SIEMENS

SENTRON Powermind

Function Manual

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12/2023

Legal information

Warning notice system

This manual contains notices you have to observe in order to ensure your personal safety, as well as to prevent damage to property. The notices referring to your personal safety are highlighted in the manual by a safety alert symbol, notices referring only to property damage have no safety alert symbol. These notices shown below are graded according to the degree of danger.

⚠ DANGER

indicates that death or severe personal injury **will** result if proper precautions are not taken.

⚠ WARNING

indicates that death or severe personal injury **may** result if proper precautions are not taken.

⚠ CAUTION

indicates that minor personal injury can result if proper precautions are not taken.

NOTICE

indicates that property damage can result if proper precautions are not taken.

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Qualified Personnel

The product/system described in this documentation may be operated only by **personnel qualified** for the specific task in accordance with the relevant documentation, in particular its warning notices and safety instructions. Qualified personnel are those who, based on their training and experience, are capable of identifying risks and avoiding potential hazards when working with these products/systems.

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Note the following:

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We have reviewed the contents of this publication to ensure consistency with the hardware and software described. Since variance cannot be precluded entirely, we cannot guarantee full consistency. However, the information in this publication is reviewed regularly and any necessary corrections are included in subsequent editions.

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℗ 12/2023 Subject to change

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Introduction

1

1.1 Cybersecurity information

Siemens provides products and solutions with industrial cybersecurity functions that support the secure operation of plants, systems, machines and networks.

In order to protect plants, systems, machines and networks against cyber threats, it is necessary to implement – and continuously maintain – a holistic, state-of-the-art industrial cybersecurity concept. Siemens' products and solutions constitute one element of such a concept.

Customers are responsible for preventing unauthorized access to their plants, systems, machines and networks. Such systems, machines and components should only be connected to an enterprise network or the internet if and to the extent such a connection is necessary and only when appropriate security measures (e.g. firewalls and/or network segmentation) are in place.

For additional information on industrial cybersecurity measures that may be implemented, please visit
https://www.siemens.com/cybersecurity-industry (https://www.siemens.com/industrialsecurity).

Siemens' products and solutions undergo continuous development to make them more secure. Siemens strongly recommends that product updates are applied as soon as they are available and that the latest product versions are used. Use of product versions that are no longer supported, and failure to apply the latest updates may increase customer's exposure to cyber threats.

To stay informed about product updates, subscribe to the Siemens Industrial Cybersecurity RSS Feed under
https://new.siemens.com/cert (https://www.siemens.com/cert).

1.2 Application overview

The Insights Hub application "SENTRON Powermind" provides transparency for your power distribution. It allows storing, analyzing, and visualizing data from your power distribution system. Dashboards such as actual power consumption, load curves, comparison with historical data are provided within this application.

The following views are provided as a part of the application:

1. Live power consumption and power factor.
2. Historical energy and power demand values in load curves and bar charts.

1.3 Application Access

1.3.1 Activating Application

Introduction

The below topic describes how to activate SENTRON Powermind in the Insights Hub dashboard and how to add users.

Overview

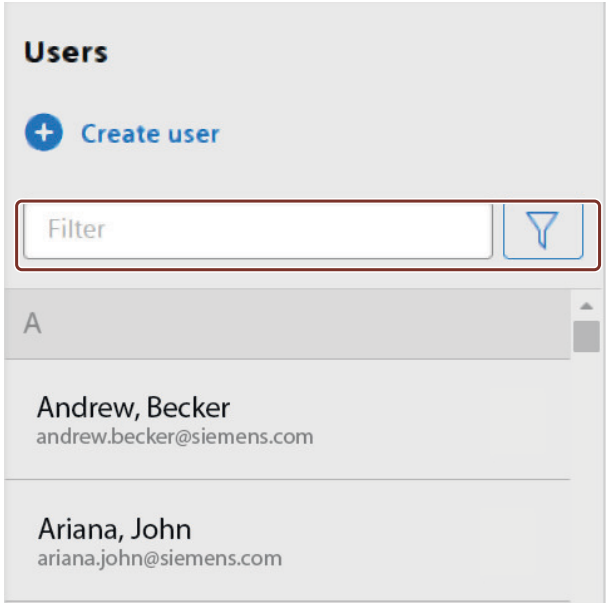
Tenant administrator cannot see SENTRON Powermind in Insights Hub dashboard. Follow the steps below to activate SENTRON Powermind.

Steps to Access SENTRON Powermind

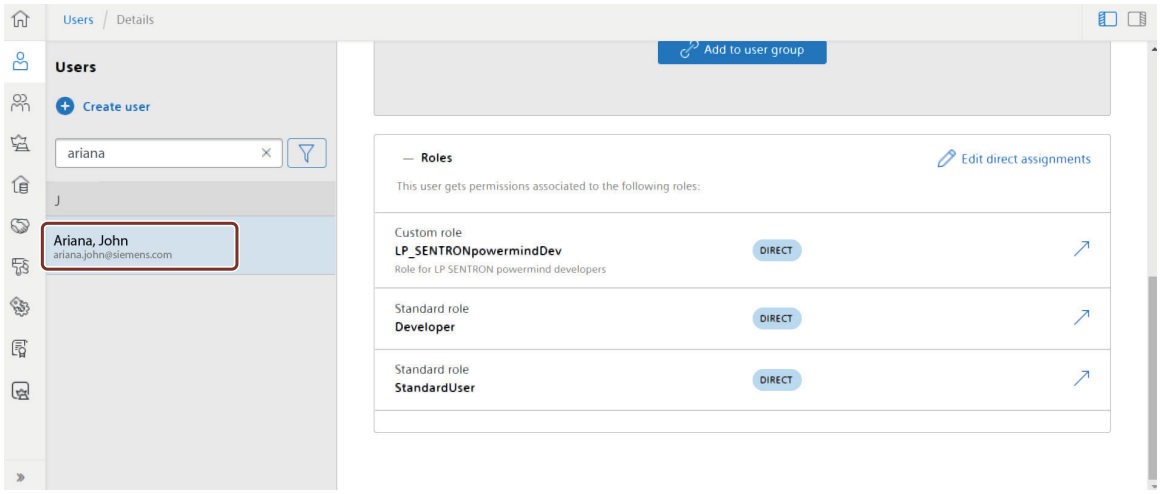
1. Login to "Insights Hub".
2. Navigate to "Insights Hub Settings".
3. Click "View users".
4. Enter e-mail id/username in the search bar under the "Users" section.

Note

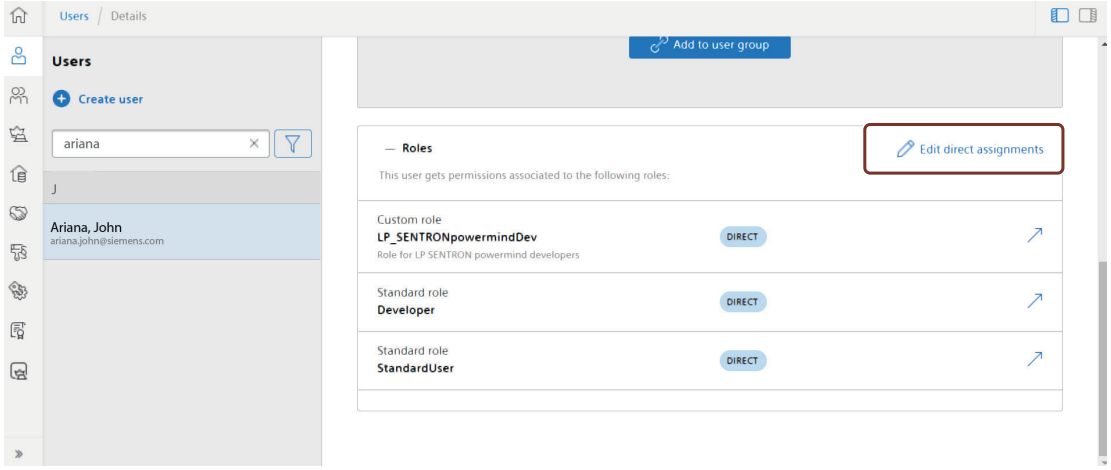
If "User" is not created, follow the steps given in next topic "Create Users".



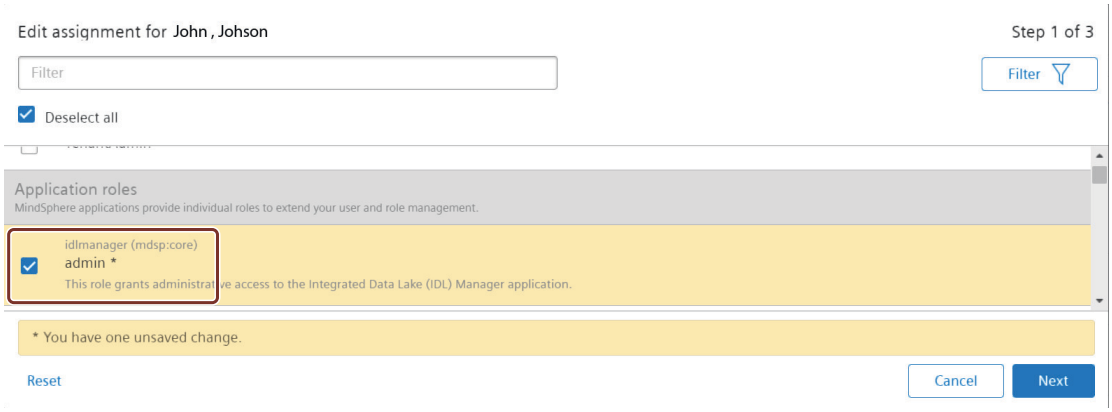
5. Select the user name.



6. Click "Edit direct assignments".



7. Select "admin" or "user" to enable SENTRON Powermind application in the Insights Hub dashboard.



The SENTRON Powermind application is now available on the Launchpad.

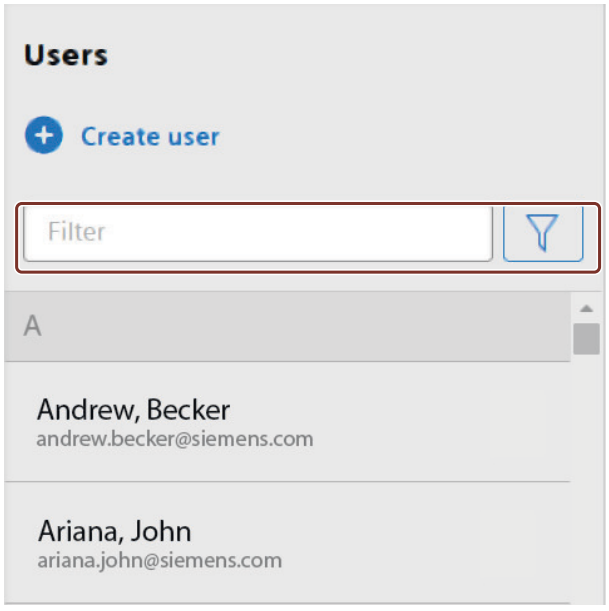
See also

Create Users (Page 8)

1.3.2 Create Users

Steps to Create Users

1. Login to "Insights Hub".
2. Navigate to "Insights Hub Settings".
3. Click "Create user".



4. Enter the email-id/username.

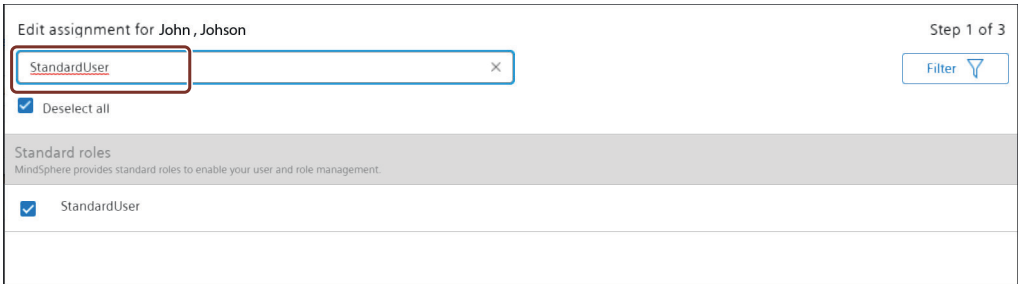
   Note

   Verify all user accessibility details before proceeding. No changes can be made after saving. You can only delete the user.

5. Assign the required role to the user:
   - **Standard roles**: Make sure you check the "StandardUser"
   - **Application roles**: You can select either "admin", "user" or "serviceprovider".
     admin: This provides administrator role for SENTRON Powermind application
     user: This provides user role for SENTRON Powermind application.
     serviceprovider: This provides role of service provider for SENTRON Powermind application.

     Note

     serviceprovider role also has administrative rights.



The application is now available in the Launchpad.

See also

Procedure to upgrade packages (Page 50)

1.3.3 Launch SENTRON Powermind Application

Steps to Launch SENTRON Powermind Application

1. Login to your tenant with the URL sent via e-mail from Insights Hub Provisioning Services.

2. Click on "SENTRON Powermind".

Supported Devices

2

This section provides information on the devices supported by SENTRON Powermind. You can integrate measuring devices. For more information on Power devices, refer to 'Power Devices' manual.

For additional information, refer to https://new.siemens.com/global/en/products/energy/low-voltage/components.html (https://new.siemens.com/global/en/products/energy/low-voltage/components.html.).

Find the below table of supported devices:

Energy Meters	Protection Devices	CP-COM
PAC3200	3WA	AUXCOM (supported via POC1000)
PAC4200	3WL	MCB (supported via POC1000)
PAC2200	3VA	SMARTFUSE (supported via POC1000)
PAC2200CLP		AFDD (supported via POC1000)
PAC3100		ECPD
PAC3200T		RCM
PAC3120		RCA
PAC3220		
PAC1020		
PAC1600		
Third Party PAC devices (Modbus)		

Onboarding Devices

3

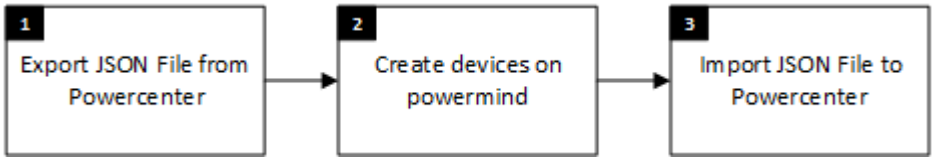
Overview

Onboarding is a process where in the schema of the device hierarchy is transferred from the data source software (Powercenter 3000) to SENTRON Powermind which then creates the digital replica of these devices in cloud and response back with details to establish connectivity of the end devices to the cloud via data software.

Link to video

Click the link for the tutorial.

Workflow diagram



Pre-requisites

- Ensure Powercenter is available on your system and the devices are communicating.
- Ensure you have access to SENTRON Powermind on the Insights Hub platform.
- Ensure you have disabled Resource Access Management. Refer to section Disabling Resource Access Management (Page 44).
- For third-party devices, select below mentioned measurement points while creating JSON file. For more information, refer 'Powercenter 3000 manual'.
  - ACTIVE_ENERGY_IMPORT_TARIFF1
  - ACTIVE_POWER_CUMULATED_IMPORT_ACT_PERIOD
  - ACTIVE_POWER_ACT_PERIOD_MIN
  - ACTIVE_POWER_ACT_PERIOD_MAX

Export JSON File from Powercenter

1. Launch the web interface of 7KN Powercenter 3000 and login with admin role.
2. Click on "Settings" in the menu bar.
3. Navigate to "CLOUD" tab.
4. Click "Download" under "SENTRON Powermind settings".
   - The JSON request file is exported.

