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User Guide

XiO Cloud<sup>®</sup>

Provisioning and Management Service

Have feedback on this document? Contact [docfeedback@crestron.com](mailto:docfeedback@crestron.com).

### Original Instructions

The U.S. English version of this document is the original instructions.  
All other languages are a translation of the original instructions.

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# Introduction

The XiO Cloud® provisioning and management service allows all supported Crestron® devices and certain supported third-party devices across an enterprise to be managed and configured from one central, secure location in the cloud. The XiO Cloud service may be used to view the status of a device, to configure various device and network settings, to manage licenses, and to update device firmware.

**NOTE:** Third-party device management and configuration is supported by XiO Cloud Premium subscriptions only.

The XiO Cloud service is an IoT (Internet of Things) based platform that provides the following benefits for an enterprise:

**NOTE:** Certain XiO Cloud features are supported by an XiO Cloud Premium subscription only. The following banner is shown above XiO Cloud Premium features within accounts with free XiO Cloud subscriptions. Other items, such as premium dashboard tiles, are grayed out and cannot be selected within accounts with free XiO Cloud subscriptions.

This feature is available with XiO Cloud Premium subscription. Please upgrade to access.

[Learn More](#)

For more information on XiO Cloud subscriptions, refer to [How to Subscribe on page 6](#). For a complete list of supported features for each subscription, refer to the [XiO Cloud Feature Comparison Chart](#).

## Quick Deployment

- Configure new or replacement devices before installation
- Retrieve device settings automatically
- Drag-and-drop naming, configuration, and organization

## Remote Management

- Change settings for multiple devices across the enterprise simultaneously
- Update firmware for all devices across the enterprise simultaneously
- View cloud audit logs to identify and resolve issues quickly

## Instant Monitoring

- View live status of all connected devices from anywhere at any time
- Monitor device changes in real time
- No extra configuration tools are required for monitoring

## Confident Evolution

- Interactive dashboards provide real-world usage data
- No programming is required for data gathering

- Optimize workplace technology experiences

For more details and additional resources, refer to <https://www.crestron.com/xiocloud>.

**NOTE:** This document is current as of the XiO Cloud version 2.1 release.

# What's New?

Updates to the XiO Cloud service and documentation are described below from newest to oldest (as of XiO Cloud release 1.63).

---

## March 14, 2024

- **XiO Cloud v2.1 Released**
    - XiO Cloud v2.1 has been released publicly. Refer to the release notes posting on the Crestron website for detailed information about this release.
  - **Documentation Updates**
    - Updated [Alerts on page 130](#) and [Account Dashboard on page 111](#) to add information about room-based alerts (for XiO Cloud Premium subscriptions only).
    - Added note to [Historical Reports on page 123](#) and [Account Dashboard on page 111](#) regarding time zone synchronization for hour-based reports.
    - Updated [Log in to the Service on page 14](#) to reflect latest UI changes.
    - Added [Intelligent Video on page 194](#) to [Works with XiO Cloud on page 180](#) with support for Automate VX2 models.
- 

## January 31, 2025

- **XiO Cloud v2.0 Released**
    - XiO Cloud v2.0 has been released publicly. Refer to the release notes posting on the Crestron website for detailed information about this release.
  - **Documentation Updates**
    - Updated [Introduction on page 1](#) with note XiO Cloud Premium features.
    - Updated [How to Subscribe on page 6](#) to reflect new processes for XiO Cloud and XiO Cloud Premium subscriptions.
    - Updated [Navigate the Service on page 17](#) to add information on **Account Info** window.
    - Updated various topics to indicate XiO Cloud Premium functionality (where applicable) and removed mention of discontinued XiO Cloud licenses.
    - Removed Licensed Features topic (no longer applicable with new XiO Cloud and XiO Cloud Premium subscriptions).
    - Updated [Third-Party Devices on page 199](#) in the [Works with XiO Cloud on page 180](#) section to remove list of supported Crestron Connected® devices (these are provided instead in the linked [web app](#)).
-

# January 9, 2025

- **XiO Cloud v1.64 Int 1 Released**
    - XiO Cloud v1.64 Int 1 has been released publicly. Refer to the release notes posting on the Crestron website for detailed information about this release.
  - **Documentation Updates**
    - Updated [Build the Environment on page 19](#) to indicate that device IP addresses are now selectable and will navigate to the device web configuration interface in a new tab (if available).
- 

# December 20, 2024

- **XiO Cloud v1.64 Released**
    - XiO Cloud v1.64 has been released publicly. Refer to the release notes posting on the Crestron website for detailed information about this release.
  - **Documentation Updates**
    - Updated [Manage Devices on page 72](#) and [XiO Cloud Program Connector on page 65](#) with information about the maintenance mode schedule room action.
    - Updated [Log in to the Service on page 14](#), [Manage Users on page 104](#), and [Alerts on page 130](#) to reflect latest UI changes.
- 

# December 6, 2024

- **XiO Cloud v1.63 Int 1 Released**
    - XiO Cloud v1.63 Int 1 has been released publicly. Refer to the release notes posting on the Crestron website for detailed information about this release.
  - **Documentation Updates**
    - Updated [Log in to the Service on page 14](#) to reflect new login workflow.
    - Added notes to [Account Dashboard on page 111](#) and [Historical Reports on page 123](#) that certain data is shown only up until the end of the previous day.
- 

# November 15, 2024

- **XiO Cloud v1.63 Released**
  - XiO Cloud v1.63 has been released publicly. Refer to the release notes posting on the Crestron website for detailed information about this release.
- **Documentation Updates**

- Added information about room scheduled actions to [XiO Cloud Program Connector on page 65](#) and [Manage Devices on page 72](#).
- Added support for the DM-NVX-384(C) to [Works with XiO Cloud on page 180](#).



# How to Subscribe

The following sections describe how to subscribe to XiO Cloud and XiO Cloud Premium subscriptions.

## Choose Your Subscription

The XiO Cloud service is available in a free XiO Cloud subscription ([SW-XIOC](#)) and a paid XiO Cloud Premium subscription ([SW-XIOC-PREMIUM-1YR-1-99](#), [SW-XIOC-PREMIUM-1YR-100-499](#), and [SW-XIOC-PREMIUM-1YR-500+](#)). All XiO Cloud subscriptions require an XiO Cloud account registration. A new XiO Cloud account can be created when a subscription is activated, or an existing XiO Cloud can be selected.

**NOTE:** For a complete list of supported features for each subscription, refer to the [XiO Cloud Feature Comparison Chart](#).

- The free XiO Cloud subscription allows enterprises to provision, monitor, and manage Crestron devices across virtual rooms and desks that represent their physical spaces. It also provides support for user management, cloud activity logs, alerts, and file libraries, as well as some limited dashboard and API functionality.
- The XiO Cloud Premium subscription provides all the functionality of the free XiO Cloud subscription with additional support for third-party device management (including via the Crestron XiO Cloud™ Gateway software), historical reports, program connector functionality, touch screen remote control, ServiceNow® software integration, full dashboard and API functionality, and more.

The XiO Cloud Premium subscription uses a device-based licensing model: purchase a specified device count based on the anticipated number of devices in your XiO Cloud account. If an account exceeds the budgeted device count over the course of the year, a true-up SKU ([SW-XIOC-PREMIUM-TRUE-UP](#)) is provided that allows you to purchase and adjust the device count either proactively or retroactively to reflect your increased device usage. This model allows enterprises to be flexible with their XiO Cloud deployment based on changing business or space usage needs while avoiding any down time for new devices.

**NOTE:** XiO Cloud accounts can only have one subscription type at a time.

The following table provides an overview of the XiO Cloud Premium subscription licenses. For more information, including pricing, visit the product pages by selecting the appropriate link in the table.

| License                                     | Model/SKU # | Description  |
|---|-------------|--|
| <a href="#">SW-XIOC-PREMIUM-1YR-1-99</a>    | 3002322     | One-year XiO Cloud Premium subscription for accounts with 1 to 99 total devices. Subscription is priced and purchased based on device count.   |
| <a href="#">SW-XIOC-PREMIUM-1YR-100-499</a> | 3002324     | One-year XiO Cloud Premium subscription for accounts with 100 to 499 total devices. Subscription is priced and purchased based on device count.  |
| <a href="#">SW-XIOC-PREMIUM-1YR-500+</a>    | 3002325     | One-year XiO Cloud Premium subscription for accounts with 500 or more devices. Subscription is priced and purchased based on device count.   |
| <a href="#">SW-XIOC-PREMIUM-TRUE-UP</a>     | 3002326     | Device count true-up for XiO Cloud Premium subscriptions. Can be applied proactively to increase device count at any time during a subscription term, or can be applied retroactively upon receipt of a true-up statement for the device count usage within the past year. For more information, refer to the <a href="#">Crestron XiO Cloud Premium True-Up Guide</a> . |

## Free XiO Cloud Subscriptions

Authorized resellers and end users can request a free XiO Cloud subscription directly through the [Licensing and Registration Hub](#).

1. Within the hub, select the **Crestron XiO Cloud** tab (open by default), and then expand the **New Account Registration & Licensing** accordion.
2. Select **See the Form** to open the **XiO Cloud Account Registration** form.
3. Select **New** or **Existing** from the **XiO Cloud Account** drop-down menu depending on whether a new or existing account will be used for the subscription.
4. Select **Subscribe to free XiO Cloud service** from the **Registration Type** drop-down menu.
5. Enter all other required information in the appropriate fields.
6. Agree to the **Crestron License Agreement** and **Privacy Statement Regarding Internet Data Collection** by filling the check boxes.
7. Select **Submit** at the bottom of the form.

The form is submitted directly to Crestron, who initiates creating the account. The account administrator receives the new account information via email, including account credentials and a temporary password.

# XiO Cloud Premium Subscriptions

Authorized resellers can purchase new XiO Cloud Premium subscriptions or renew existing subscriptions directly through Crestron. Existing subscriptions can also be upgraded to increase the device count.

**NOTE:** Crestron does not automatically activate renewals for XiO Cloud subscriptions. The authorized reseller must submit a purchase order and an updated XiO Cloud registration form to activate or renew the subscription, pending verification by Crestron. For more information, refer to [Renew Existing XiO Cloud Premium Subscriptions on page 10](#).

## New XiO Cloud Premium Subscriptions

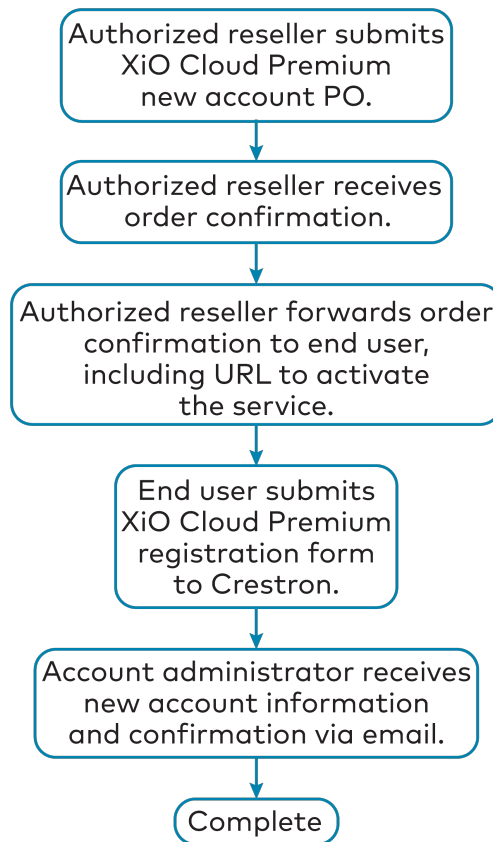
To purchase a new XiO Cloud Premium subscription:

1. The authorized reseller submits a purchase order (PO) for the subscription to [orders@crestron.com](mailto:orders@crestron.com) (US), [ceurorders@crestron.com](mailto:ceurorders@crestron.com) (EU), [asiaorders@crestron.com](mailto:asiaorders@crestron.com) (ASIA), or [anzorders@crestron.com](mailto:anzorders@crestron.com) (ANZ) **Include the following information in the PO to avoid ordering delays:**
  - Specify that the order is for a new XiO Cloud Premium subscription
  - End user and project name (for reference)
  - Expected device count
  - Subscription term (in years)
2. The authorized reseller receives an order confirmation along with a link to the [Licensing and Registration Hub](#).
3. The authorized reseller forwards the order confirmation to the end user, including the request to complete the XiO Cloud registration form.

**NOTE:** The end user must provide a PO number or Crestron Sales Order number from the authorized reseller as part of the activation process.

4. The end user completes the XiO Cloud registration form as follows when they are ready to activate the subscription:
  - a. Within the hub, select the **Crestron XiO Cloud** tab (open by default), and then expand the **New Account Registration & Licensing** accordion.
  - b. Select **See the Form** to open the **XiO Cloud Account Registration** form.
  - c. Select **New** or **Existing** from the **XiO Cloud Account** drop-down menu depending on whether a new or existing account will be used for the subscription.
  - d. Select **Subscribe to paid XiO Cloud Premium service** from the **Registration Type** drop-down menu.
  - e. Enter all other required information in the appropriate fields.
  - f. Enter the **Purchase Order or Crestron Order Number** as provided by the dealer.
  - g. Agree to the **Crestron License Agreement** and **Privacy Statement Regarding Internet Data Collection** by filling the check boxes.
  - h. Select **Submit** at the bottom of the form.
5. The form is submitted directly to Crestron, who initiates creating the account.
6. The account administrator receives the new account information via email, including account credentials and a temporary password.

Refer to the following process diagram for an overview on how to order new XiO Cloud Premium subscriptions.



# Renew Existing XiO Cloud Premium Subscriptions

To renew existing XiO Cloud Premium subscriptions:

1. The authorized reseller submits a purchase order (PO) for the subscription to [orders@crestron.com](mailto:orders@crestron.com) (US), [ceurorders@crestron.com](mailto:ceurorders@crestron.com) (EU), [asiaorders@crestron.com](mailto:asiaorders@crestron.com) (ASIA), or [anzorders@crestron.com](mailto:anzorders@crestron.com) (ANZ) **Include the following information in the PO to avoid ordering delays:**

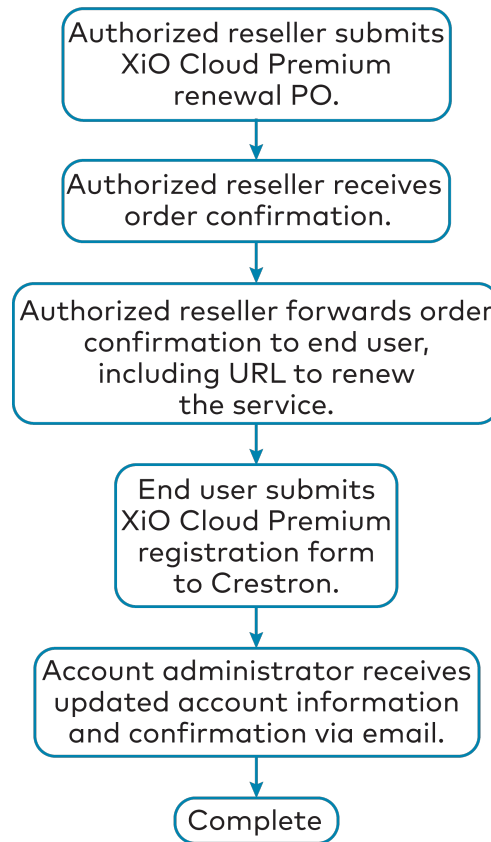
**delays:**

- Specify that the order is to renew an existing XiO Cloud Premium subscription
  - End user and XiO Cloud account name (for reference)
  - Expected device count (to be verified by Crestron)
  - Subscription term (in years)
2. The authorized reseller receives an order confirmation along with a link to the [Licensing and Registration Hub](#).
  3. The authorized reseller forwards the order confirmation to the end user, including the request to complete the XiO Cloud registration form.

**NOTE:** The end user must provide a PO number or Crestron Sales Order number from the authorized reseller as part of the activation process.

4. The end user completes the XiO Cloud registration form as follows when they are ready to renew the subscription:
  - a. Within the hub, select the **Crestron XiO Cloud** tab (open by default), and then expand the **New Account Registration & Licensing** accordion.
  - b. Select **See the Form** to open the **XiO Cloud Account Registration** form.
  - c. Select **Existing** from the **XiO Cloud Account** drop-down menu.
  - d. Select **Renew XiO Cloud Premium Subscription** from the **Registration Type** drop-down menu.
  - e. Enter all other required information in the appropriate fields.
  - f. Agree to the **Crestron License Agreement** and **Privacy Statement Regarding Internet Data Collection** by filling the check boxes.
  - g. Select **Submit** at the bottom of the form.
5. The form is submitted directly to Crestron, who initiates the renewal process.
6. The account administrator receives their updated account information via email, including the total device count and updated expiration date.

Refer to the following process diagram for an overview on how to renew XiO Cloud Premium subscriptions.



## Increase Device Count for XiO Cloud Premium Subscriptions

End users can add more devices to their account before the end date of their subscription term. Crestron strongly recommends working with our Licensing team ([license@crestron.com](mailto:license@crestron.com)) to accurately determine what should be ordered based on the end user's account and needs.

To increase the device count for XiO Cloud Premium subscriptions:

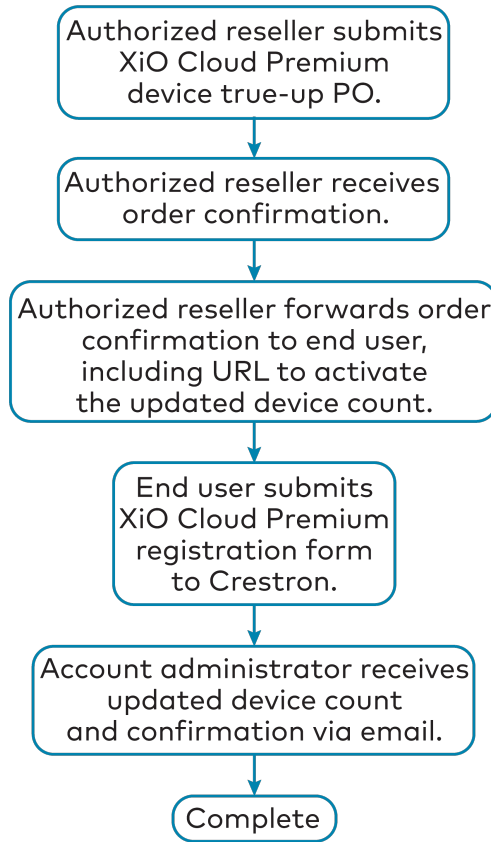
1. The authorized reseller submits a purchase order (PO) for the subscription to [orders@crestron.com](mailto:orders@crestron.com) (US), [ceuroorders@crestron.com](mailto:ceuroorders@crestron.com) (EU), [asiaorders@crestron.com](mailto:asiaorders@crestron.com) (ASIA), or [anzorders@crestron.com](mailto:anzorders@crestron.com) (ANZ) **Include the following information in the PO to avoid ordering delays:**
  - Specify that the order is to increase the device count for an existing XiO Cloud Premium subscription
  - End user and XiO Cloud account name (for reference)
  - Updated device count
2. The authorized reseller receives an order confirmation along with a link to the [Licensing and Registration Hub](#).

3. The authorized reseller forwards the order confirmation to the end user, including the request to complete the XiO Cloud registration form.

**NOTE:** The end user must provide a PO number or Crestron Sales Order number from the authorized reseller as part of the activation process.

4. The end user completes the XiO Cloud registration form as follows when they are ready to increase their device count:
  - a. Within the hub, select the **Crestron XiO Cloud** tab (open by default), and then expand the **New Account Registration & Licensing** accordion.
  - b. Select **See the Form** to open the **XiO Cloud Account Registration** form.
  - c. Select **Existing** from the **XiO Cloud Account** drop-down menu.
  - d. Select **Increase Device Count for XiO Cloud Premium Subscription** from the **Registration Type** drop-down menu.
  - e. Enter all other required information in the appropriate fields.
  - f. Agree to the **Crestron License Agreement** and **Privacy Statement Regarding Internet Data Collection** by filling the check boxes.
  - g. Select **Submit** at the bottom of the form.
5. The form is submitted directly to Crestron, who confirms the provided information and then initiates increasing the device count for the remainder of the subscription term.
6. The account administrator receives their updated account information via email, including the new device count.

Refer to the following process diagram for an overview on how to increase the device count for XiO Cloud Premium subscriptions.





# Log in to the Service

A registered XiO Cloud account is required to use the XiO Cloud service. To register for an account, visit [www.crestron.com/Support/Tools/Licensing-Registration/XiO-Account-Registration](https://www.crestron.com/Support/Tools/Licensing-Registration/XiO-Account-Registration).

The account administrator identified in the new XiO Cloud account registration will receive an email from Crestron that provides a username and a temporary password. These credentials are used for the initial login.

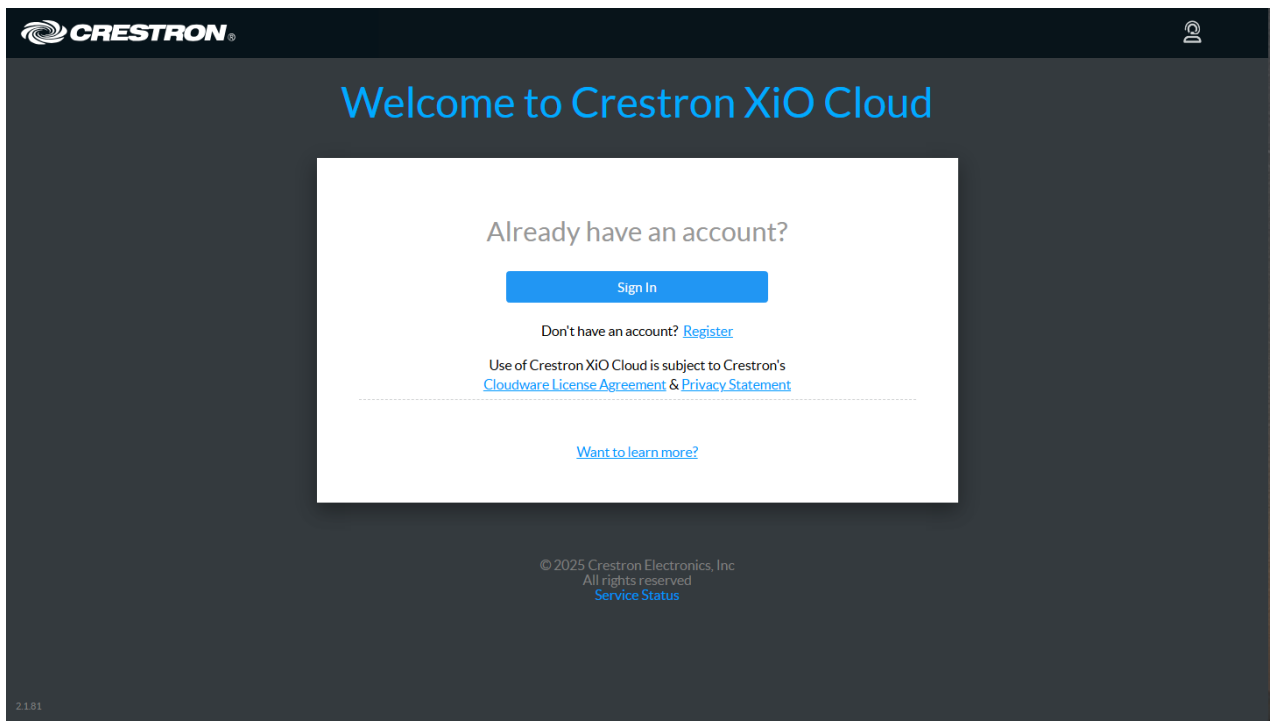
**NOTE:** Users registered with a single sign-on (SSO) identity provider will receive their login credentials from their provider instead. For more information on configuring SSO with XiO Cloud, refer to [Single Sign-On on page 110](#).

Additional users are added from within the XiO Cloud service. For information about managing, adding, and deleting users, refer to [Manage Users on page 104](#).

To log in to the XiO Cloud service:

1. Navigate to <https://portal.crestron.io>. The XiO Cloud landing page is displayed.

## XiO Cloud Landing Page



2. Select **Sign In**. A page for entering login credentials is displayed.

#### Login Credentials Page

© 2025 Crestron Electronics, Inc.  
All rights reserved.  
[Service Status](#)

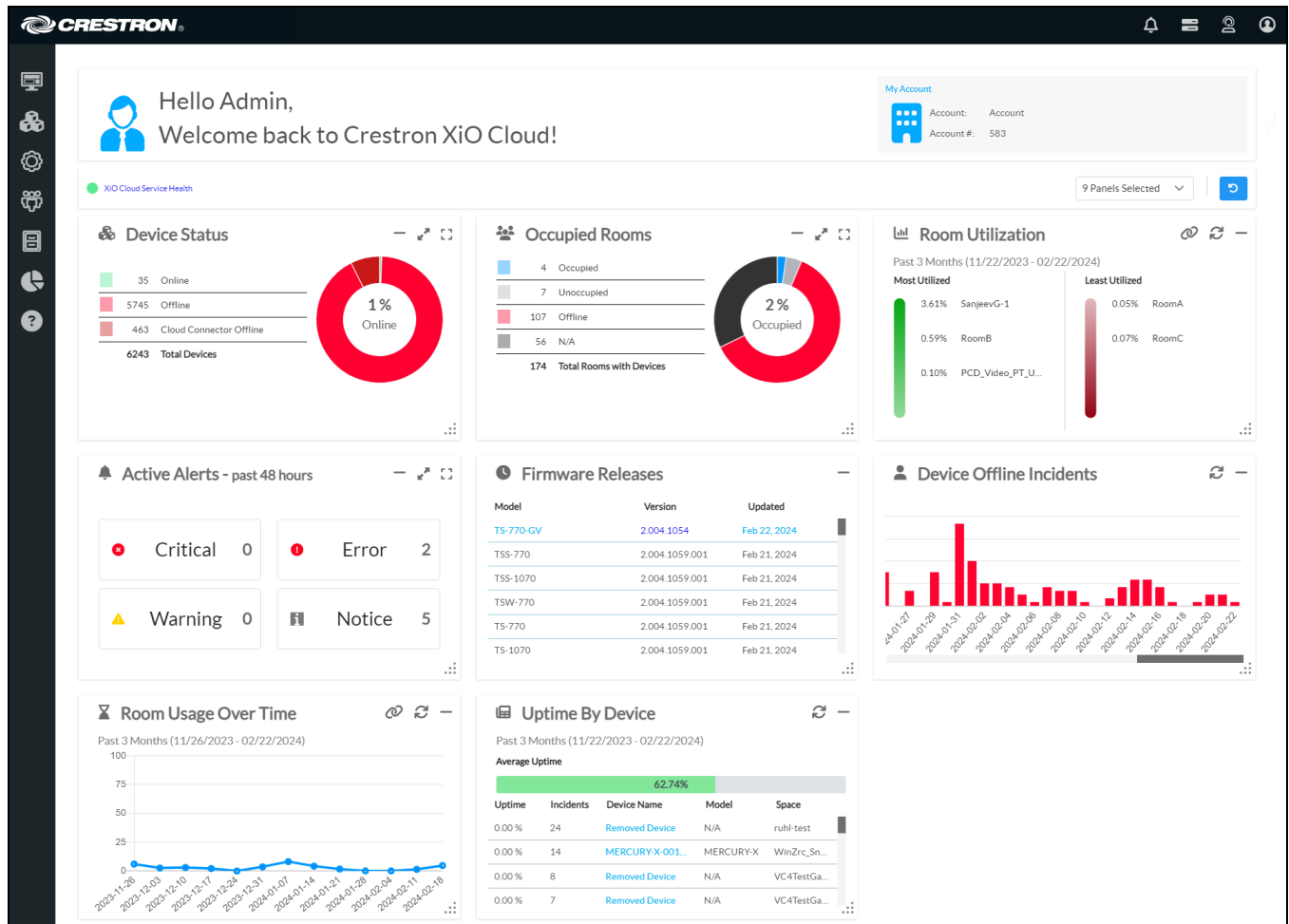
3. Enter your user name or email address (provided in the welcome email) in the text field, and then select **Continue**.

You are redirected to your identity provider to enter your login credentials. Crestron accounts will be directed to a Microsoft® Azure® service page for entering login credentials. Crestron uses Microsoft Azure services to manage login credentials for the highest level of enterprise security.

After logging into a Crestron account for the first time, you are asked to change your password and to provide an email address and mobile number. The email address and phone number are used for account recovery if your username or password is forgotten.

Upon successful login, you are redirected to the XiO Cloud service with the **Dashboard** page open by default.

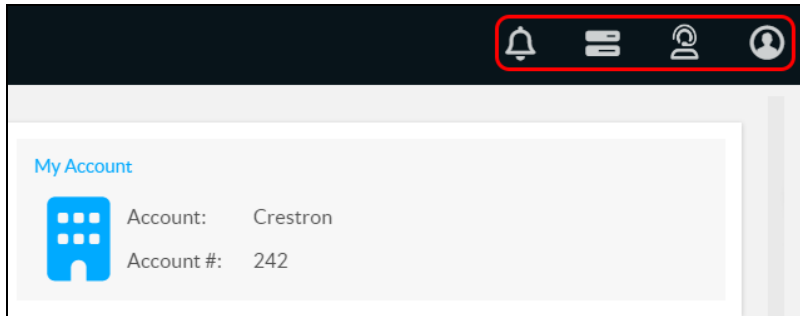
**XiO Cloud Service Dashboard Page (showing XiO Cloud Premium Subscription)**







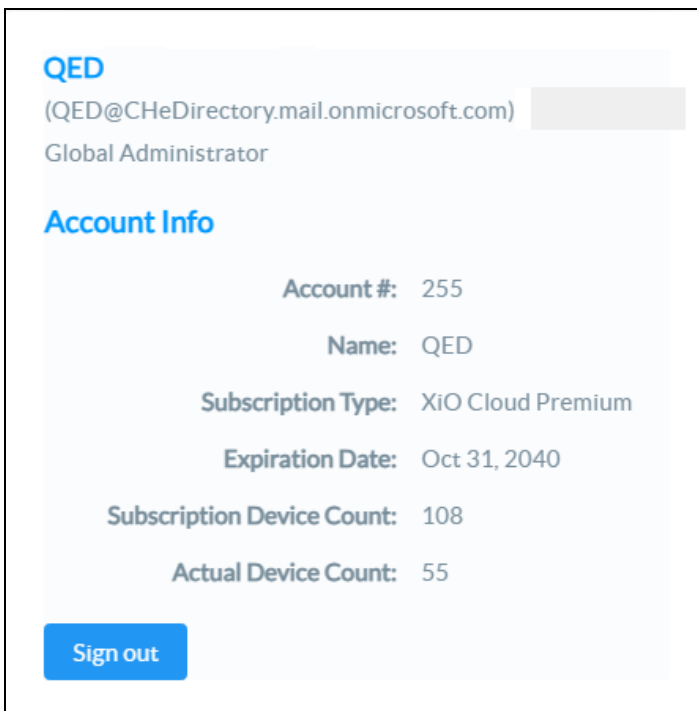
# Navigate the Service

The XiO Cloud service provides the following informational controls on the top right of the page.

## Informational Controls



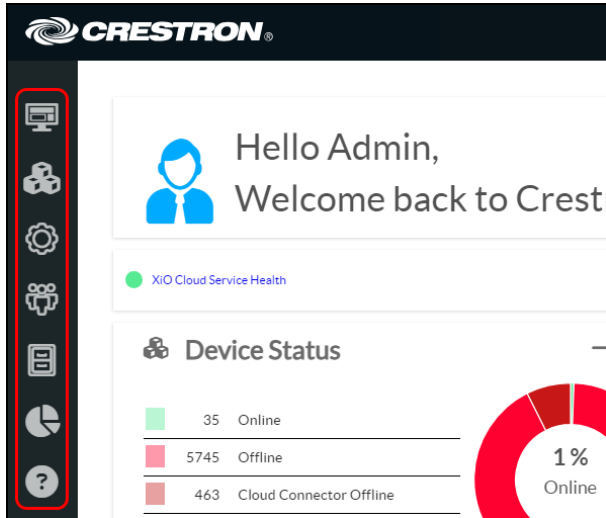
- Select the alerts button  to display recent What's New messages for the XiO Cloud account. For more information, refer to [What's New Message on page 128](#).
- Select the progress tracker button  to display progress status for tasks initiated within the XiO Cloud service. For more information, refer to [Progress Tracker on page 129](#).
- Select the support button  to display options for contacting Crestron True Blue support via email, chat, or phone.
- Select the profile button  to display the **Account Info** window.










- The **Account Info** window provides the following information about the account:
  - The account number, name, subscription type, and expiration date.
  - The current device count and the total available device count in the account (for XiO Cloud Premium subscriptions only), which can be used to determine whether a true-up will be required. For more information, refer to [How to Subscribe on page 6](#).
  - Controls to sign out of the account.


The XiO Cloud service also provides a navigation menu on the left of the page. The navigation menu is used to access the primary functions of the service.



### Navigation Menu



The following navigation controls are provided:

- Select the **Home** button  to access the account dashboard page. The home page is displayed by default after logging into the service.
- Select the **Groups** button  to access the group tree, which contains all groups, rooms, and devices in the account.
- Select the **Settings** button  to access account settings and to manage alerts.
- Select the **Users** button  to view and manage account users.
- Select the **File Upload** button  to view and manage uploaded files.
- Select the **Historical Reports** button  to generate reports for various data sets within the account (for XiO Cloud Premium subscriptions only).
- Select the **Help** button  to view documentation for getting started with the XiO Cloud service.

Certain navigation controls show an expanded menu when selected. For example, selecting the **Groups** button  shows the group tree in the expanded menu.

- Expanded menus can be collapsed by selecting the collapse button  in the header bar.
- When the menu is collapsed, select the expand button  to display the menu again.

# Build the Environment


The XiO Cloud service provides an environment that represents the organizational structure of an enterprise.

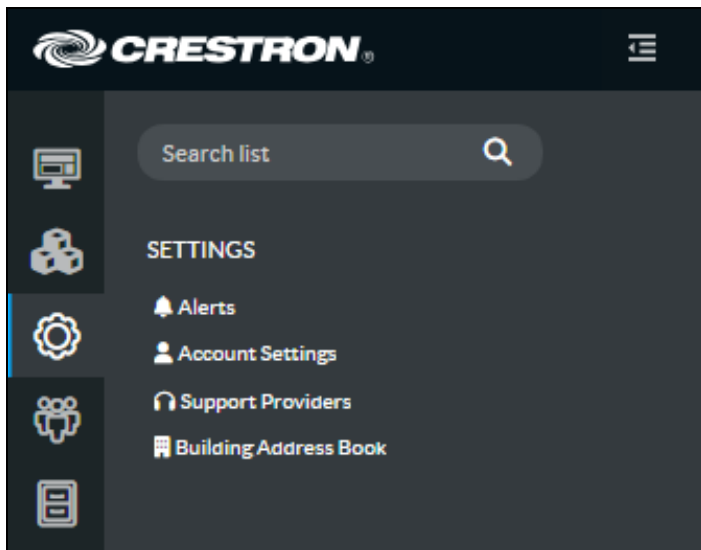
The XiO Cloud service environment consists of groups, rooms, desks, and devices. XiO Cloud administrators are able to create virtual buildings with multiple floors that represent their organization's workspaces. Once a building has been created, rooms or desks that contain devices can be added using the group tree. Devices may be associated with rooms or desks once they are claimed by the service. Once devices are associated with rooms or desks, actions may be performed simultaneously for all grouped devices.

Use the following procedures to build the XiO Cloud service environment.

## Create the Building Address Book

The building address book represents all workspaces with rooms or desks across an organization.

The **SETTINGS** menu for managing the building address book is located in the settings panel, which may be accessed by clicking the **Settings** button  in the navigation menu.



Select **Building Address Book** in the **SETTINGS** menu. A **Building Address Book** page is displayed to the right of the **SETTINGS** menu.

The screenshot shows the 'Building Address Book' interface. At the top, there is a header 'Building Address Book'. Below it, there are two tabs: 'Building List' (selected) and 'Space Properties'. A search bar with the placeholder 'Filter' and a magnifying glass icon is on the left, and a blue '+ Add Building' button is on the right. The main content is a table with the following columns: Building Name, Address, Country, State, City, Nickname, Time Zone, and an action column with a trash icon. The table contains four rows of building data.

| Building Name                     | Address               | Country       | State      | City            | Nickname        | Time Zone                 |  |
|-----------------------------------|-----------------------|---------------|------------|-----------------|-----------------|---------------------------|--|
| <a href="#">Crestron Building</a> | Ecospace, 6B          | India         | Karnataka  | Bangalore Urban | CB              | -                         |  |
| <a href="#">22 Link Drive</a>     | 22 link drive         | United States | New Jersey | Rockleigh       | 22link          | -                         |  |
| <a href="#">Colosseum</a>         | 1 Piazza del Colosseo | Italy         | Rome       | Roma            | Roman Colosseum | -                         |  |
| <a href="#">Primary Office</a>    | 1 Corporate Drive     | United States | New Jersey | Newark          | Office1         | (UTC-05) America/New_York |  |

At the bottom of the table, there is a pagination control showing '1 of 1' and a dropdown menu set to '10'.

The building address book allows for new buildings to be created and existing buildings to be edited or deleted. In addition, the desk and space types that are available for reservation within the organization can be selected or customized.

# Manage Buildings

Select the **Building List** tab in the **Building Address Book** page to show all buildings that have been created for the XiO Cloud account.

| Building Name ↑↓                  | Address ↑↓            | Country ↑↓    | State ↑↓   | City ↑↓         | Nickname ↑↓     | Time Zone ↑↓              |  |
|-----------------------------------|-----------------------|---------------|------------|-----------------|-----------------|---------------------------|--|
| <a href="#">Crestron Building</a> | Ecospace, 6B          | India         | Karnataka  | Bangalore Urban | CB              | -                         |  |
| <a href="#">22 Link Drive</a>     | 22 link drive         | United States | New Jersey | Rockleigh       | 22link          | -                         |  |
| <a href="#">Colosseum</a>         | 1 Piazza del Colosseo | Italy         | Rome       | Roma            | Roman Colosseum | -                         |  |
| <a href="#">Primary Office</a>    | 1 Corporate Drive     | United States | New Jersey | Newark          | Office1         | (UTC-05) America/New_York |  |

1 of 1 << < 1 > >> 10 ▾

Buildings are listed in a table that provides the following information:

- **Building Name:** The user-defined building name. Selecting this name allows the building to be edited.
- **Address:** The physical address of the building.
- **Country:** The country where the building is located.
- **State:** The state or province where the building is located.
- **City:** The city where the building is located.
- **Nickname:** An alternate or shorthand name for the building.
- **Time Zone:** The time zone of the building.

**NOTE:** Support for time zones was added in XiO Cloud version 1.62. Any buildings created before this release will have their time zones assigned automatically based on the configured building address. If the building address cannot be verified, then the default "(UTC +00) UTC" time zone will be assigned to the building instead. Time zones can be changed at any time by editing the building.

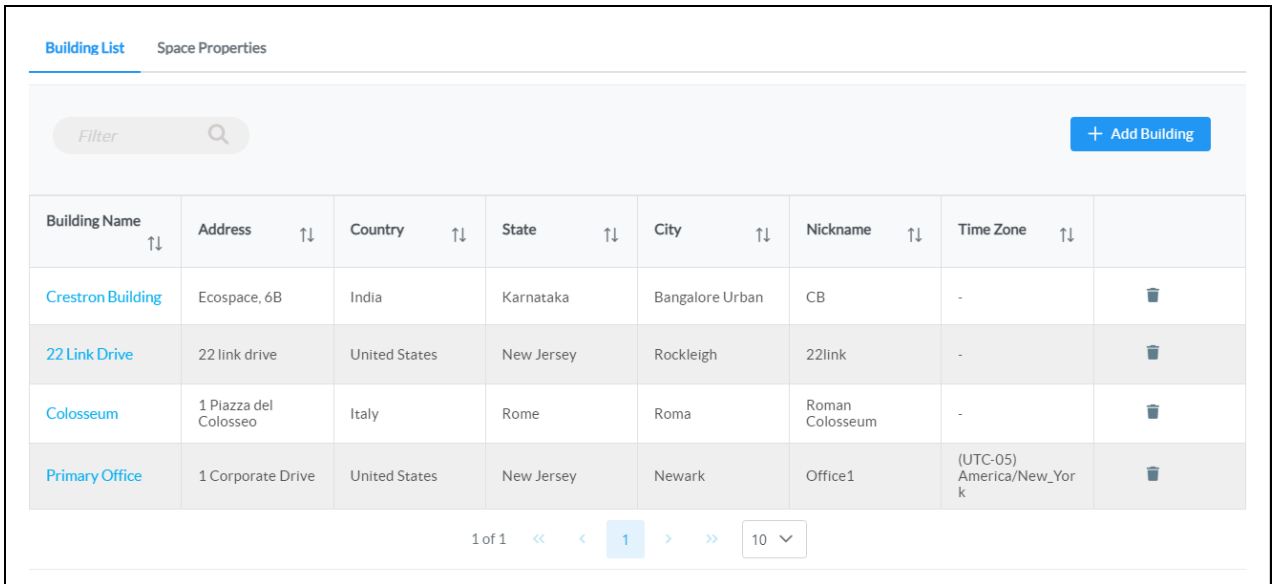
By default, buildings are sorted in alphabetical order. Use the controls provided in each column header to sort buildings in ascending or descending order based on the column data. Use the search field to locate a specific building that matches the search criterion. The table also provides navigational controls that can be used to move between pages and set the number of table rows per page.



## Create a New Building

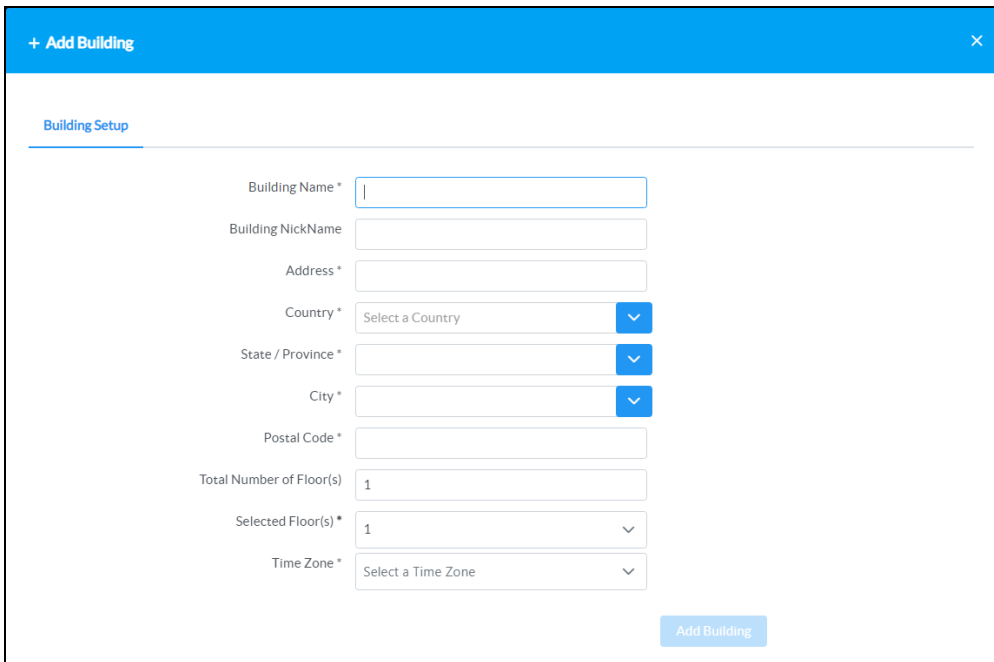
To create a new building in the building address book:

1. Select the **Building List** tab in the **Building Address Book** page.



| Building Name     | Address               | Country       | State      | City            | Nickname        | Time Zone                 |  |
|-------------------|-----------------------|---------------|------------|-----------------|-----------------|---------------------------|--|
| Crestron Building | Ecospace, 6B          | India         | Karnataka  | Bangalore Urban | CB              | -                         |  |
| 22 Link Drive     | 22 link drive         | United States | New Jersey | Rockleigh       | 22link          | -                         |  |
| Colosseum         | 1 Piazza del Colosseo | Italy         | Rome       | Roma            | Roman Colosseum | -                         |  |
| Primary Office    | 1 Corporate Drive     | United States | New Jersey | Newark          | Office1         | (UTC-05) America/New_York |  |

2. Select **+ Add Building**. The **Add Building** dialog box is displayed.



**+ Add Building**

**Building Setup**

Building Name \*

Building NickName

Address \*

Country \*

State / Province \*

City \*

Postal Code \*

Total Number of Floor(s)

Selected Floor(s) \*

Time Zone \*

**Add Building**

3. Enter the following information for the building:

- **Building Name:** *Required.* Enter the building name. This name will be displayed for the building throughout the XiO Cloud service.
- **Building NickName:** Enter an alternate or shorthand name for the building.
- **Address:** *Required.* Enter the physical street address for the building.

- **Country:** *Required.* Use the drop-down menu to select the country where the building is located.
- **State / Province:** *Required.* If applicable, select the state or province where the building is located. The available selections are populated based on the value selected for **Country**.
- **City:** *Required.* Enter the city where the building is located.
- **Postal Code:** *Required.* Enter the postal code associated with the building address.
- **Total Number of Floor(s):** Enter the total number of floors of the building that contains the organization, including floors that do not belong to the organization.
- **Selected Floor(s):** *Required.* Use the drop-down menu to select the specific floors of the building that belong to the organization. A filled check box next to the floor number indicates that it has been selected. The available selections are populated based on the number entered for **Total Number of Floor(s)**.

For example, if your organization is located on the eighth, ninth, and tenth floors of a building with 20 floors, select **8, 9, and 10** from the drop-down menu.

**NOTE:** Six floor levels with negative values are also provided in the **Selected Floor (s)** drop-down menu to support underground or basement floors.

- **Time Zone:** *Required.* Use the drop-down menu to select the time zone of the building.
4. Once all required fields have been populated, select **Add Building**. The building is added to the table in the **Building Address Book** page.

## Edit a Building

To edit an existing building, select the building name within its table row in the **Building Address Book** page. The **Edit Building** dialog box is displayed.

The screenshot shows the 'Edit Building' dialog box with the following fields and values:

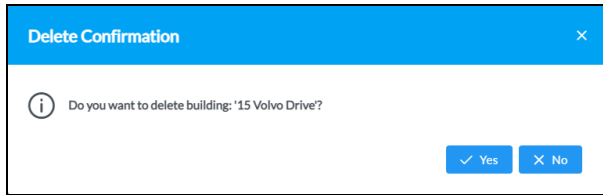
- Building Name \*: Primary Office
- Building NickName: Office1
- Address \*: 1 Corporate Drive
- Country \*: United States
- State / Province \*: New Jersey
- City \*: Newark
- Postal Code \*: 07101
- Total Number of Floor(s): 5
- Selected Floor(s) \*: 1, 2, 3, 4, 5
- Time Zone \*: (UTC-05) America/New\_York

An 'Update Building' button is located at the bottom right of the dialog.

Once all changes have been made, select **Update Building** to return to the **Building Address Book** page.

## Delete a Building

To delete an existing building, select the trash can icon within the building's table row in the **Building Address Book** page. A confirmation prompt is displayed asking whether the building should be deleted.



Select **Yes** to delete the building or **No** to cancel the deletion.

**NOTE:** A building cannot be deleted if any rooms or desks are associated with it. If you attempt to delete a building with associated rooms or desks, a message window is displayed stating that all rooms and desks must be deleted or moved from the building before it can be deleted. For more information, refer to [Delete a Desk on page 48](#).

## Manage Space Properties

Select the **Space Properties** tab in the **Building Address Book** page to configure the desk and space types that can be reserved within the organization.



Select **Desk Type** or **Space Type** to configure desk or space types, respectively.




The screenshot shows a web interface for configuring space types. At the top, there are two tabs: "Building List" and "Space Properties". Below the tabs, there are two sub-tabs: "Desk Type" and "Space Type", with "Space Type" being the active tab. A "Show" column contains checkboxes for each space type, and the "Space Type" column contains text input fields for each type. All checkboxes are checked.

| Show                                | Space Type                |
|-------------------------------------|---------------------------|
| <input checked="" type="checkbox"/> | Meeting Room              |
| <input type="checkbox"/>            | UC Room                   |
| <input checked="" type="checkbox"/> | Huddle Space              |
| <input checked="" type="checkbox"/> | Boardroom                 |
| <input checked="" type="checkbox"/> | Executive Conference Room |
| <input checked="" type="checkbox"/> | Large Conference Room     |
| <input checked="" type="checkbox"/> | Small Conference Room     |
| <input checked="" type="checkbox"/> | Auditorium                |
| <input checked="" type="checkbox"/> | Training Room             |
| <input checked="" type="checkbox"/> | Classroom                 |

Ten default desk types and space types are provided. Fill the **Show** check box next to a desk or space type to make it available for selection when adding or editing a desk or room.

Additionally, all default desk or space types can be customized using the **Desk Type** or **Space Type** text fields.

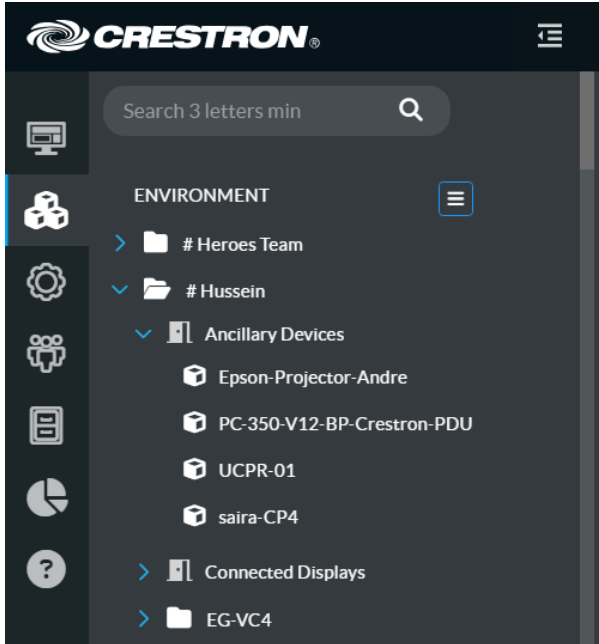
## Create the Group Tree

The group tree is in the environment panel, which may be accessed by selecting the **Groups** button  in the navigation menu.

The group tree is the primary organizational structure of the XiO Cloud environment. Top-level groups, rooms, and desks appear in the group tree once they are added to the environment. One or more subgroups, rooms, and desks may also be added under each group.

The group tree is located under the **ENVIRONMENT** menu on the left side of the configuration pages. Groups, subgroups, rooms, and desks are ordered alphabetically. A search field is provided at the top of the **ENVIRONMENT** menu that can be used to find items within the environment group tree. Hover the cursor over the right edge of the group tree to display a vertical blue bar that can be used to adjust the tree width.

## Environment Menu




## Manage Groups

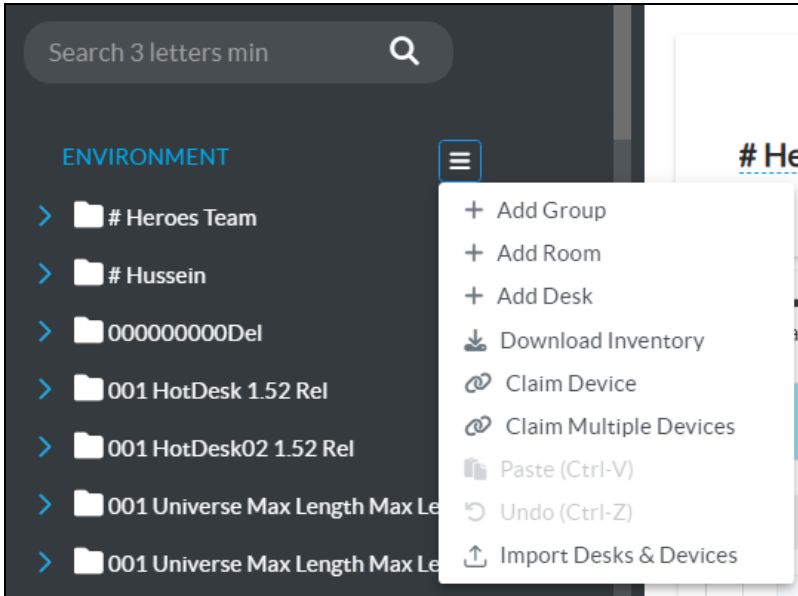
Groups are added within the group tree. Groups provide a means for organizing rooms, desks, and subgroups into logical categories (typically representing the structure of an enterprise or building). Actions can be performed for multiple devices at once at the group level.

## Add a Top-Level Group

To add a top-level group:

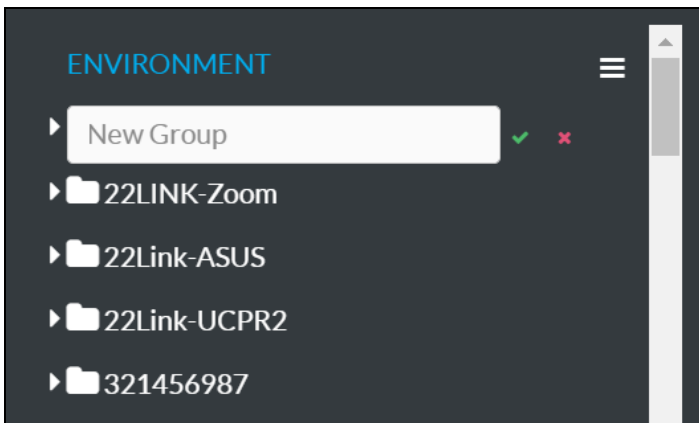
1. Select the **ENVIRONMENT** menu button  to display a drop-down menu.

### Environment - Drop-Down Menu




2. Select **Add Group**. A new group is added to the group tree.

### Environment - New Group



3. Enter a descriptive group name in the **New Group** text field. A group name must be at least three characters long.

**NOTE:** Each group name must be unique. If a duplicate group name is entered, a notification is displayed stating that the group name already exists.

4. Select the green check icon  or select **Enter** to save the group. Select the red x icon  to discard the group.


The group is reordered alphabetically in the top level of the group tree after it is added.

Select the group from the group tree to view and configure group settings. For more information, refer to [Configure Settings for a Group of Devices on page 80](#).

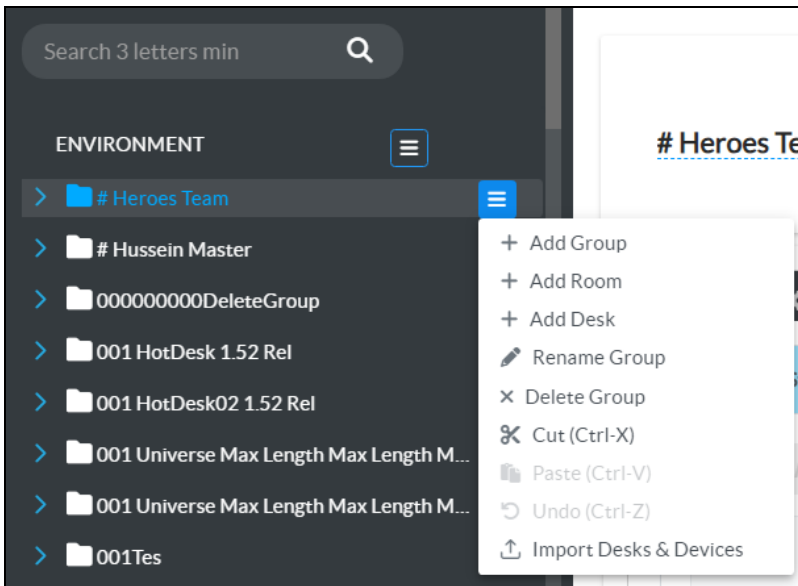
## Add a Subgroup

One or more subgroups may be added under the top-level group. A group hierarchy may contain up to eight levels.

To add a subgroup:

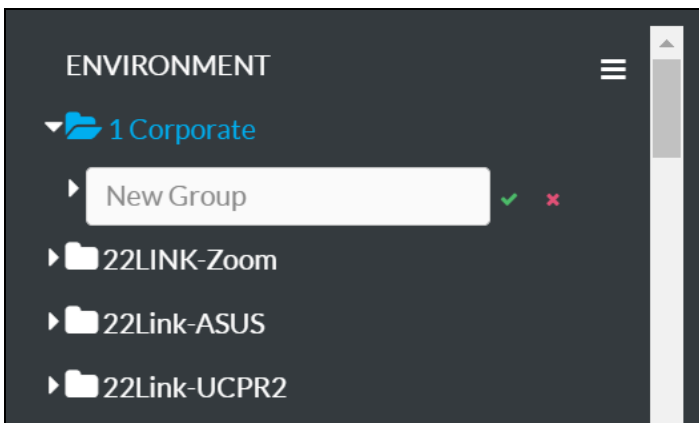
1. Position the cursor over the group name in the **ENVIRONMENT** menu to reveal its context menu.
2. Select the context menu button  for the group to display a drop-down menu.

### Group - Drop-Down Menu



3. Select **Add Group**. A new subgroup is added under the selected group.

### Group - New Group



4. Enter a descriptive subgroup name in the **New Group** text field. A subgroup name must be at least three characters long.

5. Select the green check icon  or select **Enter** to save the subgroup. Select the red x icon  to discard the subgroup.


The subgroup is reordered alphabetically within its parent group after it is added.

Select the subgroup from the group tree to view and configure subgroup settings. For more information, refer to [Configure Settings for a Group of Devices on page 80](#).

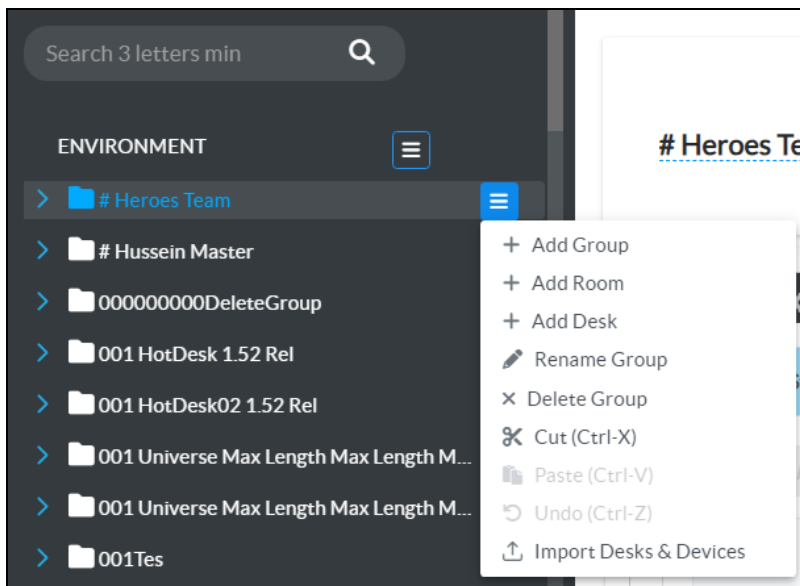
## Rename a Group

Each group in the XiO Cloud service has a unique name, which allows the group to be identified and organized within the service. A group may be renamed as needed.

To change the group name in the group tree:

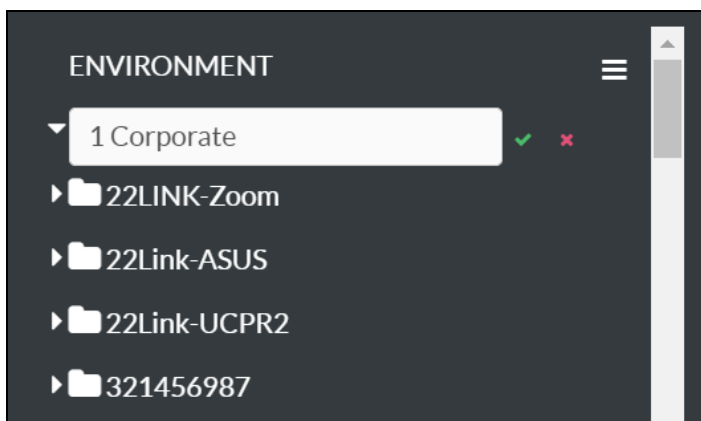
1. Position the cursor over the group name in the **ENVIRONMENT** menu to reveal its context menu.
2. Select the context menu button  for the group to display a drop-down menu.

### Group - Drop-Down Menu





3. Select **Rename Group**. The group name becomes an editable text box.

### Group - Edit Group Name






4. Enter a new group name in the text box. A group name must be at least three characters long.
5. Select the green check icon  or select **Enter** to save the group name. Select the red **x** icon  to discard the changes.

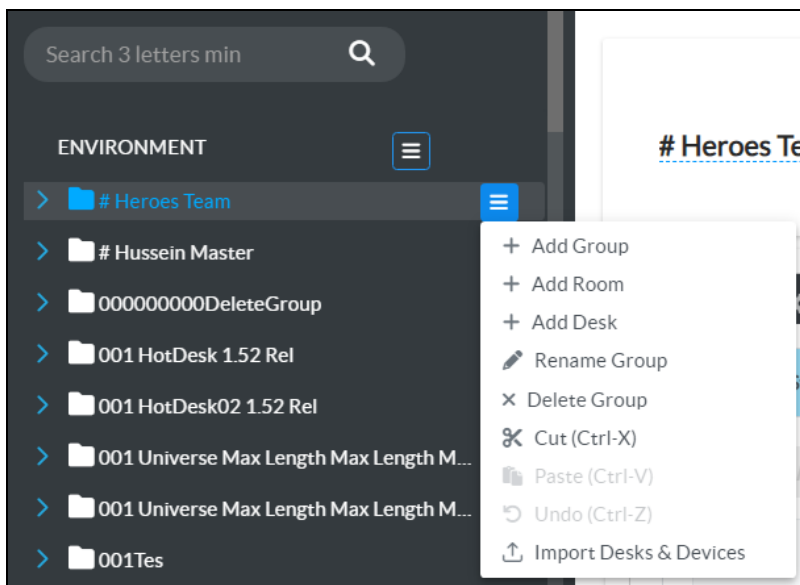
## Delete a Group

Groups may be deleted from the XiO Cloud service environment as needed. A group that contains a subgroup may not be deleted until all subgroups are removed.

To delete a group from the group tree:

1. Position the cursor over the group name in the **ENVIRONMENT** menu to reveal its context menu.
2. Select the context menu button  for the group to display a drop-down menu.

### Group - Drop-Down Menu



3. Select **Delete Group**. A confirmation dialog box is displayed.
4. Select **Yes** to delete the group or select **No** to cancel the deletion.


## Manage Rooms

Rooms can be added within groups or at the top level of the group tree. Rooms are designed to represent physical rooms within an enterprise that contain all cloud-enabled devices. Devices can be added to rooms after they claimed into the XiO Cloud service. Rooms can also be tied to custom programming for monitoring, reporting, and control.

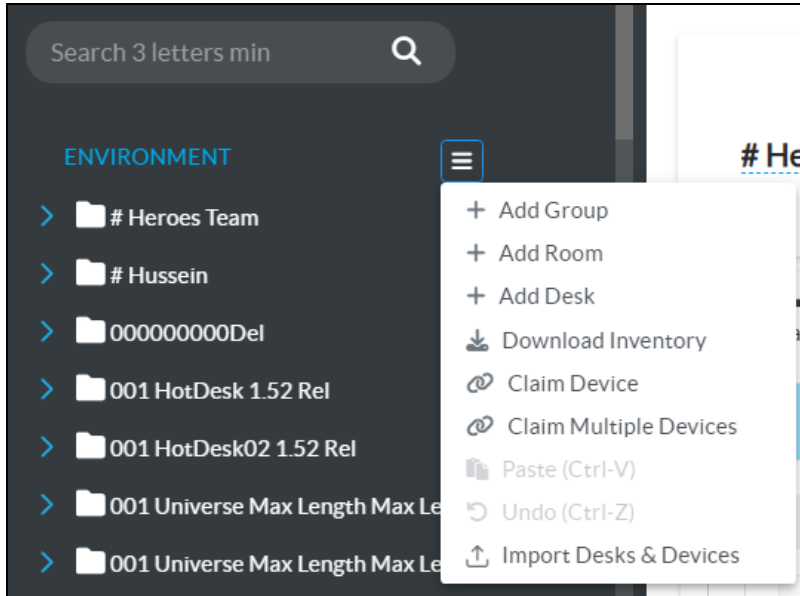
**NOTE:** As of XiO Cloud version 1.55, new rooms are added using the building address book function. An import tool is provided for existing deployments that associates all existing rooms with a building address book. For more information, refer to [Associate Rooms with a Building on page 37](#).

## Add a New Room

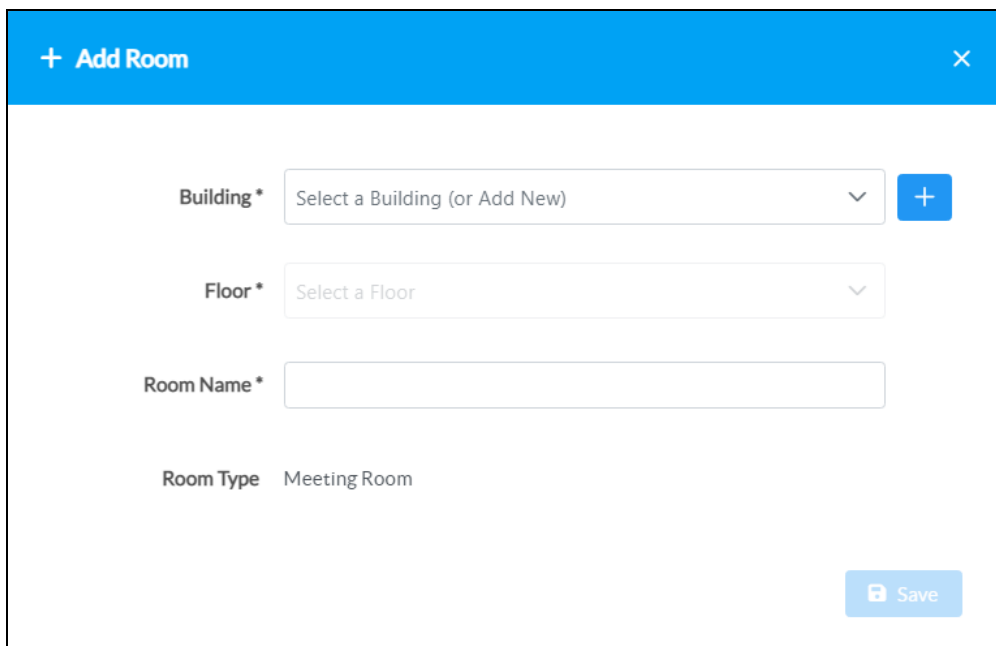
To add a new room:

1. Select the **ENVIRONMENT** menu button  to display a drop-down menu.

### Environment - Drop-Down Menu



2. Select **Add Room**. The **Add Room** dialog box is displayed.

A screenshot of a dialog box titled "+ Add Room" with a close button (X) in the top right corner. The dialog contains the following fields: "Building\*" is a dropdown menu with the text "Select a Building (or Add New)" and a blue plus button to its right; "Floor\*" is a dropdown menu with the text "Select a Floor"; "Room Name\*" is a text input field; and "Room Type" is a dropdown menu with the text "Meeting Room". A "Save" button is located at the bottom right of the dialog.

3. Enter the following information for the desk:

- **Building:** *Required.* Use the drop-down menu to select a building that will be associated with the room from the building address book.

If the desired building is not shown, select **+ Add Building** to display the **Add Building** dialog box. For more information on adding a building, refer to [Create a New Building on page 22](#).

- **Floor:** *Required.* Select the building floor where the room is located. The available selections are populated based on the floors configured for the building.
- **Room Name:** *Required.* Enter the room name. This name will be displayed for the room throughout the XiO Cloud service.

4. Select **Save**. The room is added to the group tree and is reordered alphabetically within its parent group after it is added.

Select the room from the group tree to view and configure group settings. For more information, refer to [Configure Settings for a Group of Devices on page 80](#).

## Edit a Room

Once a room has been added to the group tree, select it in the tree to open the room details page.

