



Crestron® Room Scheduling Panels for TSW-70 Series

Operations Guide
Crestron Electronics, Inc.

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 Crestron® room scheduling application provides a complete room scheduling solution for the Crestron TSS-770 and TSS-1070 room scheduling touch screens and the TSW-570, TSW-570P, TSW-770, TSW-1070, TS-770, and TS-1070 touch screens. When the scheduling application is enabled on a touch screen installed outside of a meeting space, users may view the room's availability, check the status of nearby rooms, and book an ad hoc meeting directly through the touch screen.

The scheduling application integrates with Crestron Fusion® software, Microsoft® Exchange software, the Google Calendar™ calendaring application (via a Google® software account), Ad Astra™ software, or CollegeNet® 25Live® software to provide real-time notifications and to monitor the meeting space intelligently.

NOTE: The scheduling application comes preinstalled on supported touch screens. Ensure that the touch screen is running the latest firmware version that includes the scheduling application. For more information, refer to the firmware release notes.

The following documents are also provided for the scheduling application:

- For more information about scheduling application functionality and the user interface, refer to the [Crestron Room Scheduling Panels User Guide \(Doc. 8206\)](#).
- For more information about customizing the scheduling application, refer to the [Crestron Room Scheduling Panels Programming Guide \(Doc. 8213\)](#).

Setup

Use the following procedures to enable the room scheduling application mode on the touch screen (for touch screens not dedicated to room scheduling) and to set up a connection to a supported scheduling calendar.

NOTE: Ensure that the latest touch screen firmware that includes the scheduling application is installed on the touch screen. If older firmware is installed on the touch screen, download and install the most recent firmware from the Crestron firmware library at www.crestron.com/firmware. This interface is also accessible using the XiO Cloud® service.

Access the Web Configuration Interface

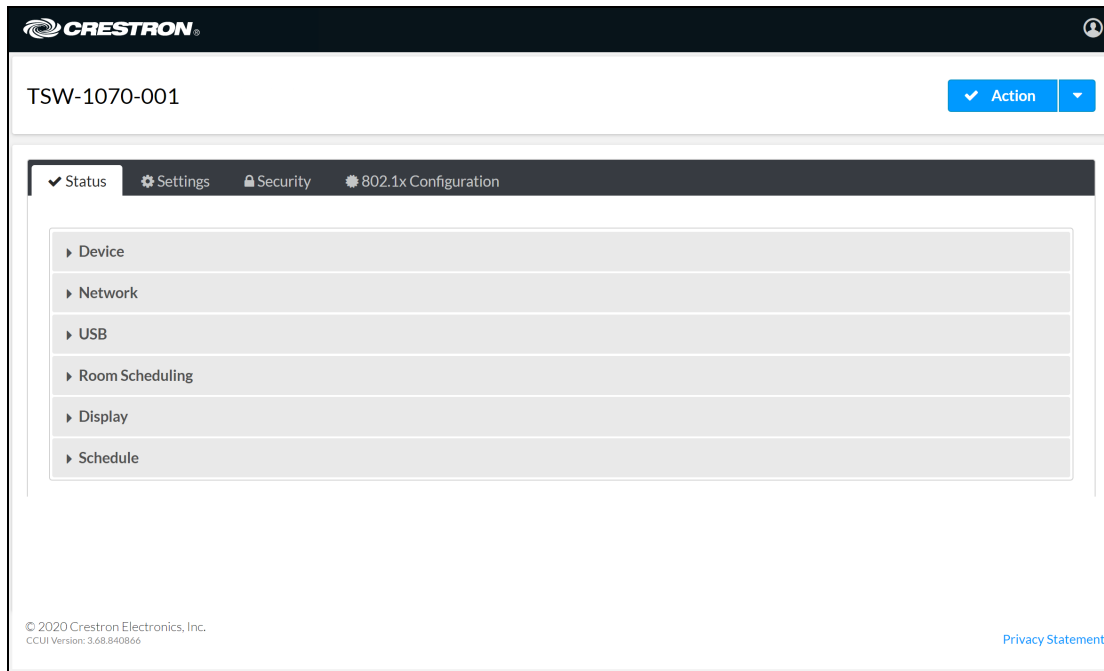
Enable the room scheduling application via the included web configuration interface. The web configuration interface is accessible from a web browser if the IP address of the touch screen is known.

To access the web configuration interface:

1. Use the Device Discovery tool in Crestron Toolbox™ software to discover the touch screen and its IP address on the network
2. Open a web browser.
3. Enter the touch screen IP address into the browser URL field. The configuration interface is displayed.

NOTE: If authentication is enabled for the touch screen, an administrator username and password must be entered prior to accessing the web configuration interface. For more information on configuring authentication settings, refer to [Authentication Management](#).

Web Configuration Interface



Set the Time Zone

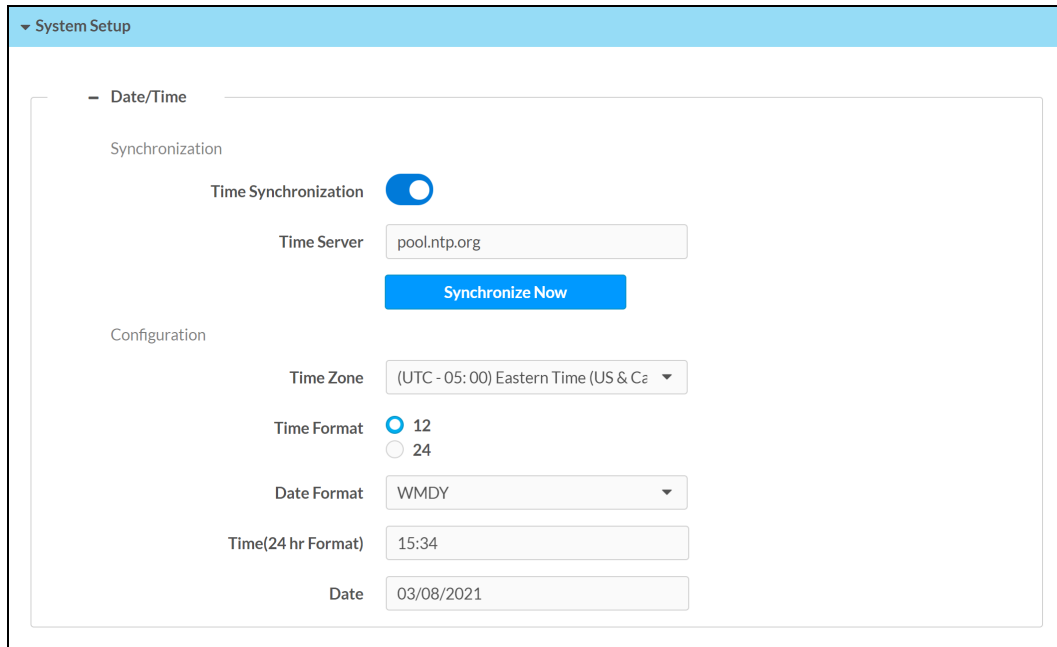
If Microsoft Exchange or Crestron Fusion will be used as the scheduling calendar provider, set the time zone on the touch screen prior to enabling the scheduling application.

NOTE: If Google Calendar will be used as the scheduling panel provider, the scheduling application uses the time zone set in the Google Calendar settings.

To set the time zone from the configuration interface:

1. Navigate to **Settings > System Settings > Date/Time**.

System Settings Accordion - Date/Time



The screenshot displays the 'System Setup' interface with the 'Date/Time' settings expanded. The interface is divided into two sections: 'Synchronization' and 'Configuration'. In the 'Synchronization' section, the 'Time Synchronization' toggle is turned on, and the 'Time Server' is set to 'pool.ntp.org'. A blue 'Synchronize Now' button is located below the 'Time Server' field. In the 'Configuration' section, the 'Time Zone' is set to '(UTC - 05: 00) Eastern Time (US & Ca)', the 'Time Format' is set to '12' (with '24' as an alternative), the 'Date Format' is set to 'WMDY', the 'Time(24 hr Format)' is set to '15:34', and the 'Date' is set to '03/08/2021'.

2. Turn on the **Time Synchronization** toggle to use time synchronization via SNTP (Simple Network Time Protocol).
3. Enter the necessary information in the **Time Server**, **Time Zone**, **Time Format**, **Date Format**, **Time(24hr Format)**, and **Date** fields. For more information, refer to [System Setup \(on page 25\)](#).
4. Click **Synchronize Now**. The touch screen may take up to two minutes to synchronize with the SNTP server.

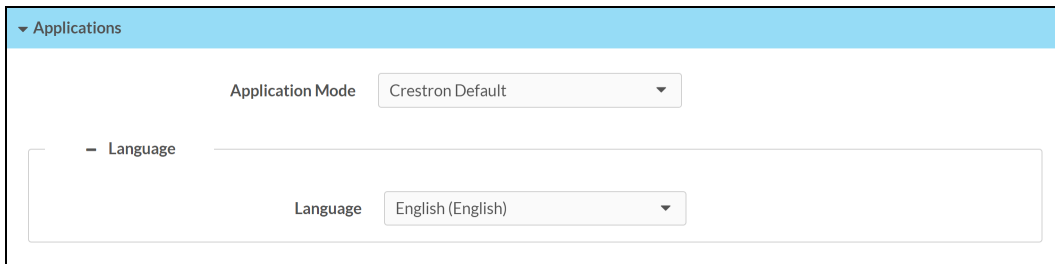
Enable the Scheduling App (Non-TSS Only)

To enable the scheduling application from the configuration interface if using a TSW-70 series touch screen not dedicated exclusively to room scheduling:

NOTE: The Crestron scheduling application is enabled by default on TSS-770 and TSS-1070 touch screens.

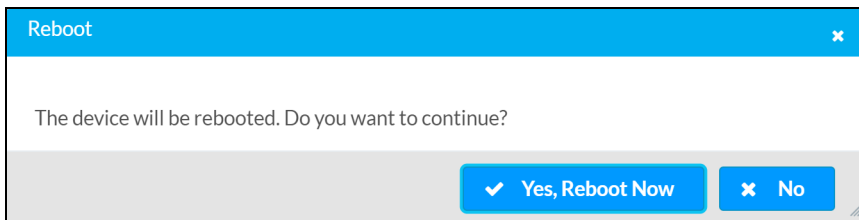
1. Navigate to **Settings > System Settings > Applications**.
2. Select **Crestron Default** from the **Application Mode** drop-down menu.

System Settings Accordion - Applications



3. Use the **Language** drop-down menu to select the language that will be displayed by the scheduling application.
4. Select **Save Changes** from the **Action** menu. A pop-up window stating that the touch screen will be rebooted displays.

Reboot Window



5. Click **Yes, Reboot Now** to reboot the touch screen in scheduling mode.

Connect to a Scheduling Calendar

Use the following procedures to connect to one of the supported scheduling calendars (Crestron Fusion, Microsoft Exchange, Google Calendar, Ad Astra, or CollegeNet 25Live).

NOTE: The scheduling application must be enabled before a connection to a scheduling calendar may be established.

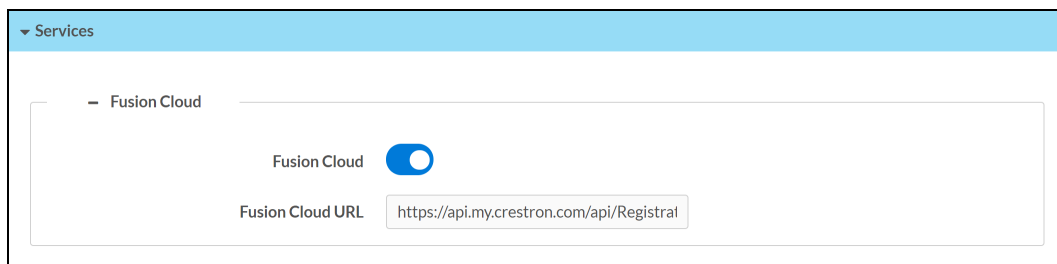
Connect to Crestron Fusion

To connect to a Crestron Fusion scheduling calendar:

NOTE: The touch screen must be added to a room in Crestron Fusion before the scheduling calendar shows as online. For more information, refer to the [Adding Devices to Crestron Fusion Getting Started Guide \(Doc. 7888\)](#).

1. Navigate to **Settings > Services > Crestron Fusion Cloud**.
2. Turn on the **Crestron Fusion Cloud** toggle.

Settings Tab - System Setup (Crestron Fusion Cloud)



3. Enter the Crestron Fusion cloud URL that contains the desired scheduling calendar in the **Crestron Fusion Cloud URL** field.
4. Navigate to **Settings > Schedule**.
5. Configure the desired **Polling Interval** and **Custom Reserve Time** settings. For more information, refer to [Schedule](#).
6. Select **Crestron Fusion** from the **Schedule source** drop-down menu.

Settings Tab - Schedule (Crestron Fusion)

The screenshot shows the 'Schedule' settings page for Crestron Fusion. At the top, there is a blue header with a dropdown arrow and the text 'Schedule'. Below this, the 'Polling Interval' is set to '5' with a 'Minutes' label and a blue up/down arrow icon. The 'Custom Reserve Time' is a toggle switch that is currently turned off. The 'Schedule Source' is a dropdown menu set to 'Fusion'. Below these settings is a section titled '- Fusion' which contains two toggle switches: 'Enable Push Registration' and 'Enable Find Button', both of which are currently turned on.

7. Configure the following Crestron Fusion settings:
 - Turn on the **Enable Push Registration** toggle to have Crestron Fusion push scheduling calendar data to the scheduling application.
 - Turn on the **Enable Find Button** toggle to display a find button on the scheduling application so a user may look up nearby rooms available for meetings.
8. Select **Save Changes** from the **Action** menu. The Crestron Fusion scheduling calendar connects to the scheduling application without requiring a reboot.

Connect to Microsoft Exchange

To connect to a Microsoft Exchange scheduling calendar:

NOTE: The Microsoft Exchange account and scheduling calendar must be fully configured before the scheduling calendar shows as online.

1. Navigate to **Settings > Schedule**.
2. Configure the desired **Polling Interval** and **Custom Reserve Time** settings. For more information, refer to [Schedule](#).
3. Select **Exchange/O365** from the **Schedule source** drop-down menu.

Settings Tab - Schedule (Exchange/O365)

▼ Schedule

Polling Interval Minutes

Custom Reserve Time

Schedule Source

– Exchange/O365

Enable Modern Authentication

Exchange Calendar Email Address Exchange Calendar Email Address is invalid

Exchange Account Username Exchange Account Username is invalid

Exchange Account Password Exchange Account Password is invalid

Exchange Domain

Exchange Web Services URL Exchange Web Services URL is invalid

4. Enter the following Microsoft Exchange account information:

- Turn on the **Enable Modern Authentication** toggle to use Modern Authentication for the EWS (Exchange Web Services) account. For instructions on configuring Modern Authentication for use with the Crestron Room Scheduling application, refer to [Appendix A: Enabling Modern Authentication for EWS \(on page 81\)](#).
- Enter the email address associated with the Microsoft Exchange scheduling calendar in the **Exchange Calendar Email Address** text field.
- Enter the username for the Microsoft Exchange account in the **Exchange Account Username** text field.

NOTE: The username must include the ".com" suffix similar to the email address entered in the **Exchange Calendar Email Address** text field.

- Enter the password for the Microsoft Exchange account in the **Exchange Account Password** text field.
- Enter the domain name associated with the Microsoft Exchange account in the **Exchange Domain** text field.

NOTE: The **Exchange Domain** text field must be left blank if using Office 365® software.

- Enter the Microsoft EWS (Exchange Web Services) server URL that the scheduling calendar uses to access Microsoft Exchange scheduling data in the **Exchange Web Services URL** text field.

5. Select **Save Changes** from the **Action** menu. The Microsoft Exchange scheduling calendar connects to the scheduling application without requiring a reboot.

Additional registration steps are required if Enable Modern Authentication is set to enabled. Refer to [Appendix A: Enabling Modern Authentication for EWS \(on page 81\)](#) for more information.