Create Devices on SENTRON Powermind

1. Launch SENTRON Powermind and click on the "Settings".
2. Navigate to "Import Devices" tab.
3. Click "Browse" and select the exported JSON file.
   – The JSON file is imported and the list of available devices is displayed.
4. Select the timezone from "Select timezone" drop down menu, and enter values for "Add Latitude", and "Add Longitude".

   Note

   The selected timezone can not be changed after the device creation.
   For more information on Latitude and logitude for the device, refer to section Fleet Overview (Page 14).

5. Select the required devices and click "Create Devices".
   – Devices are successfully created on SENTRON Powermind and response JSON file is downloaded automatically.

Import JSON File to Powercenter

1. Navigate to "Cloud" tab on Powercenter 3000.
2. Select the applicable JSON file obtained from SENTRON Powermind under "Choose file" and click "Open".
3. Start "Insights Hub Service".
   – The devices are successfully onboarded.

   Note

   You must enable Auto-start Insights Hub service.

4. To establish communication, navigate to "Insights Hub service state" and click Arrow icon.
5. Click "Start".
   – The Insights Hub communication is established.

   Note

   Refresh browser window to see the new data source and it's devices in Powermind.

Dashboard and Widgets

4

4.1 Overview Dashboard

Overview Dashboard: This dashboard provides information on energy consumption and device condition. It loads a cockpit view of the entire system:

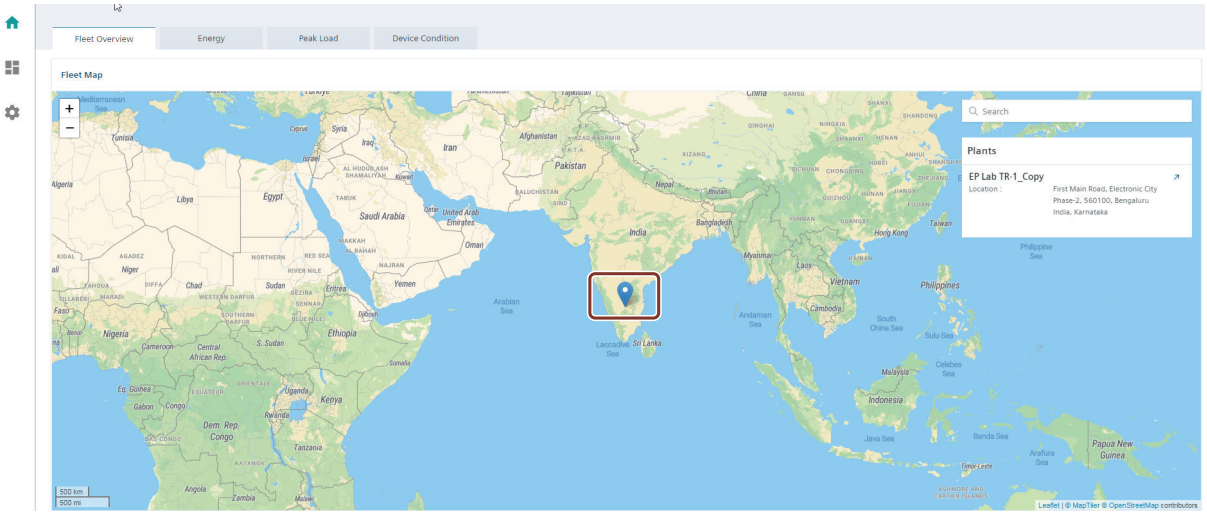
- Fleet Overview: This tab shows service providers and energy manager to view multiple locations.
- Energy: This tab provides overview of energy consumption.
- Peak Load: This tab gives overview of power consumption.
- Device Condition: This tab provides information about device state.

Note

When you click on Dashboard, it expands to a list of data sources which can be further expanded to area sector or device level.

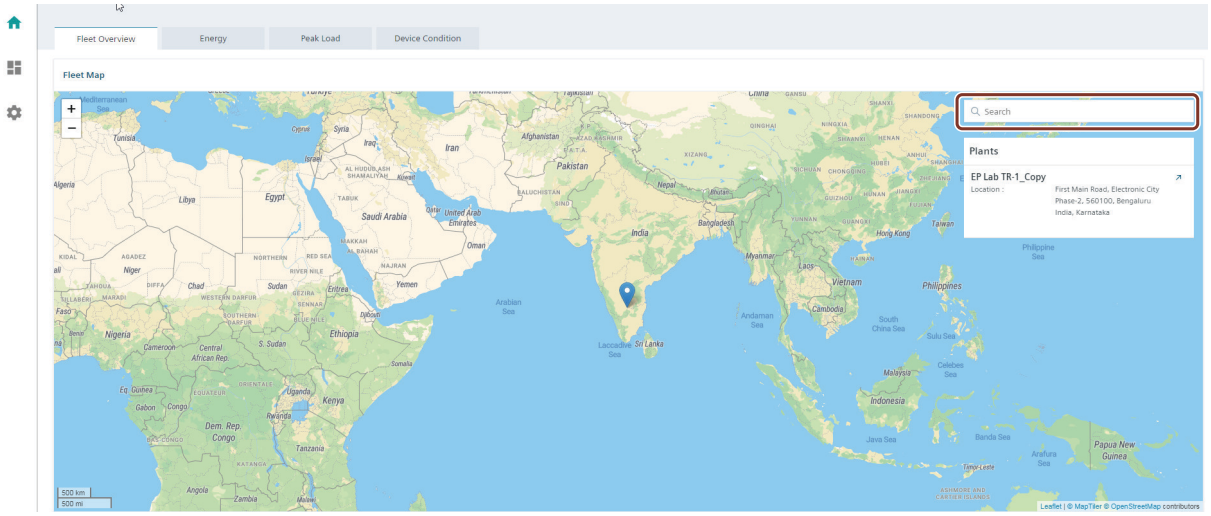
Fleet Overview

The location and overview of all the onboarded assets (furnished with location details) are shown under this tab in Fleet Map.

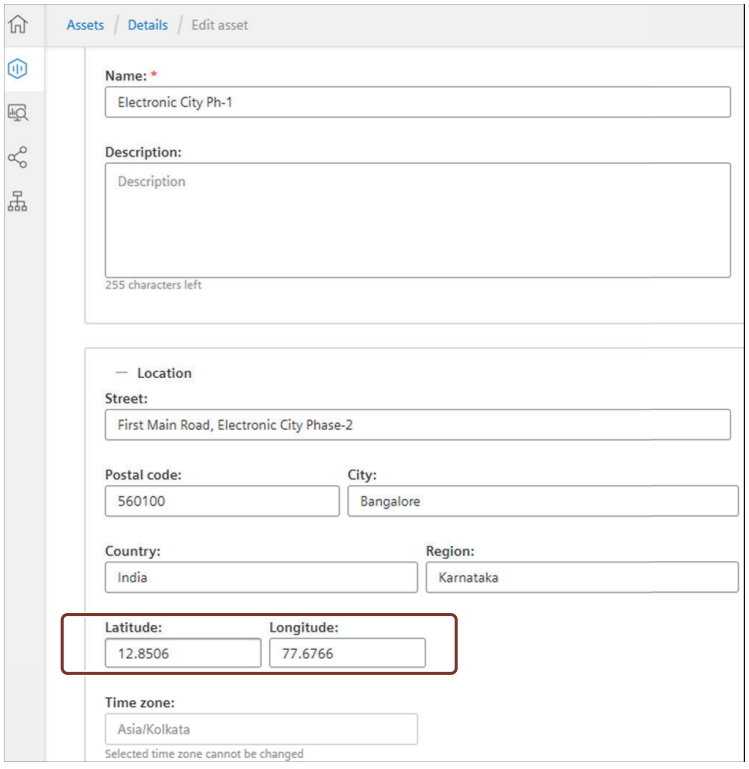


For assets not furnished with location details, follow the below steps:

1. Navigate to "Search" and click on the asset which is not displayed on the map.



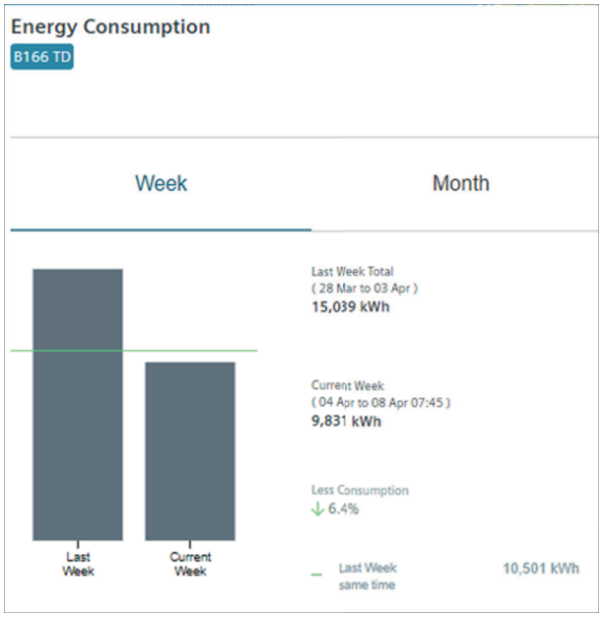
2. Click on the arrow ↗ present on the right top corner of the selected asset.
3. Click and expand the “Location”.
4. Provide the missing “Latitude” and “Longitude” values.



5. Click "Save".

When hovered over an asset location on the fleet map, you can see the comparison of the energy consumption for week and month. User can click on the asset (example: Electronic City Ph-1 highlighted in blue) that directs to Energy tab. Green horizontal line is a threshold that shows the energy consumed on a specific day and time for the last week/month compared to what is being consumed for current week/month.

User can see if the energy consumed in current week/month is higher or lower compared to last week/month in the form of percentage. It also shows the energy consumed on Last week same time value.



Energy

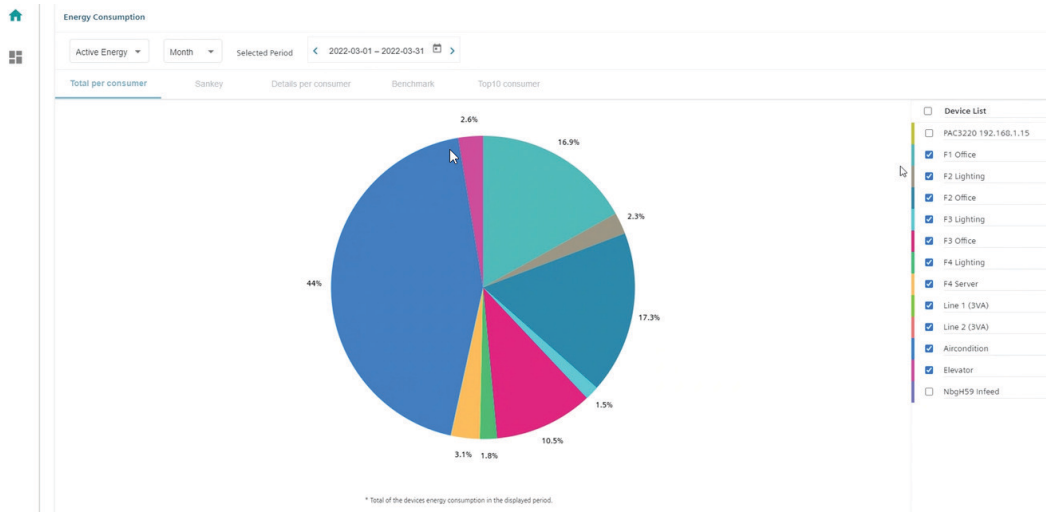
Energy tab shows a Total per consumer, Sankey, Details per consumer, Benchmark, and Top10 consumer for the energy consumption of the selected period for all devices for SENTRON Powermind (tenant). You can select a time period as week, month, or year for all types of charts. You can navigate to earlier and next time period with navigation keys. Each device is assigned with unique color for easy interpretations.

Total per consumer

The Total per consumer shows the following information:

- Selected devices list.
- Device differentiation by colors.
- Percentage of devices energy consumption

The Total per consumer shows the information in the form of pie chart. PIe chart will show percentage of energy consumption for selected devices in selected time period.



Details per consumer

The Details per consumer shows the following information:

- Selectable device list and recalculated summarized energy values.
- Device differentiation by colors.
- Percentage of the day with highest consumption.

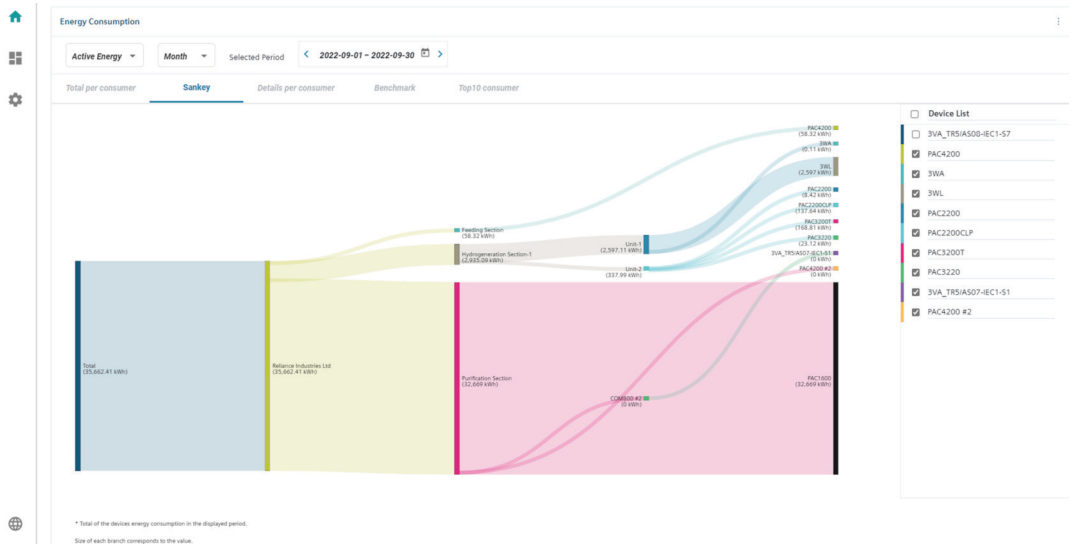
The Details per consumer shows the information in form of bar chart. The bar chart displays percentage of energy consumption for selected period of time.

Sankey

The sankey shows the following information:

- Selectable device list.
- Energy flow within the entire system, from tenant level to device level.
- Highlight on mouse hover for ease of use and readability.
- Energy consumption information at each hierarchy level.

Sankey chart displays the energy consumption as flow diagram, where the size of the flow is proportionate to the energy consumption by the particular unit. The energy values of the devices selected in the device list are displayed in this tab. The left side unit represents the source and every consumption is represented in flow diagram towards right side. The below sankey diagram snap shot displays the energy consumption flow of one such plant.