**30M**  
Address: crestron

Health Occupied Maintenance ✓ Action

**Room Details**

|              |               |       |                           |
|--------------|---------------|-------|---------------------------|
| Space Type   | Building Name | Floor | Time Zone                 |
| Meeting Room | PI Building1  | 1     | (UTC-05) America/New_York |

Status Equipment List Group View Alerts (2)

Global Filter  Device Model: All Export to CSV 12 Columns Selected

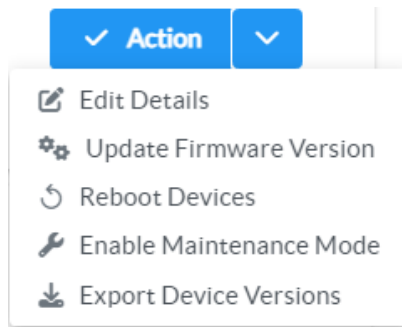
| Name   | Device Model | Firmware-Version | Serial | MAC Address | Online St |
|--------|--------------|------------------|--------|-------------|-----------|
| VC4_1  | VC-4         | 4.0004.00057     |        |             |           |
| VC4-10 | VC-4         | 4.0004.00057     |        |             |           |

<< < 1 > >> 25

The following information is displayed for the room:

- The user-defined room name and the building address.
- Indicators that show the room health, whether the room is occupied (if it contains occupancy-sensing equipment), and whether the room is currently in maintenance mode.
- A **Room Details** section that displays the space type, building name, floor, and time zone.
- A **Status** tab that displays various room status controls and indicators if the XiO Cloud program connector has been configured. For more information, refer to [XiO Cloud Program Connector on page 65](#).
- An **Equipment List** tab that displays the status of associated devices.
- A **Group View** tab that displays options for managing all devices in the room. For more information, refer to [Configure Settings for a Group of Devices on page 80](#).
- An **Alerts** tab that displays any recent alerts that have been raised for the room. For more information, refer to [Alerts on page 130](#).

An **Action** menu is also provided in the top right of the page that provides a **Edit Details** selection for editing the room details.



Select **Edit Details** to display editable fields for room settings.

The screenshot displays the 'Edit Details' interface for a room. At the top, there is a room name field containing '15 Volvo 222'. To the right are three status indicators: Health (with a plus icon), Occupied (with a person icon), and Maintenance (with a wrench icon). A 'Save Details' button is located on the far right. Below this is the 'Space Details' section with three dropdown menus: 'Space Type' (set to 'Select a Room Type'), 'Building Name' (set to '6 Volvo'), and 'Floor' (set to '1'). The main section is titled 'Equipment List' and includes a 'Global Filter' search bar, a 'Device Model' dropdown, an 'Export to CSV' button, and a '12 Columns Selected' dropdown. A table with columns for Name, Device Model, Firmware-Version, Serial, MAC Address, and Online Status is shown, with a 'Loading data...' message. A pagination bar at the bottom indicates page 1 of 25.

The following settings can be edited:


- **Room Name:** Enter the room name. This name will be displayed for the desk throughout the XiO Cloud service.
- **Space Type:** Use the drop-down menu to select the space type. The available selections are populated based on the space types configured for the building address book. For more information, refer to [Manage Space Properties on page 24](#).
- **Building Name:** Use the drop-down menu to select a building that will be associated with the room from the building address book.
- **Floor:** Select the building floor where the room is located. The available selections are populated based on the floors configured for the building.

Select **Save Details** to save any changes. A toast notification is shown indicating that the changes have been saved.

## Rename a Room

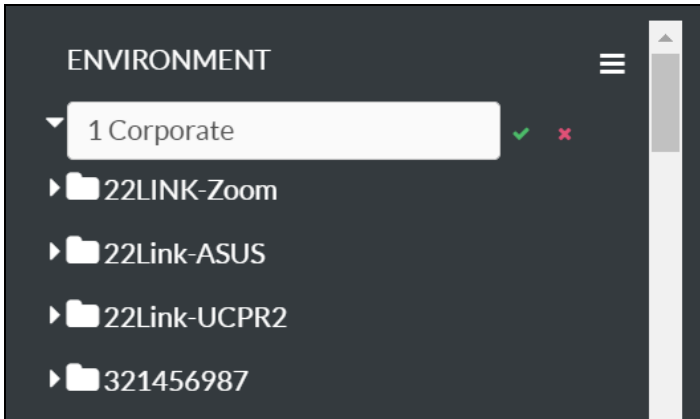
Each room in the account has a unique name, which allows the room to be identified and organized within the service. A room may be renamed as needed.



To change the room name in the group tree:

1. Position the cursor over the group name in the **ENVIRONMENT** menu to reveal its context menu.
2. Select the context menu button  for the group to display a drop-down menu.

3. Select **Rename Room**. The room name becomes an editable text box.

#### Room - Edit Room Name




4. Enter a new room name in the text box. A room name must be at least three characters long.
5. Select the green check icon  or select **Enter** to save the room name. Select the red **x** icon  to discard the changes.

## Delete a Room


Rooms may be deleted from an XiO Cloud account environment as needed. A room that contains a device may not be deleted until all child devices removed.


To delete a room from the group tree:

1. Position the cursor over the group name in the **ENVIRONMENT** menu to reveal its context menu.
2. Select the context menu button  for the group to display a drop-down menu.
3. Select **Delete Room**. A confirmation dialog box is displayed.
4. Select **Yes** to delete the group or select **No** to cancel the deletion.




## View Device Settings

Once devices have been associated with the room, navigate to the **Equipment List** section of the room status page to view the following device settings.



| Name         | Device Model | Firmware-Version | Serial  | MAC Address       | Online Status   | Pending Settings Delivery | IP Address   |
|--------------|--------------|------------------|---------|-------------------|---|---------------------------|--------------|
| TS-770-C4426 | TS-770       | 2.5496.07722     | 2133JBH | e4.42.68.09.62.c4 |  | No                        | 192.168.1.16 |

- **Device Name:** The device name in XiO Cloud.
- **Device Model:** The device model.
- **Firmware Version:** The firmware version running on the device.
- **Serial:** The device serial number.

- **MAC Address:** The MAC address of the device network adapter used to connect to the XiO Cloud service.
- **Online Status:** Indicates whether the device is reporting online  or offline  within XiO Cloud. Crestron XiO Cloud Gateway connected devices that are reporting offline show a cloud connector offline icon .
- **Pending Settings Delivery:** Indicates whether device settings changed in XiO Cloud are pending delivery to the device.
- **IP Address:** The current device IP address.

**NOTE:** Select the IP address to navigate to the web configuration interface for that device in a new tab (if available).

- **Hostname:** The device host name.
- **Application Mode:** If applicable, indicates the application mode that is running on the device.
- **DHCP Enabled:** Indicates whether DHCP is turned on or off for the device.
- **Room Status:** If applicable, indicates status of the room for devices with room scheduling capabilities.
- **Calendar Connection:** If applicable, indicates status of the calendar connection for devices with room scheduling capabilities.

An **Actions** column is also provided that allows the device to be configured or deleted. For more information on configuring a device, refer to [Manage Devices on page 72](#).

The data that is displayed in the device table can be customized by filtering the table columns. By default, 12 columns are displayed that contain the data described in the list above.

To select or deselect table columns for the device status table, expand the drop-down menu at the top right of the table. Then, select or deselect an item in the menu to display or hide that column from the table, respectively. Use the check box at the top of the menu to select or deselect all columns.

**NOTE:** The device status table will reset to its default settings after logging out of the XiO Cloud service.

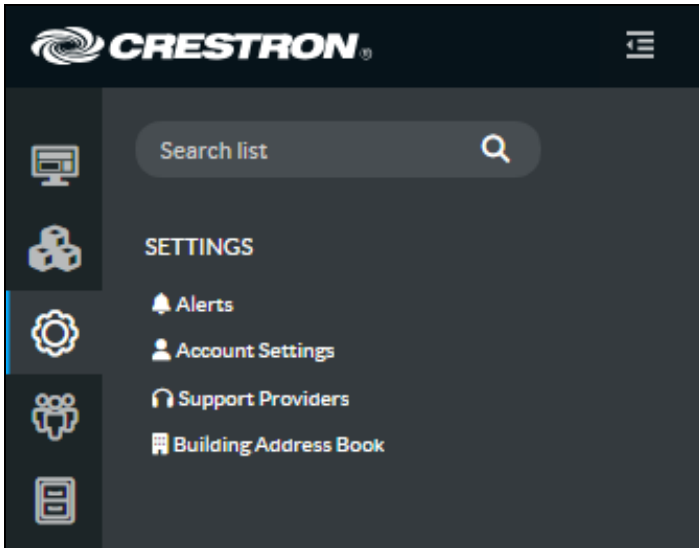
The device status table can be downloaded as a CSV file by selecting the **Export to CSV** button at the top right of the table. The CSV file will include all table columns that have been selected as described above.

## Associate Rooms with a Building

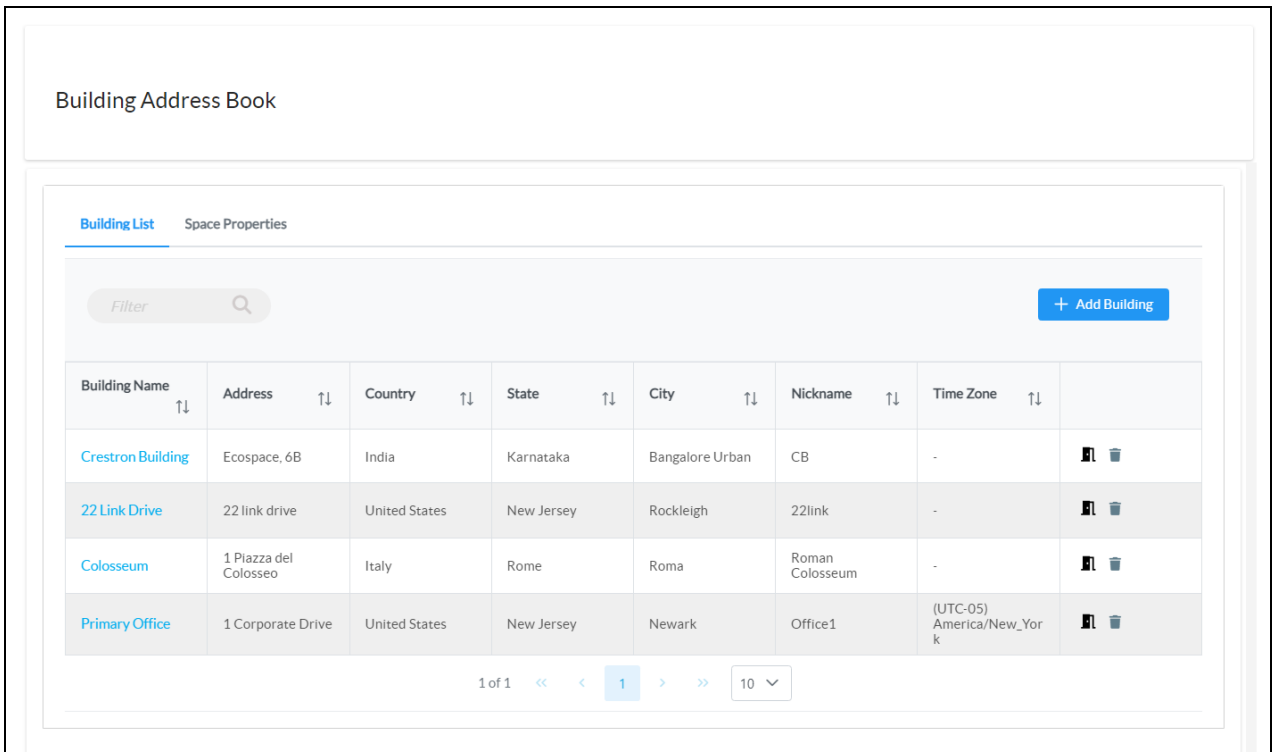
As of XiO Cloud version 1.55, new rooms are added using the building address book function. An import tool is provided for existing deployments that associates all existing rooms with a building address book.

To associate rooms with a building using the import tool:


1. Select the **Settings** button  in the navigation menu.



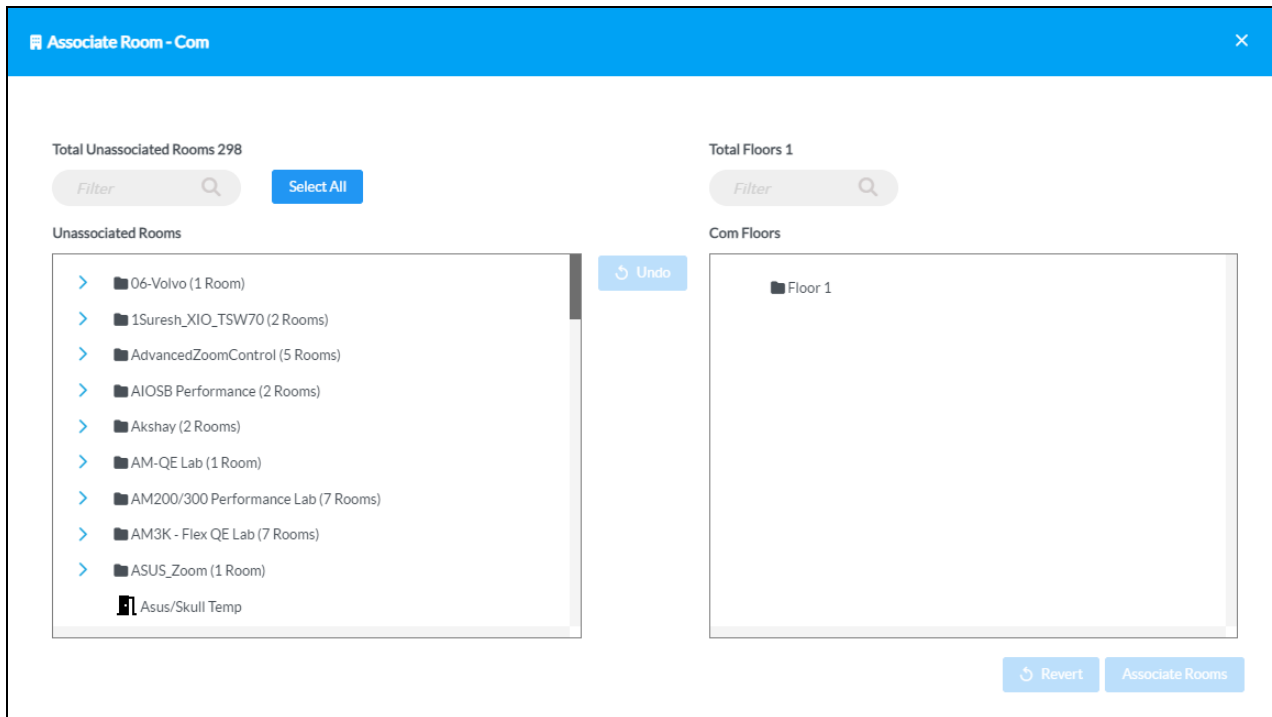
2. Select **Building Address Book**. A **Building Address Book** page is displayed to the right of the **SETTINGS** menu.



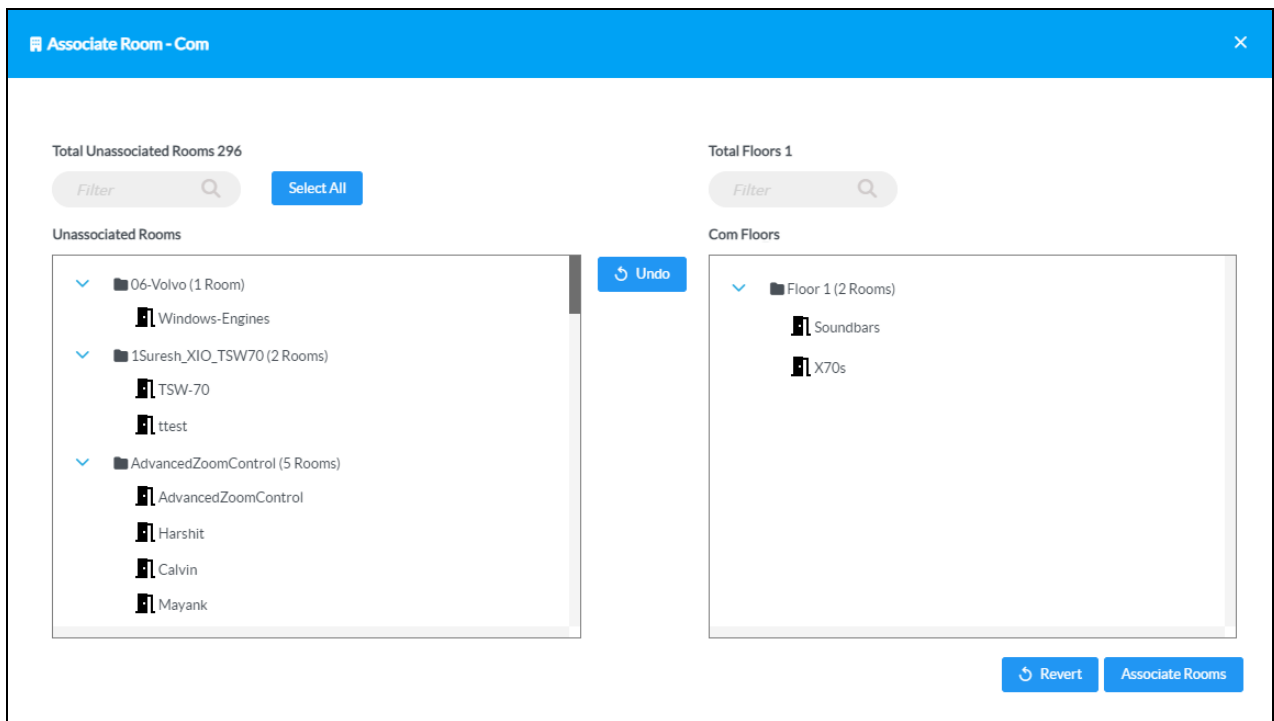


3. Select the door icon  in the table row of the desired building address book. An **Associate Rooms** dialog box is displayed.

**NOTE:** The door icon appears only if there are rooms in a deployment that are not associated with in address book. Once all rooms have been associated, this selection is no longer available.



4. Drag rooms from the **Unassociated Rooms** column into the appropriate floor of the building within the **[Building] Floors** column. The **Unassociated Rooms** column matches the structure of the XiO Cloud group tree for the account.
  - Enter text into the filter text boxes to filter room, group, and floor data based on the entered text.
  - Select **Select All** to select all rooms within the **Unassociated Rooms** column.
  - Select **Undo** to undo the last performed action.
  - Select **Revert** to revert all rooms back to the **Unassociated Rooms** column.



- Once all rooms have been associated, select **Associate Rooms**. All rooms are associated with the selected floors of the building address book.

## Manage Desks

For accounts that use desk scheduling, desks can be added to groups and subgroups within the group tree. After a desk has been added, it can be associated with a building from the building address book and then assigned a unique desk scheduling device and scheduling calendar address.

### Import Desks and Devices

Desks and their associated desk scheduling devices can be mass provisioned into the XiO Cloud service via a CSV file. Once the CSV file is imported successfully, all new desks and devices will be added to the appropriate buildings and floors within the XiO Cloud environment tree.

To import desks and devices into the XiO Cloud service:

- Create a new CSV file with the following header columns in the first row. The name of each header column must match the following items exactly.

**NOTE:** A sample CSV file with prepopulated header columns can also be downloaded from the **Import Desks & Devices** dialog box that is described later in this procedure.

- **Building Name**
- **Floor**
- **Desk Name**
- **Desk Type**
- **Calendar Email**

- **Serial**
  - **MAC Address**
2. For each desk and associated device, enter the following data in the appropriate columns of a new table row. Each desk must have its own table row.
- **Building Name:** The building that will be associated with the desk. The building must have already been created in the building address book prior to importing the CSV file.
  - **Floor:** The building floor where the desk is located. The floor must match one of the floors configured for the building.
  - **Desk Name:** The desk name that will be displayed for the desk throughout the XiO Cloud service and in the Desk Scheduling UI on the touch screen.
  - **Desk Type:** The desk type. The desk type must match one of the desk types configured for the building address book. For more information, refer to [Manage Space Properties on page 24](#).
  - **Calendar Email:** The unique scheduling calendar address that will be paired with the desk to control reservations.
  - **Serial:** The serial number of the associated touch screen.
  - **MAC Address:** The MAC address of the associated touch screen.

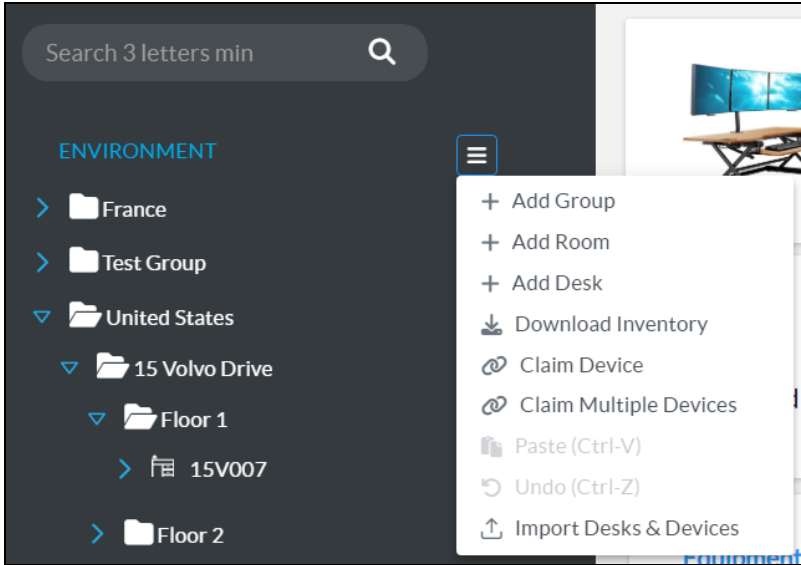
**NOTE:** The **Serial** and **MAC Address** fields are not required to create a desk from the CSV file. Desk scheduling devices can be associated manually with a desk at a later time.

Refer to the following mock CSV file as an example.

| Building Name | Floor | Desk Name | Desk Type | Calendar Email   | Serial     | MAC Address    |
|---------------|-------|-----------|-----------|--|------------|----------------|
| Corporate HQ  | 9     | D901      | Standard  | <a href="mailto:901@company.onmicrosoft.com">901@company.onmicrosoft.com</a>   | 1234567890 | 00.11.22.33.44 |
| Corporate HQ  | 9     | D902      | Standard  | <a href="mailto:902@company.onmicrosoft.com">902@company.onmicrosoft.com</a>   | 2345678901 | 11.22.33.44.55 |
| Corporate HQ  | 10    | D1001     | Large     | <a href="mailto:1001@company.onmicrosoft.com">1001@company.onmicrosoft.com</a> | 3456789012 | 22.33.44.55.66 |
| Corporate HQ  | 10    | D1002     | Large     | <a href="mailto:1002@company.onmicrosoft.com">1002@company.onmicrosoft.com</a> | 4567890123 | 33.44.55.66.77 |

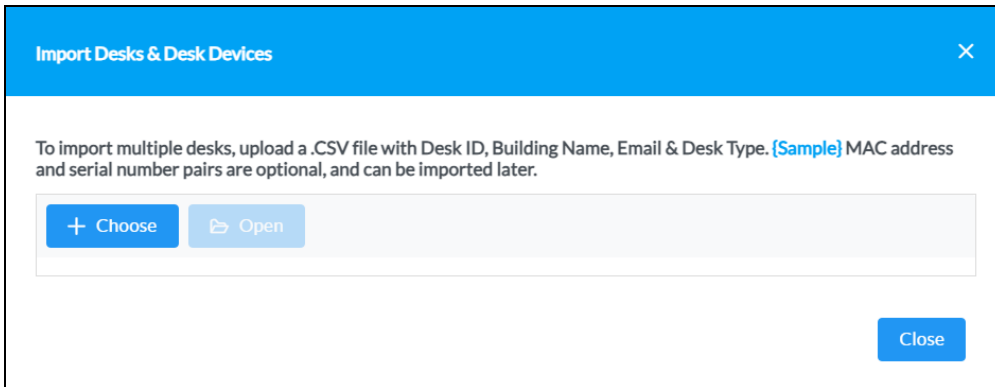
3. Save the CSV file to an accessible location on the local computer.

4. Select the context menu button  for the **ENVIRONMENT** menu to display a drop-down menu.

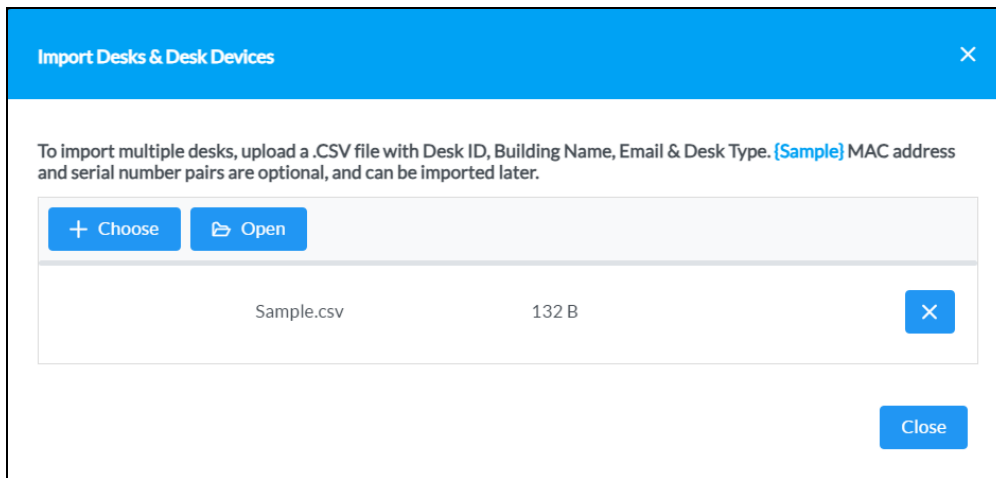


5. Select **Import Desks & Devices**. The **Import Desks & Devices** dialog box is displayed.

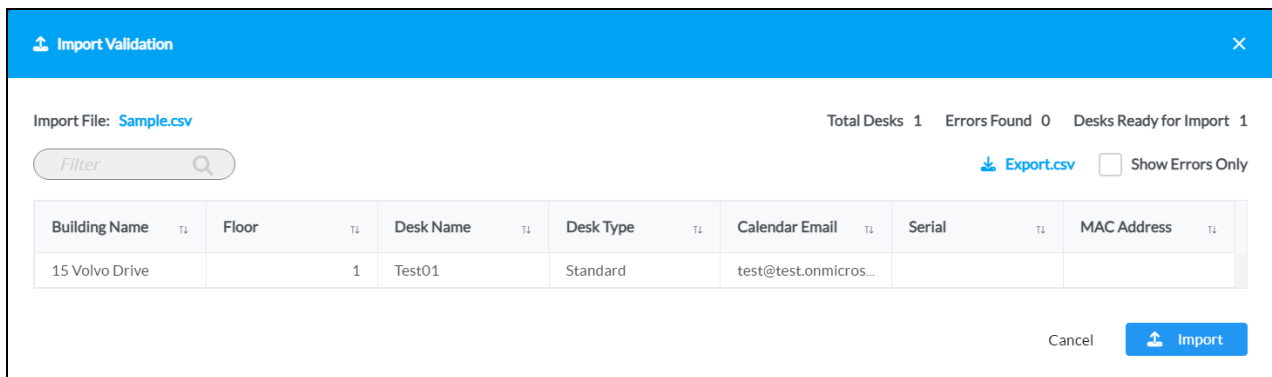
**NOTE:** The **Import Desks & Devices** selection is also available in the context menu for groups and subgroups. Making this selection at the group level will limit the import to that group.



6. Select **Choose**, and then select the CSV file created earlier in this procedure. The CSV file is shown in the dialog box if it is valid.




7. Select **Open**. The **Import Validation** dialog box is displayed.

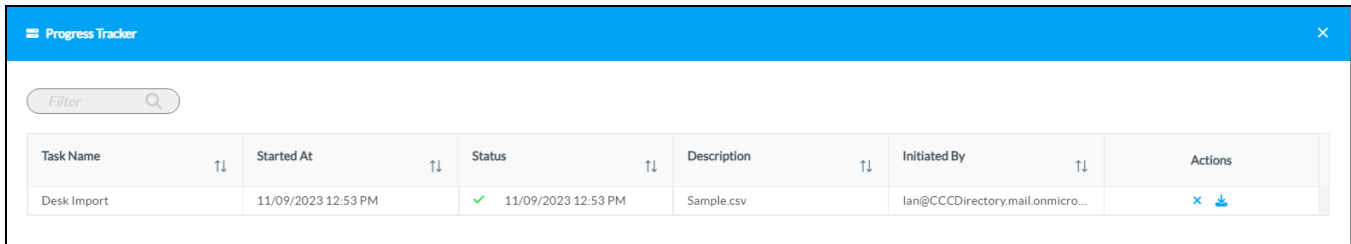


The **Import Validation** dialog box shows the total number of desks that will be imported and reports any errors that are found within the CSV file data. Each row of the CSV file is shown and can be modified within the dialog box. The following controls are provided:

- Use the **Filter** function to filter the CSV file table based on the entered information.
  - Use the sorting controls in the table headers to sort the data in that column.
  - Select **Export.csv** to export the provided CSV file to the local computer.
  - Fill the **Show Errors Only** check box to show only the table rows that contain errors. Any data with errors is shown with red text. Hover over an error to view a pop-up description explaining the error.
  - Select within any table cell to edit the data within that cell.
8. Select **Import** once all errors have been corrected. The CSV file upload progress begins.

To check the status of the CSV file upload, select the progress tracker button  at the top right of the page. A **Progress Tracker** dialog box is shown that shows the progress of the import task.

**NOTE:** Large CSV files may take a considerable amount of time to upload. The status of the upload is always available within the **Progress Tracker** dialog box. For more information, refer to [Progress Tracker on page 129](#).




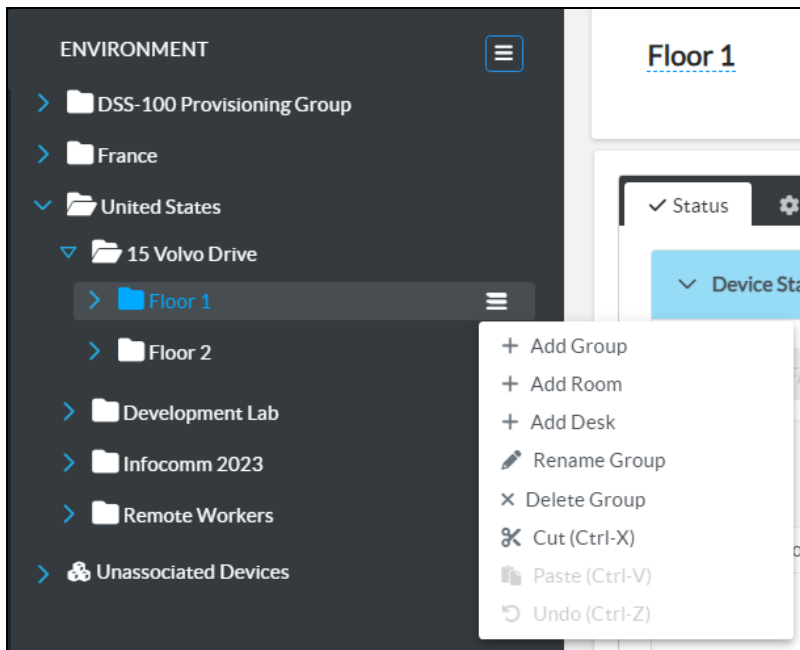
| Task Name   | Started At          | Status                | Description | Initiated By                     | Actions                             |
|-------------|---------------------|-----------------------|-------------|----------------------------------|-------------------------------------|
| Desk Import | 11/09/2023 12:53 PM | ✓ 11/09/2023 12:53 PM | Sample.csv  | Ian@CCCDirectory.mail.onmicro... | <a href="#">✕</a> <a href="#">📄</a> |

Once the CSV file has been uploaded successfully, a toast notification is shown indicating this. The group tree is updated to show the new desks and child devices.

## Add a New Desk

To add a new desk to a group manually:

1. Position the cursor over the group name in the **ENVIRONMENT** menu to reveal its context menu.
2. Select the context menu button  for the group to display a drop-down menu.



3. Select **Add Desk**. The **Add Desk** dialog box is displayed.

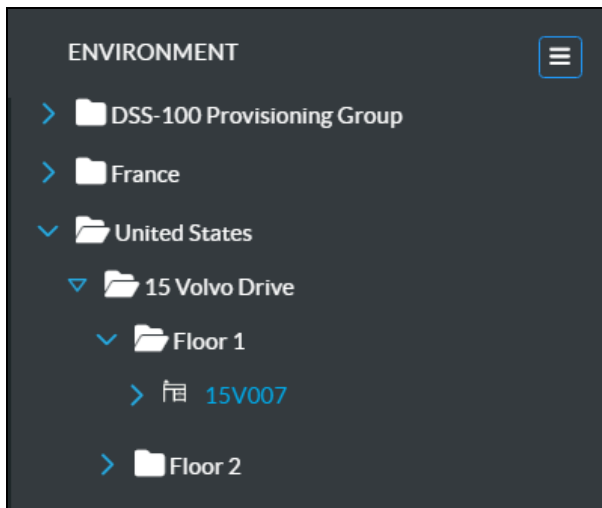
The screenshot shows the 'Add Desk' dialog box with the following fields and options:

- Building \***: A dropdown menu with the text 'Select a Building (or Add New)' and a downward arrow. Below it is a blue button with a plus sign and the text '+ Add Building'.
- Floor \***: A dropdown menu with the text 'Select a Floor' and a downward arrow.
- Desk Name \***: A text input field.
- Desk Type**: A dropdown menu with the text 'Select a Desk Type' and a downward arrow.
- Calendar Email \***: A text input field.
- Save**: A light blue button with a lock icon and the text 'Save' at the bottom right.

4. Enter the following information for the desk:

- **Building:** *Required.* Use the drop-down menu to select a building that will be associated with the desk from the building address book.  
If the desired building is not shown, select **+ Add Building** to display the **Add Building** dialog box. For more information on adding a building, refer to [Create a New Building on page 22](#).
- **Floor:** *Required.* Select the building floor where the desk is located. The available selections are populated based on the floors configured for the building.
- **Desk Name:** *Required.* Enter the desk name. This name will be displayed for the desk throughout the XiO Cloud service and in the Desk Scheduling UI on the touch screen.
- **Desk Type:** Use the drop-down menu to select the desk type. The available selections are populated based on the desk types configured for the building address book. For more information, refer to [Manage Space Properties on page 24](#).
- **Calendar Email:** *Required.* Enter a unique scheduling calendar address that will be paired with the desk to control reservations.

5. Select **Save**. The desk is added to the group and is reordered alphabetically within its parent group after it is added.



## Edit a Desk

Once a desk has been added to the XiO Cloud environment tree, select it in the tree to open the desk details page.

The screenshot shows the details page for a desk named 'vbbc'. The desk is located at 'Crestron Building Ecospace, 6B Bangalore Urban ...'. There is an 'Action' button with a dropdown arrow. Below this is a 'Details' section with the following information:

| Desk Type  | Calendar Email | Building Name     | Floor | Time Zone    |
|------------|----------------|-------------------|-------|--------------|
| Bench Seat | bdfb@gmail.com | Crestron Building | 3     | (UTC+00) UTC |

Below the details is an 'Equipment List' section. It contains a table with the following columns: Cloud Status, Calendar, Device Name, Device Model, MAC Address, Serial #, IP Address, Hostname, and Actions. The table is currently empty, and a message states: 'There are no assigned devices on this desk'. A button below the message says 'Click here to add new device'.

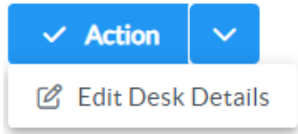
The following information is displayed for the desk:

- The user-defined desk name and the building address.
- A **Details** section that displays the desk type, scheduling calendar email address, building name, floor, and time zone.



- An **Equipment List** section that displays the status of the associated desk scheduling device (once added) and provides controls for adding a device.

An **Action** menu is also provided in the top right of the page that provides a **Edit Desk Details** selection for editing the desk.



Select **Edit Desk Details** to display editable fields for desk settings.

 A screenshot of the 'Edit Desk Details' form. At the top left is a desk icon. The 'Desk Name' field contains '15V007'. A 'Save Changes' button is in the top right. Below is a 'Details' section with four fields: 'Desk Type' (Standard), 'Calendar Email' (15V007@desk7.onmicrosoft.com), 'Building Name' (15 Volvo Drive), and 'Floor' (1). At the bottom is an 'Equipment List' section with a table header and a message: 'There are no assigned devices on this desk' with a 'Click here to add new device' button.
 

| Cloud Status                               | Calendar | Device Name | Device Model | MAC Address | Serial # | IP Address | Hostname | Actions |
|--|----------|-------------|--------------|-------------|----------|------------|----------|---------|
| There are no assigned devices on this desk |          |             |              |             |          |            |          |         |


The following settings can be edited:

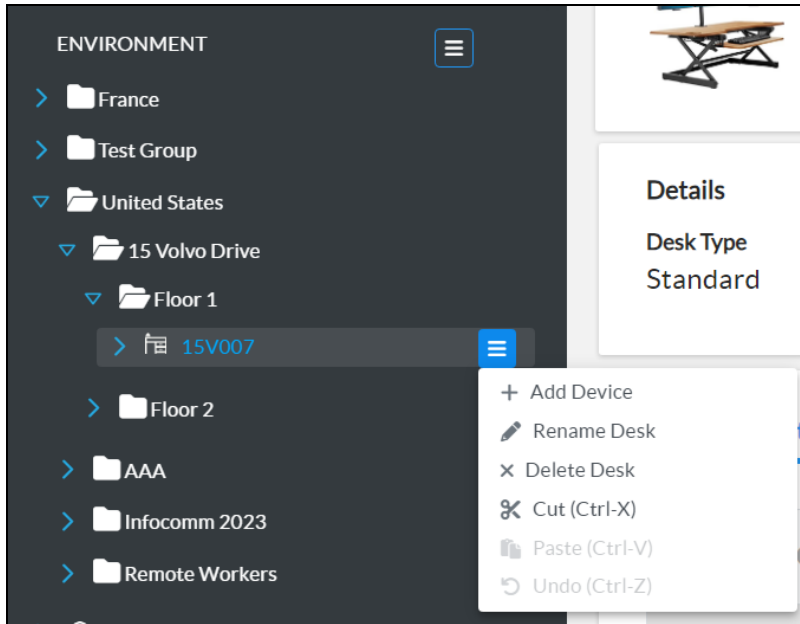
- **Desk Name:** Enter the desk name. This name will be displayed for the desk throughout the XiO Cloud service and in the Desk Scheduling UI on a TSS-470E touch screen.
- **Desk Type:** Use the drop-down menu to select the desk type. The available selections are populated based on the desk types configured for the building address book. For more information, refer to [Manage Space Properties on page 24](#).
- **Calendar Email:** Enter the unique scheduling calendar address that will be paired with the desk to control reservations.
- **Building Name:** Use the drop-down menu to select a building that will be associated with the desk from the building address book.
- **Floor:** Select the building floor where the desk is located. The available selections are populated based on the floors configured for the building.

Select **Save Changes** to save any changes. A toast notification is shown indicating that the changes have been saved.

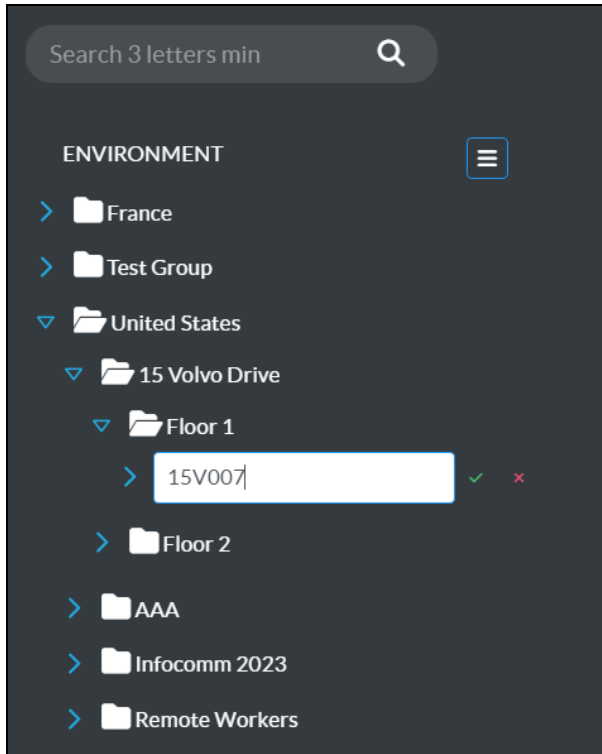
## Rename a Desk

To rename an existing desk from the XiO Cloud environment tree:



1. Position the cursor over the desk name in the **ENVIRONMENT** menu to reveal its context menu.
2. Select the context menu button  for the desk to display a drop-down menu.



3. Select **Rename Desk**. The room name becomes an editable text box.




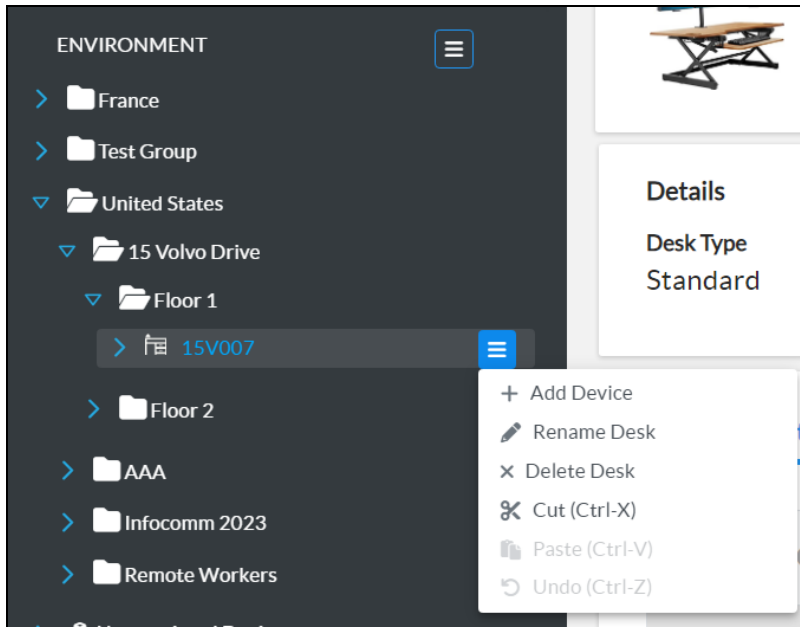
4. Enter a new desk name in the text box. A room name must be at least three characters long.

5. Select the green check icon  or press **Enter** to save the room name. Select the red **x** icon  to discard the changes.

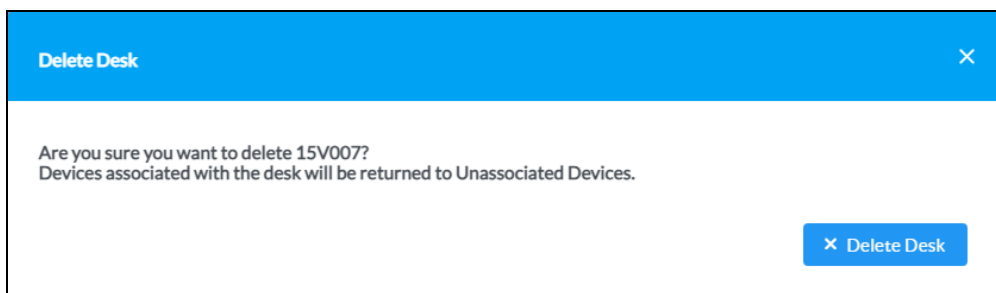
## Delete a Desk

To delete an existing desk:

1. Position the cursor over the desk name in the **ENVIRONMENT** menu to reveal its context menu.
2. Select the context menu button  for the desk to display a drop-down menu.



3. Select **Delete Desk**. A confirmation prompt is displayed asking whether the desk should be deleted.



4. Select **Delete Desk** to delete the desk or close the message window to cancel the deletion.

**NOTE:** If a desk scheduling device is associated with the desk, the device will become unassociated with the desk and return to the **Unassociated Devices** node within the XiO Cloud environment tree.

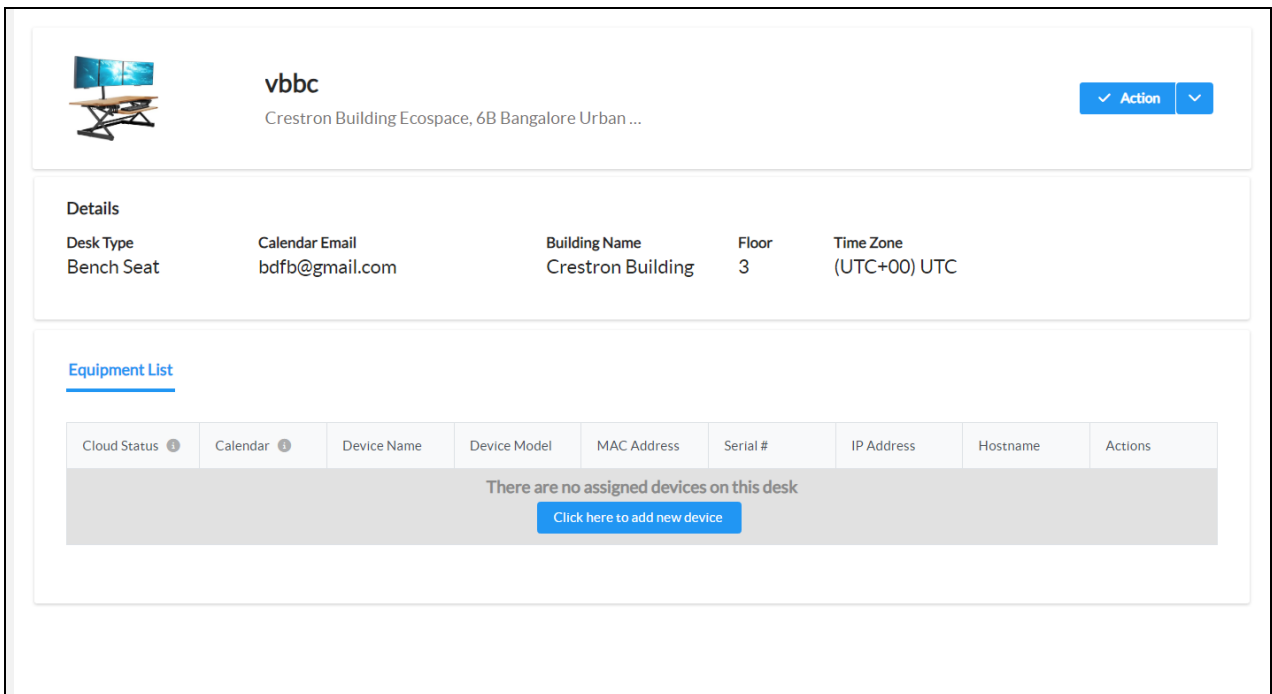
## Associate a Desk Scheduling Device with a Desk

Each desk within the XiO Cloud environment tree must be associated with a unique desk scheduling device. Once a device is associated with the desk, status and settings for the device and scheduling calendar connection can be viewed.

**NOTE:** The following procedure assumes that the desk scheduling device has been claimed to the XiO Cloud service and is not associated with another desk. For more information on how to claim a device, refer to [Claim Devices on page 51](#).

To associated a desk scheduling device with a desk:

1. Select the desk within the XiO Cloud environment tree to display its status page.



The screenshot displays the status page for a desk named 'vbbc'. At the top, there is a desk icon and the name 'vbbc' with a location description: 'Crestron Building Ecospace, 6B Bangalore Urban...'. An 'Action' dropdown menu is visible in the top right corner. Below this is a 'Details' section with a table of desk attributes:

| Desk Type  | Calendar Email | Building Name     | Floor | Time Zone    |
|------------|----------------|-------------------|-------|--------------|
| Bench Seat | bdfb@gmail.com | Crestron Building | 3     | (UTC+00) UTC |

Underneath the details is an 'Equipment List' section. It features a table with columns for 'Cloud Status', 'Calendar', 'Device Name', 'Device Model', 'MAC Address', 'Serial #', 'IP Address', 'Hostname', and 'Actions'. The table is currently empty, with a message stating 'There are no assigned devices on this desk' and a button labeled 'Click here to add new device'.

2. Select **Click here to add new devices** in the **Equipment List** section. The **Add Device** dialog box is displayed.

**NOTE:** Alternately, the **Add Device** selection in the desk's environment tree context menu can be used to open the **Add Device** dialog box.

**Add Device** ✕

Add Device From Unassociated Devices

Select Device\* Select a Device ▼

\*No Devices in Unassociated Devices

+ Add Device

3. From the **Unassociated Devices** tab, use the **Select Device** drop-down menu to select an unassociated desk scheduling device within the XiO Cloud account.
4. Select **Add Device** once the unassociated desk scheduling device has been selected. The device is added to the **Equipment List** section of the desk status page.

**NOTE:** It may take up to 15 minutes for the device to establish a connection with the XiO Cloud service.

[Equipment List](#)

| Cloud Status | Calendar | Device Name  | Device Model | MAC Address      | Serial #     | IP Address   | Hostname     | Actions |
|--------------|----------|--------------|--------------|------------------|--------------|--------------|--------------|---------|
| ✓            | ✓        | TSS-470E-C44 | TSS-470E     | c4.42.68.2f00.c4 | 2249CRX02249 | 192.168.1.18 | TSS-470E-C44 | ⚙️ 🗑️   |




## View Device Settings

Once the desk scheduling device has been associated with the desk, navigate to the **Equipment List** section of the desk status page to view the following device settings.

[Equipment List](#)

| Cloud Status | Calendar | Device Name  | Device Model | MAC Address      | Serial #     | IP Address   | Hostname     | Actions |
|--------------|----------|--------------|--------------|------------------|--------------|--------------|--------------|---------|
| ✓            | ✓        | TSS-470E-C44 | TSS-470E     | c4.42.68.2f00.c4 | 2249CRX02249 | 192.168.1.18 | TSS-470E-C44 | ⚙️ 🗑️   |

- **Cloud Status:** Indicates whether the device is reporting online ✓ or offline ✗ within XiO Cloud. A device is considered offline after it fails to respond to multiple call attempts issued five minutes after the device first reports as disconnected.

- **Calendar:** Reports the current status of the scheduling calendar connection:
  - Shows a green check icon  if the scheduling calendar connection is active.
  - Shows a red x icon  if the scheduling calendar connection is inactive.
  - Shows a question mark icon  if the scheduling calendar connection status is unknown (reported only if the device is showing as offline).
- **Device Name:** The device name in XiO Cloud.
- **Device Model:** The device model.
- **MAC Address:** The MAC address of the device network adapter used to connect to the XiO Cloud service.
- **Serial #:** The device serial number.
- **IP Address:** The current device IP address.

**NOTE:** Select the IP address to navigate to the web configuration interface for that device in a new tab (if available).

- **Hostname:** The device host name.

An **Actions** column is also provided that allows the device to be configured or deleted. For more information on configuring a device, refer to [Manage Devices on page 72](#).

## Claim Devices

Devices must be claimed by the XiO Cloud service before they may be managed by the service. Devices may be claimed individually or as a group.

**NOTE:** Third-party device support requires an XiO Cloud Premium subscription. Supported third-party devices that do not use the Crestron Connected® connection protocol must be claimed using a Crestron control system or the Crestron XiO Cloud™ Gateway software. For more information, refer to the [XiO Cloud® Service Third-Party Device Monitoring Configuration Guide](#).

### Claim a Single Device

To claim a single device:

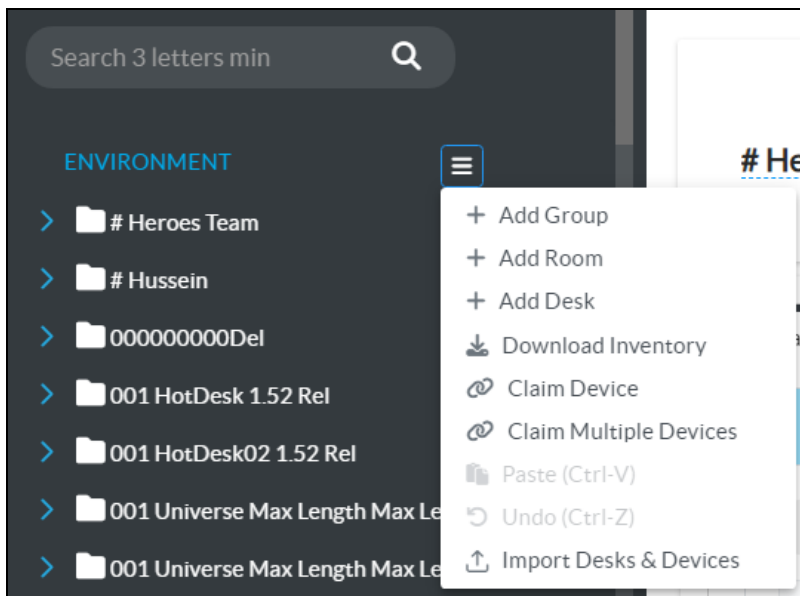
1. Record the MAC address and serial number of the device. The MAC address and serial number are labeled on the shipping box or on a sticker attached to the device.

## NOTES:

- If the device has multiple MAC addresses, use the MAC address that is providing the primary connection back to the network. For most devices, the Ethernet MAC address should be used. However, if your device is connecting to the network over a different protocol (such as Wi-Fi® communications), use the MAC address for that protocol instead.
- If claiming a Crestron software product (such as Crestron Virtual Control server software), the serial number and MAC address are generated by the software and can be located using its web configuration interface. For Crestron software products that are preinstalled on a computer or other device (such as the VC-4-PC-3), do not use the serial number and MAC address labeled on the device.

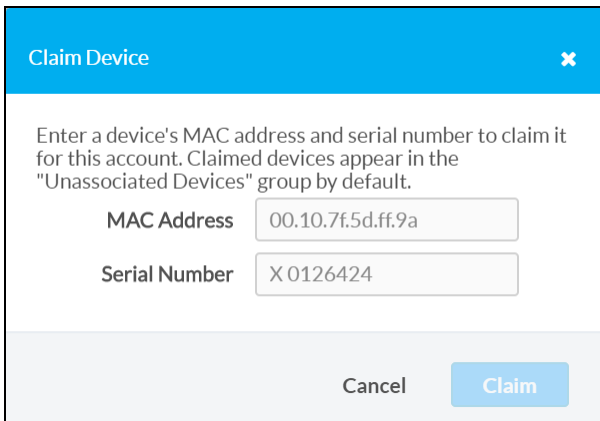
2. In the XiO Cloud service, select the **ENVIRONMENT** menu button  to display a drop-down menu.

### Environment - Drop-Down Menu



3. Select **Claim Device**. The **Claim Device** dialog box is displayed.

#### Claim Device Dialog Box



4. Enter the MAC address and serial number recorded in step 1 in the **MAC Address** and **Serial Number** fields, respectively.
5. Select **Claim**. A success message is displayed if the claim is successful.

**NOTE:** If an error message is displayed stating that the device does not exist, connect the device to a network that has access to the internet, wait 15 minutes, and then try again.

6. Select **X** to close the dialog box. The host name of the claimed device is displayed in the device tree under the group **Unassociated Devices**.

#### Unassociated Devices



The device may now be managed and assigned to a group or room.

## Claim Multiple Devices

To claim multiple devices:

1. Record the MAC address and serial number of each device as a comma delimited CSV file. The MAC address and serial number are labeled on the shipping box or on a sticker attached to the device.



## NOTES:

- If the device has multiple MAC addresses, use the MAC address that is providing the primary connection back to the network. For most devices, the Ethernet MAC address should be used. However, if your device is connecting to the network over a different protocol (such as Wi-Fi® communications), use the MAC address for that protocol instead.
- If claiming a Crestron software product (such as Crestron Virtual Control server software), the serial number and MAC address are generated by the software and can be located using its web configuration interface. For Crestron software products that are preinstalled on a computer or other device (such as the VC-4-PC-3), do not use the serial number and MAC address labeled on the device.

The CSV file should be formatted as shown below:

### CSV File Format

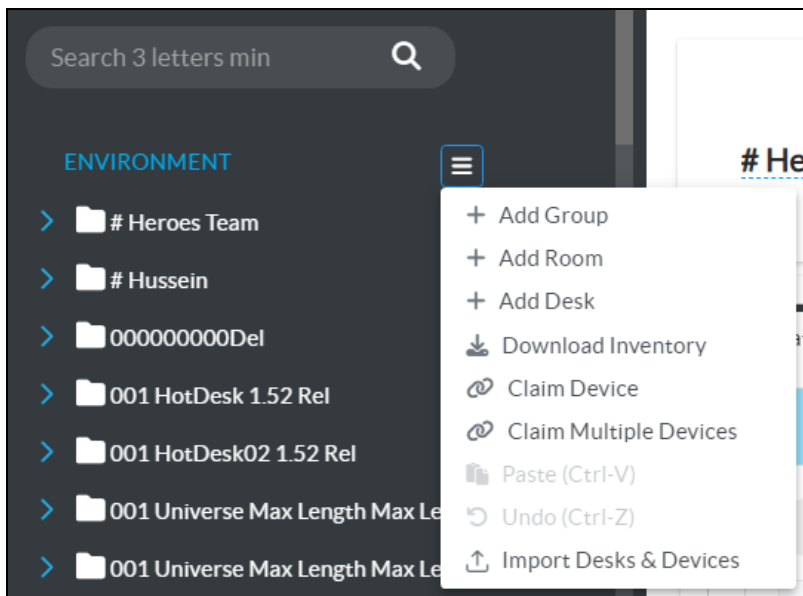
```
MAC Address,Serial Number
00.10.7e.8b.81.b6,17284712
00.10.7e.8b.8c.87,17284570
00.10.7e.96.83.93,1716JBG01207
00.10.7e.96.92.0a,1716JBG01550
00.10.7e.8b.87.c1,17284670
```

**NOTE:** An optional third column may be added to the CSV file with custom device names. After being claimed, the device will take the custom name from the CSV file instead of its default name. For example, if adding a custom device name to the first example above, the formatting would be 00.10.73.8b.81.b6,17284712, [custom device name]

2. Save the CSV file to a location that may be accessed by the computer used to access the XiO Cloud service.

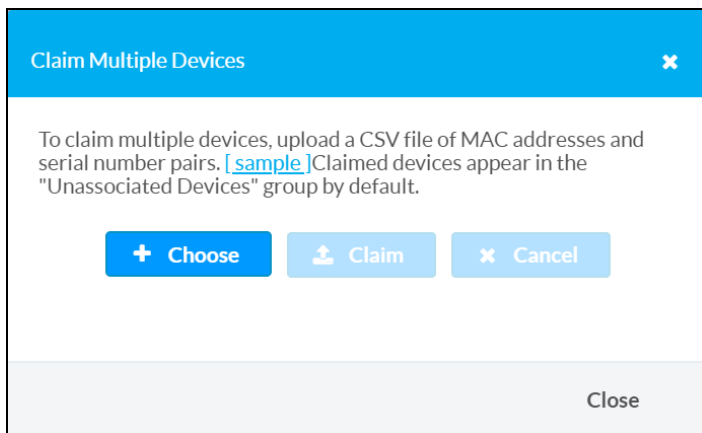
3. In the XiO Cloud service, select the **ENVIRONMENT** menu button  to display a drop-down menu.

#### Environment - Drop-Down Menu



4. Select **Claim Multiple Devices**. The **Claim Multiple Devices** dialog box is displayed.

#### Claim Multiple Devices Dialog Box



5. Select **Choose**, and then select the CSV file created in step 1.
6. Select **Claim** to claim all of the devices listed in the file. A message indicating the claim status of each device is displayed.

**NOTE:** If an error message is displayed stating that a device does not exist, connect that device to a network that has access to the internet, wait 15 minutes, and then try again.

7. Select **X** to close the dialog box. The host names of the claimed devices appear in the device tree under the group **Unassociated Devices**.

#### Unassociated Devices




The devices may now be managed and assigned to a group or room.

## Unclaim Devices

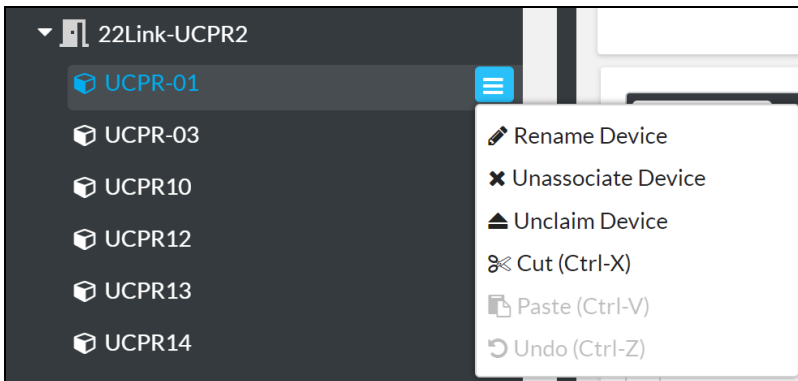
Devices may be unclaimed to remove them from a user's account. Once a device is unclaimed:

- The device is no longer counted against the allotted number of devices for the account
- The device may be claimed by another account.
- The XiO Cloud service no longer enforces any settings on the device.

To unclaim a device:

1. Position the cursor over the device in the **ENVIRONMENT** menu to reveal its context menu.
2. Select the context menu button  of the device to display a drop-down menu.

#### Device - Drop-Down Menu



3. Select **Unclaim Device**. A confirmation dialog box is displayed.
4. Select **Yes** to unclaim the device, or select **No** to cancel.

**NOTE:** If a device that has any licenses on it is unclaimed, the licenses remain with the account and not the device. The licenses are removed from the device once it is unclaimed, and the licensed functionality is no longer available on the device.


## Add Devices to Rooms or Desks

Devices may be added to rooms after they are claimed by the XiO Cloud service. Once devices are added to rooms or desks, all devices within a group or desk may be monitored and controlled at once.

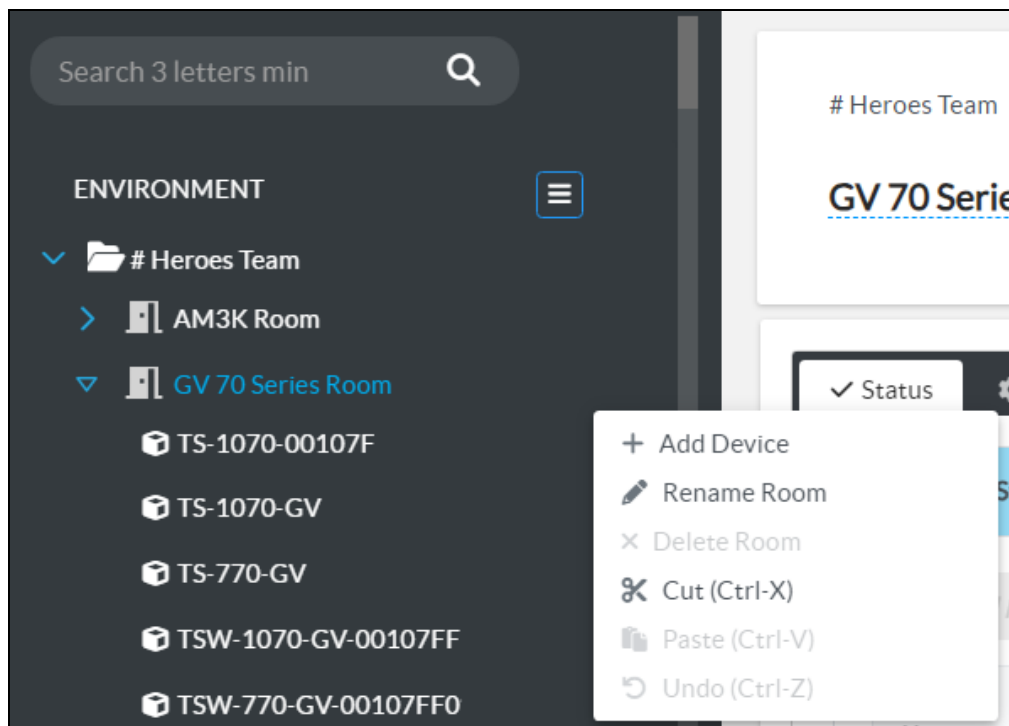
Two methods may be used to add devices to a room or desk: Devices may be added via the context menu for the room or desk, or devices may be dragged from the **Unassociated Devices** group into a room or desk.

**NOTE:** [DSS-100](#) devices are added to a **Device Assistant Group** in the group tree after they are claimed via the [Crestron Device Assistant mobile app](#). Drag these devices to a room or desk from this group instead.

To add devices to a room or desk via its context menu:

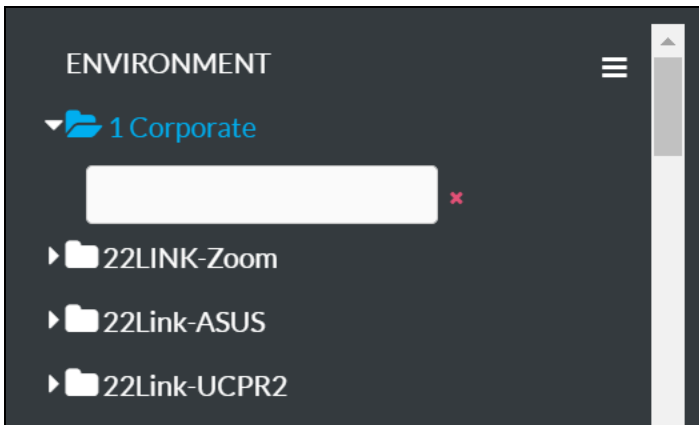
1. Position the cursor over the room or desk name in the **ENVIRONMENT** menu to reveal its context menu.
2. Select the context menu button  for the group or room to display a drop-down menu.

### Group - Drop-Down Menu



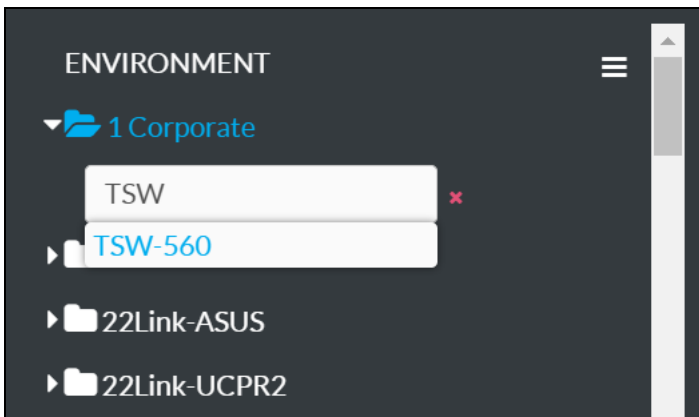
3. Select **Add Device**. A text box is added under the selected room or desk.

**Group - Add Device Text Box**



4. Start typing the name of the desired device. A list of claimed devices that match the entered text is displayed below the text box.

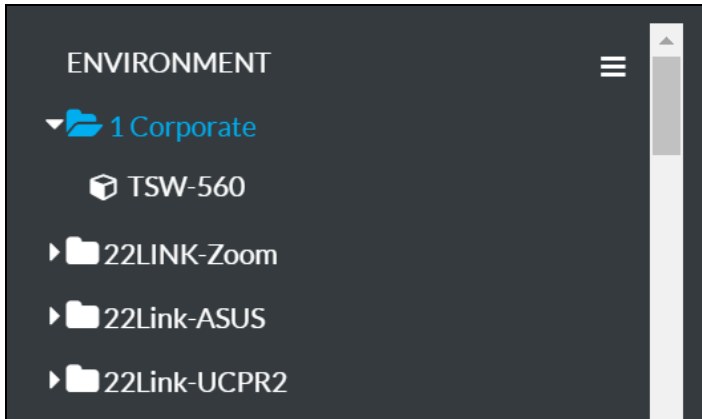
**Group - Add Device Text Box (with Text)**



5. Select the desired device by clicking on it or by navigating to the device using the arrow keys and pressing **Enter**.

The device is reordered alphabetically within its parent room or desk after it is added. It is no longer shown in the **Unassociated Devices** group.


#### Group - Device Added



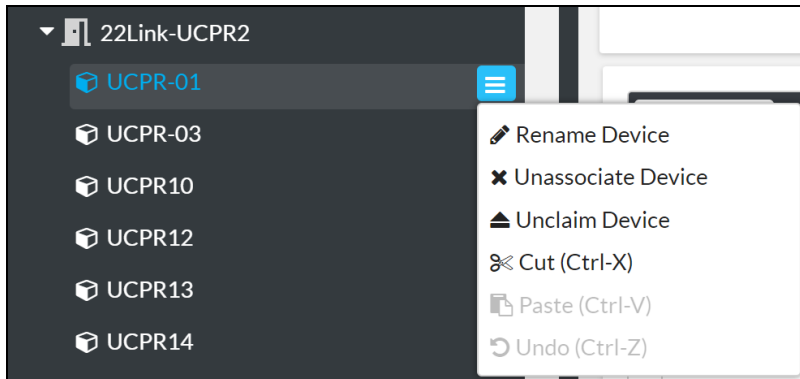
To drag a device from the **Unassociated Devices** group into another room or desk:

1. Select and hold the pointer over the device.
2. Drag the device from the **Unassociated Devices** group and drop it into the desired room or desk. The device is added to the room or desk and is no longer shown in the **Unassociated Devices** group.

To return a device to the **Unassociated Devices** group:

1. Position the cursor over the device in the **ENVIRONMENT** menu to reveal its context menu.
2. Select the context menu button  for the device to display a drop-down menu.

#### Device - Drop-Down Menu (Cut Action)



3. Select **Unassociate Device**. The device is added back to the **Unassociated Devices** group and is no longer shown in its previous room or desk.

