name	Source Name	Operation
🗘 Integrate	ed Management	2024-12-19 12:54:53	Authentication	Login	10.163.230.247	Detail
User Mar	nagement	2024-12-19 12:00:28	Authentication	Logout	10.163.230.247	Detail
Backup a	and Upgrade	2024-12-19 11:28:56	User Operation	System backup	admin	Detail
		2024-12-19 10:10:29	User Operation	Modify alarm notification	admin	Detail
		2024-12-19 10:03:04	User Operation	Add alarm automation	admin	Detail
		2024-12-19 09:56:15	User Operation	Add alarm notification	admin	Detail
		2024-12-19 09:48:37	Authentication	Login	10.163.230.247	Detail
		2024-12-18 18:26:52	Authentication	Logout	10.163.230.247	Detail
		2024-12-18 17:49:03	Authentication	Login	10.163.230.247	Detail
		2024-12-18 17:32:15	Authentication	Logout	10.163.230.247	Detail
				1	Total 16 items 10 per page ~ K < 1	/2 > >I

The event log function is mainly displayed in a table, with search and filtering and pagination capabilities. Click on Filter icon **T** 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

Event Details		×
Category:	Authentication	
Occurred At:	2024-12-19 12:54:53	
Event Name:	Login	
Source Name:	10.163.230.247	
Detailed Description:	User admin login	

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

•	System config	Notification Conf	ig					
	Event Log	Contact List	Email Server St	MS Modem	Notification Language			
÷	Notification Config							Add
*	Security Config	Please enter yo	ur search		Q			0
۰	Integrated Management	E Last Name	2	First Name		Email	Mobile Number	Operation
	User Management	🛃 Zhao		Min		123654799@Gmail.com	+86 13255885545	Edit Delete
	Backup and Lingrade	Zhao		Min		123654799@Gmail.com	+86 13255885545	Edit Delete
	protect and oblighted	Zhao		Min		123654799@Gmail.com	+86 13255885545	Edit Delete
		Zhao		Min		123654799@Gmail.com	F8613255885545	Edit Delete
		Zhao		MID		123654799@Gmail.com	+86 13255885545	Edit Delete
		Zhao		MIn		123654799@Gmail.com	+86 13255885545	Edit Delete
		Zhao		Min		123654799@Gmail.com	▶86 13255885545	Edit Delete
		Zhao		Min		123654799@Gmail.com	▶86 13255885545	Edit Delete
		Zhao		Min		123654799@Gmail.com	+86 13255885545	Edit Delete
		Zhao		Min		123654799@Gmail.com	+86 13255885545	Edit Delete
		Batch delete	((value)) Selected Clear se	lection			Total 111 items 10 per page ~ IC C 1	/12 > >I

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

Please enter {{min}}-{{max}} characters		
Aust not contain spaces and the following specia	Characters " /	
First Name		
Please enter {{min}}-{{max}} characters		
Aust not contain spaces and the following specia	characters " /	
mail		
Please input email		
Please provide either Email or mobile number		
/lobile Number		
+86 V Please enter the phone	number	

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	95	Edit	Contact	Window
riguie	9.0	Euit	Contact	window

	Save successful	and the second	☆) (
		(⁹⁹⁹⁺ (User Name
otification Config			
Contact List Email Server	SMS Modem Notification Language		
Please enter your search	Edit Contact	×	0
Last Name	*Last Name	Mobile Number	Operation
Zhao	Please enter {{min}}-{{max}} characters	+86 13255885545	Edit Delete
Zhao	Must not contain spaces and the following special characters "// *First Name	+86 13255885545	Edit Delete
Zhao	Please enter {{min}}-{{max}} characters	+86 13255885545	Edit Delete
Zhao	Must not contain spaces and the following special characters "//	+86 13255885545	Edit Delete
Zhao	Please input email	+86 13255885545	Edit Delete
Zhao	Please provide either Email or mobile number	+86 13255885545	Edit Delete
Zhao	+86 Y Please enter the phone number	+86 13255885545	Edit Delete
Zhao	Please provide either Email or mobile number	+86 13255885545	Edit Delete
Zhao	Cancel Sa	+86 13255885545	Edit Delete
200	1/945 (700 c) mail according	106 1025000545	Edit Delete
	Min 1530341 AA@otnair.com	+80 13233883343	Edit Delete
Batch delete {{value}} Selected C	lear selection	Total 111 items 10 per page V K	< 1 / 12 > >I