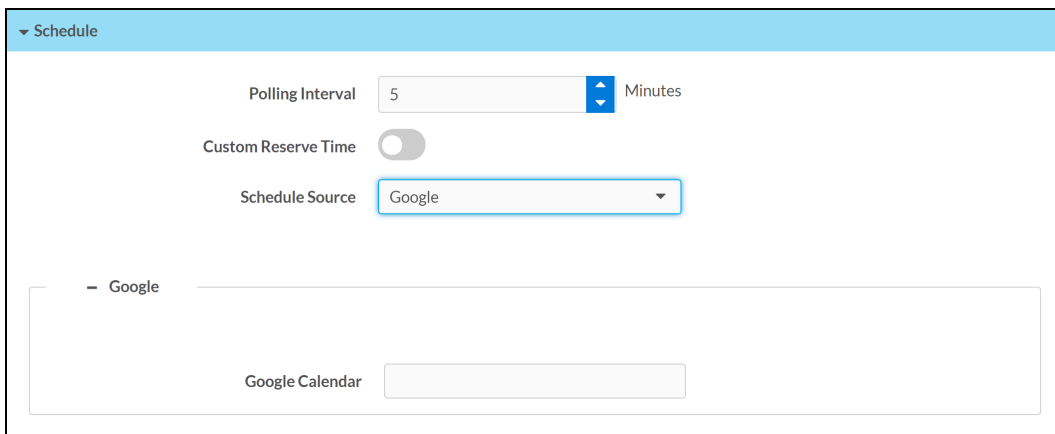
Connect to Google Calendar

To connect to a Google scheduling calendar:

NOTE: The Google account and scheduling calendar must be fully configured before the scheduling calendar shows as online.

1. Navigate to **Settings > Schedule**.
2. Configure the desired **Polling Interval** and **Custom Reserve Time** settings. For more information, refer to [Schedule](#).
3. Select **Google** from the **Schedule source** drop-down menu.

Settings Tab - Schedule (Google)



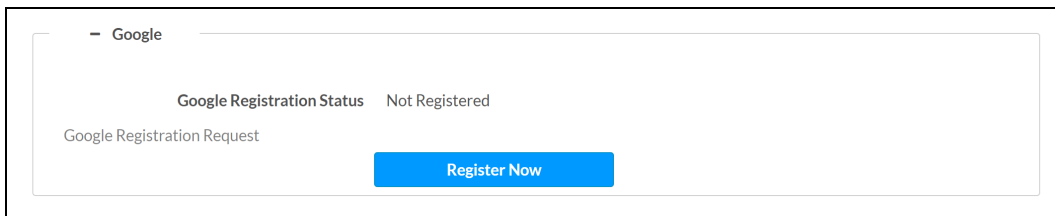
The screenshot shows the 'Schedule' settings page for a Google account. At the top, there is a blue header with a dropdown arrow and the text 'Schedule'. Below this, there are three main settings: 'Polling Interval' is set to '5' with a blue up/down arrow and the unit 'Minutes' to its right; 'Custom Reserve Time' is a toggle switch that is currently turned off; and 'Schedule Source' is a dropdown menu with 'Google' selected. Below these settings is a large white box with a minus sign and the text 'Google' on the left side. At the bottom of this box is a text input field labeled 'Google Calendar'.

4. Enter the calendar account name or ID in the **Google Calendar** text field if more than one calendar is available for the Google account. If this field is left empty, the scheduling application uses the primary calendar set for the Google account.

NOTE: To switch to a different calendar on the same Google account, enter the new calendar account name or ID in the **Google Calendar** text field.

5. Select **Save Changes** from the **Action** menu.
6. Navigate to **Status > Schedule**. The **Google** subsection displays a **Register now** button.

Status Tab - Schedule (Register now Button)

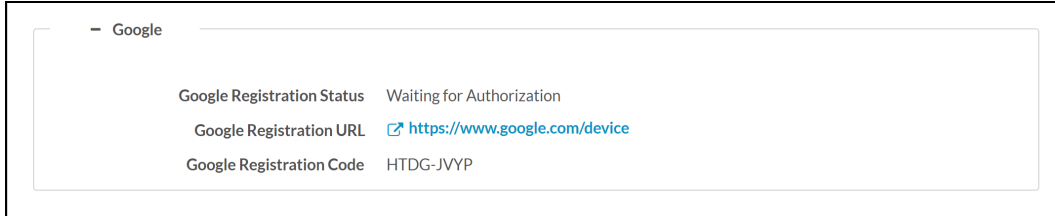


The screenshot shows the 'Status' page for the Google account. It features a large white box with a minus sign and the text 'Google' on the left. Inside this box, the text 'Google Registration Status' is followed by 'Not Registered'. Below this, the text 'Google Registration Request' is displayed. At the bottom center of the box is a blue button with the text 'Register Now'.

7. Click **Register Now**.

When the web configuration interface refreshes, the **Google** subsection displays a **Google Registration URL** and a **Google Registration Code**, and the **Google Registration Status** updates to "Waiting for Authorization."

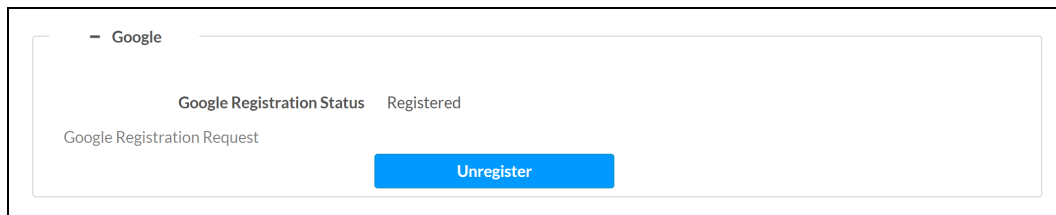
Status Tab - Schedule (Registration URL and Code)



8. Click the provided registration URL. The **Google Connect a device page** is displayed.
9. Enter the provided Google registration code in the **Enter code** field and click **Next**. The **Choose an account** page is displayed.
10. Select the Google account that contains the desired scheduling calendar and enter the account password if prompted. A message window is displayed asking whether Crestron Scheduling Panels is allowed access to manage the Google Calendar account.
11. Click **Allow**. A success message displays if the connection is successful.

When the web configuration interface refreshes, the **Google Registration Status** updates to **Registered**. The Google scheduling calendar connects to the scheduling application without requiring a reboot.

Status Tab - Schedule (Registered)



NOTE: Google currently has a token refresh limit of 50. If the limit is reached, it will invalidate the oldest refresh token. Therefore, if a deployment has 50 panels under one account, and if an admin re-registers one of the panels with Google, the panel with the oldest refresh token from the remaining 49 will go offline. It is recommended only 15 or 20 calendars/touch screens are used for one user account. This limit does not apply to service accounts.

Connect to Ad Astra

To connect to an Ad Astra scheduling calendar:

NOTE: The Ad Astra account and scheduling calendar must be fully configured before the scheduling calendar shows as online.

1. Navigate to **Settings > Schedule**.
2. Configure the desired **Polling Interval** and **Custom Reserve Time** settings. For more information, refer to [Schedule](#).
3. Select **Ad Astra** from the **Schedule source** drop-down menu.

Settings Tab - Schedule (Ad Astra)

The screenshot shows the 'Schedule' configuration page for Ad Astra. At the top, there is a blue header with a dropdown arrow and the text 'Schedule'. Below this, there are four main settings:

- Polling Interval:** A numeric input field containing '5' and a 'Minutes' label to its right.
- Custom Reserve Time:** A toggle switch that is currently turned off.
- Schedule Source:** A dropdown menu with 'Ad Astra' selected.

Below these settings is a section titled '- Ad Astra' which contains four text input fields, each with a red error message to its right:

- Username:** The field is empty, and the error message is 'Username is invalid'.
- Password:** The field is empty, and the error message is 'Password is invalid'.
- Room ID:** The field is empty, and the error message is 'Room ID is invalid'.
- Server URL:** The field contains the text 'Url', and the error message is 'Server URL is invalid'.

4. Enter the following Ad Astra account information:
 - Enter the username for the Ad Astra account in the **Username** text field.
 - Enter the password for the Ad Astra account in the **Password** text field.
 - Enter the room ID associated with the Ad Astra scheduling calendar in the **Room ID** text field.
 - Enter the URL of the Ad Astra scheduling calendar server in the **Server URL** text field.
5. Select **Save Changes** from the **Action** menu. The Ad Astra scheduling calendar connects to the scheduling application without requiring a reboot.

Connect to CollegeNet 25 Live

To connect to an CollegeNet 25Live scheduling calendar:

NOTE: The CollegeNet 25Live account and scheduling calendar must be fully configured before the scheduling calendar shows as online.

1. Navigate to **Settings > Schedule**.
2. Configure the desired **Polling Interval** and **Custom Reserve Time** settings. For more information, refer to [Schedule](#).
3. Select **25Live** from the **Schedule source** drop-down menu.

Settings Tab - Schedule (25Live)

The screenshot shows the 'Schedule' settings tab for a 25Live account. The 'Polling Interval' is set to 5 minutes. The 'Custom Reserve Time' is disabled. The 'Schedule Source' is set to 25Live. Below these settings is a section for account information with four fields: Username, Password, Room ID, and Server URL. Each field has a red error message indicating it is invalid.

4. Enter the following CollegeNet 25Live account information:
 - Enter the username for the CollegeNet 25Live account in the **Username** text field.
 - Enter the password for the CollegeNet 25Live account in the **Password** text field.
 - Enter the space ID associated with the CollegeNet 25Live scheduling calendar in the **Space ID** text field.
 - Enter the URL of the CollegeNet 25Live scheduling calendar server in the **Server URL** text field.
5. Select **Save Changes** from the **Action** menu. The CollegeNet 25Live scheduling calendar connects to the scheduling application without requiring a reboot.

Web Configuration

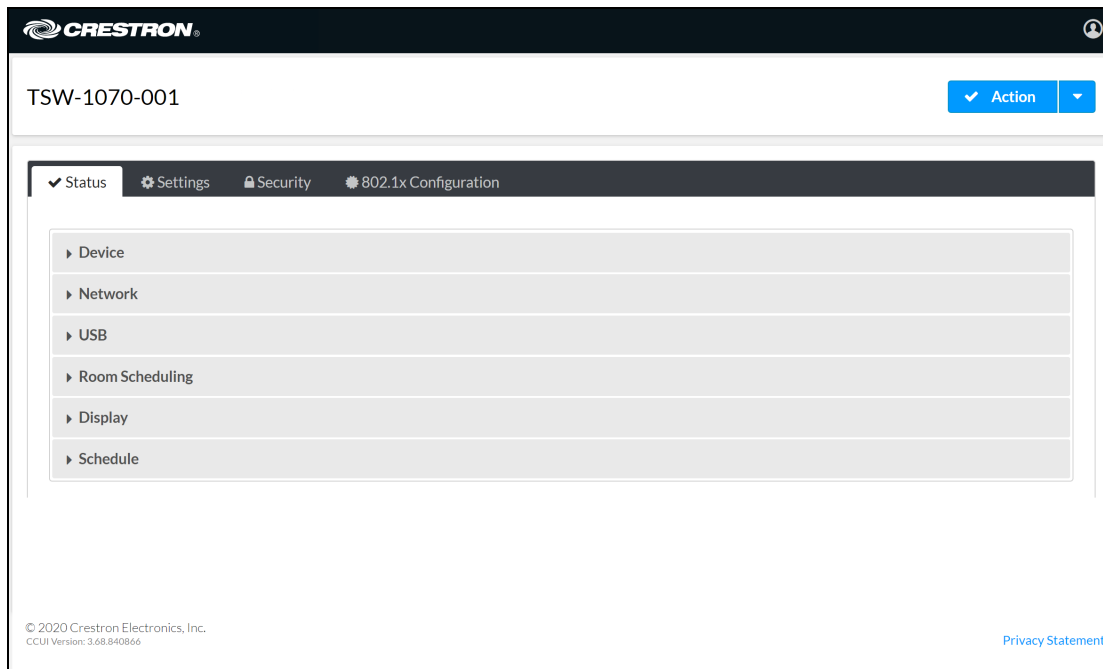
Once the scheduling application is enabled on the touch screen, scheduling application settings may be monitored and configured using the included web configuration interface. This interface is also accessible using the XiO Cloud® service.

NOTE: The scheduling application must be enabled to view and configure scheduling application settings.

If Crestron Fusion will be used to configure the scheduling application, skip ahead to [Crestron Fusion Configuration \(on page 70\)](#).

To access the configuration interface, refer to the procedure described in [Access the Web Configuration Interface \(on page 2\)](#). The **Status** tab is opened by default.

Web Configuration Interface



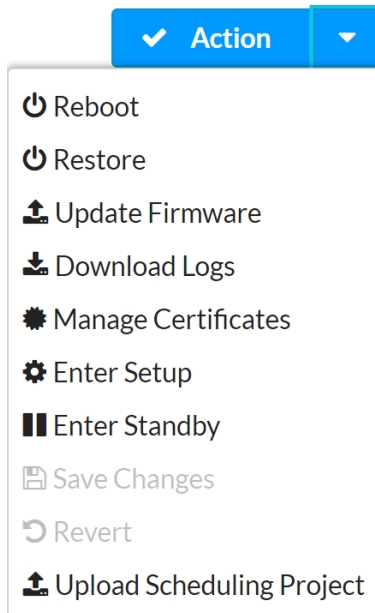
The configuration interface provides the following tabs:

- **Status:** Used to monitor touch screen status
- **Settings:** Used to configure touch screen settings
- **Security:** Used to enable authentication and other security settings
- **802.1x Configuration:** Used to configure IEEE 802.1x network authentication for touch screen security

Actions Menu

The configuration interface provides an **Actions** drop-down menu on the top right of the page. The **Actions** menu may be accessed at any time.

Actions Menu



Once any changes have been made to the touch screen configuration, the **Actions** button changes to a **Save Changes** button. Click **Save Changes** to save changes to the configuration settings.

If a reboot is required after changes have been saved, a dialog box is displayed asking whether the reboot should be performed. Select **Yes** to reboot the device or **No** to cancel the reboot.

The **Actions** menu provides the following selections.

Reboot

Click **Reboot** to reboot the touch screen.

After **Reboot** is selected, a dialog box is displayed asking whether the touch screen should be rebooted. Select **Yes** to reboot the device or **No** to cancel the reboot.

Restore

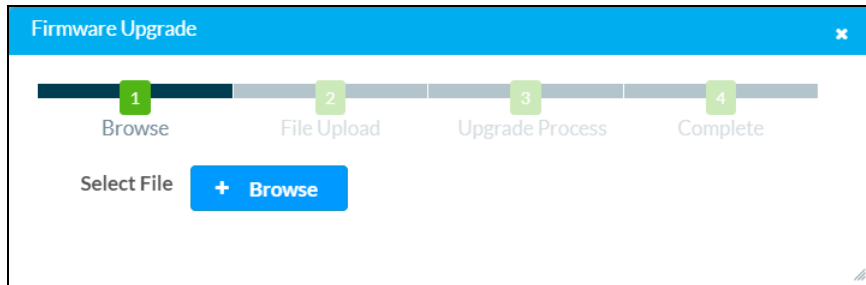
Click **Restore** to restore the touch screen configuration settings to their default values.

After **Restore** is selected a dialog box is displayed asking whether the device settings should be restored. Select **Yes** to restore the settings or **No** to cancel the restore.

Update Firmware

Click **Update Firmware** to upgrade the touch screen firmware manually with a downloaded PUF (package update file). The **Firmware Upgrade** dialog box opens.

Firmware Upgrade Dialog Box



To upload a firmware PUF through the web configuration interface:

NOTE: Visit www.crestron.com/firmware to download the latest firmware PUF.

1. Click **Browse**, and then navigate to the firmware PUF on the host computer.
2. Select the firmware PUF, and then click **Open**.
3. Click **Load** to load the PUF to the touch screen. The upload progress is shown in the dialog box.
4. Once the touch screen has completed the firmware upgrade, click **OK**.

Click the **x** button to close the Firmware Upgrade dialog box at any time during the upgrade process. Clicking the **x** button before the PUF is uploaded to the touch screen cancels the upgrade.