Devices may also be dragged to the **Unassociated Devices** group or to any other room or desk that supports added devices.


Select the device from the group tree to view and configure device settings. For more information, refer to [Configure Device Settings on page 77](#).

# Cut and Paste

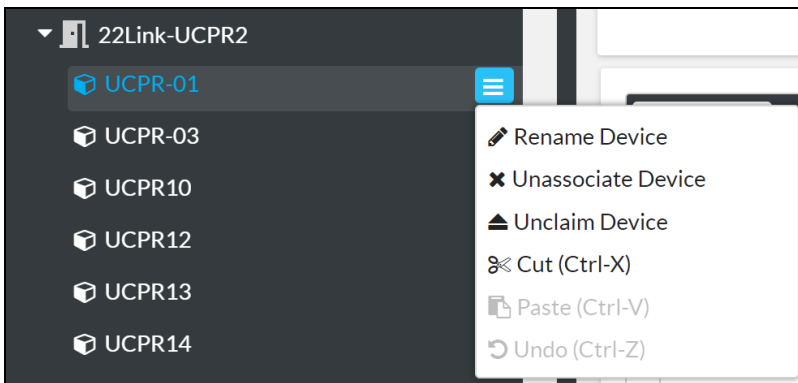
The cut and paste functionality allows items in the group tree to be moved more easily than the traditional drag and drop method, which is helpful when associating devices to rooms or groups in bulk. Cutting and pasting can be performed using the UI controls or keyboard shortcuts.

**NOTE:** Any item in the group tree can be cut and pasted. However, pasted items must abide by the organizational hierarchy of the group tree. For example, devices can only be pasted to rooms or desks, top-level groups cannot be pasted under subgroups, and so forth.

To cut items (add them to the clipboard):


1. Select one or more items from the group tree. Press **Ctrl + Shift** on your keyboard to select multiple items.
2. Select the context menu button  for one of the selected items to display a drop-down menu.

### Device - Drop-Down Menu

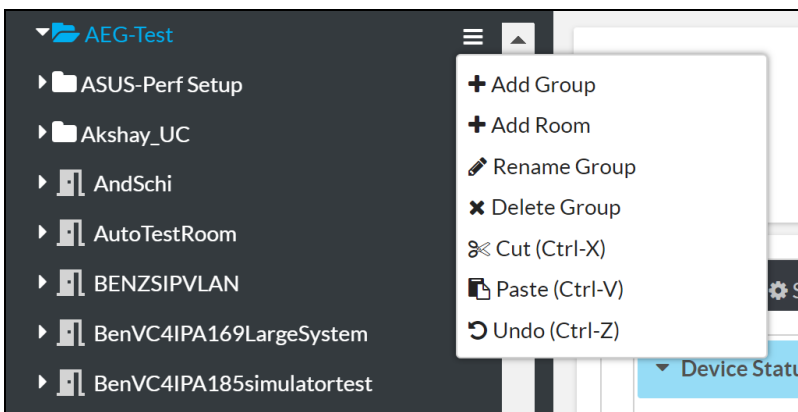


3. Select **Cut**. The selected item(s) are added to the clipboard. Alternately, press **Ctrl + x** on your keyboard to perform this action.

To paste items that have been cut (added to the clipboard):

1. Select the parent node in the group tree where the cut items should be pasted.
2. Select the context menu button  for the selected group tree node.

### Group - Drop-Down Menu (Paste Action)



3. Select **Paste**. The selected item(s) are pasted into the selected group tree node as long as it abides by the group tree hierarchy. Alternately, press **Ctrl + v** on your keyboard to perform this action.

To undo the previous cut or paste action, select **Undo** from the appropriate context menu or press **Ctrl + z** on your keyboard.

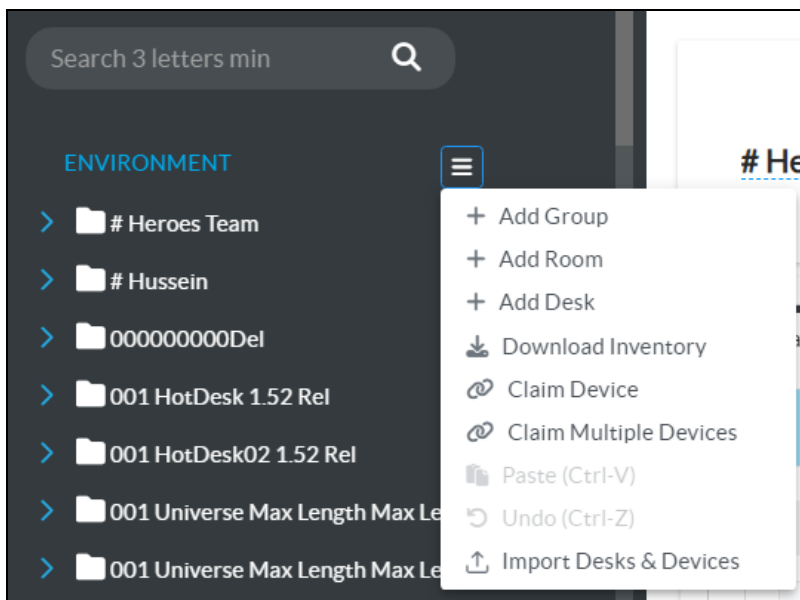
## Download Inventory

An inventory report for the XiO Cloud account can be downloaded as a CSV file. The inventory report includes basic information about claimed devices and their location within the group tree.

To download the inventory report:

1. Select the **ENVIRONMENT** menu button  to display a drop-down menu.

### Environment - Drop-Down Menu



2. Select **Download Inventory**. The inventory report is downloaded to your PC as a CSV file.

## View Grouped Devices, Rooms, and Desks

Select a group from the **ENVIRONMENT** menu to display its configuration page. Selections for viewing all devices, rooms, and desks within the group are provided. The **Device** tab is selected by default.

**NOTE:** Viewing grouped rooms and desks requires an XiO Cloud Premium subscription.



| Name          | Device Model   | Firmware-Version             | Serial | MAC Address      | Online Status | Pending Settings Delivery | IP Address    | Hostname       | Application Mode    |
|---------------|----------------|------------------------------|--------|------------------|---------------|---------------------------|---------------|----------------|---------------------|
| DMPS3-7F8     | DMPS3-4K-300-C | 1.600.3792.19330 (Update ... | X128   | 00.10.7f8b.24.00 | Offline       | No                        | 172.30.72.3   | DMPS3-7F8B2457 | N/A                 |
| DMPS34K250    | DMPS3-4K-250-C | 1.600.3792.19330 (Update ... | X130   | 00.10.7f9b.40.00 | Offline       | No                        | 172.30.72.3   | DMPS3-7F9B4071 | N/A                 |
| MC4-00107F9   | MC4            | 2.7000.00042                 | X137   | 00.10.7f9c.9c.00 | Offline       | No                        | 172.30.178.17 | MC4-00107F9C9  | N/A                 |
| TSW-770-00107 | TSW-770        | 1.4873.04415                 | 2040   | 00.10.7f48.c6.00 | Online        | No                        | 192.168.1.4   | TSW-770-00107F | Microsoft Teams Pan |

- Select **Device** to view status, configure settings, and perform other actions for all devices associated with rooms or desks in the group. For more information, refer to [Manage Devices on page 72](#).
- Select **Rooms** to view the status of all rooms within the group.

| Room Name   | Health  | Space Type | Occupied | System Power | Display Power | Current Source | Maintenance | System Check Last Run |
|-------------|---------|------------|----------|--------------|---------------|----------------|-------------|-----------------------|
| Conf 105    | Healthy | None       | X        | N/A          | N/A           | ☒              | Disabled    | N/A                   |
| Conf 202    | Healthy | None       | X        | N/A          | N/A           | ☒              | Disabled    | N/A                   |
| Server Room | Healthy | None       | X        | N/A          | N/A           | ☒              | Disabled    | N/A                   |

The following information is displayed for each room by default:

**NOTE:** Most room status is driven by the XiO Cloud program connector functionality. For more information on adding this functionality to a room, refer to [XiO Cloud Program Connector on page 65](#)

- The room name, which can be selected to open its details page
- The current room health
- The space type
- The reported occupancy state
- The system power state
- The power state of the display(s) in the room
- The current source routed to the primary display in the room as described in [Appendix C: XiO Cloud Program Connector Sources on page 225](#)
- The maintenance mode status
- The date and time when a system check was last run

- Select **Desks** to view the status of all desks within the group.

| Desk Name | Desk Email      | Space Type           |
|-----------|-----------------|----------------------|
| desk1     | desk1@gmail.com | Double Privacy Booth |

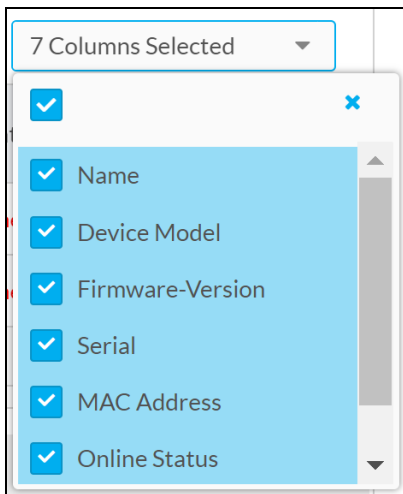
The following information is displayed for each desk by default:

- The desk name, which can be selected to open its details page
- The email address associated with the desk scheduling calendar
- The space type

The data that is displayed for devices, rooms, or desks can be customized by filtering the table columns. To select or deselect table columns for devices, rooms, or desks, expand the drop-down menu at the top right of the status table. Then, select or deselect an item in the menu to display or hide that column from the status table, respectively. Use the check box at the top of the menu to select or deselect all columns.

The column selections for devices are shown below as an example.

#### Column Selection Drop-Down Menu (Device Tab)



**NOTE:** Changes made to the status table are made only on a per-group basis. The status table will reset to its default settings after logging out of the XiO Cloud service.

The status table for devices, rooms, or desks can be downloaded as a CSV file by selecting the **Export to CSV** button at the top right of the status table. The CSV file will include all table columns that have been selected as described above.

Enter text into the **Global Filter** text box to search for and display results that match the search terms.

If the status table spans multiple pages, use the navigation arrows on the bottom of the page to move forward or backward through the pages, or select a page number to navigate to it. Additionally, the number of devices, rooms, or desks displayed on each page may be set to 5, 10, 20, or 25.

# XiO Cloud Program Connector

As of XiO Cloud version 1.59, the XiO Cloud program connector is available for all rooms within an XiO Cloud environment. Programmers can enable custom monitoring, reporting, and control of rooms within XiO Cloud. Each room requires a unique SIMPL or C# program built with the XiO Cloud Room symbol to be loaded to a 4-Series® control system or Crestron Virtual Control (VC-4) server that is claimed to the XiO Cloud account.

**NOTE:** Use of the XiO Cloud program connector requires an XiO Cloud Premium subscription.

For more information on programming with the XiO Cloud Room symbol, refer to the [SIMPL help file](#).

**NOTE:** The control system must be running the minimum firmware or software version (or greater) that supports the XiO Cloud program connector:

- **4-Series:** 2.8005.0010
- **VC-4:** 4.0004.00093

The screenshot displays the XiO Cloud interface for room 30M. At the top, there is a room header with a meeting room icon, the room number '30M', and the address 'Ghaziabad Uttar'. To the right of the header are three status indicators: 'Health' (orange icon), 'Occupied' (green icon), and 'Maintenance' (grey icon), along with an 'Action' dropdown menu. Below the header is a 'Room Details' section with a table:

| Space Type   | Building Name | Floor | Time Zone                 |
|--------------|---------------|-------|---------------------------|
| Meeting Room | PI Building1  | 1     | (UTC-05) America/New_York |

Below the details is a navigation bar with 'Status' (selected), 'Equipment List', 'Group View', and 'Alerts'. The main content area is divided into three cards:

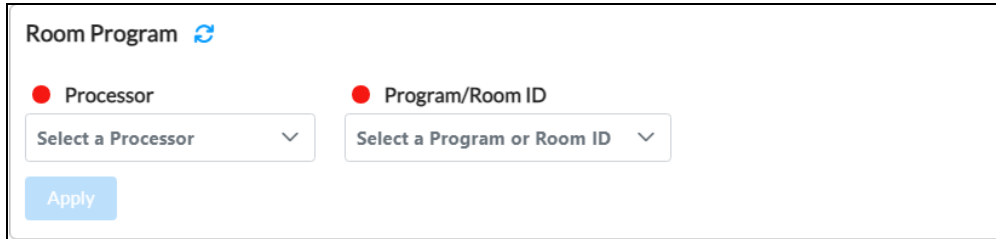
- Room Program:** Features a 'Processor' dropdown menu set to 'VC4\_with\_PIFW' and a 'Program/Room ID' dropdown menu set to 'VC4PERF1'. An 'Apply' button is located below the dropdowns.
- Room Control:** Contains three power-related controls: 'System Power' (green power icon), 'Display Power' (green power icon), and 'Current Source' (grey monitor icon).
- System Check:** Includes a 'Start Test' button, a status indicator showing a red triangle and the text 'Completed-With Error(s)', the 'Last Test Run' timestamp '06/03/2024 - 7:17 AM', and a 'View Results' link.

Various cards and indicators are provided in the room **Status** controls that support different programming logic. Each programmable item is described in the sections that follow.

**NOTE:** As of XiO Cloud version 1.63, room control functions can be set as scheduled actions for a room or group. Schedule icons ⌚ are provided next to the room cards that support scheduled actions. For more information, refer to [Scheduled Actions on page 89](#).

# Room Program

The **Room Program** card allows for a control system and a unique room program to be paired with the XiO Cloud room. A room program must be applied to enable the XiO Cloud program connector functionality.

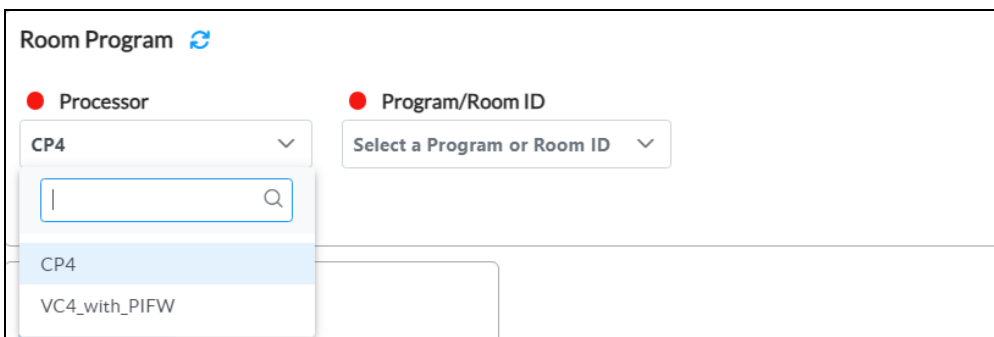


The screenshot shows a 'Room Program' configuration card. It has a title 'Room Program' with a refresh icon. Below the title are two dropdown menus: 'Processor' and 'Program/Room ID'. The 'Processor' dropdown is currently empty with the text 'Select a Processor'. The 'Program/Room ID' dropdown is also empty with the text 'Select a Program or Room ID'. Below these dropdowns is a blue 'Apply' button.

To apply a room program:

1. Use the **Processor** drop-down menu to select a control system running the XiO Cloud Room symbol.

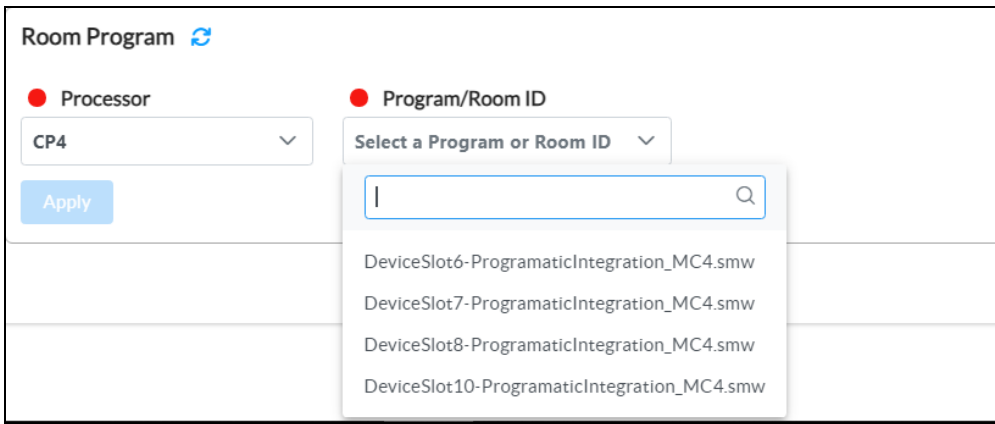
**NOTE:** Only supported control systems that have been claimed into the XiO Cloud account and that have a program created with the XiO Cloud Room symbol will be available for selection.




The screenshot shows the 'Room Program' configuration card with the 'Processor' dropdown menu open. The dropdown menu is currently displaying 'CP4' and 'VC4\_with\_PIFW'. The 'Program/Room ID' dropdown menu is still empty with the text 'Select a Program or Room ID'. There is a search icon in the dropdown menu.

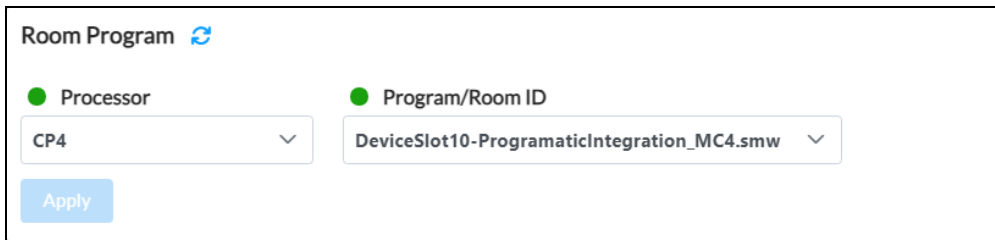
2. Use the **Program/Room ID** drop-down menu to select the program for the XiO Cloud room.
  - For 4-Series control systems, the program name is prepended with its corresponding device slot on the control system.
  - For VC-4 servers, the program name is prepended with the room ID of its corresponding room on the server.

**NOTE:** Only programs created with the XiO Cloud Room symbol will be available for selection. Once a program has been applied to a room, it can no longer be selected from this menu unless it is removed from the room.



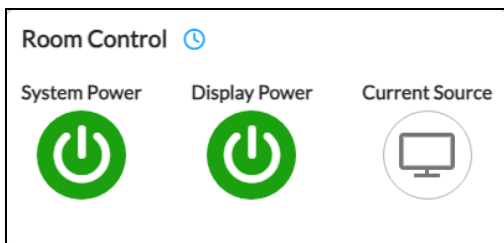
3. Select **Apply**.

If the application is successful, green status indicators are displayed next to the **Processor** and **Program/Room ID** fields, and the applicable room controls and indicators are activated depending on the custom programming logic. A refresh button  is also provided to refresh a connection to the room program.



## Room Control

The **Room Control** card shows the current power state of the room, the power state of any controlled displays in the room, and the current source that is routed to a display depending on the custom programming logic. Power on and off controls are also provided for the room and displays.




The following controls and indicators are provided:

**NOTE:** If the custom program does not support a control or indicator, it will be grayed out in the tile.

- **System Power:** Indicates whether the room power is on (represented by a green power icon) or off (represented by a black power icon). Select the icon to toggle the room power on or off depending on the programming logic. Power on and off events can also be scheduled in XiO Cloud.
- **Display Power:** Indicates whether controlled displays in the room are powered on (represented by a green power icon) or off (represented by a black power icon). Select the icon to toggle the display power on or off depending on the programming logic. Power on and off events can also be scheduled in XiO Cloud.

**NOTE:** If there are more than one display in the room, the **Display Power** state should represent all displays in the room, and power on/off should control the power state for all displays. This logic is recommended and must be enforced by the program.


- **Current Source:** Shows an icon representing the active source that is being routed to a display in the room, or shows a no source icon if no source is selected. A blank display icon is shown if the source type is unknown or has not been sent by the program. Hover the cursor over the icon to expose a description of the source. For a list of all available **Current Source** icons, refer to [Appendix C: XiO Cloud Program Connector Sources on page 225](#).

Select the schedule icon  next to the room card name to navigate to the **Scheduled Actions** tab for the room under the **Group View** settings. Scheduled actions can be configured for display power and system power from that location.


## System Check

The **System Check** card is used to perform a test of the room system based on the programming logic. The test can be used on all system components or specific system components (such as a microphone test). The system check and all logic that drives it relies on custom programming, allowing programmers to create tests for anything in their program.

**NOTE:** If the custom program does not include a system test, the **Start Test** button is grayed out in the tile.

System Check 

[▶ Start Test](#)

Status:  **Completed-With Error(s)**

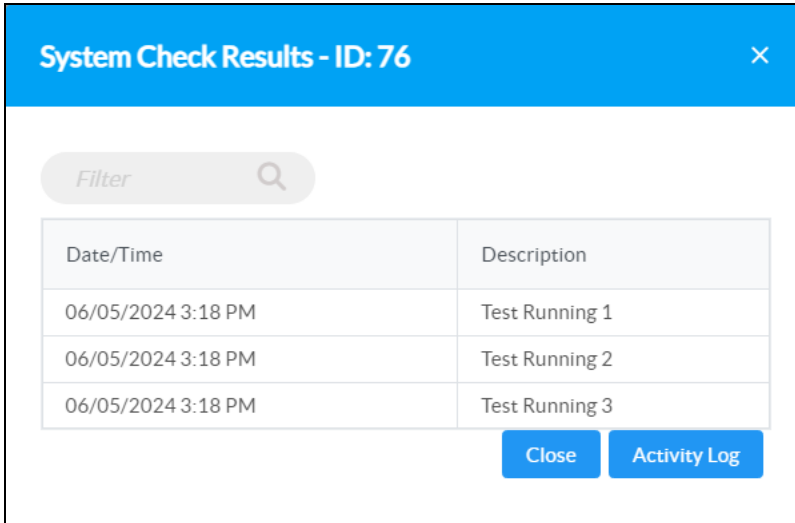
Last Test Run: 06/05/2024 - 7:37 AM

Report Log: [📄 View Results](#)


Select **Start Test** to perform the programmed room test. A digital signal is sent to the control system to initiate the test and the button text changes to **Running**. Once the test has completed, the results are populated in the **Cloud Activity Logs** accordion for the room and can be filtered based on the time stamp.

The following additional status fields and controls are provided:

- **Status:** Indicates the current status of the test (**No Test**, **Running**, **Completed**, **Completed with Error(s)**, or **Failed**).
- **Last Test Run:** Indicates the date and time when the test was last run.
- **Report Log:** Select **View Results** to open a **System Check Results** window that shows a condensed and filtered view of the room **Cloud Activity Logs** corresponding with the test results.

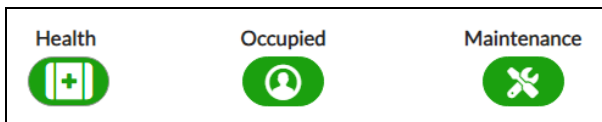


- Enter a search term in the **Filter** text box to filter the results by the entered search criteria.
- Select **Activity Log** to open the full **Cloud Activity Logs** for the room.
- Select **Close** to close the **System Check Results** window.

Select the schedule icon  next to the room card name to navigate to the **Scheduled Actions** tab for the room under the **Group View** settings. Scheduled actions can be configured for system tests from that location.

## Status Indicators

Various status indicators are shown at the top of the room pane that can be customized through the room program.



Each indicator and its programmatic functions are described in the sections that follow.






## Room Health

The **Health** indicator shows the overall health status of the room, allowing building or IT administrators to quickly identify and triage rooms that are reporting issues.

Health status levels are set based on alerts reported from the room program and their severity, and these levels can be customized based on end user requirements. For example, if a room has a touch screen that is required for accessing the room controls, an alert with critical severity could be triggered when the touch screen goes offline to indicate that the entire room system is not functional. For more information on enabling alerts to control room health, refer to [Alerts on page 130](#).

**NOTE:** Alerts are also shown in the room **Alerts** log and can be cleared as they are resolved.

The following health levels are provided that correspond with the severity of any active alerts:



- A green room health icon  indicates that the room is functioning normally with no reported issues or minor issues (**Notice** severity level).
- A yellow room health icon  indicates that the room is usable but has issues that could affect its performance (**Warning** severity level).
- A red room health icon  indicates that the room is not usable based on critical issues (**Error** and **Critical** severity level).

## Room Occupancy

The **Occupied** indicator shows whether the room is reporting occupancy or vacancy based on programming logic.

The custom program can tie the state of an occupancy sensor (or any other programming-defined occupancy event, such as the room reporting an active call) to the XiO Cloud Room symbol, which pushes the state to XiO Cloud. The programmed occupancy sensor does not need to be claimed into XiO Cloud (allowing for the use of a Cresnet® network occupancy sensor), and the programmed occupancy event can be combined with other XiO Cloud occupancy reporting triggers. The XiO Cloud room can also have its occupancy state set by other devices, which can be sent to the program for automation logic and other purposes.

The following occupancy states are provided:

- A green occupancy icon  indicates that the room is currently occupied.
- A gray occupancy icon  indicates that the room is currently vacant.



## Maintenance Mode

The **Maintenance** indicator shows whether the room is currently in maintenance mode, which is entered using the **Actions** menu for the room.

**NOTE:** Scheduled actions can be configured for maintenance mode by navigating to the **Scheduled Actions** tab for the room under the **Group View** settings.


The custom program receives maintenance mode state from XiO Cloud, which allows programmers to define maintenance mode messaging in the room. For example, if the room is placed into maintenance mode to perform firmware updates on system components but the room is still largely usable, a programmer could create messaging that explains the scenario and any usage limitations. Conversely, if the room is not usable at all during maintenance mode, messaging could be provided to alert users that the room is offline and not currently available for meetings.

The following maintenance mode states are provided:

- A green maintenance icon  indicates the room is currently in maintenance mode.
- A gray maintenance icon  indicates the room is currently not in maintenance mode.


## Custom Alerts

Custom alerts or messages can be sent from the program to XiO Cloud when a corresponding device or room event is triggered. These custom alerts and messages are reported into the **Cloud Activity Logs** for the room.




**Khozem\_Room**  
Address: India Arwal Bihar, 824124 - India


Health



Occupied



Maintenance



[Action](#)

---

**Room Details**

Space Type: Meeting Room

Building Name: tempBuilding

Floor: 1

Time Zone: (UTC-05) America/New\_York

---

Global Filter

Show Only Group, Room or Desk Events

to

[Download Previous 30 Days Events](#)

| Date and Time      | User     | Device Model | Device, Room, Group or Desk | Event  |
|--------------------|----------|--------------|-----------------------------|--|
|                    |          | All          |                             |  |
| 06/06/2024 3:44 PM | ROOM1    | VC-4         | Khozem_Room                 | System Power Failure!!   |
| 06/06/2024 3:44 PM | ROOM1    | VC-4         | Khozem_Room                 | System Power Failure!!   |
| 06/06/2024 3:44 PM | re1.test | VC-4         | Khozem_Room                 | Setting Changed: System Power   Old value: On   New value: Off |
| 06/06/2024 3:43 PM | re1.test | VC-4         | Khozem_Room                 | Setting Changed: System Power   Old value:   New value: On     |
| 06/06/2024 3:39 PM | ROOM1    | VC-4         | Khozem_Room                 | System Check state updated: Old value: 1   New value: 4        |
| 06/06/2024 3:39 PM | ROOM1    | VC-4         | Khozem_Room                 | Test Ended (TestID:730)  |
| 06/06/2024 3:39 PM | ROOM1    | VC-4         | Khozem_Room                 | Occupancy test success (TestID:730)                            |
| 06/06/2024 3:39 PM | ROOM1    | VC-4         | Khozem_Room                 | Audio test success (TestID:730)                                |
| 06/06/2024 3:39 PM | ROOM1    | VC-4         | Khozem_Room                 | Mick test success (TestID:730)                                 |
| 06/06/2024 3:39 PM | ROOM1    | VC-4         | Khozem_Room                 | Test started (TestID:730)                                      |

# Manage Devices

Devices may be managed via the XiO Cloud service after they have been claimed by the service and added into a group or room. Devices may be managed individually or as a group.

Select a device from the group tree to view and configure the device status, settings, and licenses. The configuration page for the device also provide options for viewing status dashboards and activity logs, and automated actions may be scheduled for the device.

**NOTE:** Not all device management options are available for some devices.

## Device Configuration Page

The screenshot displays the device configuration page for a device identified as AM-3000-WF-I-SHA. The breadcrumb navigation shows the path: # Heroes Team > AM3K Room. A blue 'Action' button is located in the top right corner. Below the breadcrumb, a navigation bar includes links for Status, Settings, Dashboard, Logs, Scheduled Actions, and Device Metadata. A red status indicator states 'The system is currently offline'. The main content area is organized into sections: 'Device' (expanded) showing Model (AM-3000-WF-I), Serial Number (2131GSP02131), and Firmware Version (2.0400.0013); a '+ More Details' button; and several collapsed sections: Network, HDMI Output, AirMedia, Control System, Connected Devices, and Alerts. The footer contains copyright information for Crestron Electronics, Inc. (© 2023, 1.53.1) and links for Live Support Chat, Service Status, Privacy Statement, Cloudware License, and Email Support.

Use the following procedures to manage devices via the XiO Cloud service.

# Rename a Device


Each device in the XiO Cloud service has a unique device name, which allows the device to be identified and organized within the service. The device name is used only by the XiO Cloud service.

By default, the device name is set as the host name of the device. However, the device may be renamed as needed.

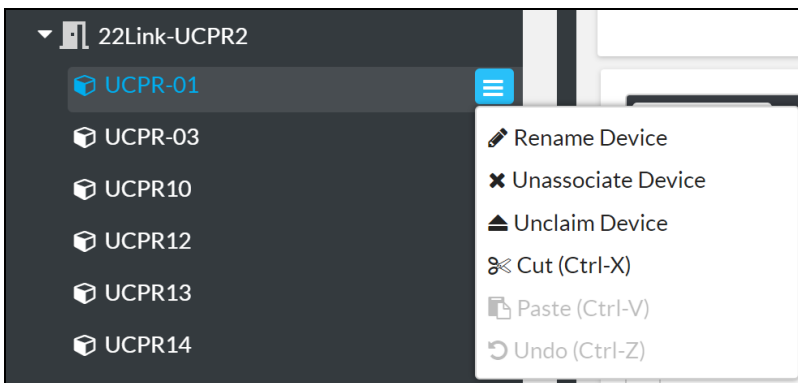
**NOTE:** Changing the device name has no impact on the host name or other identifying features on the hardware.

Two methods may be used to rename a device: The device name may be changed in the group tree or from its configuration page.

To change the device name in the group tree:

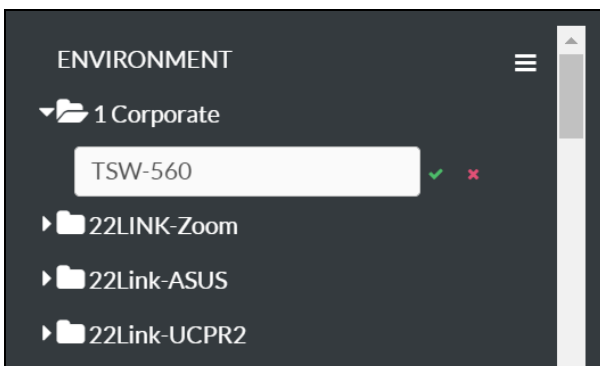
1. Position the cursor over the device in the **ENVIRONMENT** menu to reveal its context menu.
2. Select the context menu button  of the device to display a drop-down menu.



## Device - Drop-Down Menu



3. Select **Rename Device**. The device name becomes an editable text box.

## Device - Edit Device Name

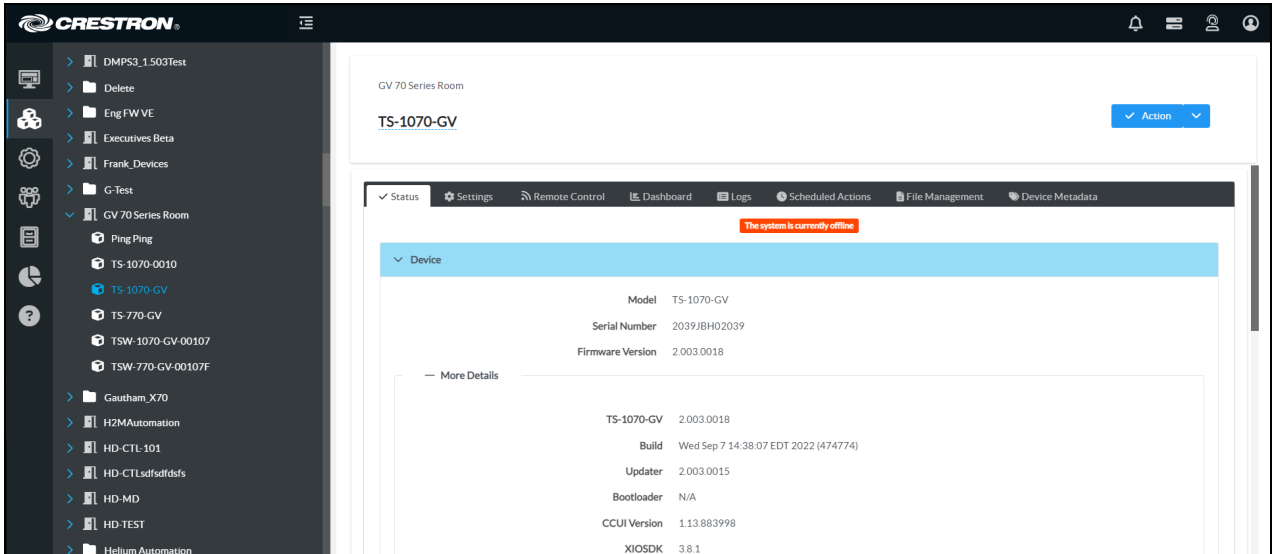


4. Enter a new device name in the text box. A device name must be at least three characters long.
5. Select the green check icon  or select **Enter** to save the device name. Select the red x icon  to discard the changes.

To change the device name from the configuration page:

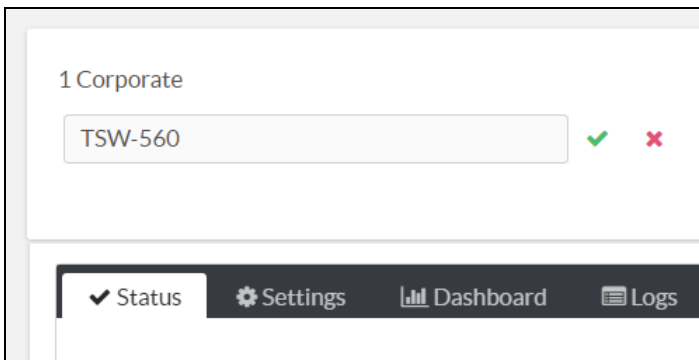
1. Select the device from the group tree to display its configuration page.



### Device Configuration Page



2. Select the device name on the top left of the configuration page. The device name becomes an editable text box.

### Device Configuration Page - Edit Device Name



3. Enter a new device name in the text box. A device name must be at least three characters long.
4. Select the green check icon  or select **Enter** to save the device name. Select the red x icon  to discard the changes.

## View Device Status

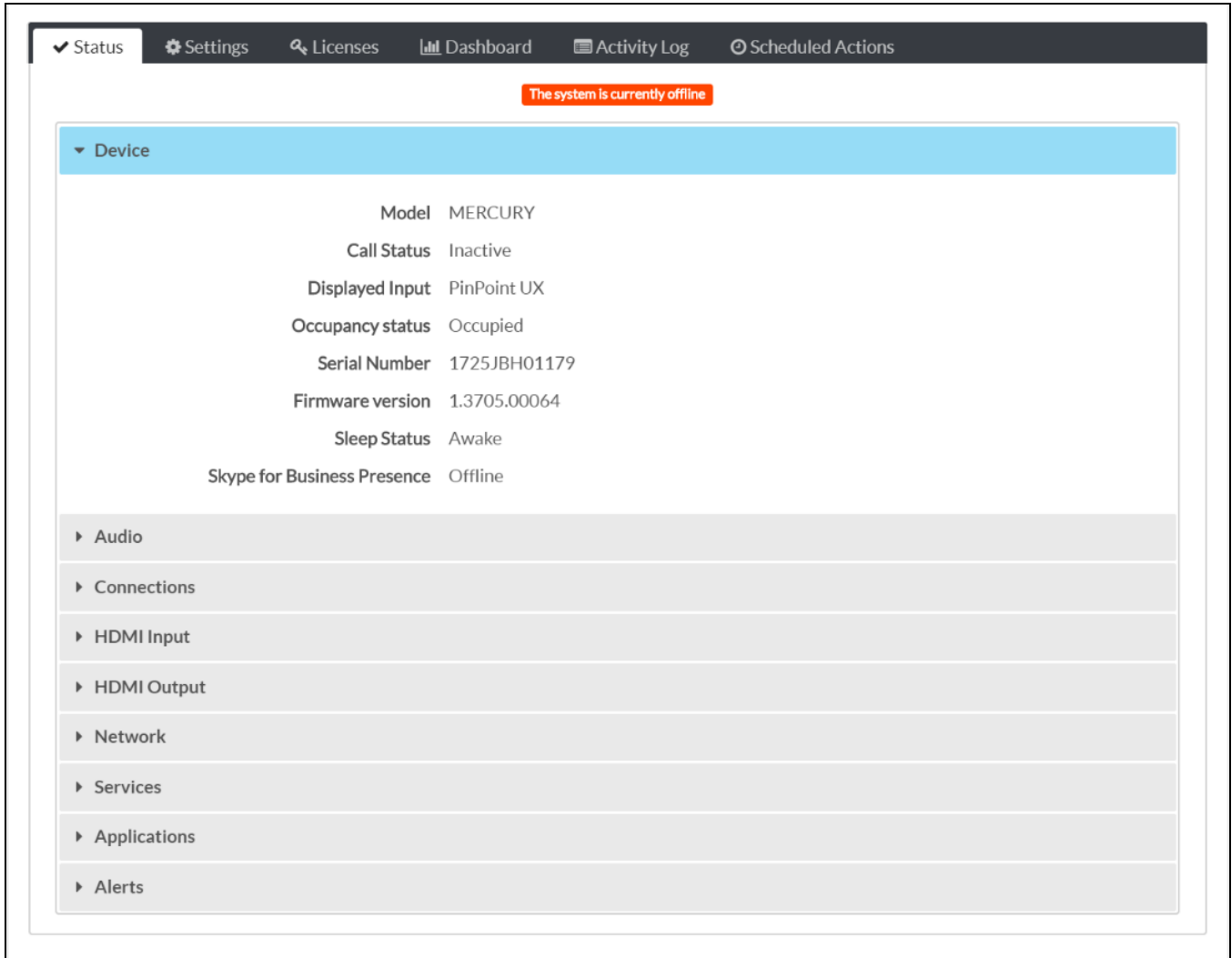
The device status may be viewed for individual devices or for multiple devices within the same group or room.

# View Status for a Single Device

To view the status for a single device, select a device from the group tree to display its configuration page. The **Status** tab is open by default.

**NOTE:** A device must be added into a room or group before its configuration page can be viewed.

## Device Configuration Page - Status Tab (Devices)



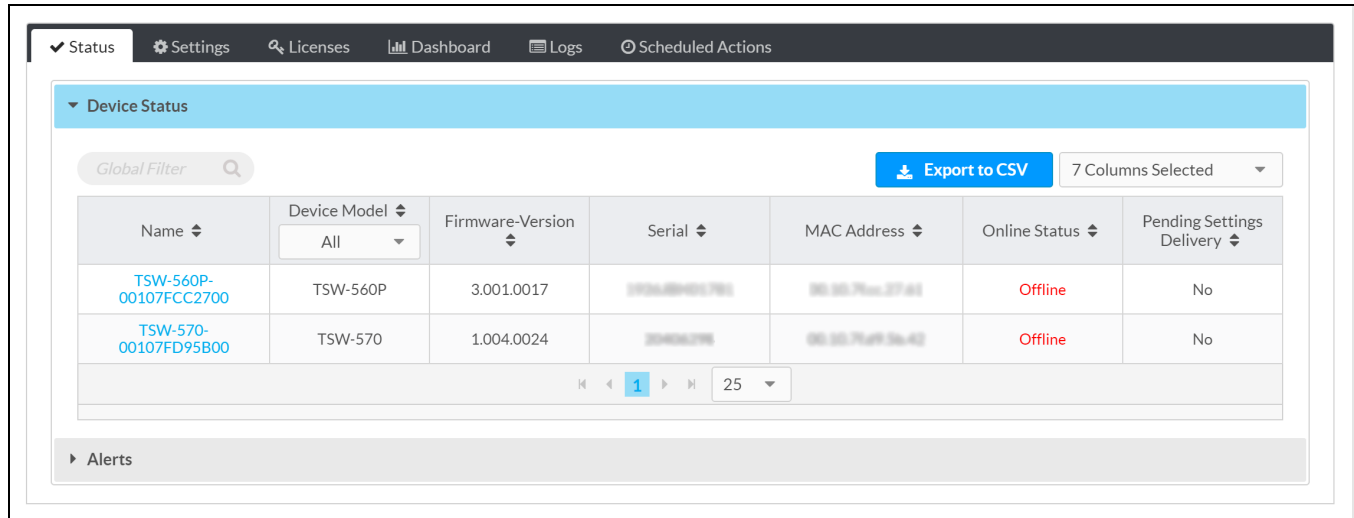
The **Status** tab provides expandable "accordions" that display static and changing device attributes. Dynamic attributes, such as volume, change in the appropriate status accordion within seconds of being changed on the device.

Select an accordion name to expand it. If the accordion is expanded, select the accordion name again to collapse it. The accordions provided vary depending on the device.

# View Status for a Group of Devices

To view the status for multiple devices within the same group or room, select a group or room from the group tree to display its configuration page. The **Status** tab is selected by default.

## Group Configuration Page - Status Tab (Device Status)



The screenshot shows the 'Device Status' tab in a web application. At the top, there is a navigation bar with tabs for Status, Settings, Licenses, Dashboard, Logs, and Scheduled Actions. Below the navigation bar, there is a 'Device Status' section with a 'Global Filter' search box and an 'Export to CSV' button. A table displays the status of two devices. The table has columns for Name, Device Model, Firmware-Version, Serial, MAC Address, Online Status, and Pending Settings Delivery. The first device is TSW-560P-00107FCC2700, and the second is TSW-570-00107FD95B00. Both are currently Offline. Below the table, there is a pagination control showing page 1 of 25. At the bottom, there is an 'Alerts' section.

| Name                  | Device Model | Firmware-Version | Serial     | MAC Address       | Online Status | Pending Settings Delivery |
|-----------------------|--------------|------------------|------------|-------------------|---------------|---------------------------|
| TSW-560P-00107FCC2700 | TSW-560P     | 3.001.0017       | TSW560P001 | 00:00:71:4F:2A:42 | Offline       | No                        |
| TSW-570-00107FD95B00  | TSW-570      | 1.004.0024       | TSW570001  | 00:00:71:4F:2A:42 | Offline       | No                        |

The **Status** section lists all of the devices within the group or room and any subgroups in table format. The **Device Status** table provides a subset of important status information for the devices within the group and its subgroups.

**NOTE:** Selecting the **Unassociated Devices** group displays the device status for all unassociated devices in the account. Only the **Name**, **Device Model**, **Serial**, and **MAC Address** status fields are provided for unassociated devices. An unassociated device must be moved to a room or group before its individual status can be viewed.

The following information is displayed for each device by default:

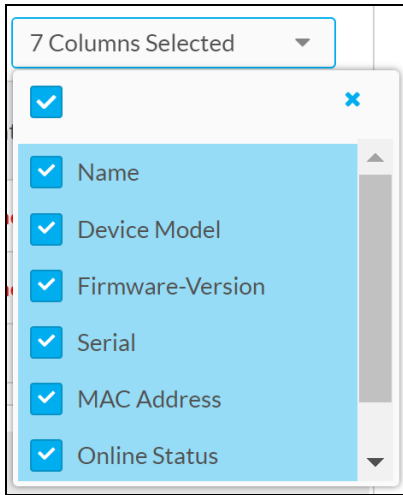
- The name and model
- The loaded firmware version, including whether any firmware updates are pending
- The serial number and MAC address
- The online status, which indicates whether the device is connected to the XiO Cloud service
- The pending settings delivery status, which indicates whether any device settings changes are pending

**NOTE:** If the **Pending Settings Delivery** status is **Yes**, device settings have been saved in the portal but have not yet been applied to the device (such as in instances where the device is unplugged).

The data that is displayed for each device in a group or room can be customized by filtering the table columns for that group or room. By default, 7 columns are displayed that contain the data described in the list above. Up to 15 columns can be displayed by selecting or deselecting a column in the provided drop-down menu.

To select or deselect table columns for a group or room, expand the drop-down menu at the top right of the status table. Then, select or deselect an item in the menu to display or hide that column from the status table, respectively. Use the check box at the top of the menu to select or deselect all columns.

#### Column Selection Drop-Down Menu



**NOTE:** Changes made to the status table are made only on a per-group or room basis. The status table will reset to its default settings after logging out of the XiO Cloud service.

The device status table for a group or room can be downloaded as a CSV file by selecting the **Export to CSV** button at the top right of the status table. The CSV file will include all table columns that have been selected as described above.

Enter text into the **Global Filter** text box to search for and display devices that match the search terms.

If the device lists spans multiple pages, use the navigation arrows on the bottom of the page to move forward or backward through the pages, or select a page number to navigate to that page. Additionally, the number of devices displayed on each page may be set to 5, 10, 20, or 25 devices.

## Configure Device Settings

Device settings may be configured for individual devices or for multiple devices within the same group or room.

### Configure Settings for a Single Device

To configure the settings for a single device, select a device from the group tree to display its configuration page, and then select the **Settings** tab.

**NOTE:** A device must be added into a room or group before its configuration page can be viewed.



## Device Configuration Page - Settings Tab (System Setup)

The screenshot displays the 'Settings' tab in a web interface. At the top, a navigation bar includes 'Status', 'Settings', 'Remote Control', 'Dashboard', 'Activity Log', 'Scheduled Actions', and 'File Management'. A red notification bar states 'The system is currently offline'. Below this is a 'System Setup' section with a minus sign to collapse it. The 'Time/Date' subsection is expanded, showing: SNTP (toggle on), Custom Time Server (pool.ntp.org), Date Format (DMY), Time Format (24H selected), and Time Zone ((UTC-05:00) Eastern Time (US & Canad:)). Below are sections for Network, Camera, and Device Display, each with a plus sign to expand. At the bottom, a list of services is shown: Services, Network Proxy Settings, Audio, Applications, and Control System, each with a right-pointing arrow to expand.

The **Settings** tab provides selections for configuring various device settings. When a device is first claimed and added to a group, the current device settings are prepopulated in the XiO Cloud service.

To change a device setting:

1. Locate the device setting in the appropriate **Settings** accordion.

The accordions provided vary depending on the device. Some accordions include subsections that may be expanded by selecting the plus (+) button next to the subsection name. If the subsection is expanded, select the minus (-) button to collapse the subsection.

2. Fill the check box next to a setting to enable it in XiO Cloud.

If a setting is not enabled in XiO Cloud, it will not be sent to the device and can be managed by processes outside of XiO Cloud (such as joins).

**NOTE:** If a setting is enabled in XiO Cloud, it will show what is currently saved in the portal. If a setting is not enabled in XiO Cloud, it will show what is currently set on the device.

For more information on configuring specific settings for a device, refer to its documentation at [www.crestron.com/manuals](http://www.crestron.com/manuals).

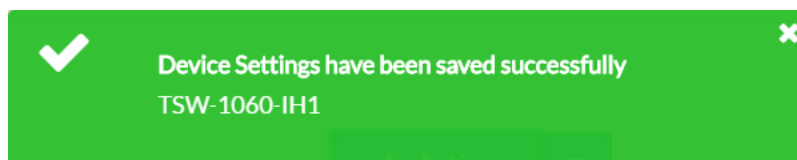
Once a device setting has been changed, the **Actions** button on the top right of the configuration page changes to a **Save Changes** button. Select **Save Changes** to push the updated setting(s) to the device.

#### Save Changes Button



After the settings have been pushed from the cloud to the device successfully, a toast notification is displayed confirming the success.

#### Device Settings Saved Successfully Message



If the device has not yet received the settings, orange "Delivery to Device Pending" text is shown next to the changed settings until the device receives the settings.

#### NOTES:

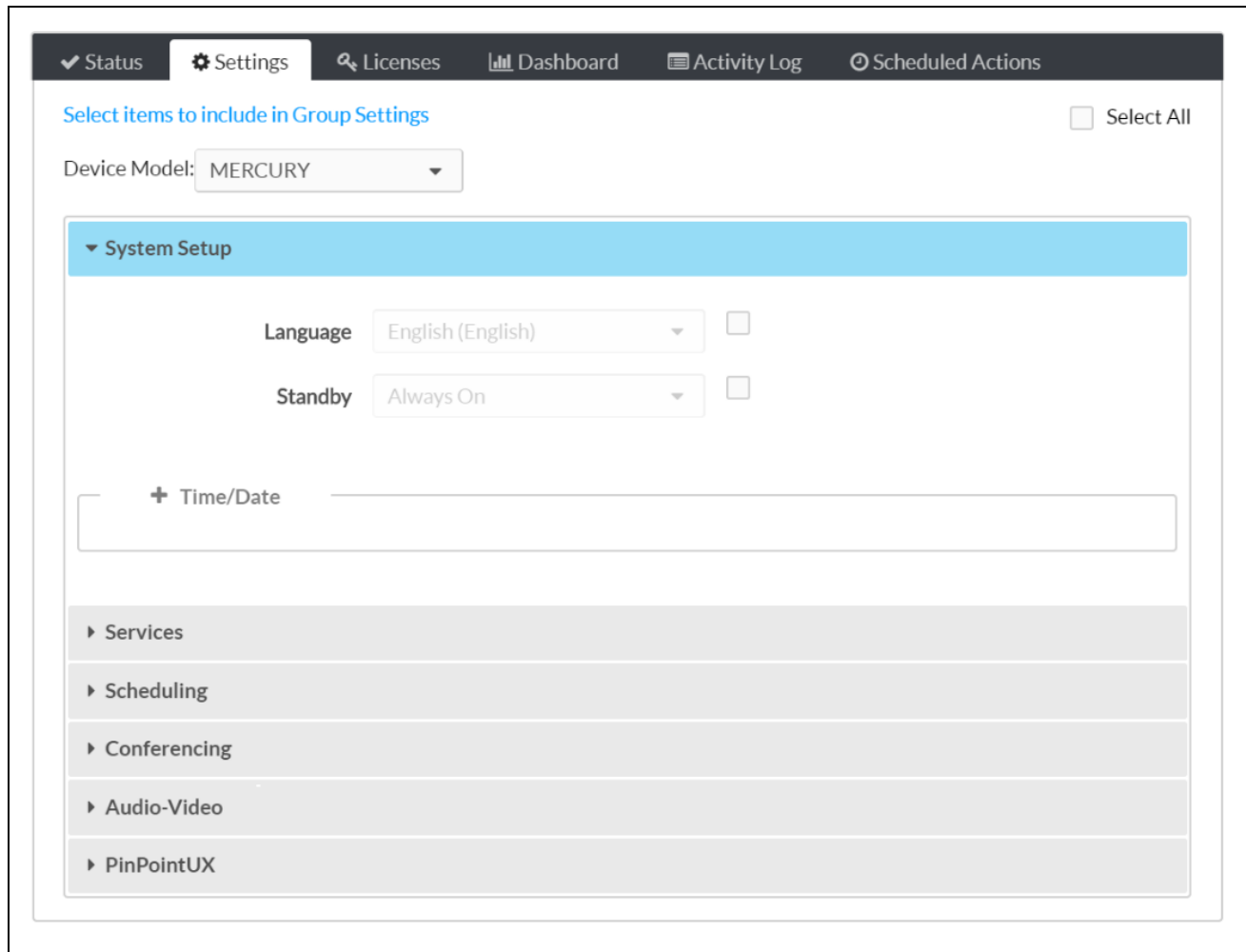
- Depending on the settings that are changed, the device may restart a few minutes after **Save Changes** is selected.
- Each setting checks for valid input. If an invalid input is entered, red text explaining the error is displayed next to the setting, and a red underline is shown under the setting. Changes cannot be saved until the error is resolved.
- A setting entered at the group level cannot be edited on the individual device page. Each device in a group inherits any group-level settings.

To undo changes before saving the settings to the device, select the drop-down arrow next to the **Action** (or **Save Changes**) button, and then select **Revert**. The device settings are returned to their last saved state.

# Configure Settings for a Group of Devices

To configure the settings for multiple devices within the same group or room, select a group or room from the group tree to display its configuration page, and then select the **Settings** tab.

## Group Configuration Page - Settings Tab (System Setup)



The screenshot shows the 'Settings' tab for a group configuration. At the top, there are navigation tabs: Status, Settings (active), Licenses, Dashboard, Activity Log, and Scheduled Actions. Below the tabs, there is a header 'Select items to include in Group Settings' with a 'Select All' checkbox. A 'Device Model' dropdown menu is set to 'MERCURY'. The main content area is titled 'System Setup' and contains several settings:

- Language:** A dropdown menu set to 'English (English)' with an empty checkbox to its right.
- Standby:** A dropdown menu set to 'Always On' with an empty checkbox to its right.
- Time/Date:** A section with a plus sign icon and a text input field.
- Services:** A section with a right-pointing arrow icon.
- Scheduling:** A section with a right-pointing arrow icon.
- Conferencing:** A section with a right-pointing arrow icon.
- Audio-Video:** A section with a right-pointing arrow icon.
- PinPointUX:** A section with a right-pointing arrow icon.

Configuring device settings (such as language or date and time) at the group level pushes the settings to every device in that group or room or its subgroups. Device settings configured at the group level overwrite the same settings on the individual device pages.

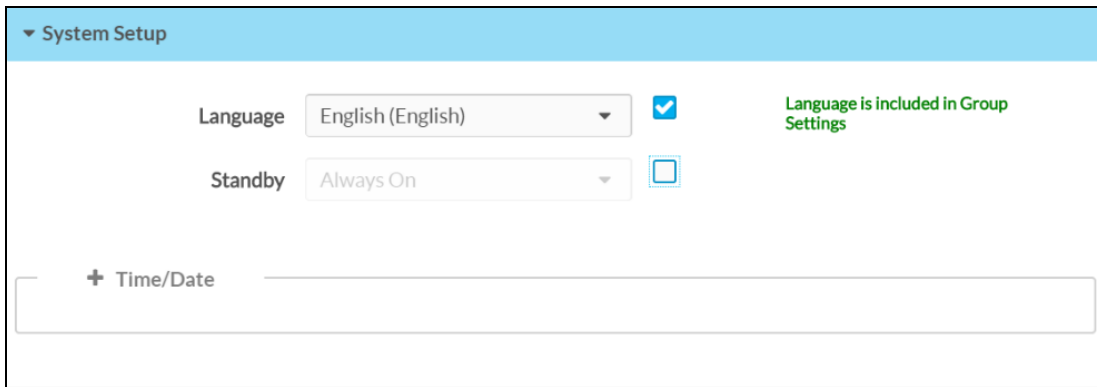
**NOTE:** No device settings can be configured for devices within the **Unassociated Devices** group. An unassociated device must be moved to a room or group before its settings can be configured.

Each group-level setting in the **Settings** section provides a check box next to the setting:

- Select an empty check box to activate the associated setting at the group level. Green text is displayed next to the setting to indicate that the setting is now included in the group settings.
- Select a filled check box to disable the associated setting at the group level.

By default, all group-level settings are disabled.

### System Setup Accordion (Language Setting Enabled)



The screenshot shows a 'System Setup' accordion with a light blue header. Below the header, there are two settings: 'Language' and 'Standby'. The 'Language' setting has a dropdown menu set to 'English (English)' and a checked checkbox. To the right of the 'Language' setting, there is a green text label that reads 'Language is included in Group Settings'. The 'Standby' setting has a dropdown menu set to 'Always On' and an unchecked checkbox. Below these settings, there is a section for '+ Time/Date' with a large empty input field.

Group-level settings in the **Settings** section are organized by device type. To configure the group-level settings for a device type:

1. Select the desired device type from the **Device Model** drop-down menu on the top left of the **Settings** section.
2. Navigate through the accordions provided for each device to locate the desired group-level settings.
3. Select the applicable check box(es) next to the group-level settings to activate the associated setting at the group level.

Once a group setting has been changed, the **Actions** button on the top right of the configuration page changes to a **Save Changes** button. Select **Save Changes** to save the group-level settings.

### Save Changes Button



The screenshot shows a button labeled 'Save Changes' with a checkmark icon on the left and a dropdown arrow on the right. To the left of the button, there is a text label '304 Link' with a dashed underline.

Additional settings may be configured for subgroups after changes are made at the parent group level.

Only settings that have not been configured for the parent group may be activated. Parent group settings are disabled because they are inherited by the subgroup. A "Setting is Inherited from [Group]" text is displayed next to any subgroup settings that may not be activated, where [Group] is the parent group name.

### System Setup Accordion (Subgroup)

The screenshot displays the 'System Setup' accordion for a subgroup. It is divided into two main sections: 'Device Settings Admin PIN' and 'Date/Time'.

**Device Settings Admin PIN:** This section contains three settings: 'Enable PIN' (a toggle switch that is currently off), 'Panel PIN' (a text input field), and 'Confirm Panel PIN' (another text input field).

**Date/Time:** This section is further divided into 'Synchronization' and 'Configuration'.

- Synchronization:** Includes 'Time Synchronization' (a toggle switch that is currently on) and 'NTP Time Servers' (a table with a checkmark icon in the top right corner).
- Configuration:** Includes 'Time Zone' (a dropdown menu set to '(UTC-05:00) Eastern Time (US & Canada)'), 'Date Format' (a dropdown menu set to 'WMD'), and 'Time Format' (radio buttons for '12' and '24', with '12' selected).

Each configuration setting in the 'Date/Time' section has a note on the right that says 'Setting is Inherited from Area 4'. The 'NTP Time Servers' table is currently empty, displaying 'No records found' and includes '+ Add' and '- Remove' buttons.

Subgroup-level settings in the **Settings** section are organized by device type. To configure the subgroup-level settings for a device type:

1. Select the desired device type from the **Device Model** drop-down menu on the top left of the Settings section.
2. Navigate through the accordions provided for each device to locate the desired subgroup-level settings.
3. Select the applicable check box(es) next to the subgroup-level settings to activate the associated setting at the subgroup level.

Once a subgroup setting has been changed, the **Actions** button on the top right of the configuration page changes to a **Save Changes** button. Select **Save Changes** to save the subgroup-level settings.

## Save Changes Button

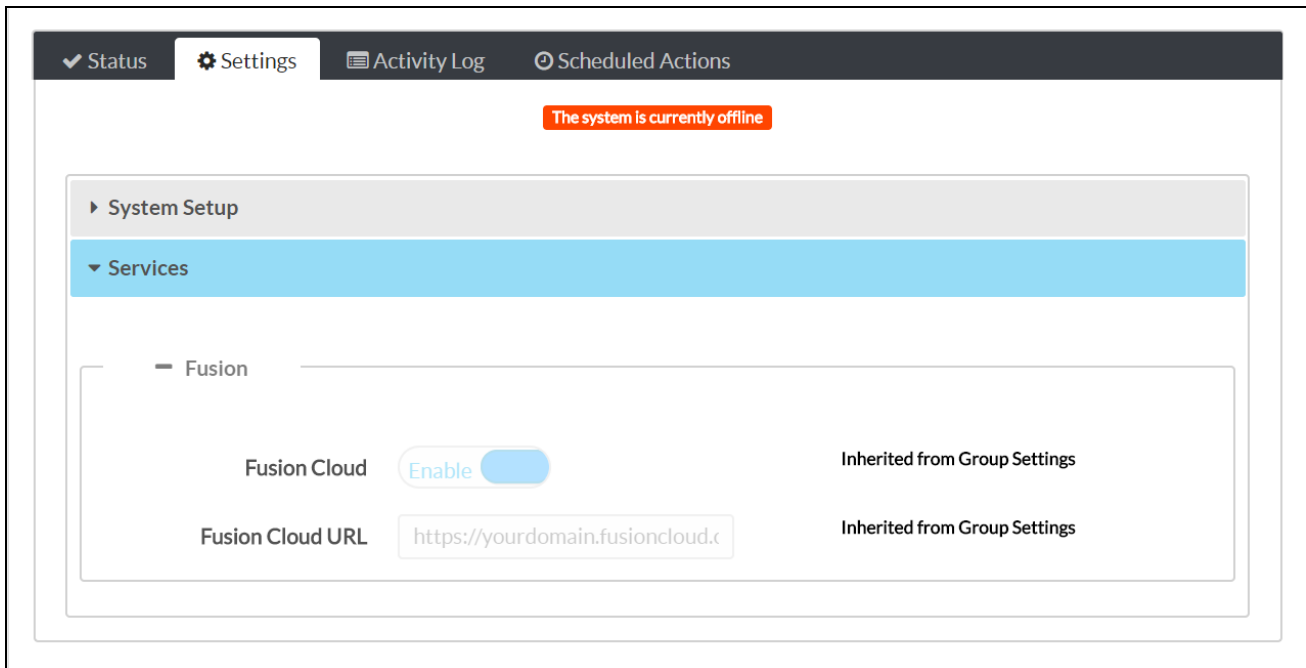


Any remaining settings may be configured for individual devices after changes are made at the parent group and subgroup level.

Only settings that have not been configured for the parent group or subgroup may be configured. Parent group and subgroup settings are disabled because they are inherited by the device. An "Inherited from Group Settings" text is displayed next to any device settings that may not be activated.

**NOTE:** Unchecking the check box for a group setting does not change the setting for an individual device, but makes it possible to change the setting on the individual device configuration page.

## Device Status Page Showing "Inherited from Group Settings" Text



**NOTE:** Adding a device to a group or room automatically pushes down any of the settings from the group to the device.

## Prevent Unnecessary Restarts

Under rare circumstances, applying certain settings to a device may cause unexpected device behavior, such as repeated restarting, to occur.

If the XiO Cloud service detects a device in this state:

- The XiO Cloud service stops sending the setting that is causing the issue to the device, which prevents restarts from occurring.
- A message is displayed on the device settings page stating that undesired behavior was detected and that settings are no longer being sent to the device.
- An alert message is placed next to the setting that is causing the issue.

To resume sending settings to the device, update the setting that is causing the issue, and then select **Save Changes** from the **Action** menu. The XiO Cloud service resumes sending settings to the device once it verifies that the problem setting is fixed.

## Manage Licenses

Certain Crestron devices use licenses to enable extra functionality. These licenses may be managed through the XiO Cloud service. Licenses may be added to devices, removed from devices, or transferred to different devices.

The XiO Cloud service maintains a record of all of the licenses that have been purchased for a end user's account, including licenses that were included with purchased devices.

**NOTE:** Managing device licenses (such as VC-4 server licenses) is supported by free XiO Cloud subscriptions. However, each instance of a device license is included in the device count for XiO Cloud Premium subscriptions.

## Manage Licenses for a Single Device

To manage the licenses for a single device, select a device from the group tree to display its configuration page, and then select the **Licenses** tab.

### Device Configuration Page - Licenses Tab

| <input type="checkbox"/> | Name       | License Type | Expiration Date | Add/Remove  |
|--------------------------|------------|--------------|-----------------|---|
| <input type="checkbox"/> | MERCURY-0  | AirMedia     | n/a             | <input type="button" value="+ Add"/> <input type="button" value="v"/> |
| <input type="checkbox"/> | MERCURY-00 | HDMI         | n/a             | <input type="button" value="+ Add"/> <input type="button" value="v"/> |

The **Licenses** section lists all of the licenses that are available for the device in table format. The **Licenses** table provides the following information for each license:

- The device name
- The license type
- The expiration date
- Controls to add or remove the license

Enter text in to the **Global Filter** text box to search for and display licenses that match the search terms.

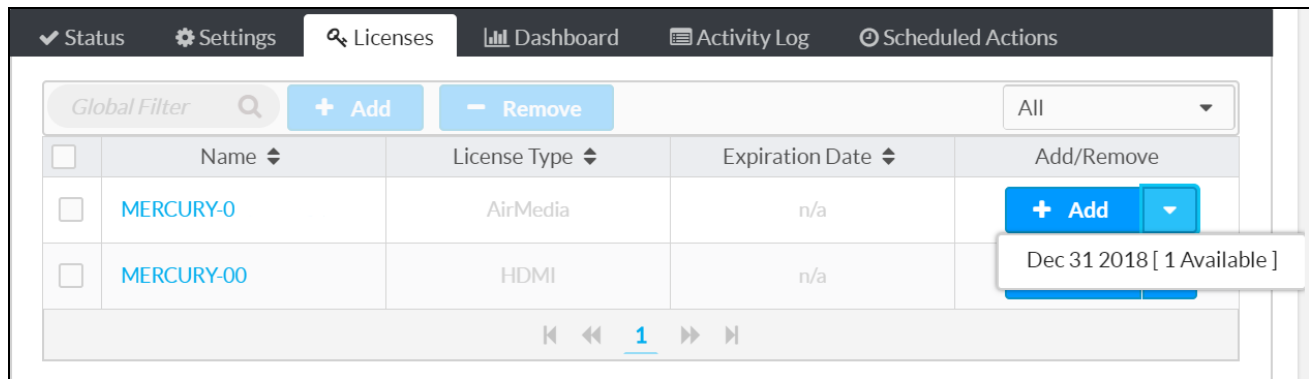
If the license list spans multiple pages, use the navigation arrows on the bottom of the page to move forward or backward through the pages, or select a page number to navigate to that page.

To add a license for a feature that has not yet been licensed for a device, select **Add** in the **Add/Remove** column for the device.

**NOTE:** If multiple licenses are available for the same feature, the license that expires first is added first automatically. For example, if a 1-year AirMedia® presentation system license and a 2-year AirMedia license are available, the 1-year license is added first.

If a license other than the license with the earliest expiration date is desired, select the arrow next to the **Add** button to choose from the available expiration dates in the account.

#### Device Configuration Page - Licenses Tab (Expiration Date Selection)

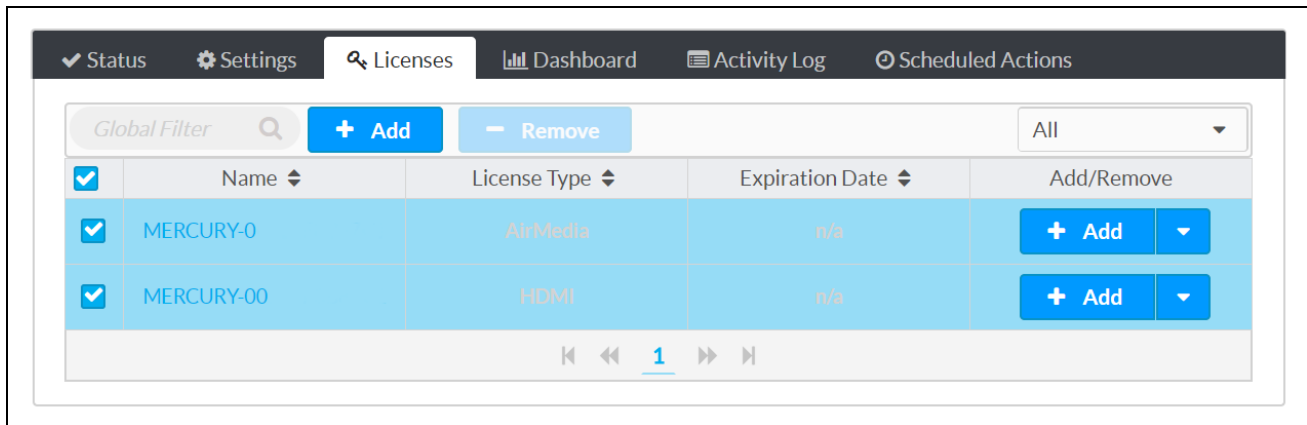


To add licenses for multiple features at the same time, check the boxes next to the license features, and then select **Add** at the top of the screen. As with adding licenses individually, if multiple licenses are available for the same feature, the license that expires first is added first automatically.



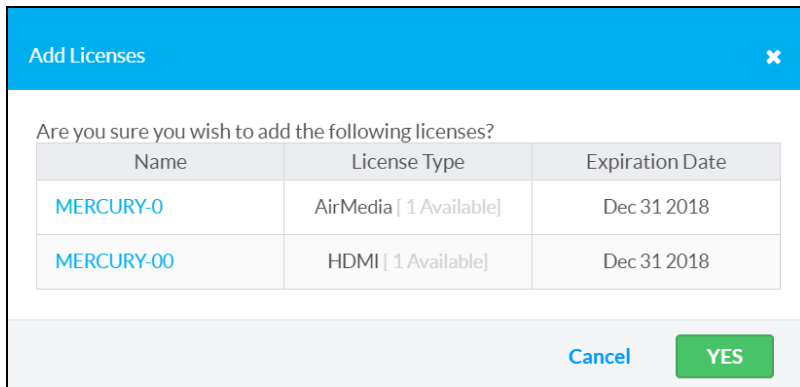
Select the check box in the table heading row to select or deselect all available licenses.

