



# The TRELLIS™ Power Insight Application

## Installer/User Guide

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### **Technical Support Site**

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

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

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# 1 PRODUCT OVERVIEW

The *Trellis™* Power Insight application is a web browser-based monitoring tool for your power infrastructure devices and it provides a central location to view power status, alarms and trends. It supports up to 50 critical power infrastructure devices.

## 1.1 Features and Benefits

The *Trellis™* Power Insight application, version 2.1 and higher, provides the following features and benefits:

- Centralized access for power readings
- Discovery and monitoring capabilities
- Alarm-triggered email and SMS text notifications
- Protect servers in contingency situation
- Profile concept for easy re-usability
- Default settings to get started quickly

## 1.2 Supported UPS devices

The following devices are supported in the application:

- Liebert GXT3™
- Liebert GXT4™
- Liebert APS™
- Liebert APM™
- Liebert eXM™
- Liebert PSI™
- Liebert ITA2™ SIC
- Liebert ITA2™ with Unity
- Liebert ITA2 5-20 kVA with built-in SNMP port
- Liebert PSI™ 5 with Unity
- Liebert EXS™, 10-20 kVA with Unity
- Liebert EXS™, 30-40 kVA with Unity

## 1.3 System Requirements

The following are the minimum hardware and software requirements for installation.

### 1.3.1 Hardware

The following hardware is required for the *Trellis™* Power Insight application:

CPU: 2 x 2+ GHz

Memory: 4 GB

Hard drive: 64 GB free disk space

### **1.3.2 Software - Power Insight application**

The supported 64-bit operating systems are:

- Microsoft® Windows® 7 and 10
- Microsoft® Windows Server® 2012 R2 and 2016
- Red Hat® Enterprise Linux® 7.1 (with graphical UI)

The following browsers are supported:

- Google Chrome™ 55 or higher for both desktop and tablets
- Microsoft® Edge 38 or higher for desktops
- Safari® Mobile 9 or higher for tablets
- Internet Explorer® 11 for desktops
- Firefox® 51 or higher for desktops

### **1.3.3 Software - TRELLIS™ Automation Agent (for server shutdown)**

The following supported operating systems are:

- 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 - 7.4
- VMWare ESXi 5.5, 6.0 and 6.5

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

## 2 INSTALLATION

The following sections help you download and install the *Trellis™* Power Insight application. These sections detail how to register for the software download portal on the Vertiv™ website, install the *Trellis™* Application Manager on a Windows or Linux operating system and install or upgrade to the latest version of the application.

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

- Register on the Vertiv™ software downloads portal
- Download and install the *Trellis™* Application Manager
- Log in to the *Trellis™* Application Manager
- Configure the admin account and email settings via the initial onboarding process (new users only)
- Install or upgrade to the latest software version via the App Manager icon

### 2.1 TRELLIS™ Application Manager software download Registration

If the *Trellis™* Power Insight application is the first Vertiv™ software you are downloading, register on the Vertiv™ software downloads portal. After registration is complete, you can download and install the latest version of the application.

To register for the *Trellis™* Application Manager Software Download:

1. From a web browser, navigate to [www.VertivCo.com](http://www.VertivCo.com) and hover over Support.
2. Click *Get Software Downloads*, click *Software Product Downloads* and locate *Trellis™* Power Insight application Software Download on the page.
3. Click *View Details* and click *Register*.
4. Complete the required fields, agree to the terms of use and click *Create Account*.
5. Access the email account provided during the registration process and retrieve the activation code from the Welcome to Vertiv Software Downloads email.
6. On the Create an Account for Infrastructure Management Software registration form, enter the activation code in the Code field and click *Submit*.
7. Download and Install the *Trellis™* Application Manager product.

### 2.2 TRELLIS™ Application Manager for Windows - Install and Uninstall

To install the *Trellis™* Application Manager on a Windows operating system:

**NOTE: You must be logged in as a local administrator.**

1. From a web browser, download the Windows installer zip file from the following link:  
<https://www.VertivCo.com/en-us/support/software-download/software/trellis-power-insight-application-software-download/>.
2. Double-click the *trellisappmgrinstaller.exe* self-extracting .exe file from within the zip file.
3. Click *Next* on the Introduction screen.
4. Click the checkbox to accept the License Agreement and click *Next*.
5. Select the radio button for a Typical installation. If you choose a typical installation, skip to step 9.

-or-

Select the radio button for a Custom installation and click *Next*.

6. Accept the default installation location.

-or-

Choose an installation location and click *Next*.

7. Accept the default location for the data folder location.

-or-

Select the data folder location and click *Next*.

8. Choose the Shortcut folder and click *Next*.
9. Choose the parameters and click *Next*.

**Table 2.1 Default Parameter Window Values**

| PARAMETER                | DESCRIPTION  | DEFAULT VALUE |
|--------------------------|--|---------------|
| Database port            | Default port the database uses. Be sure the port selected is not in use.           | 27017         |
| Database admin           | Administrator of the database.   | mtpadmin      |
| Database admin password  | Password for the administrator. It is highly recommended to change this password.  | admin         |
| Database user            | Owner of the database.   | mtpuser       |
| Database user password   | Password for the database owner. It is highly recommended to change this password. | PasswOrd      |
| Application service port | Port the services run on. Be sure the port selected is not in use.                 | 8443          |

**NOTE: The SNMP inbound trap's default net community string is 'Public'. This can be changed in the *snmptrapd\_mss.conf* file located in the [installation Directory]/conf folder.**

10. Click *Install* on the Pre-Installation Summary window.

**NOTE: If there are port errors, you are prompted to change the ports.**

11. Click *Done* after the installation is complete. Shortcuts are added to the location that was selected during the install process.
12. After you have installed the *Trellis™ Power Insight* application, you must configure the UPS or network card to send traps to the application. Please see the appropriate UPS documentation for assistance.

To uninstall the *Trellis™ Application Manager* on a Windows operating system:

1. Browse to *Start - Control Panel - Programs and Features - Trellis™ Application Manager*.

-or-

See [Installed Applications](#) on page 40 to complete the process within the *Trellis™ Application Manager*.

2. If using a Windows 7 machine, click *Yes* at the prompt to accept access control.
3. Click *Uninstall*, then click *Next*.
4. On the Delete Data window, click *Next* to accept the default.

-or-

Select the *Yes* radio button and click *Next*.

5. Click *Enter*, then click *Done* when the process is complete.

## 2.3 TRELLIS™ Application Manager for Linux - Install and Uninstall

To install the *Trellis™ Application Manager* on a Linux operating system:

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

1. From a web browser, download the .tar.gz file from the following link:  
<https://www.VertivCo.com/en-us/support/software-download/software/trellis-power-insight-application-software-download/>.
2. Extract the installer from the tar.gz file.
3. Open a terminal window.
4. Navigate to the directory where the file is copied.
5. If you are logged in to the console as a root user, enter `./trellisappmgrinstaller.bin`.

-or-

If you have superuser (SUDO) privileges, enter `sudo ./trellisappmgrinstaller.bin`.

6. If you are logged in to the Graphic User Interface (GUI) as a root user, enter `./trellisappmgrinstaller.bin -i GUI`.

-or-

If you have SUDO privileges, enter `sudo ./trellisappmgrinstaller.bin -i gui` to run the GUI installer.

7. Enter the password and press **Enter**.
8. On the introduction window, click *Next*.
9. If install dependencies are required, click *Install*.

-or-

Click *Cancel*.

10. Accept the License Agreement and click *Next*.
11. Accept the default installation location.

-or-

Choose an installation location and click *Next*.

12. Accept the default location for the data storage folder.

-or-

Select a location for the data storage folder and click *Next*.

13. Choose the folder and click *Next*.
14. Choose the user/group and click *Next*.
15. On the Choose Parameters window, click *Next* to accept the default values shown in the following table.

-or-

Enter the applicable parameters and click *Next*.

**Table 2.2 Default Parameter Window Values**

| PARAMETER                | DESCRIPTION  | DEFAULT VALUE |
|--------------------------|--|---------------|
| Database port            | Default port the database uses. Be sure the port selected is not in use.           | 27017         |
| Database admin           | Administrator of the database.   | mtpadmin      |
| Database admin password  | Password for the administrator. It is highly recommended to change this password.  | admin         |
| Database user            | Owner of the database.   | mtpuser       |
| Database user password   | Password for the database owner. It is highly recommended to change this password. | PasswOrd      |
| Application service port | Port the services run on. Be sure the port selected is not in use.                 | 8443          |

**NOTE: The SNMP inbound trap's default net community string is 'Public'. This can be changed in the snmptrapd\_mss.conf file located in the /etc/snmp folder.**

16. From the Pre-Installation Summary window, click *Install* to begin the installation.

**NOTE: If there are port errors, you are prompted to change the ports.**

17. Press **Enter** when the installation is complete.

18. After you have installed the *Trellis™ Application Manager*, configure the UPS communication card or network card to send traps to the application. See the appropriate UPS documentation for information.

**NOTE: During the installation the var/opt/trellisappmgr directory is created. The log files are stored in this directory.**

To uninstall the *Trellis™ Application Manager* from the Linux operating system:

1. If you are logged in to the console as a root user, enter **./trellisappmgrinstaller.bin**.

-or-

Enter **sudo ./trellisappmgrinstaller.bin** if you have SUDO privileges.

2. On the Delete Data window, press **Enter** to accept the default (N).

-or-

Enter **Y** to delete the data.

3. Press **Enter**.

## 2.4 Initial Login

When you access the *Trellis™* Application Manager the first time to create a password for the default administrative account, you are directed to the onboarding window to create an admin account. From this window, you can enter detailed information about your system in order to receive alerts, notifications and password reset instructions for password recovery.

To create a *Trellis™* Application Manager admin account for the first time:

1. From the Start menu, open the *Trellis™* Application Manager Console.
2. Enter the email account that will receive alarm notifications and click *Continue*.

**NOTE: The email address entered receives alarm notifications only and is not your username. The default username for the *Trellis™* Application Manager is "admin."**

3. Create a new password and enter it in the Password and Confirm Password fields.
4. Click *Continue*.

**NOTE: Passwords must be between 10-128 alphanumeric characters and contain at least one uppercase and lowercase letter and one number.**

5. Click *Configure Server*.

-or-

Click *Skip* and proceed to step 10.

**NOTE: If you don't configure the email server at this point, configuration can also be completed by accessing Administration - Notifications.**

6. In the Email Host field, enter the IP address or host name of your company's email server.
7. Enter the email port number (the default value is 25), username and email server password in the applicable fields.
8. Click the *Use the TLS* button to enable the secure communication features.

**NOTE: The Use TLS button is enabled by default. When the feature is enabled, your email server username and password are required. When it is disabled, your email server username and password are not required.**

9. Click *Continue*.
10. If you need to start the initial onboarding process from the beginning, click *Start Over*.

-or-

On the next window, click *Continue*.

11. On the Application Download Credentials window, enter the username and password you used to log in to the *Trellis™* Application Manager.
12. Click *Save*.

To log in to the *Trellis™* Application Manager:

1. From a local computer, open a web browser and enter **https://localhost:<SERVICE\_PORT>**, where <service port> is the service port number, for example, 8443. In this case, the address is **https://localhost:8443**.

-or-

From the computer the application is installed on, double-click the shortcut icon.

2. From a remote system, enter **https://<remote IP address>:<SERVICE\_PORT>**, where the <remote IP address> is the address of the remote system where *Trellis™* Power Insight is installed, and <service port> is the service port number, for example, 8443.
3. Enter your username and password.

To upgrade the *Trellis™* Power Insight application:

Current users must uninstall the current version of the application and reinstall version 2.1 from the VertivCo website: <https://www.vertivco.com/en-us/support/software-download/software/trellis-power-insight-application-software-download>. Contact Technical Support at (800)-222-5877 for any questions or issues.

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## 3 USING THE APPLICATION

The following section describes the on-screen elements of the user interface.