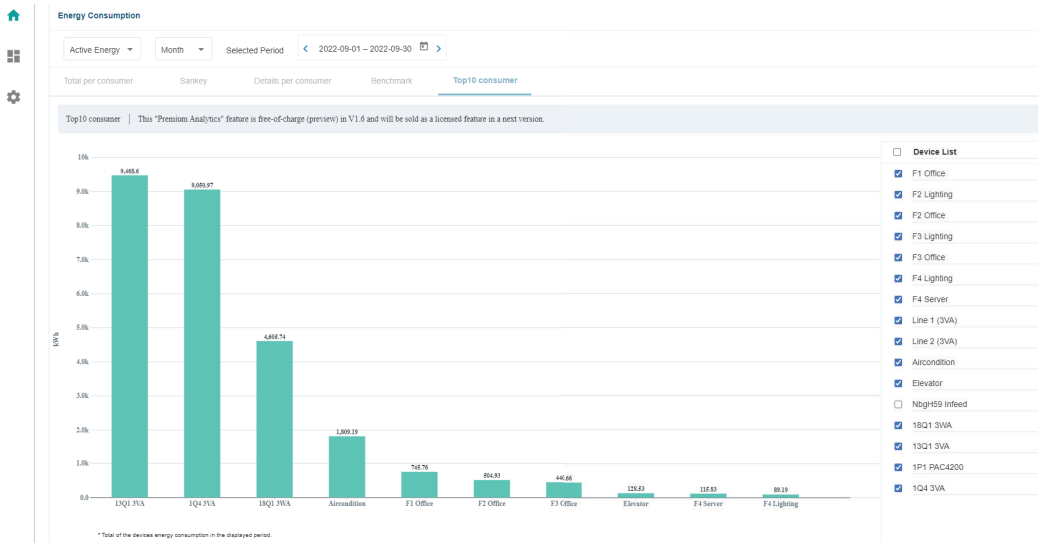


Top 10 Consumer

The Top 10 consumer shows the following information:

- Selectable device list.
- Total device energy consumption in selected time period.

The Top 10 consumer shows the information in format of bar chart. The bar chart displays total energy consumed by selected devices for selected period of time. If number of devices selected is more than 10 then this chart will show top 10 energy consuming devices.

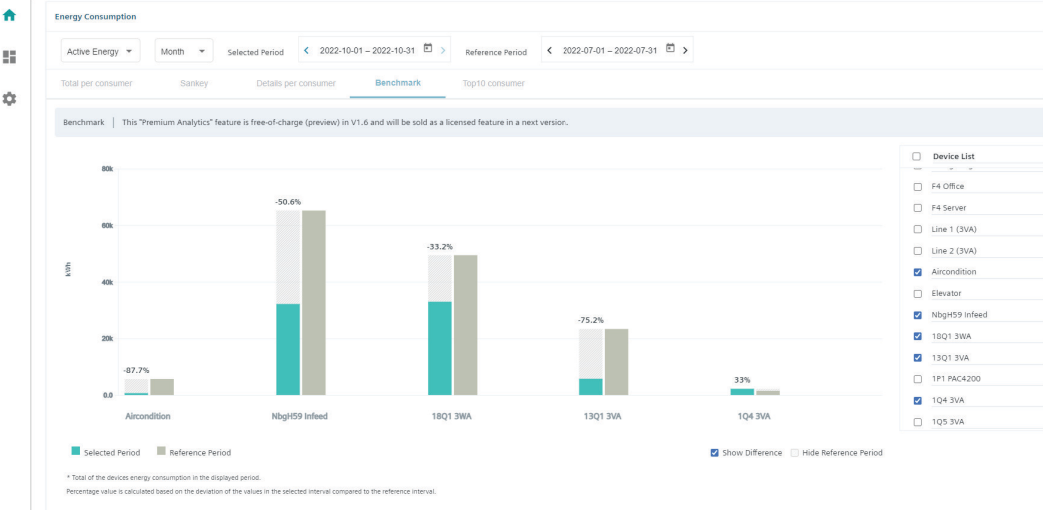


Benchmark

The Benchmark shows the following information:

- Selectable device list.
- Total device energy consumption in selected time period.

Benchmark shows the information in format of bar chart. In Benchmark tab, you can compare data between "Selected period" and "Reference period". You can select both periods individually. Selected and reference periods are shown in two different colors for easy identification. You can get the percentage difference of energy consumption in selected period to reference period by selecting checkbox "Show Difference". You can also hide reference period by selecting checkbox for "Hide Reference Period".



Peak Load

Peak Load tab shows power fluctuation for all SENTRON PAC meters for SENTRON Powermind (tenant). Select time period to view data of power fluctuation.

Note

Power consumption graphs are only available for SENTRON PAC devices.

Load Duration

The power consumption for selected period of time is displayed in the "Load Duration".

Load Duration can be visualized using below charts:

- Load Duration Curve
- Top 50 Values
- Top 50 with timestamp

Load Duration Curve

Load Duration curve displays the power consumed values and the duration of each power consumed value used in the selected time period.

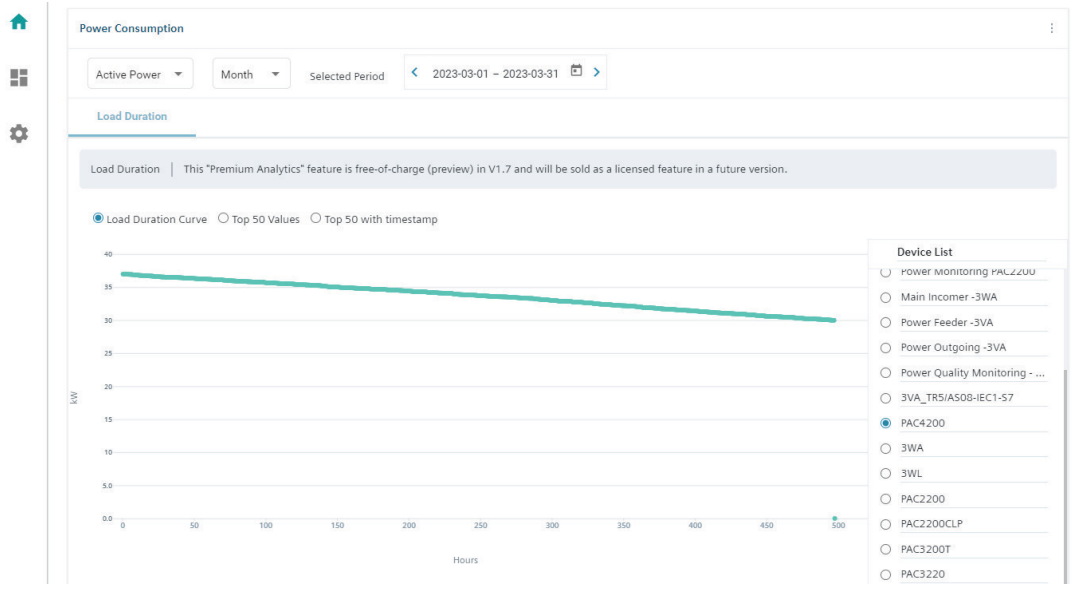
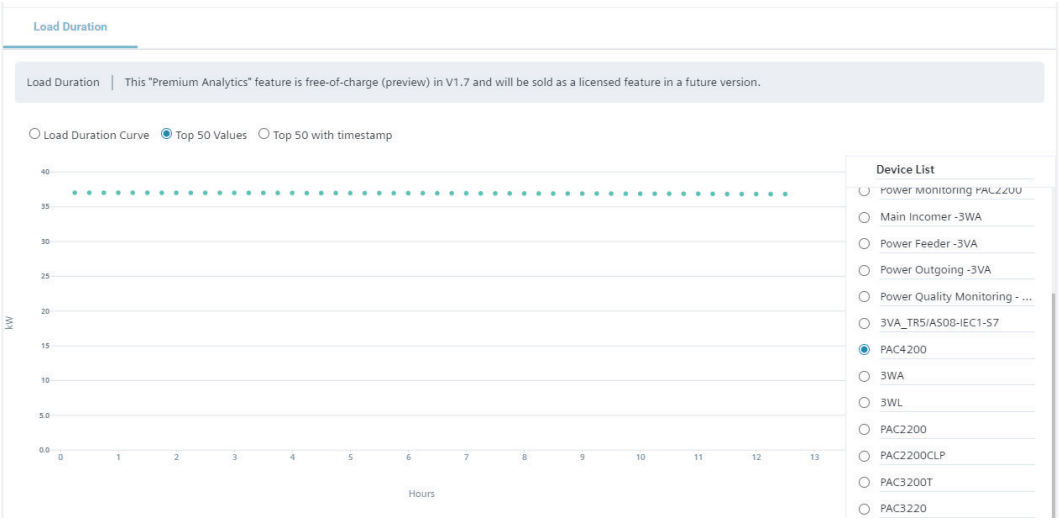


Figure 4-1 Load Duration Curve

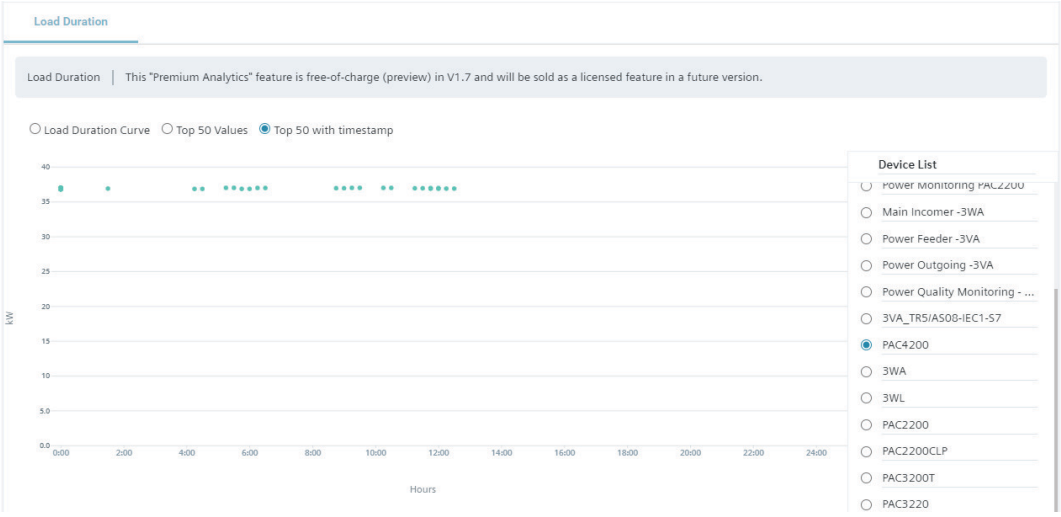
Top 50 Values

Top 50 Values shows the top 50 values of power fluctuation occured for selected time period.



Top 50 with timestamp

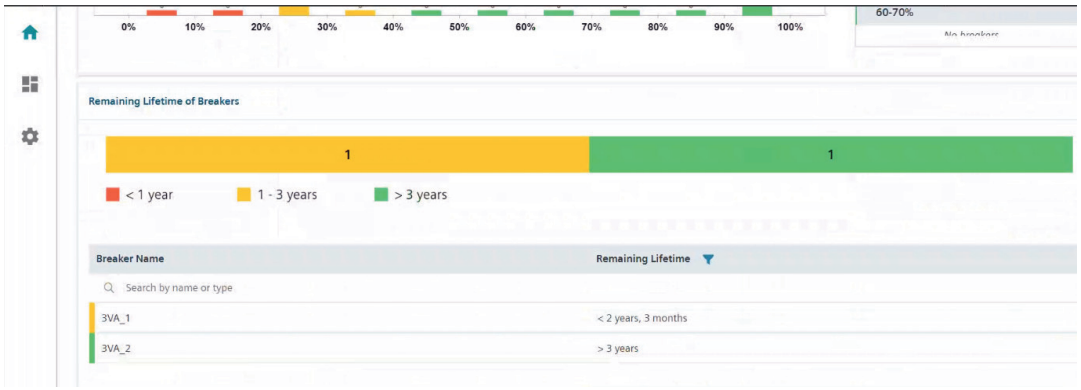
Top 50 with timestamp shows at what time of day, top 50 power fluctuation occured for selected time period.



Device Condition

The health of the selected device is displayed in the "Health Indicator".

Details on lifetime of breakers/protection devices is displayed in the "Remaining Lifetime of Breakers".



See also

Energy Meters Dashboard (Page 23)

Protection Devices Dashboard (Page 27)

4.2 Energy Meters Dashboard

This dashboard allows you to monitor the selected Energy meter. The available information is represented using gauges, and charts.

It has the below mentioned tabs:

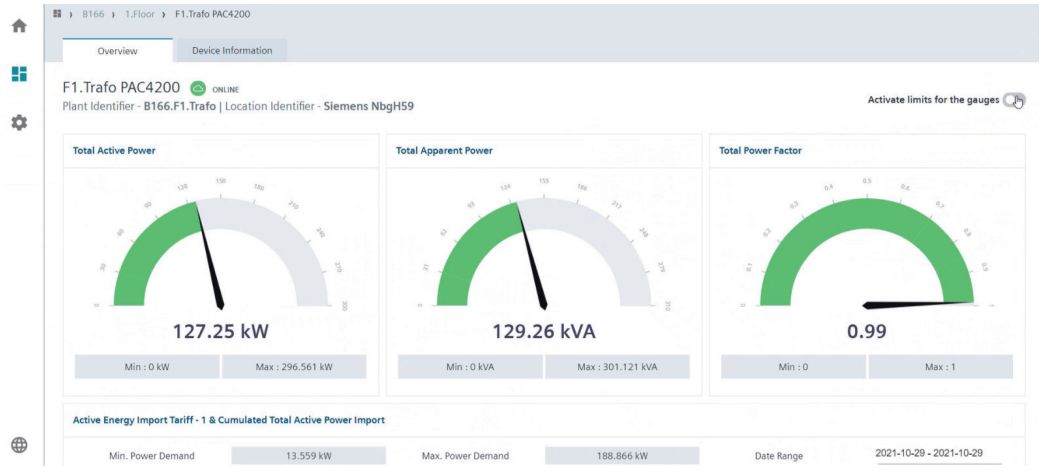
Overview

The below list of parameters for the selected devices are represented as gauges:

1. Total Active Power
2. Total Apparent Power
3. Total Power Factor

The Min and Max values in the guages are calculated based on the data available from last 15 minutes. Advanced guages will deliver these values directly from all-time recorded high or low. Later the adjustment of these values can be done with powerconfig PC software.

"Activate limits for the gauges" button allows you activate the threshold limits.



The colors represented in the gauges are described in the below table:

Color	Total Active Power	Total Apparent Power	Total Power Factor
Green	First 70%	First 10%	0.85 to 1
Yellow	70% - 85%	10% - 90%	0.7 to 0.85
Red	Last 15%	Last 10%	0 to 0.7

Active Energy Import Tariff-1 & Cumulated Total Active Power Import

"Active Energy Import Tariff-1" and "Cumulated Total Active Power Import" chart displays the following:

- Imported energy as bar chart for both selected and referenced period.
- Maximum power demand as line chart for both selected and referenced period.
- Important power management KPI figures for the selected period.

Min. Power Demand: Displays the minimum values recorded by the device in the selected date range.

Max. Power Demand: Displays the maximum values recorded by the device in the selected date range.