### Device Configuration Page - Licenses Tab (Add Multiple Licenses)



After adding a license using either of these methods, a confirmation dialog box is displayed. Select **YES** to apply the license.

### Add Licenses Confirmation Dialog Box



To remove a license for a feature that has not yet been licensed for a device, select **Remove** in the **Add/Remove** column for the device.

Removing a license returns it to the end user's license pool, allowing the same license to be applied to a different device.

### Device Configuration Page - Licenses Tab (Remove Button)

The screenshot shows the Licenses tab interface. At the top, there are navigation links: Status, Settings, Licenses (active), Dashboard, Activity Log, and Scheduled Actions. Below the navigation is a Global Filter search bar, an Add button, a Remove button, and a dropdown menu set to 'All'. The main content is a table with the following columns: Name, License Type, Expiration Date, and Add/Remove. There are two rows of data, both with the name 'Tech Pubs Mercury'. The first row has a License Type of 'AirMedia' and an Expiration Date of 'Never'. The second row has a License Type of 'HDMI' and an Expiration Date of 'Never'. Each row has a checkbox in the Name column and a 'Remove' button in the Add/Remove column. At the bottom of the table, there are pagination controls showing '1'.

| <input type="checkbox"/> | Name              | License Type | Expiration Date | Add/Remove                            |
|--------------------------|-------------------|--------------|-----------------|---------------------------------------|
| <input type="checkbox"/> | Tech Pubs Mercury | AirMedia     | Never           | <input type="button" value="Remove"/> |
| <input type="checkbox"/> | Tech Pubs Mercury | HDMI         | Never           | <input type="button" value="Remove"/> |

To remove licenses for multiple features at the same time, check the boxes next to the license features, and then select **Remove** at the top of the screen.

Select the check box in the table heading row to select or deselect all available licenses.

### Device Configuration Page - Licenses Tab (Remove Multiple Licenses)

This screenshot is identical to the previous one, but the checkboxes in the Name column of the table are now checked. Additionally, the 'Remove' button at the top of the interface is highlighted in blue, indicating it is the active action.

| <input checked="" type="checkbox"/> | Name              | License Type | Expiration Date | Add/Remove                            |
|-------------------------------------|-------------------|--------------|-----------------|---------------------------------------|
| <input checked="" type="checkbox"/> | Tech Pubs Mercury | AirMedia     | Never           | <input type="button" value="Remove"/> |
| <input checked="" type="checkbox"/> | Tech Pubs Mercury | HDMI         | Never           | <input type="button" value="Remove"/> |

**NOTE:** Adding or removing licenses may cause a device to restart. Behavior may differ between device models due to firmware differences.

# Manage Licenses for a Group or Room

To manage the licenses for multiple devices within the same group or room, select a group or room from the group tree to display its configuration page, and then select the **Licenses** tab.

## Group Configuration Page - Licenses Tab

| Name              | License Type | Expiration Date |                          |
|-------------------|--------------|-----------------|--------------------------|
| ▼ Tech Pubs       |              |                 |                          |
| Tech Pubs Mercury | HDMI         | Never           | <a href="#">- Remove</a> |
| Tech Pubs Mercury | AirMedia     | Never           | <a href="#">- Remove</a> |

The **Licenses** section of the group or room configuration page provides the same information and controls as the **Licenses** section of the device configuration page; however, the licenses for all the devices in the group or room and its subgroups are displayed.

To add or remove the licenses for multiple features or devices at once, press **Ctrl** and select the appropriate features, and then use the bulk **Add** and **Remove** buttons at the top of the page to add or remove the licenses, respectively.

## Group Configuration Page - Licenses Tab (Select Multiple Licenses)

| Name              | License Type | Expiration Date |                          |
|-------------------|--------------|-----------------|--------------------------|
| ▼ Tech Pubs       |              |                 |                          |
| Tech Pubs Mercury | HDMI         | Never           | <a href="#">- Remove</a> |
| Tech Pubs Mercury | AirMedia     | Never           | <a href="#">- Remove</a> |

# Scheduled Actions

Scheduled actions allow certain device and room functions to be automated from the cloud.

The available actions for each device vary, although all devices support a scheduled restart and firmware upgrade. All rooms support display power, system check, system power, and maintenance mode actions. Actions may be scheduled to occur once or in a recurring pattern.

**NOTE:** Scheduled actions for rooms require the XiO Cloud Program Connector functionality to be configured appropriately for each action. For more information, refer to [XiO Cloud Program Connector on page 65](#).

Scheduled actions are accessible from the **Scheduled Actions** tab for an individual device, group, or room.

**NOTE:** Scheduled actions require an XiO Cloud Premium subscription.

## Device Configuration Page - Scheduled Actions

| Action                     | Group/Room/Device | Schedule | Last Ran | Next Run | Add/Remove |
|----------------------------|-------------------|----------|----------|----------|------------|
| ⌚ Firmware                 |                   |          |          |          | + Add      |
| ⌚ Reboot                   |                   |          |          |          | + Add      |
| ⌚ Request Device Log Files |                   |          |          |          | + Add      |

For rooms or groups, select **Device** to view the available scheduled actions for their grouped devices.

## Group Configuration Page - Scheduled Actions (Device)

The screenshot shows the 'Scheduled Actions' section for a device. At the top, there are navigation tabs for 'Device' (selected), 'Rooms', and 'Desks'. Below this is a dark navigation bar with 'Status', 'Settings', 'Dashboard', 'Logs', and 'Scheduled Actions' (selected). The main content area has a 'Device' button selected and a 'Room' button. A 'Device Model' dropdown menu is set to 'AM-200'. Below this is a table with the following columns: Action, Group/Room/Device, Schedule, Last Ran, Next Run, and Add/Remove. The table contains two rows: 'Firmware' and 'Reboot', each with a '+ Add' button. At the bottom of the table are navigation arrows: '<<', '<', '>', and '>>'.

| Action   | Group/Room/Device | Schedule | Last Ran | Next Run | Add/Remove |
|----------|-------------------|----------|----------|----------|------------|
| Firmware |                   |          |          |          | + Add      |
| Reboot   |                   |          |          |          | + Add      |

For rooms or groups, select **Room** to view the available scheduled actions for the room or grouped rooms, respectively.

## Group Configuration Page - Scheduled Actions (Room)

The screenshot shows the 'Scheduled Actions' section for a room. At the top, there are navigation tabs for 'Device', 'Rooms' (selected), and 'Desks'. Below this is a dark navigation bar with 'Status', 'Settings', 'Dashboard', 'Logs', and 'Scheduled Actions' (selected). The main content area has a 'Device' button and a 'Room' button selected. Below this is a table with the following columns: Action, Group/Room/Device, Schedule, Last Ran, Next Run, and Add/Remove. The table contains four rows: 'Maintenance Mode', 'Display Power', 'System Check', and 'System Power', each with a '+ Add' button. At the bottom of the table are navigation arrows: '<<', '<', '>', and '>>'.

| Action           | Group/Room/Device | Schedule | Last Ran | Next Run | Add/Remove |
|------------------|-------------------|----------|----------|----------|------------|
| Maintenance Mode |                   |          |          |          | + Add      |
| Display Power    |                   |          |          |          | + Add      |
| System Check     |                   |          |          |          | + Add      |
| System Power     |                   |          |          |          | + Add      |

The **Scheduled Actions** table lists the actions that may be scheduled for the selected device, device model, or room.

When scheduling actions for a group or room, select the desired device type from the **Device Model** drop-down menu on the top left of the **Scheduled Actions** section. An action created in the group or room configuration page will be applied to all devices that share the selected model.


Select the arrow button next to an action to view more details about the action.

### Schedule Actions Table

| Action                     | Group/Room/Device   | Schedule               | Last Ran               | Next Run | Add/Remove |
|----------------------------|---------------------|------------------------|------------------------|----------|------------|
| ⌵ Firmware                 |                     |                        |                        |          | + Add      |
|                            | 384                 | Oct 03, 2024 05:25 EDT | Oct 03, 2024 05:25 EDT |          |            |
|                            | DM-NVX-384-C4426... | Oct 07, 2024 23:34 EDT | Oct 07, 2024 23:34 EDT |          | - Remove   |
|                            | 384                 | Oct 08, 2024 00:40 EDT | Oct 08, 2024 00:40 EDT |          |            |
|                            | 384_Siva            | Oct 09, 2024 01:41 EDT | Oct 09, 2024 01:41 EDT |          |            |
|                            | DM-NVX-384-C4426... | Nov 08, 2024 22:40 EST |                        |          | - Remove   |
| ⌵ Reboot                   |                     |                        |                        |          | + Add      |
| ⌵ Request Device Log Files |                     |                        |                        |          | + Add      |

The following information is displayed for each device:

- The name of the action
- The device model, device model, or room group
- The schedule that has been set for the action
- The date and time when the action was last ran

**NOTE:** If the action was triggered but the device was unable to complete it for any reason, such as being offline at the scheduled date and time, an error icon  is shown next to the **Last Ran** date and time to indicate this error.

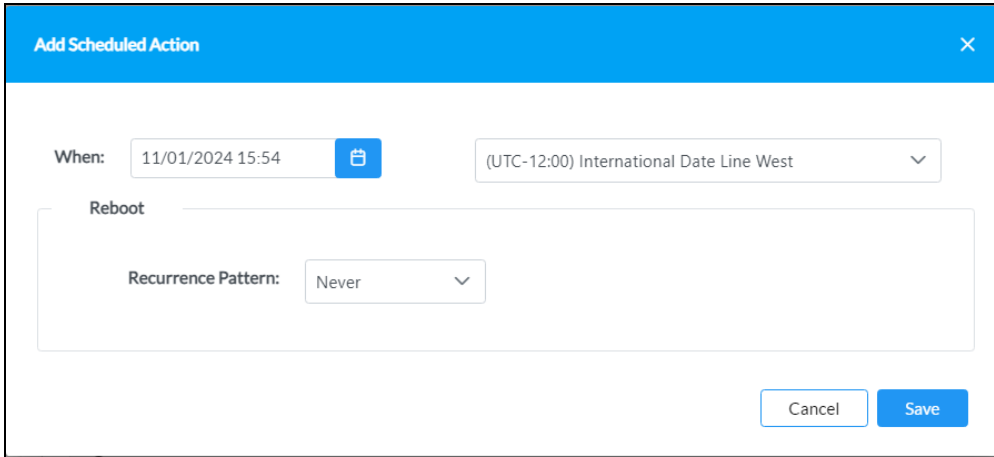
- The date and time when the action is scheduled to run again
- Controls for adding and removing an action

# Create a Scheduled Action

To schedule an action:

1. Select the **+ Add** button under **Add/Remove**. An **Add Scheduled Action** dialog box is displayed.

## Add Scheduled Action Dialog Box

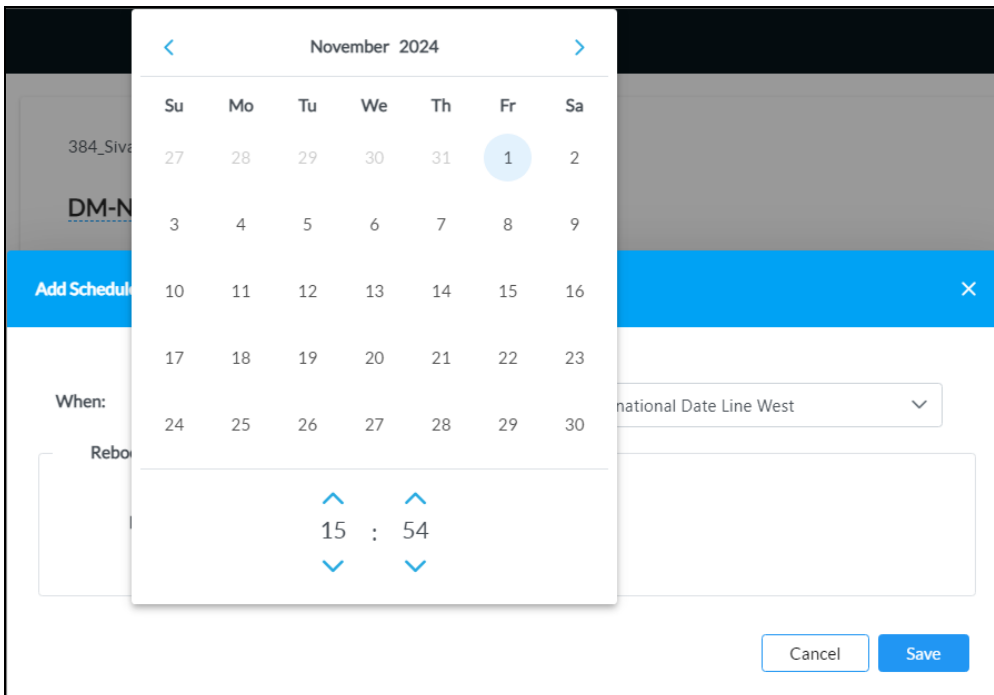


The dialog box is titled "Add Scheduled Action" and has a close button (X) in the top right corner. It contains the following fields:

- When:** A text input field containing "11/01/2024 15:54" and a calendar icon to its right.
- Time Zone:** A dropdown menu showing "(UTC-12:00) International Date Line West".
- Reboot:** A large empty text area.
- Recurrence Pattern:** A dropdown menu showing "Never".
- Buttons:** "Cancel" and "Save" buttons at the bottom right.

2. Select the **When** field to open the calendar and time settings.
3. Select the date and time for the action to occur. If the **Recurrence Pattern** is set to **Never**, the action will occur only once at the selected date and time.

## Add Scheduled Action Dialog Box (Calendar and Time Settings)



The screenshot shows the "Add Scheduled Action" dialog box with a calendar and time settings overlay. The calendar is for November 2024, and the 1st is selected. The time settings show "15 : 54". The background dialog box is partially visible, showing the "When" field and the "Recurrence Pattern" dropdown.

4. Select a time zone from the drop-down menu to the right of the **When** field.

**NOTE:** All devices in the same time zone that share a scheduled action perform that action at the same time if the action is set at a group level. If there are devices in different time zones, their actions may be scheduled individually.

5. If applicable, use the **Recurrence Pattern** drop-down menu to select if and when the action should repeat. The following options are provided:

- **Never:** The action will occur only once on the date and time that is set for the **When** field.
- **Daily:** The action will occur every day starting on the date and time that is set for the **When** field.
- **Weekly:** The action will occur every week on the days selected, starting on the date and time that is set for the **When** field. Select the empty check box next to a day to select it.

**Add Scheduled Action Dialog Box (Weekly Recurrence Pattern)**

The screenshot shows a dialog box titled "Add Scheduled Action" with a close button (X) in the top right corner. The dialog contains the following fields and options:

- When:** A text input field containing "11/01/2024 15:54" and a calendar icon to its right.
- Time Zone:** A dropdown menu showing "(UTC-12:00) International Date Line West".
- Action:** A text input field containing "Reboot".
- Recurrence Pattern:** A dropdown menu showing "Weekly".
- Days:** A row of checkboxes for the days of the week: Sunday (unchecked), Monday (checked), Tuesday (checked), Wednesday (checked), Thursday (checked), Friday (checked), and Saturday (unchecked).
- Buttons:** "Cancel" and "Save" buttons at the bottom right.



- **Monthly:** The action will occur on the selected date of every month. Options are **1** through **31** and last.

#### Add Scheduled Action Dialog Box (Monthly Recurrence Pattern)

**NOTE:** The selection in the **When** box determines the first time the scheduled action occurs and does not need to be set for the recurrence pattern. In the example above, the first time the action occurs will be on July 12. Thereafter, it will occur on the first day of each month, so the next occurrence will be on August 1.

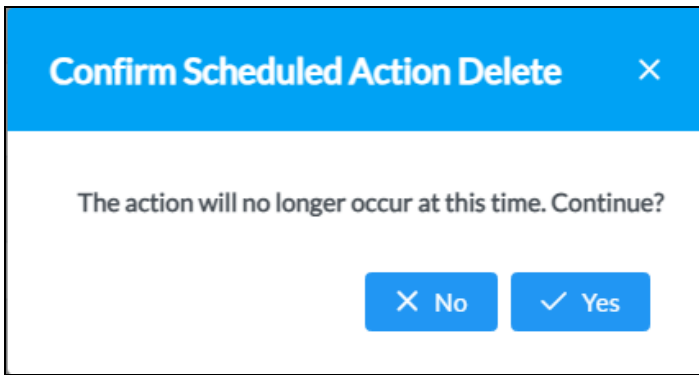
6. If applicable, use the provided controls to configure additional settings for the scheduled action. Each category of scheduled actions has its own unique controls.
7. Select **Save**. The new scheduled action is added under its parent category.

## Delete a Scheduled Action

To delete a scheduled action:

1. Use the arrow button next to the action name to expand the selection.
2. Select the **- Remove** button under **Add/Remove** for the desired action. A **Confirmed Scheduled Action Delete** dialog box is displayed.

#### Confirm Scheduled Action Delete Dialog Box



3. Select **Yes** to delete the action, or select **No** to cancel the deletion.

## Dashboard

The **Dashboard** section provides interactive data that shows when and how a device is used within the organization.

The **Dashboard** section is accessible from the **Dashboard** tab for an individual device or for a group or room (license-dependent).

**NOTE:** Dashboards require an XiO Cloud Premium subscription.

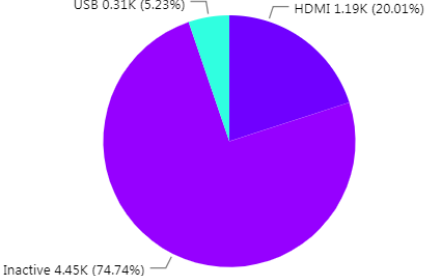
# Device Configuration Page - Dashboard

✓ Status
⚙ Settings
🔍 Licenses
📊 Dashboard
📅 Activity Log
Scheduled Actions

Dashboard: Device Usage Full Screen

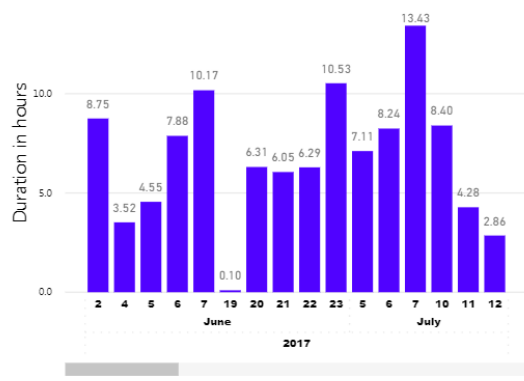
### Device Usage by Type

● AirMedia ● Bluetooth ● HDMI ● Inactive ● USB



| Device Type | Count | Percentage |
|-------------|-------|------------|
| Inactive    | 4.45K | 74.74%     |
| HDMI        | 1.19K | 20.01%     |
| USB         | 0.31K | 5.23%      |
| AirMedia    | 0     | 0%         |
| Bluetooth   | 0     | 0%         |

### Call Time Per Day




| Date    | Duration (hours) |
|---------|------------------|
| June 2  | 8.75             |
| June 4  | 3.52             |
| June 5  | 4.55             |
| June 6  | 7.88             |
| June 7  | 10.17            |
| June 19 | 0.10             |
| June 20 | 6.31             |
| June 21 | 6.05             |
| June 22 | 6.29             |
| June 23 | 10.53            |
| June 25 | 7.11             |
| June 26 | 8.24             |
| June 27 | 13.43            |
| June 28 | 8.40             |
| July 10 | 4.28             |
| July 11 | 2.86             |
| July 12 | 2.86             |

Date Range

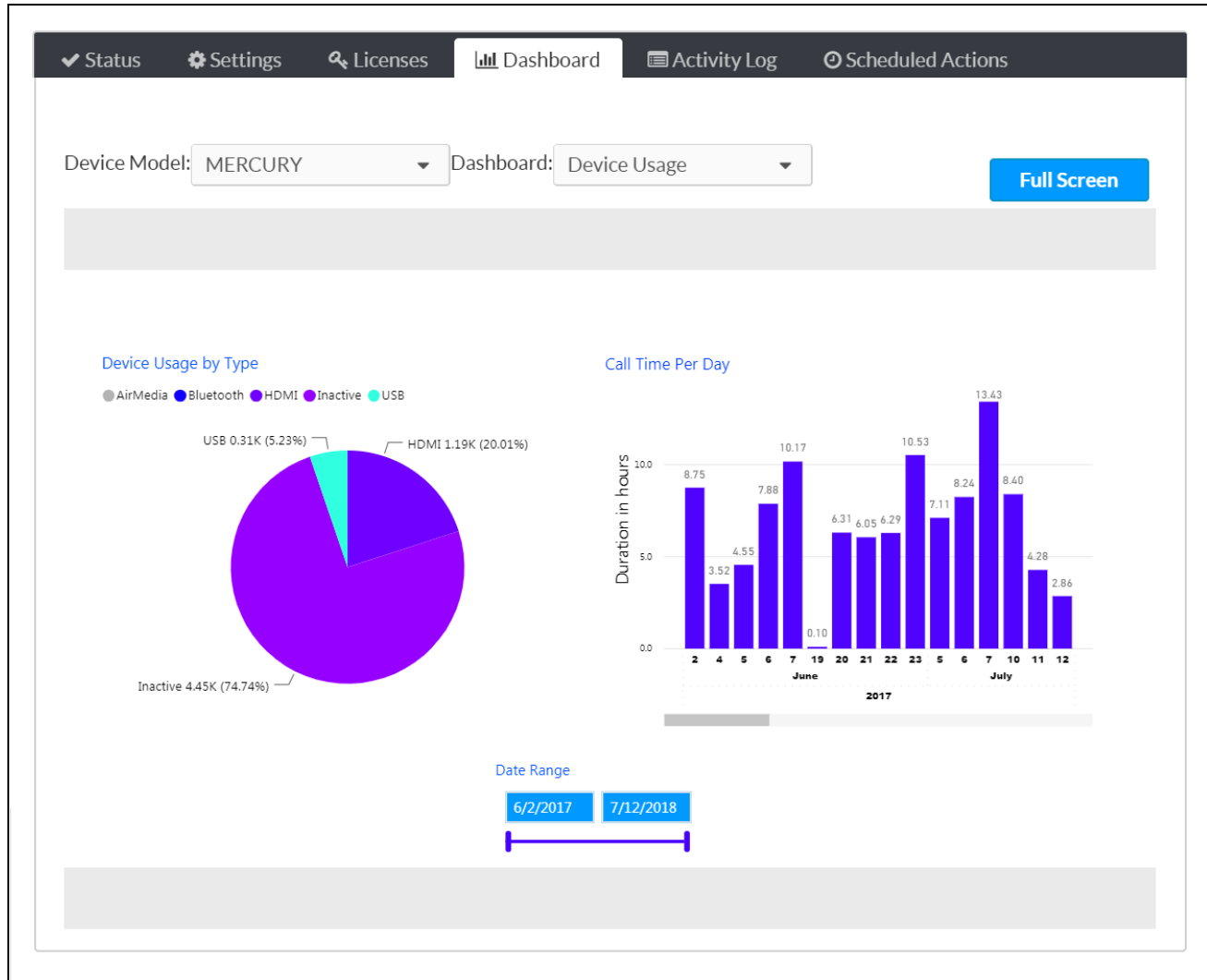
6/2/2017

—

7/12/2018



## Group Configuration Page - Dashboard



Use the **Dashboard** drop-down menu to select the type of data shown for the device (such as device usage). The available data varies by device.

When viewing the **Dashboard** section for a group or room, select the desired device type from the **Device Model** drop-down menu on the top left of the **Settings** section. The dashboard presents data for all devices within the group or room that share the same model.

Dashboards are interactive and contain different charts that may be cross-filtered by selecting the chart and filters:

- Hover the mouse cursor over a chart to expose additional selections for viewing and sorting the chart, changing the level of data shown, and exporting data as a CSV file or a Microsoft Excel® software file.
- Use the **Date Range** filter to show data from a specific date range. Enter a start and end date in the appropriate fields, or drag the two points on the slider bar up and down to adjust the start and end dates.

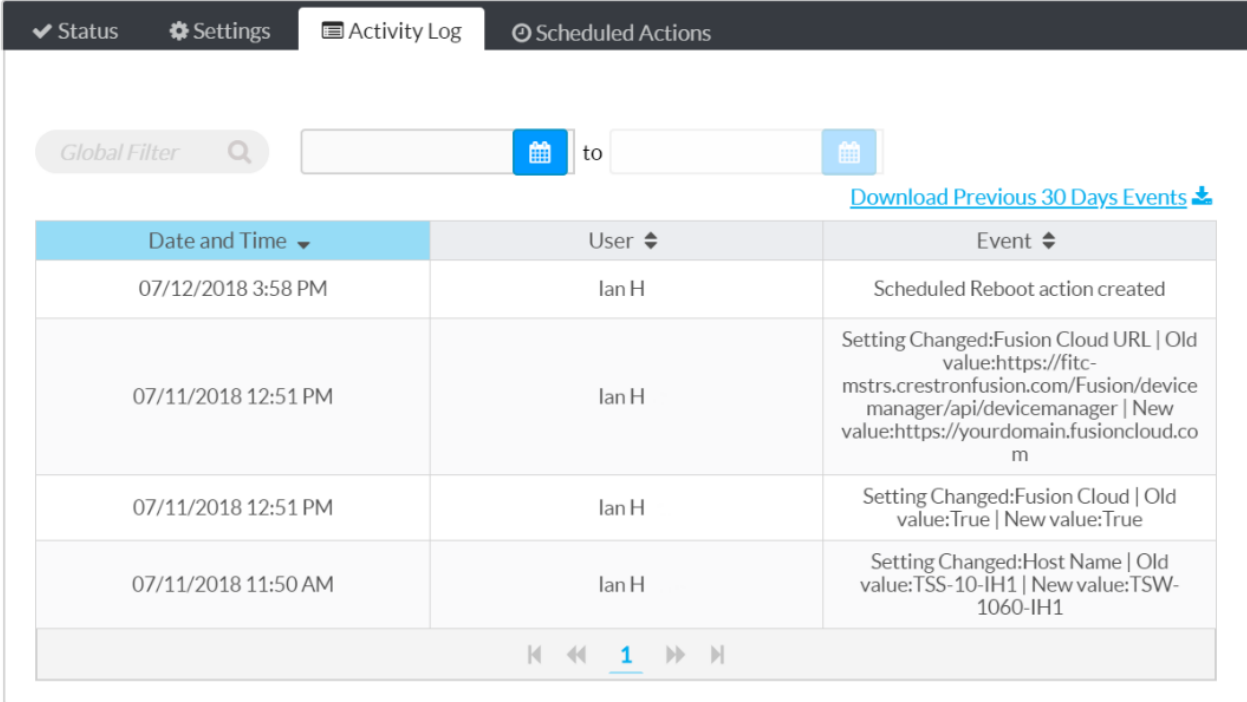
Select **Full Screen** to display the **Dashboard** section in full screen mode. To return to the normal size, press the **Esc** key on the keyboard.

# Activity Log

The **Activity Log** section provides a list of events that have occurred for each device.

The **Activity Log** section is accessible from the **Activity Log** tab for an individual device or for a group or room (license-dependent).

## Device Configuration Page - Activity Log



The screenshot shows the Activity Log interface. At the top, there are navigation tabs: Status, Settings, Activity Log (selected), and Scheduled Actions. Below the tabs is a search bar labeled "Global Filter" and a date range selector with calendar icons. A link "Download Previous 30 Days Events" is visible. The main content is a table with the following data:

| Date and Time       | User  | Event   |
|---------------------|-------|---|
| 07/12/2018 3:58 PM  | Ian H | Scheduled Reboot action created   |
| 07/11/2018 12:51 PM | Ian H | Setting Changed:Fusion Cloud URL   Old value:https://fitc-mstrs.crestronfusion.com/Fusion/device manager/api/devicemanager   New value:https://yourdomain.fusioncloud.com |
| 07/11/2018 12:51 PM | Ian H | Setting Changed:Fusion Cloud   Old value:True   New value:True  |
| 07/11/2018 11:50 AM | Ian H | Setting Changed:Host Name   Old value:TSS-10-IH1   New value:TSW-1060-IH1   |

At the bottom of the table, there is a pagination control showing "1" in a blue box, indicating the first page of results.

The Activity Log presents the following information for each device in table format:

- Scheduled actions
- Changed device settings, including the original and new values
- Licenses that were added to or removed from the device
- Movement from one group to another
- Movement between online and offline states

Each entry in the **Activity Log** table includes the date and time of the event, the logged-in user who performed the event (if applicable), and a summary of the event.

The **Activity Log** table at the group level presents additional data, including the device model and the device, group, or subgroup that was affected. Use the drop-down menu at the top of the **Device Model** column to filter the table by device type.

### Group Configuration Page - Activity Log

The screenshot shows the Activity Log interface with the following components:

- Navigation bar: Status, Settings, Licenses, Dashboard, **Activity Log**, Scheduled Actions.
- Global Filter: A search box with a magnifying glass icon.
- Show Only Group Events: A checkbox.
- Date Range: Two calendar icons with a 'to' label between them.
- Download Previous 30 Days Events: A blue link with a download icon.
- Table:
 

| Date and Time       | User  | Device Model | Device or Group | Event   |
|---------------------|-------|--------------|-----------------|---|
| 07/12/2018 3:58 PM  | Ian H | TSW-1060     | TSW-1060-IH1    | Scheduled Reboot action created   |
| 07/11/2018 12:51 PM | Ian H | TSW-1060     | 304 Link        | Setting Changed:Fusion Cloud URL   Old value:   New value:https://yourdomain.fusioncloud.com  |
| 07/11/2018 12:51 PM | Ian H | TSW-1060     | TSW-1060-IH1    | Setting Changed:Fusion Cloud URL   Old value:https://fitcmstrs.crestronfusion.com/Fusion/devicemanager/api/devicemanager   New value:https://yourdomain.fusioncloud.com |
| 07/11/2018 12:51 PM | Ian H | TSW-1060     | 304 Link        | Setting Changed:Fusion Cloud   Old value:   New value:True  |
- Page Navigation: A bar at the bottom with arrows and the page number '1'.

The table may be filtered using a global filter or date filter:

- Enter text in to the **Global Filter** text box to search for and display activity log entries that match the search term(s). (For example, typing "Mercury" in the global filter box will show all rows containing the word "Mercury" in any column.)
- Click inside the first date filter text box to select a start date for the activity log, and then click inside the second date box to select an end date for the activity log. The activity log updates to show entries within the specified date range.

If the activity log list spans multiple pages, use the navigation arrows on the bottom of the page to move forward or backward through the pages, or select a page number to navigate to that page.

Select **Download Previous 30 Days Events** to download the previous 30 days of the activity log as a CSV file. Any filter applied to the table are not applied to the CSV file.

When viewing the Activity Log at the group level, select the empty check box next to **Show Only Group Events** to update the table to show events that were performed at the group level only.

## Device Metadata

The **Device Metadata** section allows various metadata information to be added to devices within the XiO Cloud service.

The **Device Metadata** section is accessible from the **Device Metadata** tab for an individual device.

**NOTE:** Device metadata requires an XiO Cloud Premium subscription.

|        | Text to Display      |                      |  |
|--------|----------------------|----------------------|--|
| Link 1 | <input type="text"/> | <input type="text"/> |  |
| Link 2 | <input type="text"/> | <input type="text"/> |  |
| Link 3 | <input type="text"/> | <input type="text"/> |  |
| Link 4 | <input type="text"/> | <input type="text"/> |  |
| Link 5 | <input type="text"/> | <input type="text"/> |  |

Expand the **Device Quick Links** accordion to associate related URLs to a device for quick access within the XiO Cloud service, such as URLs for XPanel, device documentation, and other management portals. Up to five URLs can be added per device.

**NOTE:** The following URL protocols are supported: "http://", "https://", "ssh://", "sftp://", "rtsp://", "vnc://". For protocols that are not supported by the web browser, a compatible application must be registered in the OS of the local computer; otherwise, selecting the link will open a blank page in the web browser. The registered application is OS dependent and must be able to handle the associated resource URI.

For each link, enter the desired URL within the first text field, and then enter the text to display within the second field. The link is provided to the right of these text fields once it has been entered. Select the link once it has been generated to open the URL in a new tab.

## Update Firmware

Firmware for one or all devices may be updated from the XiO Cloud service. When new firmware is released for a device, it is posted to the cloud and made available for update.

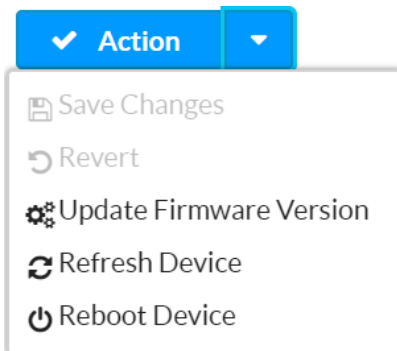
**NOTE:** Firmware updates are scheduled actions and may be managed like any other scheduled action. For more information, refer to [Scheduled Actions on page 89](#).

To update device firmware:

**NOTE:** As of XiO Cloud version 1.58, firmware cannot be downgraded from the XiO Cloud service on any devices.

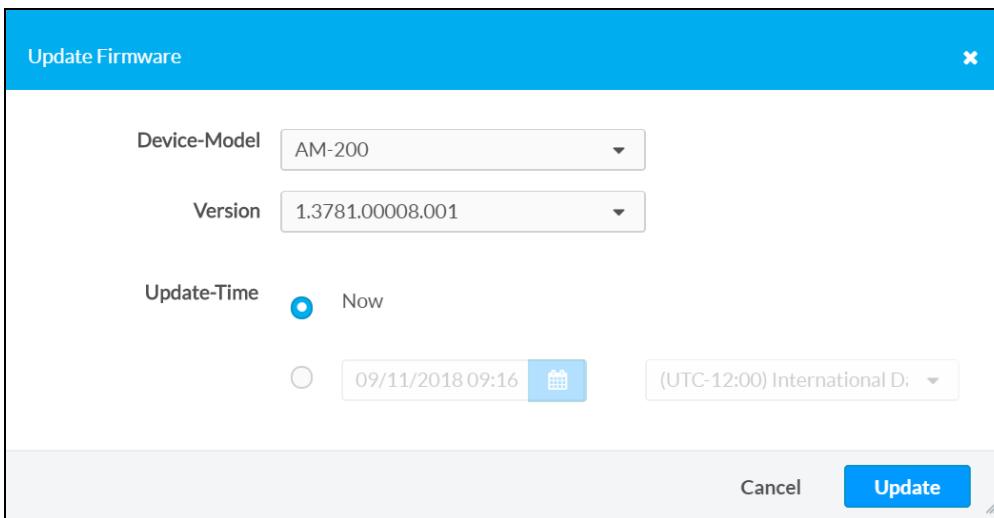
1. Select the individual device or the group where the firmware update is desired.
2. Select **Update Firmware Version** from the **Action** drop-down menu.

#### Action Drop-Down Menu



The **Update Firmware** dialog box is displayed.

#### Update Firmware Dialog Box



**NOTE:** When updating firmware from the group or room level, select the device model from the **Device-Model** drop-down menu to update the firmware of all devices that share the model type.

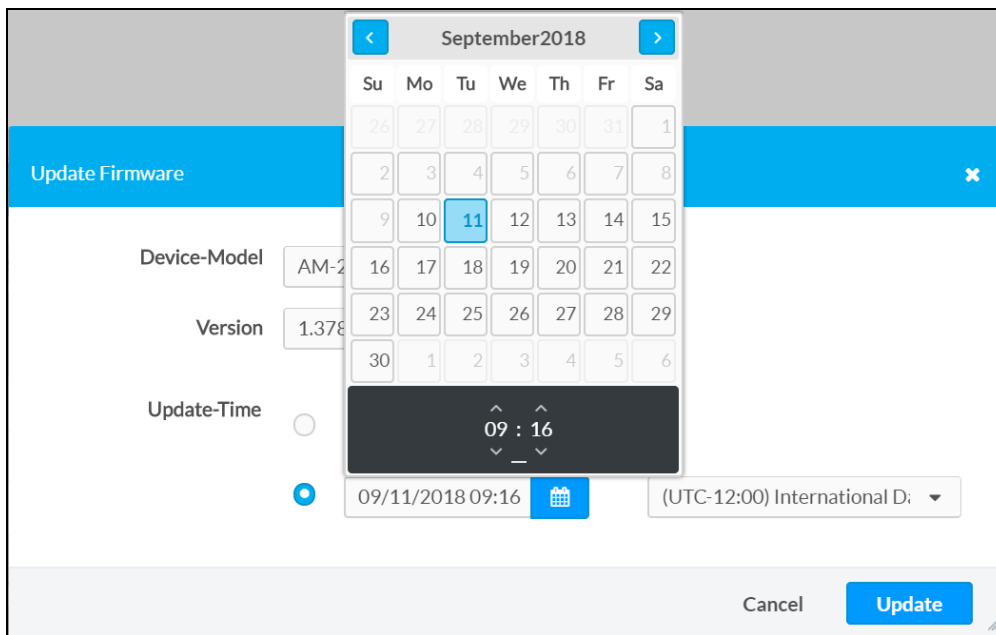


- Use the **Version** drop-down menu to select the firmware version that will be installed on the device or devices.

**NOTE:** Release notes may be downloaded from the link below the **Version** menu if available.

- Select when the firmware update will be performed:
  - Select the **Now** radio button to perform the firmware update immediately, or select the radio button next to the **date/time** and **time zone** fields to perform the firmware update at a set date and time. The firmware update will occur on the selected date and time.
  - Select inside the **date/time** field to display a pop-up dialog box for selecting a date and time.
  - Use the drop-down menu to the right of the **date/time** field to select a time zone for the firmware update.

#### Update Firmware Dialog Box (Day and Time Selection)



The screenshot shows the 'Update Firmware' dialog box. It has a blue header with the title 'Update Firmware' and a close button (X) on the right. Below the header, there are three fields: 'Device-Model' with the value 'AM-2', 'Version' with the value '1.378', and 'Update-Time'. The 'Update-Time' field is selected, and a date and time picker is displayed. The date picker shows 'September 2018' with a calendar grid where the 11th is selected. Below the calendar, the time is set to '09 : 16'. At the bottom of the picker, the selected date and time are shown as '09/11/2018 09:16' and a time zone dropdown is set to '(UTC-12:00) International D:'. At the bottom of the dialog box, there are 'Cancel' and 'Update' buttons.

- Select **Update** to perform the firmware update at the selected date and time, or select **Cancel** to cancel the firmware update.

At the specified update time, the device connects to a secure Crestron file server to download and install the firmware. If the device cannot complete the download and installation on the first attempt, it tries up to three more times. If these attempts fail, the device tries one more time at 2:00 AM local time. If this final attempt fails, a failure message is displayed in the **Firmware-Version** column on the group **Status** page.

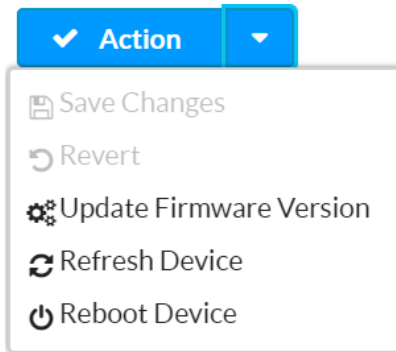
**NOTE:** Automatic firmware updates through the XiO Cloud service cannot be turned off.

# Restart Devices

An individual device or groups of devices may be rebooted remotely from the XiO Cloud service.

To restart one or more devices, select **Reboot Device** from the **Action** drop-down menu on the desired device or group page. The device or devices restart immediately.

## Action Drop-Down Menu



# Refresh Devices

Occasionally, the settings or status of a device shown in the XiO Cloud service may become out of sync with the settings or status on the actual device.


To obtain the latest settings and status from the device, select **Refresh Device** from the **Action** drop-down menu. The latest device settings and status are synced with the XiO Cloud service.

# Manage Users

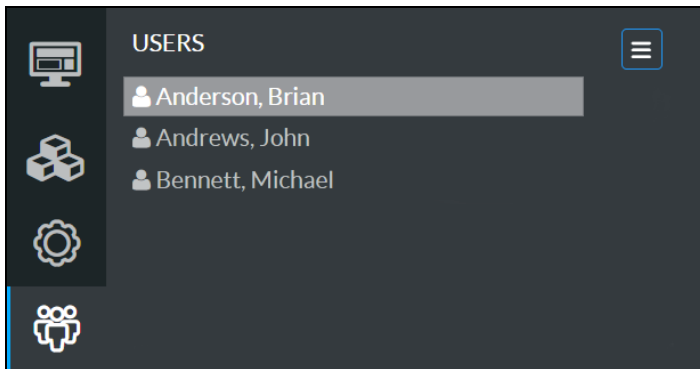
Individuals in an organization may have their own login credentials to access the XiO Cloud service. The system administrator can limit a user's access to only the devices that they need to manage. For example, an administrator in Hong Kong may be granted read/write access to devices in their local office but granted read-only access to devices in the London office.

This section explains how to manage users locally.

## Add a New User

The **USERS** menu is located in the user management panel, which may be accessed by selecting the **Users** button  in the navigation menu.

### Users Menu

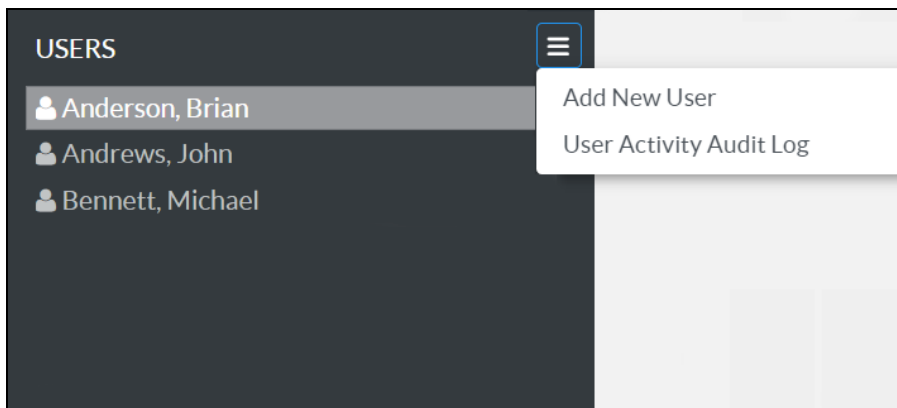


The **USERS** menu provides a list of the users with access to the XiO Cloud service for the organization.

To add a new user:

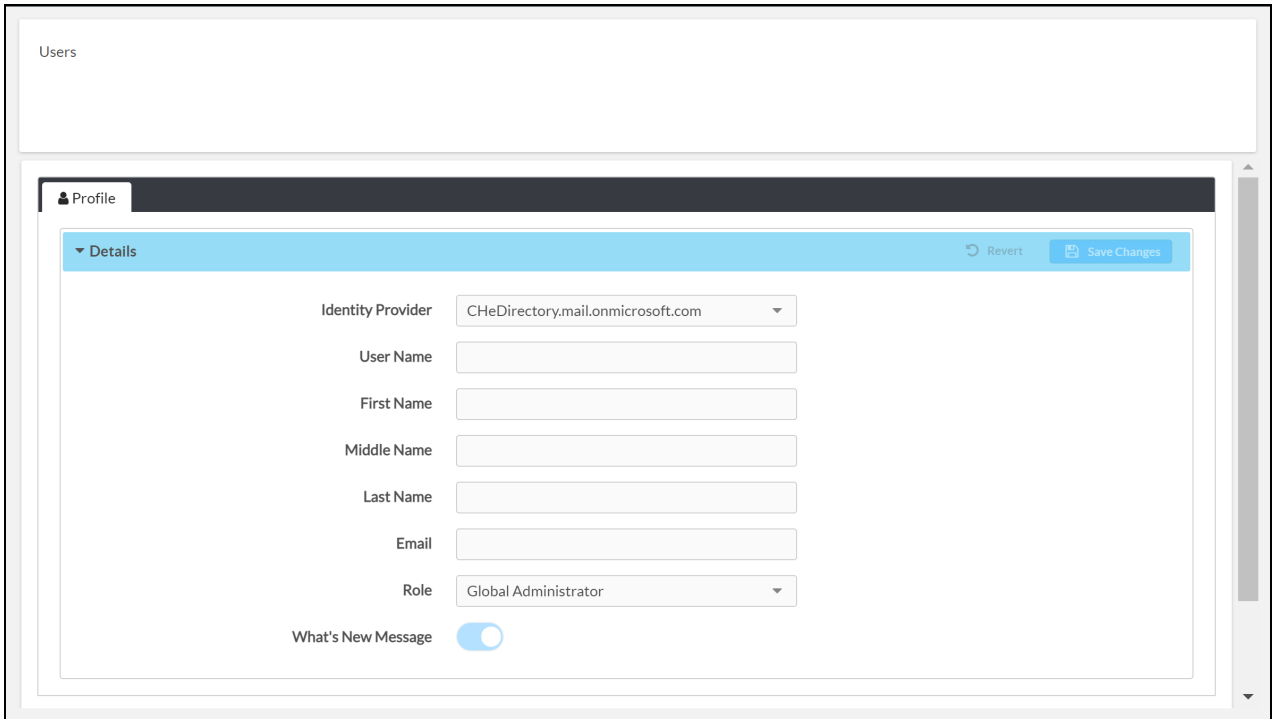
1. Select the **USERS** menu button  to display a drop-down menu.

### Users Menu - Add New User



2. Select **Add New User**. A **Users** page is displayed to the right of the **USERS** menu.

### Users Page



The screenshot shows the 'Users' page with a 'Profile' tab selected. The 'Details' section contains the following fields:

- Identity Provider: CHeDirectory.mail.onmicrosoft.com
- User Name: [Text Input]
- First Name: [Text Input]
- Middle Name: [Text Input]
- Last Name: [Text Input]
- Email: [Text Input]
- Role: Global Administrator
- What's New Message:

Buttons for 'Revert' and 'Save Changes' are located at the top right of the form.

3. Use the provided fields to enter information about the new user, including identity provider, username, name, email address, and role. Two roles are available in the XiO Cloud service:
  - Select **Global Administrator** from the **Role** drop-down menu to grant the user complete access to every part of the system. The user may add other global administrators. There must always be at least one global administrator in the system.
  - Select **Standard User** from the **Role** drop-down menu to grant the user limited levels of access based on assigned groups. This user may not add other global administrators.
4. Once all information is entered, select **Save Changes** at the top right of the page. Select **Revert** to clear any information that was entered.

The user receives an email asking for account confirmation, along with a temporary password. A change of password is requested on the first login.

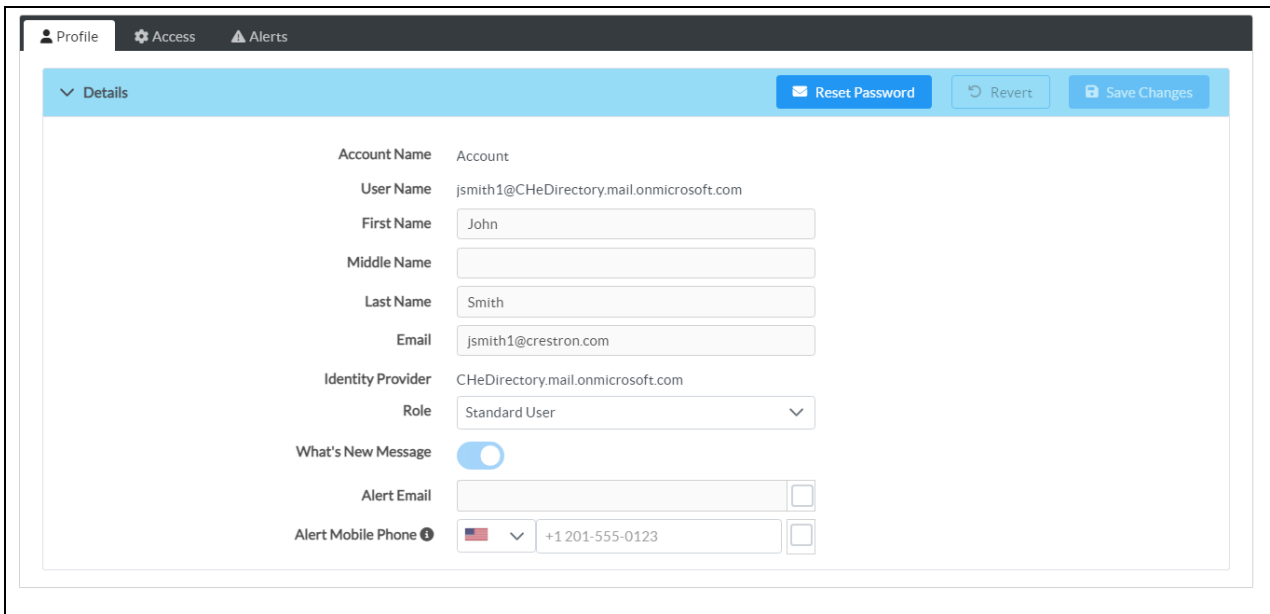
# Edit User Information

Any of the information entered for a user during the account creation process may be edited at any time.

To edit the information for an existing user:

1. Select the user's name in the **USERS** menu. A **Users** page with the **Profile** tab open by default is displayed to the right of the **USERS** menu.

## Uses Page - Profile



The screenshot shows the 'Profile' tab of a user's information page. At the top, there are three tabs: 'Profile', 'Access', and 'Alerts'. Below the tabs is a 'Details' section with a blue header bar containing three buttons: 'Reset Password', 'Revert', and 'Save Changes'. The main content area contains the following fields:

- Account Name: Account
- User Name: jsmith1@CHEDirectory.mail.onmicrosoft.com
- First Name: John
- Middle Name: (empty)
- Last Name: Smith
- Email: jsmith1@crestron.com
- Identity Provider: CHEDirectory.mail.onmicrosoft.com
- Role: Standard User (dropdown menu)
- What's New Message: (toggle switch, currently on)
- Alert Email: (input field with a checkbox)
- Alert Mobile Phone: (country dropdown set to US, input field with +1 201-555-0123, and a checkbox)

2. Use the provided fields to edit information about the user, including name, email address, role, and alert notifications.

**NOTE:** For more information on managing alerts, refer to [Alerts on page 130](#). For more information on the What's New Message, refer to [What's New Message on page 128](#).

3. Select **Save Changes** at the top right of the page to save any changes made. Select **Revert** to clear any information that was entered.

To reset a user's password, select **Reset Password** at the top right of the page. An email will be sent to the user with instructions for resetting their password.

# Manage User Access

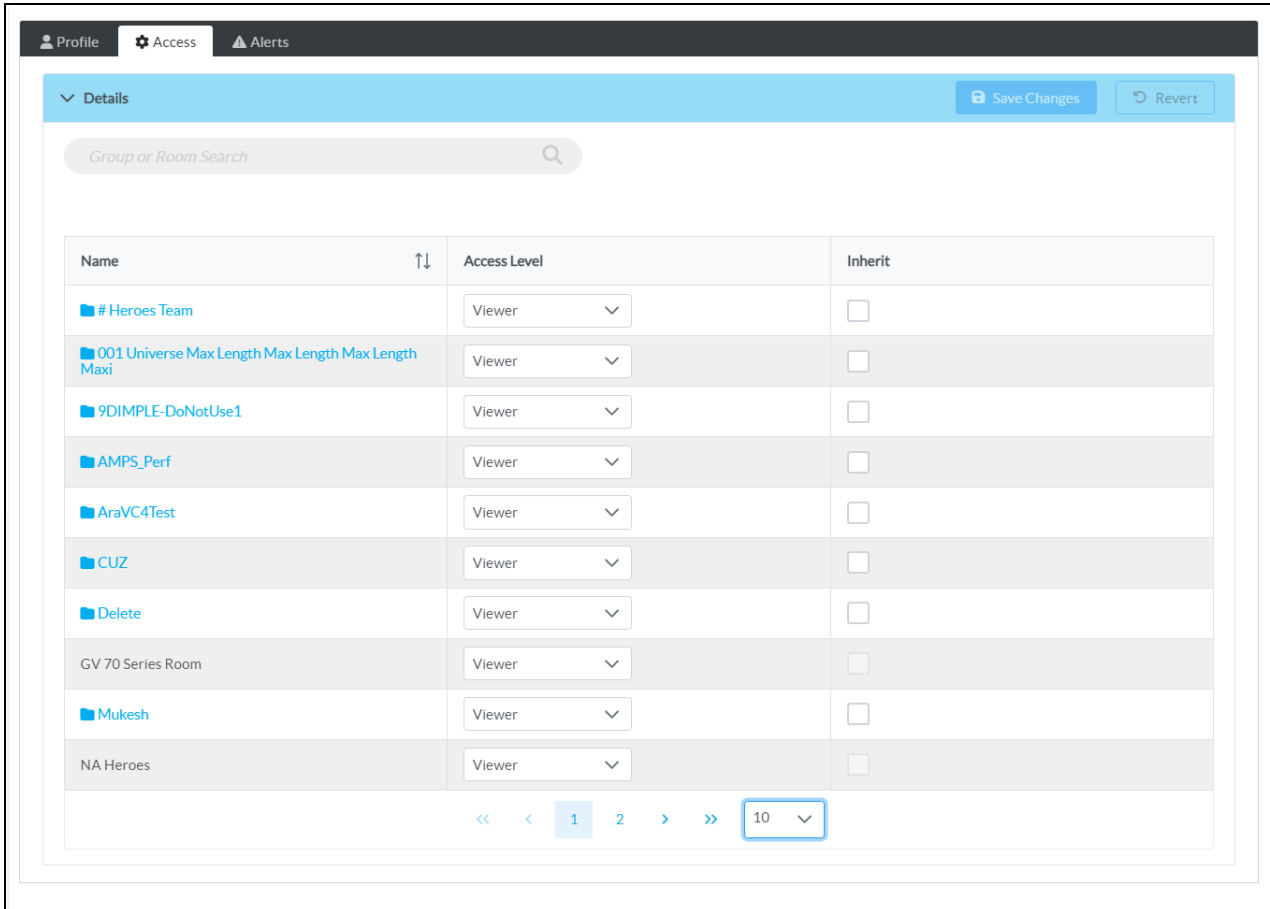
Users may be granted different access levels to groups or rooms within the XiO Cloud service environment.

**NOTE:** For more information on the tasks that can be performed by each user access level, refer to [Appendix B: User Access Matrix on page 222](#).

To manage access levels for a user:

1. Select the user's name in the **USERS** menu. A **Users** page with the **Profile** tab open by default is displayed to the right of the **USERS** menu.
2. Select the **Access** tab.

### Users Page - Access Tab



3. Use the **Access Level** drop-down menu to select the user's access level for each group and subgroup or room.

**NOTE:** Enter text in to the **Group or Room Search** text box to search for and display groups or rooms that match the search term(s).

- Select **Viewer** to grant the user read-only access to the group or room. The user may view devices within the group or room but cannot modify them.
- Select **Tech** to grant the user read and write access to the group or room. The user may view the status of devices and change device settings within the group or room.
- Select **Administrator** to grant the user read and write access to the group or room and to allow the user to change the access level of other users to the group or room.
- Select **Hidden** to hide the room or group from the user within the group tree.

- (Subgroups or room only) Select **Inherit** to have the subgroup or room inherit the access level settings of its parent group. **Inherit** is the default setting for subgroups.

**NOTE:** The access level for a subgroup or room that is set to **Inherit** from its parent group can be overridden. For example, if a standard user has **Viewer** permissions for the parent group, that user can be assigned **Tech** permissions for a subgroup or room below the parent group.

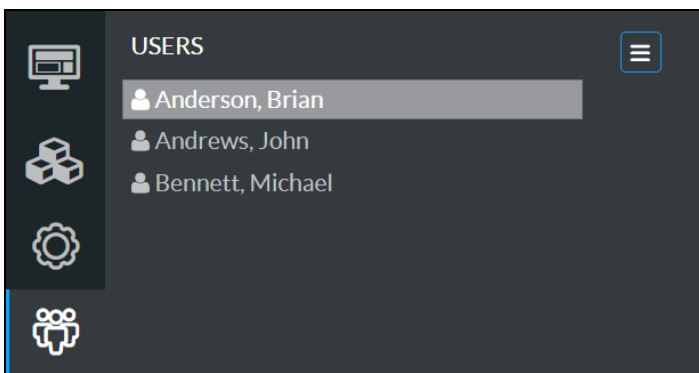
## Delete a User

Users may be deleted from the XiO Cloud service to remove their access and to prevent them from viewing or changing any settings in the service.

To delete a user:

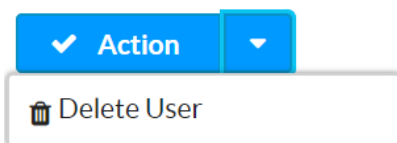
1. Select the user's name in the **USERS** menu.

Users Menu



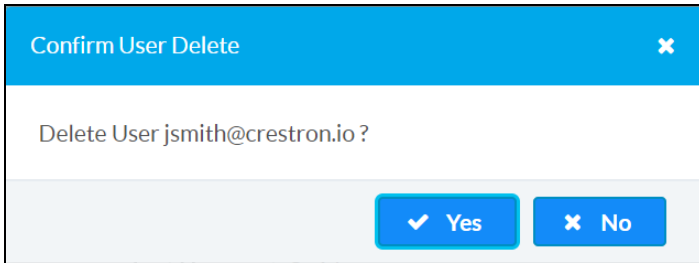
2. Select **Delete User** from the **Action** menu.

Action Drop-Down Menu - Delete User



The **Confirm User Delete** dialog box is displayed.

#### Confirm User Delete Dialog Box



3. Select **Yes** to delete the user or select **No** to cancel the deletion.

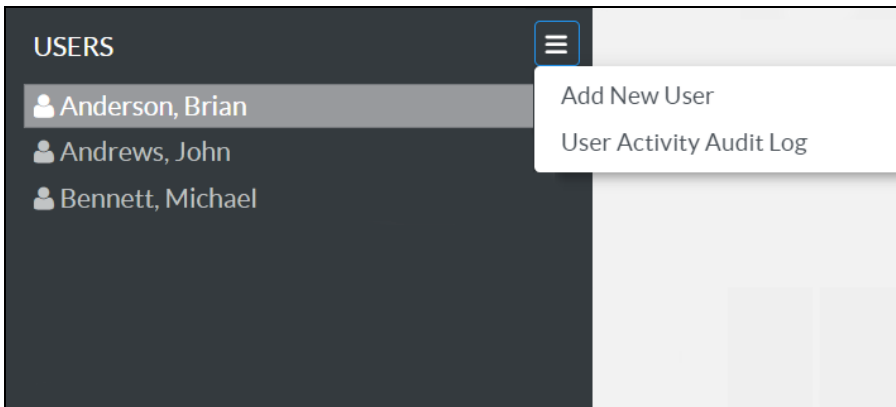
## Download User Activity Audit Log

A user activity audit log for the XiO Cloud account can be downloaded as a CSV file. The audit log provides a list of recent user-initiated events (such as login and logoff) with corresponding user IDs and time stamps.

To download the user activity audit log:

1. Select the **USERS** menu button  to display a drop-down menu.

#### Users Menu - User Activity Audit Log



2. Select **User Activity Audit Log**. The audit log is downloaded to your PC as a CSV file.



# Single Sign-On


XiO Cloud accounts can be configured for enterprise single sign-on (SSO) with the Okta® management platform, the Active Directory® service, and other identity providers. Account administrators may contact Crestron support to configure their accounts for single sign-on.

To configure SSO for the XiO Cloud service using an identity provider:

1. Create a SAML or OpenID application registration in the identity provider. Refer to [Crestron Online Help article 1000838](#) for instructions on how to create SAML applications for common identity providers.
2. Submit a completed [XiO Cloud SSO Request Form](#) to Crestron. Crestron will respond to the account administrator via email once the integration is confirmed.
3. Add one or more external users to the XiO Cloud account as described in [Manage Users on page 104](#).
  - Select **External Domain** for **Identity Provider** when creating the external user.
  - The email address specified for the external user must match their email address used to access the identity provider.
  - Ensure that the appropriate user role and access level are delegated to the external user.
4. Test that the external user(s) can log into the service once Crestron has confirmed the integration.

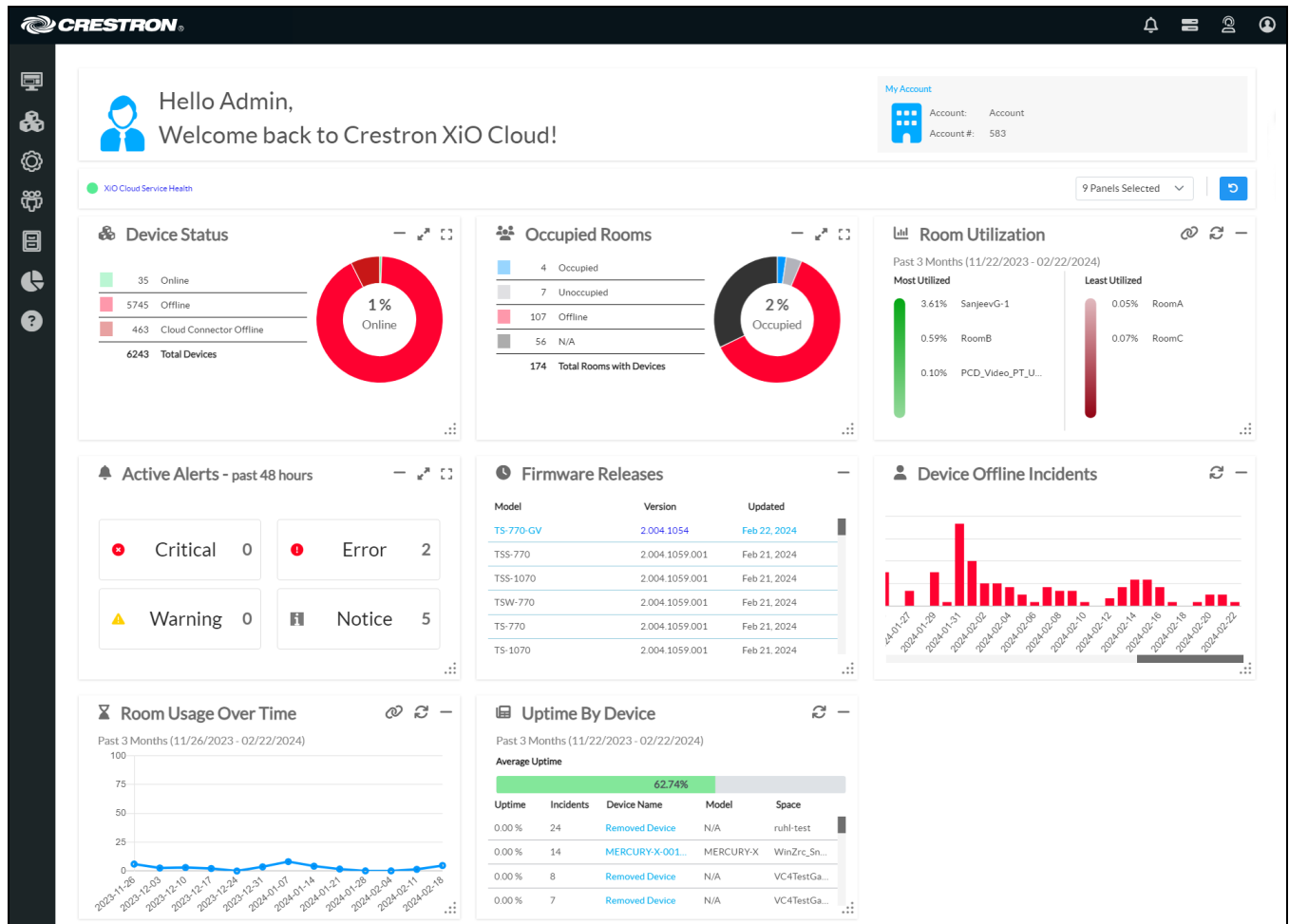
XiO Cloud also supports multifactor authentication (MFA) for single sign-on solutions. MFA is configured within your identity provider.

# Account Dashboard

The XiO Cloud service provides an account dashboard that shows various account statuses in real time. The account dashboard can be accessed by selecting the **Home** button  in the navigation menu and is displayed by default after logging into the service. The account dashboard can also be viewed for individual groups or rooms using the left navigation menu.

**NOTE:** Viewing certain dashboard tiles requires an XiO Cloud Premium subscription.

## Account Dashboard




The account dashboard page provides a message near the top of the page that indicates the current health status of the XiO Cloud service.












A green icon is shown if the service is healthy, and a red icon is shown if the service is unhealthy (experiencing issues or outages). A link to [Crestron Online Help answer ID 5894](#) is also provided that gives detailed information on the current health status of the XiO Cloud service and updates regarding service restoration.

The account dashboard page also contains tiles that each show different account statuses. These tiles can be expanded, hidden, or reordered as needed.

**NOTE:** Certain account status tiles may not provide all of the controls listed below.

- Select the maximize button  at the top right of a tile to expand the tile to the full width of the browser window and to show more information for the associated account status.

**NOTE:** The maximize button cannot be selected if the browser window is not maximized to full screen.

- If a tile is expanded to full width, select the maximize button  again to shrink the tile to its original size, or select the half-width button  to shrink the tile to half the width of the browser window.
- Select the half-width button  at the top right of a tile to expand the tile half the width of the browser window and to show more information for the associated account status.
- If a tile is expanded to half width, select the half-width button  again to shrink the tile to its original size.
- Select the minimize button  to hide the tile from the account dashboard page. Hidden tiles can be returned to the account dashboard page using the **View Panels** drop-down menu.
- Select the refresh button  to refresh the data shown in the tile (if supported).
- Select the link button  to navigate to the **Historical Reports** page for generating a custom report based on the data shown in the tile (if supported). For more information, refer to [Historical Reports on page 123](#).
- Use the **View Panels** drop-down menu on the top right of the page to show or hide tiles. If a tile is selected, it will be shown on the account dashboard page. If a tile is unselected, it will be hidden from the page.
- Select the clear button  to clear any filters that have been created to sort data in the account status tiles. Each tile that allows filters will also provide a clear button for the individual account status.
- Press and hold a tile's header bar or the grip icon  in the bottom-right corner to float the tile for reordering. Once it is floating, drag the tile across the account dashboard page to the desired location, and then release the tile to move it to that location. If the floating tile is placed over an existing tile, the latter tile is moved automatically.

The following account statuses are displayed in the dashboard.

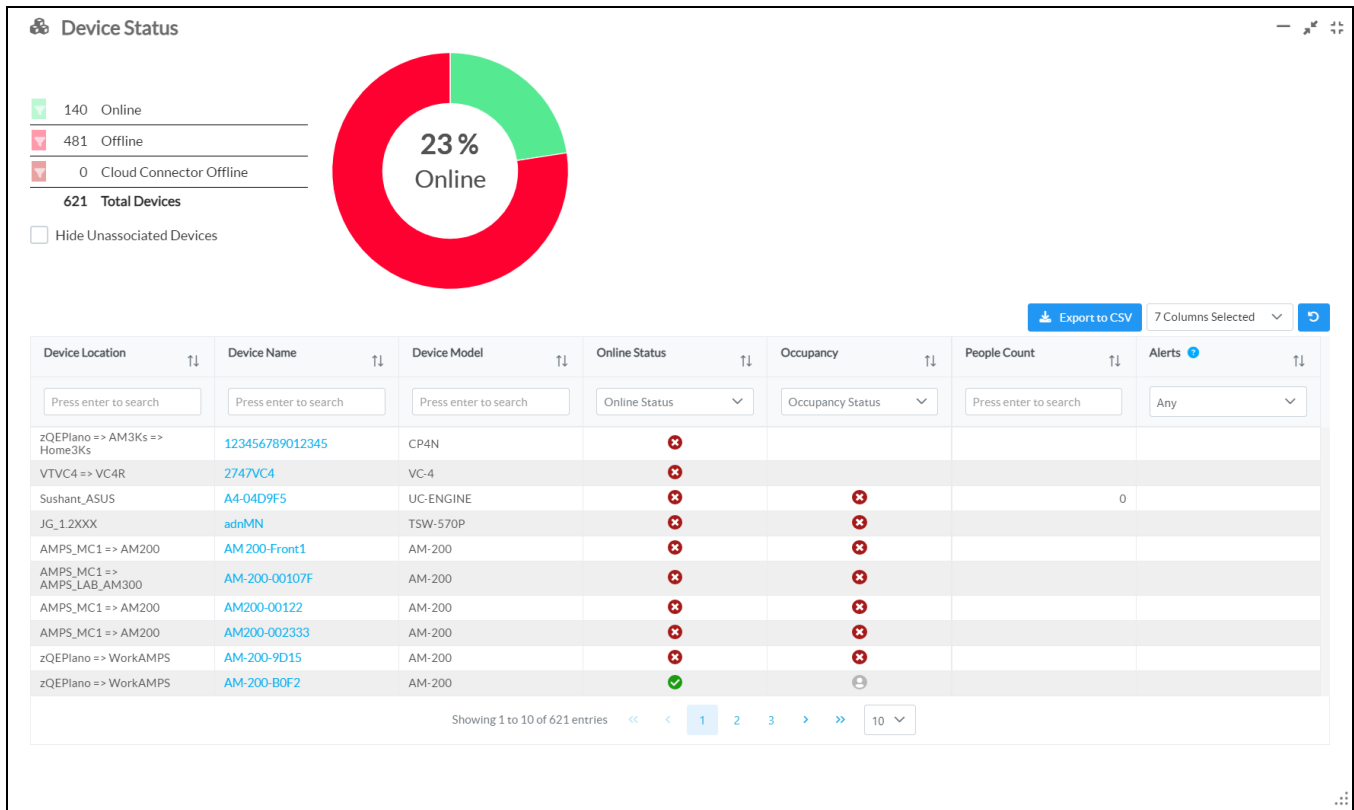
**NOTES:**

- For dashboards with date ranges, the data shown will extend only until the end of the previous day.
- As of XiO Cloud version 2.1, any dashboards with hourly data will be synchronized to the UTC (0:00) time zone so that report data is comparable across different time zones.