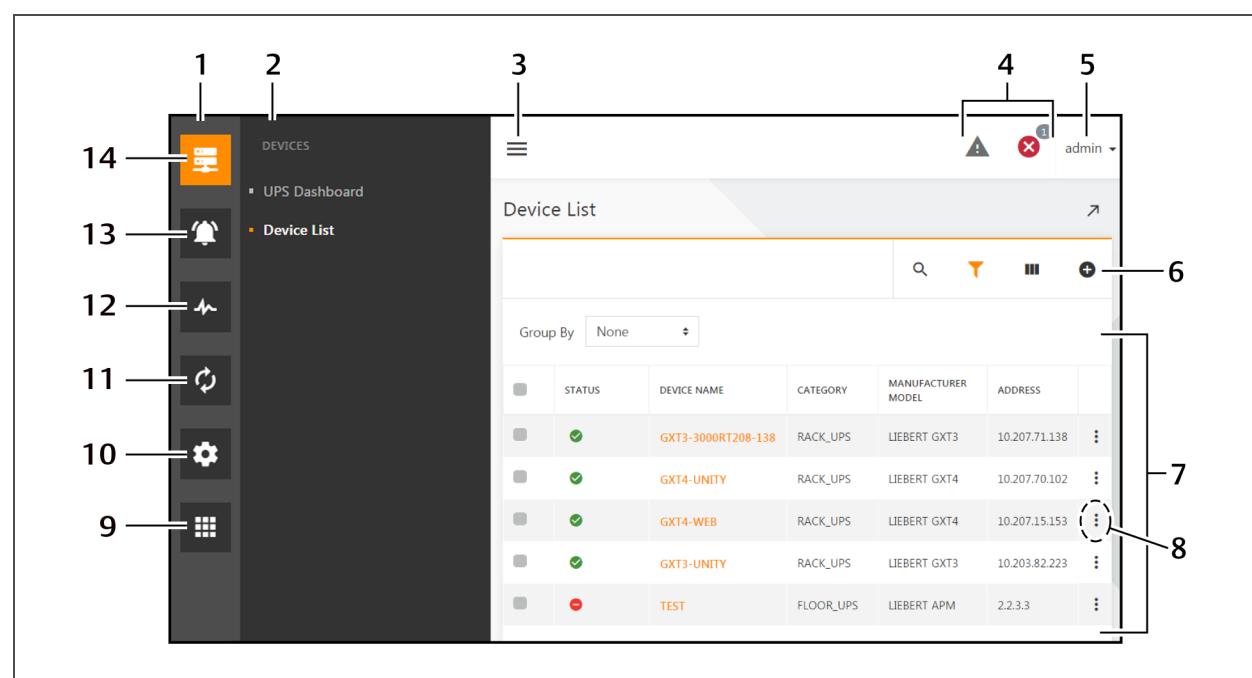
### 3.1 User Interface

The user interface contains several areas that help you manage the devices being monitored by the *Trellis™ Power Insight* application. The pivot bar and context menu on the left contain items that provide access to devices, alarm information, discovery configurations and administrative tools. The pivot bar and context menu can be expanded or collapsed using the menu icon at the top of the window.

Alarm notifications on the top right corner of the window are activated when SNMP traps are triggered from the device. The Profile icon, also on the top right corner of the window, is used to sign-out, set profile information and access help topics. Use the icons on the toolbar to customize each window or complete tasks.

Icons that allow you to customize the content information are static and appear on the toolbar when you access the window. Icons that allow you to complete tasks can be accessed in two ways. You can select a row in the table to view and use the available icons on the toolbar or select the vertical ellipsis icon in the row to access the same icons. In the following sections, you will be guided to select the vertical ellipsis icon to access these icons.

**Figure 3.1 User Interface Window**



**Table 3.1 User Interface Descriptions**

| NUMBER | NAME                   | DESCRIPTION   |
|--------|------------------------|---|
| 1      | Pivot bar              | Provides access to the Devices (devices on a network icon), Alarms (bells icon), Monitoring (heart monitor icon), Automation (process arrows icon), Administration (gear icon) and App Manager (grid icon) context menus.   |
| 2      | Context menu           | Provides the list of options for the selected icon from the pivot bar.  |
| 3      | Expand menu icon       | Expands or collapses the pivot bar and context menu.  |
| 4      | Alarm notifications    | Incremental alarm notifications for warning and critical alarms.  |
| 5      | Profile menu           | System and user tools such as help, password reset, application and email settings for the current user.  |
| 6      | Toolbar                | Contains icons that allow you to perform various functions for a selected row or an entire table.   |
| 7      | Table                  | Details concerning the menu item selected. Each row contains a vertical ellipsis icon at the right end that expands to display functions that can be performed on the row.  |
| 8      | Vertical ellipsis icon | Contains the function icons that allow you to edit, delete and run a configuration or view details.   |
| 9      | App Manager            | Contains the software applications available for download and installation.   |
| 10     | Administration         | Contains context menu items: <ul style="list-style-type: none"> <li>Events</li> <li>Notification Settings</li> <li>System Settings</li> <li>User Defined Properties</li> <li><i>Trellis</i>™ System Health</li> <li>Address Book Contacts</li> <li>Trust Store</li> </ul> |
| 11     | Automation             | Contains context menu items: <ul style="list-style-type: none"> <li>Action</li> <li>Action Sets</li> <li>Automation Rules</li> <li>Server Shutdown Profiles</li> </ul>  |

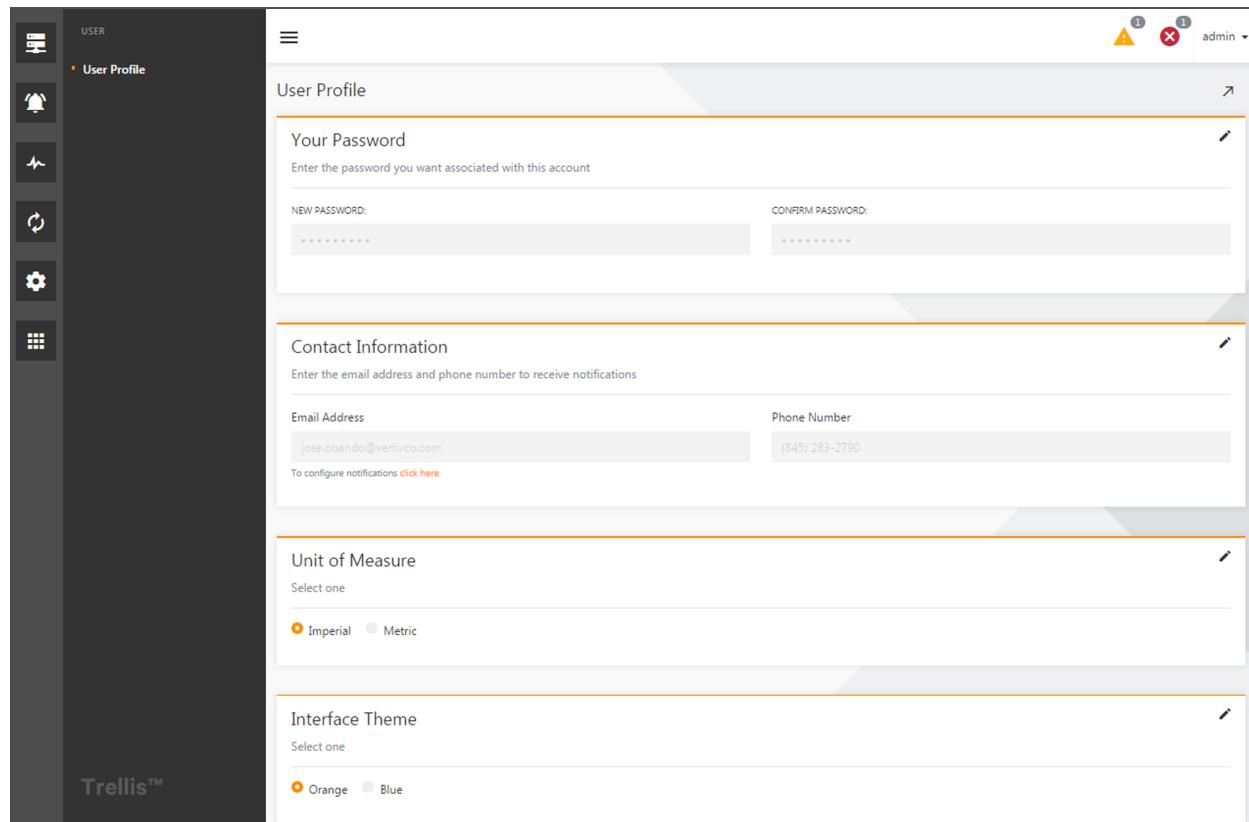
Table 3.1 User Interface Descriptions (continued)

| NUMBER | NAME       | DESCRIPTION   |
|--------|------------|---|
| 12     | Monitoring | Contains context menu items: <ul style="list-style-type: none"> <li>Discovery Configurations</li> <li>Discovered Devices</li> <li>Communication Profiles</li> </ul> |
| 13     | Alarms     | Contains context menu items: <ul style="list-style-type: none"> <li>Active Alarms</li> <li>Alarm History</li> </ul>   |
| 14     | Devices    | Contains context menu items: <ul style="list-style-type: none"> <li>UPS Dashboard</li> <li>Device List</li> </ul>   |

## 3.2 User Profile and System Settings

The Profile menu is divided in two sections, System and User. The System Profile section provides access to view the help documentation and the current software version. The User Profile section allows you to change your password and email settings, the system-wide units of measure and the appearance of your user interface.

Figure 3.2 User Profile Window



The screenshot shows the User Profile window with the following sections:

- Your Password:** Fields for NEW PASSWORD and CONFIRM PASSWORD.
- Contact Information:** Fields for Email Address (jose.obando@vertivco.com) and Phone Number (845) 283-2790. A note says "To configure notifications [click here](#)".
- Unit of Measure:** A radio button for Imperial (selected) and Metric.
- Interface Theme:** A radio button for Orange (selected) and Blue.

The left sidebar shows the navigation menu with the "User Profile" item selected. The bottom left corner of the sidebar has the "Trellis™" logo.

To reset your password:

1. Click the Admin menu drop-down list in the upper right corner and select *Profile*.
2. In the Your Password panel, click the Edit icon.
3. Enter and repeat your password, then click **SAVE**.

**NOTE: Passwords must be between 10 and 128 characters and contain at least one of each of the following: one uppercase letter, one lowercase letter and one digit. Do not use special characters in your password.**

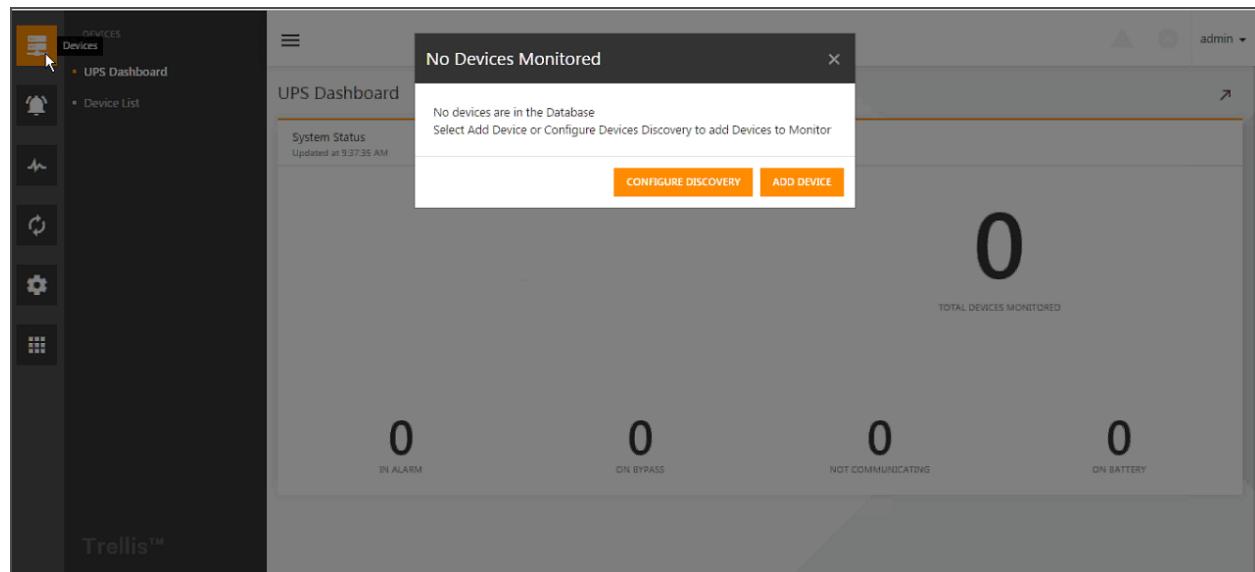
### 3.3 Getting Started - Quick Start with Server Shutdown

The Server Shutdown feature automates the process of shutting down a server in the event of an imminent power interruption. As soon as the *Trellis™ Power Insight* application is installed on your computer, you can begin adding UPS devices and servers in order to use this feature. The following sections explain how to configure your data center components to receive notifications and automatically shutdown a server connected to a UPS device.