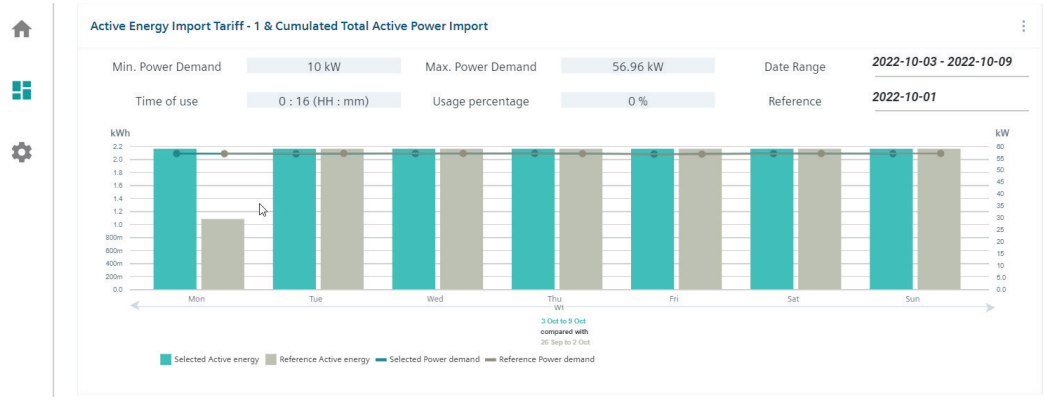
Date range: Displays the date range for which the values are plotted

- Last month is preset by default
- You can select a custom date range using this drop down
- If the range covers more than 30 days, th data will be aggregated to one week.

Time of use (ToU): This value is represented as below,
Total Energy (kWh) / Total average power demand (kW) = hh:mm

Usage percentage: This value is a calculated parameter which states the uniformity of power consumption, it is calculated as:
Hours (hh) / Time-of-use (hh)

Reference: Displays the start date for reference period (for comparison). If comparision is not required, then select a date in the future.



"Total Active Power" is displayed as a "Line Chart" and "Heatmap Chart".

Line Chart

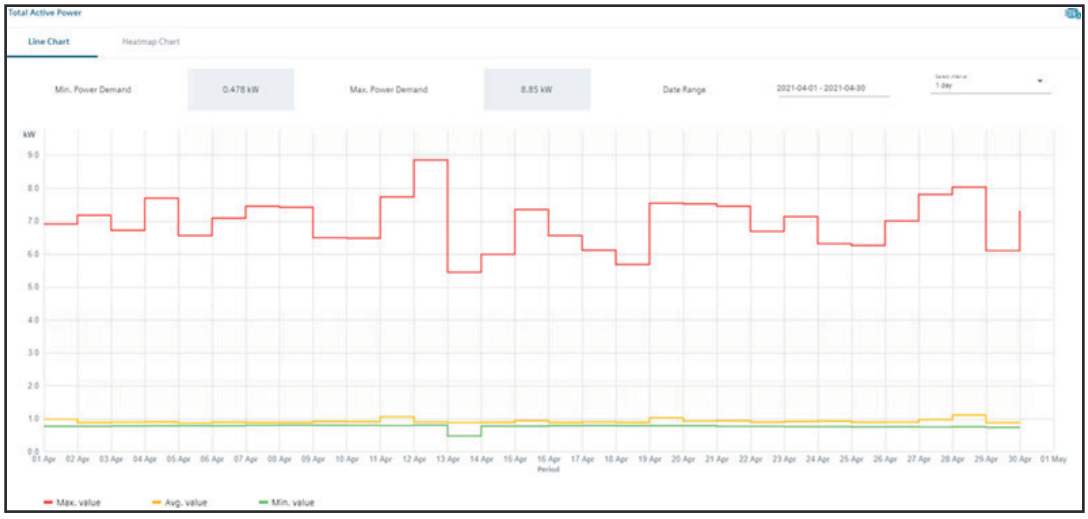
Min. Power Demand: Displays the minimum power demand for the selected period.

Max. Power Demand: Displays the maximum power demand for the selected period.

Date Range: Displays the selected period. You can select a custom period (full days) or last month/week.
The maximum range is 31 days.

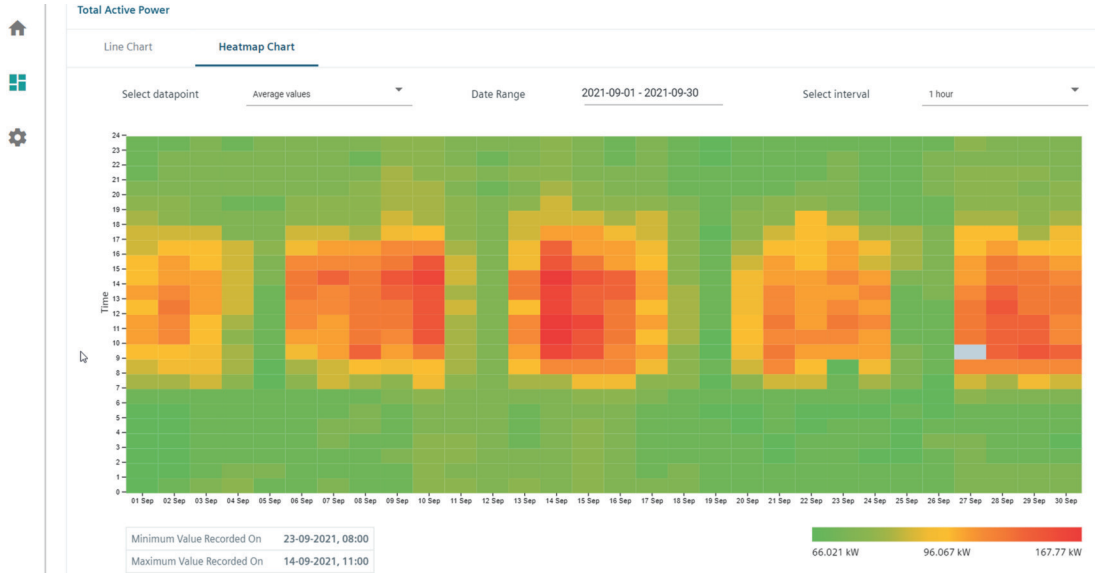
Interval: 15 minutes, 1 hour or 1 day, availability is dependent on selected data range.
For days without data: Line between days with data is directly drawn.

You can export the data in the form of a .csv file by clicking on the csv icon.



Heatmap Chart

- **Select datapoint:** Allows you to select the datapoint to be displayed in the heatmap.
- **Date Range:** Allows you to select the date range for the heatmap.
- **Select interval:** Allows you to select the display interval for the heatmap.
- **Minimum Value Recorded On:** Displays the date and time on which the minimum value was recorded.
- **Miximum Value Recorded On:** Displays the date and time on which the mixiumum value was recorded.
- **Color Gradient:** Displays the minimum and maximum values varying from green to red. Green displays the minimum and red the maximum.



Device Information

This tab display "Device Identification" and "Expansion Module" details.

4.3 Protection Devices Dashboard

This dashboard allows you to monitor the selected breaker.

It has the below mentioned tabs:

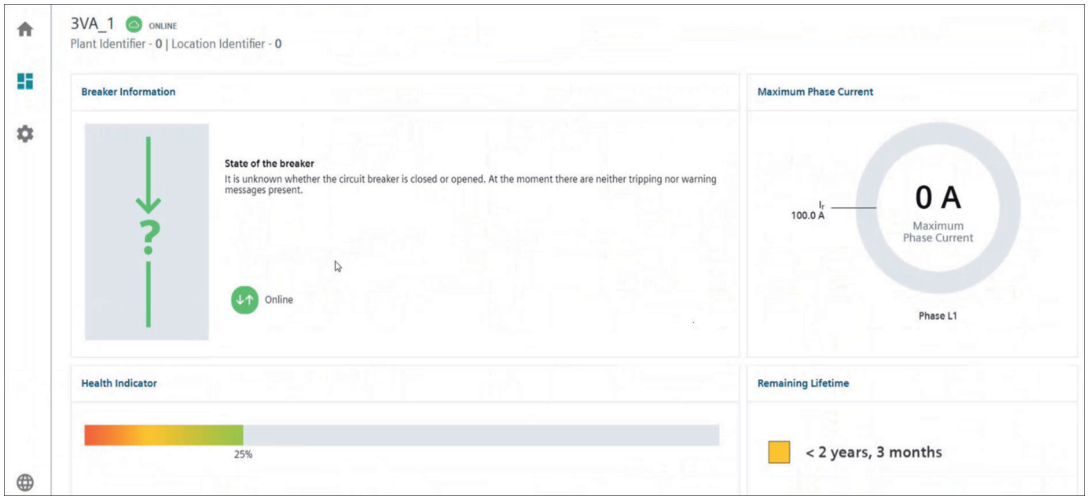
1. Statistics
2. Device Information

Overview

You can monitor the below mentioned parameters in this tab:

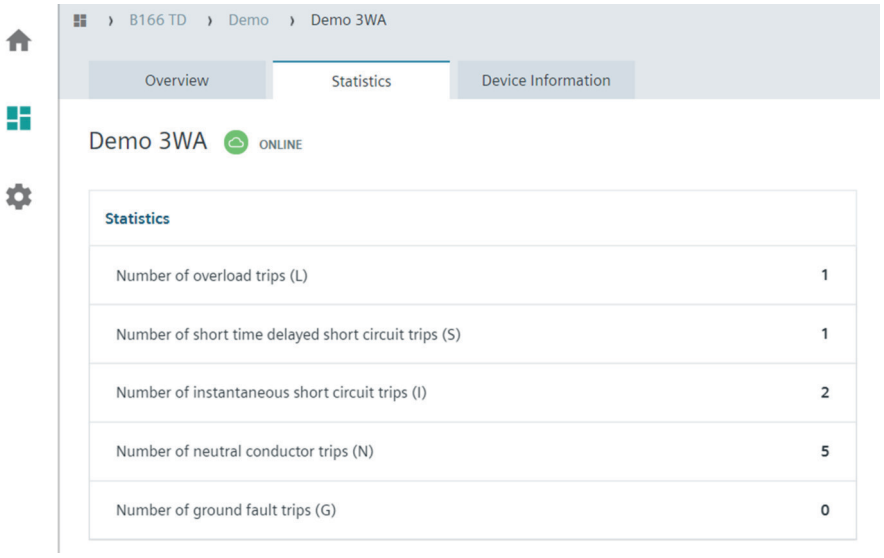
- **Breaker information:** Displays the state of the breaker with below mentioned representations:
  Breaker position ((for breakers with draw-out frame): Not present, Disconnected, Operational
  Breaker state: OFF (open), ON (Closed), Tripped, Init
  Available messages: Warning messages (Yes/No), Tripping messages (Yes/no)
  This field is updated at every event change.
- **Maximum Phase current:** Displays the phase current with maximum load out among phases L1/L2/L3. Drawing of the Overload current Ir is indicated when the donut is 75% complete. If the maximum phase current exceeds the overload limit, the donut changes to red. This field is updated for every 10sec interval.
- **Health Indicator:** Displays the health of the breaker for devices that support condition monitoring. This is currently supported only for 3VA breakers with firmware V4.4 or later.

- **Remaining Lifetime:** Displays the Remaining lifetime of the breaker for devices which support condition monitoring. This is currently supported only for 3VA breakers with firmware V4.4 or later.
- **Active Power:** Displays Active power for L1/L2/L3. This field is updated for every 10sec interval.
- **Reactive Power:** Displays Reactive power for L1/L2/L3. This field is updated for every 10sec interval.
- **Apparent Power:** Displays apparent power for L1/L2/L3. This field is updated for every 10sec interval.
- **Instantaneous Values:** Displays the instantaneous line current values
- **Energy Values:** Displays Active energy import, Active energy export, Reactive energy import and Reactive energy export. This field is updated for every 15 minute interval.



Statistics

This tab displays the breaker statistics.



Device Information

This tab displays the device identification details.

4.4 Export and Quick Reports

Quintessence

This sections provides information on the below mentioned topics:

- Export CSV
- Quick Reports

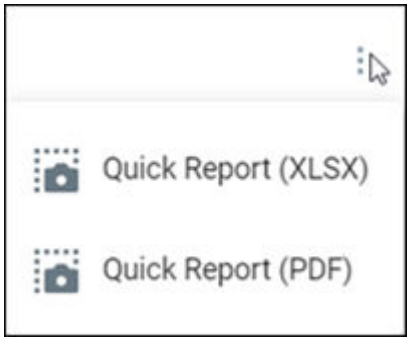
Export CSV

It allows you to export the historical data in the excel format for all the devices.
Export CSV is possible in below dashboards:

- Overview/Energy tab
- Device/Line chart

Quick reports:

It allows you to export the data in XLSX and PDF formats.



When you click on "Quick Report (PDF)", a pdf with all the details of the report will be generated.

When you click on "Quick Report (XLSX)", an excel showing below details will be generated with two different sheets:

- Chart (The widgets visual and report properties are shown)
- Values

"Chats" sheet of a report will show below details.

"Values" sheet of a report will show the below details.

Timestamp	Total (kWh)	Percentile (%)	GoldHill_9th Floor PAC3100_12 (kWh)	GoldHill_9th Floor PAC3200_186 (kWh)	GoldHill_9th Floor PAC4200_181 (kWh)	GoldHill_9th Floor PAC1020_11 (kWh)	GoldHill_9th Floor 3VA (kWh)	GoldHill_9th Floor MCB 6Amp #13 (kWh)	GoldHill_9th Floor AFDD 16Amp #12 (kWh)	GoldHill_9th Floor MCB 16Amp #10 (kWh)	GoldHill_9th Floor PAC3200_13 (kWh)
Mon Mar 21 2022	9910.488	17.9	1817.38	3032.263	3018.631	2036.355		1.936	1.959	1.964	0
Tue Mar 22 2022	2.911	0						0.991	0.913	1.007	
Wed Mar 23 2022	0	0									
Thu Mar 24 2022	24449.91	44.1	5197.644	8222.086	7143.135	3887.045					
Fri Mar 25 2022	55270.563	99.7	11771.06	18619.538	16171.142	8708.824					
Sat Mar 26 2022	55452.9	100	11771.269	18619.118	16170.134	8892.378					
Sun Mar 27 2022	15563.356	28.1	2870.256	4735.924	4750.457	3199.868		2.266	2.29	2.296	

This feature is available in the below dashboards:

- Overview Dashboard: Stacked Bar chart and Sankey Diagram
- Device Dashboard: Bar Chart, Line Chart & Heatmap

Settings

5

5.1 Introduction

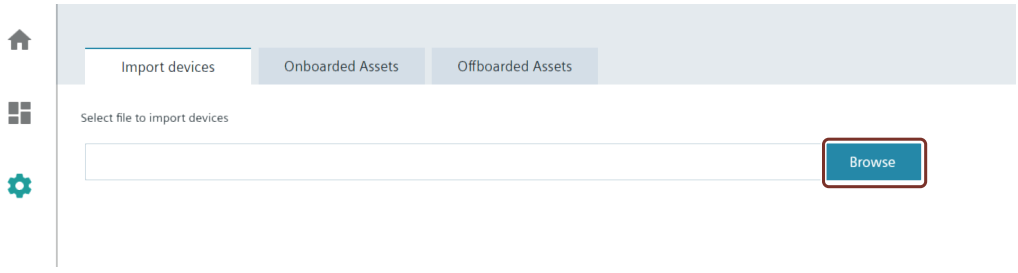
Settings: This menu allows to import devices and to view the available devices in the SENTRON Powermind system.