## Device Status

Expand the **Device Status** tile to display information about devices that are reporting online or offline within the service. The devices that are shown can be filtered based on their status and type.


### Account Dashboard Page - Device Status



A pie chart is provided that gives an overview of the devices that are reporting online or offline within the service. The pie chart corresponds with the device status categories that are listed to the left of the chart. The following device status categories are provided:

**NOTE:** Devices that have not been associated with a room or group are included in the device status reports by default. Select the **Hide Unassociated Devices** check box below the device status categories to hide all unassociated devices from the device status reports.







- **Online:** Indicates the number of devices that are reporting online within the service.
- **Offline:** Indicates the number of devices that are reporting offline within the service. A device is considered offline after it fails to respond to multiple call attempts issued five minutes after the device first reports as disconnected.
- **Cloud Connector Offline:** Indicates the number of connected Crestron XiO Cloud Gateway devices that are reporting offline.


Certain device status categories have filter buttons  that can be used to show or hide the category from the pie chart. The color of the filter buttons matches the color of the device status category in the pie chart. Once a device status category is hidden, select the button again to show the status in the pie chart. The percentage of online devices shown within the pie chart changes automatically depending on the selected filters.

**NOTE:** The filter buttons also filter data in the device status table within the tile automatically.

The **Device Status** tile also lists all devices in the account in table form. Each table column provides a search field or drop-down menu in its header row that allows the device table to be filtered or sorted based on the selected criterion. The table also provides navigation controls at the bottom of the tile that can be used to move between pages and set the number of table rows per page.

The following information is provided for each device:

- **Device Location:** The room or group where the device is located within XiO Cloud.
- **Device Name:** The device name in XiO Cloud. Select the device name to navigate to the device within the group tree.
- **Device Model:** The device model.
- **Online Status:** Indicates whether the device is reporting online  or offline  within XiO Cloud. Crestron XiO Cloud Gateway connected devices that are reporting offline show a cloud connector offline icon .
- **Occupancy:** Shows one of the following icons if the device supports occupancy detection. No icon is shown if the device does not support occupancy detection.
  - Shows a blue icon  if occupancy is detected.
  - Shows a gray icon  if no occupancy is detected.
  - Shows an x icon  if occupancy detection is reporting offline.
- **People Count:** If occupancy detection is supported by the device, displays the occupancy number for the associated room.
- **Alerts:** If alerts are reported for the room, a description of the issue and the corresponding alert level (**Notice**, **Warning**, **Error**, and **Critical**) are shown for each alert.

The data that is displayed in the device table can be customized by filtering the table columns. By default, 7 columns are displayed that contain the data described in the list above. Select the clear button  to clear any filters for the **Device Status** tile.

To select or deselect table columns for the device status table, expand the drop-down menu at the top right of the table. Then, select or deselect an item in the menu to display or hide that column from the table, respectively. Use the check box at the top of the menu to select or deselect all columns.

**NOTE:** The device status table will reset to its default settings after logging out of the XiO Cloud service.

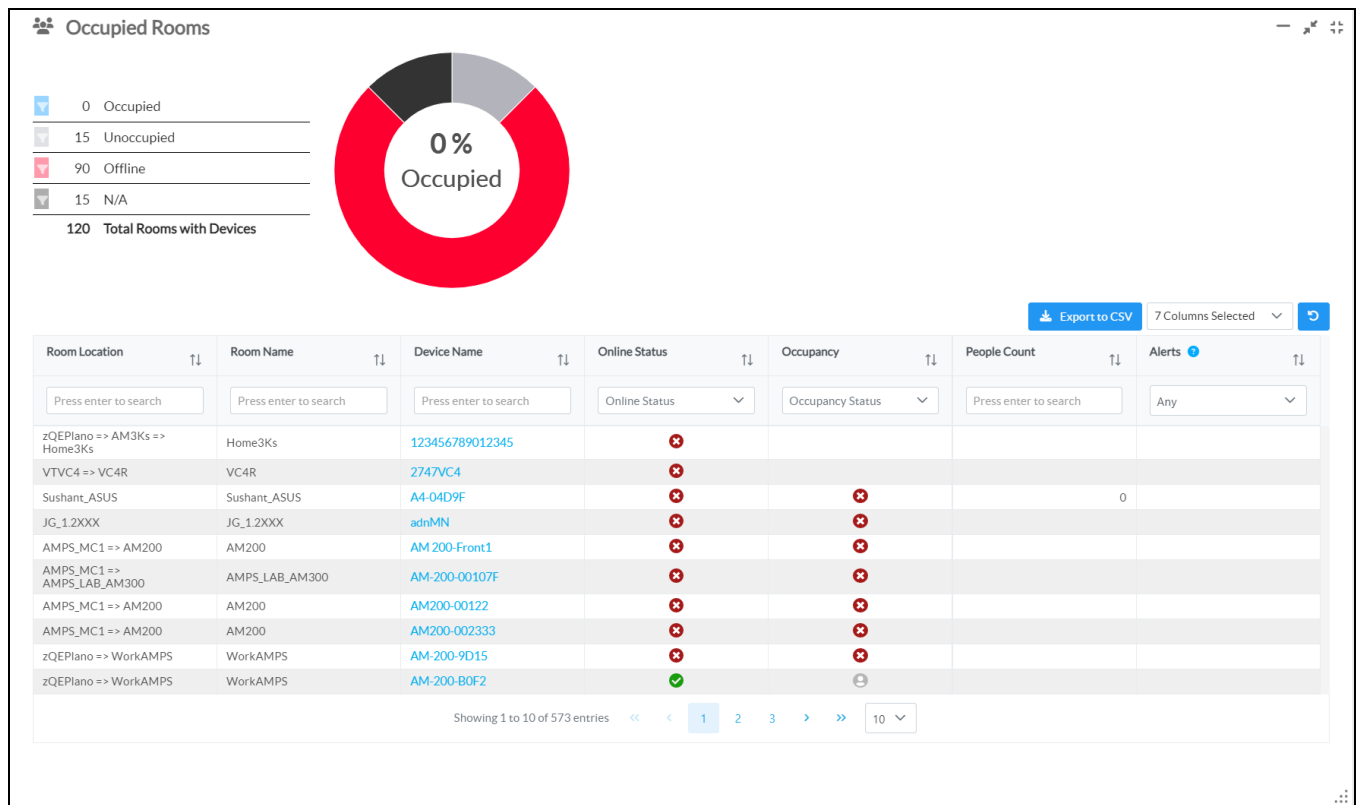
The device status table can be downloaded as a CSV file by selecting the **Export to CSV** button at the top right of the table. The CSV file includes all selected table columns as described above.

## Occupied Rooms

Expand the **Occupied Rooms** tile to display information about room occupancy status within the service. The rooms that are shown can be filtered based on their status and type.

**NOTE:** The **Occupied Rooms** tile requires an XiO Cloud Premium subscription.


### Account Dashboard Page - Occupied Rooms



A pie chart is provided that gives an overview of the room occupancy within the service. The pie chart corresponds with the room occupancy categories that are listed to the left of the chart. The following room occupancy categories are provided:

- **Occupied:** Indicates the number of rooms that are reporting as occupied within the service. If multiple devices in a room report occupancy, the room will show as occupied if any of these devices report active occupancy.
- **Unoccupied:** Indicates the number of rooms that are reporting as unoccupied within the service.







- **Offline:** Indicates the number of rooms that have occupancy detection reporting as offline within the service.
- **N/A:** Indicates the number of rooms that do not contain devices that report occupancy.


Certain room occupancy categories have filter buttons  that can be used to show or hide the category from the pie chart. The color of the filter buttons matches the color of the room occupancy category in the pie chart. Once a room occupancy category is hidden, select the button again to show the status in the pie chart. The percentage of occupied rooms shown within the pie chart changes automatically depending on the selected filters.

**NOTE:** The filter buttons also filter data in the room occupancy table automatically.

The **Occupied Rooms** tile also lists all rooms in the account in table form. Each table column provides a search field or drop-down menu in its header row that allows the room occupancy table to be filtered or sorted based on the selected criterion. The table also provides navigation controls at the bottom of the tile that can be used to move between pages and set the number of table rows per page.

The following information is provided for each room:

- **Room Location:** The location of the room within the group tree.
- **Room Name:** The room name in XiO Cloud
- **Device Name:** The device name that reports occupancy within the room (if applicable). Select the device name to navigate to the device within the group tree.
- **Online Status:** Indicates whether the device is reporting online  or offline  within XiO Cloud. Crestron XiO Cloud Gateway connected devices that are reporting offline show a cloud connector offline icon .
- **Occupancy:** Shows one of the following icons if the device supports occupancy detection. No icon is shown if the device does not support occupancy detection.
  - Shows a blue icon  if occupancy is detected.
  - Shows a gray icon  if no occupancy is detected.
  - Shows an x icon  if occupancy detection is reporting offline.
- **People Count:** If occupancy detection is supported by the device, displays the occupancy number for the associated room.
- **Alerts:** If alerts are reported for the room, a description of the issue and the corresponding alert level (**Notice**, **Warning**, **Error**, and **Critical**) are shown for each alert.

The data that is displayed in the room occupancy table can be customized by filtering the table columns. By default, 7 columns are displayed that contain the data described in the list above. Select the clear button  to clear any filters for the **Occupied Rooms** tile.

To select or deselect table columns for the room occupancy table, expand the drop-down menu at the top right of the table. Then, select or deselect an item in the menu to display or hide that column from the status table, respectively. Use the check box at the top of the menu to select or deselect all columns.

**NOTE:** The room occupancy table will reset to its default settings after logging out of the XiO Cloud service.

The room occupancy table can be downloaded as a CSV file by selecting the **Export to CSV** button at the top right of the table. The CSV file includes all selected table columns as described above.

## Active Alerts - last 48 hours

Expand the **Active Alerts - last 48 hours** tile to display information about alert messages that have been raised within the service over the last 48 hours.

### Account Dashboard Page - Active Alerts - last 48 hours

Active Alerts - past 48 hours

Critical 0 Error 0 Warning 0 Notice 9

Export to CSV 7 Columns Selected

| Type         | Room Name     | Room Location                          | Device Name       | Device Model | Date                   | Alert                      |
|--------------|---------------|--|-------------------|--------------|------------------------|----------------------------|
| Notification | MercLegacy_GE | A_Mercury Performance => MercLegacy_GE | PERFORMANCELAB-16 | MERCURY      | 12/20/2022 5:02:20 AM  | HDMI In Is Connected: True |
| Notification | MercLegacy_GE | A_Mercury Performance => MercLegacy_GE | PERFORMANCELAB-20 | MERCURY      | 12/20/2022 5:02:21 AM  | HDMI In Is Connected: True |
| Notification | MercLegacy_GE | A_Mercury Performance => MercLegacy_GE | PERFORMANCELAB-20 | MERCURY      | 12/19/2022 10:26:28 PM | MicMute: True              |
| Notification | MercLegacy_GE | A_Mercury Performance => MercLegacy_GE | PERFORMANCELAB-26 | MERCURY      | 12/20/2022 5:02:23 AM  | HDMI In Is Connected: True |
| Notification | MercLegacy_GE | A_Mercury Performance => MercLegacy_GE | PERFORMANCELAB-27 | MERCURY      | 12/20/2022 5:02:15 AM  | HDMI In Is Connected: True |
| Notification | MercLegacy_GE | A_Mercury Performance => MercLegacy_GE | PERFORMANCELAB-28 | MERCURY      | 12/20/2022 5:02:11 AM  | HDMI In Is Connected: True |
| Notification | MercLegacy_GE | A_Mercury Performance => MercLegacy_GE | PERFORMANCELAB-29 | MERCURY      | 12/20/2022 5:02:35 AM  | HDMI In Is Connected: True |
| Notification | MercLegacy_GE | A_Mercury Performance => MercLegacy_GE | PERFORMANCELAB-30 | MERCURY      | 12/20/2022 5:02:23 AM  | HDMI In Is Connected: True |
| Notification | RTM-xx70-Loft | RTM-xx70-Loft                          | X70PERF-27        | TSS-1070     | 12/20/2022 1:01:10 PM  | Display Status: On         |

Showing 1 to 9 of 9 entries 1 10

The **Active Alerts - last 48 hours** tile shows the total number of alert messages that are active. Each alert level (**Notice**, **Warning**, **Error**, and **Critical**) shows a number that indicates how many alerts are active for that level.


**NOTE:** For more information on alert messages, refer to [Alerts on page 130](#).

The **Active Alerts - last 48 hours** tile also lists all active alerts in the account in table form. Each table column provides a search field or drop-down menu in its header row that allows the alerts table to be filtered or sorted based on the selected criterion. The table also provides navigation controls at the bottom of the tile that can be used to move between pages and set the number of table rows per page.



The following information is provided for each alert:

- **Type:** The alert level (**Notice, Warning, Error, and Critical**)
- **Room Name:** The room name in XiO Cloud where the alert was raised.
- **Room Location:** The location of the room within the group tree.
- **Device Name:** The device name in XiO Cloud that raised the alert (if applicable).
- **Device Model:** The device model (if applicable).
- **Date:** The date and time when the alert was raised.
- **Alert:** A description of the issue that triggered the alert.

The data that is displayed in the alerts table can be customized by filtering the table columns. By default, 7 columns are displayed that contain the data described in the list above. Select the clear button  to clear any filters for the **Active Alerts - last 48 hours** tile.

To select or deselect table columns for the alerts table, expand the drop-down menu at the top right of the table. Then, select or deselect an item in the menu to display or hide that column from the table, respectively. Use the check box at the top of the menu to select or deselect all columns.

**NOTE:** The alerts table will reset to its default settings after logging out of the XiO Cloud service.

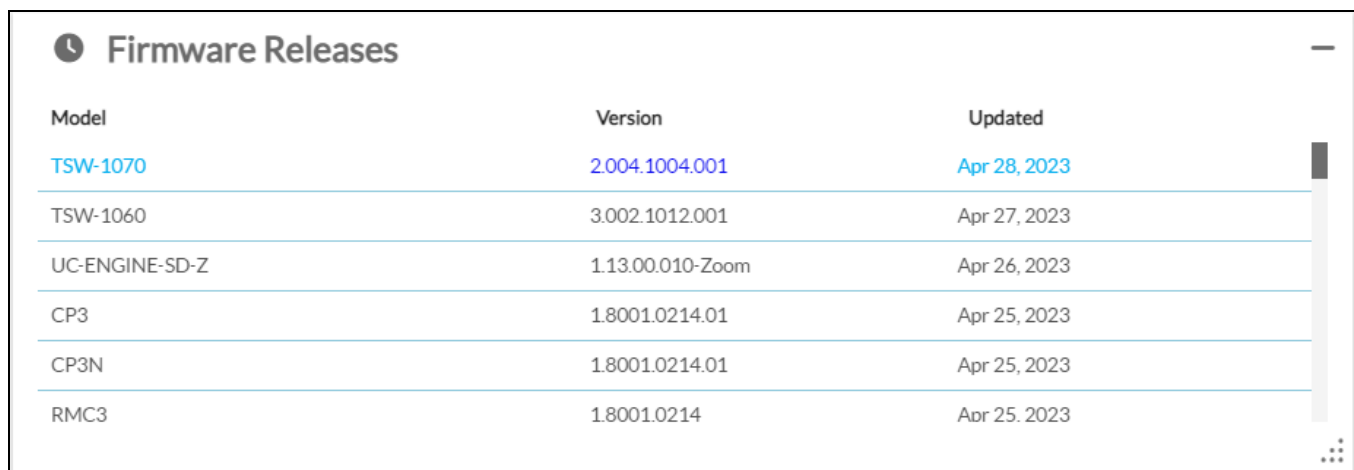
The alerts table can be downloaded as a CSV file by selecting the **Export to CSV** button at the top right of the table. The CSV file includes all selected table columns as described above.

## Firmware Releases

The **Firmware Releases** tile displays information about recent firmware releases for devices that have been claimed to the XiO Cloud account. For more information about updating device firmware in XiO Cloud, refer to [Manage Devices on page 72](#).

**NOTE:** The **Firmware Releases** tile cannot be expanded to full or half-width size.

### Account Dashboard Page - Firmware Releases



| Model                    | Version          | Updated                      |
|--------------------------|------------------|------------------------------|
| <a href="#">TSW-1070</a> | 2.004.1004.001   | <a href="#">Apr 28, 2023</a> |
| TSW-1060                 | 3.002.1012.001   | Apr 27, 2023                 |
| UC-ENGINE-SD-Z           | 1.13.00.010-Zoom | Apr 26, 2023                 |
| CP3                      | 1.8001.0214.01   | Apr 25, 2023                 |
| CP3N                     | 1.8001.0214.01   | Apr 25, 2023                 |
| RMC3                     | 1.8001.0214      | Apr 25, 2023                 |

The following information is provided for each firmware release:

- **Model:** The device model.
- **Version:** The device firmware version.

**NOTE:** If release notes are available for the device firmware version within XiO Cloud, the listed firmware version is displayed as a hyperlink that opens the release notes in a new tab or browser window or downloads them to the local computer.

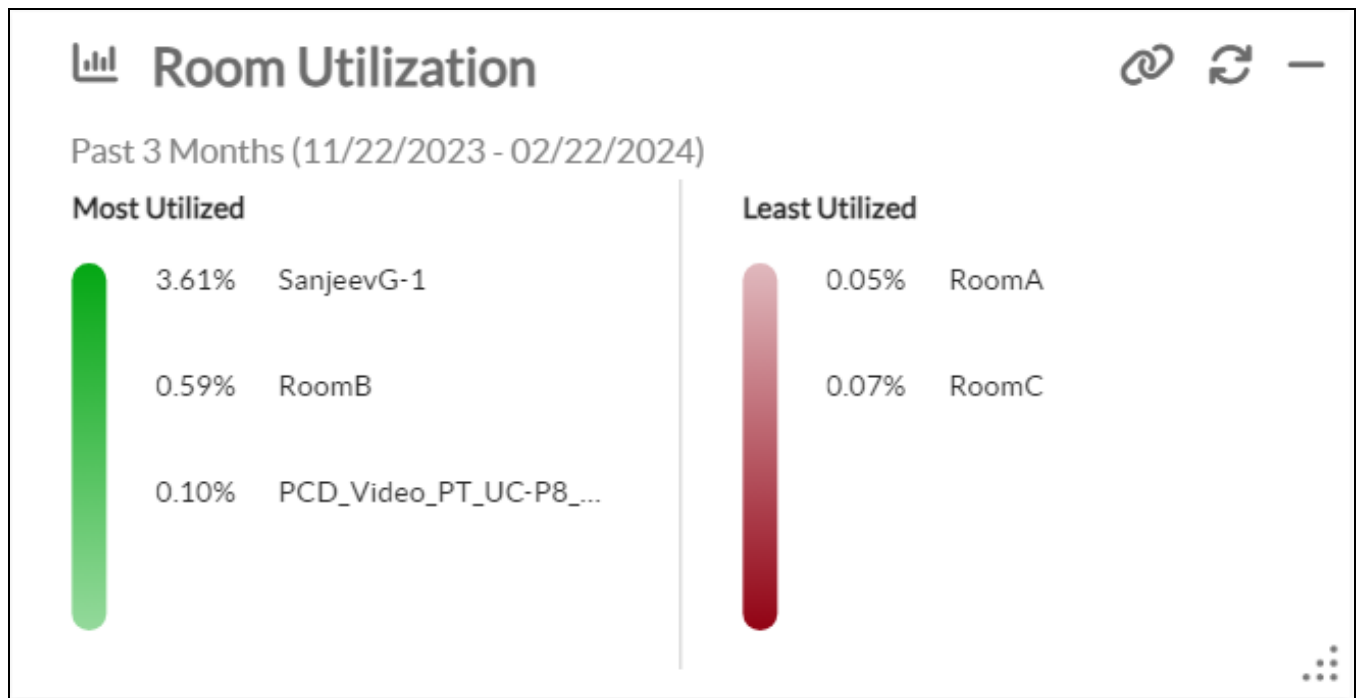
- **Updated:** The date the firmware version was last updated or released.

## Room Utilization

The **Room Utilization** tile displays information about the most and least used rooms within the XiO Cloud account (or for an individual group or room) based on reported occupancy. The data is fixed to a three month period leading up to the current date.

**NOTE:** The **Room Utilization** tile requires an XiO Cloud Premium subscription. This tile cannot be expanded to full or half-width size.

### Account Dashboard Page - Room Utilization



The following information is provided:

**NOTE:** Only rooms that support occupancy detection are included.

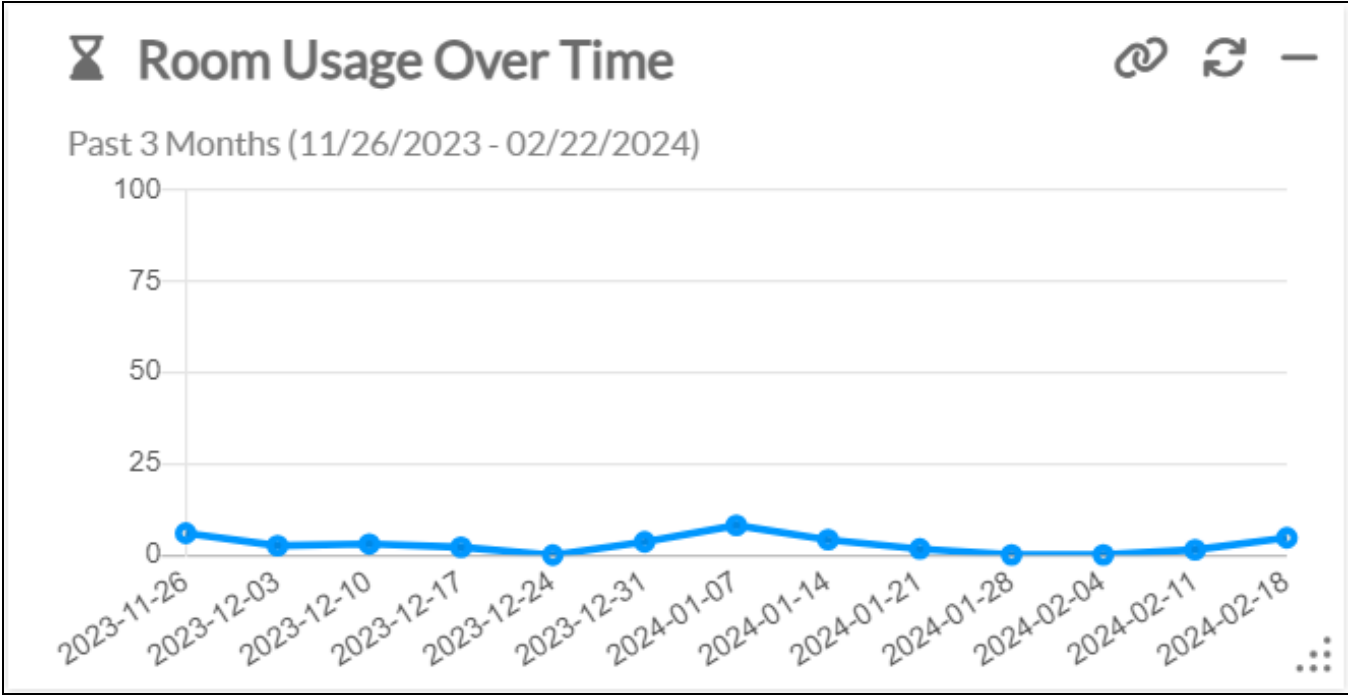
- **Most Utilized:** Lists up to four rooms that have been most utilized based on their reported occupancy in descending order. A percentage is shown next to each room indicating its total occupancy over a 24-hour period.
- **Least Utilized:** Lists up to four rooms that have been least utilized based on their reported occupancy in ascending order. A percentage is shown next to each room indicating its total occupancy over a 24-hour period.

# Room Usage Over Time

The **Room Usage Over Time** tile displays information about how often rooms are used over time within the XiO Cloud account (or for an individual group or room) based on reported occupancy. The data is fixed to a three month period leading up to the current date.

**NOTE:** The **Room Usage Over Time** tile requires an XiO Cloud Premium subscription. This tile cannot be expanded to full or half-width size.

Account Dashboard Page - Room Usage Over Time



The **Room Usage Over Time** data is presented as a line graph where room usage is represented by data points for each week in the three-month period. Each data point is a percentage indicating the room or room group's total occupancy over a 24-hour period for the given week. Hover over a data point to view the exact usage percentage for that week.

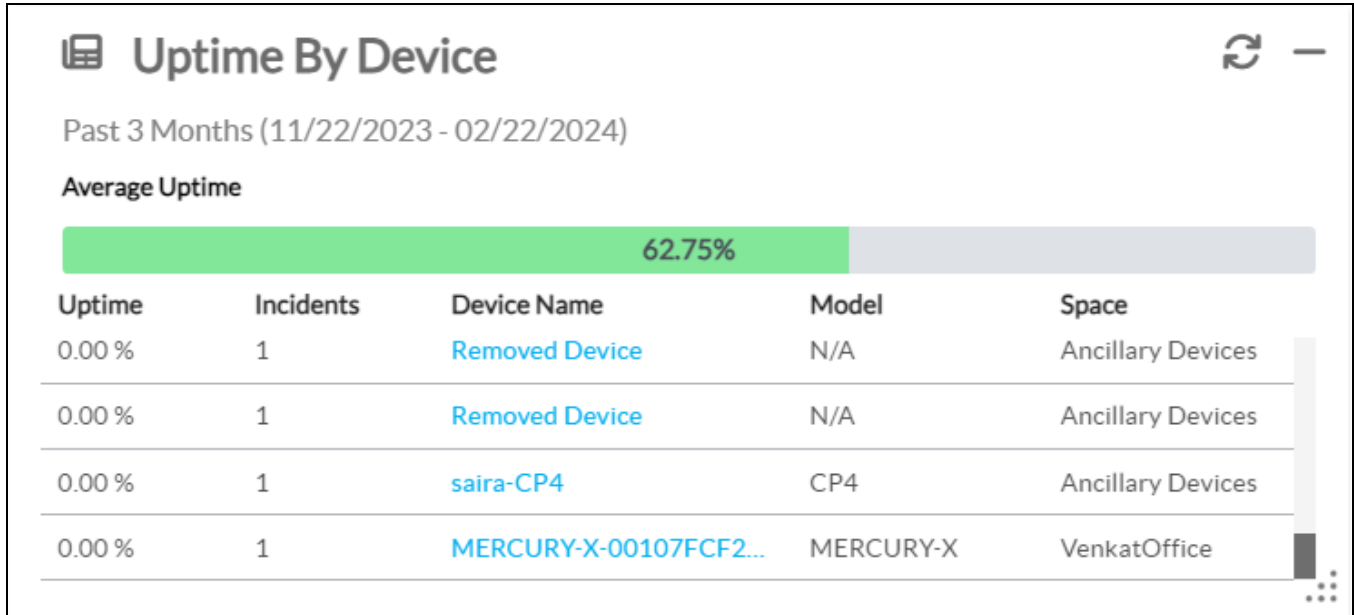
**NOTE:** Only rooms that support occupancy detection are included.

# Uptime By Device

The **Uptime By Device** tile displays information about the uptime for every device within the XiO Cloud account (or for an individual group or room). The data is fixed to a three month period leading up to the current date.

**NOTE:** The **Uptime By Device** tile requires an XiO Cloud Premium subscription. This tile cannot be expanded to full or half-width size.

## Account Dashboard Page - Uptime By Device



The **Average Uptime** filled bar chart reports the average uptime (as a percentage) for all devices over a 24-hour period.

A table is also provided that lists all devices in ascending order by average uptime. The table includes the following information:

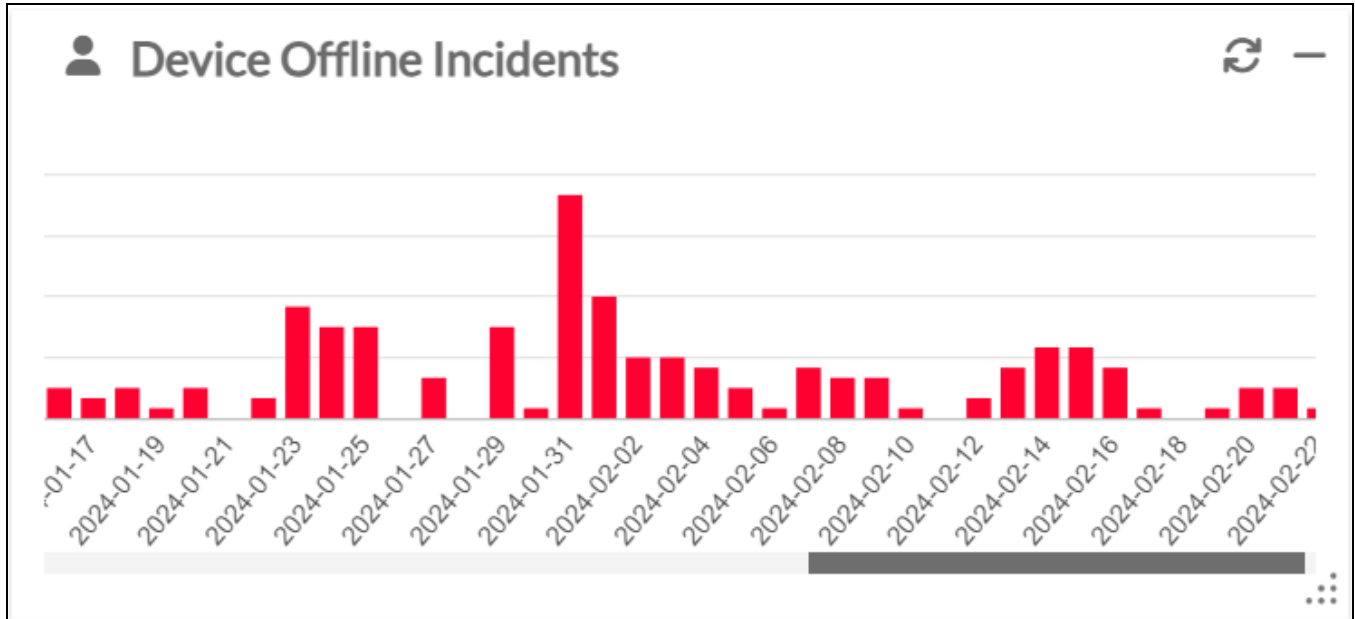
- **Uptime:** The average uptime for the device over a 24-hour period (as a percentage).
- **Incidents:** The number of incidents reported by the device.
- **Device Name:** The device name.
- **Model:** The device model.
- **Space:** The room or group where the device is located.

# Device Offline Incidents

The **Device Offline Incidents** tile displays information about the number of reported offline incidents for all devices within the XiO Cloud account (or for an individual group or room). The data is fixed to a three month period leading up to the current date.

**NOTE:** The **Device Offline Incidents** tile requires an XiO Cloud Premium subscription. This tile cannot be expanded to full or half-width size.

## Account Dashboard Page - Device Offline Incidents

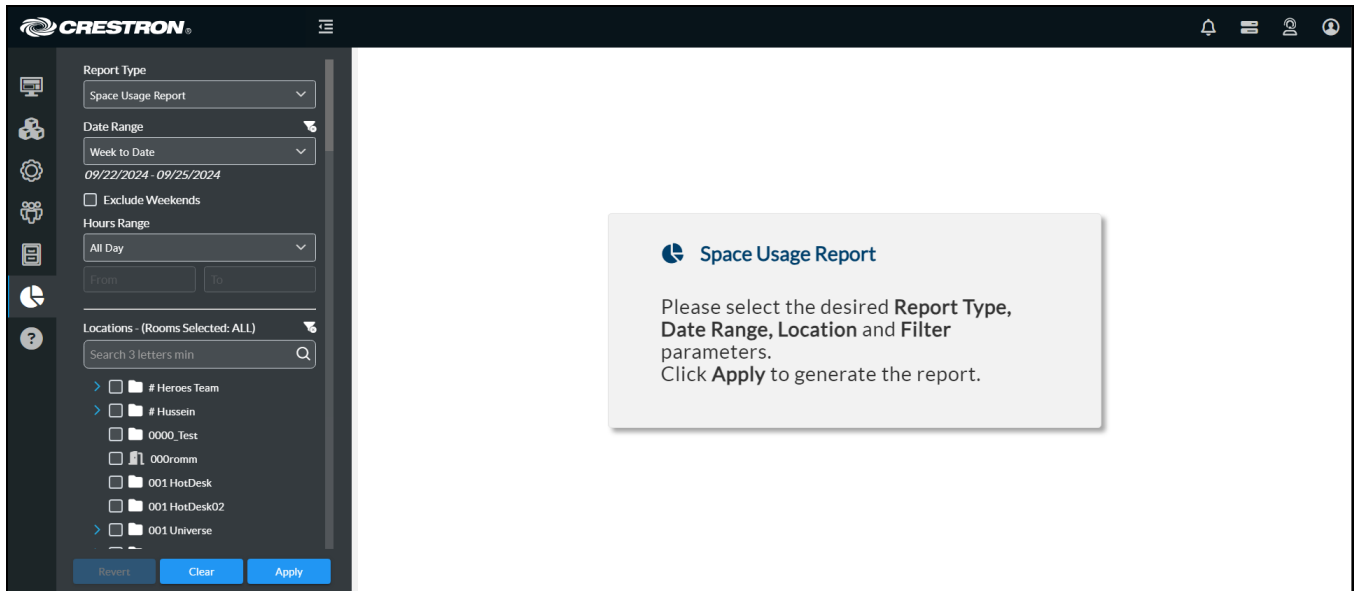


The **Device Offline Incidents** data is presented as a bar graph where offline incidents are represented by bars for each day in the three-month period. Each bar indicates the total number of offline incidents per day. Hover over a bar to view the exact number of offline incidents for that day. Use the scroll bar to scroll through the provided date range.

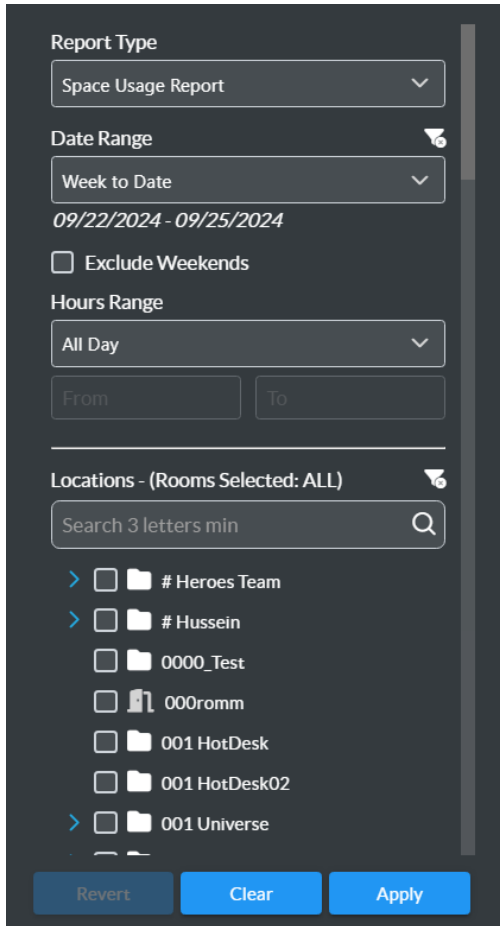
# Historical Reports

The XiO Cloud service provides a feature that allows custom historical reports to be generated based on various data sets within the XiO Cloud account. Historical reports can be customized based on report type, date range, and location within the environment group tree.

**NOTE:** Historical reports require an XiO Cloud Premium subscription.



This feature is accessed by selecting the **Historical Reports** button  in the navigation menu.



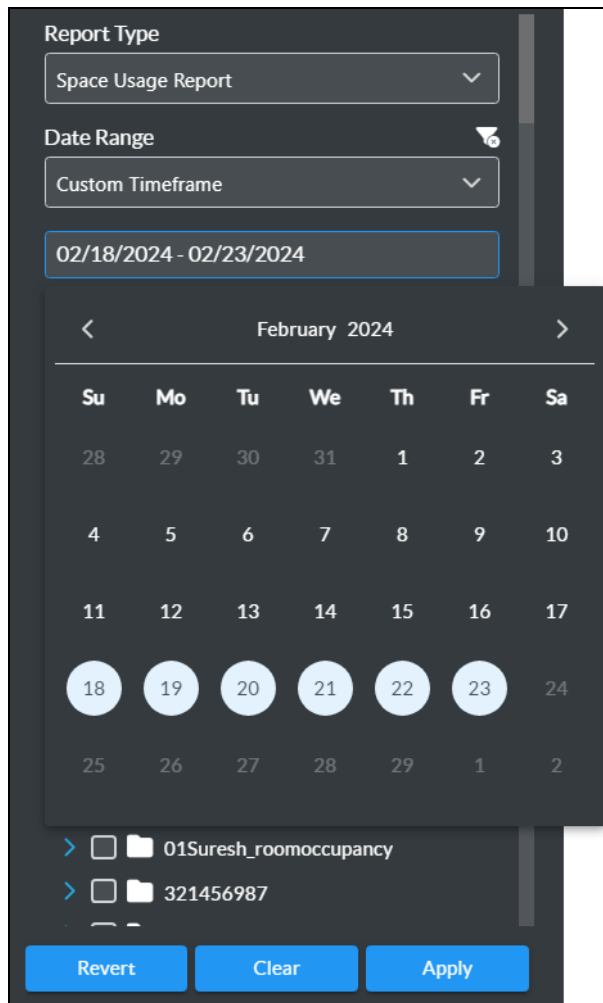
Use the following filters to customize the historical report.


- **Report Type:** Select one of the provided report types from the drop-down menu. Each report type includes different data sets from a specific category (such as space usage metrics) that are shown when the report is generated.
- **Date Range:** Select one of the provided date ranges from the drop-down menu. The generated report will show data only from within the specified range.

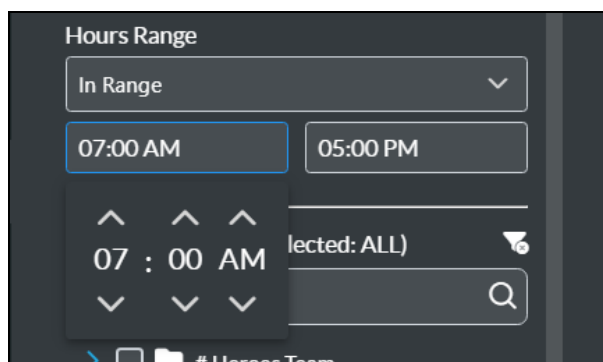
#### NOTES:

- No more than three months of data can be selected in any date range query.
- For reports with date ranges that include the current day, the data shown will extend only until the end of the previous day.

- Select **Custom Timeframe** to create a custom date range for the report. A pop-up calendar is displayed that is used to select the start and end dates to be used.




- Select the filter clear button  to clear any custom filters created for this selection.
- **Hour Range:** Select one of the provided hour ranges from the drop-down menu. The generated report will show data only from within the specified range.
  - Select **In Range** to create a custom hour range for the report. Select inside the start and end time boxes to display controls for setting the range.





- Select **Outside Range** to only show data that does not fall within a custom hour range for the report. Select inside the start and end time boxes to display controls for setting the range.
- **Locations:** Select the groups, rooms, or desks that will be included in the report using the environment group tree. The number of selected nodes are shown above the search field.
  - Fill the check box next to the group, room, or desk in the group tree to add that node to the report.

**NOTE:** If no nodes are selected, the report will include data for the entire group tree.

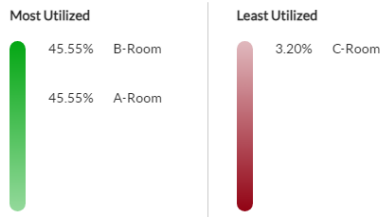
- Use the search function to search for a specific node within the group tree. The group tree will only show nodes that match the entered search terms.
- Select the filter clear button  to clear any custom filters created for this selection.

Once all filters have been selected, select **Apply** to generate the report within the right pane of the screen. If any changes are made to the report filters, select **Apply** again to generate a new report.

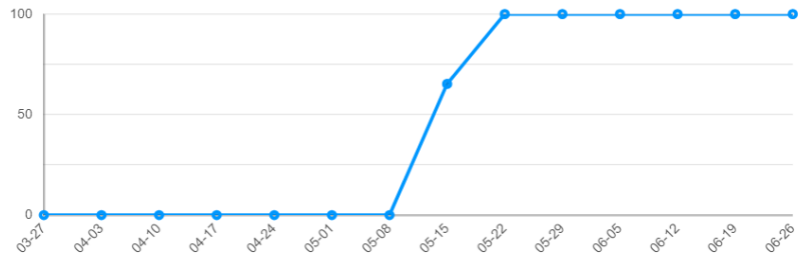
**NOTE:** As of XiO Cloud version 2.1, any reports with hourly data will be synchronized to the UTC (0:00) time zone so that report data is comparable across different time zones.

## Space Usage Report

### Room Utilization

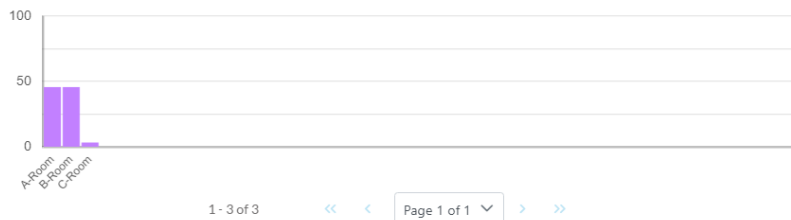


### Room Usage Over Time

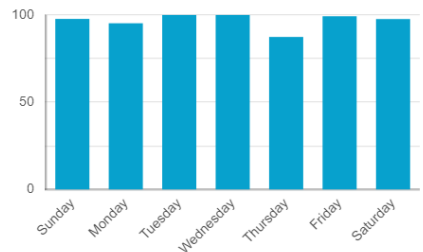


### Room Usage based on Occupancy

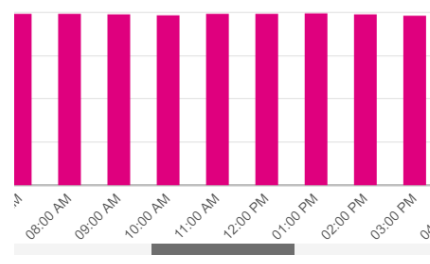
Alphabetical  Most Used  Least Used



### Room Usage by Day




### Room Usage by Time



The following additional controls are provided:

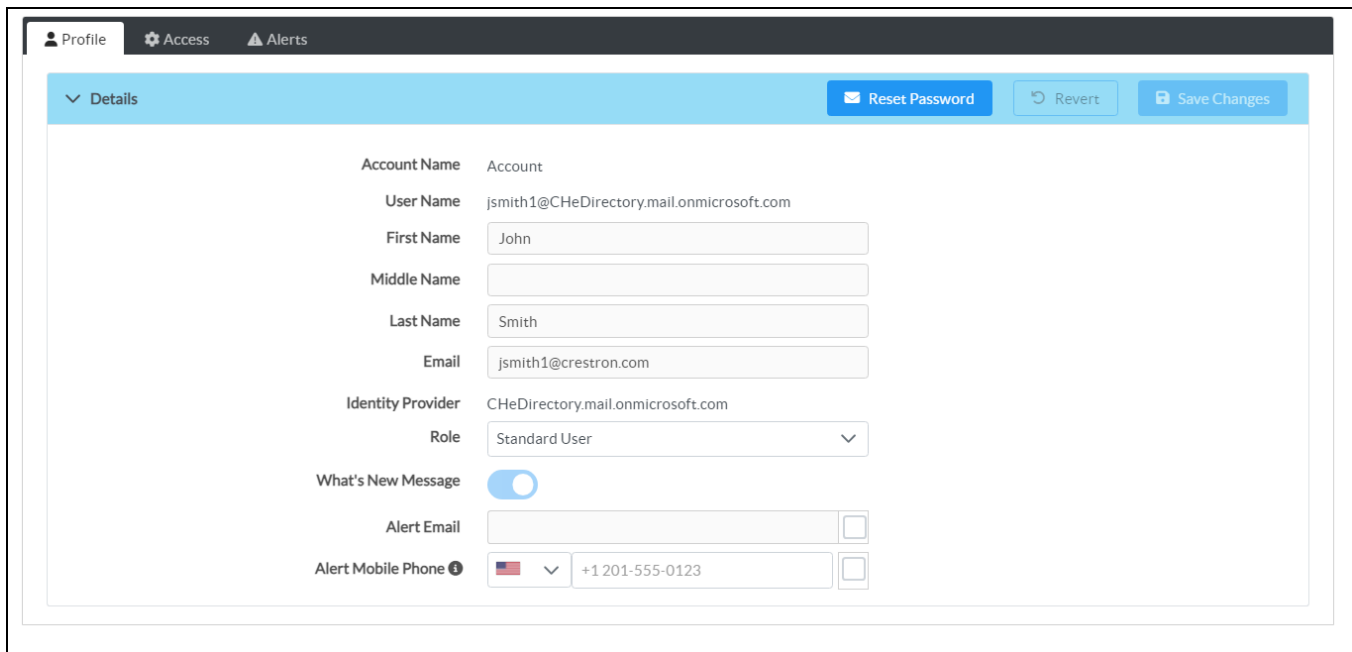
- Select **Revert** to revert the report filters to their previous settings.
- Select **Clear** to restore the report filters to their default values.

# What's New Message

The XiO Cloud service shows messages occasionally that announce new features or news about the service. Recent What's New messages can be viewed by selecting the alerts button  on the top right of the page.

To disable these messages for a user, turn off the **What's New Message** toggle on the user's profile page. For more information on editing user information, refer to [Edit User Information on page 106](#).

## User Profile Page




The screenshot displays the 'User Profile Page' interface. At the top, there are navigation tabs for 'Profile', 'Access', and 'Alerts'. Below the tabs, a 'Details' section is visible, containing various user information fields and a 'What's New Message' toggle. The fields include:

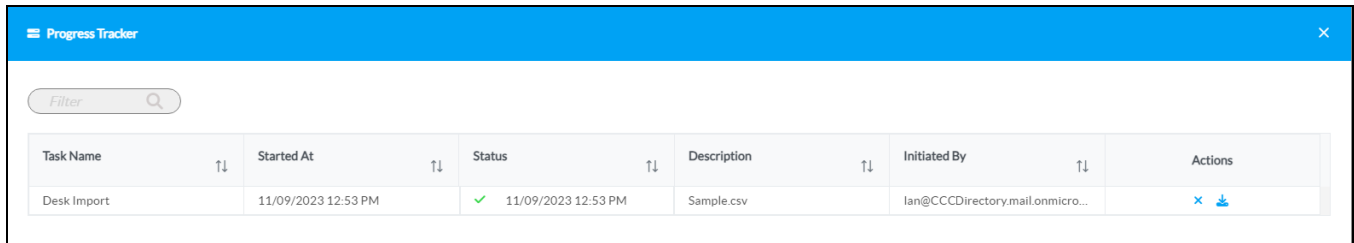
- Account Name: Account
- User Name: jsmith1@CHedirectory.mail.onmicrosoft.com
- First Name: John
- Middle Name: (empty)
- Last Name: Smith
- Email: jsmith1@crestron.com
- Identity Provider: CHedirectory.mail.onmicrosoft.com
- Role: Standard User
- What's New Message:
- Alert Email: (empty)
- Alert Mobile Phone: +1 201-555-0123

At the top right of the 'Details' section, there are three buttons: 'Reset Password', 'Revert', and 'Save Changes'.

# Progress Tracker

Certain tasks initiated within the XiO Cloud service that involve large data sets (such as importing desks and devices for the Crestron Desk Scheduling functionality) can take a considerable amount of time to complete. The progress tracker function allows users to check on the status of these tasks running in the background at any time.

Select the progress tracker button  on the top right of the page to display the **Progress Tracker** dialog box.



| Task Name   | Started At          | Status                | Description | Initiated By                     | Actions |
|-------------|---------------------|-----------------------|-------------|----------------------------------|---------|
| Desk Import | 11/09/2023 12:53 PM | ✓ 11/09/2023 12:53 PM | Sample.csv  | Ian@CCCDirectory.mail.onmicro... | ✕ 📄     |

The **Progress Tracker** dialog box lists all in-progress tasks for the account in table form. A **Filter** function is provided to filter the table based on the entered information. Each table column also provides sorting controls to sort the data in that column.

The following information is provided for each task:

- **Task Name:** The name of the task.
- **Started At:** The date and time when the task was started.
- **Status:** The current task status. Completed tasks show a green check icon ✓ with the date and time that the task was completed.
- **Description:** Information about the task, such as the name of an imported file.
- **Initiated By:** The XiO Cloud user who initiated the task.
- **Actions:** Provides actions for the task, such as clearing the task or downloading an imported file.

# Alerts

The XiO Cloud service sends alerts when it detects an issue with a device or a room. Alerts are sent via email or text messages to any user that is configured to receive alerts. Alerts can also be tied to custom programming logic for individual XiO Cloud rooms.

**NOTE:** XiO Cloud alerts can be integrated with ServiceNow® software instances. For more information, refer to [Appendix A: Configure ServiceNow for XiO Cloud Alerts on page 205](#).

## Configure Contact Information

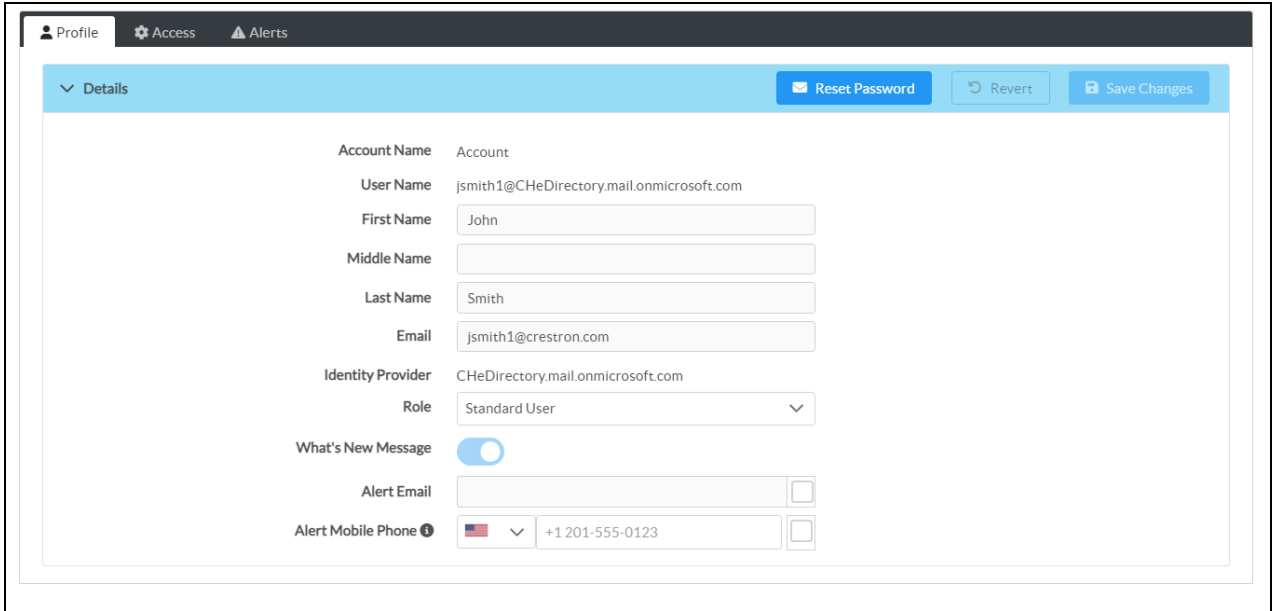
To receive alerts, a user must enable alerts for email and/or text messages in their profile page.

To configure alerts for a user:

1. Select the user's name in the **USERS** menu. A **Users** page with the **Profile** tab open by default is displayed to the right of the **USERS** menu.
2. Choose one or both of the following alert methods:
  - Select the check box next to the **Alert Email** text field to enable email alerts. Enter a valid email address in the **Alert Email** text field to receive messages at that address.
  - Select the check box next to the **Alert Mobile Phone** text field to enable text message alerts. Enter a valid mobile phone number (including country code and area code) in the **Alert Mobile Phone** text field to receive text messages at that phone number.

**NOTE:** SMS services are not supported in all countries. For a list of countries that currently support the service, refer to [FAQs on page 173](#).

## User Profile Page



The screenshot shows the 'User Profile Page' interface. At the top, there are tabs for 'Profile', 'Access', and 'Alerts'. Below the tabs, there is a 'Details' section with a dropdown arrow. To the right of the 'Details' section are three buttons: 'Reset Password', 'Revert', and 'Save Changes'. The main content area contains the following fields:

- Account Name: Account
- User Name: jsmith1@CHedirectory.mail.onmicrosoft.com
- First Name: John
- Middle Name: (empty)
- Last Name: Smith
- Email: jsmith1@crestron.com
- Identity Provider: CHedirectory.mail.onmicrosoft.com
- Role: Standard User (dropdown menu)
- What's New Message: (toggle switch, currently on)
- Alert Email: (input field with a checkbox)
- Alert Mobile Phone: (input field with a dropdown menu for country code and a checkbox)

3. Select **Save Changes** at the top right of the screen to save any changes made. Select **Revert** to clear any information that was entered.

## Configure Alert Levels

Alerts may be configured so that they are issued at different severity levels for different groups. This configuration is set at the user level, so each user may customize the alerts that they receive.

To configure access levels for alerts:

**NOTE:** A user must be configured to receive alerts via email or mobile phone before alert levels can be configured for that user. Refer to [Configure Contact Information on page 130](#) for more information.

1. Select the user's name in the **USERS** menu. A **Users** page with the **Profile** tab open by default is displayed to the right of the **USERS** menu.

2. Select the **Alerts** tab.

### Users Page – Alerts Tab

The screenshot displays the Alerts tab interface. At the top, there are tabs for Profile, Access, and Alerts. Below the tabs is a 'Details' section with a search bar labeled 'Group or Room Search'. The main content is a table with the following columns: Name, Minimum Alert Level, and Inherit. The table lists several groups and rooms, each with a 'None' selection in the Minimum Alert Level column and an unchecked checkbox in the Inherit column. The table is paginated, showing 10 items per page.

| Name   | Minimum Alert Level | Inherit                  |
|--|---------------------|--------------------------|
| # Heroes Team                                      | None                | <input type="checkbox"/> |
| # Hussein Master                                   | None                | <input type="checkbox"/> |
| 001 Universe Max Length Max Length Max Length Maxi | None                | <input type="checkbox"/> |
| 001_159_Timeseries_Reports                         | None                | <input type="checkbox"/> |
| 001_Leo_UI_Caching                                 | None                | <input type="checkbox"/> |
| 01Suresh_roomoccupancy                             | None                | <input type="checkbox"/> |
| 01_Timeseries_Reports_MVP_1.57_1.58                | None                | <input type="checkbox"/> |
| 1 Corporate Drive                                  | None                | <input type="checkbox"/> |
| 15 Volvo 222                                       | None                | <input type="checkbox"/> |
| 321456987  | None                | <input type="checkbox"/> |


3. Use the **Minimum Alert Level** drop-down menu to select the alert severity level (**None**, **Notice**, **Warning**, **Error**, or **Critical**) for each group and subgroup or room. Only alerts of the chosen severity level or higher will be sent.
4. (Subgroups only) Select **Inherit** to have the subgroup or room inherit the alert severity level settings of its parent group. **Inherit** is the default setting for subgroups and rooms.

**NOTE:** Enter text in to the **Group or Room Search** text box to search for and display groups or rooms that match the search term(s).

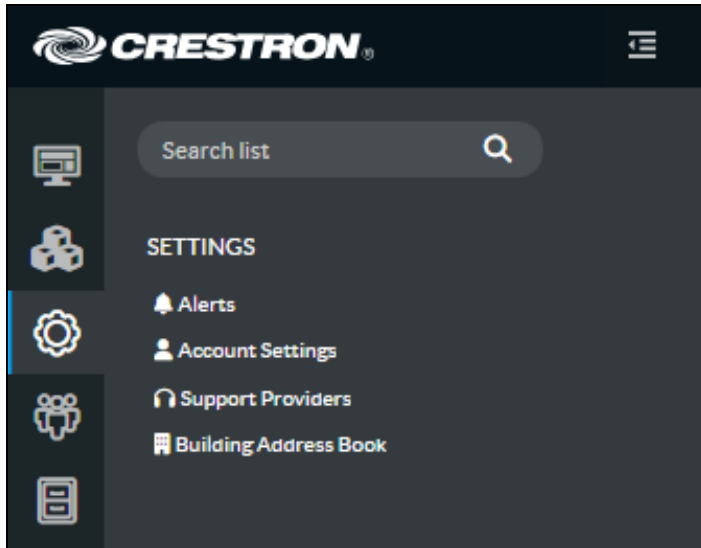
5. Select **Save Changes** at the top right of the screen to save any changes made. Select **Revert** to clear any information that was entered.

# Manage Alerts

The changes made to a device or room that trigger an alert may be customized. The XiO Cloud service adds common alerts automatically. However, these alerts may be deleted and new alerts may be added.

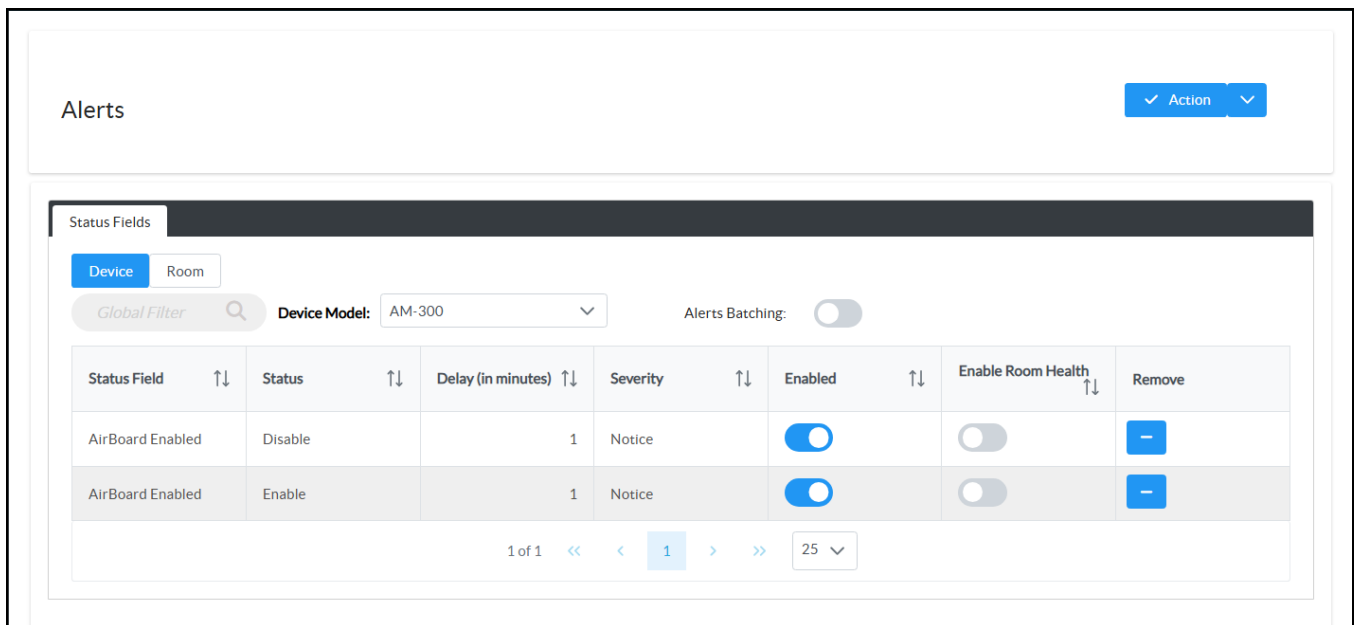
The **SETTINGS** menu for alerts is located in the user management panel, which may be accessed by selecting the **Settings** button  in the navigation menu.

## Settings – Alerts Option



Select **Alerts** in the **SETTINGS** menu. An **Alerts** page with the **Device** button selected by default is displayed to the right of the **SETTINGS** menu.

## Alerts – Status Fields Tab (Device)



Select **Room** to configure alerts for rooms in the account.



**NOTE:** Configuring room alerts requires an XiO Cloud Premium subscription. Refer to [XiO Cloud Program Connector on page 65](#) for more information on custom programming and XiO Cloud.

## Alerts – Status Fields Tab (Room)

The screenshot displays the 'Alerts' configuration page for a 'Room'. At the top, there is a 'Status Fields' tab and a 'Room' button. Below this is a 'Global Filter' search bar and an 'Alerts Batching' toggle switch. The main content is a table with the following data:

| Status Field   | Status       | Delay (in minutes) | Severity | Enabled                             | Enable Room Health       | Remove                           |
|----------------|--------------|--------------------|----------|-------------------------------------|--------------------------|----------------------------------|
| Display Power  | On           | 0                  | Notice   | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="button" value="-"/> |
| Program Alerts | Equals: test | 0                  | Notice   | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="button" value="-"/> |
| Room Health    | Healthy      | 0                  | Notice   | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="button" value="-"/> |
| System Power   | Off          | 0                  | Notice   | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="button" value="-"/> |

At the bottom of the table, there are pagination controls showing '1 of 1' items, navigation arrows, and a page number '1'.

Device-based alerts in the **Status Fields** section are organized by device type. To configure alerts for a device type, select the desired device type from the **Device Model** drop-down menu on the top left of the **Status Fields** section.

Alerts may also be batched by turning on the **Alerts Batching** toggle. When **Alerts Batching** is turned on, all alerts for a device or room are batched together and may be enabled/disabled or removed at once.

The **Status Fields** table presents all of the alerts configured for the selected device type. The following information is provided:

- **Status Field:** The device or room status type (An alert is triggered if changes to this status are detected.)
- **Status:** The state that the device or room status must reach in order to trigger an alert
- **Delay (in minutes):** The duration that the device or room must remain in the selected status before an alert is triggered
- **Severity:** The severity level of the alert, which determines the users who are notified based on their configured alert levels
- **Enabled:** Provides controls for enabling or disabling the alert

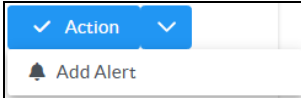
- **Enable Room Health:** If this toggle is turned on, the alert will contribute to the room health status based on the chosen severity level. For more information on room health, refer to [XiO Cloud Program Connector on page 65](#).
- **Remove:** Provides controls for removing the alert

## Add a New Alert

To add a new alert for a device or room:

1. Select **Add Alert** from the **Action** drop-down menu.

**Drop-Down Menu with Add Alert Option**



An **Add Alert** dialog box is displayed.

**Add Alert Dialog Box (Device)**

 A screenshot of a dialog box titled 'Add Alert' with a close button (X) in the top right corner. The dialog contains several form fields:
 

- Type:** A toggle switch with 'Device' selected (highlighted in blue) and 'Room' as an alternative.
- Device Model:** A dropdown menu with 'MERCURY' selected.
- Status Field:** A dropdown menu with 'Device Connection Status' selected.
- Status:** A dropdown menu with 'Offline' selected.
- Delay:** A text input field containing '0' followed by the label 'Minute(s)'.
- Severity:** A dropdown menu with 'Notice' selected.

 At the bottom right of the dialog, there are two buttons: 'Cancel' and 'Add'.

2. Select **Device** or **Room** for **Type** to add a device alert or a room alert, respectively.

## Add Alert Dialog Box (Room)

The screenshot shows the 'Add Alert' dialog box for a room. The dialog has a blue header with the text 'Add Alert' and a close button (X). Below the header, there are several fields for configuring the alert:

- Type:** A button group with 'Device' and 'Room'. 'Room' is selected and highlighted in blue.
- Room Status:** A dropdown menu with 'Display Power' selected.
- Status:** A button group with 'On' and 'Off'. 'On' is selected and highlighted in blue.
- Delay:** A text input field with '0' and a label 'Minute(s)'.
- Severity:** A dropdown menu with 'Notice' selected.

At the bottom right of the dialog, there are two buttons: 'Cancel' and 'Add'.

- Use the provided text fields and drop-down menus to enter the required information for the alert.

**NOTE:** For alerts with a **Text Value** string, note the following behavior for each selectable operator:

- **Equals:** A string from the program must equal the **Text Value** field exactly to generate an alert. For example, If the **Text Value** is "Your thermostat temperature is too high", then an alert would be generated only if the program string matched this text exactly.
- **Contains:** A string from the program must contain the **Text Value** field to generate an alert. For example, If the **Text Value** is "thermostat", then an alert would be generated only if the program string contained "thermostat" anywhere within it.
- **Begins With:** A string from the program must begin with the **Text Value** field to generate an alert. For example, If the **Text Value** is "The room temperature", then an alert would be generated only if the program string began with "The room temperature".
- **Ends With:** A string from the program must end with the **Text Value** field to generate an alert. For example, If the **Text Value** is "is too low", then an alert would be generated only if the program string ended with "is too low".

- Once all information has been entered, select **Add** to add the alert.

The new alert is displayed in the **Status Fields** section of the **Alerts** page for the selected device type or room.

## Delete an Alert

To delete an alert, select the minus button (-) in the **Remove** column for that alert.

# View Alerts

In addition to receiving alerts via email or text messages, alerts may also be viewed for individual devices, groups of devices, and rooms.

Alerts are accessible from the **Alerts** accordion of the **Status** tab for an individual device or for a group, or from the **Alerts** tab in a room.

## Settings Tab – Alerts Accordion

| Date and Time       | Severity | Device/Room                     | Type   | Alert                               | Status   |                        |
|---------------------|----------|---------------------------------|--------|-------------------------------------|----------|------------------------|
| 02/20/2025 12:03 AM | Notice   | <a href="#">Auto_HD-CTL-101</a> | Device | OccupancySensor Status:Vacant:1 Min | Resolved | <button>Clear</button> |

1 of 1 << < 1 > >> 25

The **Alerts** section provides the following information in table format:

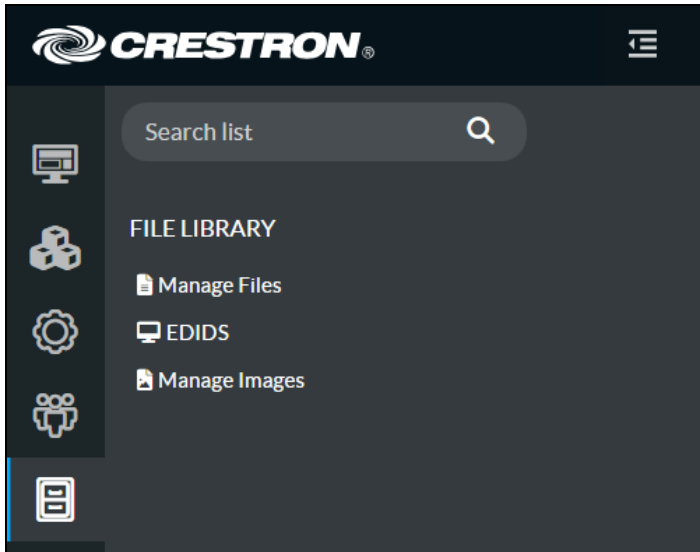
- The date and time the alert was issued
- The severity of the alert
- The device or room that caused the alert to be issued (with a link to that device or room in the environment tree)
- The status field, status, and duration values that triggered the alert
- The status of the alert (An alert changes from **Active** to **Resolved** automatically when the status field value changes to a status other than the one that triggered the alert.)
- A **Clear** button that removes the alert from the log

Select **Clear All** at the top right of the table to clear all listed alerts.

# File Library

Various files can be loaded to the XiO Cloud service for use by claimed devices via the File Library selections. Select the **File Upload** button in the navigation menu to display the **FILE LIBRARY** menu.