Download Logs

Click **Download Logs** to download the touch screen message logs for diagnostic purposes. The message files download as a compressed .tgz file. Once the compressed file is downloaded, extract the message log files to view them.

Manage Certificates

Click **Manage Certificates** to manage any certificates that are installed on the touch screen. For more information on certificate management, refer to [802.1x Configuration \(on page 67\)](#).

Enter Setup

Click **Enter Setup** to force the touch screen to enter its built-in setup interface.

Enter Standby

Click **Enter Standby** to force the touch screen to enter standby mode.

Save Changes

Click **Save Changes** to save any changes made to the configuration settings.

Revert

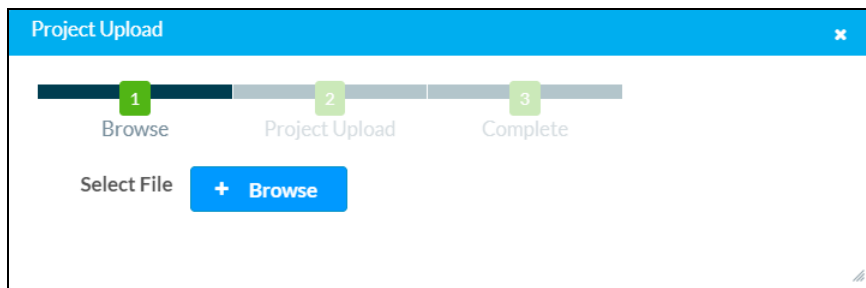
Click **Revert** to revert the touch screen back to the last saved configuration settings.

Upload Scheduling Project

Click **Upload Scheduling Project** to upload a custom scheduling project to the touch screen. A **Project Upload** dialog box opens.

NOTE: For more information, creating custom scheduling projects, refer to the [Crestron Room Scheduling Panels Programming Guide \(Doc. 8213\)](#).

Project Upload Dialog Box



To upload a custom scheduling project:

1. Click **Browse**, and then navigate to the project .vtz file on the host computer.
2. Select the project .vtz file, and then click **Open**.
3. Click **Load** to load the project .vtz file to the touch screen. The upload progress is shown in the dialog box.
4. Once the touch screen has completed the project upload, click **OK**.

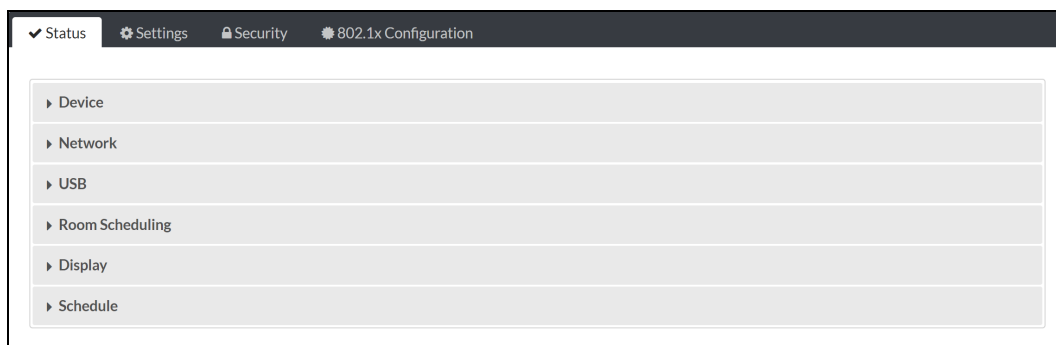
Click the **x** button to close the **Project Upload** dialog box at any time during the upgrade process. Clicking the **x** button before the project file is uploaded to the touch screen cancels the upload.

Status

Click the **Status** tab on the top left of the configuration interface to display selections for viewing the status of device, network, and control system settings.

Click on a selection name to expand the selection. If the selection is expanded, click the selection name again to collapse the section.

Status Tab Selections

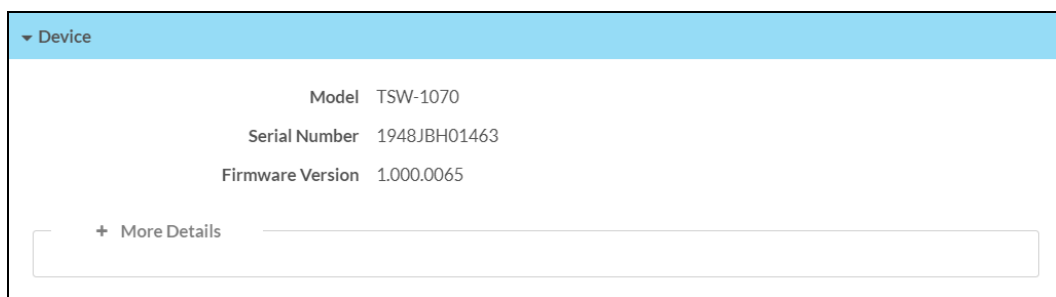


Each selection is described in the sections that follow.

Device

Click **Device** to view general device information.

Status Tab - Device



The following **Device** information is displayed:

- **Model:** The touch screen model name
- **Serial Number:** The touch screen serial number
- **Firmware Version:** The firmware version loaded onto the touch screen

Click **+ More details** at the bottom of the **Device** tab to display an expanded section that shows additional touch screen information. If **+ More Details** is selected, click **- Less** details to collapse the section.

Network

Click **Network** to view the status of the network settings for the touch screen.

Status Tab - Network

The screenshot shows a network settings interface with a blue header bar labeled "Network". Below the header, the following settings are displayed:

- Host Name:** TSW-1070-IH1
- DNS Servers:** 10.0.0.1(DHCP)
- Ethernet:**
 - Domain:** localdomain
 - DHCP:** Yes
 - IP Address:** 10.0.1.255
 - Subnet Mask:** 255.255.255.0
 - Default Gateway:** 10.0.0.1
 - Link Active:** True
 - MAC Address:** 00.10.7f.da.64.64
- WIFI:**
 - Domain:** localdomain
 - Link Active:** False
 - MAC Address:** de.ad.be.ef.12.64
- LAN:**
 - Network Proxy Settings:** Disabled

The following **Network** information is displayed:

- **Host Name:** The touch screen hostname
- **DNS Servers:** The DNS (domain name server) addresses used to resolve the touch screen domain to an IP address

Click the + (plus) icon next to **Ethernet** to display the following Ethernet settings:

- **Domain:** The touch screen domain name
- **DHCP:** Reports whether the IP address is static (Yes) or dynamic (No)
- **IP Address:** The touch screen IP address, shown only if an Ethernet connection is enabled
- **Subnet Mask:** The touch screen subnet mask address, shown only if an Ethernet connection is enabled
- **Default Gateway:** The gateway router address, shown only if an Ethernet connection is enabled

- **Link Active:** Reports the status of the Ethernet connection (A true message indicates that the Ethernet connection is active, while a false message indicates that the Ethernet connection is inactive.)
- **MAC Address:** The unique touch screen MAC (media access control) address

Click the + (plus) icon next to **WI-FI** to display the following Wi-Fi network settings:

- **Domain:** The Wi-Fi network domain name
- **DHCP:** Reports whether the Wi-Fi network IP address is static (Yes) or dynamic (No), shown only if a Wi-Fi network connection is enabled
- **IP Address:** The Wi-Fi network IP address, shown only if a Wi-Fi network connection is enabled
- **Subnet Mask:** The Wi-Fi network subnet mask address, shown only if a Wi-Fi network connection is enabled
- **Default Gateway:** The Wi-Fi network gateway router address, shown only if a Wi-Fi network connection is enabled
- **Link Active:** Reports the status of the Wi-Fi network connection (A true message indicates that the Wi-Fi network connection is active, while a false message indicates that the Wi-Fi network connection is inactive.)
- **MAC Address:** The unique Wi-Fi network MAC (media access control) address

Click the + (plus) icon next to **LAN** to display the following LAN settings:

- **Network Proxy Settings:** Reports whether network proxy settings are enabled or disabled for the touch screen

For more information on configuring network settings, refer to [System Setup \(on page 25\)](#).

USB

Click **USB** to view the status of a connected USB accessory, such as a room scheduling hallway sign or light bar.

Status Tab - USB

| ▼ USB | |
|---------------------|----|
| Accessory Connected | No |
| Accessory Type | |

The following **USB** information is displayed:

- **Accessory Connected:** The name of the connected accessory
- **Accessory Type:** The type of connected accessory

Room Scheduling

Click **Room Scheduling** to view the status of the room if using a room scheduling application.

Status Tab - Room Scheduling

| ▼ Room Scheduling | |
|----------------------|--|
| Room Status | Available |
| Calendar Sync | Last Sync Succeeded: 11:33 AM - March 23, 2021 |
| Fusion Online Status | Offline |

The following **Room Scheduling** information is displayed:

- **Room Status:** The status of the connected room (available or reserved)
- **Calendar Sync:** The status of the sync between the touch screen and the room scheduling calendar
- **Crestron Fusion Online Status:** The status of the Crestron Fusion connection (if applicable)

Display

Click **Display** to view the display status.

Status Tab - Display

| ▼ Display | |
|----------------|---------|
| Display Status | Standby |

The **Display Status** field indicates the display status (on, standby, or screensaver).

Schedule

Click **Schedule** to view the status of the connected scheduling calendar and the current meeting information.

Status Tab - Schedule

The screenshot displays the 'Schedule' status tab with the following information:

- Connection Status:** Connected
- Connection Status Message:** Successfully connected
- Occupancy Status:** Vacant
- Occupancy Source:** Fusion
- Push Registration Status:** Not Supported

Below this is a section for the **Current Meeting**, which includes:

- Meeting Info:**
 - Scheduled:** Meeting is currently scheduled
 - Subject:** Walk up meeting
 - Start Time:** 1:09 PM - March 23, 2021
 - End Time:** 1:39 PM - March 23, 2021
 - Recurring:** Single Occurrence
 - Organizer:** ianh
 - Attendees:** A table with columns 'Name' and 'Required'. The table is currently empty, displaying 'No records found'.
 - Check In Status:** Yes
 - Meeting Privacy Level:** Public

The following **Schedule** information is displayed:

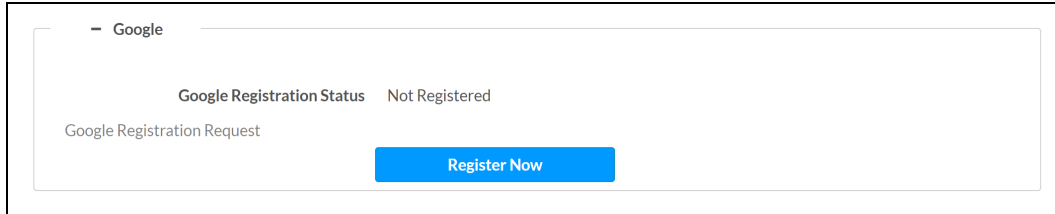
- **Connection Status:** Indicates the status of the scheduling calendar connection
- **Connection Status Message:** Displays any applicable information about the scheduling calendar connection status
- **Occupancy Status:** Indicates whether the connected room is occupied (if the room is equipped with an occupancy sensor)
- **Occupancy Source:** Displays occupancy sensor information for the connected room (if the room has occupancy-detecting equipment)
- **Push Registration Status:** The status of the scheduling calendar registration (if applicable)

The **Schedule** section also includes the following subsections.

Google

The **Google** subsection is used to register the touch screen with Google Calendar and to view the registration status of the Google Calendar account.

Status Tab - Schedule (Google)



Depending on the status of the Google Calendar registration, the following Google information may be displayed. For more information on connecting to a Google scheduling calendar, refer to [Connect to Google Calendar \(on page 10\)](#).

- **Google Registration Status:** Indicates the registration status between the touch screen and Google Calendar
- **Google Registration Request:** If the touch screen is not registered with Google Calendar, displays a **Register Now** button for requesting a connection to Google Calendar

NOTE: If the touch screen is registered with Google Calendar, an **Unregister** button is displayed instead. Click this button to unregister the touch screen with Google Calendar.

- **Google Registration URL:** If a Google Calendar registration has been requested, displays a URL used to register the touch screen with Google Calendar
- **Google Registration Code:** If a Google Calendar registration has been requested, displays a unique code used to register the touch screen with Google Calendar

Exchange/O365

The **Exchange/O365** subsection is used to register the touch screen with EWS via Modern Authentication and to view the registration status of the EWS account.

Status Tab - Schedule (Exchange/OWS)



Depending on the status of the EWS registration, the following registration information may be displayed. For more information on connecting to EWS via Modern Authentication, refer to [Appendix A: Enabling Modern Authentication for EWS \(on page 81\)](#).

- **Exchange/O365 Registration Status:** Indicates the registration status between the touch screen and EWS
- **Exchange/O365 Registration Request:** If the touch screen is not registered with EWS, displays a **Register Now** button for requesting a connection to EWS

NOTE: If the touch screen is registered with EWS, an **Unregister** button is displayed instead. Click this button to unregister the touch screen with Google Calendar.

- **Exchange/O365 Registration Code:** If an EWS registration has been requested, displays a unique code used to register the touch screen with EWS

Current Meeting

The **Current Meeting** subsection is used to view details about an in-progress meeting. If no meeting is currently scheduled, no meeting details are displayed.

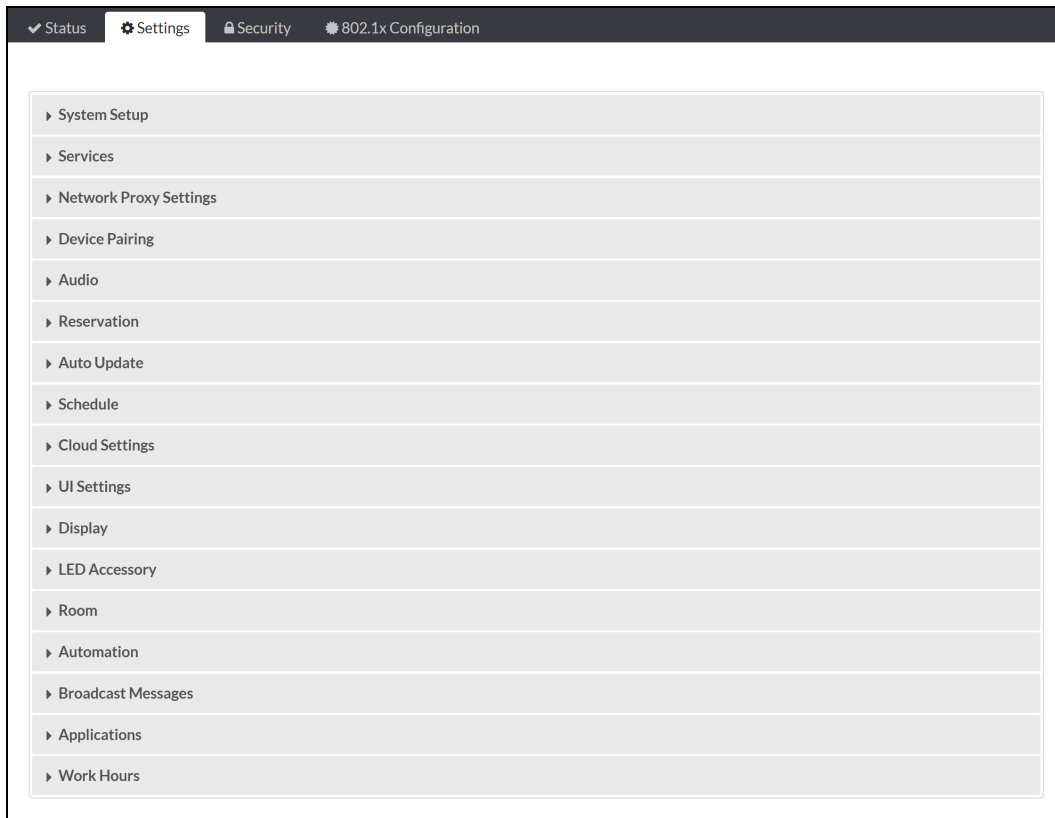
The following **Current Meeting** information is displayed:

- **Scheduled:** Indicates whether the connected room is currently reserved (A **true** message indicates that the room is reserved, while a **false** message indicates that the room is available.)
- **Subject:** The subject of the current reservation
- **Start Time:** The start time of the current reservation
- **End Time:** The scheduled end time of the current reservation
- **Recurring:** Indicates whether the current meeting is set to recur on the scheduling calendar (A **true** message indicates that the meeting is set to recur, while a **false** message indicates that the meeting is not set to recur.)
- **Organizer:** The name of the current reservation organizer (if this information is not set to private)
- **Attendees:** Shows all scheduled meeting attendees and whether they are required for this meeting (if this information is not set to private)
- **Check In Status:** Indicates whether the current reservation has been checked in (if required)
- **Meeting Privacy Level:** The privacy level of the current reservation

Settings

Click the **Settings** tab on the top left of the configuration interface to display selections for configuring various touch screen settings and to select a touch screen application.