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

C A	Delete Are you sure you want to delete wp?		×
		Cancel	Confirm

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

Are you sure to delete the selected 1 items? Cancel Confirm	Delete	×
Cancel Confirm	Are you sure to delete the selected 1 items?	
	Cancel	Confirm

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

~	System config	Notification Config
۲	Event Log	Contact List Email Server SMS Modem Notification Language
	Notification Config	Email Server
	Security Config	Used for sending alarm notifications and password reset vegliciation codes
₽	Integrated Management	Email Server : example.com Email Service Port : 2525252525252525252525252525252525252
	User Management	Authentication : • Turn on Email Usemanne : adminadminadminadminadminadminadminadmin
	Backup and Upgrade	Use TLS Protocol? • Yes

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

Figure 9.9 Edit Email Server

Edit Email Server	×
*Email Server IPv4 ~ Please input IPv4 address	*Email Service Port
*Sender Email User@somedomain.com Incorrect email format Authentication	*Use TLS Protocol?
*Email Username Required	*Email Password Please enter password
*Send Test Email Receive mailbox (, Send Incorrect email format	Cancel Save

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

SMS Modem Only SMS modern model "TD-8411" is supported.				-	Edit
Operating System : Windows	Port :	com1	Baud Rate	1200	
Data Bit : 7	Parity Bit :	None	Stop Bit :	1	

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

Figure 9.11 Edit SMS Modem

Edit SMS N	<i>l</i> odem			×
*Operating Sys	tem		*Port	
Windows		~	com1	~
*Baud Rate			*Data Bit	
9600		~	7	×
*Parity Bit			*Stop Bit	
无校验		~	1	~
*Send Test SM	S			
+86 ~	Receive mobile number			
Incorrect mobile r	umber format			
				Cancel Save

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

Notification Language Selectable language for email and SMS notification content	Edit
Notification Language : English	

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

Figure 9.13 Notification Language Dropdown

Notification Language	×
*Notification Language	
English	~
	Cancel Save

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.

Figure 9.14 Saving Notification Language

	Save successful		
SMS	Modem Notification Language	<u>.</u>	
on content			
	Notification Language	×	
	English	Cancel Save	

9.5 Security Configuration

9.5.1 Trusted Certificate

To view the list of trusted certificates:

1. Click on System Config icon 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

System coming	Security boning					
Event Log	Trusted Certificate SSL	Certificate Session Tim	neout			
Notification Config						
Security Config	Please enter the name of the trust	ted certificate	٩			· · ·
Integrated Management	Name	Certificate Type	Size	Uploaded at	Expires On	Operation
User Management	gen-engine-cert.crt	crt	1.686 MB	2023-11-22 11:17:04	2023-11-28 09:44:05	Detail Delete
Backup and Upgrade	gen-engine-cert.crt	crt	1.686 MB	2023-11-22 11:17:04	2023-11-28 09:44:05	Detail Delete
buonop and opgrade	gen-engine-cert.crt	crt	1.686 MB	2023-11-22 11:17:04	2023-11-28 09:44:05	Detail Delete
	gen-engine-cert.crt	crt	1.686 MB	2023-11-22 11:17:04	2023-11-28 09:44:05	Detail Delete
	gen-engine-cert.crt	crt	1.686 MB	2023-11-22 11:17:04	2023-11-28 09:44:05	Detail Delete
	gen-engine-cert.crt	crt	1.686 MB	2023-11-22 11:17:04	2023-11-28 09:44:05	Detail Delete
	gen-engine-cert.crt	crt	1.686 MB	2023-11-22 11:17:04	2023-11-28 09:44:05	Detail Delete
	gen-engine-cert.crt	crt	1.686 MB	2023-11-22 11:17:04	2023-11-28 09:44:05	Detail Delete
	gen-engine-cert.crt	crt	1.686 MB	2023-11-22 11:17:04	2023-11-28 09:44:05	Detail Delete
	gen-engine-cert.crt	crt	1.686 MB	2023-11-22 11:17:04	2023-11-28 09:44:05	Detail Delete
	Batch delete {{value}} Sele	cted Clear selection		Total 111 items	10 per page 🗸 🤘 K	$1 / 12 \rightarrow H$

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

Add Trusted Certificate	and second and s		×
Select file Only one certificate file can be uploaded at a time, supported	d file formats: .der, .crt, .cer, .pem		
File Name	Size	Status	
certification.der	0 Bytes	Waiting for Upload	
			Cancel Upload

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.