## FILE LIBRARY Menu



The following selections are provided:

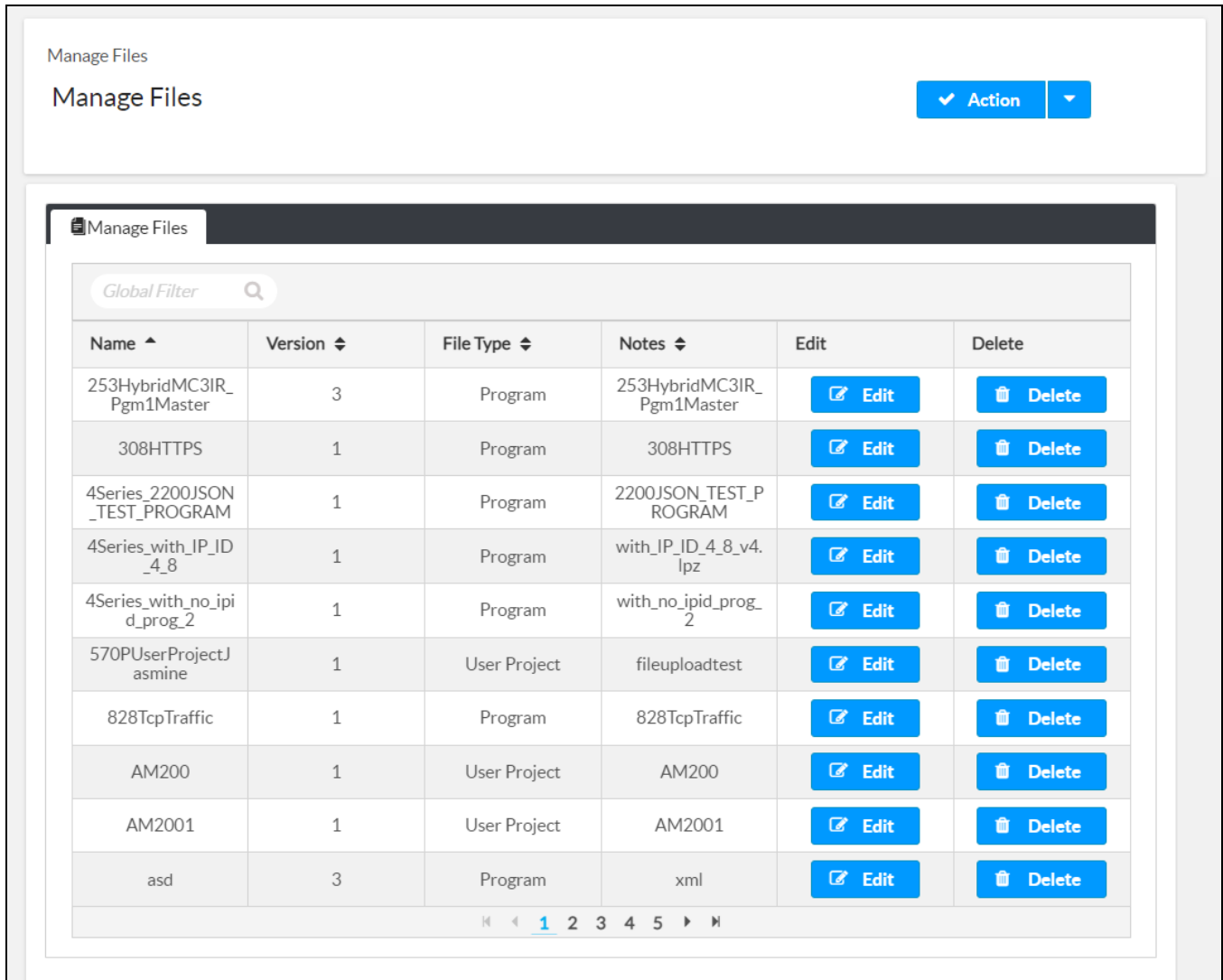
- **Manage Files:** Contains a library of programs and projects for control systems, touch screens, and other devices
- **EDIDs:** Contains a library of Extended Display Identification (EDID) data files for use with display devices
- **Manage Images:** Contains a library of image files for use by various devices

Each menu selection is described in the following sections.

# Manage Files

Select **Manage Files** from the **FILE LIBRARY** menu to display the **Manage Files** page.

## Manage Files Page



The screenshot shows the 'Manage Files' page. At the top, there is a header with 'Manage Files' and an 'Action' dropdown menu. Below the header is a tab labeled 'Manage Files'. A search bar with 'Global Filter' is positioned above a table. The table has six columns: Name, Version, File Type, Notes, Edit, and Delete. Each row represents a file or project with its respective details and action buttons.

| Name ^                        | Version ⇅ | File Type ⇅  | Notes ⇅                   | Edit                 | Delete                 |
|-------------------------------|-----------|--------------|---------------------------|----------------------|------------------------|
| 253HybridMC3IR_Pgm1Master     | 3         | Program      | 253HybridMC3IR_Pgm1Master | <a href="#">Edit</a> | <a href="#">Delete</a> |
| 308HTTPS                      | 1         | Program      | 308HTTPS                  | <a href="#">Edit</a> | <a href="#">Delete</a> |
| 4Series_2200JSON_TEST_PROGRAM | 1         | Program      | 2200JSON_TEST_PROGRAM     | <a href="#">Edit</a> | <a href="#">Delete</a> |
| 4Series_with_IP_ID_4_8        | 1         | Program      | with_IP_ID_4_8_v4.lpz     | <a href="#">Edit</a> | <a href="#">Delete</a> |
| 4Series_with_no_ipid_prog_2   | 1         | Program      | with_no_ipid_prog_2       | <a href="#">Edit</a> | <a href="#">Delete</a> |
| 570UserProjectJasmine         | 1         | User Project | fileuploadtest            | <a href="#">Edit</a> | <a href="#">Delete</a> |
| 828TcpTraffic                 | 1         | Program      | 828TcpTraffic             | <a href="#">Edit</a> | <a href="#">Delete</a> |
| AM200                         | 1         | User Project | AM200                     | <a href="#">Edit</a> | <a href="#">Delete</a> |
| AM2001                        | 1         | User Project | AM2001                    | <a href="#">Edit</a> | <a href="#">Delete</a> |
| asd                           | 3         | Program      | xml                       | <a href="#">Edit</a> | <a href="#">Delete</a> |

At the bottom of the table, there is a pagination control showing '1 2 3 4 5' with arrows for navigation.

Each loaded program or project file is represented in a table that provides the following information and controls. An **Action** drop-down menu is also provided in the top-right of the page that is used to add program or project files to XiO Cloud.

- **Name:** The program or project name
- **Version:** The version of the program or project
- **File Type:** The program or project file type
- **Notes:** User-provided notes that describe the program or project
- **Edit:** Contains an **Edit** button that is used to edit program or project information (Refer to [Edit a Program or Project on page 142](#) for more information.)
- **Delete:** Contains a **Delete** button that is used to delete the program or project file from XiO Cloud

Enter text in to the **Global Filter** text box to search for and display programs or project files that match the search term(s).

If the table spans multiple pages, use the navigation arrows on the bottom of the page to move forward or backward through the pages, or select a page number to navigate to that page.

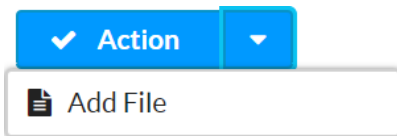
## Add a Program or Project

To add a program or project file to XiO Cloud:

**NOTE:** Only valid program or project files (.cpz, .lpz, .xml, or .zip) can be uploaded. Other file types will be rejected.

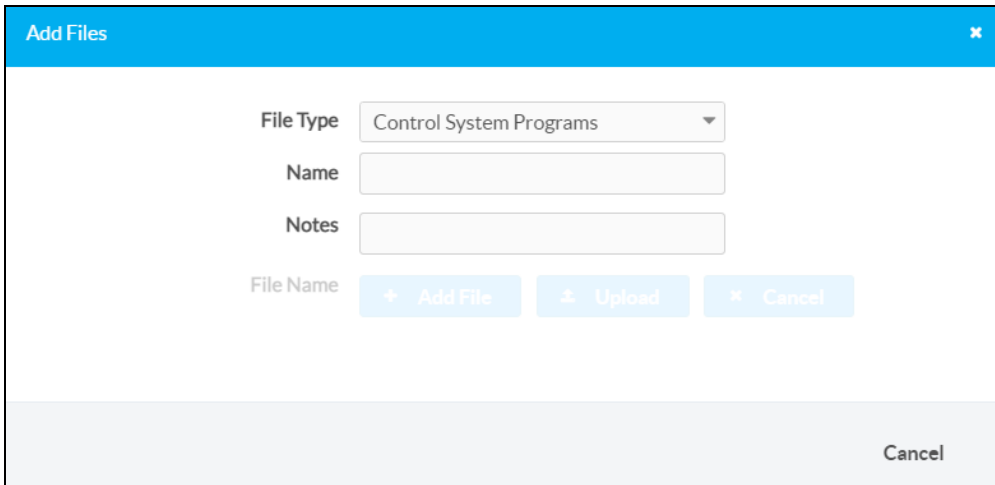
1. Select **Add File** from the **Action** drop-down menu.

Drop-Down Menu with Add File Option



The **Add Files** dialog box is displayed.

Add Files Dialog Box

A screenshot of a dialog box titled 'Add Files' with a blue header bar and a close button (X) in the top right corner. The dialog contains the following fields and buttons:

- File Type:** A dropdown menu with 'Control System Programs' selected.
- Name:** A text input field.
- Notes:** A text input field.
- File Name:** A label followed by three buttons: '+ Add File', '⬆ Upload', and '✕ Cancel'.
- A large 'Cancel' button is located at the bottom right of the dialog.

2. Enter the following information about the program or project file:
  - **File Type:** Select one of the supported program or project file types from the drop-down menu:
    - **Control System Programs**
    - **User Project**
    - **Mobility Project**
    - **Web Browser Project**

- **Name:** Enter a program or project name into the text field.
- **Notes:** Enter any notes about the program or project into the text field.

Once the information above is entered, the **+ Add File** button can be selected.

3. Select **+ Add File**, and then navigate to the program or project file on the computer.
4. Select the program or project file, and then select **Open**. The filename and file size is shown after the program or project file is selected.

**NOTE:** Select the **x** button to discard the program.

#### Add Files Dialog Box - File Preview

The screenshot shows a dialog box titled "Add Files" with a close button (x) in the top right corner. Inside the dialog, there are three text input fields: "File Type" (set to "Control System Programs"), "Name" (set to "My New Program"), and "Notes" (set to "A new program"). Below these fields is a "File Name" section containing three buttons: "+ Add File", "Upload", and "Cancel". A horizontal line separates this section from a file preview area below. The preview area shows a file named "VoiceReg.lpz" with a size of "1.009 MB" and a blue "x" button to its right. At the bottom right of the dialog, there is a "Cancel" button.

**NOTE:** Only compiled program files may be uploaded. The program code must be compiled with a minimum version of the include4.dat file to ensure full compatibility with XiO Cloud. For more information, refer to the respective programming tool help file.

5. Select **Upload**. Growl notifications are displayed when the upload starts and completes.

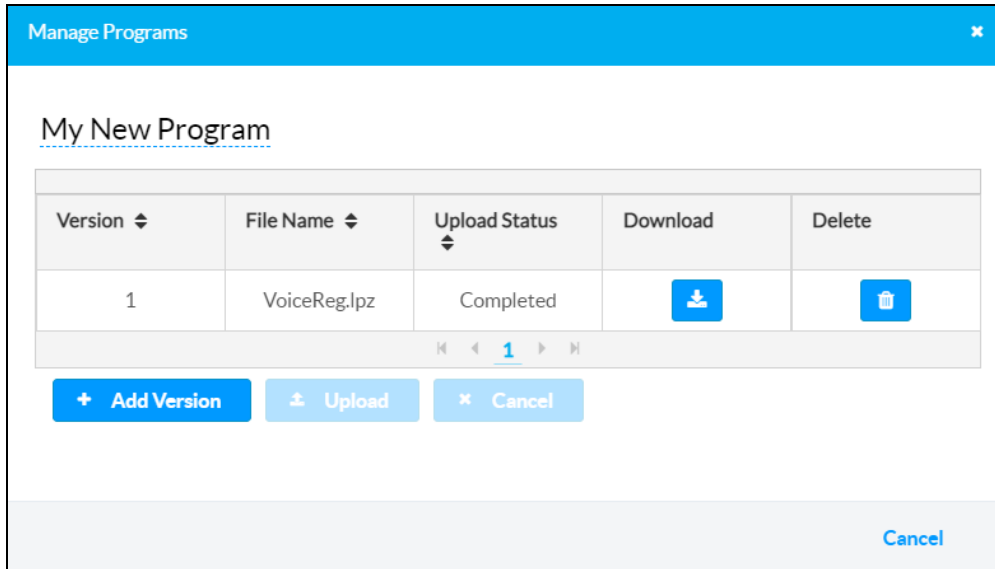
Upon successful upload, the program or project file is added to the **Manage Files** table.



# Edit a Program or Project

To edit an existing program or project file within XiO Cloud, navigate to the program or project file within the **Manage Files** table. Then, select **Edit** within the table row for the file. A **Manage Programs** dialog box is displayed.

## Manage Programs Dialog Box



The program or project files are represented in a table that provides the following information and controls. Controls are also provided for adding new versions of the program or project file.

- **Version:** The version of the program or project

**NOTE:** If there are multiple versions of a program or project file available, each version populates a table row.

- **File Name:** The program or project file name
- **Upload Status:** The upload status of the program or project file
- **Download:** Contains a download button that is used to download the program or project file to a computer.
- **Delete:** Contains a delete button that is used to delete the program or project file from XiO Cloud

If the table spans multiple pages, use the navigation arrows on the bottom of the page to move forward or backward through the pages, or select a page number to navigate to that page.

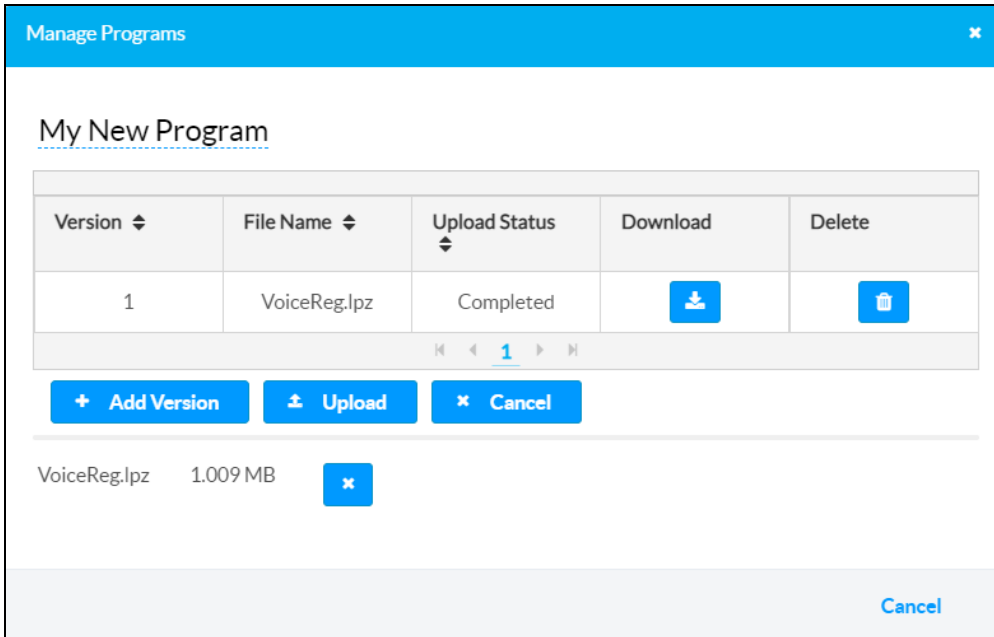
To edit the program or project name, select the program or project name on the top-left of the dialog box. A text field is displayed where the name can be edited. Select the green check button to save any changes.

To add a new version of the program or project file:

1. Select **+ Add Version**, and then navigate to the program or project file on the computer.
2. Select the program or project file, and then select **Open**. The file name and file size are shown after the program or project file is selected.

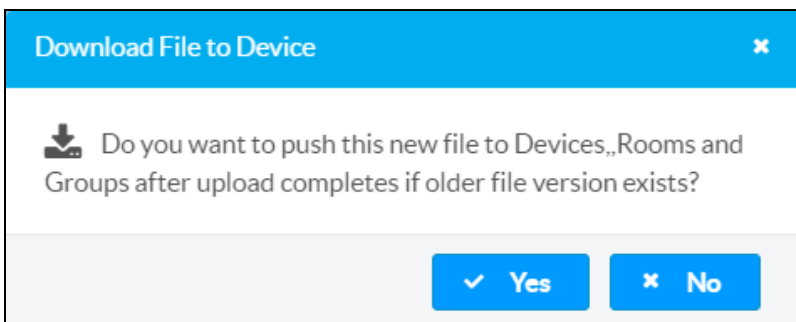
**NOTE:** Select the **x** button to discard the program.

#### Manage Programs Dialog Box - File Preview



**NOTE:** Only compiled program files may be uploaded. The program code must be compiled with a minimum version of the include4.dat file to ensure full compatibility with XiO Cloud. For more information, refer to the respective programming tool help file.

3. Select **Upload**. A **Download File to Device** dialog box is displayed asking whether the new program or project version should be pushed to devices, rooms, or groups running the older file version.

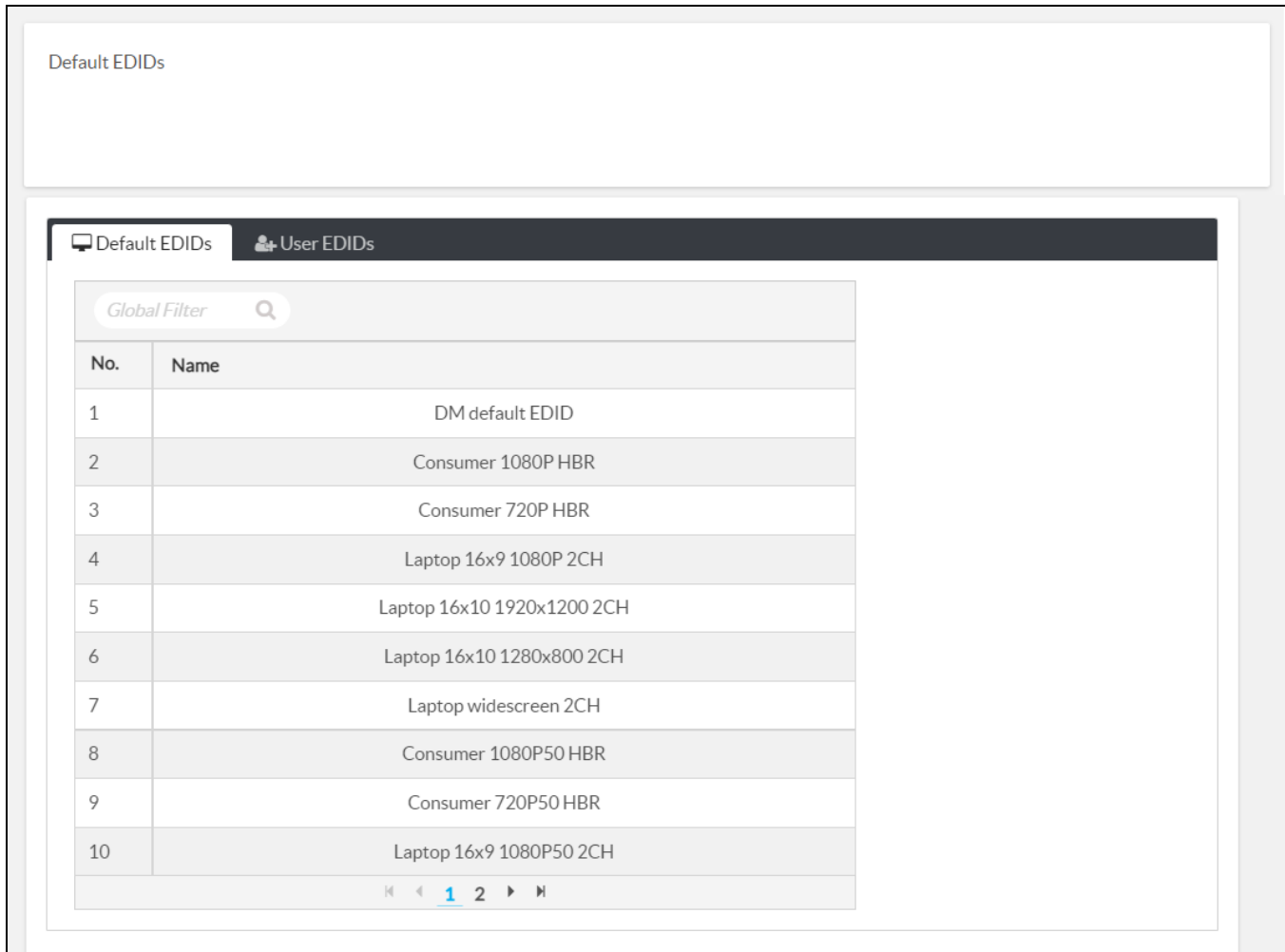


4. Make a selection to start the upload. The new file version is added to the **Manage Programs** table. The **Upload Status** changes from "In Progress" to "Completed" once the new file version is uploaded successfully.

# EDIDs

Select **EDIDs** from the **FILE LIBRARY** menu to display the EDIDs page.

## EDIDs Page



The screenshot shows the EDIDs page interface. At the top, there is a header area with the text "Default EDIDs". Below this, there is a navigation bar with two tabs: "Default EDIDs" (selected) and "User EDIDs". Under the "Default EDIDs" tab, there is a search bar labeled "Global Filter" with a magnifying glass icon. Below the search bar is a table with two columns: "No." and "Name". The table contains 10 rows of data. At the bottom of the table, there are navigation arrows and page numbers "1" and "2", with "1" being the active page.

| No. | Name                       |
|-----|----------------------------|
| 1   | DM default EDID            |
| 2   | Consumer 1080P HBR         |
| 3   | Consumer 720P HBR          |
| 4   | Laptop 16x9 1080P 2CH      |
| 5   | Laptop 16x10 1920x1200 2CH |
| 6   | Laptop 16x10 1280x800 2CH  |
| 7   | Laptop widescreen 2CH      |
| 8   | Consumer 1080P50 HBR       |
| 9   | Consumer 720P50 HBR        |
| 10  | Laptop 16x9 1080P50 2CH    |

The EDIDs page is divided into two sections that can be accessed by selecting the respective tab at the top of the page:

- **Default EDIDs:** Provides a collection of default EDID data files (in CEDID format) for common display device configurations
- **User EDIDs:** Provides a collection of custom EDID data files (in CEDID format) and supports uploading new EDID data files

Enter text in to the **Global Filter** text box to search for and display EDID data files that match the search term(s).

If the table spans multiple pages, use the navigation arrows on the bottom of the page to move forward or backward through the pages, or select a page number to navigate to that page.

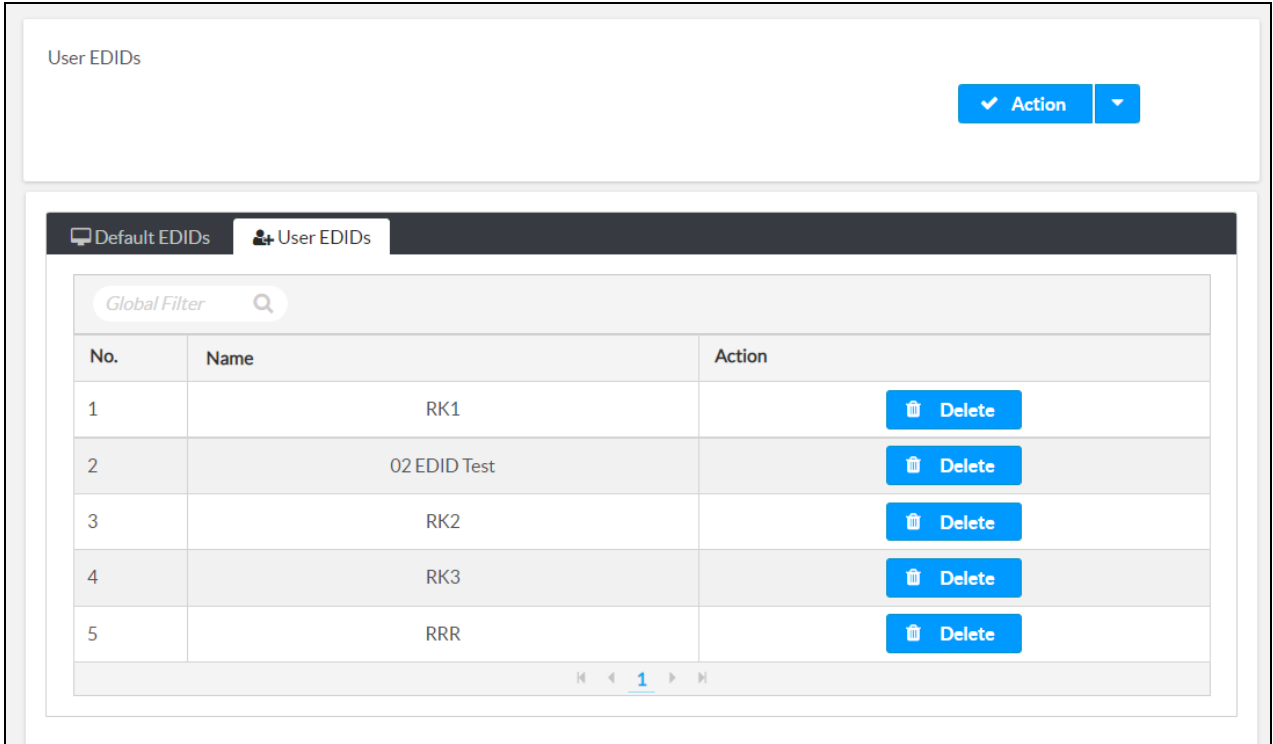
# Add a Custom EDID File

To upload a custom EDID data file (in CEDID format) to XiO Cloud:

**NOTE:** Only valid CEDID files can be uploaded. Other file types will be rejected.

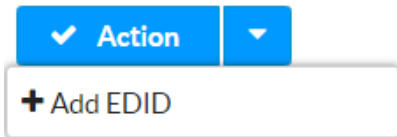
1. Select the **User EDIDs** tab to display the **User EDIDs** page.

## EDIDs Page - User EDIDs



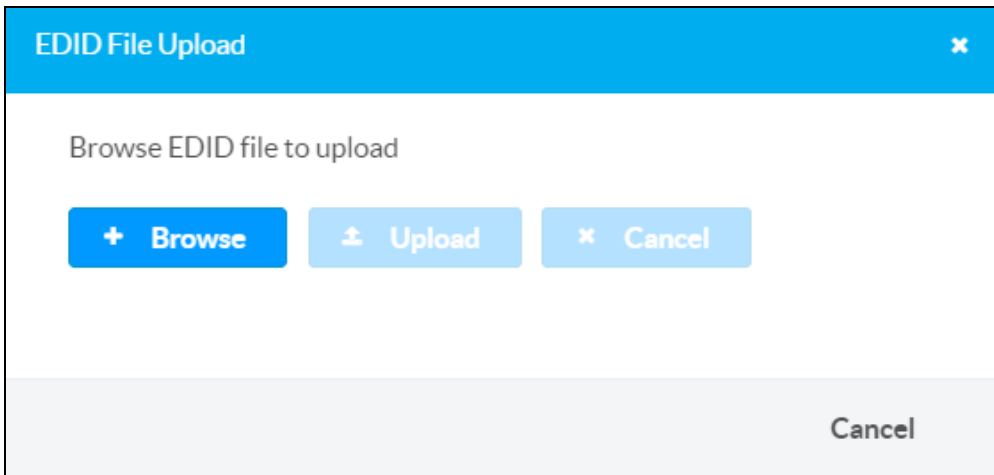
2. Select **Add EDID** from the **Action** drop-down menu.

## Drop-Down Menu with Add EDID Option



The **EDID File Upload** dialog box is displayed.

#### EDID File Upload Dialog Box



3. Select **+ Browse**, and then navigate to the CEDID file on the computer.
4. Select the CEDID file, and then select **Open**. The filename and file size are shown after the CEDID file is selected.

**NOTE:** Select the **x** button to discard the CEDID file.

5. Select **Upload**. Growl notifications are displayed when the upload starts and completes.

Upon successful upload, the EDID data file is added to the User EDIDs table.

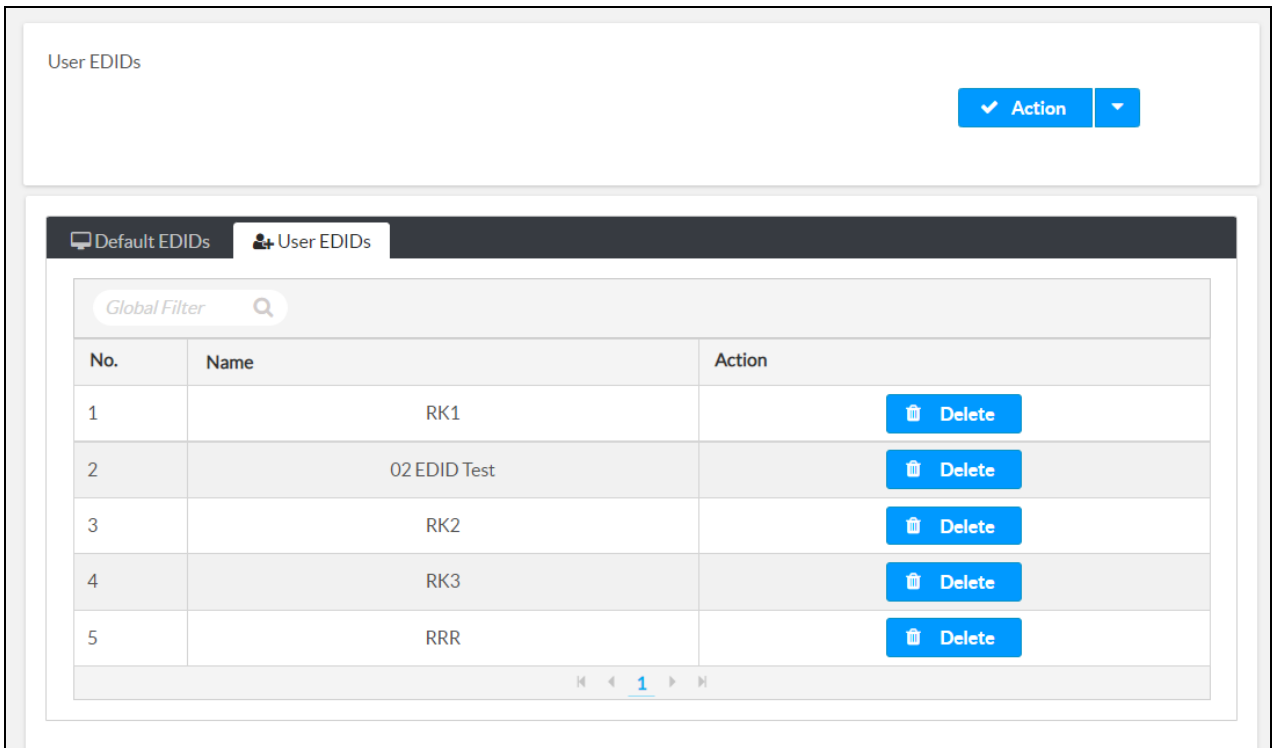
## Delete a Custom EDID File

To delete a custom EDID file from XiO Cloud:

**NOTE:** The default EDID files provided by XiO Cloud cannot be deleted.

1. Select the **User EDIDs** tab to display the User EDIDs page.

### EDIDs Page - User EDIDs

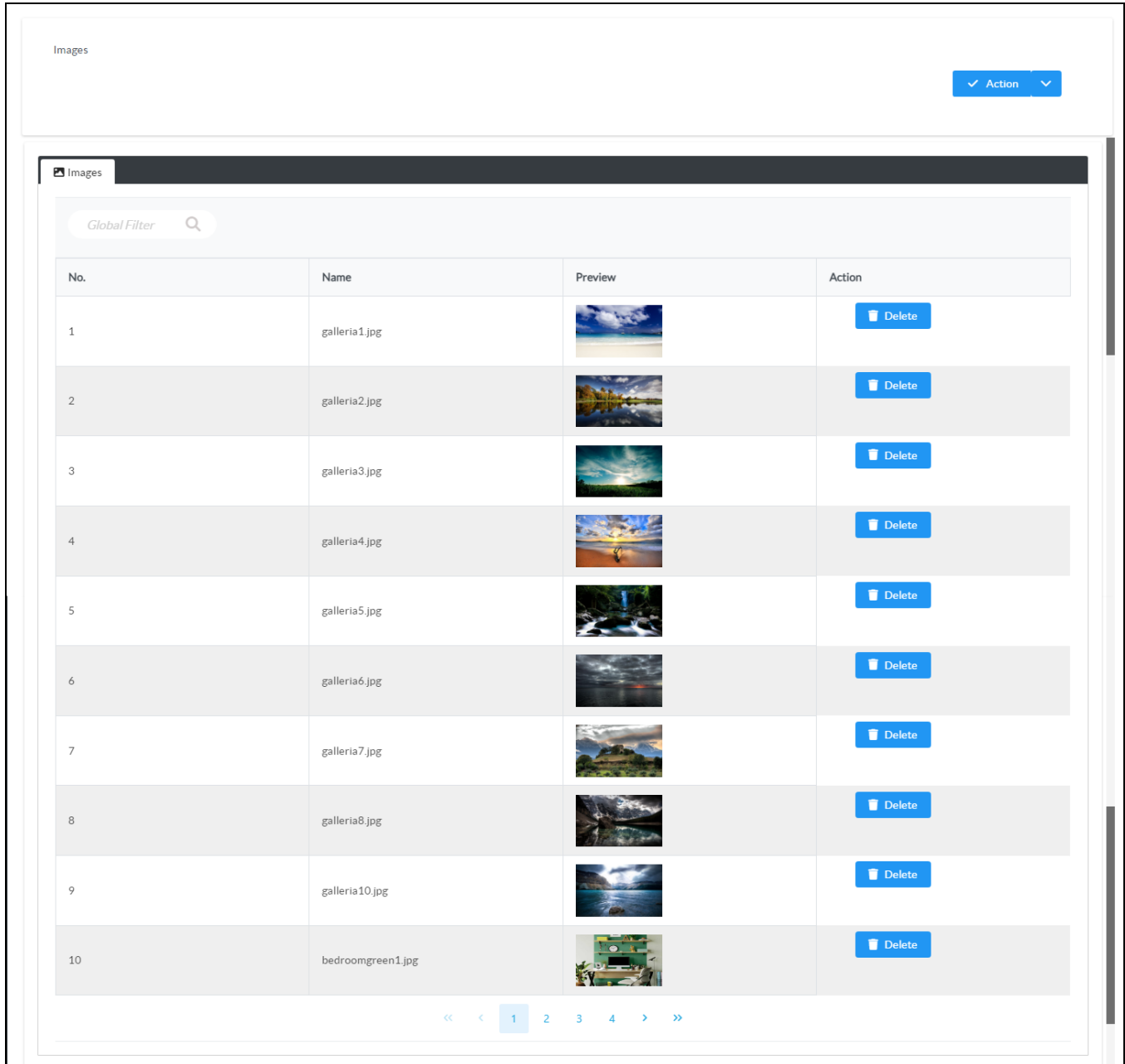


2. Navigate to the file within the User EDIDs table.
3. Select **Delete** from the corresponding table row. A dialog box is displayed confirming the deletion.
4. Select **Yes** to delete the file.











# Manage Images

Select **Manage Images** from the **FILE LIBRARY** menu to display the Images page.

## Images Page



The screenshot displays the 'Images' management interface. At the top right, there is an 'Action' dropdown menu. Below it is a search bar labeled 'Global Filter'. The main content is a table with the following data:

| No. | Name              | Preview   | Action                 |
|-----|-------------------|---|------------------------|
| 1   | galleria1.jpg     |    | <a href="#">Delete</a> |
| 2   | galleria2.jpg     |    | <a href="#">Delete</a> |
| 3   | galleria3.jpg     |    | <a href="#">Delete</a> |
| 4   | galleria4.jpg     |   | <a href="#">Delete</a> |
| 5   | galleria5.jpg     |  | <a href="#">Delete</a> |
| 6   | galleria6.jpg     |  | <a href="#">Delete</a> |
| 7   | galleria7.jpg     |  | <a href="#">Delete</a> |
| 8   | galleria8.jpg     |  | <a href="#">Delete</a> |
| 9   | galleria10.jpg    |  | <a href="#">Delete</a> |
| 10  | bedroomgreen1.jpg |  | <a href="#">Delete</a> |

At the bottom of the table, there is a pagination control showing page 1 of 4, with navigation arrows.

Each loaded image file is represented in a table that provides the following information and controls. An **Action** drop-down menu is also provided in the top-right of the page that is used to add image files to XiO Cloud.

- **No.:** The image file number within XiO Cloud (determined by the upload order)
- **Name:** The image filename

- **Preview:** A thumbnail preview of the image file
- **Action:** Contains a **Delete** button that is used to delete the image file from XiO Cloud

Enter text in to the **Global Filter** text box to search for and display image files that match the search term(s).

If the table spans multiple pages, use the navigation arrows on the bottom of the page to move forward or backward through the pages, or select a page number to navigate to that page.

## Add an Image File

Images can be added into XiO Cloud from a remote web server or from the local computer.

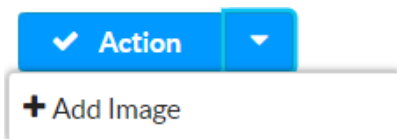
**NOTE:** Only valid image files can be added. Other file types will be rejected.

### Add an Image File from a Web Server

To add a custom image file to XiO Cloud from a remote web server:

1. Select **Add Image** from the **Action** drop-down menu.

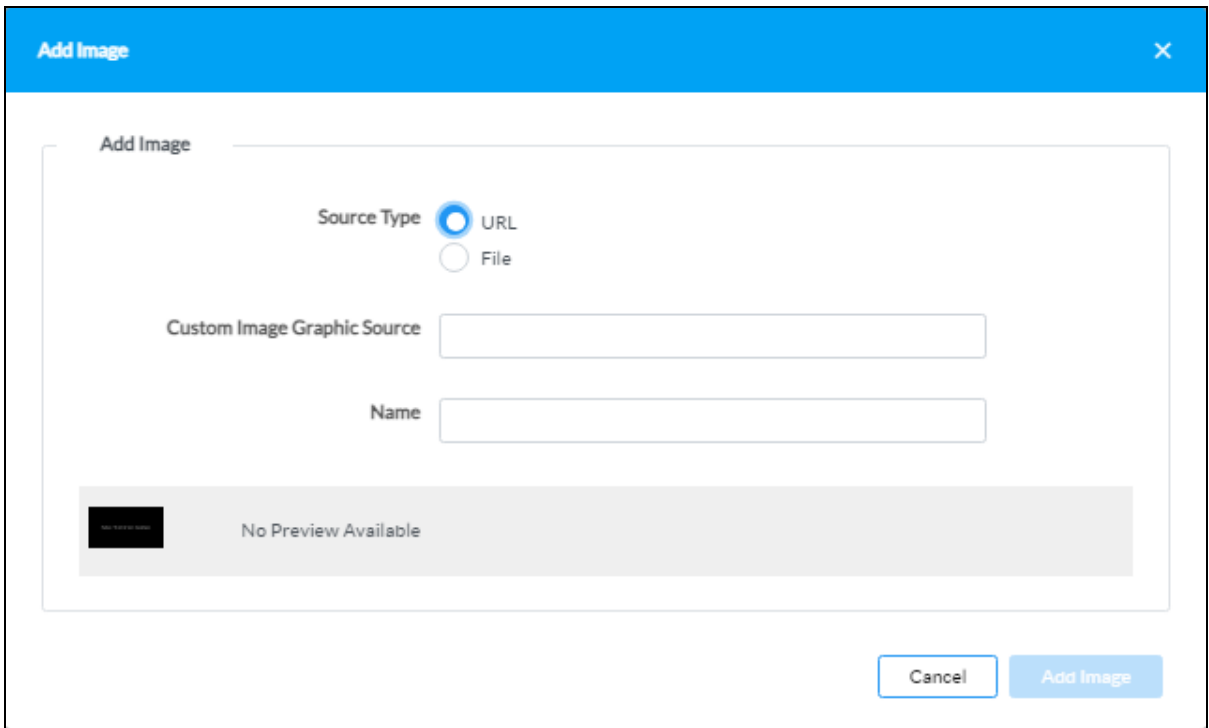
Drop-Down Menu with Add Image Option





The **Image File Upload** dialog box is displayed.

#### Image File Upload Dialog Box



2. Select **URL** for **Source Type**.
3. Enter the full URL of the image file on the remote server in the **Custom Image Graphic Source** text field. The filename, file size, and a thumbnail preview of the image are shown after the image file is selected.
4. Enter a name for the image file that will be displayed in XiO Cloud in the **Name** text field.
5. Select **Add Image**. Toast notifications are displayed when the add process starts and completes.

**NOTE:** Select the **x** button instead to discard the image file.

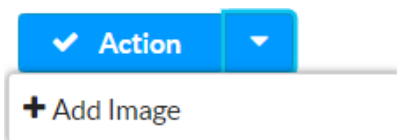
If the process is successful, the image file is added to the **Images** table.

## Add a Local Image File

To add a custom image file to XiO Cloud from a remote web server:

1. Select **Add Image** from the **Action** drop-down menu.

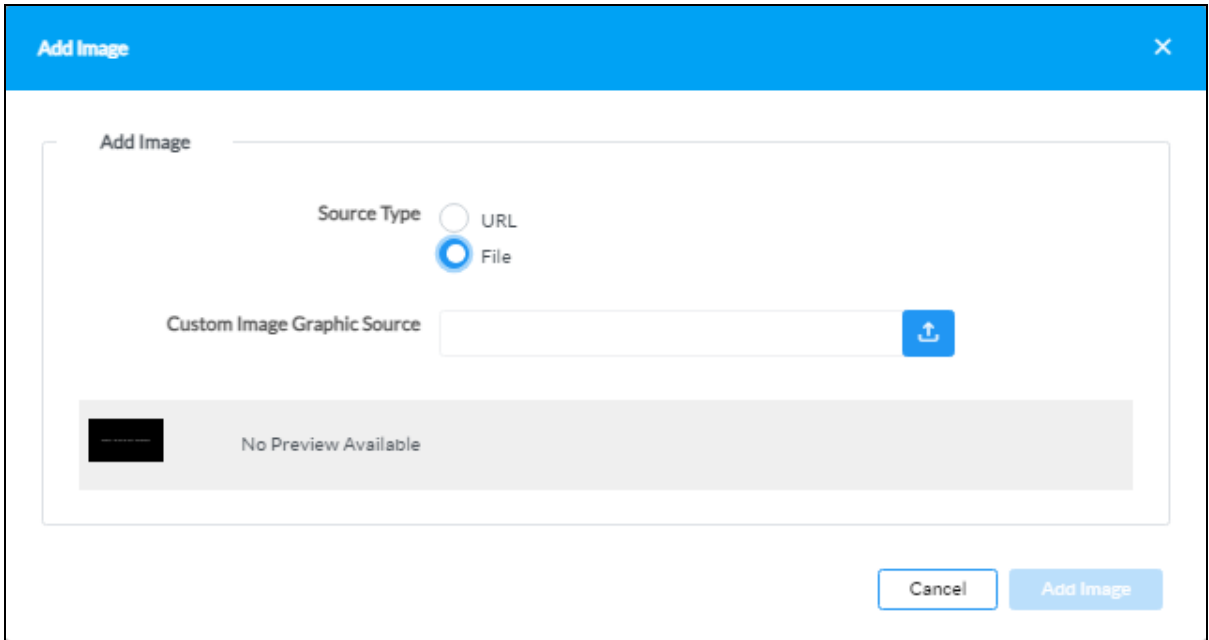
#### Drop-Down Menu with Add Image Option




The **Image File Upload** dialog box is displayed.

2. Select **File** for **Source Type**.

**Image File Upload Dialog Box - File Source Type**



3. Select the upload button  next to **Custom Image Graphic Source**, and then navigate to the image file on the computer.
4. Select the image file, and then select **Open**. The filename, file size, and a thumbnail preview of the image are shown after the image file is selected.
5. Select **Add Image**. Toast notifications are displayed when the add process starts and completes.

**NOTE:** Select the **x** button instead to discard the image file.

Upon successful upload, the image file is added to the **Images** table.

## Delete an Image File

To delete an image file from XiO Cloud:

1. Navigate to the file within the Images table.
2. Select **Delete** from the corresponding table row. A dialog box is displayed confirming the deletion.
3. Select **Yes** to delete the file.

# Load a Program to a Control System

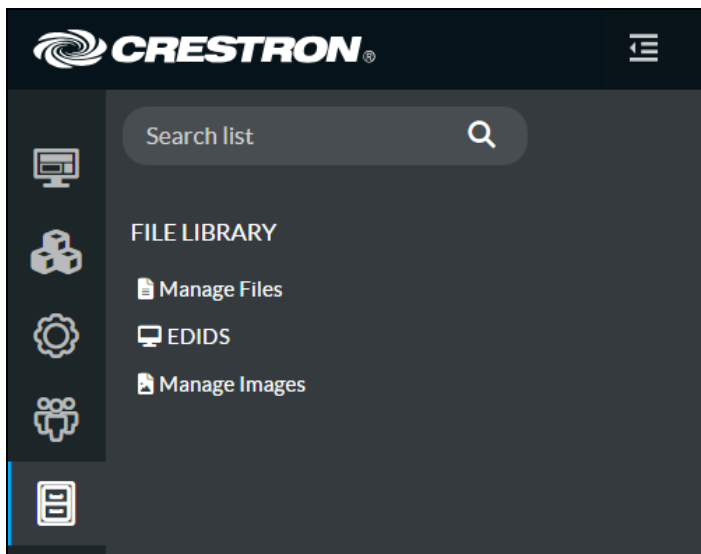
The XiO Cloud service provides controls for uploading a program file to a 3-Series® or 4-Series™ control system. Once a program has been uploaded to the XiO Cloud environment, it may be pushed to any number of control systems that have been claimed by the service.

## Upload a New Program

To upload a new program to the XiO Cloud environment:

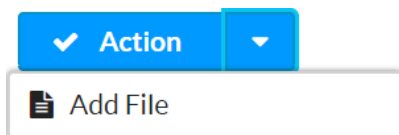
1. Select the **File Upload** button  in the navigation menu to display the **FILE LIBRARY** menu.

FILE LIBRARY Menu



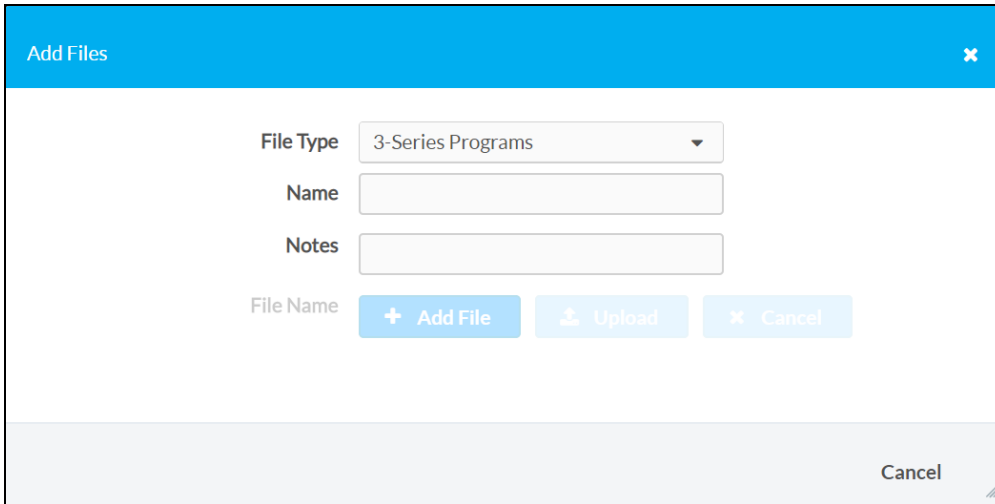
2. Select **Add File** from the **Action** drop-down menu.

Drop-Down Menu with Add File Option



The **Add Files** dialog box is displayed.

#### Add Files Dialog Box



3. Enter the following information about the program:

- **File Type:** Select **Control System Programs** from the drop-down menu
- **Name:** Enter a name for the program.
- **Notes:** Enter any notes about the program.

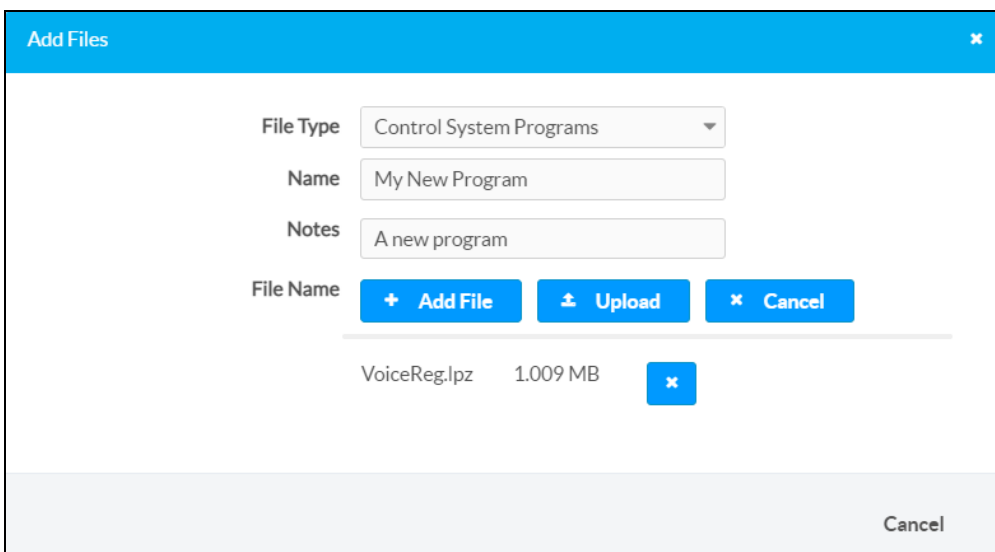
Once the information above is entered, the **+ Add File** button can be selected.

4. Select **+ Add File**, and then navigate to the program file on a connected computer.

5. Select the program file, and then select **Open**. The filename and file size of the program is shown after the program is selected.

**NOTE:** Select the **x** button to discard the program.

#### Add Files Dialog Box - Program Preview

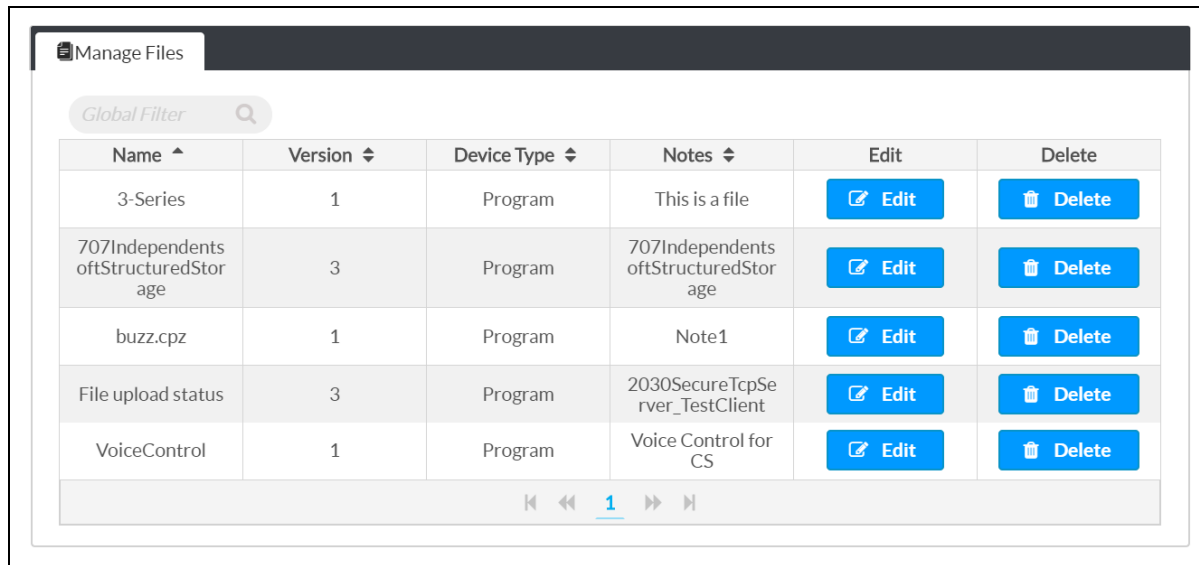












**NOTE:** Only compiled programs may be uploaded. The program code must be compiled with a minimum version of the include4.dat file to ensure full compatibility with XiO Cloud. For more information, refer to the respective programming tool help file.

6. Select **Upload**. A window showing the status of the upload is displayed.

Upon successful upload, the program file is added to the **Manage Files** table on the right side of the screen.

### Manage Files Table



| Name ^                              | Version ⇅ | Device Type ⇅ | Notes ⇅                             | Edit  | Delete   |
|-------------------------------------|-----------|---------------|-------------------------------------|---|--|
| 3-Series                            | 1         | Program       | This is a file                      |  Edit |  Delete |
| 707IndependentsoftStructuredStorage | 3         | Program       | 707IndependentsoftStructuredStorage |  Edit |  Delete |
| buzz.cpz                            | 1         | Program       | Note1                               |  Edit |  Delete |
| File upload status                  | 3         | Program       | 2030SecureTcpServer_TestClient      |  Edit |  Delete |
| VoiceControl                        | 1         | Program       | Voice Control for CS                |  Edit |  Delete |

« ‹ 1 › »

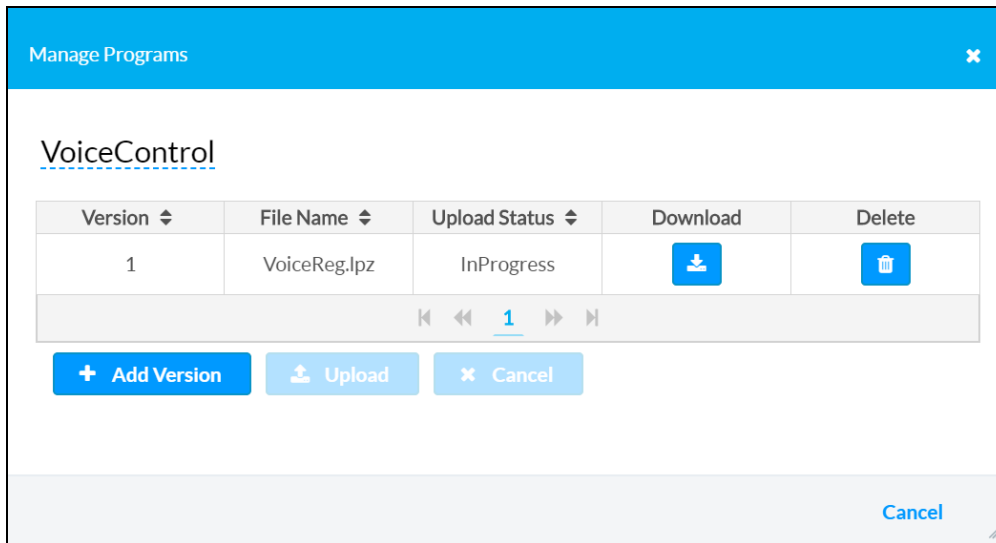
## Manage Programs

Use the **Manage Files** table to manage program files after they have been uploaded to the XiO Cloud environment.

# Edit a Program

Select **Edit** next to a program file to edit that program file. A **Manage Programs** dialog box is displayed.

## Manage Programs Dialog Box



The **Manage Programs** dialog box provides the following information about the program in table format:

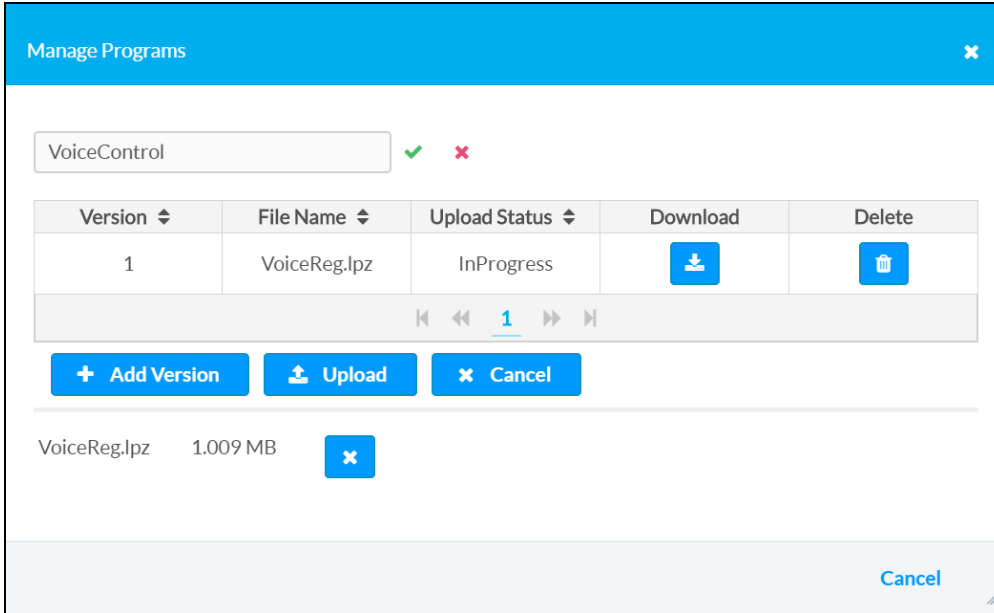
- The program version
- The program file name
- The status of the program upload
- Controls to download or delete the program file

To edit the program name, select the program name in the top left corner of the dialog box. The program name becomes an editable text box. Select the green check icon or press **Enter** to save the new program name. Select the red **x** icon to discard the changes.

To add a new version of the program file:

1. Select **+ Add Version**, and then select an updated version of the program from the host computer. The file name and file size of the program is shown after the program is selected. Select the **x** button to discard the program.

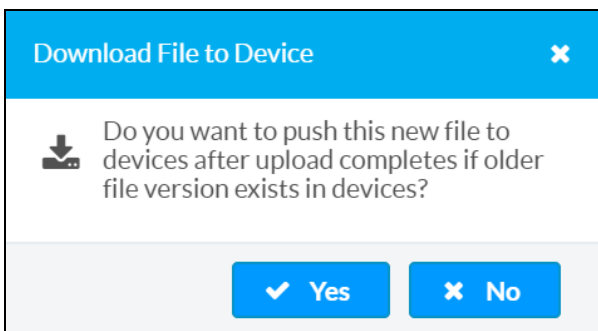
#### Manage Programs Dialog Box - Program Preview



2. Select **Upload**.

A message window is displayed asking whether the updated program file should be pushed to all devices running the older program file.

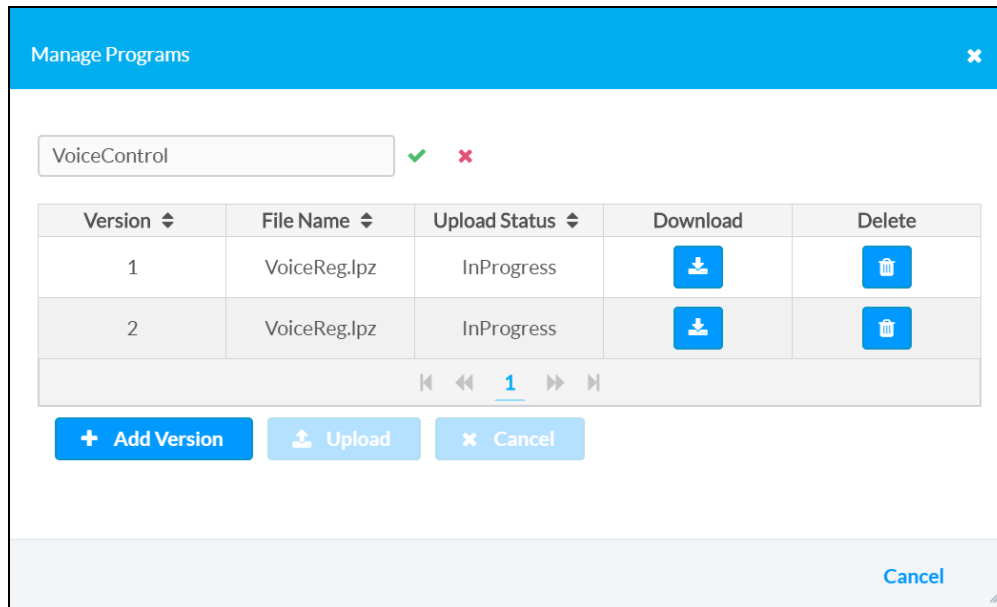
#### Download File to Device Window



3. Select **Yes** to push the program file to all applicable devices, or select **No** to upload the file without pushing the program to the devices.

Upon successful upload, the new program file is added to the **Manage Programs** table with the latest iteration of the version number. All previous versions of the program file are retained in this table unless they are deleted manually.

#### Manage Programs Dialog Box - New Program Version Uploaded



Select the **x** button or **Cancel** to exit the **Manage Programs** dialog box.

## Delete a Program

Select **Delete** next to a program file to delete that program file. A message window is displayed asking whether the program file should be deleted.


Select **Yes** to delete the program file or **No** to cancel the deletion.

**NOTE:** If multiple versions of a program file have been uploaded, all program file versions will be deleted.

## Load a Program to Device

Once a program is uploaded to the XiO Cloud environment, it may be loaded to any number of claimed 3-Series or 4-Series control systems within the environment.

To load a program to a control system:

1. Select the **Groups** button  on the left side of the screen.
2. Select the desired control system from the group tree to display its configuration page.



3. Select the **File Management** tab. A table showing all of the device's program slots is displayed.

#### File Management Tab

| Location ^ | File ⇅      | Version ⇅ | Status ⇅ | Actions   |
|------------|-------------|-----------|----------|-----------|
| Slot 1     | <<no file>> | 0         |          | Load File |
| Slot 2     | <<no file>> | 0         |          | Load File |
| Slot 3     | <<no file>> | 0         |          | Load File |
| Slot 4     | <<no file>> | 0         |          | Load File |
| Slot 5     | <<no file>> | 0         |          | Load File |
| Slot 6     | <<no file>> | 0         |          | Load File |
| Slot 7     | <<no file>> | 0         |          | Load File |
| Slot 8     | <<no file>> | 0         |          | Load File |
| Slot 9     | <<no file>> | 0         |          | Load File |
| Slot 10    | <<no file>> | 0         |          | Load File |

4. Select **Load File** next to the desired program slot. The **Download File** dialog box is displayed.

#### Download File Dialog Box

Download File

File Type: Program

File: 705CrestronWebScripting.cpz [V1

Cancel Update

5. Enter the following information about the program file:
  - **File Type:** Select **Program** from the drop-down menu.
  - **File:** Select the uploaded program file from the drop-down menu. The program version is displayed to the left of the program file name.
6. Select **Update**. The program file is pushed to the chosen program slot of the control system.

# Manage a Loaded Program

Use the **File Management** table to manage program files after they have been loaded to a 3-Series or 4-Series control system.

## File Management Tab

| Location ^ | File ↕                                  | Version ↕ | Status ↕   | Actions   |
|------------|---|-----------|------------|-----------|
| Slot 1     | 708IndependentsoftMsg.cpz               | 1         | Registered |           |
| Slot 2     | 2004SecureTcpClient.cpz                 | 1         | Registered |           |
| Slot 3     | 2000SQLiteDBTests.cpz                   | 2         | Registered |           |
| Slot 4     | 707IndependentsoftStructuredStorage.cpz | 1         | Registered |           |
| Slot 5     | 706CrestronSNMPTest.cpz                 | 1         | Registered |           |
| Slot 6     | <<no file>>                             | 0         |            | Load File |
| Slot 7     | <<no file>>                             | 0         |            | Load File |
| Slot 8     | <<no file>>                             | 0         |            | Load File |
| Slot 9     | <<no file>>                             | 0         |            | Load File |
| Slot 10    | 708IndependentsoftMsg.cpz               | 1         | Registered |           |

The **File Management** table displays the following information for each program slot:

- **Location:** The program slot of the control system
- **File:** The name of the program file loaded to the control system
- **Version:** The program file version

**NOTE:** The **Version** column for a loaded program will also note if a newer version of the program was loaded to XiO Cloud but has not yet been loaded to the device.

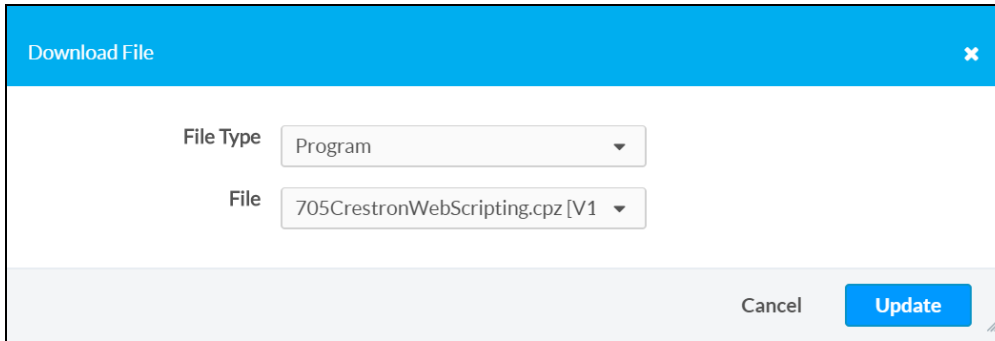
- **Status:** The registration status of the program file
- **Actions:** Controls to load a program file to the program slot or to manipulate a loaded program

## Edit a Loaded Program

Select the edit button next to a loaded program file in the **Actions** column to edit the program file.

The **Download File** dialog box is displayed.

#### Download File Dialog Box




The screenshot shows a dialog box titled "Download File" with a blue header and a close button (X) in the top right corner. The main area contains two dropdown menus. The first is labeled "File Type" and is set to "Program". The second is labeled "File" and is set to "705CrestronWebScripting.cpz [V1]". At the bottom right, there are two buttons: "Cancel" and "Update".


The following program file information may be edited:

- **File Type:** Use the drop-down menu to select the file type (**Program**)
- **File:** Use the drop-down menu to select a program file to load to the program slot.


Once all changes have been made, select **Update**. The updated program file is pushed to the chosen program slot of the control system. Select **Cancel** to cancel any changes.

## Start/Stop a Loaded Program

Select the play button  next to a loaded program file in the **Actions** column to start the program file. A growl notification is displayed stating that the program start command has been sent to the control system, and that there may be a small delay before the program starts.

If a program is running, select the stop button  in the **Actions** column to stop the program. A growl notification is displayed stating that the program stop command has been sent to the control system, and that there may be a small delay before the program stops.

## Unregister a Loaded Program

Select the circular arrow button  next to a loaded program in the **Actions** column to unregister a program from the control system. A growl notification is displayed stating that the program unregister command has been sent to the control system, and that there may be a small delay before the program is unregistered.

# Remote Control

Remote control functionality allows the display of a supported user control device (such as TSW-60 series touch screens, TSW-70 series touch screens, Crestron Mercury® video conference systems series, Crestron Mercury X series, and Crestron Mercury Mini series) to be viewed and controlled within XiO Cloud. Users can control the user interface directly by clicking on the virtual display, which mirrors the touch controls on the physical device.

Remote control functionality supports any programs that can run on the user control device, including custom user projects, Crestron scheduling, and partner applications. Users also have full control of the capacitive hard buttons on the user interface (if present).

**NOTE:** Remote control requires an XiO Cloud Premium subscription.

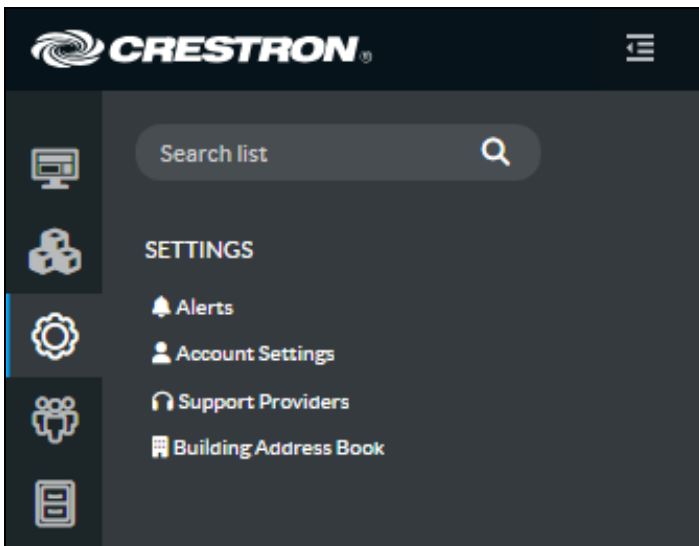
## Enable Remote Control

A global administrator must enable remote control for the XiO Cloud account before users can access the functionality.