Settings Selections



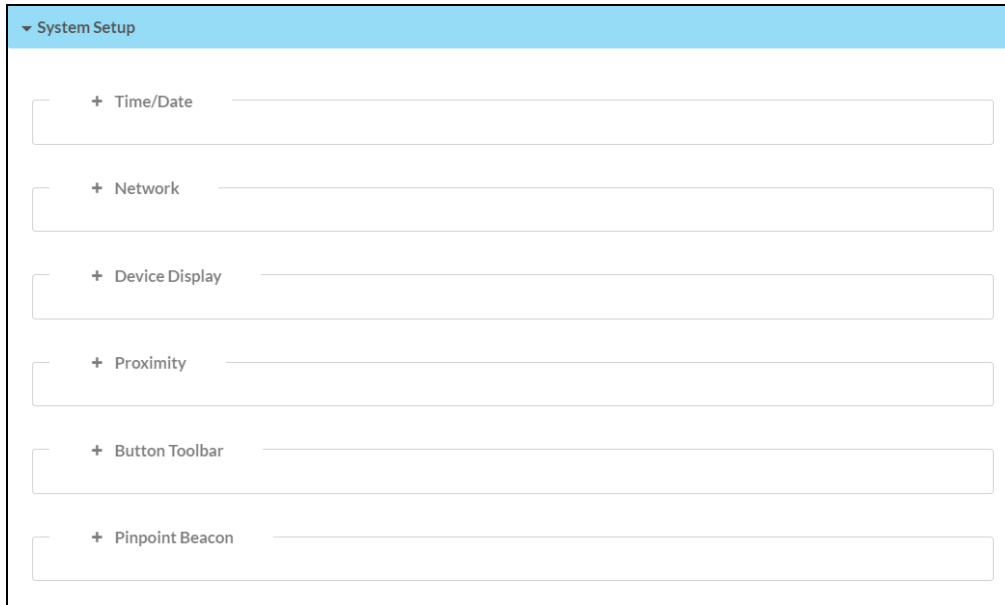
Each selection is described in the sections that follow.

NOTE: If an invalid value is entered for a setting, the web interface will not allow changes to be saved until a valid value is entered. Red text is displayed next a setting to indicate an invalid value.

System Setup

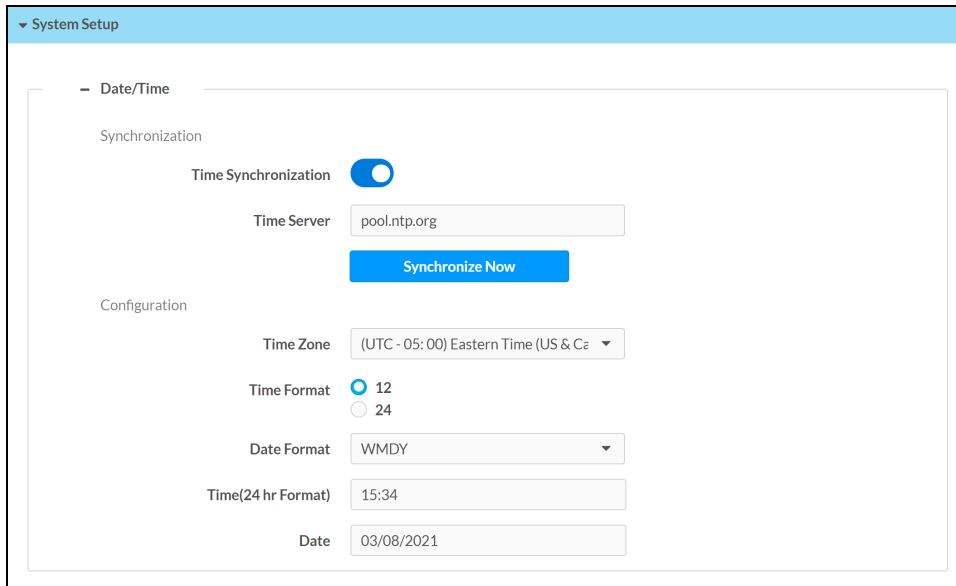
Click **System Settings** to configure general network and touch screen settings.

Settings Tab - System Setup



Click the + (plus) icon next to **Time/Date** to display the following time and date settings.

Settings Tab - System Setup (Time/Date)



Synchronization

- **Time Synchronization:** Turn on the toggle to use time synchronization via SNTP (Simple Network Time Protocol).
- **Time Server:** With **Time Synchronization** turned on, enter the SNTP server used to synchronize the date and time for the touch screen.

- **Synchronize Now:** With **Time Synchronization** turned on, tap **Synchronize Now** to synchronize the touch screen with the SNTP server entered for **Time Server**.

Time Configuration

- **Time Zone:** Select a time zone for the touch screen using the drop-down menu.
- **Time Format:** Select the format that the time will display on the touch screen (12 hour or 24 hour).
- **Date Format:** Select the format that the date will display on the touch screen using the drop-down menu.
- **Time(24hr Format):** Select the time for the touch screen (in 24-hour format) using the pop-up menu that is displayed.
- **Date:** Select the date for the touch screen using the pop-up calendar that is displayed.

Click the + (plus) icon next to **Network** to display the following network settings.

Settings Tab - System Setup (Network)

Network Configuration

Host Name

Primary Static DNS

Secondary Static DNS

Ethernet

Adapter Enabled

DHCP Enabled

Domain

IP Address

Subnet Mask

Default Gateway

WiFi

Adapter Enabled

DHCP Enabled

Domain

IP Address

Subnet Mask

Default Gateway

WiFi Access Points

Select Discovered Access Points

| <input type="checkbox"/> | SSID | Encryption Key | Password | Active Access Point |
|--------------------------|--------------------------------------|-----------------------------------|------------------------------------|-----------------------|
| <input type="checkbox"/> | <input type="text" value="Ham"/> | <input type="text" value="WPA2"/> | <input type="text" value="....."/> | <input type="radio"/> |
| <input type="checkbox"/> | <input type="text" value="Network"/> | <input type="text" value="WPA"/> | <input type="text" value="....."/> | <input type="radio"/> |

NOTE: The IP Address, Subnet Mask, and Default Gateway fields are required only if DHCP is turned off for Ethernet and Wi-Fi network connections.

- **Network Configuration**

- **Host Name:** Enter the touch screen hostname.
- **Primary Static DNS:** Enter the primary DNS address.
- **Secondary Static DNS:** Enter the secondary DNS address.

- **Ethernet**

- **Adapter Enabled:** Turn on the toggle to use the touch screen Ethernet adapter, which allows the touch screen to make an Ethernet connection
- **DHCP Enabled:** Turn on the toggle to use DHCP for the Ethernet connection.

NOTE: If DHCP is turned on, IP does not function until a reply has been received from the server. The touch screen broadcasts requests for an IP address periodically.

- **Domain:** Enter the fully qualified domain name on the network.
- **IP Address:** Enter the touch screen IP address on the network.
- **Subnet Mask:** Enter the touch screen subnet mask address on the network.
- **Default Gateway:** Enter the gateway router address on the network.

- **WI-FI**

- **Adapter Enabled:** Turn on the toggle to use the touch screen Wi-Fi adapter, which allows the touch screen to make a Wi-Fi network connection.
- **DHCP Enabled:** Turn on the toggle to use DHCP for the Wi-Fi connection.
- **Domain:** Enter the fully qualified Wi-Fi domain name on the network.
- **Subnet Mask:** Enter the Wi-Fi subnet mask address on the network.
- **Default Gateway:** Enter the Wi-Fi gateway router address on the network.

- **WI-FI Access Points**

- **Scan Wi-Fi Access Points:** Tap this button to scan the network for any open Wi-Fi access points. All discovered access points are displayed in the **Select Discovered Access Points** menu.
- **Select Discovered Access Points:** Select an access point from this menu after scanning for Wi-Fi access points. Enter text in the search field to search for a specific Wi-Fi access point name
- **Add Access Points:** Tap this button to add the selected access point entry from the **Select Discovered Access Points** field to the table below.

Each added Wi-Fi access point is displayed in a table that contains the following information.

- **SSID:** Enter or modify the SSID (name) of the Wi-Fi access point.
- **Encryption Key:** Select the security/encryption type used by the Wi-Fi access point.
- **Password:** Enter the password used to connect to the Wi-Fi access point.
- **Active Access Point:** Indicates whether a connection to the Wi-Fi access point is active

Tap **Add** to add a new entry to the Wi-Fi access point table. After selecting one more entries in the Wi-Fi access point table, tap **Remove** to delete the selected entries.

Click the + (plus) icon next to **Device Display** to display the following device display settings.

Settings Tab - System Setup (Device Display)

Device Display

LCD

Auto Brightness

ALS Threshold Value %

Brightness %

Brightness High Preset %

Brightness Low Preset %

Setup

Local Setup Sequence

Screensaver and Standby

Standby Timeout Minutes

Screensaver Enabled

24 Hour Digital Clock Enabled

Outdoor Temperature Enabled

Indoor Temperature Enabled

Date Enabled

Date Format

Brightness %

Text Color

Text Outline Color

Text Font Face

Header Text Line 1

Header Text Line 2

Header Text Justification Left
 Center
 Right

Header Text Bidirectional Text Direction Left-To-Right
 Right-To-Left

Background Image URL

Video URL

Logo Setting None
 Crestron
 Custom

Logo URL

- **LCD**

- **Auto Brightness:** Turn on the toggle to use automatic brightness control for the touch screen LCD display.
- **ALS Threshold Value:** If **Auto Brightness** is turned on, enter a value (1–100%) for the ALS (ambient light sensor) threshold, which is used for switching between high and low auto-brightness presets.
- **Brightness:** If **Auto Brightness** is turned off, enter a value (1–100%) for the LCD display brightness.
- **Brightness High Preset:** Enter a value (1–100%) for the LCD display high brightness preset.
- **Brightness Low Preset:** Enter a value (1–100%) for the LCD display low brightness preset.

- **Setup**

- **Local Setup Sequence:** Turn on the toggle to allow local access to the setup screens using the five-finger press.

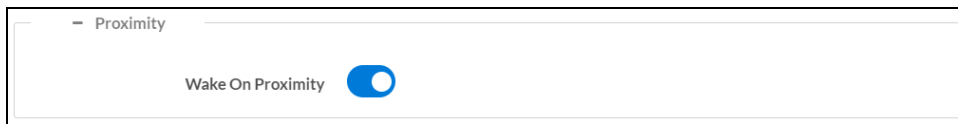
- **Screensaver and Standby**

- **Standby Timeout:** Enter a standby timeout duration (1–120 minutes) for the touch screen.
- **Screensaver Enabled:** Turn on the toggle to display a screensaver on the touch screen during standby timeout.
- **24 Hour Digital Clock Enabled:** Turn on the toggle to display a 24-hour digital clock on the touch screen during standby timeout.
- **Outdoor Temperature Enabled:** Turn on the toggle to display the outdoor temperature on the touch screen during standby timeout via a join from a control system.
- **Indoor Temperature Enabled:** Turn on the toggle to display the indoor temperature on the touch screen during standby timeout via a join from a control system.
- **Date Enabled:** Turn on the toggle to display the date on the touch screen during standby timeout.
- **Date Format:** Use the drop-down menu to select a format for displaying the date on the touch screen.
- **Brightness:** Enter a brightness value (1–100%) for the screensaver.
- **Text Color:** Tap the color icon to the right of this field to display a pop-up window for selecting the text color of the screensaver, or enter a hex value for a specific color.
- **Text Outline Color:** Tap the color icon to the right of this field to display a pop-up window for selecting the text outline color of the screensaver, or enter a hex value for a specific color.
- **Text Font Face:** Use the drop-down menu to select a font for the screensaver text.
- **Header Text Line 1:** Enter text to be displayed on the first header text line of touch screen screensaver.

- **Header Text Line 2:** Enter text to be displayed on the second header text line of touch screen screensaver.
- **Header Text Justification:** Select one of the radio buttons (**Left**, **Center**, or **Right**) to select how the header text is justified on the touch screen screensaver.
- **Header Text Bidirectional Text Direction:** Select one of the radio buttons (**Left-To-Right** or **Right-To-Left**) to determine the language text direction on the touch screen screensaver.
- **Background Image URL:** Enter a URL of a background image to be used by the touch screen screensaver.
- **Video URL:** Enter a URL of video to be used by the touch screen screensaver.
- **Logo Setting:** Select one of the radio buttons (**None**, **Crestron**, and **Custom**) to select a logo type to use on the touch screen screensaver.
- **Logo URL:** If **Logo Setting** is set to **Custom**, enter a URL of a custom logo to be used by the touch screen screensaver.

Click the + (plus) icon next to **Proximity** to display the following proximity settings.

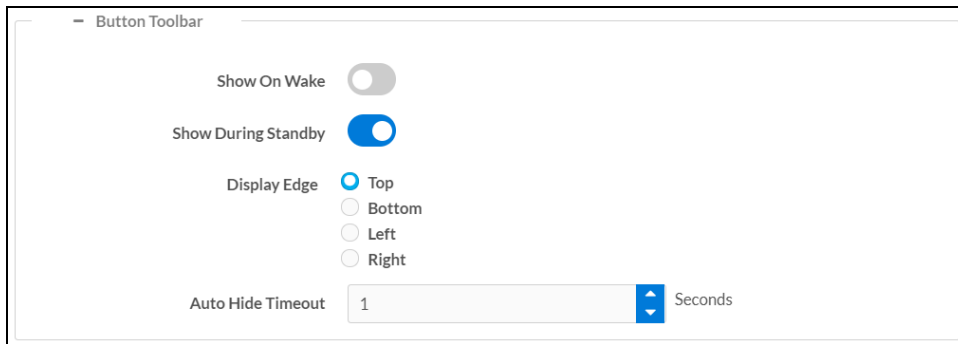
Settings Tab - System Setup (Proximity)



Turn on the **Wake On Proximity** toggle to wake the touch screen automatically when a user enters the touch screen proximity field.

Click the + (plus) icon next to **Button Toolbar** to display the following virtual toolbar button settings.

Settings Tab - System Setup (Button Toolbar)



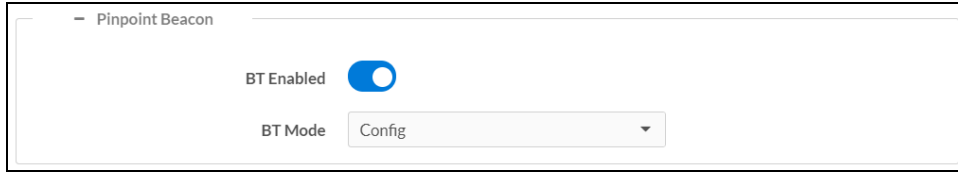
Show On Wake: Turn on the toggle to show the virtual toolbar when the touch screen wakes from standby timeout.

- **Show During Standby:** Turn on the toggle to show the virtual toolbar during standby timeout.
- **Display Edge:** Select a radio button (**Top**, **Bottom**, **Left**, or **Right**) to select the position on the touch screen where the virtual toolbar is displayed

- **Auto Hide Timeout:** Select a duration (in seconds) that must elapse before the virtual toolbar is hidden automatically.