This section has the below mentioned tabs:

5.2 Import Devices

Import devices allows you to browse and select json file to import devices.

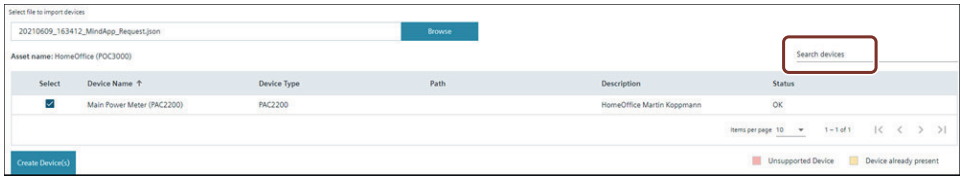
Click "Browse" and select the required json file of the device to be imported.



Search Devices: Allows you to search the devices from the imported devices.

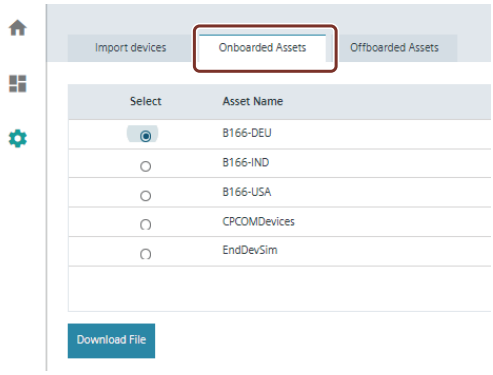
Below listed columns are displayed after the JSON file is imported:

- **Select Devices:** Allows you to select the devices to be created.
- **Device Name:** Displays the device name.
- **Device Type:** Displays the device type.
- **Description:** Display the device description.
- **Status:** Displays the device status.

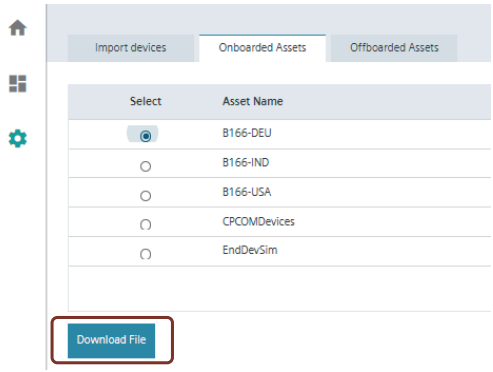


5.3 Onboarded Assets

Displays all the "Onboarded Assets " or live assets.

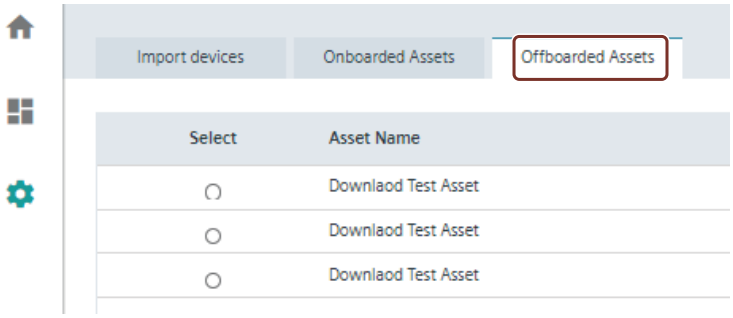


Select the asset and click "Download File" to download the Json file.



5.4 Offboarded Assets

Displays all the "Offboarded Assets" which are not live.
When a device is connected and then disconnected, but not deleted then the asset still remains in the cloud as vague space.
List of these assets are displayed under Offboarded Assets.



5.5 Migration

Migration Overview

Migration allows you to migrate from old data model to new data model. Migrating to new data model will grant you new features, and reduced resource consumption.

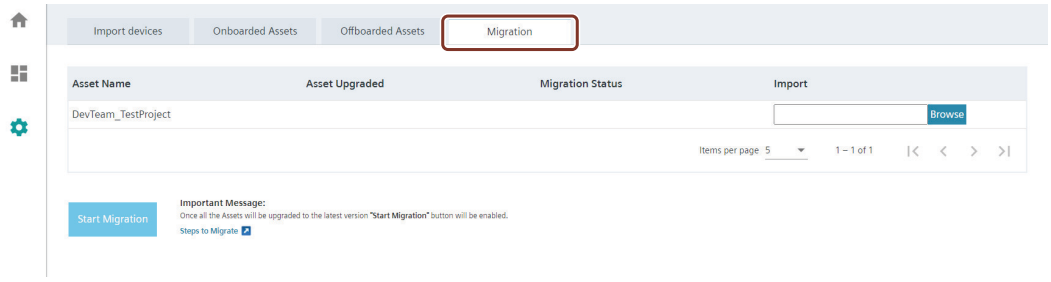
Prerequisites

- Ensure you have disabled Resource Access Management. Refer to section Disabling Resource Access Management (Page 44).
- Ensure you logged out and logged in after disabling resource access management.

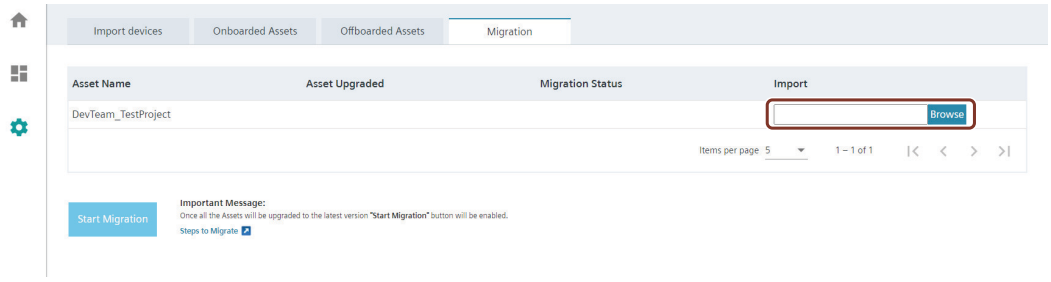
Steps

To migrate to new data model, follow the steps mentioned below.

1. Navigate to "Migration" tab in "Settings".



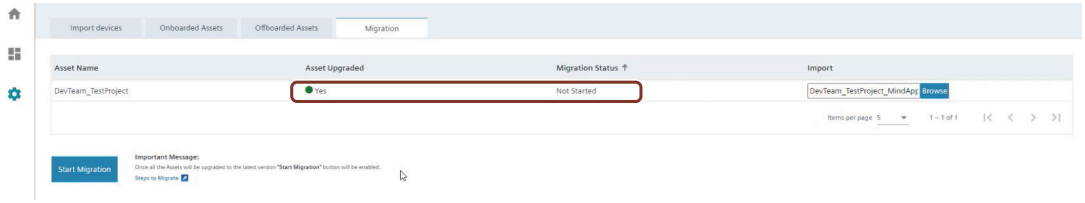
2. In "Import" field, browse and select request JSON file for required asset name.



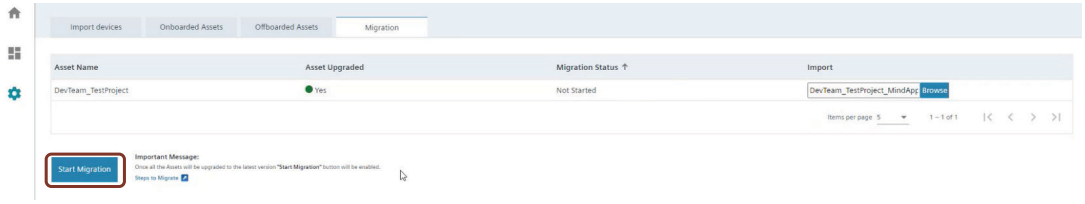
3. Ensure "Asset Upgraded" shows Yes and "Migration Status" shows Not started.

Note

If "Asset Upgraded" shows No, upgrade data model. Refer to Update version SENTRON Powercenter 3000 (https://support.industry.siemens.com/cs/document/109762951/update-version-sentron-powercenter-3000-v1-7?dti=0&lc=en-US).



4. Click on "Start Migration".



5. Once migration is successful, onboard the devices. Refer Onboarding Devices (Page 12).

Note

It will take atleast 24 to 48 hours to synchronize the migration data with new data model.

Once migration is successful, old data model will be automatically offboarded.

In case Migration fails, contact Customer Support team (https://www.siemens.com/supportrequest).

6. Once migration is successful, open a customer support case (https://www.siemens.com/supportrequest) to archive data from your old data model.

Resource Access Management

6

6.1 Overview

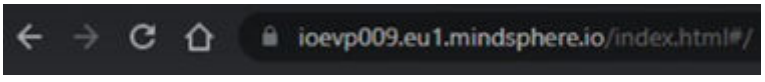
SENTRON Powermind supports Role Based Access Control (RBAC) framework from Insights Hub where the service provider procures a tenant, manages the space and creates a specific customer profile by creating users, policies, and rules. Once the policy is created, the resources consumed by different users are calculated based on the policy created.

Secure Data Sharing is a comprehensive and easy to manage authorization management solution to configure and analyze access rights in Insights Hub to:

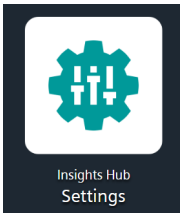
- Use Custom Roles and User Groups to match your organizational role setup and fine tune it through App Access Permissions.
- Manage fine-granular access to anything in Insights Hub through an intuitive Policy Manager or via API.
- Share data and access to other users and via cross-tenancy (even for business partners or customers) while keeping full control.
- Use Resource Manager to group and organize Insights Hub resources into a folder structure to make assignments and isolation.

6.2 Creating a Policy

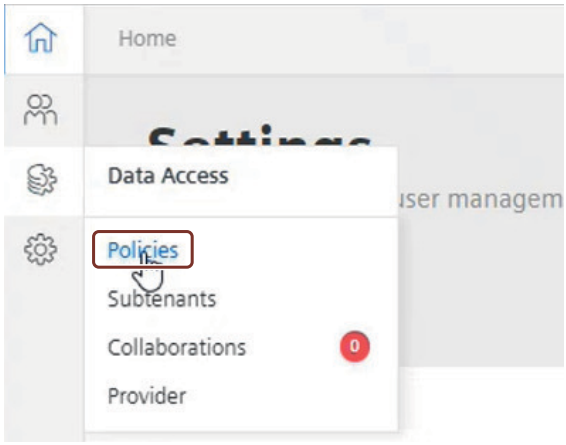
1. Login to your tenant.



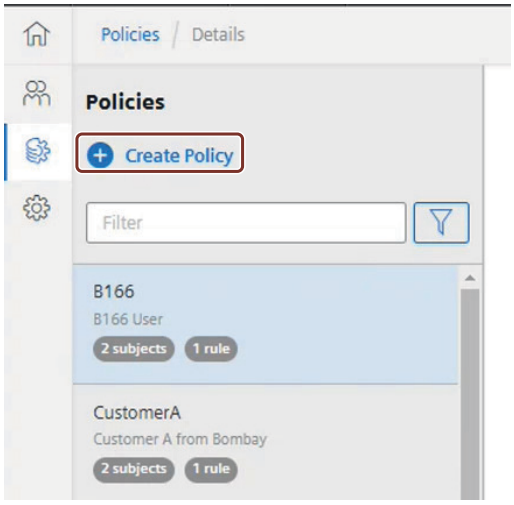
2. Click on "Settings".



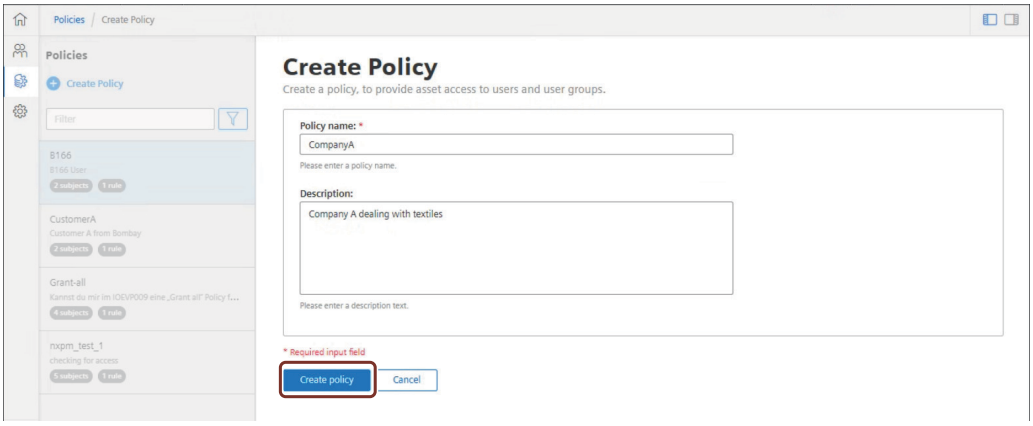
3. Navigate to "Data Access" > "Policies".



4. Click on "Create policy".



5. Enter "Policy Name" (Customer's name or brand name to be provided) and "Description".



6. Click on "Create Policy".
   - The policy is successfully created.

6.3 Adding users for the Policy

This section provides information on how to configure the rules, after you have created a policy and users.

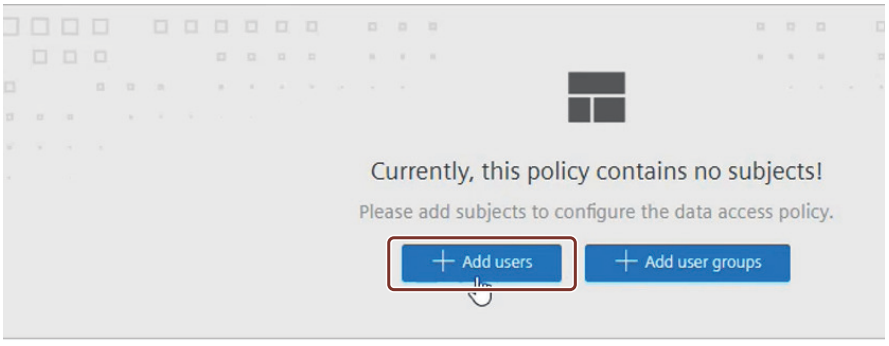
For procedure on how to create users, refer to section Create Users (Page 8).

Note

Once a first user is added, the entire section is named "Subjects", where you don't see "Add user" button anymore.

As a service provider, you can add a user and assign required assets to the customer so that the customer has a visibility on what devices he needs.

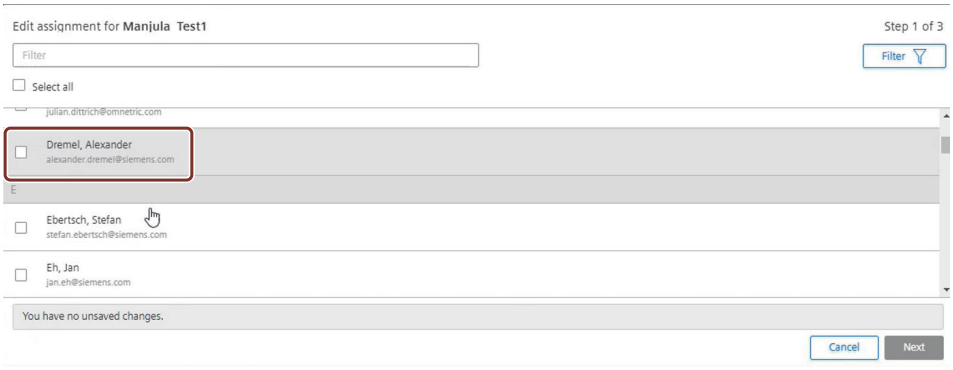
1. Select the required policy.
2. Click on "Add user".