#### 3.3.1 Monitor UPS devices

If there are no devices being monitored when you access the Devices pivot bar icon, you are prompted to begin the process of adding devices for monitoring. You can either add a device manually or configure the discovery (via the Monitoring pivot bar icon) feature to identify devices that are within a specified IP address range. Use the following procedure to manually add a device to automate the Server Shutdown feature.

**Figure 3.3 No Devices Monitored Window**



To add a device manually:

1. In the No Devices Monitored window, click **ADD DEVICE**.

-or-

Click the Devices icon and click *Device List*.

2. In the No Devices Monitored window, click *ADD DEVICE*.
3. In the Add Device window, enter the information to identify the device and click *Next*.
4. Select the communication profile and click *SAVE*.

**NOTE: While the application works to communicate with the UPS device, you can proceed to install the *Trellis™* Automation Agent and add a server to the UPS Device Details window.**

### **3.3.2 TRELLIS™ automation agent installation**

The *Trellis™* Automation Agent is the application that initiates the shutdown command to the server using the shutdown feature. In order to enable the Server Shutdown feature, you must install the *Trellis™* Automation Agent on your server, unless the server is a VMWare server, as it does not require the use of the *Trellis™* Automation Agent to activate the Server Shutdown feature. The Server Shutdown feature is compatible with the following servers:

- VMWare® (does not need the *Trellis™* Automation Agent installed)
- Windows®
- Hyper-V® (via OS)
- Linux®

Using a remote desktop connection, install the *Trellis™* Automation Agent on the server using the shutdown feature.

To download and install the *Trellis™* Automation Agent on a server:

1. Log in to the server with administrative privileges.
2. From a web browser, navigate to [www.VertivCo.com/TrellisApplicationDownloads](http://www.VertivCo.com/TrellisApplicationDownloads).
3. Enter your software download username and password and click *Login*.
4. Click the *Trellis™* Automation Agent Installer to download the application.
5. From the server, locate the *Trellis™* Automation Agent Installer and double-click the file to begin the installation process.
6. Press **Enter** to start the installation.
7. Read the EULA and type **Y** to accept the terms of the license agreement.
8. Press **Enter** again to accept the default specifications.
9. Create a username and password.

**NOTE: Passwords must be between 8-32 alphanumeric characters.**

**NOTE: You will use these credentials when you select a new communication profile for a server that is powered by a UPS.**

10. Enter the default port shown on the installation window.

11. Press **Enter** to continue and then press **Enter** again to install the *Trellis*™ Automation Agent application.

### 3.3.3 Servers powered by a UPS

In order to enable the Server Shutdown feature, you must add a server to the UPS Device Details window. The Server Shutdown feature is compatible with VMWare®, Windows®, Linux® and Hyper-V® (via OS) servers. The Linux® and Windows® servers are ready to be connected to the UPS device after installing the *Trellis*™ Automation Agent application. The VMWare® server does not need the *Trellis*™ Automation Agent application to use the Server Shutdown feature.

The *Trellis*™ Power Insight application provides default alarm settings that cause the server to shut down gracefully when triggered by an alarm. The preselected alarms you see while adding the server to a UPS, Load on Battery, Battery Discharging and Battery Low alarms, can only be changed via the Server Shutdown Profiles window of the Automation pivot bar icon.

To add a server to the device details:

1. Click the Devices icon.
2. In the Device List window, select a UPS device and click *Device Details*.
3. In the Devices Powered by UPS panel, click the Add icon.
4. In the Add Connected Device window, enter the server information and click *Next*.
5. Select a communication profile from the Communication Profile drop-down list.

**NOTE: For servers with the *Trellis*™ Automation Agent installed, you must create a new profile and use your *Trellis*™ Automation Agent credentials. If the default was selected during the *Trellis*™ Automation Agent installation, 'Admin' is the default username and the password is user-created.**

6. Click the *Ignore SSL verification?* button to enable it, click *Test Connection* and then click *Next*.

**NOTE: If you have not added a certificate for this server, you must select the *Ignore SSL verification?* button to proceed.**

7. From the Add Connected Device - Shutdown Profile window, ensure the default shutdown profile is selected.

**NOTE: The preloaded defaults send email notifications to the administrator email for all UPS alarms and shutdown connected servers for On Battery and Low Battery alarm conditions.**

8. Click *SAVE*.

### 3.3.4 Automated notifications

The *Trellis*™ Power Insight application sends alarm notifications to the contacts stored in the system via email and SMS text. However, notifications generated in the system before you customize your automated notification system are sent to the admin account email address. Additional email addresses and phone numbers are added via the Address Book Contacts window of the Administration pivot bar icon. The following procedures help you add contact information to the address book and designate recipients for automated notifications. For more information about how to customize your automated notification system, see [Automation](#) on page 30.

To add a contact to the address book:

1. Click the Administration icon.
2. In the Address Book Contacts window, click the Add icon.
3. Enter the contact information, email address and/or text enabled phone number and click **SAVE**.

To add recipients to the Email Action list:

1. Click the Automation icon.
2. In the row of the Default Email Action listing, click the vertical ellipsis icon and click *Edit*.
3. Click *Contacts*, select the desired recipients and click *Next*.
4. Use the fields on the Update Action window to customize the notification frequency and click **SAVE**.

To add recipients to the SMS Action list:

1. Click the Automation icon, select the vertical ellipsis icon in the row of the Default SMS Action listing, and then click *Edit*.
2. Click *Contacts*, select the desired recipients and click *Next*.
3. Use the fields on the Update Action window to customize the notification frequency and click **SAVE**.

## 3.4 Devices

The Devices pivot bar icon contains the context menu items, UPS Dashboard and Device List.

### 3.4.1 UPS Dashboard

Each time you log in, you have an at-a-glance overview of all the devices monitored by the application via the UPS Dashboard. Each category shown on the System Status panel is a link that directs you to a Device List window that only displays the devices in that category.

Figure 3.4 UPS Dashboard Window

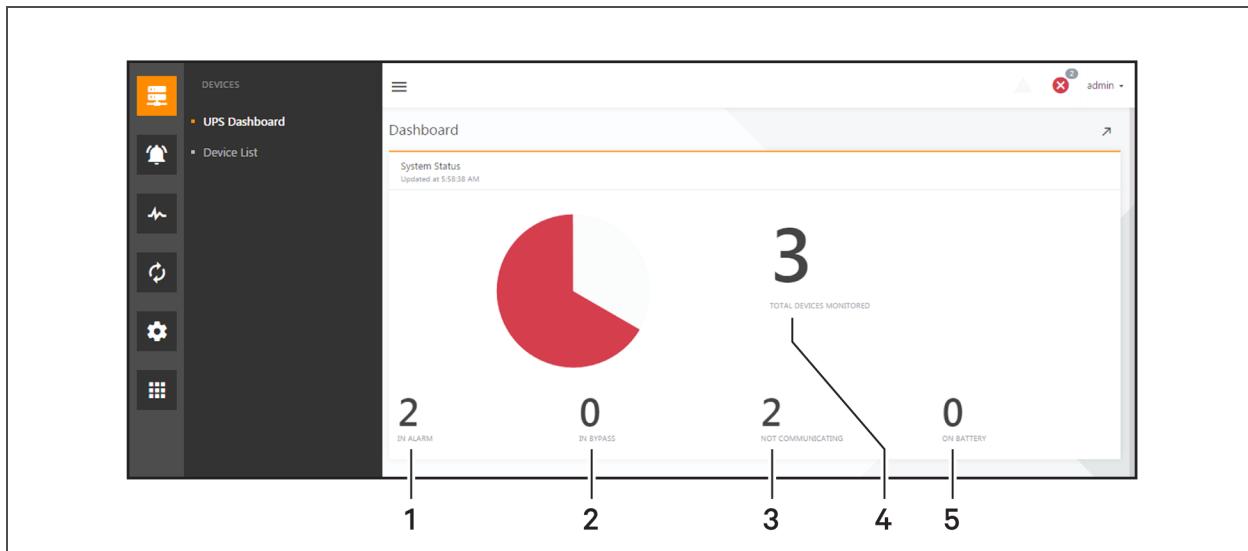


Table 3.2 UPS Dashboard

| ITEM | NAME                    | DESCRIPTION  |
|------|-------------------------|--|
| 1    | IN ALARM                | UPS Devices with one or more active alarms.  |
| 2    | IN BYPASS               | Number of devices that are receiving power directly from an electric utility (via an outlet), bypassing the UPS. |
| 3    | NOT COMMUNICATING       | UPS devices are not sending data to the application.   |
| 4    | TOTAL DEVICES MONITORED | Number of UPS devices that are currently being monitored by the application.                                     |
| 5    | ON BATTERY              | Number of devices that are receiving power from a UPS not receiving power from an electric utility.              |

### 3.4.2 Device List

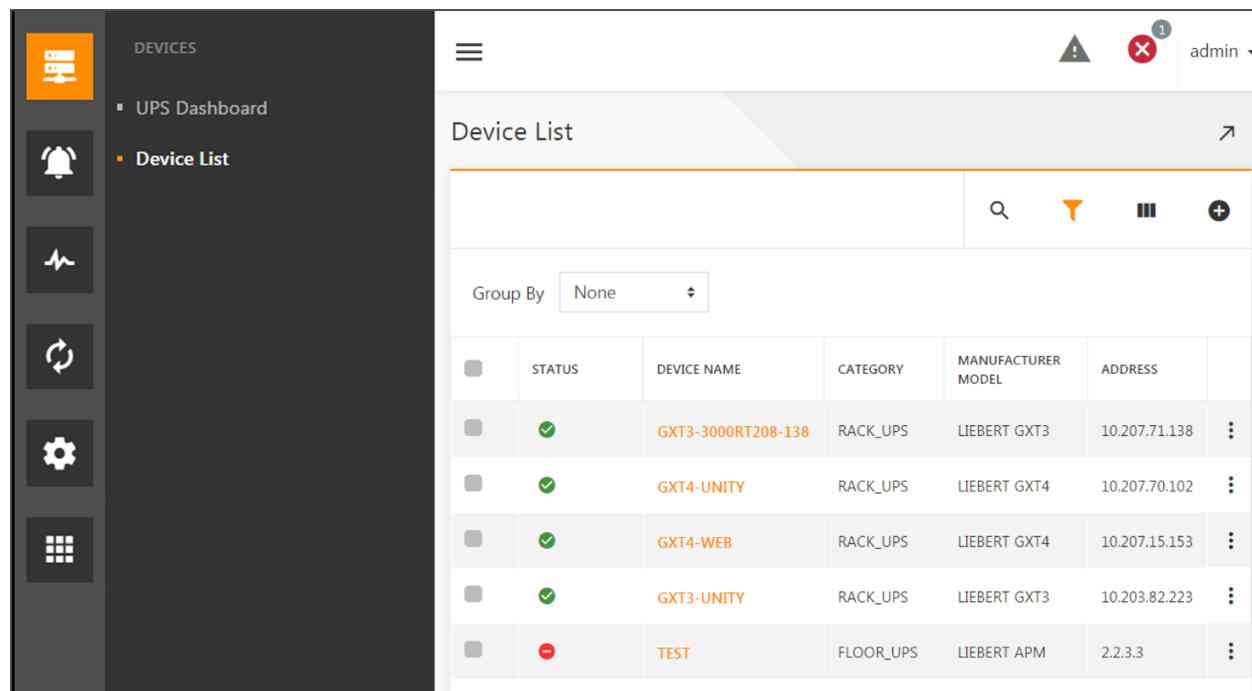
Select the Devices icon to access the Device List window. This window allows you to add or access devices monitored by the application. The Device List window contains the following information for each monitored power supply:

- Status (Normal, Warning, Critical and Not Communicating)
- Device Name
- Category
- Manufacturer Model
- Address

- Battery
- Temperature
- Output

From the Device List window, you can search for a device by name and view its details. You can use the toolbar to configure the columns, add a device or filter the information on the window. The link in the DEVICE NAME column allows you to access the Device Metrics window, which gives you an assessment of the current status of the device. The Device Name link also gives you access to the Device Details and Alarm Notification context menu items.