Click the + (plus) icon next to **PinPoint Beacon** to display the following Bluetooth® beacon settings.

Settings Tab - System Setup (PinPoint Beacon)

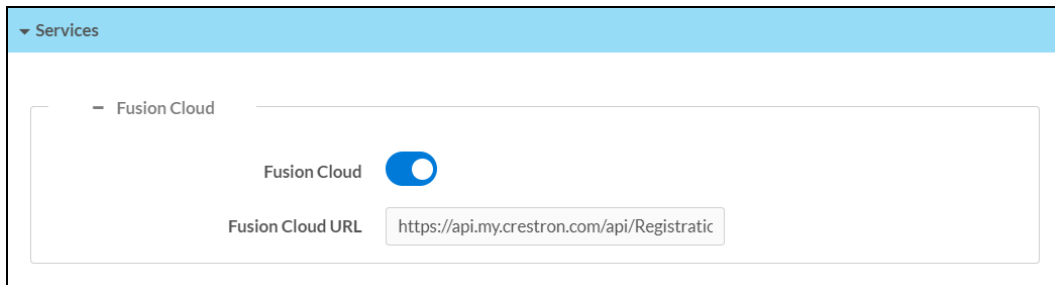


- **BT Enabled:** Turn on the toggle to use the Bluetooth beacon.
- **BT Mode:** Use the drop-down menu to select the mode (**Advertise** or **Config**) of the Bluetooth beacon.
 - Select **Advertise** to make the Bluetooth beacon available to Crestron devices that support this functionality.
 - Select **Config** to put the Bluetooth beacon into configuration mode.

Services

Click **Services** to configure Crestron Fusion® software settings.

Settings Tab - Services



NOTE: If connecting to a Crestron Fusion software on-premises server, connections are made using either traditional (outbound) or inbound communications. For more information, refer to the [Crestron Fusion 10 On-Premises Software Getting Started Guide \(Doc. 7685\)](#).

- **Crestron Fusion Cloud:** Turn on the toggle to allow a connection to a Crestron Fusion Cloud server. This connection is only applicable when the scheduling mode is set to Crestron Default or User Project.
- **Crestron Fusion Cloud URL:** Enter the URL used to connect the touch screen to the desired Crestron Fusion Cloud server.

Network Proxy Settings

Click **Network Proxy Settings** to configure network proxy settings for the touch screen.

Settings Tab – Network Proxy Settings

Network Proxy Settings

Proxy

HTTP Settings

HTTP Proxy

HTTP Proxy Address

HTTP Proxy Port

Username

Password

HTTPS Settings

HTTPS Proxy

HTTPS Proxy Address

HTTPS Proxy Port

Username

Password

- **Proxy:** Turn on the toggle to configure the touch screen for use with a proxy server.
- **HTTP Settings**
 - **HTTP Proxy:** Turn on the toggle to use an HTTP proxy server.
 - **HTTP Proxy Address:** Enter the IP address of the HTTP proxy server.
 - **HTTP Proxy Port:** Enter the port number of the HTTP proxy server.
 - **Username:** Enter the username required for the HTTP proxy server.
 - **Password:** Enter the password required for the HTTP proxy server.
- **HTTPS Settings**
 - **HTTPS Proxy:** Turn on the toggle to use an HTTPS proxy server.
 - **HTTPS Proxy Address:** Enter the IP address of the HTTPS proxy server.
 - **HTTPS Proxy Port:** Enter the port number of the HTTPS proxy server.
 - **Username:** Enter the username required for the HTTPS proxy server.
 - **Password:** Enter the password required for the HTTPS proxy server.

Device Pairing

Click **Device Pairing** to configure settings for pairing the touch screen to a CEN-ODT-C-POE. The CEN-ODT-C-POE provides local occupancy reporting for supported room scheduling apps.

NOTE: For more information on the occupancy sensor, refer to the [CEN-ODT-C-POE Supplemental Guide \(Doc. 8598\)](#). For more information on configuring the occupancy source in the scheduling application, refer to [Room \(on page 51\)](#).

Settings Tab – Device Pairing

The screenshot shows the 'Device Pairing' settings interface. At the top is a blue header with a dropdown arrow and the text 'Device Pairing'. Below the header are several configuration items:

- Device Model:** A dropdown menu currently showing 'POE Occ Sensor'.
- Pairing Retry Time (Mins):** A text input field containing the number '1'.
- Pairing Status:** A text label showing 'Offline'.
- Device IP Address/FQDN:** A text input field that is empty and has a red border. To its right is a red error message: 'Device IP Address/FQDN is invalid'.

Below these fields is a section titled 'Device Authentication' with a minus sign icon. This section contains two text input fields:

- Device Username:** An empty text input field.
- Device Password:** An empty text input field.

- **Device Model:** Use the drop-down menu to select **POE Occ Sensor**.
- **Pairing Retry Time (Min):** Enter a duration (in minutes) that must elapse before the CEN-ODT-C-POE reattempts to pair to the touch screen.
- **Pairing Status:** Reports whether the CEN-ODT-C-POE is paired to the touch screen (**Online**) or not (**Offline**).

Device IP Address/FQDN: Enter the IP address or fully qualified domain name of the CEN-ODT-C-POE. This is required for device pairing.

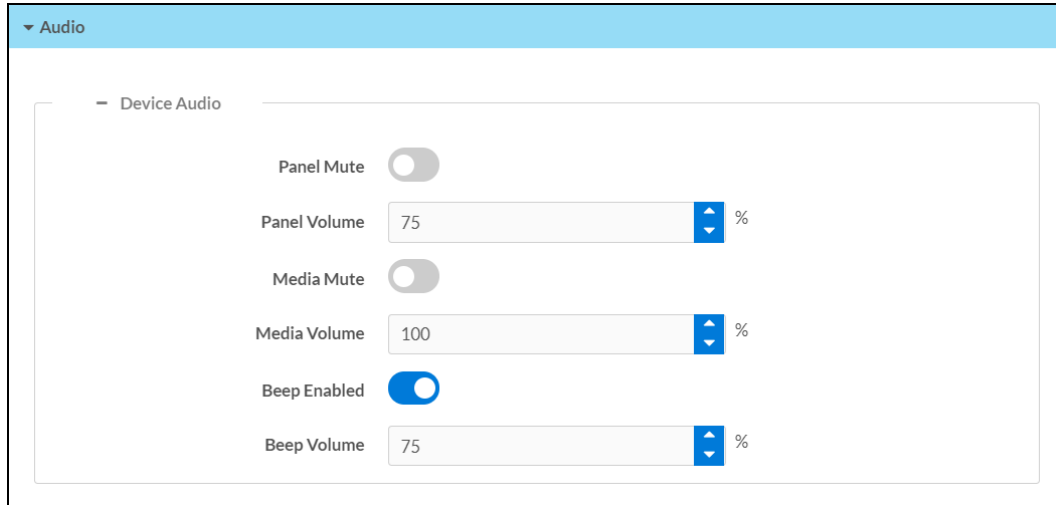
Device Authentication: Enter authentication credentials for the CEN-ODT-C-POE (if required):

- **Device Username:** Enter a valid username used to access the device.
- **Device Password:** Enter a valid password used to access the device.

Audio

Click **Audio** to configure various audio settings for the touch screen.

Settings Tab – Audio Settings



NOTE: The **Media Volume** setting adjusts the H.264 streaming media level in relation to the **Panel Volume** setting.

- **Panel Mute:** Turn on the toggle to mute the touch screen volume.
- **Panel Volume:** Enter a value (1–100) for the touch screen master volume level.
- **Media Mute:** Turn on the toggle to mute the touch screen media volume.
- **Media Volume:** Enter a value (1–100) for the touch screen media volume level.
- **Beep Enabled:** Turn on the toggle to mute the touch screen beep volume.
- **Beep Volume:** Enter a value (1–100) for the touch screen beep volume.

Reservation

Click **Reservation** to configure the behavior of reservation functions for the scheduling application.

Settings Tab - Reservation

The screenshot shows the 'Reservation' settings tab with the following configuration:

- General**
 - Max Reservation Length: 120 Minutes
 - Reserve Now Even End Time:
 - Reservation Enabled:
- End Early**
 - End Early: Minutes
 - Minutes Before End Early: 10 Minutes
 - Percent Before End Early: 5 %
- Extend Reservation**
 - Extend Reservation: Minutes
 - Show Extend Meeting Minutes: 15 Minutes
 - Show Extend Meeting Percent: 25 %

Expand **General** to configure general settings for scheduling application reservations.

- **Max Reservation Length:** Enter the maximum length (in minutes) of a meeting that may be reserved from the touch screen using the **Reserve Now** feature
- **Reserve Now Even End Time:** Turn on the toggle to allow meetings reserved from the touch screen to be set to end on half hour/hour intervals.

NOTE: If **Reserve Now Even End Time** is turned on, a meeting booked at 10:13 may be set to end at 10:30, 11:00, and so forth. If **Reserve Now Even End Time** is turned off, a meeting booked at 10:13 may be set to end at 10:43, 11:13, and so forth. These options are available provided that another meeting is not already booked during the next time period.

- **Reservation Enable:** Turn on the toggle to allow meetings to be reserved from the touch screen using the **Reserve Now** feature.

Expand **End Early** to configure settings for the end early functionality.

- **End Early:** Use the drop-down menu to select whether an **End** button appears on the touch screen user interface that allows the meeting to be ended early.

NOTE: Select **Minutes** to have the **End** button appear on the touch screen after a specified number of minutes have elapsed. Select **Percentage** to have the **End** button appear on the touch screen after a specified percentage of the meeting has passed.

- **Minutes Before End Early:** If **Minutes** is selected for **End Early**, enter the number of minutes that must elapse in a meeting before the **End** button appears on the touch screen.
- **Percent Before End Early:** If **Percentage** is selected for **End Early**, enter the percentage of a meeting that must pass before the **End** button appears on the touch screen.

Expand **Extend Reservation** to configure settings for the extend reservation functionality.

NOTE: The extend reservation function is available only if a meeting has not been booked directly after the current meeting.

- **Extend Reservation:** Use the drop-down menu to select whether an **Extend** button appears on the touch screen user interface that allows the meeting to be extended.

NOTE: Select **Minutes** to have the **Extend** button appear on the touch screen after a specified number of minutes have elapsed. Select **Percentage** to have the **Extend** button appear on the touch screen after a specified percentage of the meeting has passed.

- **Show Extend Meeting Minutes:** If **Minutes** is selected for **Extend Reservation**, enter the number of minutes that must elapse in a meeting before the **Extend** button appears on the touch screen.
- **Show Extend Meeting %:** If **Percentage** is selected for **Extend Reservation**, enter the percentage of a meeting that must pass before the **Extend** button appears on the touch screen.

Auto Update

Click **Auto Update** to configure automatic firmware updates for the touch screen.

NOTE: The **Auto Update** accordion can be used to configure auto update settings for firmware only. Automatic application updates are not affected by these settings.

Settings Tab - Auto-Update

Auto Update

Custom URL Path

- Schedule

Day of Week

Time of Day

Poll Interval Minutes

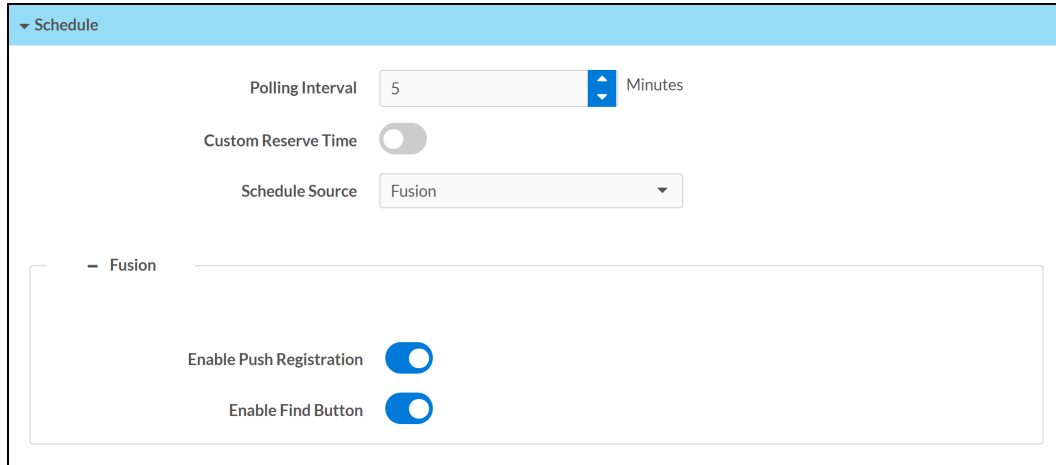
[Update Now](#)

- **Auto Update:** Turn on the toggle to have the touch screen update its firmware automatically.
- **Control URL Path:** Enter the URL path for the update server.
- **Day of Week:** Select the day of week when the touch screen will check for updates. Select **Daily** to have the touch screen check for updates every day.
- **Time of Day:** Enter a time of day (in 24-hour format) when the touch screen will check updates on the scheduled day.
- **Poll Interval:** Enter the polling interval (in hours) for when the touch screen will poll the server for updates.
- Click **Update Now** to check the update server for new firmware and to update the touch screen immediately if new firmware is available.

Schedule

Click **Schedule** to choose the scheduling calendar provider and to configure scheduling integration settings.

Settings Tab - Schedule



The screenshot shows the 'Schedule' settings tab. At the top, there is a blue header with a dropdown arrow and the text 'Schedule'. Below this, the settings are organized into sections. The first section contains three items: 'Polling Interval' with a text input field containing '5' and a 'Minutes' label to its right; 'Custom Reserve Time' with a greyed-out toggle switch; and 'Schedule Source' with a dropdown menu showing 'Fusion'. Below these is a sub-section header '- Fusion' followed by two toggle switches: 'Enable Push Registration' and 'Enable Find Button', both of which are turned on (blue).

- **Polling Interval:** Enter the interval (in minutes) that the scheduling application waits to poll the network for scheduling calendar data if changes are not pushed to the application.
- **Custom Reserve Time:** Turn on the toggle to allow the room to be reserved for a custom duration.

NOTE: If **Custom Reserve Time** is disabled, available reservation end times are limited to times that end on the next half hour, the next hour, or the next hour and a half.

- **Schedule Source:** Select the scheduling calendar source from the drop-down menu that provides scheduling information to the application (**Google Calendar**, **Crestron Fusion**, **Microsoft Exchange**, **Ad Astra**, **CollegeNet 25Live**, or **Demo Mode**).

Depending on the scheduling calendar source that is selected for **Schedule source**, the following subsections are displayed.

Exchange

Select **Exchange/O365** under **Schedule Source** to display options for integrating a Microsoft Exchange account with the scheduling application.

For more information on connecting to a Microsoft Exchange account, refer to [Connect to Microsoft Exchange \(on page 7\)](#).

Settings Tab - Schedule (Exchange/O365)

The screenshot shows the configuration interface for an Exchange/O365 account. At the top, the 'Schedule' section is expanded, showing a 'Polling Interval' of 5 minutes, a 'Custom Reserve Time' toggle, and a 'Schedule Source' dropdown set to 'Exchange/O365'. Below this, the 'Exchange/O365' section is expanded, showing an 'Enable Modern Authentication' toggle and several text input fields: 'Exchange Calendar Email Address', 'Exchange Account Username', 'Exchange Account Password', 'Exchange Domain', and 'Exchange Web Services URL'. Red error messages are displayed next to the 'Exchange Calendar Email Address', 'Exchange Account Username', 'Exchange Account Password', and 'Exchange Web Services URL' fields, indicating they are invalid.

- Turn on the **Enable Modern Authentication** toggle to use Modern Authentication for the EWS (Exchange Web Services) account. For instructions on configuring Modern Authentication for use with the Crestron Room Scheduling application, refer to [Appendix A: Enabling Modern Authentication for EWS \(on page 81\)](#).
- Enter the email address associated with the Microsoft Exchange scheduling calendar in the **Exchange Calendar Email Address** text field.
- Enter the username for the Microsoft Exchange account in the **Exchange Account Username** text field.

NOTE: The username must include the ".com" suffix similar to the email address entered in the **Exchange Calendar Email Address** text field.

