Sensors

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Cisco Spaces: IoT Explorer continually monitors data from the sensors attached to your assets—including battery levels, or telemetry data such as temperature or humidity. When any measure deviates from the norm established by your workflows, policies, and business rules, the solution swings into action. It can give you an immediate alert or, if you prefer, can trigger an automated action that is predefined by your workflows and business rules.

Once you have created your use case, you can include sensors to it in multiple ways.

Importing Sensors to Your Use Case Using a Template File

This task shows you how you can import sensors in bulk using a template (XLS) file.

Procedure

Step 1 From the Cisco Spaces: IoT Explorer: **Active Use Cases**, choose the newly created use case.

Step 2 Navigate to **Configure** and in the **Manage Sensors** area, click **Import Sensors**.

Step 3 In the **Add Sensors** page displayed, choose **Bulk Import Sensors** and click **Next**.

Step 4 In the **Add Sensors - Import Via Spreadsheet** page, click **Download Template Here** to download the template file.

Step 5 Fill the template file with the details of all the sensors that you want to import.

Step 6 In the **Add Sensors - Import Via Spreadsheet** page, click **Click here to browse or Drag a file to upload**. Upload the edited template file. Click **Import**.

You can see the imported sensors in the **Sensor** tab of this use case.

Importing Sensors to Your Use Case Using Location Hierarchy and Device Groups

This task shows you how you can import sensors from the Cisco Spaces Location Hierarchy. You can import sensors that are already on board the Cisco Spaces: IoT Service. You can also import sensors that are part of a device group. Although, you can only select those device groups that are within the scope of your location hierarchy.

Procedure

Step 1   From the Cisco Spaces: IoT Explorer: **Active Use Cases**, choose the newly created use case.

Step 2   Navigate to **Configure** and in the **Manage Sensors** area, click **Import Sensors**.

Step 3   In the **Add Sensors** page displayed, choose **Setup Existing Sensor Filter Criteria**.
You can see the number of supported sensors.

Step 4   Click **Next**.

Step 5   In the **Add Sensors – Set Up Filter Criteria: Select Locations** page displayed, you can select locations to include in your use case. Click one of the following:

- **Include all Locations**: You can include all current locations to your use case. Any locations added to the hierarchy in the future is automatically added.

- **Select Locations**: You can select specific locations that you can include to this use case. Once you select this option, you can navigate the displayed location hierarchy, and chose to import sensors from specific locations to your use case.

Step 6   Click **Next**.

Step 7   In the **Add Sensors – Set Up Filter Criteria: Select Device Groups** page displayed, you can import only specific groups of devices from the selected locations to your use case. Click one of the following:

- **Include all Groups**: You can include all groups to your use case, along with automatically including any device groups added to the hierarchy in the future.

- **Select Groups**: You can select specific device groups that you can include to this use case. Once you select this option, you can select from the device groups applicable to the use case locations and choose to import only those sensors to your use case. Any sensors added to the selected device groups in the future are automatically added to the use case.

Step 8   Click **Next**.

Step 9   Click **Add Sensors.**

You have imported sensors to your use case by specifying locations and device groups.

Adding Sensor Individually to Your Use Case

This task shows you how you can add a sensor individually to your use case, one by one. You can add a sensor that is already on board the Cisco Spaces: IoT Service location hierarchy.

Procedure

Step 1 From the Cisco Spaces: IoT Explorer: **Active Use Cases**, choose the newly created use case.

Step 2 Navigate to **Configure** and in the **Manage Sensors** area, click **Add individual Sensor**.

Step 3 In the **Add Sensors** page displayed, go to the **TAG INFORMATION** area, and select one of the tags types listed.

Step 4 Fill the **Device MAC address** text field.

Step 5 In the **Asset Name** text field, enter a preferred name for your sensor.

Step 6 Click **Save**.

Step 7 (Optional) Click **Add Another Sensor** to add more sensors to your use case.

You have added the sensor to your use case.

Viewing Sensors Added to Your Use Case

This task shows you how to view the list of sensors added to your use case. You can also view further details of the sensor such as:

- Percentage of remaining battery

- Last heard time of the sensor

- Sensor location on the floor map

Procedure

Step 1 From the Cisco Spaces: IoT Explorer: **Active Use Cases**, choose the newly created use case.

Step 2 Do one of the following:

- Navigate to the **Sensors** tab.
- In the **Configure** tab **Manage Sensors** area, click **View Sensors**.

In the **Sensors** Tab, you can view the following:

- **All Sensors**: List of all sensors added to your use case.

- **Heard Recently**: Lists of sensors according to when they were last heard. You can see device categories according to last-heard time as: not heard in the last hour, not heard in the last 24 hours, and Heard Recently (heard in the last hour).

- **Battery**: Displays the battery level of sensors. You can see device categories according to battery levels: less than 10%, greater than 50%, and greater than 90%.

Step 3 Click a sensor to see further details of the sensor. If the sensor is part of the Cisco Spaces location hierarchy, then the **Map Location** tab contains the floor map where the sensor is located.

Customizing Your View of Sensor List

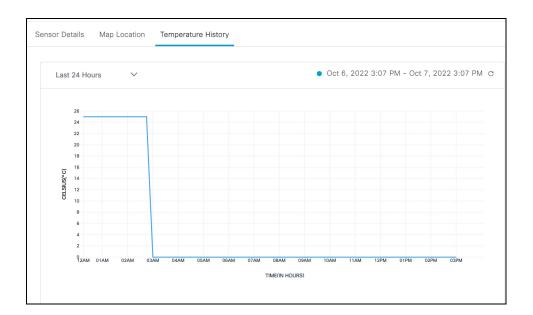You can customize your view of the list of sensors displayed for your use case.

Procedure

Step 1   From the Cisco Spaces: IoT Explorer: **Active Use Cases**, choose the newly created use case.

Step 2   Do one of the following:

- Navigate to the **Sensors** tab.
- In the **Configure** tab **Manage Sensors** area, click **View Sensors**.

Step 3   Click a sensor to see further details of the sensor. If the sensor is part of the Cisco Spaces location hierarchy, then the **Map Location** tab contains the floor map where the sensor is located.

Step 4   Click on the three dots near the title of any column to do one of the following:

- **Hide Columns**: Once hidden, a column can be made visible by the **Unhide Columns** button that is displayed.

- **Pin Column**: Move and fix the column to the start of columns.

- **Sort Ascending**: Sort the rows in ascending order of content of this column.

- **Sort Decending**: Sort the rows in descending order of content of this column.

Step 5   Once you have customized your view of the **Sensor** tab, you can save the view by clicking **Save as a new view** button that comes up.

Step 6   You can also filter the view by certain parameters.

Adding Custom Attributes to Sensors

You can add custom attributes to your sensor and monitor these attributes from a newly-added column on the **Sensor** tab.

Procedure

Step 1   From the Cisco Spaces: IoT Explorer: **Active Use Cases**, choose the newly created use case.

Step 2   In the **Configure** tab **Manage Sensors** area, click Sensor **Database**.

Step 3   In the **Sensor Database** page displayed, click **Add Column**. Do the following:

a)   In the **Column** text field, enter a name for the custom attribute.
b)   Select the **Data Type**.
c)   Select the **Visibility** of the attribute.
d)   Click **Save** on the new row.
e)   Click **Save** to close the **Sensor Database**page.

Step 4   Now navigate to the **Sensors** tab. You can see the newly added custom attribute displayed as column.

Sensor Details   Map Location   **Temperature History**

Last 24 Hours ⌄   ● Oct 6, 2022 3:07 PM - Oct 7, 2022 3:07 PM ↻