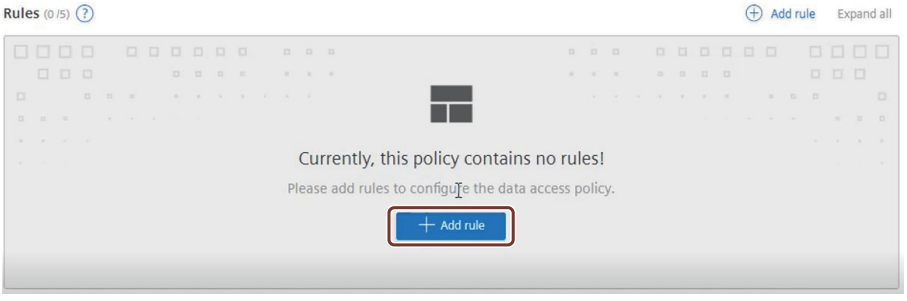
3. Select the required user and click "Next".

Note

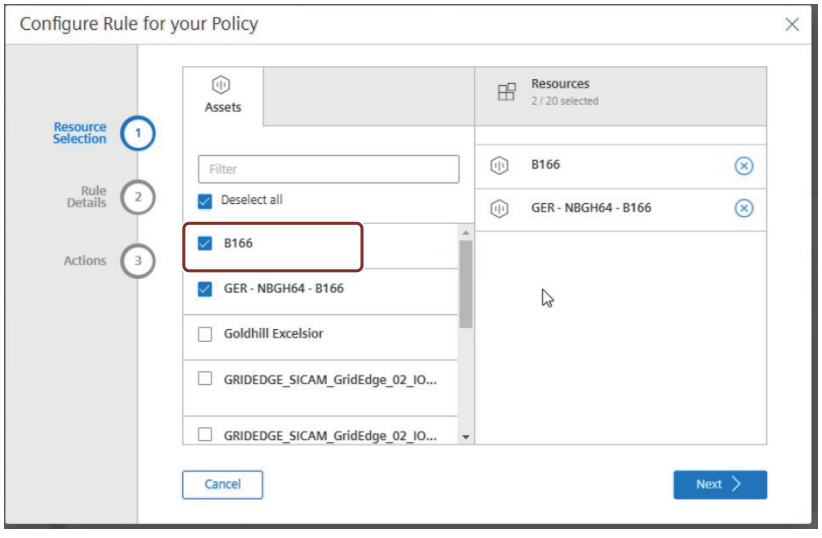
If user is not available, refer to section Create users (Page 8).



4. Click on "Add Rule".

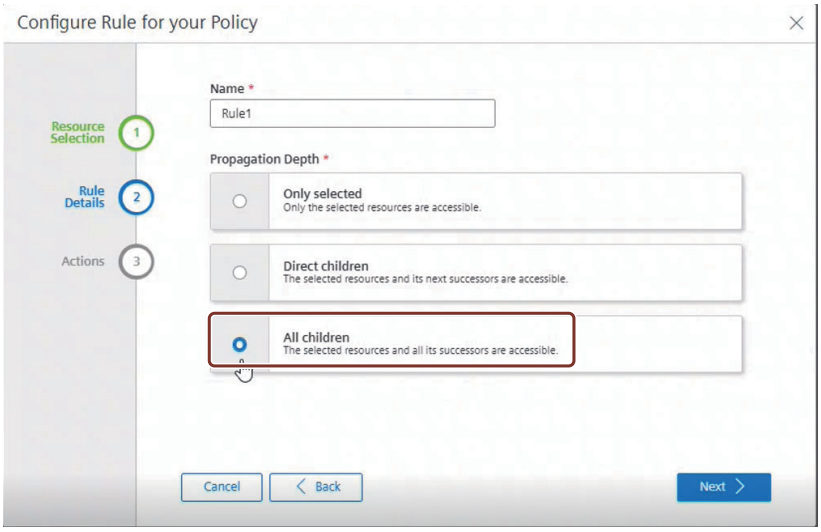


5. Select the required asset from the list and click "Next".

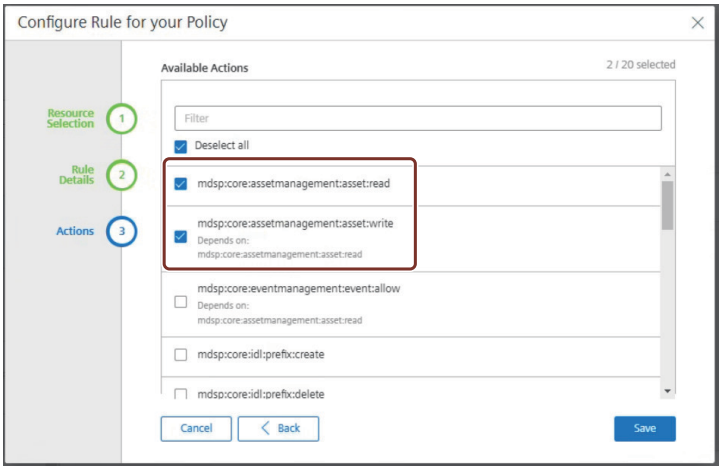


6. Provide the name of the rule, else the rule name will be generated automatically if the field is kept empty.

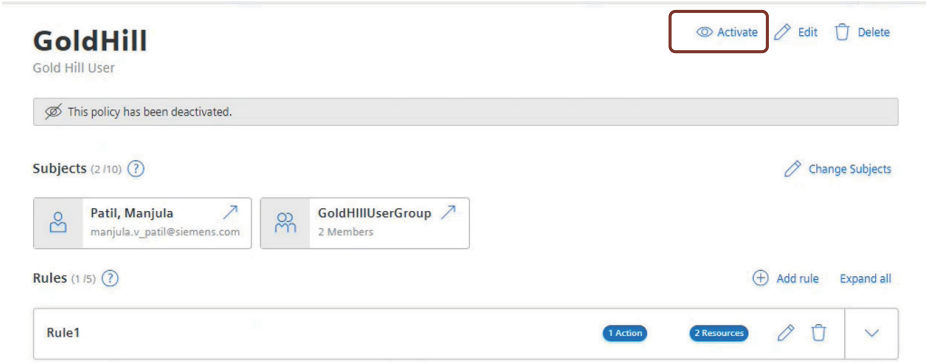
7. Select the "Propagation Depth" as "All children" and click on "Next".



8. Select the "action mdsp:core:assetmanagement:asset:write" and "mdsp:core:assetmanagement:asset:read" from "Available Actions" list.



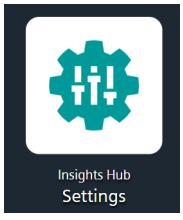
9. Click on "Save".
   - New policy with specific assets and rule is created.
10. Click on "Activate".
    - New policy created is now activated and will reflect in the system.



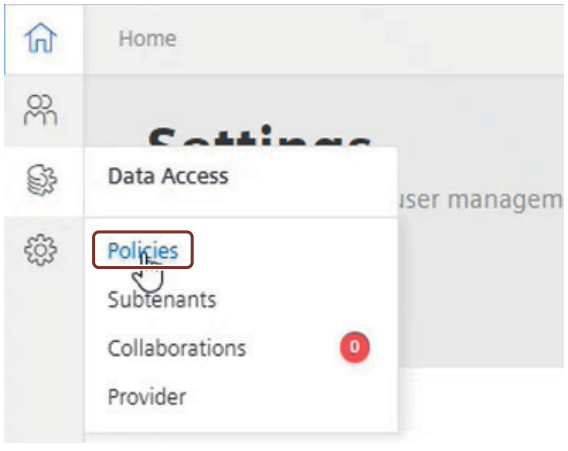
6.4 Deactivating a Policy

This section provides information on how to deactivate a policy.

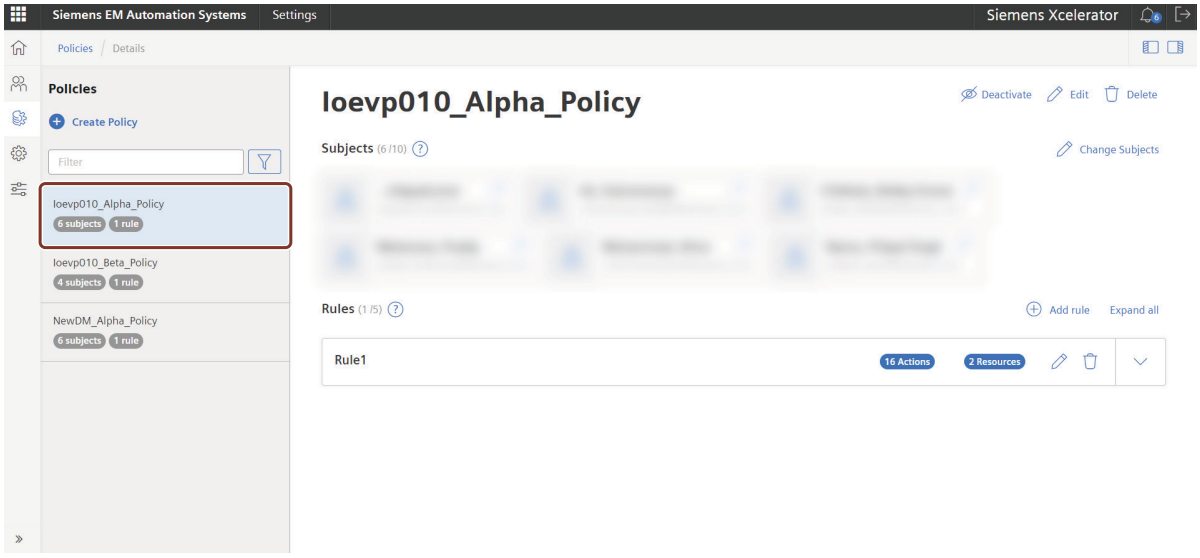
1. Open Insights Hub launchpad and click on "Settings".



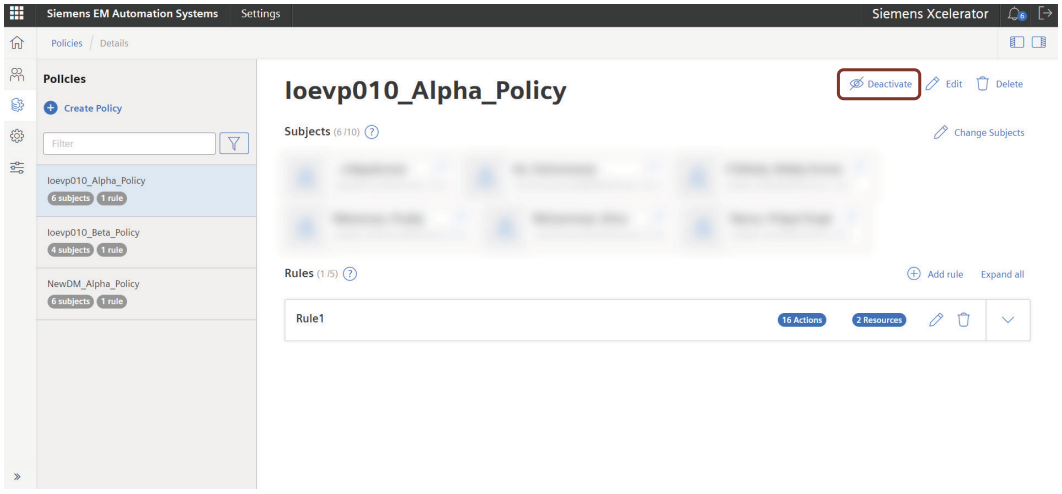
2. Navigate to "Data Access" > "Policies".



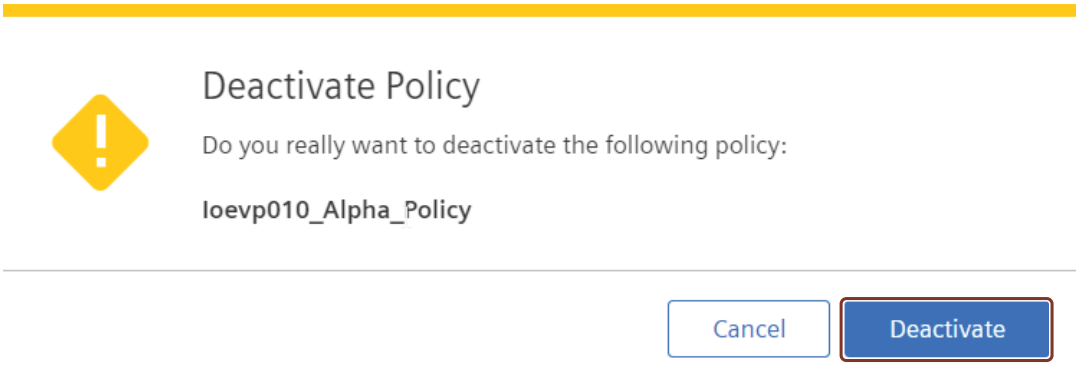
3. Select the policy you want to deactivate.



4. Click on "Deactivate".



5. Click on "Deactivate" to confirm the operation.
   - Policy is deactivated.



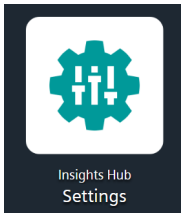
See also

Disabling Resource Access Management (Page 46)

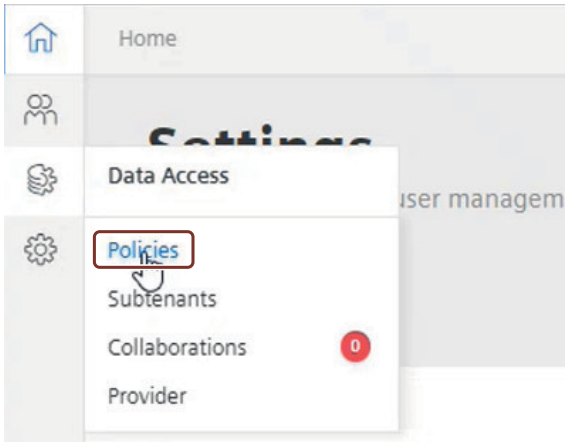
6.5 Deleting a Policy

This section provides information on how to delete a policy.