- Enter the password for the Microsoft Exchange account in the **Exchange Account Password** text field.
- Enter the domain name associated with the Microsoft Exchange account in the **Exchange Domain** text field.

NOTE: The **Exchange Domain** text field must be left blank if using Office 365® software.

- Enter the Microsoft EWS (Exchange Web Services) server URL that the scheduling calendar uses to access Microsoft Exchange scheduling data in the **Exchange Web Services URL** text field.

Crestron Fusion

Select **Crestron Fusion** under **Schedule Source** to display options for integrating a Crestron Fusion account with the scheduling application.

For more information on connecting to a Crestron Fusion account, refer to [Connect to Crestron Fusion \(on page 6\)](#).

Settings Tab - Schedule (Crestron Fusion)

The screenshot shows the 'Schedule' settings for Crestron Fusion. At the top, there is a 'Schedule' header with a dropdown arrow. Below it, the 'Polling Interval' is set to 5 Minutes. The 'Custom Reserve Time' toggle is turned off. The 'Schedule Source' dropdown is set to 'Fusion'. Underneath, there is a section titled '- Fusion' containing two toggles: 'Enable Push Registration' and 'Enable Find Button', both of which are turned on.

- Turn on the **Enable Push Registration** toggle to allow Crestron Fusion to push scheduling calendar data to the scheduling application.
- Turn on the **Enable Find Button** toggle to display a find button on the scheduling application so that a user may look up nearby rooms that are available for meetings.

Google

Select **Google** under **Schedule Source** to display options for integrating a Google account with the scheduling application.

For more information on connecting to a Google account, refer to [Connect to Google Calendar \(on page 10\)](#).

Settings Tab - Schedule (Google)

The screenshot shows the 'Schedule' settings for a Google account. At the top, there is a 'Polling Interval' set to 5 minutes. Below it is a 'Custom Reserve Time' toggle switch which is currently turned off. The 'Schedule Source' is set to 'Google'. A section titled '- Google' contains a 'Google Calendar' text field which is currently empty.

Enter the calendar account name or ID in the **Google Calendar** text field if more than one calendar is available for the Google account. If this field is left empty, the scheduling application uses the primary calendar set for the account.

NOTE: To switch to a different calendar on the same Google account, enter the new calendar account name or ID in the **Google Calendar** text field.

Ad Astra

Select **Ad Astra** under **Schedule Source** to display options for integrating an Ad Astra account with the scheduling application.

For more information on connecting to an Ad Astra account, refer to [Connect to Ad Astra \(on page 12\)](#).

Settings Tab - Schedule (Ad Astra)

The screenshot shows the 'Schedule' settings for an Ad Astra account. The 'Polling Interval' is 5 minutes and 'Custom Reserve Time' is turned off. The 'Schedule Source' is set to 'Ad Astra'. A section titled '- Ad Astra' contains four text input fields: 'Username', 'Password', 'Room ID', and 'Server URL'. Each field has a red error message next to it: 'Username is invalid', 'Password is invalid', 'Room ID is invalid', and 'Server URL is invalid'.

- Enter the username for the Ad Astra account in the **Username** text field.
- Enter the password for the Ad Astra account in the **Password** text field.
- Enter the room ID associated with the Ad Astra scheduling calendar in the **Room ID** text field.
- Enter the URL of the Ad Astra scheduling calendar server in the **Server URL** text field.

CollegeNet 25Live

Select **25Live** under **Schedule Source** to display options for integrating a CollegeNet 25Live account with the scheduling application.

For more information on connecting to a CollegeNet 25Live account, refer to [Connect to CollegeNet 25 Live \(on page 13\)](#).

Settings Tab - Schedule (25Live)

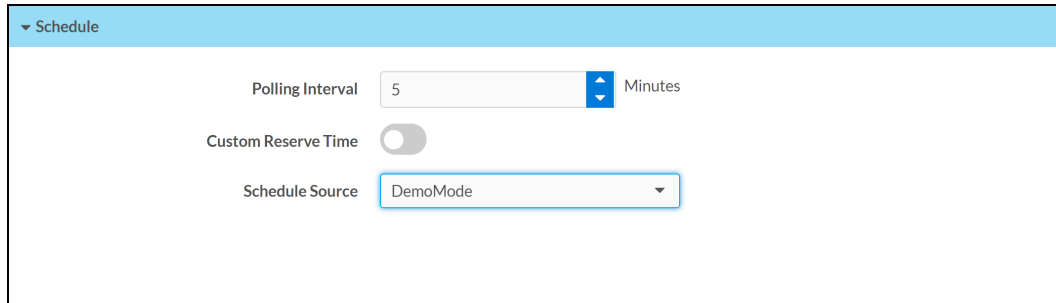
The screenshot displays the 'Schedule' settings for a 25Live account. At the top, there is a 'Schedule' header. Below it, the 'Polling Interval' is set to 5 minutes. The 'Custom Reserve Time' is turned off. The 'Schedule Source' is set to '25Live'. Under the 'Ad Astra' section, there are four text input fields: 'Username', 'Password', 'Room ID', and 'Server URL'. Each field has a red error message: 'Username is invalid', 'Password is invalid', 'Room ID is invalid', and 'Server URL is invalid'.

- Enter the username for the CollegeNet 25Live account in the **Username** text field.
- Enter the password for the CollegeNet 25Live account in the **Password** text field.
- Enter the space ID associated with the CollegeNet 25Live scheduling calendar in the **Space ID** text field.
- Enter the URL of the CollegeNet 25Live scheduling calendar server in the **Server URL** text field.

Demo Mode

Select **Demo Mode** under **Schedule Source** to enable running demo mode on the scheduling application. When demo mode is enabled, the scheduling application cycles through demonstrations of various application features.

Settings Tab - Schedule (Demo Mode)

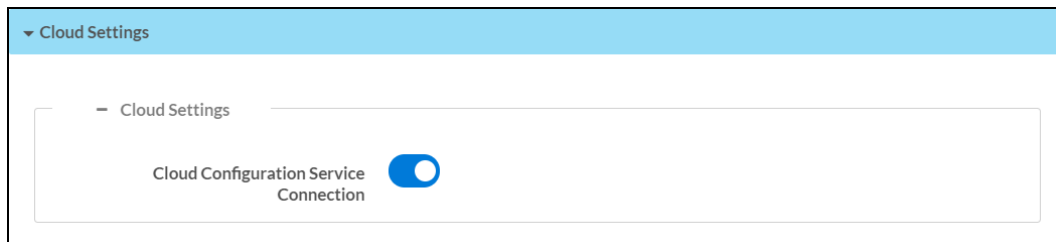


The screenshot shows the 'Schedule' settings tab. It contains three settings: 'Polling Interval' set to 5 minutes, 'Custom Reserve Time' which is disabled, and 'Schedule Source' set to 'DemoMode'.

Cloud Settings

Click **Cloud Settings** to enable or disable a connection between the touch screen and an XiO Cloud® service account. A connection to the XiO Cloud service is enabled by default.

Settings Tab – Cloud Settings



The screenshot shows the 'Cloud Settings' tab. It features a single toggle switch labeled 'Cloud Configuration Service Connection', which is currently turned on.

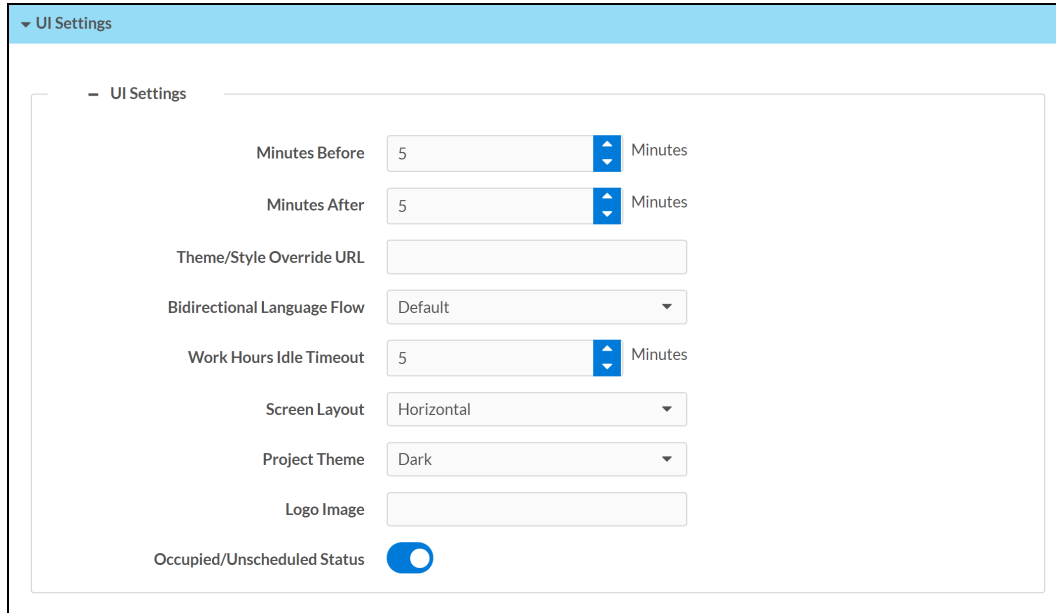
Turn on the **Cloud Configuration Service Connection** toggle to allow a connection between the touch screen and an XiO Cloud account. This setting is enabled by default.

For more information on connecting to the XiO Cloud service, refer to "Connect to XiO Cloud Service" in the [TSW-570, TSW-770, and TSW-1070 Product Manual \(Doc. 8550\)](#), [TS-770 and TS-1070 Product Manual \(Doc. 8555\)](#), or [TSS-770 and TSS-1070 Product Manual \(Doc 8745\)](#).

UI Settings

Click **Reservation** to configure various settings for the scheduling application UI (user interface).

Settings Tab - UI Settings



- **Minutes Before:** Enter the duration (in minutes) that the active screen remains on the display before a meeting begins, even if the idle timeout has elapsed.
- **Minutes After:** Enter the duration (in minutes) that the active screen remains on the display after a meeting begins, even if the idle timeout has elapsed.
- **Theme/Style Override URL:** Enter the URL of a custom CSS (Cascading Style Sheets) file to override the default application themes.

NOTE: For more information on programming a custom scheduling application CSS file, refer to the [Crestron Room Scheduling Panels Programming Guide \(Doc. 8213\)](#).

- **Bidirectional Language Flow:** Use the drop-down menu to select the direction that scheduling application text displays on the scheduling application. Select **Default** to use the default direction for the chosen primary language.
- **Work Hours Idle Timeout:** Enter the duration (in minutes) that the touch screen must remain idle before the scheduling application enters the idle screen during work hours.
- **Screen Layout:** Use the drop-down menu to select the direction of the scheduling application layout and timeline (**Horizontal** or **Vertical**).

NOTES:

- Horizontal right-to-left layout and horizontal left-to-right layout is determined by the chosen primary language.
- The TSW-570P only supports the **Vertical** layout.

- **Project Theme:** Use the drop-down menu to select the application theme from the available options (**Light** or **Dark**).
- **Logo Image:** Enter the URL of a custom logo image to replace the default scheduling application logo image on the touch screen. Supported file types for the custom logo are PNG, JPG, and SVG.
- **Occupied/Unscheduled Status:** Turn on the toggle to have scheduling app report when occupancy is detected in the room when no meeting is scheduled. The room must contain occupancy-sensing equipment to use this feature.

Display

Click **Display** to customize the background of the scheduling application with supported image or video files.

Settings Tab - Display

▼ Display

– Backgrounds

Active Screen When Reserved

Reserved/Active Background URL Enabled

Reserved/Active Background URL

Reserved/Active Background Media Type

Reserved/Active Background Media Sub Type

Idle Screen When Reserved

Reserved/Idle Background URL Enabled

Reserved/Idle Background URL

Reserved/Idle Background Media Type

Reserved/Idle Background Media Sub Type

Active Screen When Available

Available/Active Background URL Enabled

Available/Active Background URL

Available/Active Background Media Type

Available/Active Background Media Sub Type

Idle Screen When Available

Available/Idle Background URL Enabled

Available/Idle Background URL

Available/Idle Background Media Type

Available/Idle Background Media Sub Type

(Continued on following page)

Settings Tab - Display (continued)

Active Screen When Available and Occupied

Available/Active Background URL Enabled

Available/Active Background URL

Available/Active Background Media Type

Available/Active Background Media Sub Type

Idle Screen When Available and Occupied

Available/Idle Background URL Enabled

Available/Idle Background URL

Available/Idle Background Media Type

Available/Idle Background Media Sub Type

Background media may be set for various application states, including **Active Screen When Reserved**, **Idle Screen When Reserved**, **Active Screen When Available**, **Idle Screen When Available**, **Active Screen When Available and Occupied**, and **Idle Screen When Available and Occupied**.

The settings below may be configured for each application state:

- **Background URL Enabled:** Turn on the toggle to use background media for the chosen application state.
- **Background URL:** If **Background URL Enabled** is turned on, enter the URL of the background media file for the chosen application state.
- **Background Media Type:** If **Background URL Enabled** is turned on, use the drop-down menu to set the media type of background media file (image or video) for the chosen application state.
- **Background Media Sub Type:** If **Background URL Enabled** is turned on, select the media subtype of the background media file for the chosen application state.

NOTES:

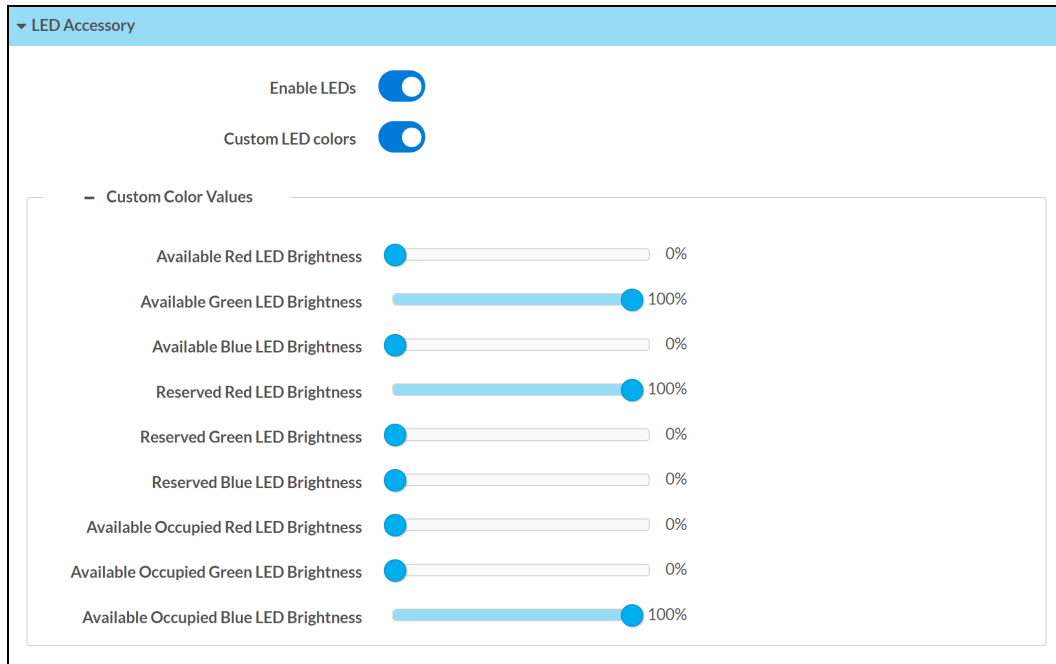
- Supported image file types are JPEG, GIF, and PNG. For optimal image quality, images should be sized to 960 x 540 pixels for a TSW-570, 540 x 960 pixels for a TSW-570P, 1024 x 600 pixels for a TSW-770/TS-770/TSS-770 and 1280 x 800 pixels for a TSW-1070/TS-1070/TSS-1070.
- The supported video file type is WEBM (compressed with a VP8 codec). The first and last seconds of the video should display the same still image to avoid flickering on the loop playback.

Turn on the **Enable LEDs** toggle to use the touch screen LEDs while in scheduling application mode.