To enable remote control for an account:

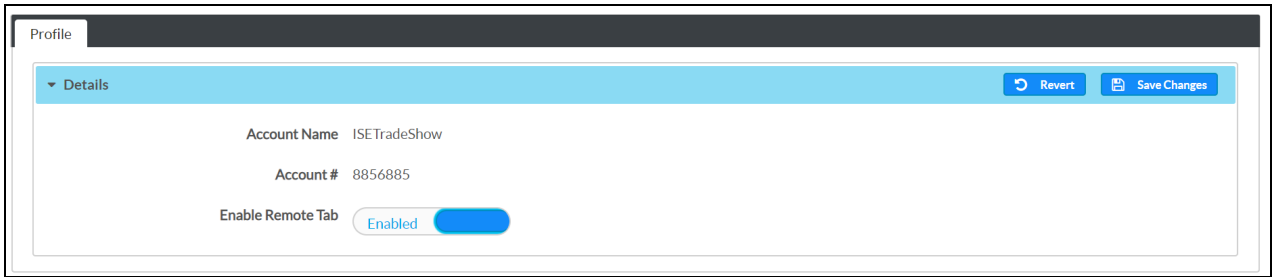
1. Select the gear icon  on the left side of the screen.
2. Select **Account Settings**.

### SETTINGS Menu



3. Within the **Profile** tab on the right side of the screen, turn on the **Enable Remote Tab** toggle.

#### Profile Tab



4. Tap **Save Changes** on the top right of the screen.

## Request Remote Control Access

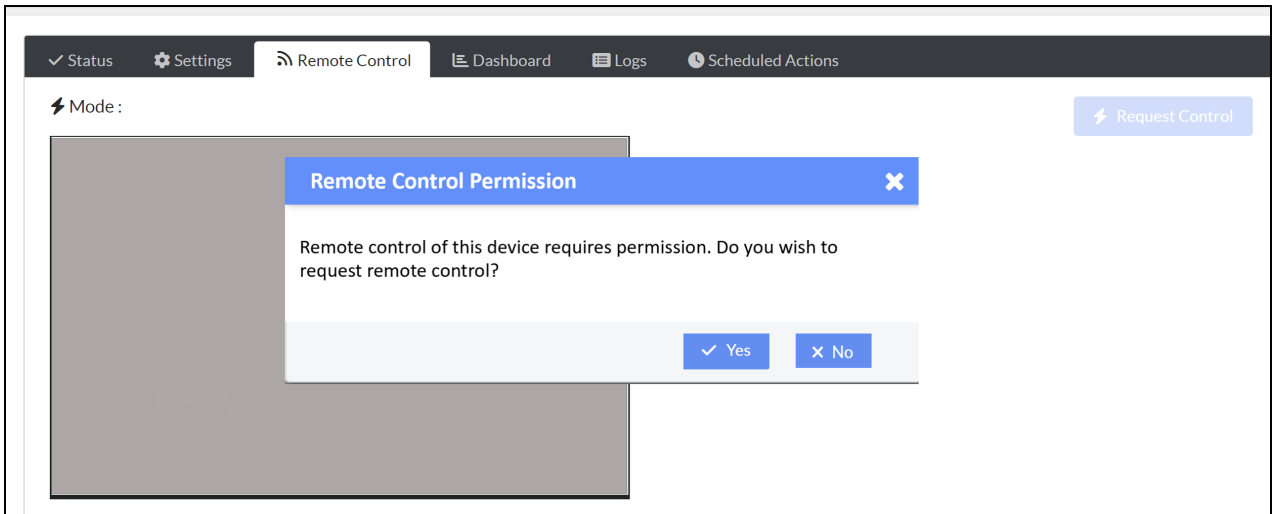
Certain device families (such as Crestron Flex phones) require a local user to approve the remote control request before access is granted. The following sections describe the procedures and work flows associated with requesting remote control access.

### Initiate a Request

To initiate a remote control request from XiO Cloud:

1. Navigate to the user control device that supports remote control functionality.
2. Select the **Remote Control** tab on the right side of the screen. A **Remote Control Permission** dialog box is displayed.

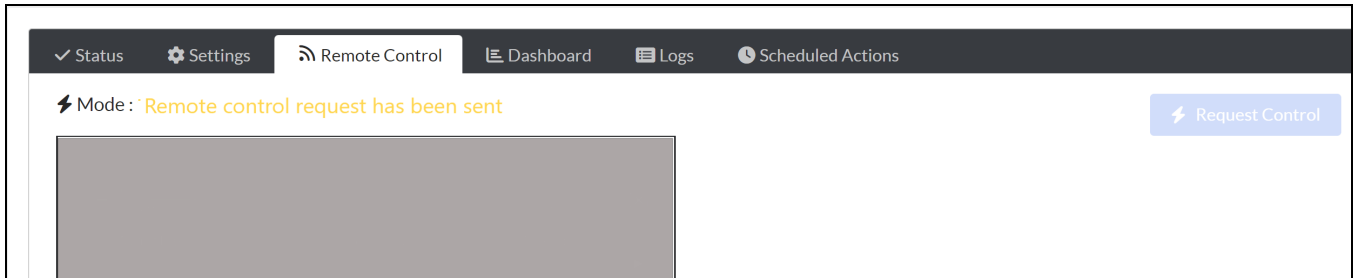
#### Remote Control Permission Dialog Box



3. Select **Yes** to initiate the remote control request. Selecting **No** closes the dialog box without sending the request, and the user must navigate back to the **Remote Control** tab to display the dialog box again.

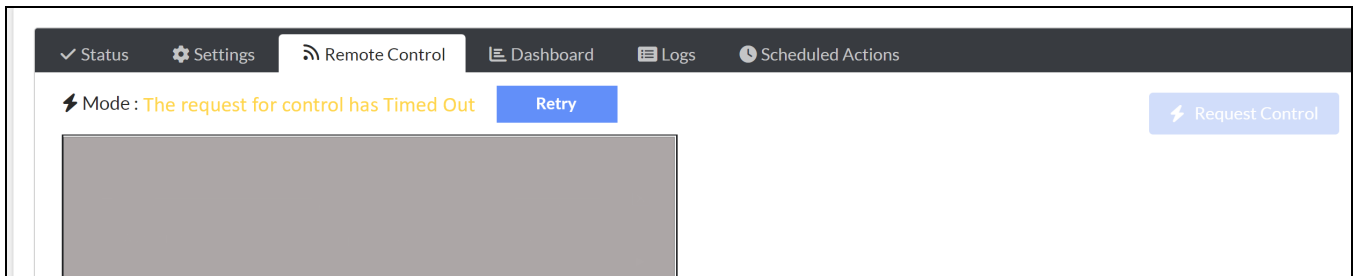
After initiating the request, the **Mode** status changes to **Remote control request has been sent**. The remote user must wait until a local user accepts or denies the request as described in [Accept or Decline the Request on page 163](#).

#### Remote control request has been sent Mode



If a local user does not respond to the remote request within 30 seconds, the **Mode** status changes to **The request for control has Timed Out**, and a **Retry** button is displayed next to the **Mode**. Select **Retry** to resend the remote control request. There is no limit to the number of retries that can be sent.

#### The request for control has Timed Out Mode

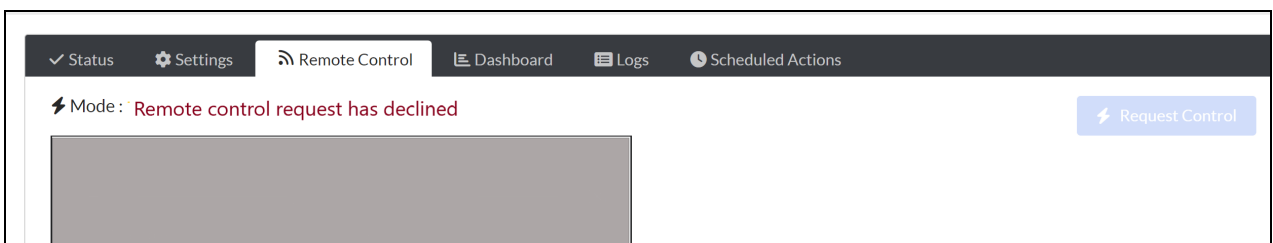


## Accept or Decline the Request

After a remote control request is initiated, the user control device prompts a local user to accept or decline the request via a pop-up window.

- If the local user accepts the request, the **Mode** status changes to **View**, and the **Request Control** button can be selected. Refer to [View a User Interface on page 164](#) and [Control a User Interface on page 165](#) for more information.
- If the local user declines the request, the **Mode** status changes to **Remote control request has declined**, and no remote control functionality is provided. The remote user can retry the remote control request as described in [Initiate a Request on page 162](#).

#### Remote control request has declined Mode



## End a Remote Control Session

The local user can end an active remote control session at any time by selecting **End Remote Support Session** on the user control device. The **Mode** status within XiO Cloud changes to **Remote control Session has ended**, and remote control functionality is no longer provided.

A remote control session times out after one hour. At that time, the local user is prompted to continue or end the session via a pop-up window on the user control device.

- If the local user selects **Continue**, the remote session continues without any interruption.
- If the local user selects **End**, the **Mode** status within XiO Cloud changes to **Remote control Session has ended**, and remote control functionality is no longer provided.
- If the local user does not respond to the prompt, the remote session times out and remote control functionality is no longer provided.

## View a User Interface

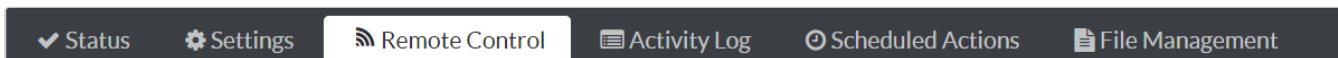
Users can view a connected user interface once remote control is enabled for the XiO Cloud account.

**NOTE:** To access user control devices within a group, users must have **Tech** access or above.

To view a connected user interface:

1. Navigate to the user control device that supports remote control functionality.
2. Select the **Remote Control** tab on the right side of the screen.
3. If prompted, initiate a remote control request as described in [Request Remote Control Access on page 162](#).

### Remote Control Tab

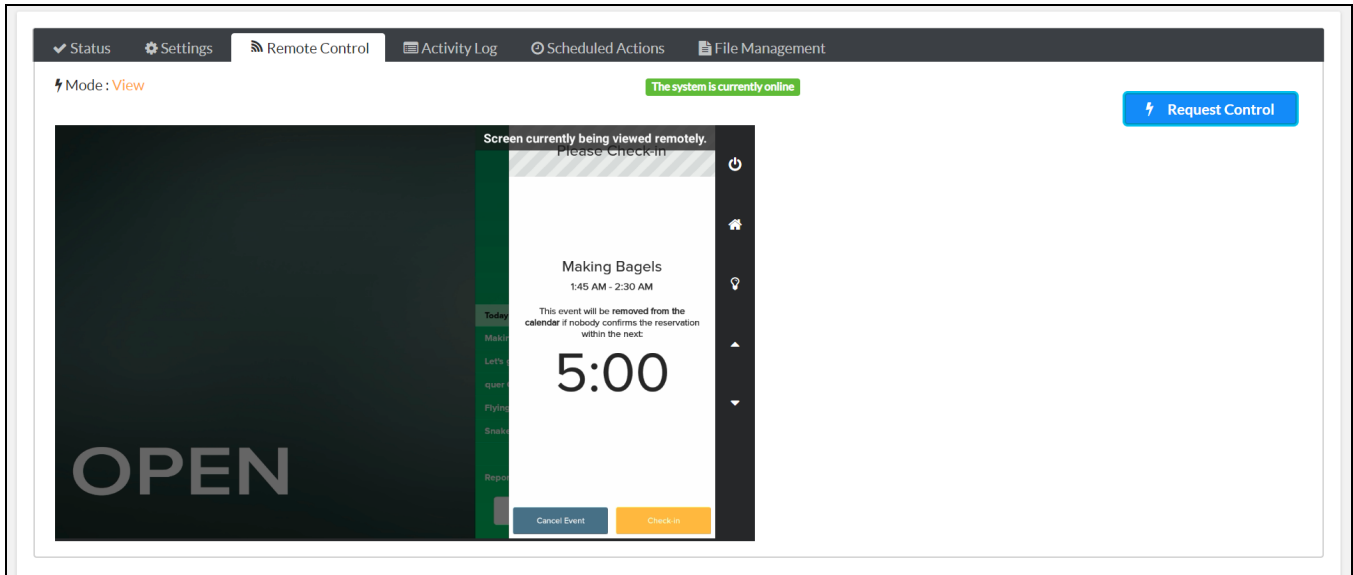


### NOTES:

- Remote control is available only on the device level.
- The **Remote Control** tab is shown only if the user control device has been upgraded to a firmware version that supports this functionality. The device firmware can be updated directly through XiO Cloud if necessary.

The content that is currently displayed on the user interface is shown as an image in the **Remote Control** tab.

### Remote Control Tab – User Interface (View Mode)



By default, the user interface is placed in **View** mode, which is indicated in the top left of the screen.

- The image of the remote user interface is updated approximately every five seconds.
- If the remote user interface is viewed for 15 minutes without any other activity occurring on the page, the image stops updating automatically. Refresh the page in the browser to resume viewing the user interface in real time.

## Control a User Interface

To take control of a user interface:

1. Navigate to the user control device that supports remote control functionality.
2. Select the **Remote Control** tab on the right side of the screen.
3. If prompted, initiate a remote control request as described in [Request Remote Control Access on page 162](#).
4. Select **Request Control** on the top right of the screen.

**NOTE:** Only one user can control a remote user interface at any time. If another user requests control, the current user controlling the display is placed back in **View** mode. Users controlling the physical user interface are not affected by remote usage.

Within a few seconds, the mode switches from **View** to **Control**, and the **Request Control** button changes to a **Release Control** button.

While in **Control** mode, select anywhere on the virtual user interface, including capacitive hard buttons (if present), to send a virtual touch command to the device.



**NOTE:** If the user control device is in standby mode, a black screen is displayed. Click the remote screen once to wake the user control device. Normal control can resume once the image updates to show the remote user interface.

To stop controlling the user control device, select **Release Control**. The user control device, returns to **View** mode.

## Privacy Considerations

Remote control functionality was designed with privacy considerations in mind.

- The remote control functionality must be enabled by a Global Administrator before it can be used.
- To access user interfaces within a group, users must have **Tech** access or above.
- Whenever a user is viewing or controlling the user interface remotely, a "Screen currently being viewed remotely" message is displayed on the physical device.
- The activity log is updated to record whenever a user starts and stops viewing or controlling a user interface.
- Remote control access can be disabled entirely on a user interface by issuing the `REMOTECONTROL DISABLE` console command in Crestron Toolbox™ software.
- No images from the user interface are stored on Crestron servers longer than is necessary to display them, and no images are accessible by Crestron staff.

# Enable API Access

Users with Global Administrator permissions can enable the XiO Cloud REST API functionality directly from the XiO Cloud portal.

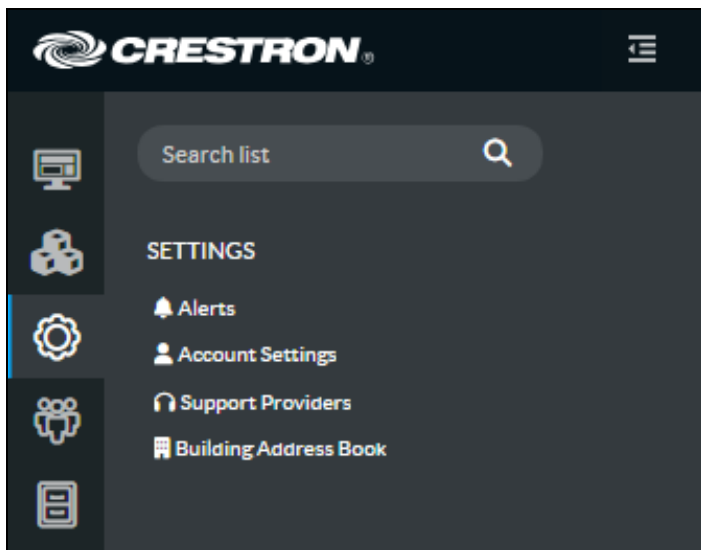
The XiO Cloud REST API binds to the XiO Cloud server as a new transport interface (much like a direct transport interface or a serial join interface). The REST API layer provides a translation from the XiO Cloud server. Web server requests are stateless, and all stateful information is maintained between the XiO Cloud REST API layer and account, group, and device data. For more information, refer to the XiO Cloud Service API microsite at <https://developer.crestron.com>.

**NOTE:** Certain API functions (including claiming third-party devices and viewing current and historical data for devices, rooms, and desks) require an XiO Cloud Premium subscription.

To enable API access from the portal:

1. Select the gear icon  on the left side of the screen.
2. Select **Account Settings**.

## SETTINGS Menu






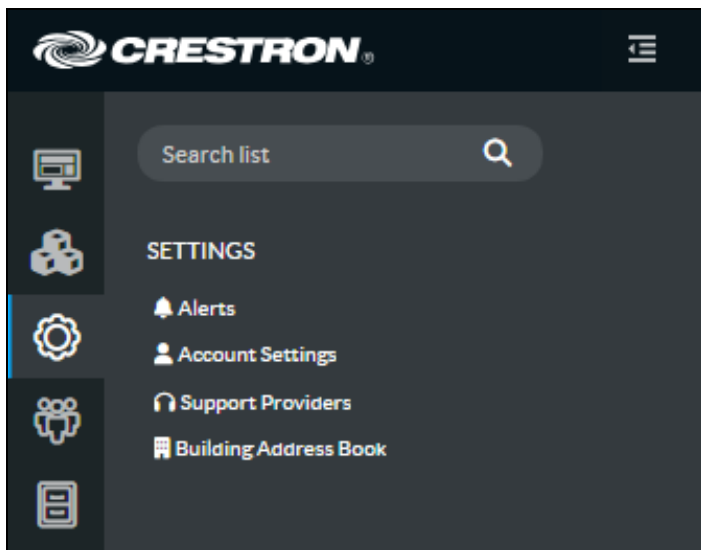
# Manage Support Providers

The **Support Providers** feature allows customers to grant account access to Authorized Resellers and Crestron Service Providers (together, Authorized Support Providers). Once a support provider is granted access, the provider can view and manage the account as specified by the Global Administrator in the customer account. Customers can revoke a support provider's access to their account at any time.

**NOTE:** Support providers must create an XiO Cloud Management Portal account to access customer accounts as described in the [XiO Cloud Management Portal User Guide](#). Once the customer grants a support provider access to their account, portal account users that have been authorized to access the account will be added automatically as **Standard Users** with **Viewer** permissions. These permissions can be elevated by the customer Global Administrator as described in [Manage User Access on page 106](#).

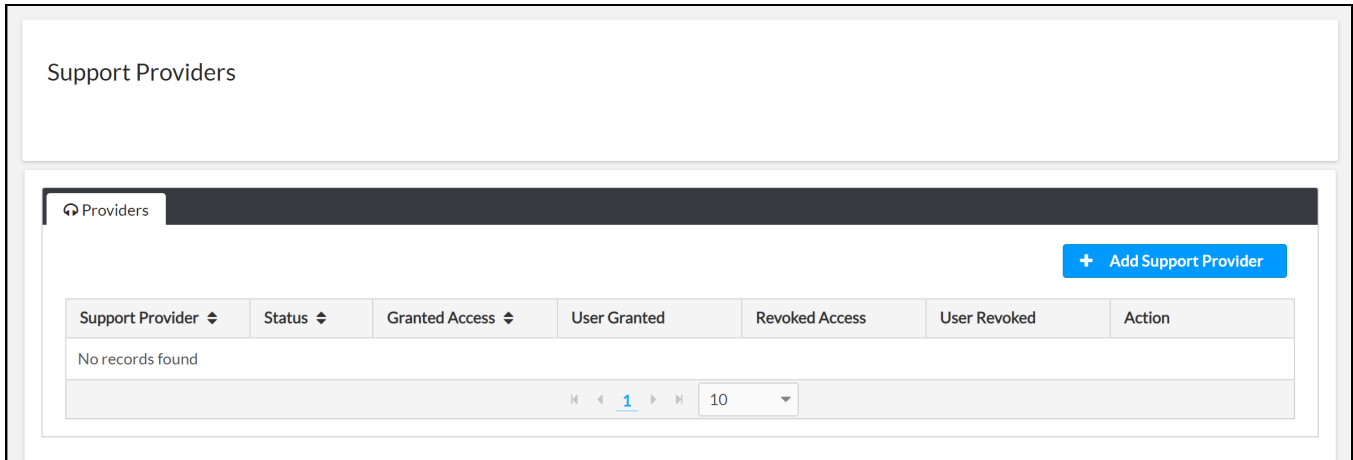
The **SETTINGS** menu for managing support providers is located in the user management panel, which may be accessed by clicking the **Settings** button  in the navigation menu.

## Settings – Support Providers Option



Select **Support Providers** in the **SETTINGS** menu. A **Support Providers** page is displayed to the right of the **SETTINGS** menu.

### Support Providers Page



Support providers are organized by name and displayed within a table. Support provider access can be granted or revoked using the functions in this page.

## Add a Support Provider

To add a new support provider to the customer account:

1. Select **+ Add Support Provider** at the top right of the page. The **Add Support Provider** dialog box is displayed.

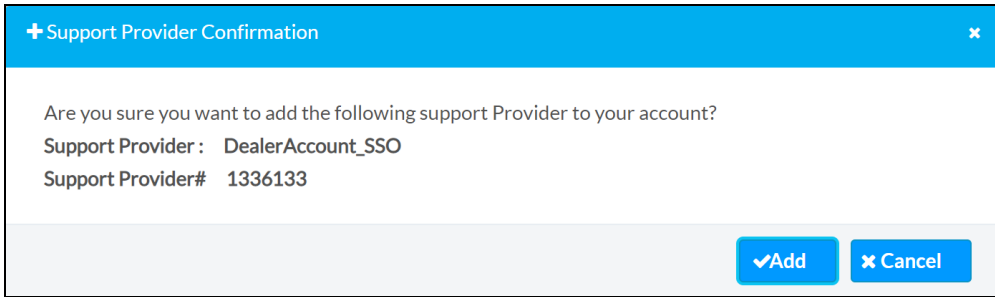
### Add Support Provider Dialog Box

The screenshot shows the 'Add Support Provider' dialog box. It has a blue header bar with the text '+ Add Support Provider' and a close button (x). Below the header is a text input field labeled 'Support Provider#'. At the bottom of the dialog box, there are two buttons: a light blue 'Add' button and a blue 'Cancel' button.

2. Enter a valid seven-digit support provider ID into the **Support Provider#** text field. This number will be provided by your Authorized Support Provider.

3. Select **Add**. A **Support Provider Confirmation** dialog box is displayed to confirm whether the support provider should be added.

#### Support Provider Confirmation Dialog Box



4. Select **Add**. The support provider is added to the table within the **Support Providers** page.

## Manage Support Providers

Once support providers have been added as described in [Add a Support Provider on page 170](#), they can be managed using the provided table.

#### Support Providers Table

| Support Provider ↕              | Status ↕ | Granted Access ↕ | User Granted              | Revoked Access | User Revoked              | Action     |
|---------------------------------|----------|------------------|---------------------------|----------------|---------------------------|------------|
| DealerAccount_SSO               | Active   | 6/16/21          | RoomGroup14 Premiu<br>m14 | -              | -                         | Revoke     |
| DealerAccount_SSO2              | Revoked  | 6/16/21          | Dearler User1             | 6/16/21        | RoomGroup14 Premiu<br>m14 | Reactivate |
| ALVA SOFTWARE                   | Revoked  | 6/16/21          | Dearler User1             | 6/16/21        | RoomGroup14 Premiu<br>m14 | Reactivate |
| CREATIVE TECHNOL<br>OGY-CHICAGO | Revoked  | 6/16/21          | RoomGroup14 Premiu<br>m14 | 6/16/21        | RoomGroup14 Premiu<br>m14 | Reactivate |

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If the support provider table spans multiple pages, use the navigation arrows on the bottom of the page to move forward or backward through the pages, or select a page number to navigate to that page. Certain columns also provide arrow controls in the heading row that sorts the table by the data in those columns.

The following information and controls are provided for each listed room:

- **Support Provider:** The name of the Authorized Support Provider account.
- **Status:** The status of the Authorized Support Provider account within the customer account.
  - **Active:** Indicates that the Authorized Support Provider is currently authorized to access the customer account.
  - **Revoked:** Indicates that access to the customer account for the Authorized Support Provider has been revoked.

- **Granted Access:** The date when the Authorized Support Provider was granted access to the customer account.
- **User Granted:** The customer account user that granted account access to the Authorized Support Provider.
- **Revoked Access:** The date when the Authorized Support Provider's access to the customer account was revoked (if applicable).
- **User Revoked:** The customer account user that revoked account access from the Authorized Support Provider.
- **Action:** Provides an action button based on the Authorized Support Provider account status:
- **Revoke:** If the Authorized Support Provider has been granted access to the customer account, select **Revoke** to revoke their access to the customer account.
- **Reactivate:** If the Authorized Support Provider's customer account access has been revoked, select **Reactivate** to reactive their access to the customer account.

# FAQs

This topic provides answers to frequently asked questions regarding the XiO Cloud service.

## What is the XiO Cloud service?

The XiO Cloud service is a device management software as a service (SaaS). The XiO Cloud service allows all supported Crestron devices and certain supported third-party devices across an enterprise to be managed and configured from one central, secure location in the cloud. The XiO Cloud service may be used to view the status of a device, to configure various device and network settings, to manage licenses, and to update device firmware. After enrolling in the service, the XiO Cloud portal can be accessed at [portal.crestron.io](http://portal.crestron.io).

**NOTE:** Third-party device support requires an XiO Cloud Premium subscription.

For more details and additional resources, refer to <https://www.crestron.com/xiocloud>.

## What devices are supported by the XiO Cloud service?

For a list of supported Crestron devices, refer to the **Specifications** tab on any of the [XiO Cloud product pages](#) at [www.crestron.com](http://www.crestron.com).

## What minimum device firmware versions are required to connect to the XiO Cloud service?

The following table provides minimum firmware versions that must be running on a supported device in order for the device to connect to the XiO Cloud service.

**NOTE:** If a supported device is not listed in the table below, then it does not have a minimum firmware version that is required to connect to the XiO Cloud service.

| Model(s)   | Firmware Versions |
|--|-------------------|
| AV3, CP3, CP3N, DIN-AP3, DIN-AP3MEX, FT-TS600, FT-TSC600, MC3, MPC3-101, MPC3-102, MPC3-201, MPC3-302, PRO3, RMC3, TSCW-730  | 1.8001.0176       |
| DM-MD8X8-CPU3, DM-MD8X8-CPU3-RPS, DM-MD16X16-CPU3, DM-MD16X16-CPU3-RPS, DM-MD32X32-CPU3, DM-MD32X32-CPU3-RPS, DMPS3-200-C, DMPS3-300-C, DMPS3-300-C-AEC, DMPS3-4K-50, DMPS3-4K-100-C, DMPS3-4K-150-C, DMPS3-4K-200-C, DMPS3-4K-250-C, DMPS3-4K-300-C, DMPS3-4K-350-C | 1.603.0112        |
| TSS-7, TSS-10, TSW-560, TSW-560P, TSW-760, TSW-1060  | 2.009.0121        |
| DGE-100, DM-DGE-200-C, TS-1542, TS-1542-C  | 1.4662.00000.000  |



| Model(s)  | Firmware Versions  |
|---|--|
| CCS-UC-1 W/PS, CCS-UC-1-AV W/PS, CCS-UC-1-X, UC-M50-U, UC-M50-UA, UC-M70-U, UC-M70-UA, UC-MX50-U, UC-MX70-U                       | 1.4395.00025.001   |
| AM-200, AM-300  | 1.4493.00039.003   |
| DM-NVX-350, DM-NVX-350C, DM-NVX-351, DM-NVX-351C, DM-NVX-352, DM-NVX-352C, DM-NVX-D30, DM-NVX-D30C, DM-NVX-E30, DM-NVX-E30C       | 5.1.4651.00031   |
| AMP-2000, AMP-4000, AMP-4600, AMP-8000, AMP-8075, AMPI-8075, AMP-8150, AMPI-8150, DSP-860, DSP-1280, DSP-1281, DSP-1282, DSP-1283 | 1.00.380.002   |
| CEN-ODT-C-POE   | 1.001.0063   |
| AV4, CP4, CP4N, DIN-AP4, MC4, MC4-I, PRO4, RMC4   | 2.7000.00083   |
| UC-ENGINE, UC-ENGINE-SD, UC-ENGINE-SD-Z   | 1.00.16.885 or 1.00.17.185   |
|   | The minimum firmware version is dependent on the UC-ENGINE hardware. XiO Cloud and the device will select the correct version automatically. |
| HD-RX-4K-410-C-E, HD-RX-4K-410-C-E-SW4, HD-RX-4K-510-C-E, HD-RX-4K-510-C-E-SW4  | 1.0.4365.16200   |

### What XiO Cloud features are supported by Crestron devices?

All Crestron devices that can be claimed into the XiO Cloud service support the following features at minimum:

- Online status
- Network settings
- Firmware updates
- Remote restart
- Crestron Fusion® service provisioning (enable/disable and cloudurl)
- Log file retrieval

Certain Crestron devices support additional XiO Cloud features. These additional features are implemented either when the device support is initially released or during a future update to the XiO Cloud service.

### Which takes precedence: local settings made on the device, or settings made within the XiO Cloud service?

Settings enforced in the XiO Cloud service always take precedence to local settings. If a local setting is changed, it will report its new value to the XiO Cloud service, and the device will indicate that changes to its settings are pending. Refresh the device within XiO Cloud to see its updated settings.

### How do I determine if the XiO Cloud service is down?

Refer to [Crestron Online Help article 5894](#) for the current status of the XiO Cloud service. Subscribe to this article to get updates on any status changes.

### Does the XiO Cloud service support single sign-on (SSO) solutions?

The XiO Cloud service supports both SAML and OpenID Connect for SSO, which are supported by all major identity providers including the Azure® Active Directory® service.

For more information on integrating SSO with XiO Cloud via Azure Active Directory, refer to [www.crestron.com/News/Blog/April-2020/SSO-for-XiO-Cloud-using-Azure-AD](http://www.crestron.com/News/Blog/April-2020/SSO-for-XiO-Cloud-using-Azure-AD).

### What device ports are required to connect to the XiO Cloud service?

Devices communicate to the XiO Cloud service over TCP using port 443 (AMQP over WebSockets).

### What IP addresses are used for the XiO Cloud service?

The XiO Cloud service is located within Azure's US East and West datacenters. The current list of datacenter IP addresses is available at [www.microsoft.com/en-us/download/confirmation.aspx?id=56519](http://www.microsoft.com/en-us/download/confirmation.aspx?id=56519).

For more information on the URLs and IP addresses used by the XiO Cloud service, refer to the [XiO Cloud Service Security Reference Guide](#).

### How do I check that a device is registered with the XiO Cloud service?

To check that a device is registered with the XiO Cloud service, issue the `hydrogenstatus` command to the device using the **Text Console** tool in Crestron Toolbox™ software.

A sample response is shown below indicating that the device is registered to the XiO Cloud service but not claimed.

```
MERCURY>HYDROGENSTATUS
HydrogenUrl: https://fc.crestron.io/api/device/create
This unit is online with Hydrogen
IoT Hub Url: prd-use-iothub.azure-devices.net
Last IOT connect Time: 02/08/2018 15:43:02
Hydrogen device state: REGISTRATION_SUCCESSFUL
HttpsRegistrationRetryInterval (sec): 300
IoTHeartbeatInterval (sec): 300
Empty Callback from CPH count: 0
CresNextReceiveThread: waiting on queue...
```

## How to I disable a Crestron Fusion in the Cloud (FITC) connection?

The Crestron Fusion Cloud URL must be changed to the myCrestron URL (<https://api.my.crestron.com/api/Registration>) prior to disabling the FITC connection. This is required when moving a device from a Crestron Fusion Cloud server to an on-premises Crestron Fusion server.

## What countries currently support SMS alerts for the XiO Cloud service?

SMS (short message service) for XiO Cloud alerts is not currently supported in all countries. The following countries are supported at this time:

- American Samoa
- Anguilla
- Antigua
- Australia
- Barbuda
- Bahamas
- Barbados
- Belgium
- Bermuda
- Canada
- Cayman Islands
- Dominica
- Dominican Republic
- Ireland
- Grenada
- Grenadines
- Guam
- India
- Israel
- Jamaica
- Montserrat
- Myanmar
- North Mariana Islands
- Puerto Rico
- Sweden
- Trinidad
- Turks
- United Kingdom
- United States of America
- Virgin Islands

To inquire about SMS support for a country that is not currently listed, contact Crestron.

### **Can I turn off automatic firmware updates in XiO Cloud?**

The automatic update feature cannot be turned off by the XiO Cloud service. Unlike the auto update mechanism that is configured out of the box for individual devices, XiO Cloud firmware updates use a different manifest location that includes only the firmware version that has been applied to a device. A device managed through XiO Cloud uses the auto update feature to ensure it is running the firmware applied from XiO Cloud.

### **How does XiO Cloud determine whether a device is offline?**

Prior to XiO Cloud version 1.59:

- Devices send a heartbeat to XiO Cloud every 8 minutes (480 seconds).
- XiO Cloud sends a response back to the device for every third heartbeat. If the device does not receive this response after the third heartbeat, it is marked offline in XiO Cloud.

As of XiO Cloud version 1.59:

- If a device is disconnected from IoT Hub, XiO Cloud waits five minutes before attempting to ping the device three times. If the device does not respond to any of these pings, XiO Cloud marks the device as offline. If the device responds to any of these pings, it maintains its online status.
- Devices send a heartbeat to XiO Cloud every 60 minutes (3600 seconds).

Devices will not automatically switch over to the new offline detection method after XiO Cloud version 1.59 is released. The device must be disconnected from XiO Cloud and then reconnected (or restarted) for the change to take affect.

# Troubleshooting

This topic provides troubleshooting procedures for various issues that may occur when using the XiO Cloud® service.

| Issue  | Solution(s)   |
|--|---|
| A device reports that it is registered with the XiO Cloud service but is reporting as offline within the service.  | Ensure that the date and time settings on the device are correct. Incorrect date and time settings can cause the device to report as offline.   |
| The device goes offline after roughly 12 hours.  | Ensure that the date and time settings on the device are correct. Incorrect date and time settings can cause the device to report as offline.<br><br>Additionally, if the device is connected to a control system, check that the time and time zone settings on the control system are correct.  |
| Conflicts occur when attempting to schedule actions for a device.  | Stagger the times for scheduled actions to ensure there are no conflicts with delivery.   |
| A change to device settings from XiO Cloud is rejected by the device.  | Ensure there are no IP ID conflicts within your system. IP IDs must be unique across systems.<br><br>For example, if you are adding a Crestron Connected® Display at IP ID 03 to a system that is configured to use Crestron Fusion® software at IP ID 03, the settings will be rejected by the device due to the IP ID conflict.                                       |
| Errors are received when attempting to claim a device to the XiO Cloud service.                                    | Ensure that the device is connected to the network and has internet access. After connecting the device, wait a few minutes until the device has been registered.<br><br>Issue the <code>hydrogenstatus</code> command to the device using the <b>Text Console</b> tool in Crestron Toolbox™ software to ensure the device is able to connect to the XiO Cloud service. |
| The device reports as connected but the settings in XiO Cloud are different than the local settings on the device. | Select <b>Refresh Device</b> from the <b>Action</b> drop-down menu to refresh the device connection.  |
| The device is showing pending settings even though it is reporting as connected.                                   | Select <b>Refresh Device</b> from the <b>Action</b> drop-down menu to refresh the device connection.  |

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| Issue  | Solution(s)  |
|--|--|
| Settings changed from XiO Cloud are not applied on the device. | <p data-bbox="829 205 1422 331">Pushing settings while a firmware update is in progress on a device (not scheduled, but actively in progress on a device) may result in the settings not being applied to the device.</p> <p data-bbox="829 373 1422 432">To resolve, select <b>Refresh Device</b> from the <b>Action</b> drop-down menu to refresh the device connection.</p> |
| A firmware upgrade fails to start.                             | <p data-bbox="829 457 1422 550">Applying settings may cause a firmware upgrade to not start if the settings are saved around the same time that the upgrade begins.</p> <p data-bbox="829 592 1308 617">To resolve, restart the firmware upgrade.</p>  |

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# Works with XiO Cloud

The XiO Cloud® service is designed to work with many Crestron® and third-party products.

**NOTE:** Third-party device support requires an XiO Cloud Premium subscription.

The following device types work with XiO Cloud:

- [Audio on page 181](#)
- [Conferencing on page 182](#)
- [Connectivity on page 191](#)
- [Control on page 192](#)
- [Intelligent Video on page 194](#)
- [Lighting and Environmental on page 195](#)
- [Power on page 196](#)
- [Scheduling on page 197](#)
- [Sensors on page 198](#)
- [Third-Party Devices on page 199](#)
- [Touch Screens on page 200](#)
- [Video on page 202](#)

# Audio

The following audio solutions are supported by the XiO Cloud® service.

## Amplifiers

- [AMP-2800](#): 2-Channel Power Amplifier, 800 W/Ch, Discontinued
- [AMP-4600](#): 4-Channel Power Amplifier, 600 W/Ch
- [AMP-8075](#): 8-Channel Power Amplifier, 75 W/Ch, 4/8 Ω or 70V, North America and Japan, 100–120V, Discontinued
- [AMPI-8075](#): 8-Channel Power Amplifier, 75 W/Ch, 4/8 Ω or 70V, International, 220–240V, Discontinued
- [AMP-8150](#): 8-Channel Power Amplifier, 150 W/Ch, 4/8 Ω or 70V, North America and Japan, 100–120V
- [AMPI-8150](#): 8-Channel Power Amplifier, 150 W/Ch, 4/8 Ω or 70V, International, 220–240V
- [AMP-X300](#): X-Series Amplifier, 300 W

## Digital Signal Processors

- [DSP-860](#): Crestron Avia® 8x6 Digital Signal Processor
- [DSP-1280](#): Crestron Avia® 12x8 Digital Signal Processor
- [DSP-1281](#): Crestron Avia® 12x8 Digital Signal Processor with Dante® Audio Networking
- [DSP-1282](#): Crestron Avia® 12x8 Digital Signal Processor with USB Audio, AEC, and Audio Conferencing Interface, Discontinued
- [DSP-1283](#): Crestron Avia® 12x8 Digital Signal Processor with Dante® Audio Networking, USB Audio, AEC, and Audio Conferencing Interface, Discontinued

## Multiroom Audio Accessories

- [DM-NAX-2XLRI-1G](#): DM NAX® Audio-over-IP Wall Plate with XLR, Black, 1-Gang
- [DM-NAX-AUD-IO](#): DM NAX® Audio-over-IP Converter with Balanced/Unbalanced Line-Level Audio Input and Output
- [DM-NAX-AUD-USB](#): DM NAX® Audio-over-IP Converter with USB-C® Audio Input and Output
- [DM-NAX-BTIO-1G](#): DM NAX® Audio-over-IP Wall Plate with Bluetooth® Audio Support, Analog Audio Input and Output, 1-Gang
- [DM-NAX-XSP](#): DM NAX® 8K Smart Display Controller and Network Audio Encoder/Decoder with eARC Support



# Conferencing

The following conferencing solutions are supported by the XiO Cloud® service.

## AirMedia Wireless Presentation and Conferencing

- [AM-200](#): AirMedia® Presentation System 200, Discontinued
- [AM-300](#): AirMedia® Presentation System 300, Discontinued
- [AM-3000-WF](#): AirMedia® Receiver 3000 with Wi-Fi® Network Connectivity
- [AM-3000-WF-I](#): AirMedia® Receiver 3100 with Wi-Fi® Network Connectivity, International
- [AM-3100-WF](#): AirMedia® Series 3 Receiver 100 with Wi-Fi® Connectivity
- [AM-3100-WF-I](#): AirMedia® Series 3 Receiver 100 with Wi-Fi® Connectivity, International
- [AM-3200](#): AirMedia® Series 3 Receiver 200
- [AM-3200-GV](#): AirMedia® Series 3 Receiver 200, Government Version
- [AM-3200-WF](#): AirMedia® Series 3 Receiver 200 with Wi-Fi® Connectivity
- [AM-3200-WF-I](#): AirMedia® Series 3 Receiver 200 with Wi-Fi® Connectivity, International
- [AM-TX3-100](#): AirMedia® Series 3 Connect Adapter
- [AM-TX3-100-I](#): AirMedia® Series 3 Connect Adapter, International

## Crestron Flex Solutions

The following Crestron Flex solutions are supported by the XiO Cloud® service.

### All-In-One Bars

- [UC-B70-A-T](#): Crestron Flex Large Room Conference Solution with All-In-One Videobar 70 for Microsoft Teams® Software
- [UC-B70-A-T-I](#): Crestron Flex Large Room Conference Solution with All-In-One Videobar 70 for Microsoft Teams® Software, International
- [UC-B70-A-Z](#): Crestron Flex Large Room Conference Solution with All-In-One Videobar 70 for Zoom Rooms® Software
- [UC-B70-A-Z-I](#): Crestron Flex Large Room Conference Solution with All-In-One Videobar 70 for Zoom Rooms® Software, International

### Crestron Flex Kits

**NOTE:** The individual devices that can be connected to the XiO Cloud service vary by Crestron Flex kit. Refer to the documentation for your Crestron Flex kit for more information about which devices can be connected to the XiO Cloud service.

- [UC-B30-T](#): Crestron Flex Small Room Conference System with Video Soundbar for Microsoft Teams® Rooms

- [UC-B30-T-GV](#): Crestron Flex Small Room Conference System with Video Soundbar for Microsoft Teams® Rooms, Government Version
- [UC-B30-T-L](#): Crestron Flex Small Room Conference System with Video Soundbar and Lenovo® M920Q ThinkSmart™ Edition Tiny for Microsoft Teams® Rooms, Discontinued
- [UC-B30-T-L-WM](#): Crestron Flex Small Room Conference System with Video Soundbar, Wall Mounted Control Interface, and Lenovo® M920Q ThinkSmart™ Edition Tiny for Microsoft Teams® Rooms, Discontinued
- [UC-B30-T-WM](#): Crestron Flex Small Room Conference System with Video Soundbar and Wall Mounted Control Interface for Microsoft Teams® Rooms
- [UC-B30-Z](#): Crestron Flex Small Room Conference System with Video Soundbar for Zoom Rooms® Software
- [UC-B30-Z-L](#): Crestron Flex Small Room Conference System with Video Soundbar and Lenovo® M920Q ThinkSmart™ Edition Tiny for Zoom Rooms® Software, Discontinued
- [UC-B30-Z-L-WM](#): Crestron Flex Small Room Conference System with Video Soundbar, Wall Mounted Control Interface, and Lenovo® M920Q ThinkSmart™ Edition Tiny for Zoom Rooms® Software, Discontinued
- [UC-B30-Z-WM](#): Crestron Flex Small Room Conference System with Video Soundbar and Wall Mounted Control Interface for Zoom Rooms® Software
- [UC-B31-T](#): Crestron Flex Small Room Conference System with Jabra® PanaCast® 50 Video Bar for Microsoft Teams® Rooms
- [UC-B31-T-INDIA](#): Crestron Flex Small Room Conference System with Jabra® PanaCast® 50 Video Bar for Microsoft Teams® Rooms, India
- [UC-B31-T-WM](#): Crestron Flex Small Room Conference System with Jabra® PanaCast® 50 Video Bar and Wall Mounted Control Interface for Microsoft Teams® Rooms
- [UC-B31-T-WM-INDIA](#): Crestron Flex Small Room Conference System with Jabra® PanaCast® 50 Video Bar and Wall Mounted Control Interface for Microsoft Teams® Rooms, India
- [UC-B31-Z](#): Crestron Flex Small Room Conference System with Jabra® PanaCast® 50 Video Bar for Zoom Rooms® Software
- [UC-B31-Z-INDIA](#): Crestron Flex Small Room Conference System with Jabra® PanaCast® 50 Video Bar for Zoom Rooms® Software, India
- [UC-B31-Z-WM](#): Crestron Flex Small Room Conference System with Jabra® PanaCast® 50 Video Bar and Wall Mounted Control Interface for Zoom Rooms® Software
- [UC-B31-Z-WM-INDIA](#): Crestron Flex Small Room Conference System with Jabra® PanaCast® 50 Video Bar and Wall Mounted Control Interface for Zoom Rooms® Software, India
- [UC-BX30-T](#): Crestron Flex Advanced Small Room Conference System with Video Soundbar for Microsoft Teams® Rooms
- [UC-BX30-T-GV](#): Crestron Flex Advanced Small Room Conference System with Video Soundbar for Microsoft Teams® Rooms, Government Version
- [UC-BX30-T-WM](#): Crestron Flex Advanced Small Room Conference System with Video Soundbar and Wall Mounted Control Interface for Microsoft Teams® Rooms
- [UC-BX30-Z](#): Crestron Flex Advanced Small Room Conference System with Video Soundbar for Zoom Rooms® Software

- [UC-BX30-Z-WM](#): Crestron Flex Advanced Small Room Conference System with Video Soundbar and Wall Mounted Control Interface for Zoom Rooms® Software
- [UC-BX31-T](#): Crestron Flex Advanced Small Room Conference System with Jabra® PanaCast® 50 Video Bar for Microsoft Teams® Rooms
- [UC-BX31-T-INDIA](#): Crestron Flex Advanced Small Room Conference System with Jabra® PanaCast® 50 Video Bar for Microsoft Teams® Rooms, India
- [UC-BX31-T-WM](#): Crestron Flex Advanced Small Room Conference System with Jabra® PanaCast® 50 Video Bar and Wall Mounted Control Interface for Microsoft Teams® Rooms
- [UC-BX31-T-WM-INDIA](#): Crestron Flex Advanced Small Room Conference System with Jabra® PanaCast® 50 Video Bar and Wall Mounted Control Interface for Microsoft Teams® Rooms, India
- [UC-BX31-Z](#): Crestron Flex Advanced Small Room Conference System with Jabra® PanaCast® 50 Video Bar for Zoom Rooms® Software
- [UC-BX31-Z-INDIA](#): Crestron Flex Advanced Small Room Conference System with Jabra® PanaCast® 50 Video Bar for Zoom Rooms® Software, India
- [UC-BX31-Z-WM](#): Crestron Flex Advanced Small Room Conference System with Jabra® PanaCast® 50 Video Bar and Wall Mounted Control Interface for Zoom Rooms® Software
- [UC-BX31-Z-WM-INDIA](#): Crestron Flex Advanced Small Room Conference System with Jabra® PanaCast® 50 Video Bar and Wall Mounted Control Interface for Zoom Rooms® Software, India
- [UC-C100-PRO-Z](#): Crestron Flex Video Conference System Integrator Pro Kit for Zoom Rooms® Software
- [UC-C100-PRO-Z-WM](#): Crestron Flex Video Conference System Integrator Pro Kit with a Wall-Mounted Control Interface for Zoom Rooms® Software
- [UC-C100-T](#): Crestron Flex Video Conference System Integrator Kit for Microsoft Teams® Rooms
- [UC-C100-T-GV](#): Crestron Flex Video Conference System Integrator Kit for Microsoft Teams® Rooms, Government Version
- [UC-C100-T-L](#): Crestron Flex Video Conference System Integrator Kit with Lenovo® M920Q ThinkSmart™ Edition Tiny for Microsoft Teams® Rooms, Discontinued
- [UC-C100-T-L-WM](#): Crestron Flex Video Conference System Integrator Kit with a Wall Mounted Control Interface and Lenovo® M920Q ThinkSmart™ Edition Tiny for Microsoft Teams® Rooms, Discontinued
- [UC-C100-T-WM](#): Crestron Flex Video Conference System Integrator Kit with a Wall Mounted Control Interface for Microsoft Teams® Rooms
- [UC-C100-Z](#): Crestron Flex Video Conference System Integrator Kit for Zoom Rooms® Software
- [UC-C100-Z-L](#): Crestron Flex Video Conference System Integrator Kit with Lenovo® M920Q ThinkSmart™ Edition Tiny for Zoom Rooms® Software, Discontinued
- [UC-C100-Z-L-WM](#): Crestron Flex Video Conference System Integrator Kit with a Wall Mounted Control Interface and Lenovo® M920Q ThinkSmart™ Edition Tiny for Zoom Rooms® Software, Discontinued
- [UC-C100-Z-WM](#): Crestron Flex Video Conference System Integrator Kit with a Wall Mounted Control Interface for Zoom Rooms® Software

- [UC-CX100-PRO-Z](#): Crestron Flex Advanced Video Conference System Integrator Pro Kit for Zoom Rooms® Software
- [UC-CX100-PRO-Z-WM](#): Crestron Flex Advanced Video Conference System Integrator Pro Kit with a Wall-Mounted Control Interface for Zoom Rooms® Software
- [UC-CX100-T](#): Crestron Flex Advanced Video Conference System Integrator Kit for Microsoft Teams® Rooms
- [UC-CX100-T-GV](#): Crestron Flex Advanced Video Conference System Integrator Kit for Microsoft Teams® Rooms, Government Version
- [UC-CX100-T-L](#): Crestron Flex Advanced Video Conference System Integrator Kit with Lenovo® M920Q ThinkSmart™ Edition Tiny for Microsoft Teams® Rooms, Discontinued
- [UC-CX100-T-L-WM](#): Crestron Flex Advanced Video Conference System Integrator Kit with a Wall Mounted Control Interface and Lenovo® M920Q ThinkSmart™ Edition Tiny for Microsoft Teams® Rooms, Discontinued
- [UC-CX100-T-WM](#): Crestron Flex Advanced Video Conference System Integrator Kit with a Wall Mounted Control Interface for Microsoft Teams® Rooms
- [UC-CX100-Z](#): Crestron Flex Advanced Video Conference System Integrator Kit for Zoom Rooms® Software
- [UC-CX100-Z-L](#): Crestron Flex Advanced Video Conference System Integrator Kit with Lenovo® M920Q ThinkSmart™ Edition Tiny for Zoom Rooms® Software, Discontinued
- [UC-CX100-Z-L-WM](#): Crestron Flex Advanced Video Conference System Integrator Kit with a Wall Mounted Control Interface and Lenovo® M920Q ThinkSmart™ Edition Tiny for Zoom Rooms® Software, Discontinued
- [UC-CX100-Z-WM](#): Crestron Flex Advanced Video Conference System Integrator Kit with a Wall Mounted Control Interface for Zoom Rooms® Software
- [UC-ENGINE-BRKT-T-UPGRD](#): Crestron Flex Room Upgrade Solution with Microsoft Teams® Rooms
- [UC-ENGINE-BRKT-T-UPGRD-BRKTX](#): Crestron Flex Standard to Advanced Room Upgrade Solution with Microsoft Teams® Rooms Software
- [UC-ENGINE-BRKT-Z-UPGRD](#): Crestron Flex Room Upgrade Solution with Zoom Rooms® Software
- [UC-ENGINE-BRKT-Z-UPGRD-BRKTX](#): Crestron Flex Standard to Advanced Room Upgrade Solution with Zoom Rooms® Software
- [UC-ENGINE-BRKTX-T-UPGRD](#): Crestron Flex Advanced Room Upgrade Solution with Microsoft Teams® Rooms
- [UC-ENGINE-BRKTX-Z-UPGRD](#): Crestron Flex Advanced Room Upgrade Solution with Zoom Rooms® Software
- [UC-M50-NC-T](#): Crestron Flex Tabletop Medium Room Conference System for Microsoft Teams® Rooms
- [UC-M50-NC-Z](#): Crestron Flex Tabletop Medium Room Conference System for Zoom Rooms® Software
- [UC-M50-T](#): Crestron Flex Tabletop Medium Room Video Conference System for Microsoft Teams® Rooms

- [UC-M50-T-L](#): Crestron Flex Tabletop Medium Room Video Conference System with Lenovo® M920Q ThinkSmart™ Edition Tiny for Microsoft Teams® Rooms, Discontinued
- [UC-M50-T-UPGRD](#): Crestron Flex Medium Room Upgrade Solution with Microsoft Teams® Rooms, Discontinued
- [UC-M50-U](#): Crestron Flex Tabletop Medium Room Video Conference System
- [UC-M50-UA](#): Crestron Flex Tabletop Medium Room Audio Conference System
- [UC-M50-Z](#): Crestron Flex Tabletop Medium Room Video Conference System for Zoom Rooms® Software
- [UC-M50-Z-L](#): Crestron Flex Tabletop Medium Room Video Conference System with Lenovo® M920Q ThinkSmart™ Edition Tiny for Zoom Rooms® Software, Discontinued
- [UC-M50-Z-UPGRD](#): Crestron Flex Medium Room Upgrade Solution with Zoom Rooms® Software, Discontinued
- [UC-M70-NC-T](#): Crestron Flex Tabletop Large Room Conference System for Microsoft Teams® Rooms
- [UC-M70-NC-Z](#): Crestron Flex Tabletop Large Room Conference System for Zoom Rooms® Software
- [UC-M70-T](#): Crestron Flex Tabletop Large Room Video Conference System for Microsoft Teams® Rooms
- [UC-M70-T-L](#): Crestron Flex Tabletop Large Room Video Conference System with Lenovo® M920Q ThinkSmart™ Edition Tiny for Microsoft Teams® Rooms, Discontinued
- [UC-M70-U](#): Crestron Flex Tabletop Large Room Video Conference System
- [UC-M70-UA](#): Crestron Flex Tabletop Large Room Audio Conference System
- [UC-M70-Z](#): Crestron Flex Tabletop Large Room Video Conference System for Zoom Rooms® Software
- [UC-M70-Z-L](#): Crestron Flex Tabletop Large Room Video Conference System with Lenovo® M920Q ThinkSmart™ Edition Tiny for Zoom Rooms® Software, Discontinued
- [UC-MM30-NC-T](#): Crestron Flex Tabletop Small Room Conference System for Microsoft Teams® Rooms
- [UC-MM30-NC-T-I](#): Crestron Flex Tabletop Small Room Conference System for Microsoft Teams® Rooms, International
- [UC-MM30-NC-Z](#): Crestron Flex Tabletop Small Room Conference System for Zoom Rooms® Software
- [UC-MM30-NC-Z-I](#): Crestron Flex Tabletop Small Room Conference System for Zoom Rooms® Software, International
- [UC-MM30-T](#): Crestron Flex Tabletop Small Room Video Conference System for Microsoft Teams® Rooms
- [UC-MM30-T-I](#): Crestron Flex Tabletop Small Room Video Conference System for Microsoft Teams® Rooms, International
- [UC-MM30-T-L](#): Crestron Flex Tabletop Small Room Video Conference System with Lenovo® M920Q ThinkSmart™ Edition Tiny for Microsoft Teams® Rooms, Discontinued

- [UC-MM30-T-L-I](#): Crestron Flex Tabletop Small Room Video Conference System with Lenovo® M920Q ThinkSmart™ Edition Tiny for Microsoft Teams® Rooms, International, Discontinued
- [UC-MM30-TA](#): Crestron Flex Tabletop Small Room Audio Conference System for Microsoft Teams® Rooms, Discontinued
- [UC-MM30-TA-I](#): Crestron Flex Tabletop Small Room Audio Conference System for Microsoft Teams® Rooms, International, Discontinued
- [UC-MM30-Z](#): Crestron Flex Tabletop Small Room Video Conference System for Zoom Rooms® Software
- [UC-MM30-Z-I](#): Crestron Flex Tabletop Small Room Video Conference System for Zoom Rooms® Software, International
- [UC-MM30-Z-L](#): Crestron Flex Tabletop Small Room Video Conference System with Lenovo® M920Q ThinkSmart™ Edition Tiny for Zoom Rooms® Software, Discontinued
- [UC-MM30-Z-L-I](#): Crestron Flex Tabletop Small Room Video Conference System with Lenovo® M920Q ThinkSmart™ Edition Tiny for Zoom Rooms® Software, International, Discontinued
- [UC-MMX30-NC-T](#): Crestron Flex Tabletop Small Room Conference System for Microsoft Teams® Rooms
- [UC-MMX30-NC-T-I](#): Crestron Flex Tabletop Small Room Conference System for Microsoft Teams® Rooms, International
- [UC-MMX30-NC-Z](#): Crestron Flex Tabletop Small Room Conference System for Zoom Rooms® Software
- [UC-MMX30-NC-Z-I](#): Crestron Flex Tabletop Small Room Conference System for Zoom Rooms® Software, International
- [UC-MMX30-T](#): Crestron Flex Advanced Tabletop Small Room Video Conference System for Microsoft Teams® Room
- [UC-MMX30-T-I](#): Crestron Flex Advanced Tabletop Small Room Video Conference System for Microsoft Teams® Rooms, International
- [UC-MMX30-T-L](#): Crestron Flex Advanced Tabletop Small Room Video Conference System with Lenovo® M920Q ThinkSmart™ Edition Tiny for Microsoft Teams® Rooms, Discontinued
- [UC-MMX30-T-L-I](#): Crestron Flex Advanced Tabletop Small Room Video Conference System with Lenovo® M920Q ThinkSmart™ Edition Tiny for Microsoft Teams® Rooms, International, Discontinued
- [UC-MMX30-Z](#): Crestron Flex Advanced Tabletop Small Room Video Conference System for Zoom Rooms® Software
- [UC-MMX30-Z-I](#): Crestron Flex Advanced Tabletop Small Room Video Conference System for Zoom Rooms® Software, International
- [UC-MMX30-Z-L](#): Crestron Flex Advanced Tabletop Small Room Video Conference System with Lenovo® M920Q ThinkSmart™ Edition Tiny for Zoom Rooms® Software, Discontinued
- [UC-MMX30-Z-L-I](#): Crestron Flex Advanced Tabletop Small Room Video Conference System with Lenovo® M920Q ThinkSmart™ Edition Tiny for Zoom Rooms® Software, International, Discontinued
- [UC-MX50-NC-T](#): Crestron Flex Advanced Tabletop Medium Room Conference System for Microsoft Teams® Rooms

- [UC-MX50-NC-Z](#): Crestron Flex Advanced Tabletop Medium Room Conference System for Zoom Rooms® Software
- [UC-MX50-T](#): Crestron Flex Advanced Tabletop Medium Room Video Conference System for Microsoft Teams® Rooms
- [UC-MX50-T-L](#): Crestron Flex Advanced Tabletop Medium Room Video Conference System with Lenovo® M920Q ThinkSmart™ Edition Tiny for Microsoft Teams® Rooms, Discontinued
- [UC-MX50-T-UPGRD](#): Crestron Flex Advanced Medium Room Upgrade Solution with Microsoft Teams® Rooms, Discontinued
- [UC-MX50-U](#): Crestron Flex Advanced Tabletop Medium Room Video Conference System
- [UC-MX50-Z](#): Crestron Flex Advanced Tabletop Medium Room Video Conference System for Zoom Rooms® Software
- [UC-MX50-Z-L](#): Crestron Flex Advanced Tabletop Medium Room Video Conference System with Lenovo® M920Q ThinkSmart™ Edition Tiny for Zoom Rooms® Software, Discontinued
- [UC-MX50-Z-UPGRD](#): Crestron Flex Advanced Medium Room Upgrade Solution with Zoom Rooms® Software, Discontinued
- [UC-MX70-NC-T](#): Crestron Flex Advanced Tabletop Large Room Conference System for Microsoft Teams® Rooms
- [UC-MX70-NC-Z](#): Crestron Flex Advanced Tabletop Large Room Conference System for Zoom Rooms® Software
- [UC-MX70-T](#): Crestron Flex Advanced Tabletop Large Room Video Conference System for Microsoft Teams® Rooms
- [UC-MX70-T-L](#): Crestron Flex Advanced Tabletop Large Room Video Conference System with Lenovo® M920Q ThinkSmart™ Edition Tiny for Microsoft Teams® Rooms, Discontinued
- [UC-MX70-U](#): Crestron Flex Advanced Tabletop Large Room Video Conference System
- [UC-MX70-Z](#): Crestron Flex Advanced Tabletop Large Room Video Conference System for Zoom Rooms® Software
- [UC-MX70-Z-L](#): Crestron Flex Advanced Tabletop Large Room Video Conference System with Lenovo® M920Q ThinkSmart™ Edition Tiny for Zoom Rooms® Software, Discontinued

## Crestron Flex Phones

- [UC-P8-T](#): Crestron Flex 8 in. Audio Desk Phone for Microsoft Teams® Software, Discontinued
- [UC-P8-T-I](#): Crestron Flex 8 in. Audio Desk Phone for Microsoft Teams® Software, International, Discontinued
- [UC-P8-T-C](#): Crestron Flex 8 in. Video Desk Phone for Microsoft Teams® Software, Discontinued
- [UC-P8-T-C-I](#): Crestron Flex 8 in. Video Desk Phone for Microsoft Teams® Software, International, Discontinued
- [UC-P8-T-HS](#): Crestron Flex 8 in. Audio Desk Phone with Handset for Microsoft Teams® Software, Discontinued
- [UC-P8-T-HS-I](#): Crestron Flex 8 in. Audio Desk Phone with Handset for Microsoft Teams® Software, International, Discontinued
- [UC-P8-T-C-HS](#): Crestron Flex 8 in. Video Desk Phone with Handset for Microsoft Teams® Software, Discontinued



- [UC-P8-T-C-HS-I](#): Crestron Flex 8 in. Video Desk Phone with Handset for Microsoft Teams® Software, International, Discontinued
- [UC-P8-TD](#): Crestron Flex 8 in. Display for Microsoft Teams® Software, Discontinued
- [UC-P8-TD-I](#): Crestron Flex 8 in. Display for Microsoft Teams® Software, International, Discontinued
- [UC-P10-T](#): Crestron Flex 10 in. Audio Desk Phone for Microsoft Teams® Software, Discontinued
- [UC-P10-T-I](#): Crestron Flex 10 in. Audio Desk Phone for Microsoft Teams® Software, International, Discontinued
- [UC-P10-T-C](#): Crestron Flex 10 in. Video Desk Phone for Microsoft Teams® Software, Discontinued
- [UC-P10-T-C-I](#): Crestron Flex 10 in. Video Desk Phone for Microsoft Teams® Software, International, Discontinued
- [UC-P10-T-HS](#): Crestron Flex 10 in. Audio Desk Phone with Handset for Microsoft Teams® Software, Discontinued
- [UC-P10-T-HS-I](#): Crestron Flex 10 in. Audio Desk Phone with Handset for Microsoft Teams® Software, International, Discontinued
- [UC-P10-T-C-HS](#): Crestron Flex 10 in. Video Desk Phone with Handset for Microsoft Teams® Software, Discontinued
- [UC-P10-T-C-HS-I](#): Crestron Flex 10 in. Video Desk Phone with Handset for Microsoft Teams® Software, International, Discontinued
- [UC-P10-TD](#): Crestron Flex 10 in. Display for Microsoft Teams® Software, Discontinued
- [UC-P10-TD-I](#): Crestron Flex 10 in. Display for Microsoft Teams® Software, International, Discontinued
- [UC-P100-T](#): Crestron Flex VoIP Desk Phone for Microsoft Teams® Software, Discontinued
- [UC-P110-T](#): Crestron Flex VoIP Desk Phone with Tilt Screen for Microsoft Teams® Software, Discontinued

## Crestron Flex Hubs and Pods

- [UC-AUDIO-HUB-DR1](#): Crestron Flex Hub Wireless Transceiver, DECT Region 1
- [UC-AUDIO-HUB-DR2](#): Crestron Flex Hub Wireless Transceiver, DECT Region 2
- [UC-AUDIO-HUB-DR3](#): Crestron Flex Hub Wireless Transceiver, DECT Region 3
- [UC-AUDIO-HUB-DR4](#): Crestron Flex Hub Wireless Transceiver, DECT Region 4
- [UC-AUDIO-HUB-DR5](#): Crestron Flex Hub Wireless Transceiver, DECT Region 5
- [UC-AUDIO-POD-B-DR1](#): Crestron Flex Pod Wireless Speaker and Microphone, Black, DECT Region 1
- [UC-AUDIO-POD-B-DR2](#): Crestron Flex Pod Wireless Speaker and Microphone, Black, DECT Region 2
- [UC-AUDIO-POD-B-DR3](#): Crestron Flex Pod Wireless Speaker and Microphone, Black, DECT Region 3
- [UC-AUDIO-POD-B-DR4](#): Crestron Flex Pod Wireless Speaker and Microphone, Black, DECT Region 4



- [UC-AUDIO-POD-B-DR5](#): Crestron Flex Pod Wireless Speaker and Microphone, Black, DECT Region 5

# Connectivity

The following connectivity solutions are supported by the XiO Cloud® service.

## USB Switchers

- [USB-SW-200](#): 2-input USB 3.2 Data Matrix Switcher
- [USB-SW-400](#): 4-input USB 3.2 Data Matrix Switcher

# Control

The following control solutions are supported by the XiO Cloud® service.

## 3-Series Control Systems

- [AV3](#): 3-Series® Control System, Discontinued
- [CP3](#): 3-Series® Control System, Discontinued
- [CP3N](#): 3-Series® Control System, Discontinued
- [DIN-AP3](#): 3-Series® DIN Rail Control System, Discontinued
- [DIN-AP3MEX](#): 3-Series® DIN Rail Control System with infiNET EX® and ER Wireless Gateway, Discontinued
- [PRO3](#): 3-Series® Control System, Discontinued
- [RMC3](#): 3-Series® Control System, Discontinued

## 4-Series Control Systems

- [AV4](#): 4-Series® Control System, Discontinued
- [CP4](#): 4-Series® Control System
- [CP4N](#): 4-Series® Control System
- [DIN-AP4](#): 4-Series® DIN Rail Control System
- [MC4](#): 4-Series® Control System
- [MC4-I](#): 4-Series® Control System, International
- [PRO4](#): 4-Series® Control System, Discontinued
- [RMC4](#): 4-Series® Control System

## Crestron Virtual Control Server-Based Control Systems

- [VC-4-PC-3](#): Computer with Crestron Virtual Control Server Software
- [VC-4-ROOM](#): Crestron Virtual Control Server Software - Single-Room License
- [VC-4-SERVER-25](#): Rack Server with Crestron Virtual Control Software

## Media Presentation Controllers

- [MPC3-101-B](#): 3-Series® Media Presentation Controller 101, Black, Discontinued
- [MPC3-102-B](#): 3-Series® Media Presentation Controller 102, Black
- [MPC3-201-B](#): 3-Series® Media Presentation Controller 201, Black
- [MPC3-302-B](#): 3-Series® Media Presentation Controller 302, Black
- [MPC3-302-W](#): 3-Series® Media Presentation Controller 302, White

# Smart Display Controllers

- [HD-CTL-101](#): 8K Smart Display Controller with HDMI® connectivity

# Intelligent Video

The following intelligent video solutions are supported by the XiO Cloud® service.

## 1 Beyond Intelligent Video

- [IV-SAM-VX2-P](#): Automate VX Pro System Series 2 Voice-Activated, Multi-Camera Switching Solution
- [IV-SAM-VX2-S](#): Automate VX System Series 2 Voice-Activated, Multi-Camera Switching Solution

# Lighting and Environmental

The following lighting and environmental solutions are supported by the XiO Cloud® service.

## Lighting Control Systems

- [ZUM-HUB4](#): Zūm® Lighting Control System, Hub4

# Power

The following power solutions are supported by the XiO Cloud® service.

## Power Conditioners

- [PC-350V-12](#): 12-Outlet Vertical Networked Power Controller and Conditioner with Surge Protection and Metering
- [PC-350V-18](#): 18-Outlet Vertical Networked Power Controller and Conditioner with Surge Protection and Metering

# Scheduling

The following scheduling solutions are supported by the XiO Cloud® service.

## Room Scheduling Touch Screens

- [TSS-7-B-S](#): 7 in. Room Scheduling Screen, Black Smooth, Discontinued
- [TSS-7-W-S](#): 7 in. Room Scheduling Screen, White Smooth, Discontinued
- [TSS-10-B-S](#): 10.1 in. Room Scheduling Screen, Black Smooth, Discontinued
- [TSS-10-W-S](#): 10.1 in. Room Scheduling Screen, White Smooth, Discontinued
- [TSS-770-B-S](#): 7 in. Room Scheduling Screen, Black Smooth
- [TSS-770-W-S](#): 7 in. Room Scheduling Screen, White Smooth
- [TSS-1070-B-S](#): 10.1 in. Room Scheduling Screen, Black Smooth
- [TSS-1070-W-S](#): 10.1 in. Room Scheduling Screen, White Smooth

## Desk Scheduling Devices

- [DSS-100](#): Desk Scheduling Status Indicator
- [TSS-470E-B-T](#): 3.5 in. Desk Scheduling Touch Screen, Black Textured



# Sensors

The following sensors are supported by the XiO Cloud® service.

## Occupancy Sensors

- [CEN-ODT-C-POE](#): Dual-Technology Occupancy Sensor, PoE, 2,000 Sq Ft

# Third-Party Devices

The following third-party devices are supported by the XiO Cloud® service via the Crestron Connected® protocol or the Crestron XiO Cloud™ Third-Party Device Monitoring Gateway.