System config	Security Config					
Event Log	Trusted Certificate SSL	Certificate Session Tin	neout			
Notification Config						_
Security Config	Please enter the name of the trust	ed certificate	Q			
Integrated Management	Name	Certificate Type	Size	Uploaded at	Expires On	Operation
User Management	gen-engine-cert.crt	crt	1.686 MB	2023-11-22 11:17:04	2023-11-28 09:44:05	Detail Delete
Backup and Upgrade	gen-engine-cert.crt	crt	1.686 MB	2023-11-22 11:17:04	2023-11-28 09:44:05	Detail Delete
backap and opgrade	gen-engine-cert.crt	crt	1.686 MB	2023-11-22 11:17:04	2023-11-28 09:44:05	Detail Delete
	gen-engine-cert.crt	crt	1.686 MB	2023-11-22 11:17:04	2023-11-28 09:44:05	Detail Delete
	gen-engine-cert.crt	crt	1.686 MB	2023-11-22 11:17:04	2023-11-28 09:44:05	Detail Delete
	gen-engine-cert.crt	crt	1.686 MB	2023-11-22 11:17:04	2023-11-28 09:44:05	Detail Delete
	gen-engine-cert.crt	crt	1.686 MB	2023-11-22 11:17:04	2023-11-28 09:44:05	Detail Delete
	gen-engine-cert.crt	crt	1.686 MB	2023-11-22 11:17:04	2023-11-28 09:44:05	Detail Delete
	gen-engine-cert.crt	crt	1.686 MB	2023-11-22 11:17:04	2023-11-28 09:44:05	Detail Delete
	gen-engine-cert.crt	crt	1.686 MB	2023-11-22 11:17:04	2023-11-28 09:44:05	Detail Delete
	Batch delete {{value}} Sele	cted Clear selection		Total 111 items	10 per page $\ \ \lor$ IC C	1 / 12 > 2

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

Trust Certificate Details	×
Issued By:	www.vertiv.com
Issued To:	www.vertiv.com
Validity Period:	2021-10-02 02:56 2026-10-01 02:56
Fingerprint (SHA256):	80:41:ec;fa;f2:39:f3:ea;dc:4b:8a:68:95:89:32:e

To delete the trust certificate:

11	

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

System config	Security Config					
Event Log	Trusted Certificate	SSL Certificate Session Tir	neout			
Notification Config						_
Security Config	Please enter the name of the	trusted certificate	Q			
Integrated Management	Name	Certificate Type	Size	Uploaded at	Expires On	Operation
User Management	gen-engine-cert.crt	сп	1.686 MB	2023-11-22 11:17:04	2023-11-28 09:44:05	Detail Delete
Backup and Upgrade	gen-engine-cert.crt	crt	1.686 MB	2023-11-22 11:17:04	2023-11-28 09:44:05	Detail Delete
buckup and opgrade	gen-engine-cert.crt	crt	1.686 MB	2023-11-22 11:17:04	2023-11-28 09:44:05	Detail Delete
	gen-engine-cert.crt	crt	1.686 MB	2023-11-22 11:17:04	2023-11-28 09:44:05	Detail Delete
	i gen-engine-cert.crt	crt	1.686 MB	2023-11-22 11:17:04	2023-11-28 09:44:05	Detail Delete
	gen-engine-cert.crt	crt	1.686 MB	2023-11-22 11:17:04	2023-11-28 09:44:05	Detail Delete
	gen-engine-cert.crt	crt	1.686 MB	2023-11-22 11:17:04	2023-11-28 09:44:05	Detail Delete
	gen-engine-cert.crt	crt	1.686 MB	2023-11-22 11:17:04	2023-11-28 09:44:05	Detail Delete
	gen-engine-cert.crt	crt	1.686 MB	2023-11-22 11:17:04	2023-11-28 09:44:05	Detail Delete
	gen-engine-cert.crt	crt	1.686 MB	2023-11-22 11:17:04	2023-11-28 09:44:05	Detail Delete
	Batch delete {{value}	Selected Clear selection		Total 111 items	10 per page V K K	1 /12 > >