LED Accessory

Click **LED Accessory** to customize the LED colors of supported room scheduling accessories (such as light bars and room status indicators).

Settings Tab - LED Accessory



- **Enable LEDs:** Turn on the toggle to use LEDs with the room scheduling accessory.
- **Custom LED colors:** Turn on the toggle to allow custom color mixing for the accessory LEDs.
- Expand **Custom Color Values** to configure custom colors for the accessory LEDs (if **Custom LED colors** is turned on). Use the sliders to set color values (from 0–100%) for different occupancy states (**Available**, **Reserved**, and **Available Occupied**).

Room

Click **Room** to configure display and functionality settings for the room connected to the scheduling application.

Settings Tab - Room

The screenshot shows the 'Room' settings interface. It has a blue header with a dropdown arrow and the text 'Room'. Below the header, there is a section titled '- Room' with a minus sign. Underneath, there are four sections: 'General', 'Privacy and Security', 'Availability Threshold', and 'Occupancy'. Each section contains specific settings: 'General' has 'Privacy Level' (Public), 'Room Name' (empty), and 'Offline Indication Time' (8 Hours); 'Privacy and Security' has 'Panel Security' (Anonymous) and 'Panel PIN' (****); 'Availability Threshold' has 'Enable Availability Threshold' (disabled) and 'Availability Threshold' (10 Minutes); 'Occupancy' has 'Occupancy Source' (Fusion).

- Expand **General** to configure general settings for the meeting room.
 - **Privacy Level:** Use the drop-down menu to select the privacy level used by the scheduling application for the room.

NOTE: The selections for **Privacy Level** control how much information is displayed about each meeting on the scheduling application. Select **Public** to show the meeting subject, organizer, and attendees. Select **Semi-Private** to show the meeting organizer but not the subject or attendees. Select **Private** to not show any meeting information except for whether the room is free or reserved.

- **Room Name:** Enter a custom room name that overwrites the calendar name.
- **Offline indication time:** Enter the duration (in hours) that the connected scheduling calendar must be offline before the scheduling application displays an offline notification.

- Expand **Privacy And Security** to configure privacy and security settings for the meeting room.
 - **Panel Security:** Use the drop-down menu to select the security level used by the scheduling application for the room.

NOTE: If **Anonymous** is selected, a user may access scheduling application functions from the touch screen without entering a PIN. If **Touch Screen PIN** is selected, a user must first enter a PIN before accessing scheduling application functions.

- **Panel PIN:** If **Touch Screen PIN** is selected for **Panel Security**, enter a four-digit PIN that must be entered to gain access to scheduling application functions.
- Expand **Availability Threshold** to configure availability threshold behavior for the room.
 - **Enable Availability Threshold:** Turn on the toggle to use availability threshold behavior for the meeting room.
 - **Availability Threshold:** Enter the duration (in minutes) that a meeting cannot be booked from the touch screen before a scheduled meeting begins.
- Expand **Occupancy** to configure occupancy settings for the meeting room.
 - **Occupancy Source:** Use the drop-down menu to select whether occupancy is reported to the scheduling application via Crestron Fusion or via a local CEN-ODT-C-POE occupancy sensor (if the room includes occupancy-detecting equipment).

NOTES:

- A CEN-ODT-C-POE must be paired to the touch screen prior to selecting **Local** occupancy. For more information, refer to [Web Configuration \(on page 14\)](#).
- **Local** occupancy is supported by Crestron Fusion, Microsoft Exchange, and Google scheduling calendars at this time.

Automation

Click **Automation** to configure the behavior of automated settings for the scheduling application.

Settings Tab - Automation

Automation

Check-in and Decline for No Show

Decline for No Show

Decline for No Show

Decline reservations up to (min) 120 Minutes

Expiration Time (min) 15 Minutes

Decline at Exact Minute

Check-in

Require Check-in

Check-in Time 5 Minutes

Check-in End 5 Minutes

- **Decline for No Show**

- **Decline for No Show:** Turn on the toggle to allow meetings to be declined automatically in the event of a no show.

NOTE: When **Decline for No Show** is enabled, a user must tap a check-in button on the touch screen or occupancy must be detected in the room during the specified check-in period, otherwise the meeting is removed from the scheduling calendar. For recurring meetings, if a no show event is detected for the third consecutive time, the room will be freed from the recurrence.

- **Decline reservations up to (min):** If **Decline for No Show** is turned on, enter the maximum meeting duration (in minutes) that is affected by the **Decline for No Show** feature. All meetings that are longer than the set duration are not affected by this feature.
- **Expiration time (min):** If **Decline for No Show** is turned on, enter a duration (in minutes) that must elapse without any occupancy being detected before a meeting is declined.

- **Decline at Exact Minute:** If **Decline for No Show** is turned on, turn on the toggle to have the room check for occupancy at the exact time the duration set for **Expiration time (min)** elapses.

For example, if **Expiration time (min)** is set to 10 minutes and a meeting is scheduled to start at 10:00AM, the room will check for occupancy at 10:10AM and will decline the meeting if no occupancy is detected at this time. This helps to prevent a false positive if occupancy is detected prior to the expiration timeout.

- **Check-in**

- **Require Check-In:** Turn on the toggle to require an attendee to check in to the meeting from the touch screen during a specified period.
- **Check-In Time:** Enter the duration (in minutes) that a **Check In** button is available on the touch screen before a meeting begins.

NOTE: If the **Check In** button from the prior meeting is still active and has not been pressed, the **Check In** button from the next meeting does not appear until the previous button expires.

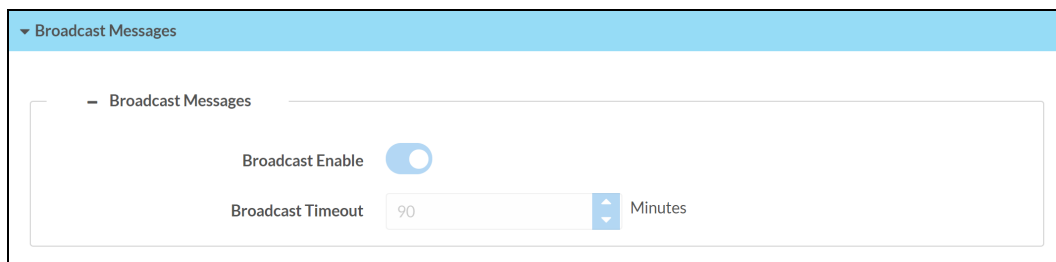
- **Check-In End:** Enter the duration (in minutes) that a **Check In** button is available on the touch screen after a meeting begins.

NOTE: If the length of a meeting is shorter than the set **Check-In End** value, the **Check-In End** time is limited to the length of the meeting.

Broadcast Messages

Click **Broadcast Messages** to configure broadcast message behavior on the scheduling application.

Settings Tab - Broadcast Messages

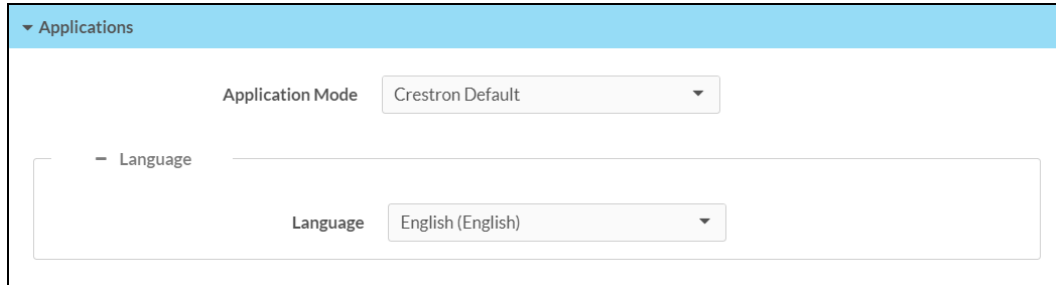


- **Broadcast Enable:** Turn on the toggle to show broadcast messages on the scheduling application.
- **Broadcast Timeout:** Enter the duration (in minutes) that a broadcast message is displayed before timing out. Enter "0" for no timeout.

Applications

Click **Applications** to select an application to run on the touch screen.

Settings Tab - Applications



The screenshot shows a settings interface for Applications. At the top, there is a blue header bar with a downward-pointing arrow and the text "Applications". Below this, the "Application Mode" is set to "Crestron Default" in a dropdown menu. Underneath, there is a section for "Language" with a dropdown menu set to "English (English)".

Use the **Application Mode** drop-down menu to select a touch screen application from the available selections.

Once a new application is selected, click **Save Changes** from the **Actions** menu. A pop-up dialog box is displayed stating that the touch screen must be rebooted for the new application to take effect. Click **Yes** to reboot the touch screen now or **No** to reboot the touch screen later. The touch screen reboots with the new application running.

For more information on configuring the provided third party scheduling applications, refer to the [TSW-570, TSW-770, and TSW-1070 Product Manual \(Doc. 8550\)](#), [TS-770 and TS-1070 Product Manual \(Doc. 8555\)](#), or [TSS-770 and TSS-1070 Product Manual \(Doc 8745\)](#).

Work Hours

Click Work Hours to configure the auto-on settings for the connected touch screen, which are triggered and controlled by a time range.

Settings Tab - Work Hours

| ▼ Work Hours | | | |
|-------------------------------------|-----------|---------|----------|
| Enable | Day | On Time | Off Time |
| <input checked="" type="checkbox"/> | Monday | 08:00 | 17:00 |
| <input checked="" type="checkbox"/> | Tuesday | 08:00 | 17:00 |
| <input checked="" type="checkbox"/> | Wednesday | 08:00 | 17:00 |
| <input checked="" type="checkbox"/> | Thursday | 08:00 | 17:00 |
| <input checked="" type="checkbox"/> | Friday | 08:00 | 17:00 |
| <input type="checkbox"/> | Saturday | 08:00 | 17:00 |
| <input type="checkbox"/> | Sunday | 08:00 | 17:00 |

During the set date and time range, the touch screen display remains on regardless of whether meetings are scheduled.

NOTE: All other standby configuration options are disabled when the touch screen is in scheduling mode. The options set through the **Work Hours** selection always dictate when the connected display turns on or off.

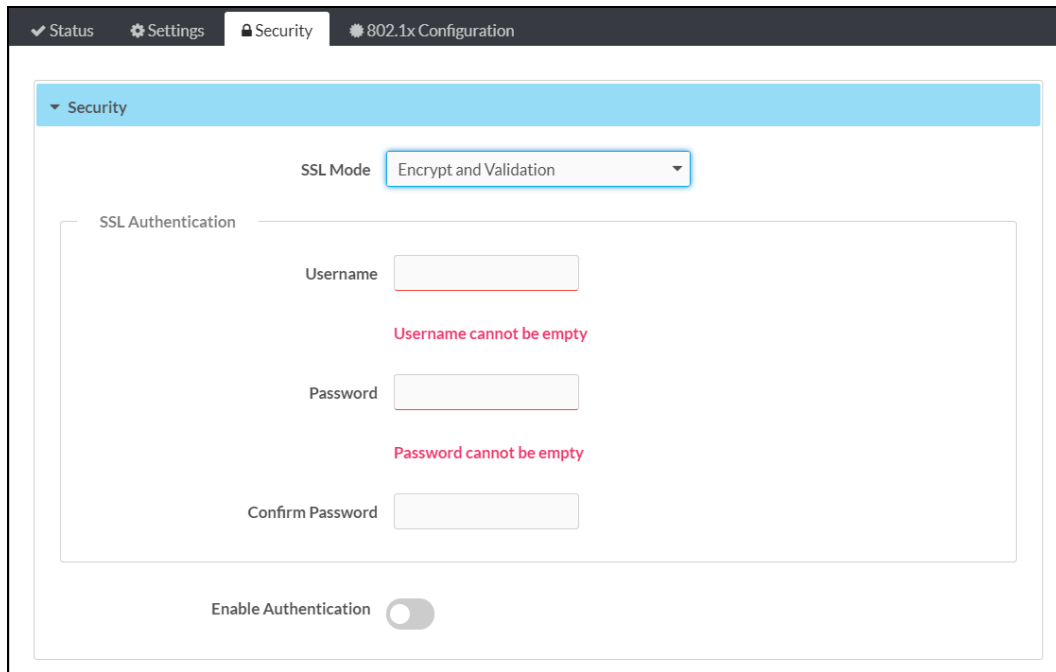
The following settings may be configured for each day of the week listed in the adjacent Day column:

- **Enable:** Turn on the toggle to use auto-on controls for the chosen day of the week.
- **On Time:** Enter the time (in 24-hour format) that the connected touch screen display is turned on automatically for the chosen day of the week.
- **Off Time:** Enter the time (in 24-hour format) that the connected touch screen display is turned off automatically for the chosen day of the week.

Security

Click the **Security** tab on the top left of the configuration interface to display selections for configuring security and authentication settings for the touch screen.

Security Tab Selections



The screenshot shows the Security configuration interface. At the top, there are navigation tabs: Status, Settings, Security (selected), and 802.1x Configuration. Below the tabs is a blue header with a dropdown arrow and the text "Security". The main content area contains the following settings:

- SSL Mode:** A dropdown menu currently set to "Encrypt and Validation".
- SSL Authentication:** A section containing three input fields:
 - Username:** An empty text input field with a red error message below it: "Username cannot be empty".
 - Password:** An empty password input field with a red error message below it: "Password cannot be empty".
 - Confirm Password:** An empty text input field.
- Enable Authentication:** A toggle switch currently turned off.

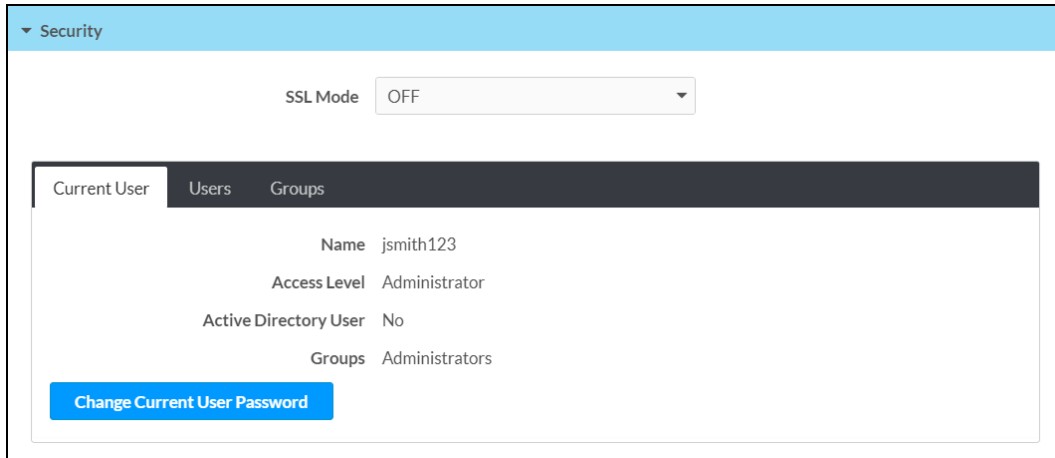
Expand the **Security** accordion to configure the following settings:

- **SSL Mode:** Select an SSL (Secure Sockets Layer) mode to use for establishing a secure connection to the touch screen:
 - **Encrypt and Validation:** The touch screen will require a username and password to validate an encrypted SSL connection. Enter a username and password in the appropriate fields that are displayed.
 - **Encrypt:** The touch screen will use an encrypted SSL connection
 - **OFF:** The touch screen will not use an SSL connection.
- **Enable Authentication:** Turn on the toggle to use authentication for the touch screen as described in [Authentication \(on the next page\)](#).

Authentication

Turn on the **Enable Authentication** toggle in the **Security** settings to use authentication for the touch screen. Authentication is turned on by default. When authentication is enabled, settings are displayed within the **Security** accordion.

Authentication Settings



When authentication is turned on, the web configuration interface prompts the user to enter a new administrator username and password. After rebooting the touch screen, this username and password must be entered to access the web configuration utility or to connect to the touch screen through Crestron Toolbox™ software.