**Figure 3.5 Device List Window**



|                          | STATUS         | DEVICE NAME                        | CATEGORY  | MANUFACTURER MODEL | ADDRESS       |                |
|--------------------------|----------------|------------------------------------|-----------|--------------------|---------------|----------------|
| <input type="checkbox"/> | <span>✓</span> | <a href="#">GXT3-3000RT208-138</a> | RACK_UPS  | LIEBERT GXT3       | 10.207.71.138 | <span>⋮</span> |
| <input type="checkbox"/> | <span>✓</span> | <a href="#">GXT4-UNITY</a>         | RACK_UPS  | LIEBERT GXT4       | 10.207.70.102 | <span>⋮</span> |
| <input type="checkbox"/> | <span>✓</span> | <a href="#">GXT4-WEB</a>           | RACK_UPS  | LIEBERT GXT4       | 10.207.15.153 | <span>⋮</span> |
| <input type="checkbox"/> | <span>✓</span> | <a href="#">GXT3-UNITY</a>         | RACK_UPS  | LIEBERT GXT3       | 10.203.82.223 | <span>⋮</span> |
| <input type="checkbox"/> | <span>✗</span> | <a href="#">TEST</a>               | FLOOR_UPS | LIEBERT APM        | 2.2.3.3       | <span>⋮</span> |

To add a device manually:

1. Click the Devices icon and click *Device List*.
2. Click the Add icon on the toolbar.
3. In the Add Device window, enter the device information and click *Next*.
4. Select an existing communication profile.

-or-

Create a new communication profile and click *Next*.

5. Enter information in the user-defined properties configuration fields that were previously set up, if any, and click *SAVE*.

**To delete a device:**

1. From the Device List window, click the vertical ellipsis button in the same row of the device you wish to delete.
2. Click *DELETE* on the confirmation pop-up dialog box.

-or-

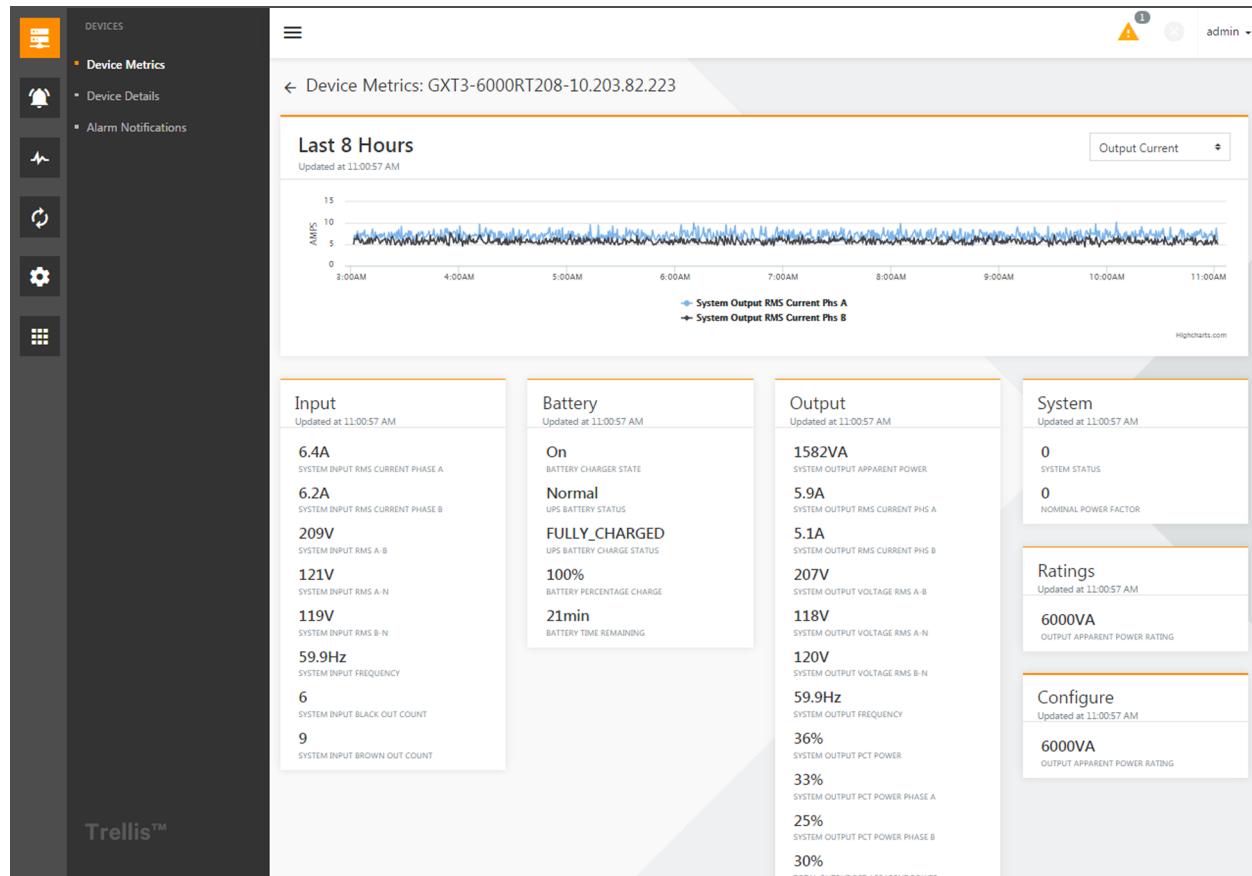
Click *CANCEL*.

## **Device Metrics**

The Device Metrics window contains the selected device's diagnostic information from the last eight hours. The window displays information in chart and table format. Use the drop-down list in the upper right corner of the window to select the chart to view. Below the chart, you can view the following information (depending on the UPS device model):

- Battery information
- Bypass information
- DC Bus information
- System input information
- System output information

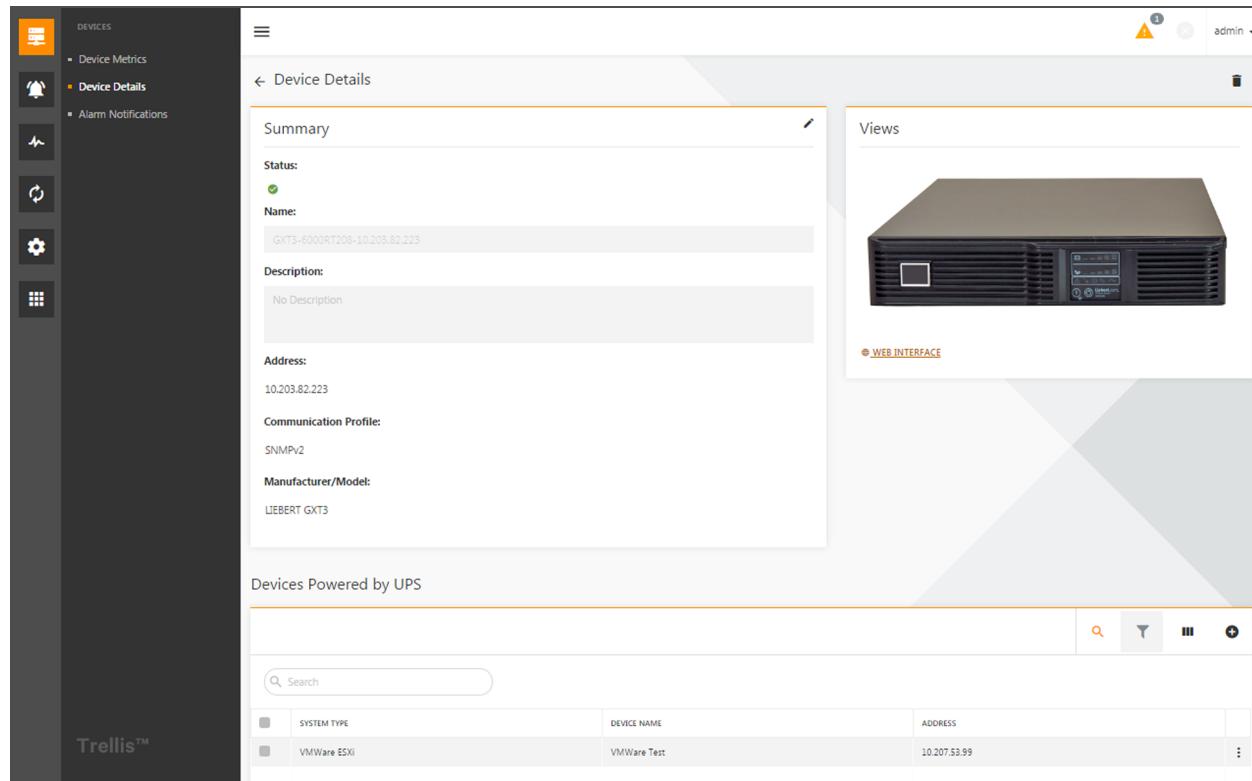
Figure 3.6 Device Metrics Window



## Device Details

Each monitored device listed in the Device List table provides access to a Device Details window. This window displays detailed information about the device and allows you to access the device's web interface and the Summary tab.

Figure 3.7 Device Details Window



To access the device web interface:

1. Click the Devices icon and click *Device List*.
2. In the *Device List*, select a device.
3. In the *Device Details* window on the *Views* image, click *WEB INTERFACE*.

To edit the device details:

1. Click the Devices icon and click *Device List*.
2. In the *Device List*, locate the device and click the associated hyperlink in the *DEVICE NAME* column.
3. Click the *Device Details* context menu item and, in the *Summary* panel, click the *Edit* icon.
4. Enter your changes and click *SAVE*.

To add a server to the device details:

1. Click the Devices icon and click *Device List*.
2. In the *Device List* window, select a UPS device and click *Device Details*.
3. In the *Devices Powered by UPS* panel, click the *Add* icon.
4. In the *Add Connected Device* window, enter the server information and click *Next*.
5. Select a communication profile from the *Communication Profile* drop-down list.

**NOTE: For servers with the *Trellis™* Automation Agent installed, you must create a new profile and use your *Trellis™* Automation Agent credentials. If the default was selected during the *Trellis™* Automation Agent installation, "Admin" is the default username and the password is user-created.**

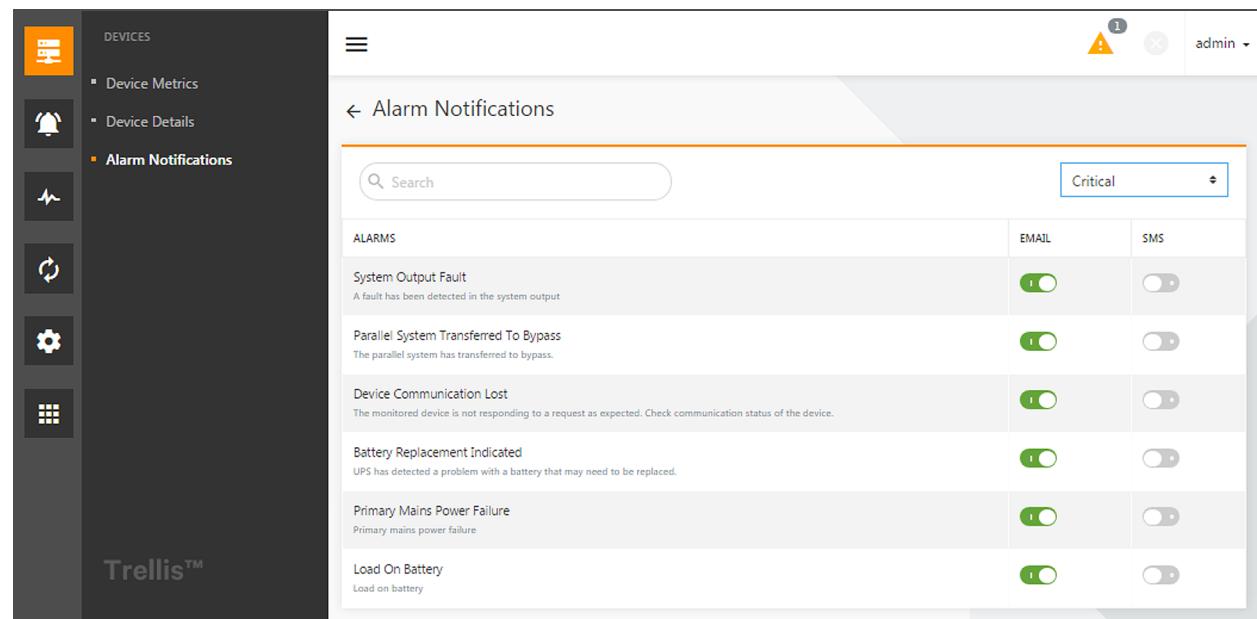
6. If applicable, click the Ignore SSL verification? button to enable the setting and click *Test Connection*.
7. From the Add Connected Device - Shutdown Profile window, ensure the default profile is selected and click *SAVE*.