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

Delete		×
Are you sure you want to delete test?	?	
	Cancel	Confirm

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

Delete	×
Are you sure to delete the selected 1 items?	
Cancel	Confirm

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

SSL Certificate				100	and the second se	Edit
Issued By:	MTP Platform	Issued To:	MTP Platform	Expires On:	2034-06-23 13:12:28	
Fingerprint (SHA256):	a5:a6:db:d5:be:5e:73:15:d0:3a:7	d:cf:9				

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

SSL Certificate					Edit
Issued By:	MTP Platform	Issued To:	MTP Platform	Expires On	2034-06-23 13:12:28
Fingerprint (SHA256):	a5:a6:db:d5:be:5e:73:15:d0:3a:7d:cf;9				
					1

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

Replace SSL Certific	cate			
Attention! After succe	essful certificate replacement, the system will rest	art		
Select file Only one file	can be uploaded at a time, supported file formats: .p12,.pfx			
File Name		Size	Status	
SSL certification.p12		9 Bytes	S Waiting for Upload	
SL Certificate Password				
••••••				ŝ
				Cancel Uplo

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:

Figure 9.26 Session Tlmeout Window

=	🗙 Power Insight		^ 9	•	admin 👻
₩ ₩	System Config Event Log	Security Config Trusted Certificate SSL Certificate Session Timeout			
	Notification Config Security Config	Session Timeout If there is no response from the user within the timeout period, the account will be automatically logged out			Edit
	Integrated Management User Management	Session Timeout (minutes): 60			
	Backup and Upgrade				

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

~	System Config	Security Config	
1	Event Log	Trusted Certificate SSL Certificate Session Timeout	
_	Notification Config		
4	Security Config	Session Timeout If there is no response from the user within the timeout period, the account will be automatically logged out	Edit
•	Integrated Management	Session Timeout (Minutes): 30	
	User Management		
	Backup and Upgrade		

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

Figure 9.28 Edit Session Timeout

Edit Session Timeout	×
• Changes will take effect after the user's next login	
*Session Timeout (Minutes)	
31	
Cancel	

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

Please e	enter your search		Q				¢
N	lame	API Key	API Secret	Access Host	Access Type	Created at	Operation
Т	est	3q6UNUFT	a3d36f5eb9288d3b1f4ef9fe397cfae79e98b292a4c4	10.169.82.42	VMWare plugin	2024-12-17 18:06:21	Edit Delete
					Total 1 items 10 per page	× K K 1	$/1 \rightarrow \rightarrow$

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

Add Integrated	Management	×
 Access Type 		
VMWare plugin		~
*Name		
Please enter 1-32 ch	haracters	
*Access Host Address		
IPv4 ~	Enter address of host communicates with Power Insight	
	Cancel	

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.

To edit integration management:

- 0
- 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

Edit Integrated Management	×
*Access Type	
VMWare plugin	~
*Name	
Please enter 1-32 characters	
Please enter 1-32 characters	
*Access Host Address	
IPv4 Y Enter address of host communicates with Power Insight	
Invalid address	
Cancel	Save

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

Deleting will disconnect the host using the API key from Power Insight, Are you sure you want to delete Test? Cancel Confirm	Delete	×
Cancel Confirm	Deleting will disconnect the host using the API key f Are you sure you want to delete Test?	from Power Insight,
	Car	ncel Confirm

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

Deleting will disconnect the host using the API key from Power Insight, Are you sure to delete the selected 1 items? Cancel Confirm	Delete	×
Cancel Confirm	Deleting will disconnect the host using the AP Are you sure to delete the selected 1 items?	I key from Power Insight,
		Cancel Confirm

9.7 User Management

To view the list of user management:

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

Figure 9.34 User Management

₽	System Config	User Management					
	Event Log						
	Notification Config	Please enter your search	0	2			G
4	Security Config	Username ¢	User Access	Mobile Number	Email	Created at \Rightarrow	Operation
۰.	Integrated Management	wp	Advanced User	+86 18754654654	Wei.Pan.Alec@vertivco.com	2024-12-17 18:08:04	Edit Delete Change Password
	User Management	admin	Admin		Wei.Pan.Alec@vertiv.com	2024-12-11 17:23:18	Edit Delete Change Password
	Backup and Upgrade				rotal 2 iten	10 per page v	

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 4 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.