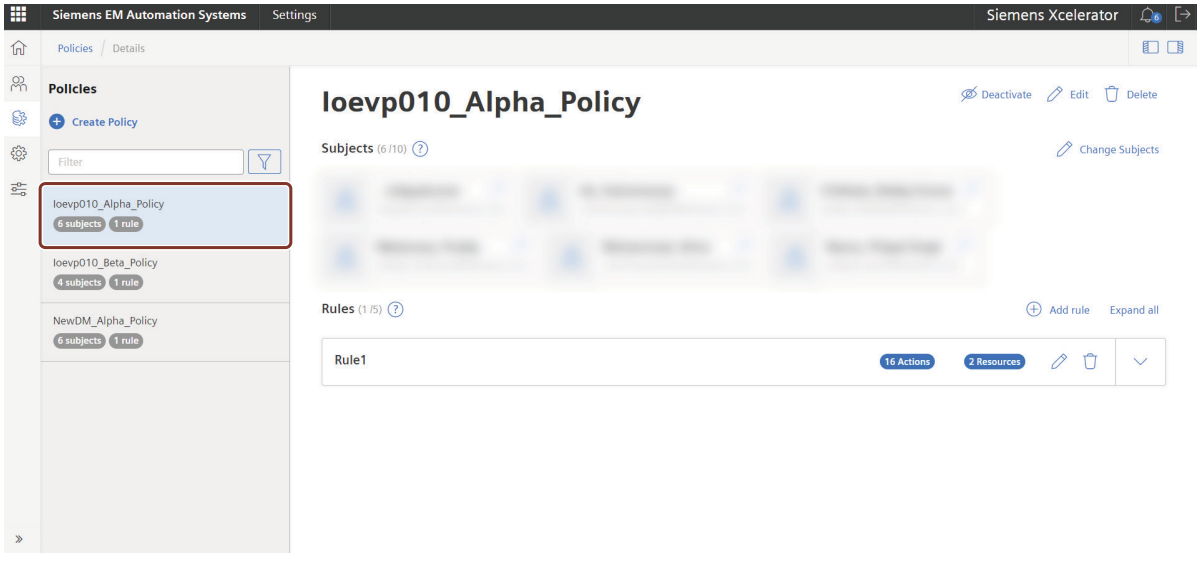
1. Open Insights Hub launchpad and click on "Settings".



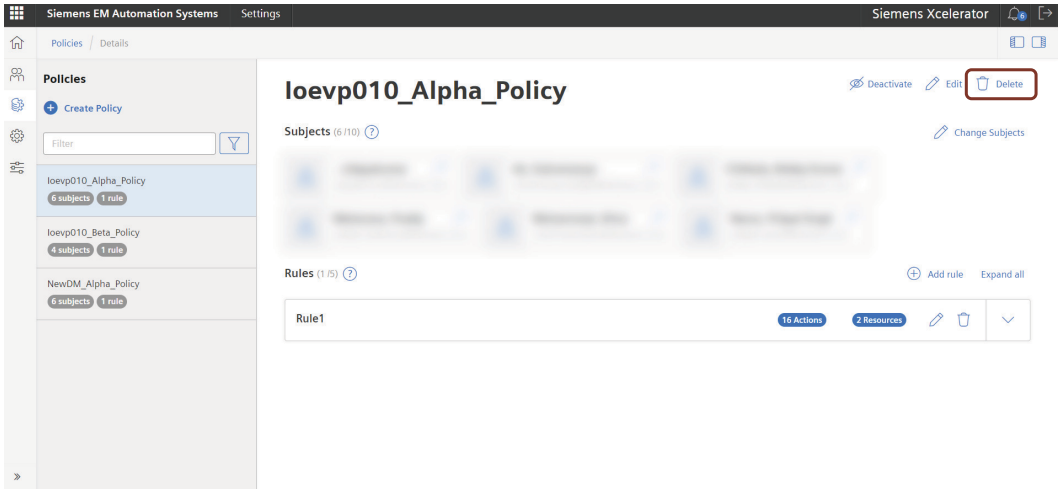
2. Navigate to "Data Access" > "Policies".



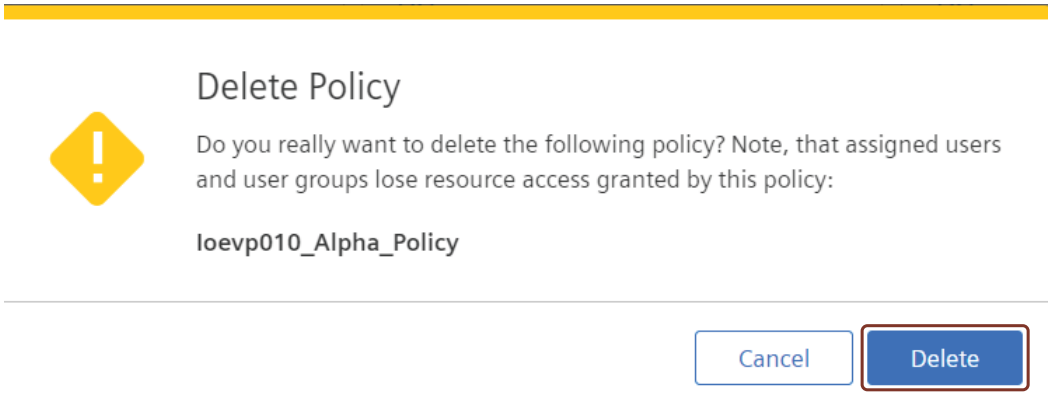
3. Select the policy you want to delete.



4. Click on "Delete".



5. Cick on "Delete" to confirm the operation.



6.6 Disabling Resource Access Management

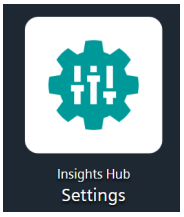
This section provides information on how to disable Resource Access Management.

Prerequisites

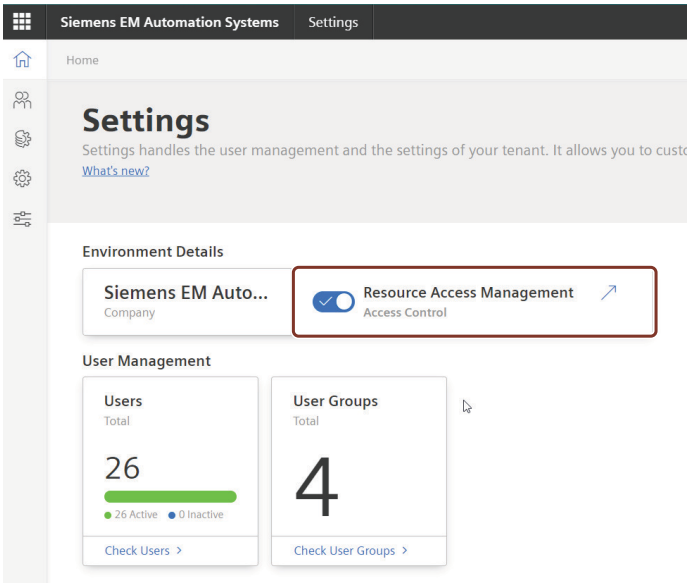
- Ensure you have deactivated all the policies before disabling Resource Access Management. Refer to section Deactiavting a Policy (Page 40).

Steps

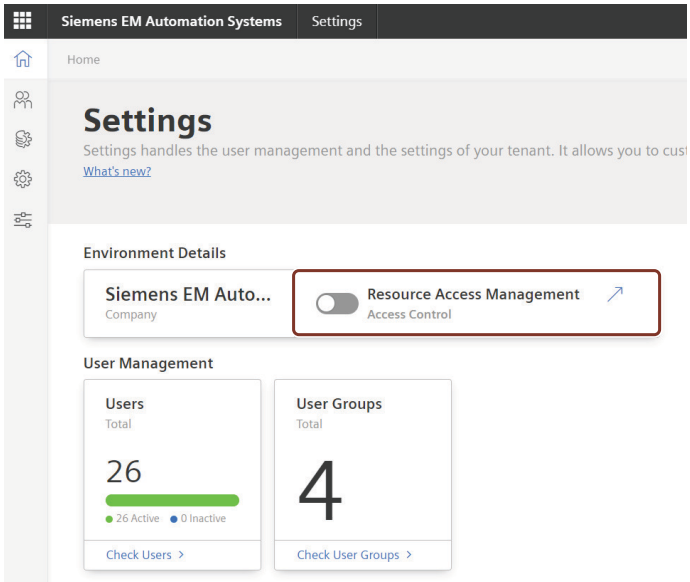
1. Open Insights Hub launchpad and click on "Settings".



2. Click on "Resource Access Management" toggle button to disable.



Resource Access Management is disabled.



Package upgrade

7

7.1 Overview

Package Overview

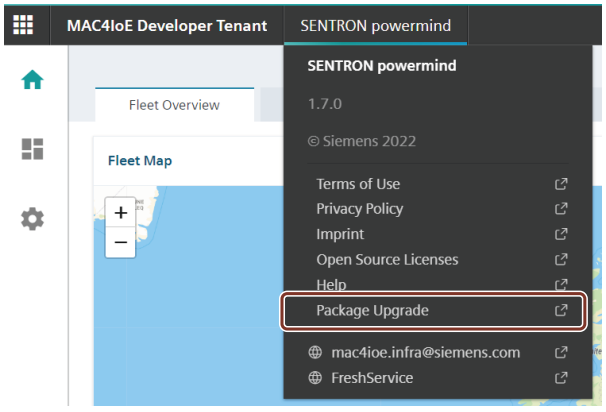
The package pricing details for SENTRON Powermind package are mentioned in the tables below.

SENTRON Powermind Package Overview	
Base Subscription	SENTRON Powermind package
SENTRON Powermind application	Yes
Base Tenant	1
Metering Devices	3 SENTRON Devices
Time Series Data Ingest Rate	10B/s
Time Series Data Storage Module	5GB
Asset Attributes Module	51

The SENTRON Powermind package upgrades contain the following additional Insights Hub Resources and can only be activated within the SENTRON Powermind application. To know more about the resources and pricing navigate to "Package Upgrade".

Note

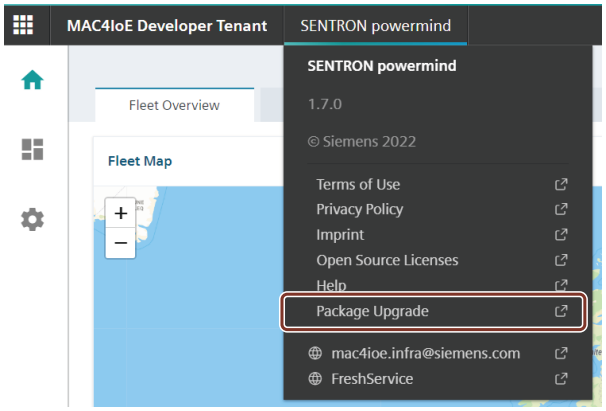
Additional resources will be activated on date of activation and can be canceled on daily basis. You will be billed according to use of additional resources at the end of the your billing cycle.



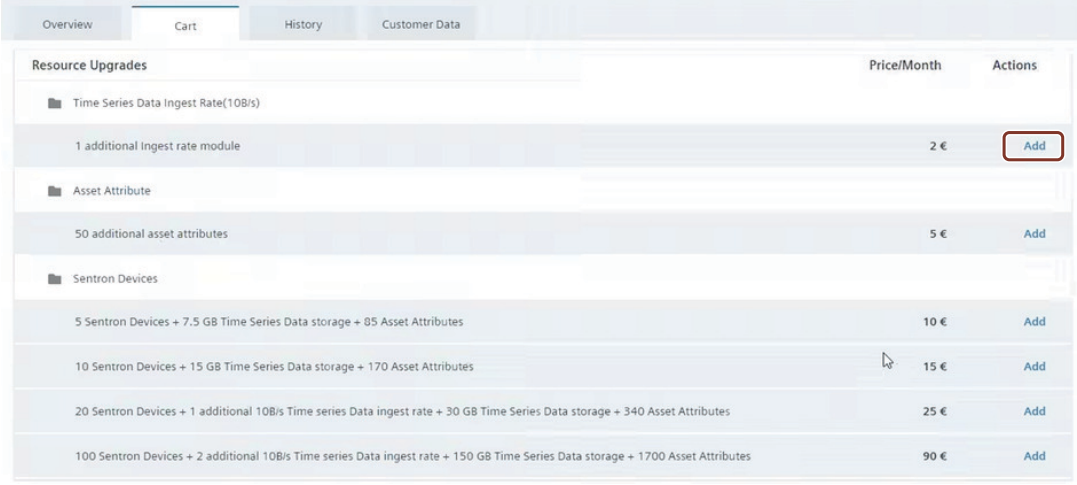
7.2 Procedure to upgrade packages

Steps to Upgrade Packages

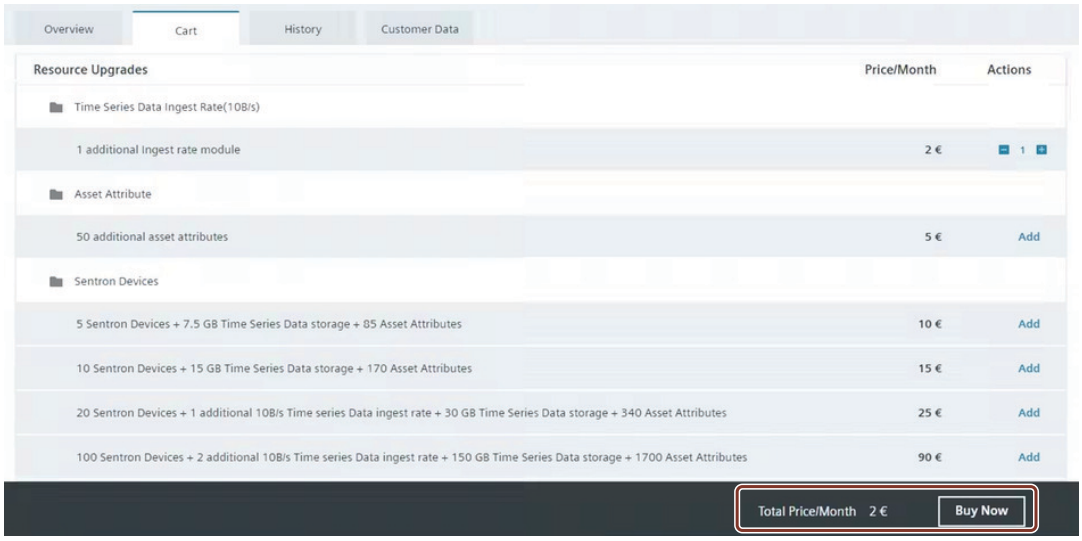
1. Navigate to "SENTRON Powermind" and click "Package Upgrade".



2. "Overview" tab displays the list of base packages and upgrades available.
3. Click "Cart" to check the list of packages available.
4. Click "Add" under the "Actions" column to add the required package.



5. Click "Buy" to purchase the selected package.



6. Click "History" to view the purchase history.

7.3 Customer Data

Data on "Customer Data" tab is only accessible to the service providers. This tab displays details as "User", "Total Devices(Assets)", and "Total datasources(Agents)". Moreover, customer data provides the total cost per consumer.

Total Cost = Consumption x Cost/Month.