**NOTE: Existing shutdown profiles can only be changed via the Server Shutdown Profiles window of the Automation pivot bar icon.**

## Alarm Notifications

Alarm Notifications is a read-only window that displays which of the UPS alarms will trigger an email or SMS text. You can modify these notifications via the Actions and Automated Rules pivot bar icons. Using the search feature, you can also filter alarms based on their severity and locate a specific alarm in the list.

**Figure 3.8 Alarm Notifications**



The screenshot shows the 'Alarm Notifications' page within the Trellis™ interface. The left sidebar has a 'DEVICES' section with 'Device Metrics', 'Device Details', and 'Alarm Notifications' (which is selected and highlighted in blue). The main content area has a header with a search bar, a dropdown for 'Critical' severity, and a notification icon with '1' (indicating one new notification). Below this is a table titled 'ALARMS' with the following data:

| ALARM   | EMAIL                               | SMS                      |
|---|-------------------------------------|--------------------------|
| System Output Fault<br>A fault has been detected in the system output   | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Parallel System Transferred To Bypass<br>The parallel system has transferred to bypass.   | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Device Communication Lost<br>The monitored device is not responding to a request as expected. Check communication status of the device. | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Battery Replacement Indicated<br>UPS has detected a problem with a battery that may need to be replaced.                                | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Primary Mains Power Failure<br>Primary mains power failure  | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Load On Battery<br>Load on battery  | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

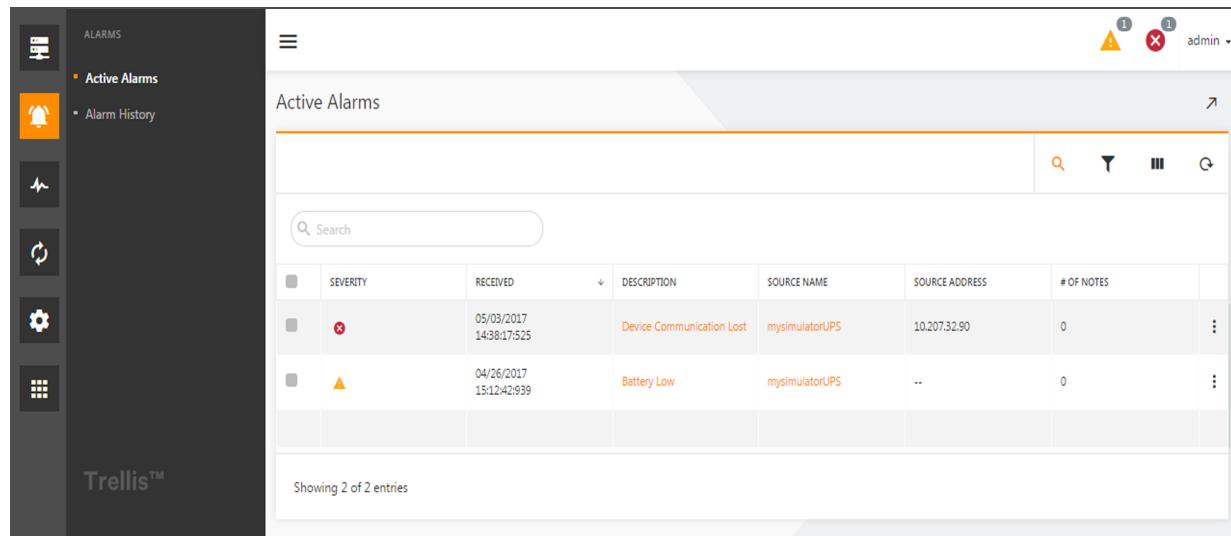
## 3.5 Alarms

Selecting the Alarms icon provides access to the Active Alarms and Alarm History windows.

### 3.5.1 Active Alarms

The Active Alarms window displays alarms that have not been cleared. Each alarm has a severity of either warning or critical, represented by an exclamation point in a yellow triangle or an x in a red circle, respectively. The toolbar allows you to filter the alarm list. You can choose to display alarms from a specific time period and group them based on certain criteria. You can also retrieve the most current alarm notification using the Reload icon located on the toolbar and store notes on any alarm on the Alarm Details window.

Figure 3.9 Active Alarms Window



To clear an alarm from the Active Alarms window:

1. Click the Alarms icon.
2. From the Active Alarms window, place a check in the row of the alarm you wish to clear.
3. Click the Clear icon on the toolbar.

To add a note to the Alarm Details window:

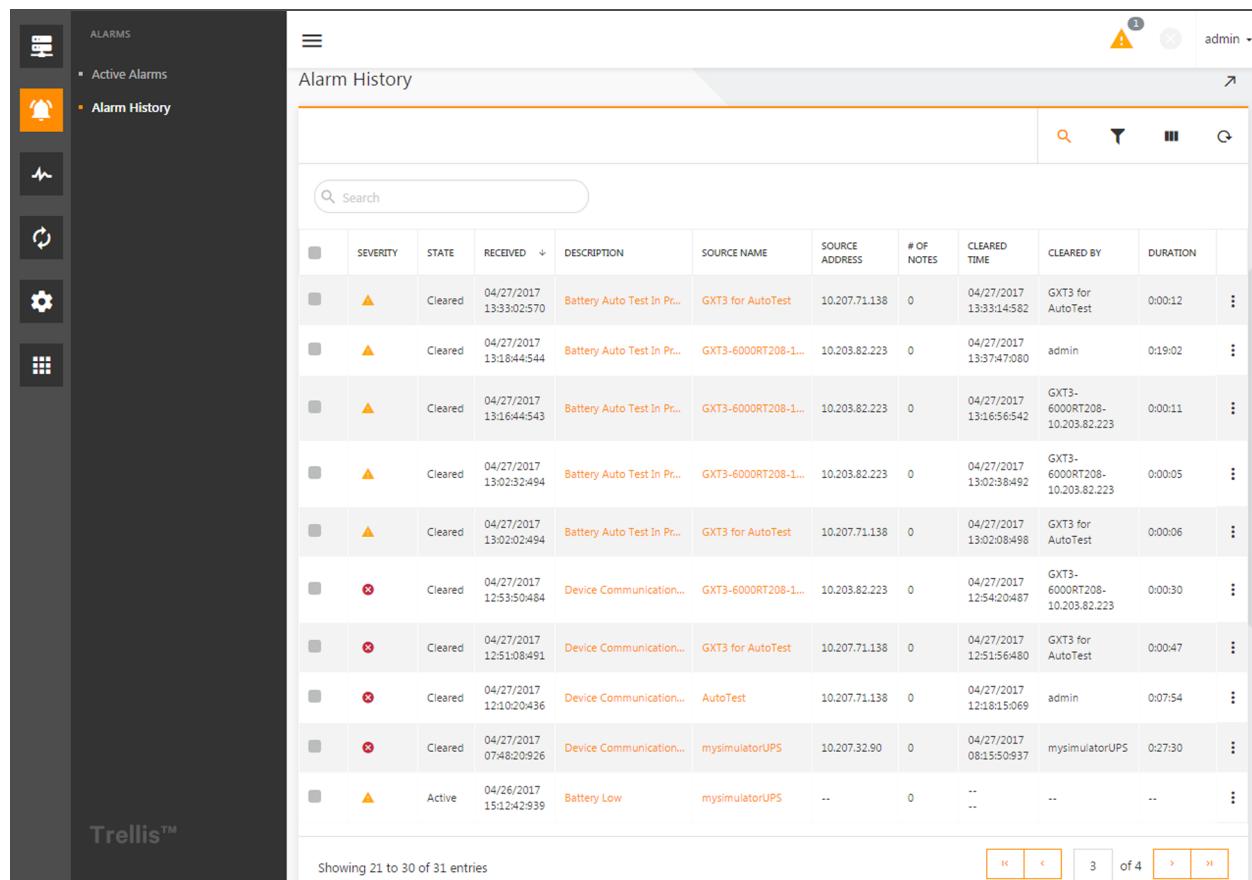
1. Click the Alarms icon.
2. From the Active Alarms window, click the link in the Description column.
3. On the Alarm Details window, ensure the Notes tab is selected.
4. Enter the information in the Note text box and click *ADD NOTE*.

**NOTE: The Alarms Details window also includes the Action History tab. This tab lists any automated action sets, including notifications and/or shutdown, triggered by the selected alarm.**

### 3.5.2 Alarm History

The Alarm History window contains a list of both active and cleared alarms. The window displays details about each alarm, including the time cleared, the duration of the alarm and its severity. Additional alarm details are stored on the Alarm Details window, which is accessed using the links in the DESCRIPTION column. The Alarm Details window allows you to add notes to the alarm and view the action history, which indicates whether an alarm notification or shutdown action was triggered.

**Figure 3.10** Alarm History Window



| SEVERITY | STATE   | RECEIVED                | DESCRIPTION                | SOURCE NAME         | SOURCE ADDRESS | # OF NOTES | CLEARED TIME            | CLEARED BY                   | DURATION |
|----------|---------|-------------------------|----------------------------|---------------------|----------------|------------|-------------------------|------------------------------|----------|
| ▲        | Cleared | 04/27/2017 13:33:02:570 | Battery Auto Test In Pr... | GXT3 for AutoTest   | 10.207.71.138  | 0          | 04/27/2017 13:33:14:582 | GXT3 for AutoTest            | 0:00:12  |
| ▲        | Cleared | 04/27/2017 13:18:44:544 | Battery Auto Test In Pr... | GXT3-6000RT208-1... | 10.203.82.223  | 0          | 04/27/2017 13:37:47:080 | admin                        | 0:19:02  |
| ▲        | Cleared | 04/27/2017 13:16:44:543 | Battery Auto Test In Pr... | GXT3-6000RT208-1... | 10.203.82.223  | 0          | 04/27/2017 13:16:56:542 | GXT3-6000RT208-10.203.82.223 | 0:00:11  |
| ▲        | Cleared | 04/27/2017 13:02:32:494 | Battery Auto Test In Pr... | GXT3-6000RT208-1... | 10.203.82.223  | 0          | 04/27/2017 13:02:38:492 | GXT3-6000RT208-10.203.82.223 | 0:00:05  |
| ▲        | Cleared | 04/27/2017 13:02:02:494 | Battery Auto Test In Pr... | GXT3 for AutoTest   | 10.207.71.138  | 0          | 04/27/2017 13:02:08:498 | GXT3 for AutoTest            | 0:00:06  |
| ✖        | Cleared | 04/27/2017 12:53:50:484 | Device Communication...    | GXT3-6000RT208-1... | 10.203.82.223  | 0          | 04/27/2017 12:54:20:487 | GXT3-6000RT208-10.203.82.223 | 0:00:30  |
| ✖        | Cleared | 04/27/2017 12:51:08:491 | Device Communication...    | GXT3 for AutoTest   | 10.207.71.138  | 0          | 04/27/2017 12:51:56:480 | GXT3 for AutoTest            | 0:00:47  |
| ✖        | Cleared | 04/27/2017 12:10:20:436 | Device Communication...    | AutoTest            | 10.207.71.138  | 0          | 04/27/2017 12:18:15:069 | admin                        | 0:07:54  |
| ✖        | Cleared | 04/27/2017 07:48:20:926 | Device Communication...    | mysimulatorUPS      | 10.207.32.90   | 0          | 04/27/2017 08:15:50:937 | mysimulatorUPS               | 0:27:30  |
| ▲        | Active  | 04/26/2017 15:12:42:939 | Battery Low                | mysimulatorUPS      | --             | 0          | --                      | --                           | --       |

To clear an active alarm in the Alarm History window:

1. Click the Alarms icon.
2. In the Alarm History window, click the alarm's checkbox and click the Clear icon on the toolbar.