Figure 9.35 Adding New User

Add User	×
*Username	*User Access
Please enter your login username	Standard User ~
Please enter 1-32 characters *Password	*Confirm Password
Please enter password	Please enter password
please input 10-108 characters, must include uppercase and lowercase letters, and numbers	
Mobile Number	*Email
+86 V Used to receive notification:	Used for password recovery and notify Please input email
	Cancel Save

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

Edit User	×
Username	User Access Regular user
Mobile Number +86 V Used to receive notifications	*Email Used for password recovery and notify Please input email Cancel Save

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

Password Configuration	×
Password must include uppercase and lowercase letters, and numbers	
Minimum Length	
Password validity period	
Cancel Sav	re l

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

Password Configuration ×
Password must include uppercase and lowercase letters, and numbers
Minimum Length 10
Password validity period Change regularly ~
Password Valid Time (days) Please enter an integer between ((AAA)) and (()OOX))
Cancel Save

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.

• 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

C		
Delete		×
Are you sure you want to delete wp?		CH
	Cancel	Confirm
	dec.	

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

<u>Cr</u>	
Delete	×
Are you sure to delete the selected 1 items?	
C	ancel Confirm

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

System Config	Backup and Upgrade			
Event Log	Backup Restore System Upgrade			
Notification Config				
Security Config	l Backup			
Integrated Management	Reading Path Chilleen Ontauth AppOntation and Network Reading 1			Retu
User Management	Backup Records			
			2000 Contraction (1997)	
Backup and Upgrade	Backup Name	Backed Up at	System version	Startus
Backup and Upgrade	Backop Name VertivBackup-20241218140999	Backed Up at 2024-12-18 14 09:39	300	Backup successful
Backup and Upgrade	Buckup Name Verth-Bockup-20241218140909	Backed Up at 2024-12-18 14/99:39 Total 1 items	3.0.0 10 per page ~	Backup successful

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

Backup	×
Estimated space needed: Available space: Start backing up?	883MB 10.973GB
	Cancel Confirm

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

Backup			
Backup Path C:\Users\Default\AppData\Local\VertivBackup\			
Backup Records			
Backup Name	Backed Up at	System Version	Status
	2024-12-19 11:28:18	3.0.0	0
VertivBackup-20241218140939	2024-12-18 14:09:39	3.0.0	Backup successful
	Total 2 items	10 per page v	< <u>1</u> /1 > >

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

Figure 9.47 Backup Result

Backup and Upgrade			
Backup Restore System Upgrade			
Backup			
Backup Path C.\Users\Default\AppData\Local\VertivBackup\			Backup
Backup Records			
Backup Name	Backed Up at	System Version	Status
VertivBackup-20241219112818	2024-12-19 11:28:18	3.0.0	Backup successful
VertivBackup-20241218140939	2024-12-18 14:09:39	3.0.0	Backup successful
	Total 2 items	10 per page v K	< 1 /1 > >

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.

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

Backup Records			κ
Backup Name	Backed Up at	System Version	Status
VertivBackup-2023.11.22 10:20:30	2023.11.22 10:20:30	2.0	Backup successful
File name 111111111111111111111111111111111111	2023.11.22 10:20:28	2.0	Backup failed
File name 111111111111111111111111111111111111	2023.11.22 10:10:25	2.0	Backup failed
File name 111111111111111111111111111111111111	2023.11.22 10:00:25	2.0	Backup successful
File name 111111111111111111111111111111111111	2023.11.22 10:10:25	2.0	Backup successful
	Total 111 item	s 10 per page 🗸 🔣	< 1 /1 > ×

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.

	ά	
L.		

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

Backup File List				
Backup Name	Backed Up at	File Size	Backup Version	Operation
File name 1113111111111111111111111111111111111	2023.11.22 10:20:30	2.6 GB	2.0	Restore Delete Download
File name 111111111111111111111111111111111111	2023.11.22 10:20:28	2.6 GB	2.0	Restore Delete Download
File name 111111111111111111111111111	2023.11.22 10:10:25	2.6 GB	2.0	Restore Delete Download
File name 11111111111111111111111111111111111	2023.11.22 10:00:00	2.6 GB	2.0	Restore Delete Download
			Total 111 items 10 per page 🗸	

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

Confirm	×
Confirm using backup file VertivBackup-20241219112818 t restore the system? Services will be paused during the rest process.	to oration
Cancel	nfirm