FAQs

8

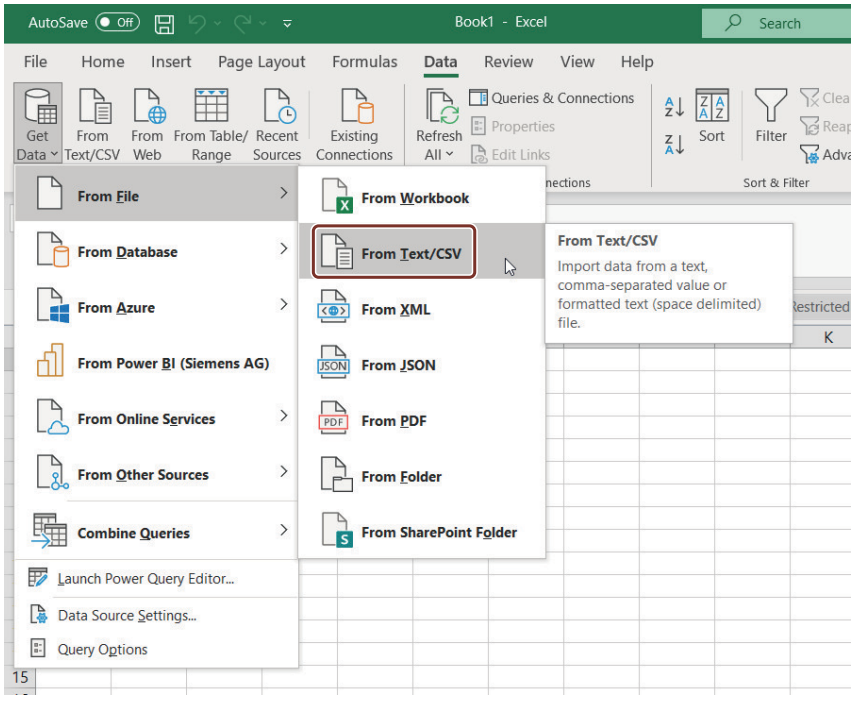
8.1 Importing .CSV files from SENTRON Powermind into Excel

How to Import .CSV files from SENTRON Powermind into Excel

In SENTRON Powermind, you can export energy and power data as .CSV file from Home Screen for multiple devices or Line Chart diagram of a single device. Although .CSV file is very versatile and generic data format, it is more convenient and recommended to continue analysis in Microsoft Excel.

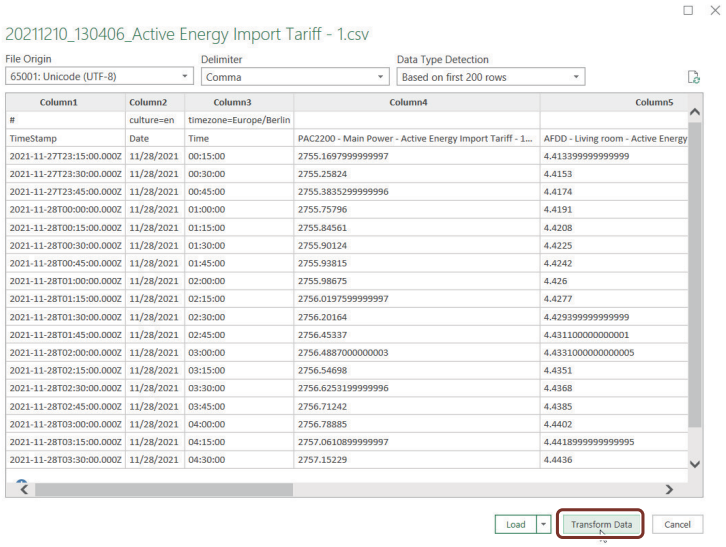
Follow the below steps for importing .CSV files:

1. Launch Microsoft Excel with a blank workbook.
2. Click "Get Data" > "From File" > "From Text/CSV".

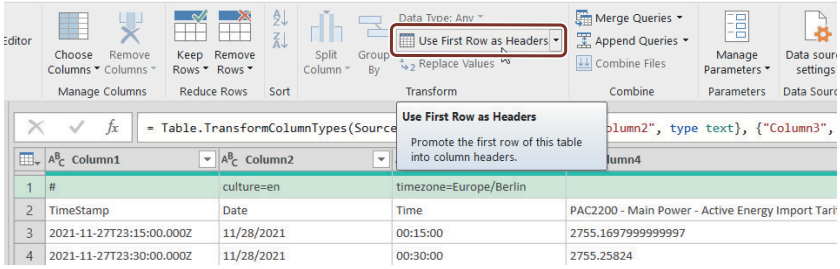


3. Select the CSV file which you have exported from SENTRON Powermind.

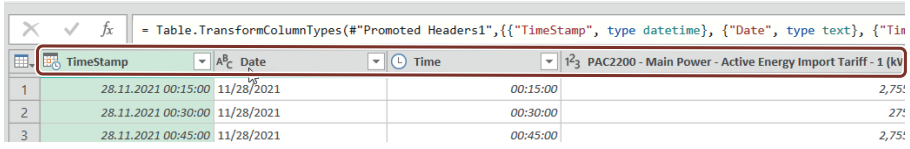
4. Click Transform Data.



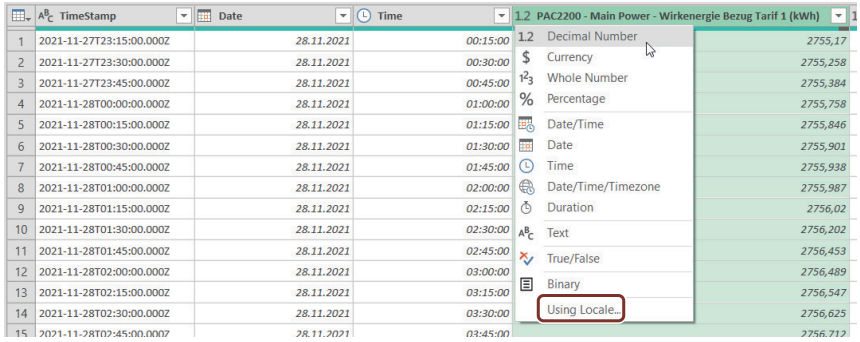
5. Double click "Use First Row as Headers" to get the applicable column headers.



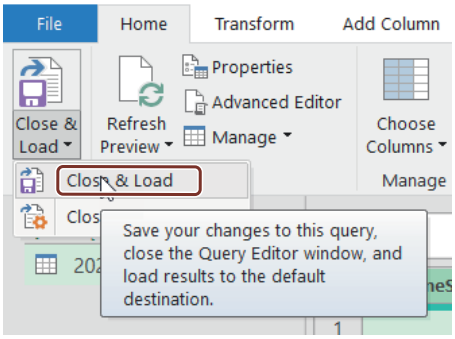
6. You will get required changes for applicable column headers as shown below.



7. You might need to adjust the data types for individual columns depending on language settings of SENTRON Powermind and the regional settings of Microsoft Windows . Whenever you see “ABC” in the header, you should change the data type. If the result is not good, you can apply a certain locale for the conversion.



8. Click Close & Load.



9. Now the data should be inserted into the excel workbook with suitable data type.

	A	B	C	D	E
1	TimeStamp	Date	Time	PAC2200 - Main Power - Wirkenergie Bezug Tarif 1 (kWh)	AFDD - Living room - Wirkenergie Bezug Tarif 1 (kWh)	MCB - Basement other - Wir
2	28.11.2021 00:15	28.11.2021	00:15:00	2755,17	4,413	
3	28.11.2021 00:30	28.11.2021	00:30:00	2755,258	4,415	
4	28.11.2021 00:45	28.11.2021	00:45:00	2755,384	4,417	
5	28.11.2021 01:00	28.11.2021	01:00:00	2755,758	4,419	
6	28.11.2021 01:15	28.11.2021	01:15:00	2755,846	4,421	
7	28.11.2021 01:30	28.11.2021	01:30:00	2755,901	4,423	
8	28.11.2021 01:45	28.11.2021	01:45:00	2755,938	4,424	
9	28.11.2021 02:00	28.11.2021	02:00:00	2755,987	4,426	
10	28.11.2021 02:15	28.11.2021	02:15:00	2756,02	4,428	

8.2 Offboarding Data Source

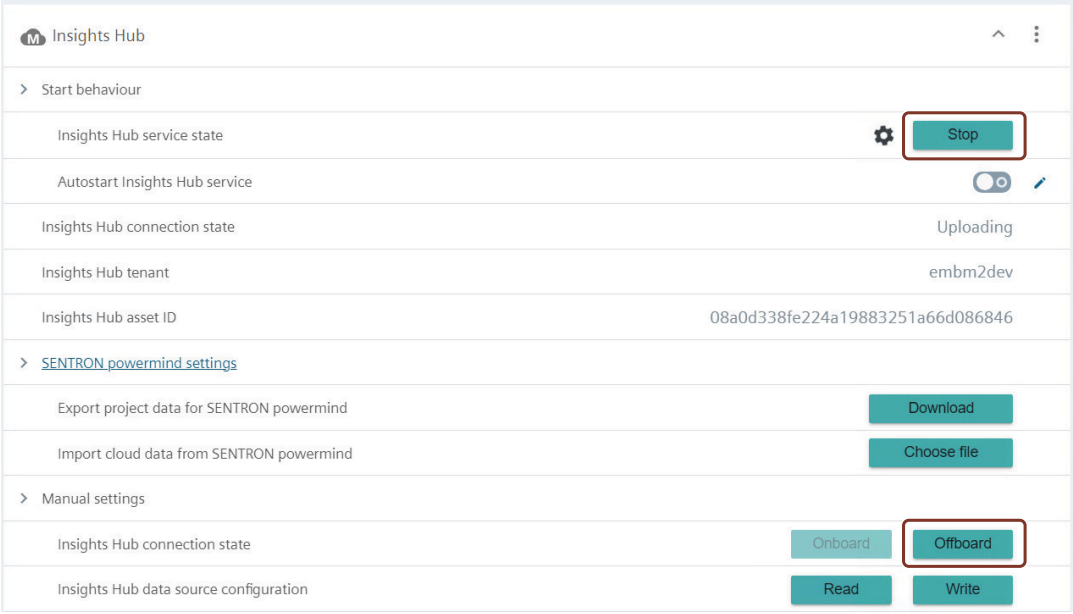
How to off-board a data source from SENTRON Powermind

SENTRON Powermind has no embedded feature for removal of a data source (Powercenter 3000) from the application. Hence, this can be necessary in the following scenarios:

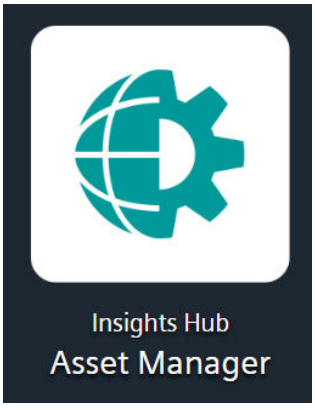
- The data source is no longer valid and should be removed to free the space and the number of objects in the tenant.
- You have license only for one agent/data source, but you want to observe another data source.

Follow the below steps for offboarding a data source:

1. **Offboard Powercenter 3000 from data source side:**
   - Open Powercenter 3000 Web interface and navigate to Settings section.
   - Click "CLOUD" tab.
   - Click "Stop" button next to "Insights Hub service state".
   - Click "Offboard" button next to "Insights Hub connection state".

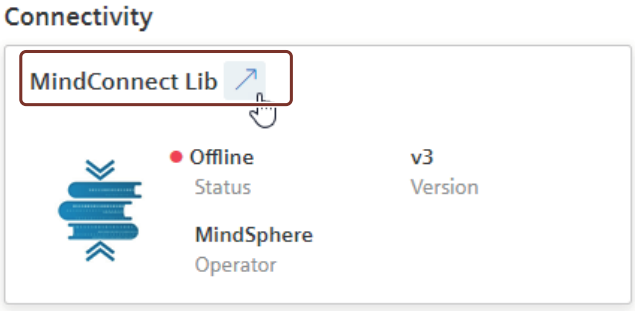


2. **Offboard data source (asset) from Insights Hub side:**
   - Launch Asset Manager System App from Insights Hub Dashboard.

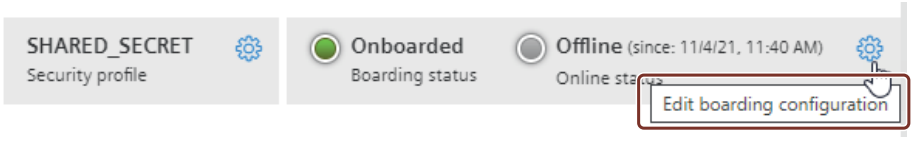


– Click "Assets" menu and select applicable asset, representing your data source (Powercenter 3000).

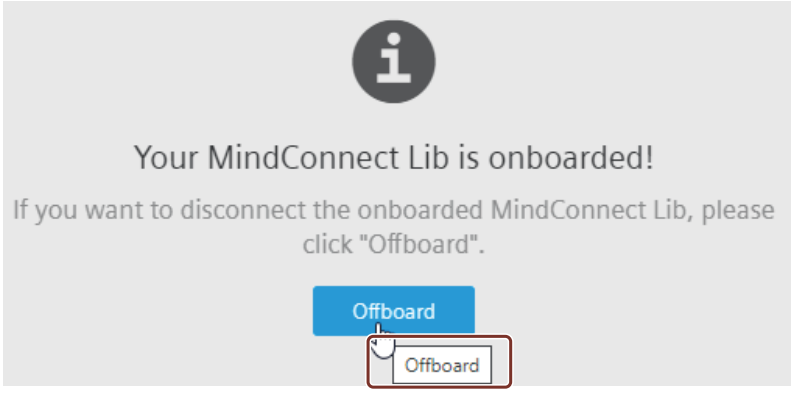
– Scroll down and open "MindConnect Lib" connection settings.



– Click "Edit boarding configuration".



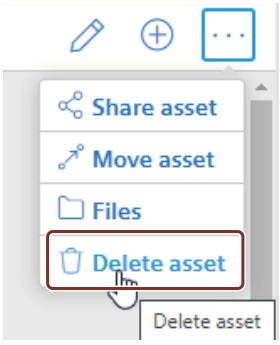
– Click "Offboard".



– Click "Close".

3. **Delete the asset with asset manager (if history is not necessary anymore):**

   – Select the asset object in asset manager and click “Delete asset”.



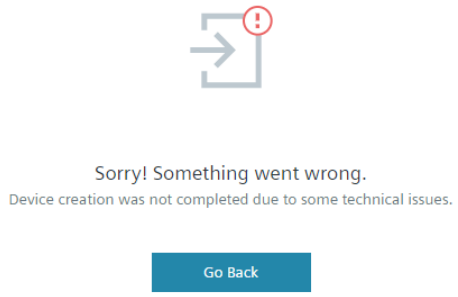
   – Confirm delete operation.

Troubleshooting

9

9.1 Scenario 1

Scenario: During new device onboarding error occurs "Something went wrong"



Solution

1. Open request JSON file with notepad.
2. Ensure "assetID" field is empty.

```
{
  "fileInfo": {
    "format": "DataSourceRequest",
    "version": "2.3.0"
  },
  "assetInfo": {
    "assetId": "",
    "id": "e0659c14-858d-4719-bdd0-302bda065f67",
    "name": "PM_Test_VWB1",
    "version": "V01.07.01.00_00.00.00.21",
    "description": "",
    "timeZone": "Europe/Berlin",
    "location": {
      "country": "",
      "region": "",
      "locality": "",
      "streetAddress": "",
      "postalCode": "",
      "longitude": "",
      "latitude": ""
    }
  },
  "configurationInfo": [
    {
      "typeId": "HierarchyElement",
      "id": "e631eaef-fa16-4e76-a63d-f2ab76e30299",
      "name": "Heatpump",
      "description": "",
```

3. Ensure Resource Asset Management is disabled. Refer Disabling Resource Access Management (Page 44).