To add a note to the Alarm Details window:

1. Click the Alarms icon.
2. In the Alarm History window, locate the alarm in the table and click the link in the DESCRIPTION column.
3. On the Alarm Details window, ensure the Notes tab is selected.
4. Enter the information in the Note text box and click *ADD NOTE*.

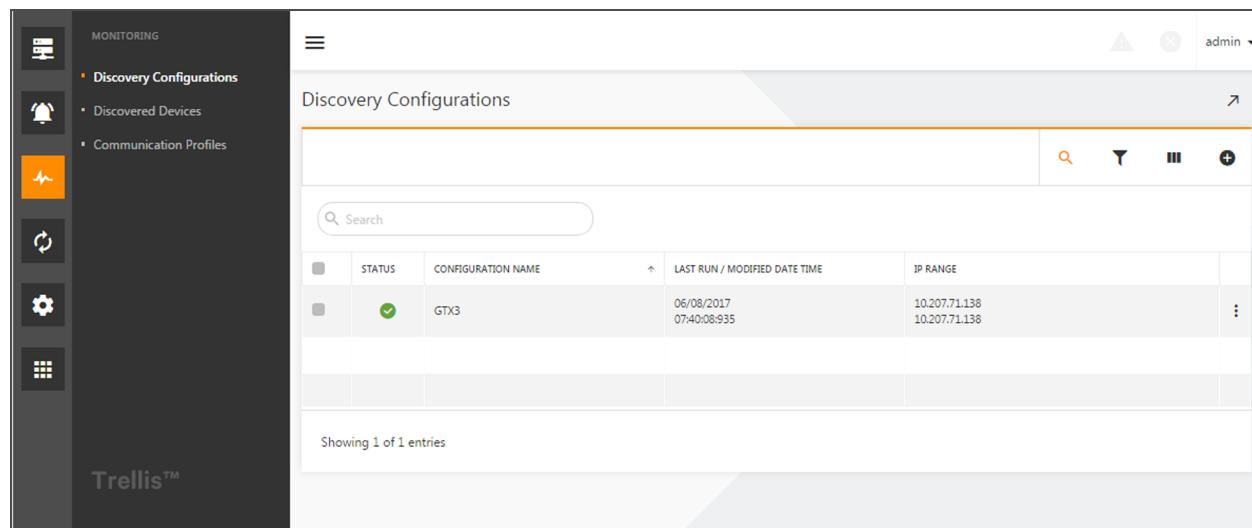
## 3.6 Monitoring

The Monitoring pivot bar icon contains the Discovery Configurations, Discovered Devices and Communication Profiles context menu items.

### 3.6.1 Discovery Configurations

The Discovery Configurations window is used to set the parameters for device discovery and view existing discovery configuration templates. Adding valid IP ranges ensures that every device with an IP address within that range is recognized.

**Figure 3.11 Discovery Configurations Window**



|  | STATUS | CONFIGURATION NAME | LAST RUN / MODIFIED DATE TIME | IP RANGE                       |
|--|--------|--------------------|-------------------------------|--------------------------------|
|  | ✓      | GTX3               | 06/08/2017<br>07:40:08:935    | 10.207.71.138<br>10.207.71.138 |

**NOTE:** The SNMPv3 protocol requires specific parameters for each device. As a result, SNMPv3 devices cannot be discovered via the discovery feature. The Device List window can be accessed via the Devices icon to manually add an SNMPv3 device.

To add a discovery configuration template:

1. Click the Monitoring icon and click *Discovery Configurations*.
2. Click the Add icon on the toolbar.
3. Select the necessary options and enter the configuration information.
4. Click **SAVE** to capture your selected options.

-or-

Click **SAVE & RUN** to capture your options and run the configuration to identify the specified devices.

To edit a discovery configuration:

1. Click the Monitoring icon and click *Discovery Configurations*.

2. In the Discovery Configurations window, locate the configuration, click its vertical ellipsis icon and click *Edit*.
3. Update the configuration and click *SAVE*.

-or-

Update the information and click *SAVE & RUN* to identify the devices that match the specifications.

To run a discovery configuration:

1. Click the Monitoring icon and click *Discovery Configurations*.
2. In the Discovery Configurations window, locate the configuration, click its vertical ellipsis icon and click *Run*.

**NOTE: You can view the progress of a discovery that is running by selecting the Status icon in the Configuration display grid.**

To stop a running discovery process:

1. Click the Monitoring icon and click *Discovery Configurations*.
2. In the Discovery Configurations window, locate the configuration, click its vertical ellipsis icon and click *Stop*.

To delete a configuration:

1. Click the Monitoring icon and click *Discovery Configurations*.
2. In the Discovery Configurations window, locate the configuration, click its vertical ellipsis icon and click *Delete*.

### 3.6.2 Discovered Devices

After running the discovery configuration, you can access the Discovered Devices window from the Monitoring menu and view the devices recognized by the application. Devices with the Monitoring icon in the Status column are ready to be added to the device list and monitored by the application. Discovered devices are listed in the table with the following details:

- Status
- IP Address
- Name
- Manufacturer
- Model
- Discovered On
- Protocol Configuration

**NOTE: Protocol Configuration is not shown in the following figure.**

One or more IP addresses can be excluded from being discovered; however, if you choose to exclude an IP address, it is removed from any future discovery requests and listed on the Excluded IPs window. You must delete the IP address from the Excluded IPs window for the application to be able to discover the device again. You can also use IP addresses to perform searches or sort the information on the Excluded IPs window.

**Figure 3.12 Discovered Devices Window**

| STATUS        | IP ADDRESS    | NAME          | MANUFACTURER | MODEL          | DISCOVERED ON           |
|---------------|---------------|---------------|--------------|----------------|-------------------------|
| Uninitialized | 10.203.82.223 | Uninitialized | LIEBERT      | GXT3-6000RT208 | 05/17/2017 10:23:30:461 |

To monitor one or more devices:

1. Click the Monitoring icon and click *Discovered Devices*.
2. Select the checkbox of each device with a Ready To Monitor status and click the Monitor icon on the toolbar.

-or-

In the row of the device to be monitored, click the vertical ellipsis icon and click *Monitor*.

To exclude an IP address:

1. Click the Monitoring icon and click *Discovered Devices*.
2. In the row of the device to be excluded, click the vertical ellipsis icon and click *Exclude IP*.

-or-

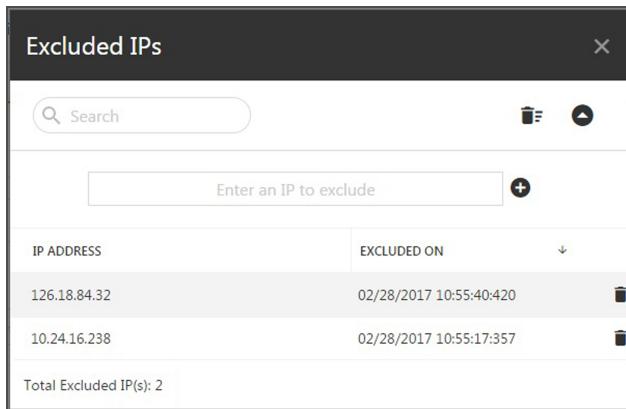
Click the Excluded IPs icon on the toolbar. From the Excluded IPs window, click the Exclude icon. Enter an IP address to exclude and then click the Add icon.

**NOTE: The device's IP address you exclude is removed and excluded from any future discover request until you delete the IP address from the excluded list.**

To delete an IP address from the excluded list:

1. Click the Monitoring icon and click *Discovered Devices*.
2. Click the Excluded IPs (minus symbol) icon on the toolbar.

Figure 3.13 Excluded IPs Window



3. From the Excluded IPs window, enter the IP address in the search field.

-or-

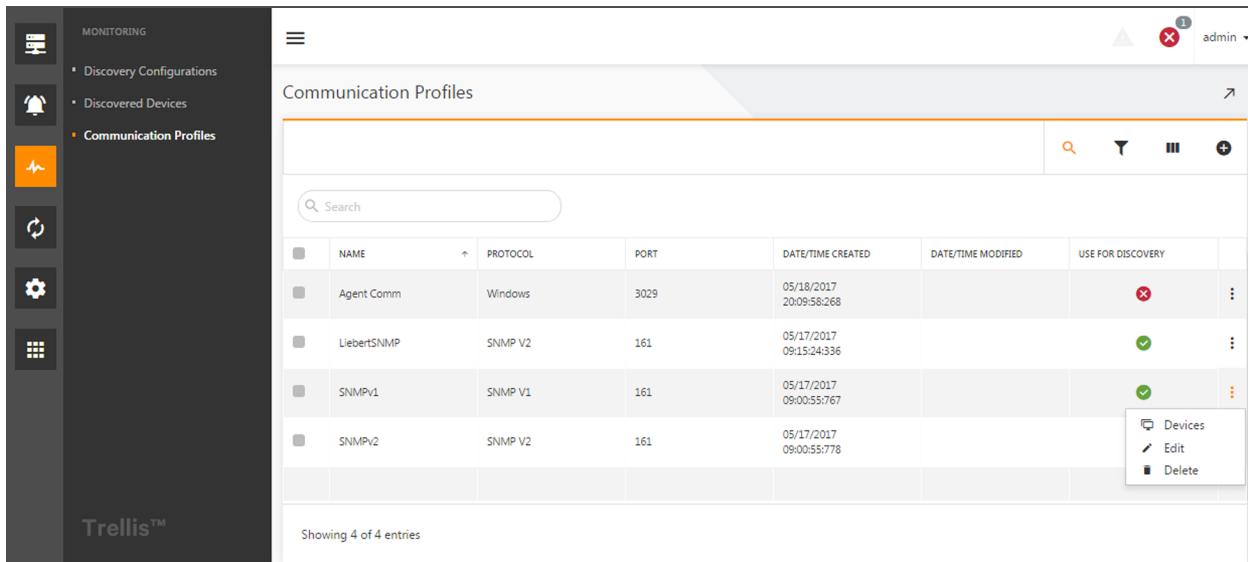
Scroll down to locate and select the IP address you wish to delete.

4. In the row of the IP address, click the *Delete* icon.

### 3.6.3 Communication Profiles

Communication profiles define how and through what channels the application communicates with devices. The *Trellis™* Power Insight application allows you to search for saved profiles and view devices that are associated with the profile you created.

Figure 3.14 Communication Profiles Window



To add a communications profile:

1. Click the Monitoring icon and click *Communication Profiles*.
2. From the Communication Profiles window, click the Add icon and enter the profile information.
3. Click the Use for Discovery button to use the profile to discover devices and click *SAVE*.

**NOTE: The information entered in the Timeout (seconds) and Retries fields may affect overall discovery time.**

To edit a communication profile:

1. Click the Monitoring icon and click *Communication Profiles*.
2. In the Communication Profiles window, locate the profile, click the vertical ellipsis icon and click *Edit*.
3. Modify the fields and click *SAVE*.

To delete one or more communication profiles:

1. Click the Monitoring icon and click *Communication Profiles*.
2. In the Communication Profiles window, locate the profile, click the vertical ellipsis icon and click *Delete*.

-or-

Select the checkbox of each profile to be deleted and click the Delete icon on the toolbar.

### 3.7 Automation

The Automation pivot bar icon contains the elements you need to configure automated alarm responses, including email, SMS text and Server Shutdown. The application provides you with a default action configured for each notification type. The email address used in the creation of the admin account is preselected to receive notifications for the email and SMS text actions.