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

Power InSight	
System upgrade in progress	
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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

Custom restore	×
After placing the backup file in the Backup File Path, you can use it to restore system. The system will pause during the restoration process.	e the
Admin Password	
Please enter password	Q
Backup File Path	
C:\Users\Default\AppData\Local\VertivBackup\	
Backup Name	
Please enter the backup file name to be restored	
Cancel	

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

System upgrade in progress	
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After completing the system restore process, move to the interface:

Figure 9.55 System Upgrade Successful

System Upgrade Successful The system is about to restart, the restart will take approximately 5-10 minutes
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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

Restore failed, backup file does not exist
Restore failed, backup file data is incorrect or damaged
System Restore Failed Please enter the system to retry the restore operation.If it still fails, please contact technical support for assistance
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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

21	System Config	Backup and Upg	jrade					
	Event Log	Backup F	Restore	System Upgrade				
	Notification Config	Upload Upgrade File						
*	Security Config							
\$	Integrated Management	te recommence to backup before upgrading, me system will temporarily pause services during the upgrade process Select file Please select the upgrade file with vertix extinuion						
	User Management	File Name		s	ize	State		
	Backup and Upgrade				Click the "Select File" button above	e to upload the file		
		Upgrade Record	d					
		Upgraded At		Version Before Upgrade	Version After Upgrade	Status	Update Logs	
		2023-11-22 18:2	20:07	1.0	2.0	Upgrade successful	Detail	
		2023-11-22 18:2	20:07	1.0	2.0	Upgrade failed		
		2023-11-22 18:2	20:07	1.0	2.0	Upgrade successful	Detail	
						Total 111 items 10 per page		

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

Upload Upgrade File					
0	It is recommended to backup before upgrading. The system will temporarily pause services during the upgrade process				
Select file Please select the upgrade file with vertix extension					
File	Name	Size	State		
FileN	lame.vertiv	40 KB	○ File validating		

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, postupgrade version, status, pagination, and the ability to view detailed logs. See **Figure 9.61** below.

Figure 9.61 Upgrade Record

Upgrade Record					
Upgraded At	Version Before Upgrade	Version After Upgrade	Status	Update Logs	
2023-11-22 18:20:07	1.0	2.0	Upgrade successful	Detail	
2023-11-22 18:20:07	1.0	2.0	Upgrade failed		
2023-11-22 18:20:07	1.0	2.0	Upgrade successful	Detail	
	- 21. alec		Total 111 items 10 per page V	у № 1 /1 > н	

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

Update Logs	×
V2.0.0 1. New function: Backup and restore function Description: A new backup and restore module is added, allowing administrators to create, edit and delete user accounts.	
 New features: Backup and restore function Description: A new backup and restore module is added, allowing administrators to create, edit and delete user accounts. 	
 Optimization function: Device search function Description: Optimized the performance and accuracy of the search function, and improved the sorting and filtering capabilities of search results. 	
4. Security fix: Device search function Description: Optimized the performance and accuracy of the search function and Confir	n

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

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10 Troubleshooting

Table 10.1 Common Problems

ltem	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.	 Enable the Windows Show Hidden Files and Folders feature. Delete the Power Insight program folder, the default path is C:\Program Files\TrellisPowerInsight. Delete the Power Insight database folder in C:\Users\Default\AppData\Local\TrellisPowerInsight. 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.	 Go to the Windows registry. Locate \HKEY_LOCAL_ MACHINE\SYSTEM\CurrentControlSet\Services\postgresql- x64-9.5. Register entries. Click ImagePath to change the default data directory to C:\Users\Default Restart the following services in Services: a. Postgresql-x64-9.5 D. 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.	 Power Insight is installed with a World Wide Web connection, and third-party libraries are automatically downloaded when installed. 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
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.

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: Always allow or block media autoplay To always allow or block autoplay for all media with audio or video: 1. Click the menu button = and select Settings: 2. Select the Privacy & Security panel and go down to the Permissions section (or ener autoplay in the Find in Settings search box). If the remain of the find in Settings search box). If the remain of the find in Settings search box). If the remain of the find in Settings search box). If the remain of the find in Settings search box). If the remain of the find in Settings search box). If the remain of the find in Settings search box). If the remain of the remain of the remain set in a set in a constant of the set in a conset in a constant of the set
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\Loca\\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 Vertiv™ Power Insight v3.0 User Manual

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