**NOTE:** Third-party device support requires an XiO Cloud Premium subscription. For more information on using third-party devices with the XiO Cloud service, refer to the [XiO Cloud® Service Third-Party Device Monitoring Configuration Guide](#).

## Crestron Connected Devices

Supported third-party devices that use the Crestron Connected® communications protocol can be claimed to the XiO Cloud service directly without requiring a Crestron control system.

For a list of third-party device models that have been certified to connect to XiO Cloud, refer to the [Crestron Connected Devices web app](#).

## Crestron Driver Devices

The XiO Cloud® service provides monitoring capabilities for supported third-party devices within a Crestron® system using the Crestron Drivers framework. The devices will appear in the XiO Cloud service and need only to be claimed to start monitoring.

Crestron Driver support in XiO Cloud is available for the following device types:

- A/V Receivers
- A/V Switchers
- Audio Mixers
- Blu-ray® Disc Players
- Cable Boxes
- Displays
- Polycom® Video Codec
- Projectors
- Video Servers

To view the available Crestron Drivers for these device types, visit the Crestron Driver Portal at [drivers.crestron.io](http://drivers.crestron.io).

## Third-Party Device Monitoring Gateway Software

[Crestron XiO Cloud™ Gateway Software](#) provides expanded configuration and monitoring capabilities for supported third-party devices not connected directly to a Crestron® control processor. This configuration allows for monitoring via Ping, TCP, SNMP, and the Crestron Drivers framework over Ethernet.

# Touch Screens

The following touch screens are supported by the XiO Cloud® service.

## Tabletop Touch Screens

- [TS-770-B-S](#): 7 in. Tabletop Touch Screen, Black Smooth
- [TS-770-W-S](#): 7 in. Tabletop Touch Screen, White Smooth
- [TS-770-GV-B-S](#): 7 in. Tabletop Touch Screen, Government Version, Black Smooth
- [TS-770-GV-W-S](#): 7 in. Tabletop Touch Screen, Government Version, White Smooth
- [TS-1070-B-S](#): 10.1 in. Tabletop Touch Screen, Black Smooth
- [TS-1070-W-S](#): 10.1 in. Tabletop Touch Screen, White Smooth
- [TS-1070-GV-B-S](#): 10.1 in. Tabletop Touch Screen, Government Version, Black Smooth
- [TS-1070-GV-W-S](#): 10.1 in. Tabletop Touch Screen, Government Version, White Smooth
- [TS-1542-TILT-B-S](#): 15.6 in. HD Touch Screen, Tabletop Tilt, Black Smooth, Discontinued
- [TS-1542-TILT-W-S](#): 15.6 in. HD Touch Screen, Tabletop Tilt, White Smooth, Discontinued
- [TS-1542-TILT-SSB](#): 15.6 in. HD Touch Screen, Tabletop Tilt, Signature Series Black, Discontinued
- [TS-1542-TILT-SSW](#): 15.6 in. HD Touch Screen, Tabletop Tilt, Signature Series White, Discontinued
- [TS-1542-TILT-C-B-S](#): 15.6 in. HD Touch Screen with DM 8G+® Input, Tabletop Tilt, Black Smooth, Discontinued
- [TS-1542-TILT-C-W-S](#): 15.6 in. HD Touch Screen with DM 8G+® Input, Tabletop Tilt, White Smooth, Discontinued
- [TS-1542-TILT-C-SSB](#): 15.6 in. HD Touch Screen with DM 8G+® Input, Tabletop Tilt, Signature Series Black, Discontinued
- [TS-1542-TILT-C-SSW](#): 15.6 in. HD Touch Screen with DM 8G+® Input, Tabletop Tilt, Signature Series White, Discontinued

## Touch Screen Control Systems

- [TSCW-730-B-S](#): 7 in. Touch Screen Control System, Black Smooth, Discontinued
- [TSCW-730-W-S](#): 7 in. Touch Screen Control System, White Smooth, Discontinued

## Wall Mount Touch Screens

- [TS-1542-B-S](#): 15.6 in. HD Touch Screen, Wall Mount or VESA, Black Smooth, Discontinued
- [TS-1542-W-S](#): 15.6 in. HD Touch Screen, Wall Mount or VESA, White Smooth, Discontinued
- [TS-1542-C-B-S](#): 15.6 in. HD Touch Screen with DM 8G+® Input, Wall Mount or VESA, Black Smooth, Discontinued
- [TS-1542-C-W-S](#): 15.6 in. HD Touch Screen with DM 8G+® Input, Wall Mount or VESA, White Smooth, Discontinued

- [TSW-560-B-S](#): 5 in. Touch Screen, Black Smooth, Discontinued
- [TSW-560-W-S](#): 5 in. Touch Screen, White Smooth, Discontinued
- [TSW-560-NC-B-S](#): 5 in. Touch Screen without Camera or Microphone, Black Smooth, Discontinued
- [TSW-560-NC-W-S](#): 5 in. Touch Screen without Camera or Microphone, White Smooth, Discontinued
- [TSW-560P-B-S](#): 5 in. Touch Screen, Portrait, Black Smooth, Discontinued
- [TSW-560P-W-S](#): 5 in. Touch Screen, Portrait, White Smooth, Discontinued
- [TSW-570-B-S](#): 5 in. Touch Screen, Black Smooth
- [TSW-570-W-S](#): 5 in. Touch Screen, White Smooth
- [TSW-570P-B-S](#): 5 in. Touch Screen, Portrait, Black Smooth
- [TSW-570P-W-S](#): 5 in. Touch Screen, Portrait, White Smooth
- [TSW-760-B-S](#): 7 in. Touch Screen, Black Smooth, Discontinued
- [TSW-760-W-S](#): 7 in. Touch Screen, White Smooth, Discontinued
- [TSW-760-NC-B-S](#): 7 in. Touch Screen without Camera or Microphone, Black Smooth, Discontinued
- [TSW-760-NC-W-S](#): 7 in. Touch Screen without Camera or Microphone, White Smooth, Discontinued
- [TSW-770-B-S](#): 7 in. Wall Mount Touch Screen, Black Smooth
- [TSW-770-W-S](#): 7 in. Wall Mount Touch Screen, White Smooth
- [TSW-770-GV-B-S](#): 7 in. Wall Mount Touch Screen, Government Version, Black Smooth
- [TSW-770-GV-W-S](#): 7 in. Wall Mount Touch Screen, Government Version, White Smooth
- [TSW-1060-B-S](#): 10.1 in. Touch Screen, Black Smooth, Discontinued
- [TSW-1060-W-S](#): 10.1 in. Touch Screen, White Smooth, Discontinued
- [TSW-1060-NC-B-S](#): 10.1 in. Touch Screen without Camera or Microphone, Black Smooth, Discontinued
- [TSW-1060-NC-W-S](#): 10.1 in. Touch Screen without Camera or Microphone, White Smooth, Discontinued
- [TSW-1070-B-S](#): 10.1 in. Wall Mount Touch Screen, Black Smooth
- [TSW-1070-W-S](#): 10.1 in. Wall Mount Touch Screen, White Smooth
- [TSW-1070-GV-B-S](#): 10.1 in. Wall Mount Touch Screen, Government Version, Black Smooth
- [TSW-1070-GV-W-S](#): 10.1 in. Wall Mount Touch Screen, Government Version, White Smooth

## Wireless Touch Screens

- [TST-1080](#): 10.1 in. Wireless Touch Screen

# Video

The following video solutions are supported by the XiO Cloud® service.

## AirMedia Wireless Presentation and Conferencing

- [AM-200](#): AirMedia® Presentation System 200, Discontinued
- [AM-300](#): AirMedia® Presentation System 300, Discontinued
- [AM-3000-WF](#): AirMedia® Receiver 3000 with Wi-Fi® Network Connectivity
- [AM-3000-WF-I](#): AirMedia® Receiver 3100 with Wi-Fi® Network Connectivity, International
- [AM-3100-WF](#): AirMedia® Series 3 Receiver 100 with Wi-Fi® Connectivity
- [AM-3100-WF-I](#): AirMedia® Series 3 Receiver 100 with Wi-Fi® Connectivity, International
- [AM-3200](#): AirMedia® Series 3 Receiver 200
- [AM-3200-WF](#): AirMedia® Series 3 Receiver 200 with Wi-Fi® Connectivity
- [AM-3200-WF-I](#): AirMedia® Series 3 Receiver 200 with Wi-Fi® Connectivity, International

## Digital Graphics Engines

- [DGE-100](#): Digital Graphics Engine 100
- [DGE-1000](#): Digital Graphics Engine 1000
- [DM-DGE-200-C](#): Digital Graphics Engine 200 with 4K DM 8G+® Input

## DigitalMedia Solutions

The following DigitalMedia™ solutions supported by the XiO Cloud® service.

### DigitalMedia Presentation Systems

- [DMPS3-4K-50](#): 3-Series® 4K DigitalMedia™ Presentation System 50, Discontinued
- [DMPS3-4K-100-C](#): 3-Series® 4K DigitalMedia™ Presentation System 100, Discontinued
- [DMPS3-4K-150-C](#): 3-Series® 4K DigitalMedia™ Presentation System 150, Discontinued
- [DMPS3-4K-200-C](#): 3-Series® 4K DigitalMedia™ Presentation System 200, Discontinued
- [DMPS3-4K-250-C](#): 3-Series® 4K DigitalMedia™ Presentation System 250
- [DMPS3-4K-250-C-AIRMEDIA](#): 3-Series® 4K DigitalMedia™ Presentation System 250 with AirMedia®, Discontinued
- [DMPS3-4K-300-C](#): 3-Series® 4K DigitalMedia™ Presentation System 300, Discontinued
- [DMPS3-4K-350-C](#): 3-Series® 4K DigitalMedia™ Presentation System 350
- [DMPS3-4K-350-C-AIRMEDIA](#): 3-Series® 4K DigitalMedia™ Presentation System 350 with AirMedia®, Discontinued
- [DMPS3-200-C](#): 3-Series® DigitalMedia™ Presentation System 200, Discontinued

- [DMPS3-300-C](#): 3-Series® DigitalMedia™ Presentation System 300, Discontinued
- [DMPS3-300-C-AEC](#): 3-Series® DigitalMedia™ Presentation System 300 with Audio Conferencing Interface, Discontinued

## DigitalMedia Switchers

- [DM-MD8X8-CPU3](#): 8x8 DigitalMedia™ Switcher
- [DM-MD8X8-CPU3-RPS](#): 8x8 DigitalMedia™ Switcher with Redundant Power Supplies
- [DM-MD16X16-CPU3](#): 16x16 DigitalMedia™ Switcher
- [DM-MD16X16-CPU3-RPS](#): 16x16 DigitalMedia™ Switcher with Redundant Power Supplies
- [DM-MD32X32-CPU3](#): 32x32 DigitalMedia™ Switcher
- [DM-MD32X32-CPU3-RPS](#): 32x2 DigitalMedia™ Switcher with Redundant Power Supplies

## DM NVX AV-over-IP Solutions

- [DM-NVX-350](#): DM NVX® 4K60 4:4:4 HDR Network AV Encoder/Decoder, Discontinued
- [DM-NVX-350C](#): DM NVX® 4K60 4:4:4 HDR Network AV Encoder/Decoder Card, Discontinued
- [DM-NVX-351](#): DM NVX® 4K60 4:4:4 HDR Network AV Encoder/Decoder with Downmixing
- [DM-NVX-351C](#): DM NVX® 4K60 4:4:4 HDR Network AV Encoder/Decoder Card with Downmixing
- [DM-NVX-352](#): DM NVX® 4K60 4:4:4 HDR Network AV Encoder/Decoder with Dante® Audio, Discontinued
- [DM-NVX-352C](#): DM NVX® 4K60 4:4:4 HDR Network AV Encoder/Decoder Card with Dante® Audio, Discontinued
- [DM-NVX-360](#): DM NVX® 4K60 4:4:4 HDR Network AV Encoder/Decoder
- [DM-NVX-360C](#): DM NVX® 4K60 4:4:4 HDR Network AV Encoder/Decoder Card
- [DM-NVX-363](#): DM NVX® 4K60 4:4:4 HDR Network AV Encoder/Decoder with Downmixing and Dante® Audio
- [DM-NVX-363C](#): DM NVX® 4K60 4:4:4 HDR Network AV Encoder/Decoder Card with Downmixing and Dante® Audio
- [DM-NVX-384](#): DM NVX® 5K 4x1 AV-over-IP Switcher with HDMI® and USB-C® Connectivity
- [DM-NVX-384C](#): DM NVX® 5K 4x1 AV-over-IP Switcher Card with HDMI® and USB-C® Connectivity
- [DM-NVX-D10](#): DM NVX® 1080p60 4:4:4 Network AV Decoder
- [DM-NVX-D20](#): DM NVX® 4K60 4:2:0 Network AV Decoder
- [DM-NVX-D30](#): DM NVX® 4K60 4:4:4 HDR Network AV Decoder
- [DM-NVX-D30C](#): DM NVX® 4K60 4:4:4 HDR Network AV Decoder Card
- [DM-NVX-D200](#): DM NVX® 4K60 4:2:0 Network AV Decoder with Scaler
- [DM-NVX-D80-IOAV](#): DM NVX® 4K60 4:4:4 HDR Network AV OPS Decoder, Discontinued
- [DM-NVX-E10](#): DM NVX® 1080p60 4:4:4 Network AV Encoder
- [DM-NVX-E20](#): DM NVX® 4K60 4:2:0 Network AV Encoder
- [DM-NVX-E30](#): DM NVX® 4K60 4:4:4 HDR Network AV Encoder
- [DM-NVX-E30C](#): DM NVX® 4K60 4:4:4 HDR Network AV Encoder Card

- [DM-NVX-E760](#): DM NVX® 4K60 4:4:4 HDR Network AV Encoder with DM® Input
- [DM-NVX-E760C](#): DM NVX® 4K60 4:4:4 HDR Network AV Encoder Card with DM® Input
- [DM-NVX-SW-C310](#): DM NVX® 4K30 Network AV Encoder/Decoder CPU-Based Software, Single Stream

## HDMI Solutions

The following HDMI® solutions supported by the XiO Cloud® service.

### HDMI Extenders

- [HD-RX-4K-210-C-E](#): DMPS Lite™ 4K Multiformat 2x1 AV Switch and Receiver
- [HD-RX-4K-210-C-E-POE](#): DMPS Lite™ 4K Multiformat 2x1 AV Switch and Receiver with PoE+, Discontinued
- [HD-RX-4K-410-C-E](#): DMPS Lite™ 4K Multiformat 4x1 AV Switch and Receiver, Discontinued
- [HD-RX-4K-410-C-E-SW4](#): DMPS Lite™ 4K Multiformat 4x1 AV Switch and Receiver with 4-Port Ethernet Switch, Discontinued
- [HD-RX-4K-510-C-E](#): DMPS Lite™ 4K Multiformat 5x1 AV Switch and Receiver
- [HD-RX-4K-510-C-E-SW4](#): DMPS Lite™ 4K Multiformat 5x1 AV Switch and Receiver with 4-Port Ethernet Switch, Discontinued
- [HD-RXU-4KZ-202](#): DM Lite® 4K60 4:4:4 Receiver and 2x2 Auto-Switcher for HDMI® and USB 2.0 Signal Extension over CATx Cable
- [HD-TXU-4KZ-211](#): DM Lite® 4K60 4:4:4 Transmitter and 2x1 Auto-Switcher for HDMI®, USB-C® DisplayPort™, and USB 2.0 Signal Extension over CATx Cable
- [HD-TXU-4KZ-211-CHGR](#): DM Lite® 4K60 4:4:4 Transmitter and 2x1 Auto-Switcher for HDMI®, USB-C® DisplayPort™, and USB 2.0 Signal Extension over CATx Cable with Device Charging

### HDMI Switchers

- [HD-MD2X1-8K](#): 2x1 8K AV Switcher and Smart Display Controller
- [HD-MD4X1-4KZ-E](#): 4x1 4K60 4:4:4 HDR AV Switcher
- [HD-MD4X2-4KZ-E](#): 4x2 4K60 4:4:4 HDR AV Switcher
- [HD-MD4X4-4KZ-E](#): 4x2 4K60 4:4:4 HDR AV Switcher
- [HD-MD8X4-4KZ-E](#): 8x4 4K60 4:4:4 HDR AV Switcher
- [HD-MD8X8-4KZ-E](#): 8x8 4K60 4:4:4 HDR AV Switcher
- [HD-PS401](#): 4x1 4K60 4:4:4 HDR Presentation System
- [HD-PS402](#): 4x2 4K60 4:4:4 HDR Presentation System
- [HD-PS621](#): 8x1 4K60 4:4:4 HDR Presentation System
- [HD-PS622](#): 8x2 4K60 4:4:4 HDR Presentation System

## Smart Display Controllers

- [HD-CTL-101](#): 8K Smart Display Controller with HDMI® connectivity

# Appendix A: Configure ServiceNow for XiO Cloud Alerts

As of XiO Cloud version 1.23, XiO Cloud alerts can be integrated with ServiceNow® software instances. Once alerts have been configured for your XiO Cloud account (as described in [Alerts on page 130](#)), the ServiceNow administrator for your system must make configuration changes to allow XiO Cloud to communicate with your ServiceNow instance. The administrator must implement two new inbound actions and modify the scripts/incident form in accordance with your system and requirements. These configuration tasks are described in the following sections.

**NOTE:** ServiceNow integration requires an XiO Cloud Premium subscription.

## Client Prerequisites

Ensure the following client-side prerequisites have been met prior to configuring your ServiceNow instance for XiO Cloud alerts:

- A working ServiceNow instance that is permitted to receive emails
- A ServiceNow system administrator that has been granted the **Admin** role
- ServiceNow has been enabled in the XiO Cloud account settings.
- Basic knowledge of ServiceNow incident form development
- Basic knowledge of ServiceNow scripting and JavaScript® coding



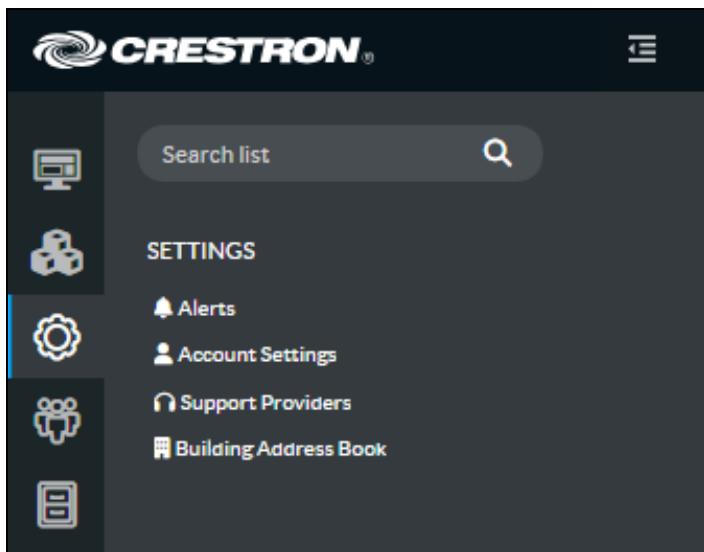
# Turn on ServiceNow Within XiO Cloud

Users with Global Administrator permissions can turn on a connection to a ServiceNow instance directly from the XiO Cloud portal.

To turn on ServiceNow within XiO Cloud from the portal:

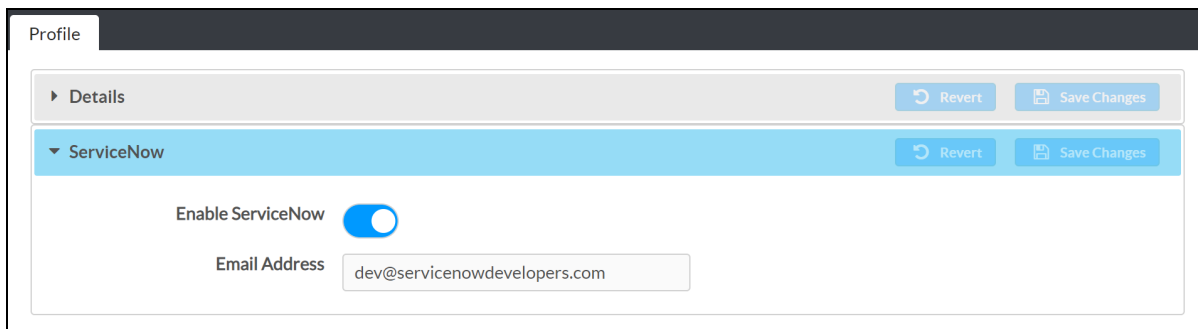
1. Select the gear icon  on the left side of the screen.
2. Select **Account Settings**.

## SETTINGS Menu



3. Within the **Profile** tab on the right side of the screen, expand the **ServiceNow** accordion, then turn on the **Enable ServiceNow** toggle.

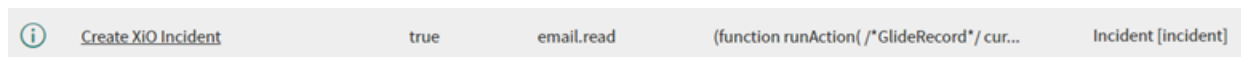
## Profile Tab - ServiceNow Accordion



4. Enter the email address for the ServiceNow instance in the **Email Address** text field.
5. Tap **Save Changes** on the top right of the accordion.

# Create XiO Incident Script

To allow XiO Cloud to create an alert email within your system, you must implement the **Create XiO Incident** inbound action within your ServiceNow instance. This rule takes emails received from XiO Cloud and converts them into incidents within your system automatically, allowing specified data points to map to fields within your instance. Selecting the inbound action rule shows the details associated with it, including the condition that triggers the inbound action and the script that maps it to your incident table.



## When to Run Tab

Select the **When to Run** tab to view and configure conditions that will trigger the **Create XiO Incident** inbound action to run. Sending an email to the ServiceNow instance with a subject that contains "Crestron-XIO: NEW Incident" triggers the inbound action to run.

**NOTE:** Do not change the subject condition, as it may cause your system to incorrectly triage your XiO Cloud incidents and, therefore, to not trigger the rule.

A screenshot of the 'When to Run' configuration interface. It shows a 'Conditions' section with two buttons: 'Add Filter Condition' and 'Add "OR" Clause'. Below these is a configuration row for a condition: 'Subject' (selected from a dropdown), 'contains' (selected from a dropdown), 'Crestron-XIO: NEW Incider', and logical operators 'AND' and 'OR' with a close button 'X'. Below this row is a 'Condition' label and an empty text input field.

## Actions Tab

Select the **Actions** tab to view and configure action scripts for the **Create XiO Incident** inbound action. The provided script parses through the email and correctly allocates data to certain fields based on the content of the XiO Cloud alert.

Each section of the script is described below.

```
//Parse Table Content to Description  
  
var parseBody = email.body_text.split(',').join('\n');  
current.description = parseBody;
```

The code under the "Parse Table Content to Description" comment is used to parse the information within the comma-delimited email sent from XiO Cloud and adds it to the description field of the created incident.

```
//Populate Email content to Fields

current.short_description = email.subject;
current.caller_id = gs.getUserID();
current.contact_type = "Email";
current.comments = "recieved from: " + email.origemail + "\n\n" + email.body_text;
current.category = "xio";
current.subcategory = "Email";
current.cmbd_ci.setDisplayValue('XiO');
```

The code under the "Populate Email content to Fields" section shows the logic used to populate other key fields on the incident form, including **Caller ID**, **Contact Type**, **Comments**, **Category**, **Subcategory**, and **Configuration Item**.

#### NOTES:

- You must add the **Category**, **Subcategory**, and **Configuration Item** values to your system if they do not already exist. Custom categories, subcategories, or configuration items can also be used. In this case, the code must be modified to match the values that will be used in the current system. Additional information on how to add these values is provided in the [ServiceNow documentation](#).
- The **Caller ID** field will populate as "Guest" unless you create an account associated with the XiO Cloud email. For more information, refer to the [ServiceNow documentation](#).

```
//Parse Correlation ID from Email

var rsubject = email.subject;
var keyword = "CorrelationID#";
var key = rsubject.indexOf(keyword); //Assuming this text would never change
gs.log(key, 'Did it work');

if (key > 0) {

    var number = rsubject.substring(47);

    gs.log(number, "TEST"); //Try Logging number

    current.correlation_id = number;
    gs.log(number, "TEST AGAIN");
    current.insert();

}
```

The code under the "Parse Correlation ID from Email" section shows the logic used to populate incidents with the **Correlation ID** needed to link the XiO Cloud alert emails with your ServiceNow instance. This field must be added to your Incident form through the Form Designer tool if it has not been already added.

**NOTE:** Modifying the provided logic is not recommended, as the code will likely break and will prevent the field from being populated.

Additional information on how to add certain fields to your incident form, such as Correlation ID, is provided in the [ServiceNow documentation](#).

```
//Logic to Define Priority

if (email.body_text.toLowerCase().indexOf("critical") >= 0) {
    current.impact = 1;
    current.urgency = 1;
}
if (email.body_text.toLowerCase().indexOf("warning") >= 0) {
    current.impact = 2;
    current.urgency = 2;
}
```

The code under the "Logic to Define Priority" section is showing the logic that will populate the **Impact** and **Urgency** fields on the incident form, which will result in populating the **Priority** field based on the impact/urgency matrix that your incident is configured with.

Currently, there are only two variables within the script that will modify the **Priority** field:


- If an XiO Cloud alert email is of type "Critical" or of type "Warning", the priorities will be set to 1 or 3, respectively.
- If an XiO Cloud alert email is of a type other than "Warning" or "Critical", the default priority of 5 is assigned.

If you would like to modify this logic to better adhere to your instance processes, change the values of `current.impact` or `current.urgency` in accordance with the matrix below to get the desired priority for incoming incidents.

| Impact/Urgency  | 1 – Critical | 2 – High   | 3 – Medium | 4 – Low    |
|-----------------|--------------|------------|------------|------------|
| 1 – Extensive   | Priority 1   | Priority 2 | Priority 2 | Priority 3 |
| 2 – Significant | Priority 2   | Priority 2 | Priority 3 | Priority 4 |
| 3 – Moderate    | Priority 2   | Priority 3 | Priority 4 | Priority 4 |
| 4 – Minor       | Priority 3   | Priority 4 | Priority 4 | Priority 4 |

# Close Incident XiO Script

After the XiO Cloud alert is resolved, the system will send a follow-up email to your ServiceNow instance. After this email is sent, the **Close Incident XiO** script will trigger and close the associated incident automatically. The primary function of the script is to locate the correct incident that the XiO Cloud email is referencing, and it does so by searching the system for the corresponding correlation ID that links the ServiceNow Incident to the XiO Cloud email.

|  |      |            |  |                     |
|--|------|------------|--|---------------------|
|  <a href="#">Close Incident XiO</a> | true | email.read | (function runAction( /*GlideRecord*/<br>cur... | Incident [incident] |
|--|------|------------|--|---------------------|

## When to Run Tab

Select the **When to Run** tab to view and configure conditions that will trigger the **Close Incident XiO** inbound action to run. Sending any email to the ServiceNow instance with a subject that contains "Closed incident with CorrelationID#" triggers the inbound action to run.

**NOTE:** Do not change the subject condition, as it may cause your system to incorrectly triage your XiO Cloud incidents and therefore not trigger the rule.



## Actions Tab

Select the **Actions** tab to view and configure action scripts for the **Close Incident XiO** inbound action. The provided script parses through an XiO Cloud alert email and associates its correlation ID (located in the email subject) with the correlated incident and its matching ID.

Each section of the script is described on the following page.

```
//Logic to parse Correlation ID

var rsubject = email.subject;
var keyword = "CorrelationID#";
var key = rsubject.indexOf(keyword); //Assuming this text would never change
if (key > 0) {
    var myID = rsubject.substring(50);
    gs.log(myID);
}
```

The first snippet of code under the "Logic to parse Correlation ID" section is used to parse the correlation ID from the email subject and save it as a variable called "Keyword". An *If* statement is then run to check if the Keyword "Correlation ID#" exists. If this keyword exists, the index of the keyword is parsed from the email subject and saved as the variable "MyID." A log function, `gs.log(myID)`, is also provided.

```
var myTask = new GlideRecord('incident');
myTask.addQuery("correlation_id", myID.toString());
myTask.query();
if (myTask.next()) {
    myTask.incident_state = IncidentState.CLOSED;
    gs.log('Task Completed');
    myTask.update();
} else {
    // No match found so Log an error
    gs.info('No Match found');
}
```

The second snippet of code under the "Logic to parse Correlation ID" section takes the saved Correlation ID (MyID) and uses it in a new GlideRecord to find any existing incidents with a matching Correlation ID. Once it is queried using `MyTask.query()`; the system searches your instance for any incidents that have a Correlation ID matching the variable saved from the **Close Incident XiO** email. Once a match is found, the system will set the Incident State to Closed. If no updated occurs, it will log "No Match found" in your system logs.

**NOTE:** Do not modify the close incident script, as any modifications to it may jeopardize the functionality of this script.

## Close ServiceNow Incidents in XiO Cloud

When a ServiceNow incident is closed, the corresponding alert is not automatically resolved in XiO Cloud. In order for a closed incident to resolve the corresponding alert in XiO Cloud, a secure connection must be established between ServiceNow and XiO Cloud via REST API calls to the following endpoint:

**<https://api.crestron.io/api/v2/servicenowcallback/ServiceNowCallBack>**

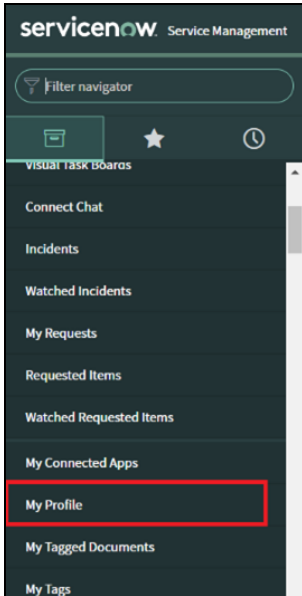
The REST API call is configured in ServiceNow as described in the following sections.

# Add a Subscription Key to ServiceNow

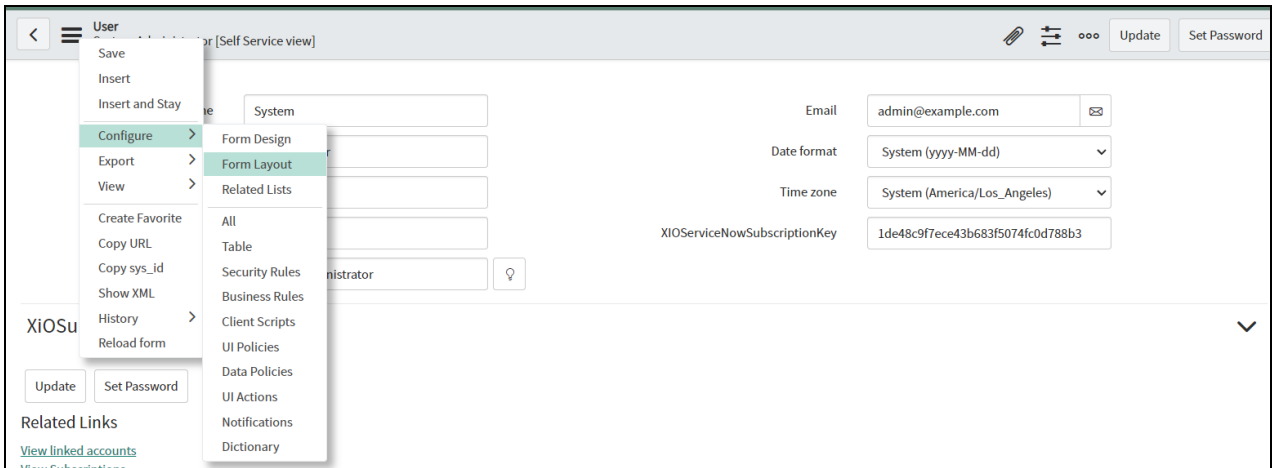
A subscription key must be added to your ServiceNow instance to establish a connection between ServiceNow and XiO Cloud.

To add the required subscription key:

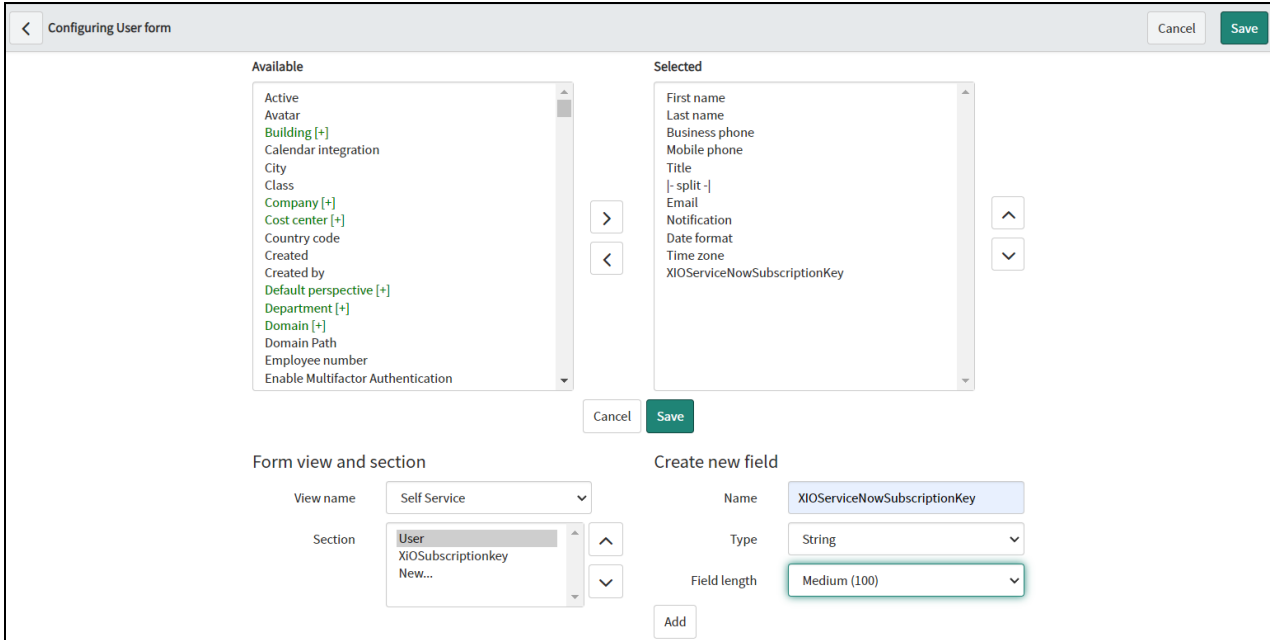
1. Log in to your ServiceNow instance.
2. Select **My Profile** from the right-hand navigation menu.



3. Using the hamburger menu in the top-left corner, navigate to **Configure > Form Layout**.

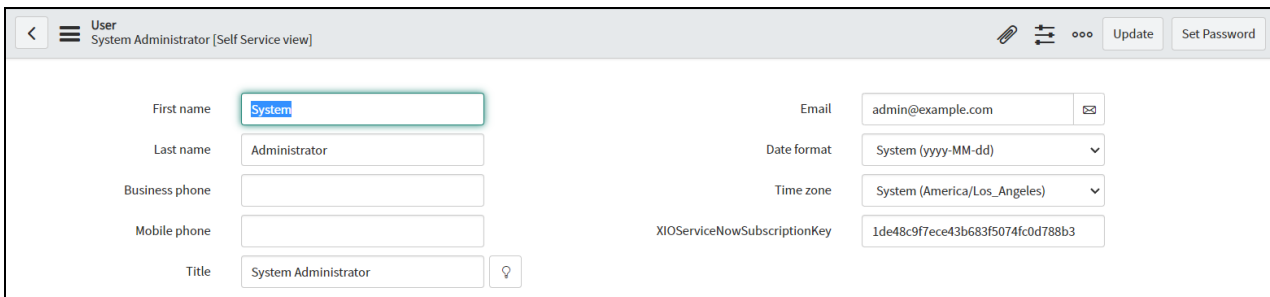


The **Configuring User form** page is displayed.



4. Enter the following information into the **Create new field** section.
  - **Name:** Enter "XIOServiceNowSubscriptionKey" into the text field.
  - **Type:** Select **String** from the drop-down menu.
  - **Field Length:** Select **Medium (100)** from the drop-down menu.
5. Select **Add**. The **XIOServiceNowSubscriptionKey** field is added to the **Available** fields list.
6. Select **XIOServiceNowSubscriptionKey** in the **Available** fields list, and then select the right arrow (>) button to move it into the **Selected** fields list.
7. Select **Save**. The **XIOServiceNowSubscriptionKey** field is now shown in the **User** profile page, and the subscription key is populated automatically as long as ServiceNow is turned on in the XiO Cloud tenant.

**NOTE:** If ServiceNow is already turned on in the XiO Cloud tenant and the subscription key is not populating after completing the steps above, turn off the **Enable ServiceNow** toggle in XiO Cloud and then turn it back on. For more information, refer to [Turn on ServiceNow Within XiO Cloud on page 206](#).



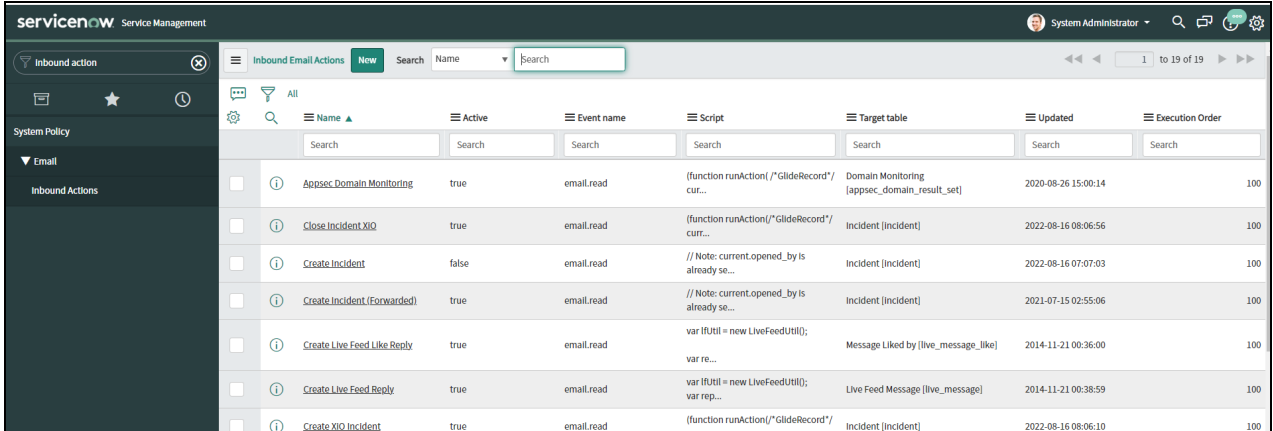


# Inbound Actions Setup

An new inbound action must be created and configured that includes a script for updating the XiO Cloud subscription key within the ServiceNow user profile page.

To create and configure the required inbound action:

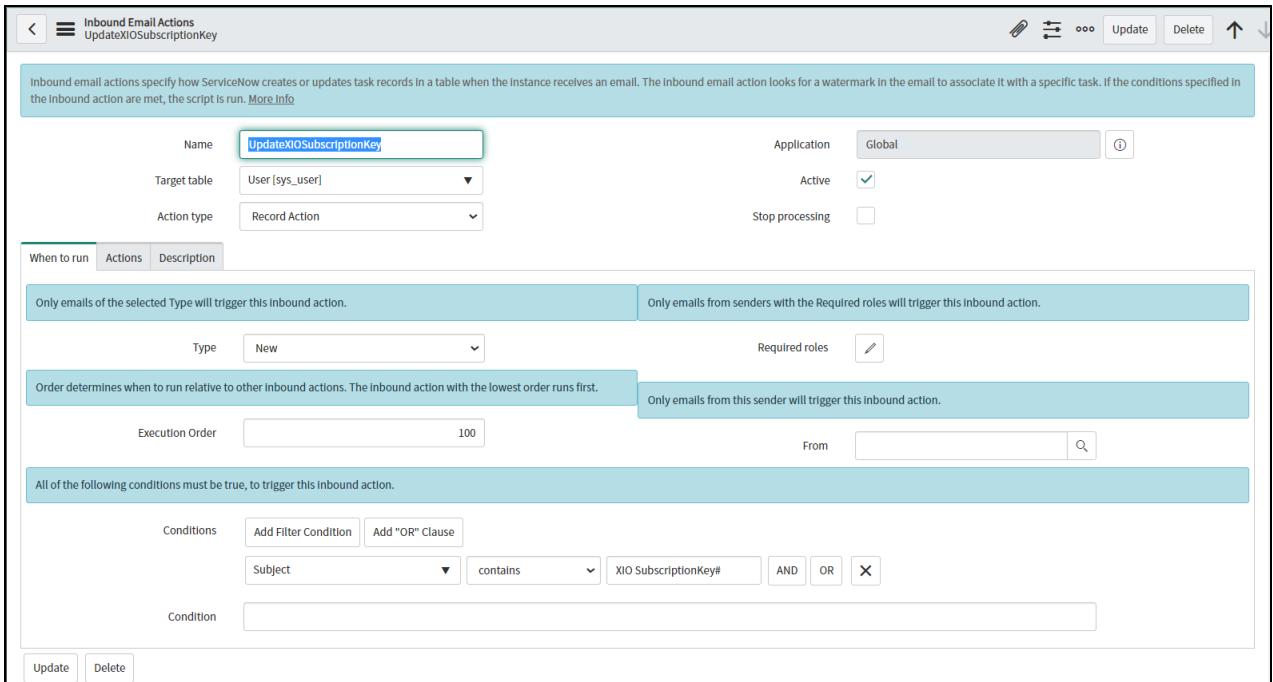
1. Select **Inbound Actions** from the **System Policy** section of the right-hand navigation menu to display all inbound actions for the ServiceNow instance.



The screenshot shows the ServiceNow interface for managing inbound email actions. The left-hand navigation menu is open to 'System Policy' > 'Email' > 'Inbound Actions'. The main area displays a table of existing actions. The table has columns for Name, Active, Event name, Script, Target table, Updated, and Execution Order. The 'New' button is visible at the top of the table.

| Name                        | Active | Event name | Script                                      | Target table                                 | Updated             | Execution Order |
|-----------------------------|--------|------------|---|--|---------------------|-----------------|
| Appsec Domain Monitoring    | true   | email.read | (function runAction("GlideRecord"/cur...    | Domain Monitoring [appsec_domain_result_set] | 2020-08-26 15:00:14 | 100             |
| Close Incident XiO          | true   | email.read | (function runAction("GlideRecord"/cur...    | Incident (incident)                          | 2022-08-16 08:06:56 | 100             |
| Create Incident             | false  | email.read | // Note: current.opened_by is already se... | Incident (incident)                          | 2022-08-16 07:07:03 | 100             |
| Create Incident (Forwarded) | true   | email.read | // Note: current.opened_by is already se... | Incident (incident)                          | 2021-07-15 02:55:06 | 100             |
| Create Live Feed Like Reply | true   | email.read | var fURL = new LiveFeedURL();<br>var re...  | Message Liked by [live_message_like]         | 2014-11-21 00:36:00 | 100             |
| Create Live Feed Reply      | true   | email.read | var fURL = new LiveFeedURL();<br>var rep... | Live Feed Message [live_message]             | 2014-11-21 00:38:59 | 100             |
| Create XiO Incident         | true   | email.read | (function runAction("GlideRecord"/          | Incident (incident)                          | 2022-08-16 08:06:10 | 100             |

2. Select **New** from the top of the inbound actions list. A page for configuring a new inbound action is displayed.

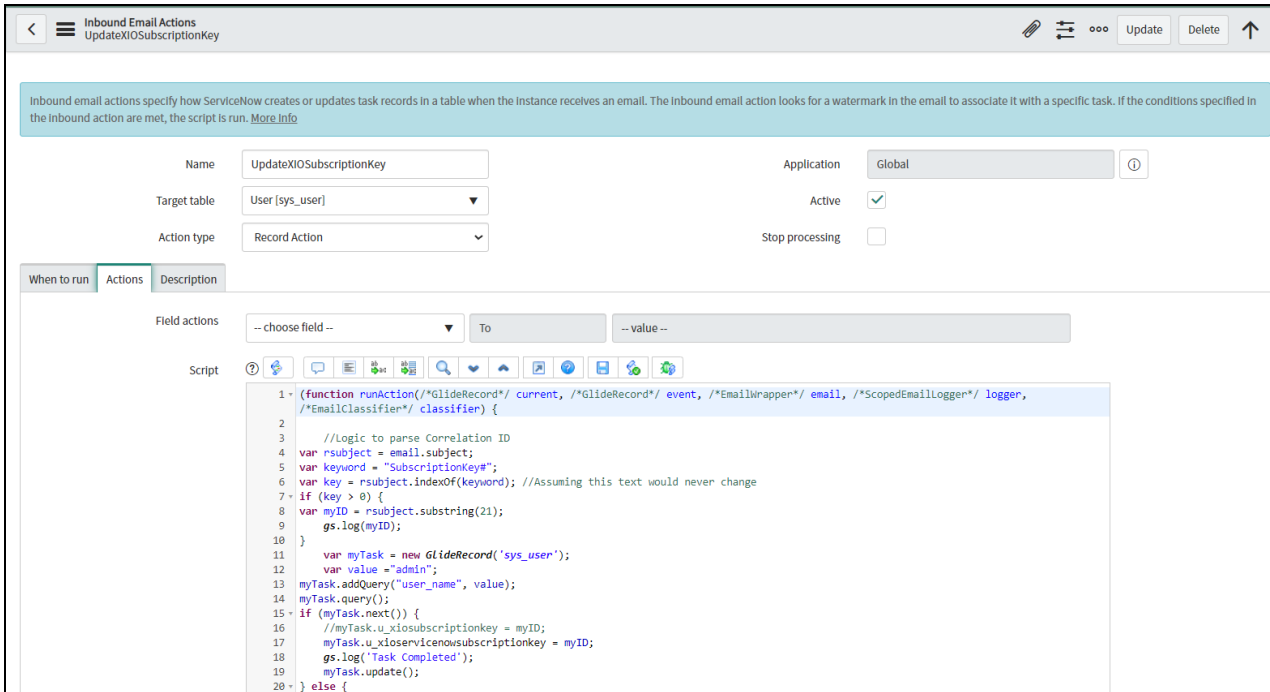


The screenshot shows the configuration page for a new inbound email action. The page title is 'Inbound Email Actions UpdateXiOSubscriptionKey'. The form includes the following fields and options:

- Name:** UpdateXiOSubscriptionKey
- Application:** Global
- Target table:** User [sys\_user]
- Action type:** Record Action
- Active:**
- Stop processing:**
- When to run:** Type: New, Required roles: [edit icon]
- Execution Order:** 100
- From:** [search field]
- Conditions:** Add Filter Condition, Add "OR" Clause. Subject contains XI0 SubscriptionKey# AND OR X

3. Configure the following information for the inbound action:
  - **Name:** Enter "UpdateXiOSubscriptionKey" into the text field.
  - **Target table:** Select **User [sys\_user]** from the drop-down menu.
  - **Action type:** Select **Record Action** from the drop-down menu.

4. Select the **When to run** tab (if is not already selected).
5. Create the following new condition: **Subject / contains / XIO SubscriptionKey# / AND / OR**.
6. Select the **Actions** tab.
7. Enter the script located within the [Processing Script on page 219](#) topic into the **Script** text box.



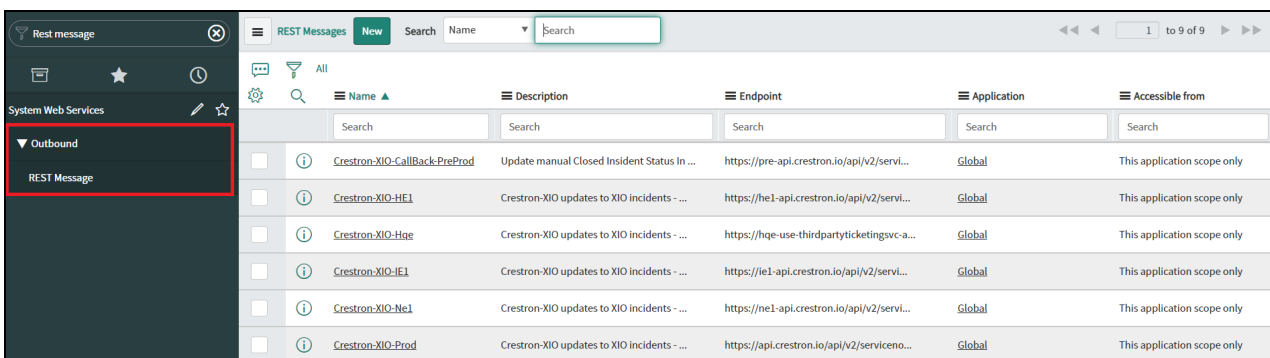
8. Select **Submit** to save the new inbound action. The **UpdateXiOSubscriptionKey** inbound action is added to the ServiceNow instance.

## REST Message Setup

A REST message must be created and configured that invokes the XiO Cloud service when a user changes an incident status to **Closed** from the ServiceNow portal.

To create and configure the required REST message:

1. Select **Outbound > REST Message** from the **System Web Services** section of the right-hand navigation menu to display all REST messages for the ServiceNow instance.



2. Select **New** from the top of the REST messages list. A page for configuring a new REST message is displayed.

The screenshot shows the 'REST Message' configuration page. At the top, there is a navigation bar with a back arrow, a hamburger menu, the text 'REST Message New record', and a 'Submit' button. The main form contains the following fields:

- Name:** A text input field containing 'Crestron-XIO-Prod'.
- Application:** A dropdown menu set to 'Global'.
- Accessible from:** A dropdown menu set to 'This application scope only'.
- Description:** A text area containing 'Crestron-XIO updates to XIO incidents - Prod environment'.
- Endpoint:** A text input field containing 'https://api.crestron.io/api/v2/servicenowcallback/ServicenowCallBack'.

Below the form, there are two tabs: 'Authentication' (selected) and 'HTTP Request'. The 'Authentication' tab contains a light blue informational box with the text: 'REST Messages support the following Authentication types: • Basic authentication • Mutual (two-way authentication) • OAuth 2.0'. Below this box, it states: 'Authentication configured on the REST Message will automatically apply to child HTTP Methods. Authentication configured on child HTTP Methods will override the parent configuration.' and a link for 'More info'. At the bottom of the tab, there is a dropdown for 'Authentication type' set to 'No authentication' and a checkbox for 'Use mutual authentication' which is unchecked. A 'Submit' button is located at the bottom left of the form.

3. Create the new REST message by entering the following information in the provided fields exactly as shown:
  - **Name:** Crestron-XIO-Prod
  - **Description:** Crestron-XIO updates to XIO incidents - prod environment
  - **Endpoint:** https://api.crestron.io/api/v2/servicenowcallback/ServicenowCallBack
4. Select **Submit** to save the new REST message. The **Crestron-XIO-Prod** REST message is added to the ServiceNow instance.
5. Reopen the **Crestron-XIO-Prod** REST message.

The screenshot shows the 'REST Messages' list page. At the top, there are tabs for 'Authentication' and 'HTTP Request'. Below the tabs is the same informational box as in the previous screenshot. Underneath, there are 'Update' and 'Delete' buttons. A search bar is present with the text 'for text' and a search icon. Below the search bar, there is a table with the following columns: 'Name', 'HTTP method', and 'Endpoint'. The table contains one row with the following data:

| Name        | HTTP method | Endpoint                                    |
|-------------|-------------|---|
| Default GET | GET         | https://he1-api.crestron.io/api/v2/servi... |

At the bottom of the table, there is a dropdown for 'Actions on selected rows...' and a pagination control showing '1 to 1 of 1'.

6. Under the **HTTP Methods** section, select the **Default Get** method. A page for editing the REST message method is displayed.

The screenshot shows the 'HTTP Method' configuration page for 'Update Incident'. The page is titled 'HTTP Method Update Incident'. It features a header with navigation icons and 'Update' and 'Delete' buttons. The main content area includes several fields: 'REST Message' (Crestron-XIO-Prod), 'Application' (Global), 'Name' (Update Incident), 'HTTP method' (PUT), and 'Endpoint' (https://api.crestron.io/api/v2/servicenowcallback/ServicenowCallBack). Below these fields are two tabs: 'Authentication' and 'HTTP Request'. The 'Authentication' tab is active, displaying a list of supported authentication types: Basic authentication, Mutual (two-way authentication), and OAuth 2.0. A note states that authentication configured on the HTTP Method will override the parent REST Message configuration. The 'Authentication type' is set to 'No authentication', and 'Use mutual authentication' is unchecked. 'Update' and 'Delete' buttons are at the bottom.

7. Enter the following information for the HTTP method in the provided fields:
- **Name:** Update Incident
  - **HTTP Method:** PUT
  - **Endpoint:** https://api.crestron.io/api/v2/servicenowcallback/ServicenowCallBack
  - **Authentication type:** No authentication
8. Select the **HTTP Request** tab.

The screenshot shows the 'HTTP Method' configuration page for 'Update Incident' with the 'HTTP Request' tab selected. The 'Authentication' tab is now inactive. The 'HTTP Request' tab is active, displaying a 'Use MID Server' field with a search icon. Below this is the 'HTTP Headers' section, which is a table with columns for 'Name' and 'Value'. The table contains one header: 'Content-Type' with the value 'application/json'. There is a plus sign and the text 'Insert a new row...' at the bottom of the table. The 'Update' and 'Delete' buttons are still visible at the top right.

9. Add the following new HTTP header:
- **Name:** Content-Type
  - **Value:** application/json

10. Select **Update** to save the REST message.

## Business Rule Setup

A business rule must be created and configured that includes a script for calling the REST message when an incident status is changed to **Closed** within the **Incident Table** in ServiceNow.

1. Select **Business Rules** from the **System Definition** section of the right-hand navigation menu to display all system definition business rules for the ServiceNow instance.

| Name                                    | Active | Table  | Application | Order | Updated             |
|---|--------|--|-------------|-------|---------------------|
| Display, Fulfiller UI and Queues        | true   | Chat Setup [sys_cs_live_agent_setup]         | Global      | 100   | 2020-03-23 00:00:32 |
| GTD Tour Name and Page Name Validation  | true   | Guided Tour [sys_embedded_tour_guide]        | Global      | 100   | 2020-07-27 22:40:07 |
| 80-20 split for the usage field         | true   | ML Labeled Data [ml_labeled_data]            | Global      | 100   | 2021-10-13 09:48:24 |
| Able to disable parameterized testing   | true   | Test [sys_atf_test]                          | Global      | 100   | 2018-06-29 10:33:57 |
| Abort Cmdb Policy Type deletion         | true   | Cmdb Policy Type [cmdb_policy_type]          | Global      | 100   | 2021-10-28 18:24:30 |
| Abort action if no license type         | true   | Software Model [cmdb_software_product_model] | Global      | 100   | 2012-04-03 19:35:58 |
| Abort Activation/Deactivation of topics | true   | Topic [topic]                                | Global      | 100   | 2020-05-26 16:58:14 |
| Abort adding more than one taxonomy     | true   | Portal Taxonomy [m2m_sp_portal_taxonomy]     | Global      | 100   | 2021-03-29 01:40:35 |

2. Select **New** from the top of the business rules list. A page for configuring a new business rule is displayed.

**Business Rule**  
Update XIO Prod upon Incident Closure

A business rule is a server-side script that runs when a record is displayed, inserted, deleted, or when a table is queried. Use business rules to automatically change values in form fields when the specified conditions are met. [More Info](#)

Name: Update XIO Prod upon Incident Closure  
 Table: Incident [Incident]  
 Application: Global  
 Active:   
 Advanced:

**When to run** | Actions | Advanced

Specify whether the business rule should run on Insert or Update. Use Filter Conditions to specify under which conditions the business rule should run.

When: after  
 Order: 100  
 Insert:   
 Update:   
 Delete:   
 Query:

Filter Conditions: Add Filter Condition Add "OR" Clause  
 State changes to Closed  
 AND OR X

Role conditions:

Update Delete

3. Enter the following information for the business rule in the provided fields:
  - **Name:** Update XIO Prod upon Incident Closure
  - **Table:** Incident [Incident]
  - **Application:** Global
  - **Active:** Fill the check box
  - **Advanced:** Fill the check box
4. Populate the business rule data by selecting the **Advanced** tab and then adding the XML script located within the [Business Rule Script on page 220](#) topic.
5. Select **Submit** to save the new business rule.

## Test the Connection

To test that the incident closing behavior works as expected, create a new incident in ServiceNow, and then toggle the state from **New** to a different state and then back to **New**. A request for a new correlation ID will be generated. Then, update the incident with the new correlation ID and mark the incident as **Closed**. The incident should also be closed in XiO Cloud following this test.

## Processing Script

The following script is used when configuring an inbound action to update the XiO Cloud subscription key within the ServiceNow user profile page. Refer to [Inbound Actions Setup on page 214](#) for more information.

```
(function runAction(/*GlideRecord*/ current, /*GlideRecord*/ event, /*EmailWrapper*/ email,
/*ScopedEmailLogger*/ logger, /*EmailClassifier*/ classifier) {

    //Logic to parse Correlation ID
    var rsubject = email.subject;
    var keyword = "SubscriptionKey#";
    var key = rsubject.indexOf(keyword); //Assuming this text would never change
    if (key > 0) {
    var myID = rsubject.substring(21);
    gs.log(myID);
    }
    var myTask = new GlideRecord('sys_user');
    var value = "admin";
    myTask.addQuery("user_name", value);
    myTask.query();
    if (myTask.next()) {
        //myTask.u_xiosubscriptionkey = myID;
        myTask.u_xioservicenowsubscriptionkey = myID;
        gs.log('Task Completed');
        myTask.update();
    } else {
    // No match found so Log an error
    gs.info('No Match found');
    }

})(current, event, email, logger, classifier);
```

# Business Rule Script

The following script is used when creating a new business rule to set the incident closing behavior. Refer to [Business Rule Setup on page 218](#) for more information.

```
(function executeRule(current, previous /*null when async*/) {

    var myTask = new GlideRecord('sys_user');
    var value = "admin";
    myTask.addQuery("user_name", value);
    myTask.query();
    if (myTask.next()) {
        var XiOSubscriptionKey = myTask.getValue('u_xioservicenowsubscriptionkey');
        gs.log('Task Completed');
    } else {
        // No match found so Log an error
        gs.info('No Match found');
    }

    try {

        if (XiOSubscriptionKey) {
            var incObj = {
                sys_id: current.getUniqueValue(),
                state: current.getDisplayValue('state'),
                short_description: current.getValue('short_description'),
                number: current.getDisplayValue('number'),
                assignment_group: current.getDisplayValue('assignment_group'),
                assigned_to: current.getDisplayValue('assigned_to'),
                correlation_id: current.getValue('correlation_id'),
                XiO_subscription_key: XiOSubscriptionKey,
            };

            try {
                var xioRequest = new sn_ws.RESTMessageV2('Crestron-XIO-Prod', 'Update Incident');
                //Specific name of the Rest Endpoint
                xioRequest.setRequestBody(JSON.stringify(incObj));
                xioRequest.setRequestHeader("XiO-subscription-key",XiOSubscriptionKey);
                var response = xioRequest.execute();
                var responseBody = response.getBody();
                var httpStatus = response.getStatusCode();
                gs.addInfoMessage(responseBody); //Remove upon conclusion of testing
            } catch (ex) {
                var message = ex.message;
                gs.error("Unexpected error encountered during XIO Update Incident. " + message);
            }
        }
    } catch (e) {
        gs.error("Unexpected error encountered during XIO Token Request. " + e.message);
    }

})(current, previous);
```

# Additional Resources

The following resources are provided to assist users with implementing this functionality.

- [ServiceNow Paris Platform Documentation](#)
- [ServiceNow Development Documentation](#)
- [ServiceNow Inbound Action Documentation](#)
- [ServiceNow Community Form](#)
- [JavaScript Documentation](#)



# Appendix B: User Access Matrix

The following table shows the tasks that can be performed for different user access levels.









| Task   | Global Admin | Standard User | Standard User (Admin) | Standard User (Tech) | Standard User (Viewer) | Standard User (Hidden) |
|--|--------------|---------------|-----------------------|----------------------|------------------------|------------------------|
| View devices in device tree                        | ✓            | Use groups    | ✓                     | ✓                    | ✓                      | ✗                      |
| View <b>Status</b> tab                             | ✓            | Use groups    | ✓                     | ✓                    | ✓                      | ✗                      |
| View <b>Settings</b> tab                           | ✓            | Use groups    | ✓                     | ✓                    | ✓                      | ✗                      |
| View <b>Licenses</b> tab                           | ✓            | Use groups    | ✓                     | ✓                    | ✓                      | ✗                      |
| View <b>Activity Log</b> tab                       | ✓            | Use groups    | ✓                     | ✓                    | ✓                      | ✗                      |
| View <b>Dashboard</b> tab                          | ✓            | Use groups    | ✓                     | ✓                    | ✓                      | ✗                      |
| View <b>Scheduled Actions</b> tab                  | ✓            | Use groups    | ✓                     | ✓                    | ✓                      | ✗                      |
| View <b>File Management</b> tab                    | ✓            | Use groups    | ✓                     | ✓                    | ✓                      | ✗                      |
| View <b>Remote Control</b> tab                     | ✓            | Use groups    | ✓                     | ✓                    | ✗                      | ✗                      |
| Change device or group settings                    | ✓            | Use groups    | ✓                     | ✓                    | ✗                      | ✗                      |
| Add or remove licenses on devices                  | ✓            | Use groups    | ✓                     | ✓                    | ✗                      | ✗                      |
| Create scheduled actions                           | ✓            | Use groups    | ✓                     | ✓                    | ✗                      | ✗                      |
| Control devices remotely                           | ✓            | Use groups    | ✓                     | ✓                    | ✗                      | ✗                      |
| Load a file to a device slot                       | ✓            | Use groups    | ✓                     | ✓                    | ✗                      | ✗                      |
| Start/stop or register/unregister a device program | ✓            | Use groups    | ✓                     | ✓                    | ✗                      | ✗                      |
| Update firmware                                    | ✓            | Use groups    | ✓                     | ✓                    | ✗                      | ✗                      |
| Reboot devices                                     | ✓            | Use groups    | ✓                     | ✓                    | ✗                      | ✗                      |
| Clear alerts                                       | ✓            | Use groups    | ✓                     | ✓                    | ✗                      | ✗                      |













| Task                                    | Global Admin | Standard User | Standard User (Admin) | Standard User (Tech) | Standard User (Viewer) | Standard User (Hidden) |
|---|--------------|---------------|-----------------------|----------------------|------------------------|------------------------|
| Add devices to a group                  | ✓            | Use groups    | ✓                     | ✓                    | ✗                      | ✗                      |
| Rename a group                          | ✓            | Use groups    | ✓                     | ✓                    | ✗                      | ✗                      |
| Delete a group                          | ✓            | Use groups    | ✓                     | ✓                    | ✗                      | ✗                      |
| Add or modify program and project files | ✓            | Use groups    | ✓                     | ✓                    | ✗                      | ✗                      |
| Change user access to a group           | ✓            | ✗             | N/A                   | N/A                  | N/A                    | N/A                    |
| Add subgroups                           | ✓            | Use groups    | ✓                     | ✗                    | ✗                      | ✗                      |
| Add top-level groups                    | ✓            | ✗             | N/A                   | N/A                  | N/A                    | N/A                    |
| Claim devices                           | ✓            | ✗             | N/A                   | N/A                  | N/A                    | N/A                    |
| Download inventory                      | ✓            | ✗             | N/A                   | N/A                  | N/A                    | N/A                    |
| Add alerts                              | ✓            | ✗             | N/A                   | N/A                  | N/A                    | N/A                    |
| Enable remote control functionality     | ✓            | ✗             | N/A                   | N/A                  | N/A                    | N/A                    |
| Invite new users                        | ✓            | ✗             | N/A                   | N/A                  | N/A                    | N/A                    |
| Delete users                            | ✓            | ✗             | N/A                   | N/A                  | N/A                    | N/A                    |
| Change user roles                       | ✓            | ✗             | N/A                   | N/A                  | N/A                    | N/A                    |
| Change user profile information         | ✓ (any user) | ✓ (for self)  | N/A                   | N/A                  | N/A                    | N/A                    |
| Change alerts received by a user        | ✓ (any user) | ✓ (for self)  | N/A                   | N/A                  | N/A                    | N/A                    |
| View cloud activity logs                | ✓            | Use groups    | ✓                     | ✓                    | ✓                      | ✗                      |
| Request device logs                     | ✓            | Use groups    | ✓                     | ✓                    | ✗                      | ✗                      |
| View downloaded device logs             | ✓            | Use groups    | ✓                     | ✓                    | ✓                      | ✗                      |
| Modify alerts                           | ✓            | ✗             | N/A                   | N/A                  | N/A                    | N/A                    |
| Modify account settings                 | ✓            | ✗             | N/A                   | N/A                  | N/A                    | N/A                    |
| Modify services (room licensing)        | ✓            | ✗             | N/A                   | N/A                  | N/A                    | N/A                    |
| Modify support providers                | ✓            | ✗             | N/A                   | N/A                  | N/A                    | N/A                    |

| Task                        | Global Admin | Standard User | Standard User (Admin) | Standard User (Tech) | Standard User (Viewer) | Standard User (Hidden) |
|-----------------------------|--------------|---------------|-----------------------|----------------------|------------------------|------------------------|
| Manage files                | ✓            | ✗ (read only) | N/A                   | N/A                  | N/A                    | N/A                    |
| Manage EDIDs                | ✓            | ✗ (read only) | N/A                   | N/A                  | N/A                    | N/A                    |
| Manage images               | ✓            | ✗ (read only) | N/A                   | N/A                  | N/A                    | N/A                    |
| Add users                   | ✓            | ✗             | N/A                   | N/A                  | N/A                    | N/A                    |
| Delete users                | ✓            | ✗             | N/A                   | N/A                  | N/A                    | N/A                    |
| Reset user account password | ✓ (any user) | ✓ (for self)  | N/A                   | N/A                  | N/A                    | N/A                    |
| Power on/off (displays)     | ✓            | Use groups    | ✓                     | ✓                    | ✓                      | ✗                      |
| Power on/off (PDUs)         | ✓            | Use groups    | ✓                     | ✓                    | ✓                      | ✗                      |
| Source routing              | ✓            | Use groups    | ✓                     | ✓                    | ✓                      | ✗                      |

# Appendix C: XiO Cloud Program Connector Sources

The following **Current Source** icons and descriptions can be displayed via the **Room Control** card when using the XiO Cloud Program Connector functionality. For more information, refer to [XiO Cloud Program Connector on page 65](#).

| Source Type                             | Source Descriptions  | Icon  |
|---|--|---|
| AirMedia® streaming presentation system | AirMedia<br>AirMedia [1-9]<br>AirMedia Conferencing<br>AirMedia Conferencing [1-9]<br>AirMedia Presenting<br>AirMedia Presenting [1-9] |    |
| Apple TV® streaming service             | Apple TV<br>Apple TV [1-9]   |    |
| Blu-ray Disc™ player                    | Blu-ray Player<br>Blu-ray Player [1-9]   |    |
| Camera                                  | Camera<br>Camera [1-9]<br>Front Camera<br>Back Camera<br>Side Camera   |  |
| Cable Box                               | Cable Box<br>Cable Box [1-9]   |  |
| Document Camera                         | Document Camera<br>Document Camera [1-9]<br>Front Document Camera<br>Back Document Camera<br>Side Document Camera                      |  |
| HDMI® output                            | HDMI<br>HDMI [1-9]<br>Front HDMI<br>Back HDMI<br>Side HDMI   |  |
| Laptop                                  | Laptop<br>Laptop [1-9]<br>Front Laptop<br>Back Laptop<br>Side Laptop   |  |

| Source Type                         | Source Descriptions  | Icon  |
|-------------------------------------|--|---|
| Media Player                        | Media Player<br>Media Player [1-9]                           |    |
| Microsoft Teams® video conferencing | Microsoft Teams  |    |
| PC                                  | PC<br>PC [1-9]<br>Front PC<br>Back PC<br>Side PC             |    |
| Roku® streaming service             | Roku<br>Roku [1-9]   | <b>ROKU</b>   |
| Streaming Player                    | Streaming Player<br>Streaming Player [1-9]                   |    |
| TV Set Top Box                      | TV Set Top Box<br>TV Set Top Box [1-9]                       |    |
| Uncontrolled Audio Source           | Uncontrolled Audio Source<br>Uncontrolled Audio Source [1-9] |    |
| Uncontrolled Video Source           | Uncontrolled Video Source<br>Uncontrolled Video Source [1-9] |   |
| Unified Communications              | Unified Communications                                       |  |
| USB output                          | USB<br>USB [1-9]<br>Front USB<br>Back USB<br>Side USB        |  |
| Video Conferencing                  | Video Conferencing   |  |
| Wireless Presenting                 | Wireless Presenting<br>Wireless Presenting [1-9]             |  |
| Zoom Rooms® conferencing control    | Zoom Rooms   |  |