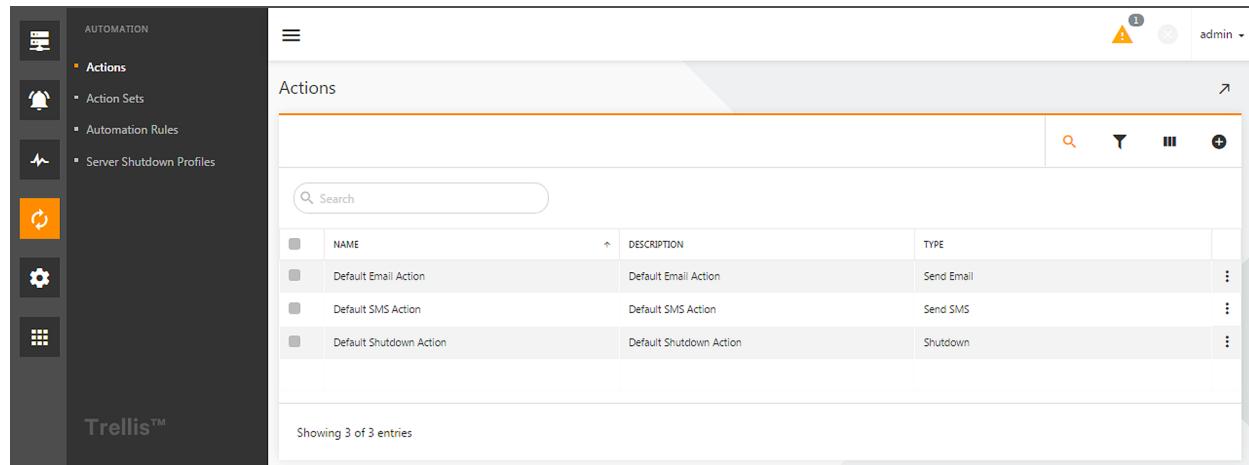
Use the Automation pivot bar icon to:

- Create an Action - create types of notifications and assign Address Book Contacts as recipients
- Configure Action Sets - configure the execution strategy and group actions to be executed simultaneously or sequentially
- Set Automation Rules - select the combination of devices and alarms to trigger an email, text or an automated server shutdown.
- Server Shutdown Profiles - specify which alarms trigger shutdown and the alarm specific timers to delay shutdown scheduling for the servers.

### 3.7.1 Actions

The Actions context menu item allows you to create, copy, delete or modify actions. This includes adding or removing recipients from notification groups and specifying the type of notification sent when an alarm is triggered.

**Figure 3.15 Actions Window**



| NAME                    | DESCRIPTION             | TYPE       |
|-------------------------|-------------------------|------------|
| Default Email Action    | Default Email Action    | Send Email |
| Default SMS Action      | Default SMS Action      | Send SMS   |
| Default Shutdown Action | Default Shutdown Action | Shutdown   |

**NOTE: The default actions displayed in Actions window are preloaded and available for immediate use.**

To add an action:

1. Click the Automation icon and click the Add icon on the Actions window.
2. Create a name and description for the action.
3. Select Send Email or Send SMS from the Action Type drop-down and click the User or Contacts tab to select the recipients for the notification.
4. Click *Next*, configure the new action using the fields in the pop-up window and click *SAVE*.

To update an action:

1. Click the Automation icon and locate the action.
2. Click the vertical ellipsis icon in the same row and click *Edit*.
3. Update the information in the Update Actions window and click *Next*.
4. Update the frequency of the notification and click *SAVE*.

To copy an action:

1. Click the Automation icon and locate the action.
2. Click the vertical ellipsis icon in the same row and click *Copy*.

To delete an action:

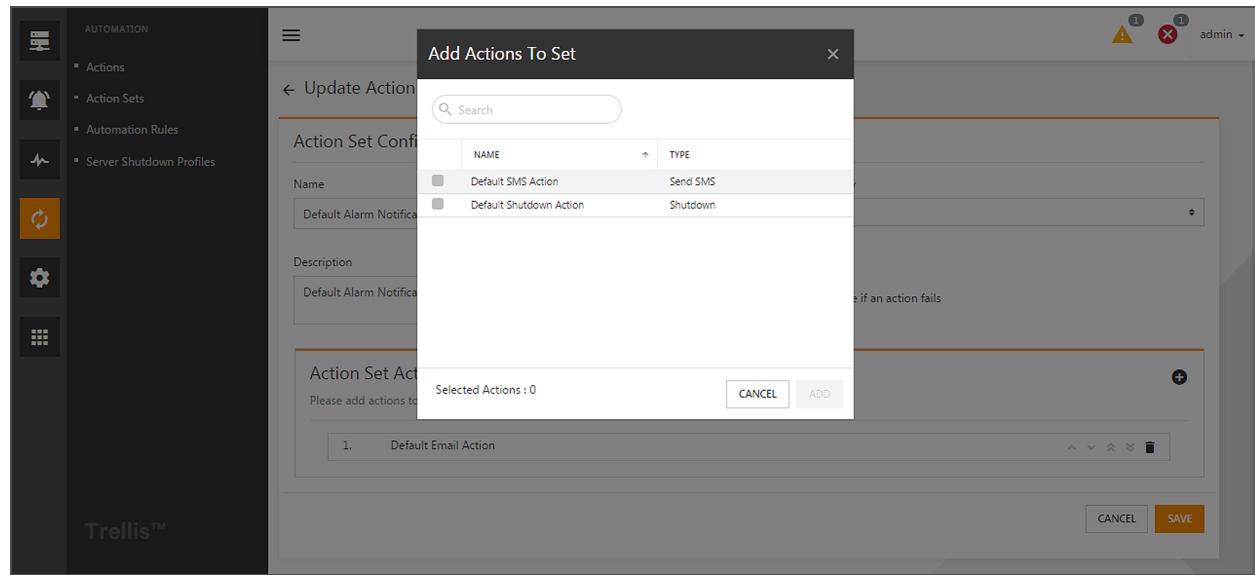
1. Click the Automation icon and locate the action.
2. Click the vertical ellipsis icon in the same row and click *Delete*.

3. In the Confirmation window, click *DELETE*.

### 3.7.2 Action Sets

The Action Sets context menu item allows you to group actions and configure their execution when an alarm condition is met. For example, you can group an email and SMS text notification to be sent at the same time or one after the other when an alarm is triggered.

**Figure 3.16 Add Actions To Set Window**



To add an action set:

1. Click the Automation icon and click Action Sets.
2. In the Action Sets window, click the Add icon.
3. In the New Action Set window, enter the parameters for the new action set.
4. On the Action Set Actions panel, click the Add icon.
5. In the Add Actions To Set window, select the actions to add to the action set and click *ADD*.

**NOTE: The actions listed on the Add Actions To Set pop-up window are populated when you add an action via the Actions context menu item.**

To update an action set:

1. Click the Automation icon and click Action Sets.
2. Click the vertical ellipsis icon in the row of the action set you wish to update and click *Edit*.
3. In the Update Action Set window, change the parameters for the existing action.
  - a. On the Action Set Actions panel, click the *Edit* icon.
  - b. Select the actions to add to the action set and click *ADD*.
  - c. Use the Action directional arrow icons to place the actions in execution order.
  - d. On the Update Action Set window, click *SAVE*.

-or-

On the Action Set Actions panel, click the Delete icon and click **SAVE**.

To copy an action set:

1. Click the Automation icon and click **Action Sets**.
2. Locate the action, click the vertical ellipsis icon in the same row and click **Copy**.

To delete an action set:

1. Click the Automation icon and click **Action Sets**.
2. Locate the action, click the vertical ellipsis icon in the same row and click **Delete**.
3. In the Confirmation window, click **DELETE**.

### 3.7.3 Automation Rules

The *Trellis™* Power Insight application allows you to create automation rules to map action sets to an alarm. Automation rules tell the system what actions to execute when alarms are triggered. In the default Alarm Notification automation rule, any alarm on any device will trigger the Default Alarm Notification Action Set. In the default Server Shutdown automation rule, there are three alarms that trigger a server shutdown. They are:

- Load on Battery
- Battery Discharging
- Battery Low

Action sets that are created to automate one or more actions are added and modified via the Action Set context menu item. Enabling the Any Device checkbox when you create an automation rule ensures that any action set you create is applied to every device you monitor.

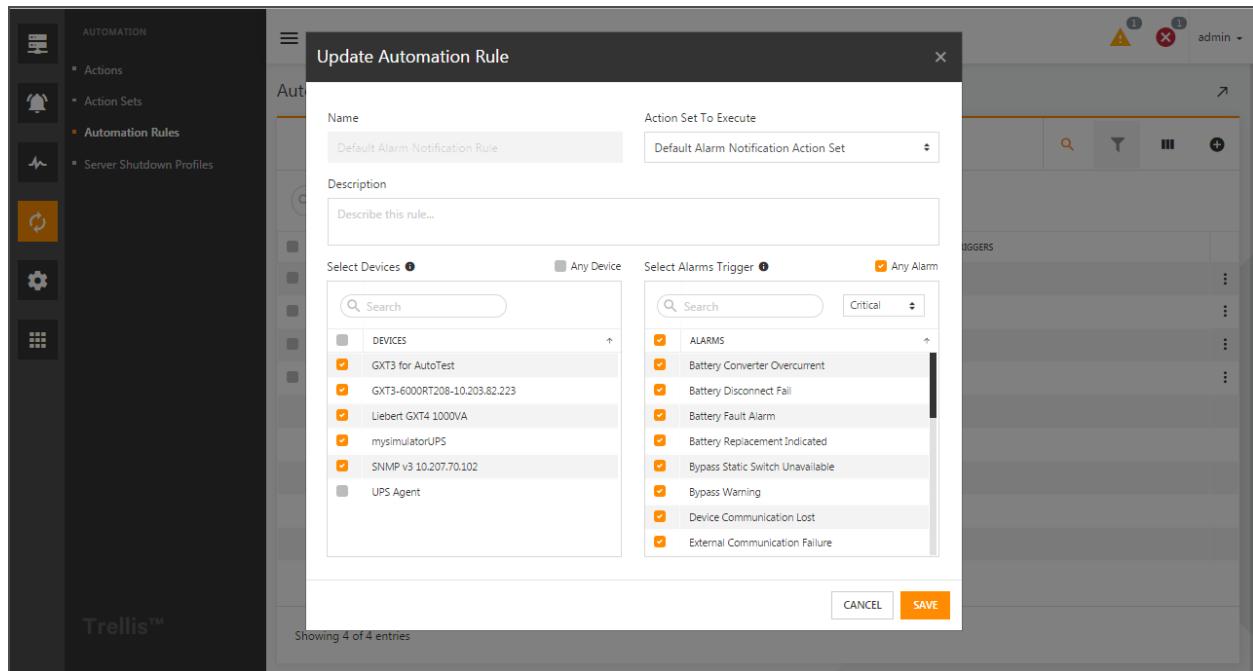
To add an automation rule:

1. Click the Automation icon and click **Automation Rules**.
2. Click the Add icon and enter the automation rule's name and description.
3. Select the action set from the Action Set To Execute drop-down list.

**NOTE: Selections in the Action Set To Execute field are populated via the Action Set context menu item.**

4. Select the devices to which the automated rule will be applied.
5. Select the alarms to activate the automated rule and click **SAVE**.

Figure 3.17 Update Automation Rule



To update an automation rule:

1. Click the Automation icon and click *Automation Rules*.
2. Locate the rule, click the vertical ellipsis icon in the same row and click *Edit*.
3. In the Update Automation Rule window, modify the applicable selections and click *SAVE*.

To delete an automation rule:

1. Click the Automation icon and click *Automation Rules*.
2. Locate the rule, click the vertical ellipsis icon in the same row and click *Delete*.
3. Confirm you would like to delete the selected automation rule and click *DELETE*.

### 3.7.4 Server Shutdown Profiles

When an alarm is received and an automated rule is applied, the application begins the designated action you set up. When the designated action is a server shutdown, the application looks for the servers powered by the UPS and begins the server shutdown process. Server Shutdown profiles indicate for the servers which alarms and delay timers will be used to trigger a shutdown. For example, you can arrange for the servers powered by a UPS with a Load on Battery alarm to shut down later than those powered by a UPS that have a Low Battery alarm. You can also create profiles that shutdown critical servers sooner than non-critical servers. The *Trellis™ Power Insight* application contains a default shutdown profile with three alarms to trigger a server shutdown. You can set the timer for the shutdown process to complete for each triggered alarm via the Server Shutdown Profile context menu item.

To add a server shutdown profile:

1. Click the Automation icon and click *Server Shutdown Profiles*.
2. Click the Add icon and enter the name and description of the server shutdown profile.
3. In the Alarms panel, click the Shutdown slide button to enable the feature for the triggered alarm.
4. Enter the number of seconds that will expire before the application initiates shutdown of the server.
5. Click *SAVE*.

To edit a server shutdown profile:

1. Click the Automation icon and click *Server Shutdown Profiles*.
2. Locate the profile, click the vertical ellipsis icon in the same row and click *Edit*.
3. In the Alarms section, click the Shutdown slide button to enable the shutdown action for the triggered alarm.
4. Enter the amount of time that will expire before the application shuts down the server.
5. Click *SAVE*.

To delete a server shutdown profile:

1. Click the Automation icon and click *Server Shutdown Profiles*.
2. Locate the profile, click the vertical ellipsis icon in the same row and click *Delete*.
3. In the Confirmation window, click *DELETE*.

### 3.8 Administration

The Administration pivot bar icon is used to access the following context menu windows:

- Events
- Notification Settings
- System Settings
- User Defined Properties
- *Trellis™ System Health*
- Address Book Contacts
- Trust Store

### 3.8.1 Events

The *Trellis*™ Power Insight application records each action or event that occurs in the application. Events are grouped in categories that identify each event with a time/date stamp. They are categorized as Audit Events, Device Events, System Events, System Events-Administration, Authentication and User Profile Events and Application Level Events. Each event has a severity level of informational, warning or critical. You can also add or remove columns, filter to show only the events that are important to you and retrieve detailed information about each event listed under the link in the Details column.

### 3.8.2 Notification Settings

The Notification Settings window allows you to configure email notification settings, enable or disable email notifications and encrypt emails sent by the application.

To configure the email server connection:

1. Click the Administration icon and click *Notification Settings*.
2. In the Email Server Connection Configuration panel, click the Edit icon, and enter the information in the fields.
3. Click *Send Test Email* to confirm the server is configured correctly and click *SAVE*.

To configure the SMS server connection:

1. Click the Administration icon and click *Notification Settings*.
2. In the SMS Server Configuration panel, click the Edit icon, and enter the requested information in the fields.
3. Click *Send Test SMS* to confirm the server is configured correctly and click *SAVE*.

### 3.8.3 System Settings

The application's system settings are used to configure the login session timeout in minutes for the application. Changes to reduce or extend the amount of time a user can remain logged in to the system are applied after the next log in.

To set a session timeout:

1. Click the Administration icon and click *System Settings*.
2. Click the Edit icon on the upper right corner of the window.
3. Enter the number of minutes in the Session Timeout field and click *SAVE*.

### 3.8.4 User Defined Properties

The User Defined Properties feature allows you to create additional data fields to provide more details on monitored devices. The fields you add on this window are displayed on the Device Details window and can only be deleted via the User Defined Properties window.

To add a user defined property:

1. Click the Administration icon and click *User Defined Properties*.

2. In the toolbar, click the Add icon.
3. Enter the name and value and click **SAVE**.

**NOTE:** Fields created using the User Defined Properties window are displayed on the Device Details window. If the default value is left blank, access the Device Details window to edit the user defined properties and enter a value for the device.

To edit user-defined properties:

1. Click the Administration icon and click *User Defined Properties*.
2. Locate the user-defined property, click the vertical ellipsis icon and click *Edit*.
3. In the Edit window, update the information and click **SAVE**.

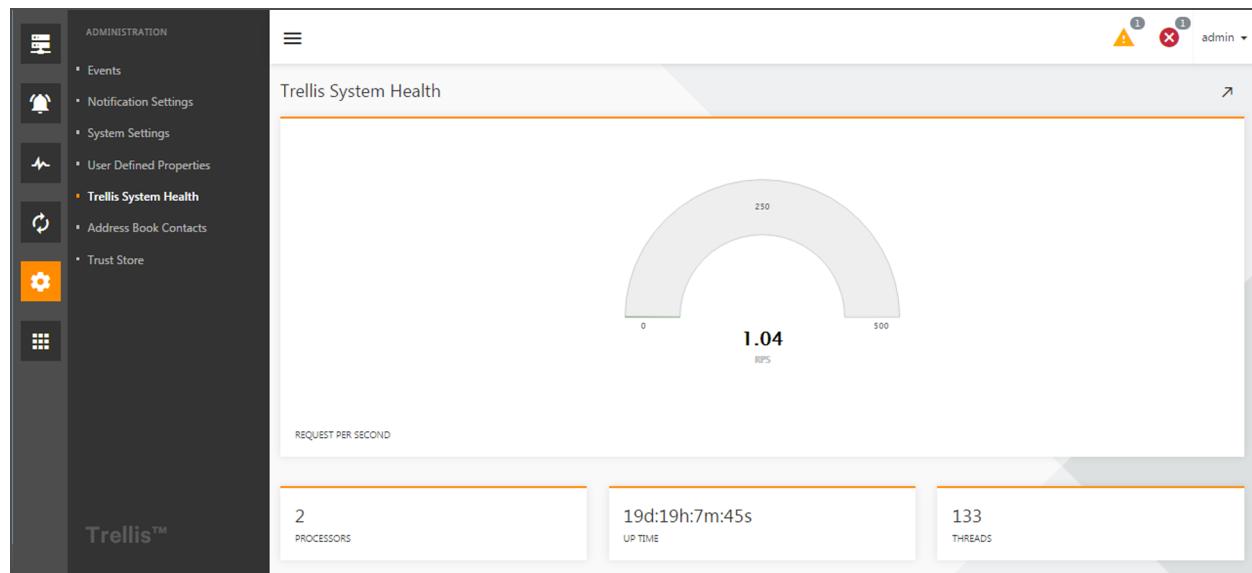
To delete a user defined property:

1. Click the Administration icon and click *User Defined Properties*.
2. Locate the user-defined property, click the vertical ellipsis icon and click *Delete*.
3. From the confirmation pop-up window, click **DELETE**.

### 3.8.5 TRELLIS™ System Health

The *Trellis™ System Health* window displays a visual dashboard illustrating how the host system running the *Trellis™ Power Insight* application is functioning. This window provides information on how many requests per second are being filtered through the computer. It also displays the number of processors in the computer and the total accumulated time the computer has run without interruption.

**Figure 3.18 Trellis™ System Health Window**



### 3.8.6 Address Book Contacts

The Address Book Contacts window is used to enter or update email addresses and phone numbers for notifications when alarms are triggered.

To add a contact to the address book:

1. Click the Administration icon and click *Address Book Contacts*.
2. From the Address Book Contacts window, click the Add icon, and then enter the contact's first and last name in the fields.
3. Click the Add icon in the Contact E-mails panel, enter the email address and click *Add*.
4. Click the Add icon in the Contact Phone Numbers panel, enter the phone number information and click *Add*.
5. In the Add Contact To Address Book window, click *SAVE*.

To edit contact information in the address book:

1. Click the Administration icon and click *Address Book Contacts*.
2. Locate the contact information, click the vertical ellipsis icon in the same row and click *Edit*.
3. Click the Edit icon in either panel to update the contact information.

-or-

Click the Delete icon in either panel and click *SAVE*.

To delete contact information from the address book:

1. Click the Administration icon and click *Address Book Contacts*.
2. Locate the contact information, click the vertical ellipsis icon in the same row and click *Delete*.
3. In the Confirmation window, click *DELETE*.

-or-

Click *CANCEL* to return to the previous window.

### 3.8.7 Trust Store

The Trust Store allows you to add, delete or review security certificates. The content includes a list of the current certificates and provides each certificates' type, size, date of validation and date it is added to the application.

To add a security certificate:

1. Click the Administration icon and click *Trust Store*.
2. Click the Add icon and enter the name of the certificate in the Name field.
3. Click *Browse*, select a certificate file and click *Add Certificate*.

To delete a security certificate:

1. Click the Administration icon and click *Trust Store*.
2. Locate the contact information, click the vertical ellipsis icon in the same row and click *Delete*.
3. In the Confirmation window, click *DELETE*.

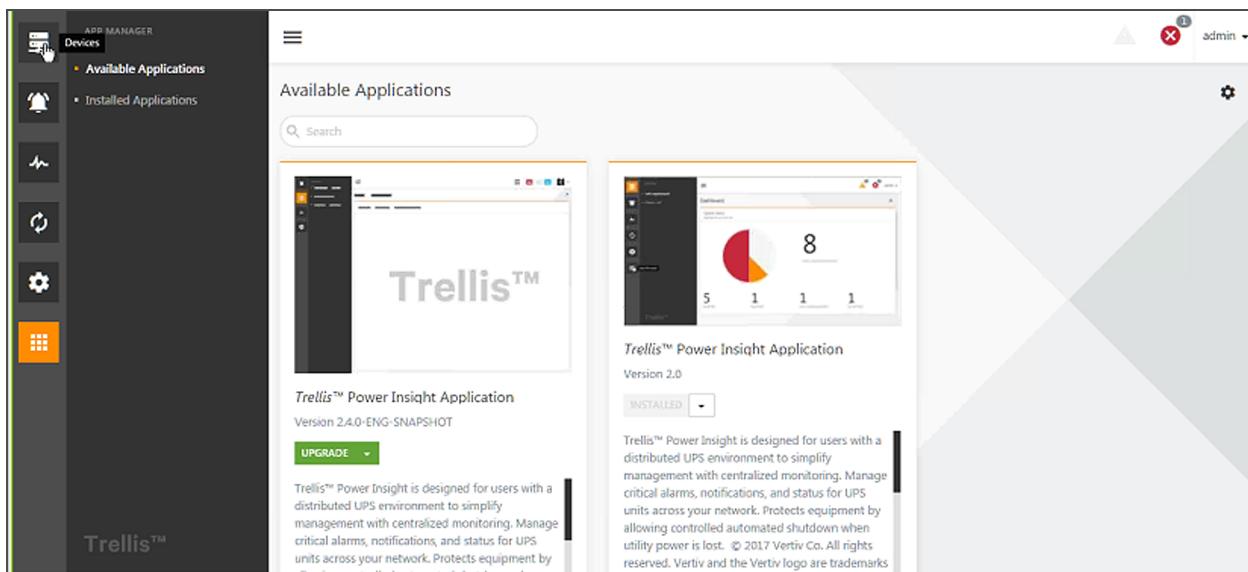
## 3.9 App Manager

The App Manager pivot bar icon allows you to upgrade, install or uninstall the *Trellis™ Power Insight* application. You can view which applications are already installed or available for upgrade when you access the corresponding context menu item. You can also update your Vertiv™ product download credentials from this window.

### 3.9.1 Available Applications

The Available Application context menu item allows you to upgrade your application to the most current version. You can also modify your product download credentials for the *Trellis™ Application Manager* from this window.

Figure 3.19 App Manager Window



To download and install or upgrade the *Trellis™ Power Insight* application:

1. From the Start menu, open the *Trellis™ Application Manager* Console.
2. Enter the email and password for your *Trellis™ Application Manager* admin account.
3. Click *Login*.
4. Click the App Manager icon on the pivot bar.
5. From the Available Applications window, click *Install* in the appropriate software download panel.
6. From the Confirmation window, click *Yes* to begin installation.

-or-

Click *CANCEL* to return to the previous window and select another software version.

7. After a successful installation, click *Ready* to navigate to the *Trellis™ Power Insight* application.

To update the application download credentials:

1. Click the App Manager icon on the pivot bar.
2. From the Installed Applications window, click the Application Download Credentials (gear) icon in the upper-right corner.
3. Update the information in the Username and Password fields and click *SAVE*.

-or-

Click *CANCEL* to return to the previous window.

### **3.9.2 Installed Applications**

The Installed Applications context menu item allows you to uninstall the *Trellis™ Power Insight* application. You can also update your Vertiv product download credentials from this window.

To uninstall the *Trellis™ Power Insight* application:

1. From the Start menu, open the *Trellis™ Application Manager Console*.
2. Enter the email and password for your *Trellis™ Application Manager* admin account.
3. Click *Login*.
4. Click the App Manager icon on the pivot bar.
5. From the Installed Applications window, click *Uninstall* in the appropriate software download panel.
6. From the Confirmation window, click *Yes* to begin the process.

-or-

Click *CANCEL* to return to the previous window and select another software version.

To update the application download credentials:

1. Click the App Manager icon on the pivot bar.
2. From the Installed Applications window, click the gear icon in the upper-right corner.
3. Update the information in the Username and Password fields and click *SAVE*.

-or-

Click *CANCEL* to return to the previous window.





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VertivCo.com | Vertiv Headquarters, 1050 Dearborn Drive, Columbus, OH, 43085, USA

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