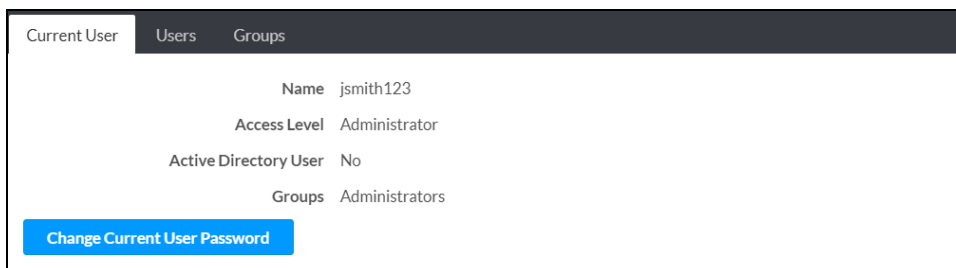
CAUTION: Do not lose the administrator username and password, as the touch screen settings must be restored to factory defaults to reset the username and password.

Use the following **Authentication Management** settings to add, delete, and edit touch screen users and groups.

Current User

Click the **Current User** tab to view and edit information for the current touch screen user.

Authentication Management - Current User Tab



The following settings are displayed for the current user:

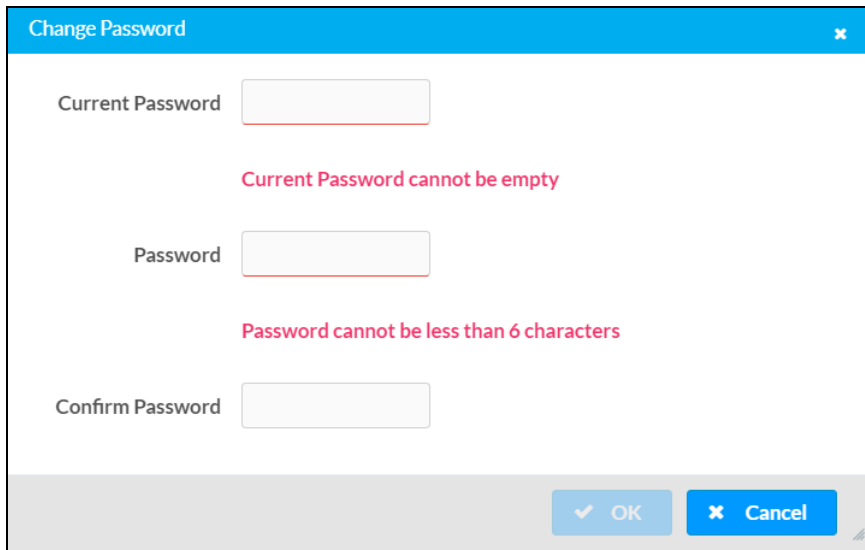
- **Name:** The chosen username
- **Access Level:** The access level granted to the user (Administrator, Programmer, Operator, User, or Connect)
- **Active Directory User:** Reports whether the current user is (Yes) or is not (No) authenticated through Active Directory® software

NOTE: A user must be added to an Active Directory group before the user may be selected as an active directory user. For more information, refer to [Groups \(on page 64\)](#).

- **Groups:** Any groups of which the current user is a member

Click **Change Current User Password** to change the password for the current user. The **Change Password** dialog box is displayed.

Change Password Dialog Box



The screenshot shows a dialog box titled "Change Password" with a close button in the top right corner. It contains three text input fields: "Current Password", "Password", and "Confirm Password". Below the "Current Password" field, there is a red error message: "Current Password cannot be empty". Below the "Password" field, there is a red error message: "Password cannot be less than 6 characters". At the bottom right, there are two buttons: "OK" (with a checkmark icon) and "Cancel" (with an 'X' icon).

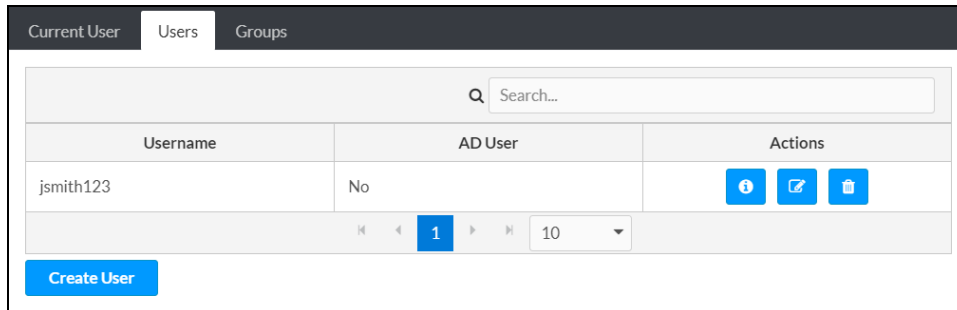
Enter the existing password in the **Current Password** field. Then, enter a new password in the **Password** field, and reenter the password in the **Confirm Password** field.

Tap **OK** to save the new password, or tap **Cancel** to cancel the change.

Users

Click the **Users** tab to view and edit information for the touch screen users.

Authentication Management - Users Tab



Enter text into the **Search Users** field to find and display users that match the search term(s).

Touch screen users are listed in table format. The following information is displayed for each touch screen user:


- **Username:** The chosen username
- **AD User:** Reports whether the user is (**Yes**) or is not (**No**) authenticated through Active Directory

NOTE: A user must be added to an Active Directory group before the user may be selected as an active directory user. For more information, refer to [Groups \(on page 64\)](#).

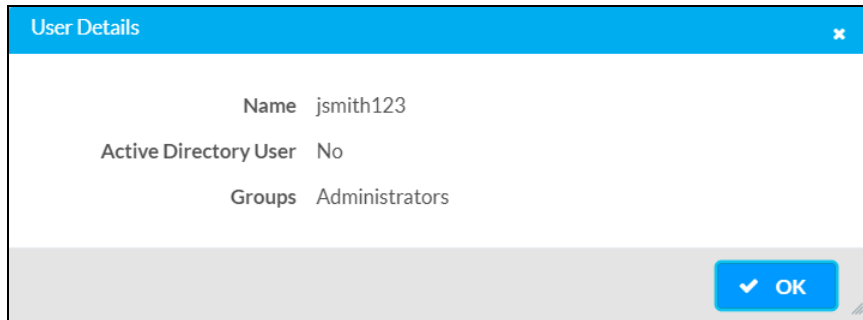
If the touch screen users span multiple pages, use the navigation arrows on the bottom of the page to move forward or backward through the pages, or select a page number to navigate to that page. Additionally, the number of users displayed on each page may be set to 5, 10, or 20 users.

An **Actions** column is also provided for each user that allows various actions to be performed. The following selections may be selected from the **Actions** column.

User Details

Click the information button  in the **Actions** column to view information for the selected user. The **User Details** pop-up dialog box is displayed.

User Details Dialog Box



The dialog box titled "User Details" displays the following information:

| | |
|-----------------------|----------------|
| Name | jsmith123 |
| Active Directory User | No |
| Groups | Administrators |


At the bottom right, there is a blue button with a checkmark and the text "OK".

The following settings are displayed for the current user:

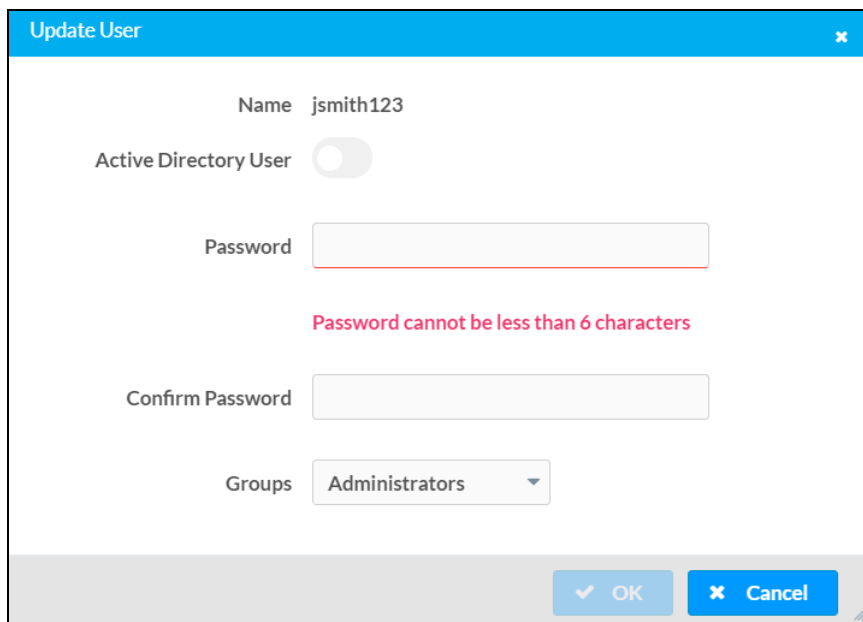
- **Name:** The chosen username
- **Active Directory User:** Reports whether the user is (**Yes**) or is not (**No**) authenticated through Active Directory
- **Groups:** Lists any groups that contain the user

Click **OK** to return to the **Authentication Management > Users** page.

Update User

Click the editing button  in the **Actions** column to edit settings for the selected user. The **Update User** dialog box is displayed.

Update User Dialog Box



The dialog box titled "Update User" displays the following settings:

| | |
|-----------------------|---|
| Name | jsmith123 |
| Active Directory User | <input type="checkbox"/> |
| Password | <input type="password"/> |
| | Password cannot be less than 6 characters |
| Confirm Password | <input type="password"/> |
| Groups | Administrators |

At the bottom, there are two buttons: a blue button with a checkmark and "OK", and a blue button with an 'X' and "Cancel".

The following **Update User** settings may be viewed or configured:

- **Name:** The chosen username
- **Active Directory User:** Turn on the toggle to use authentication via Active Directory for the selected user.
- **Password:** Enter a new password for the selected user.
- **Confirm Password:** Reenter the password provided in the **Password** field.
- **Groups:** Add the user to one or more groups. For more information, refer to [Groups \(on page 64\)](#).

NOTE: A user must be added to an Active Directory group to be selected as an Active Directory user.

Click **OK** to save any changes and to return to the **Authentication Management > Users** page. Click **Cancel** to cancel any changes.

Delete User

Click the trashcan icon  in the **Actions** column to delete the user.

A pop-up dialog box is displayed asking whether the user should be deleted. Click **Yes** to delete the user or **No** to cancel deleting the user.

Create User

Click **Create User** at the bottom of the page to create a new touch screen user. The **Create User** dialog box is displayed.

Create User Dialog Box

The screenshot shows a 'Create User' dialog box with the following fields and error messages:

- Name:** An empty text input field with the error message "Username cannot be empty" below it.
- Active Directory User:** A toggle switch currently turned off.
- Password:** An empty text input field with the error message "Password cannot be less than 6 characters" below it.
- Confirm Password:** An empty text input field.
- Groups:** A dropdown menu with "Choose" selected and the error message "Group Must be selected" below it.

At the bottom right of the dialog, there are two buttons: "OK" (with a checkmark icon) and "Cancel" (with an 'x' icon).

Use the following settings to create a new user:

- **Name:** Enter a username.
- **Active Directory User:** Turn on the toggle to use authentication via Active Directory for the user.
- **Password:** Enter a password for the user.
- **Confirm Password:** Reenter the password provided in the Password field.
- **Groups:** Add the user to one or more groups. For more information, refer to [Groups \(on the next page\)](#).

NOTE: A user must be added to an Active Directory group to be selected as an Active Directory user.

Click **OK** to save any changes and to return to the **Authentication Management > Users** page. Click **Cancel** to cancel creating a new user.

Groups

Click the **Groups** tab to view and edit settings for touch screen groups. Touch screen groups are used to group users by access level and Active Directory authentication settings.

Authentication Management - Groups Tab

| Group Name | AD Group | Access Level | Actions |
|----------------|----------|---------------|---------|
| Administrators | No | Administrator | |
| Connects | No | Connect | |
| Operators | No | Operator | |
| Programmers | No | Programmer | |
| Users | No | User | |

Enter text in to the **Search Groups** field to find and display groups that match the search term(s).

Touch screen groups are listed in table format. The following information is displayed for each touch screen group:

- **Group Name:** The chosen group name
- **AD Group:** Reports whether the group is (**Yes**) or is not (**No**) authenticated through Active Directory


NOTE: Active Directory provides an additional layer of authentication for touch screen groups and users. Active directory group and user names are stored in the touch screen console along with a unique SID (security identifier). When an Active Directory user attempts to authenticate against the console, the console first checks the user credentials. If the Active Directory authentication is successful, Active Directory queries the console for the user or group's SID. The user is granted access to the touch screen only if at least one SID match is found.

- **Access Level:** The access level for the selected group (**Administrator, Programmer, Operator, User, or Connect**)

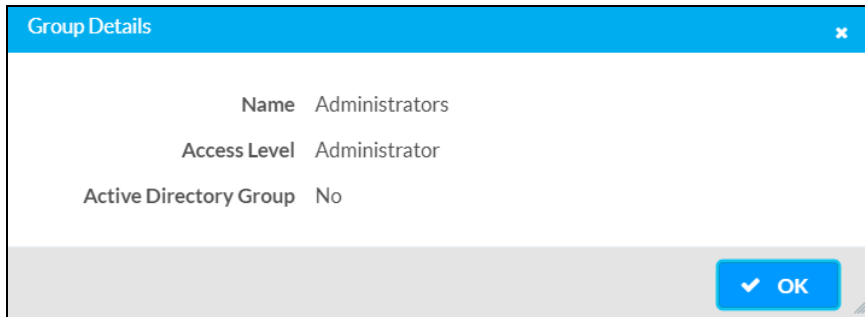
If the touch screen groups span multiple pages, use the navigation arrows on the bottom of the page to move forward or backward through the pages, or select a page number to navigate to that page. Additionally, the number of groups displayed on each page may be set to 5, 10, or 20 users.

An **Actions** column is also provided for each group that allows various actions to be performed. The following selections may be selected from the **Actions** column.

Group Details

Click the information button  in the **Actions** column to view information for the selected group. The **Group Details** dialog box is displayed.

Group Details Dialog Box



The following settings are displayed for the current group:

- **Name:** The chosen group name
- **NOTE:** If authenticating with Active Directory, do not enter the domain name for the Active Directory group in the **Name** field. If this information is being entered via console commands, omit `domain\local` from the command (for example, `adddomaing -n:crestron -L:A` instead of `adddomaing -n:domain.local\crestron -L:A`).
- **Access Level:** The access level of the group and its users
- **Active Directory User:** Reports whether the group is (**Yes**) or is not (**No**) authenticated through Active Directory

Click **OK** to return to the **Authentication Management > Groups** page.

Delete Group

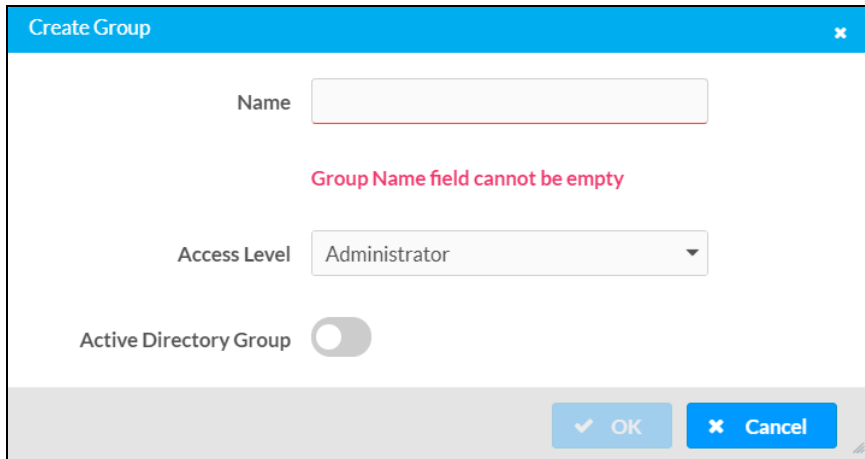
Click the trashcan icon  in the **Actions** column to delete the group.

A pop-up dialog box is displayed asking whether the group should be deleted. Click **Yes** to delete the group or **No** to cancel deleting the group.

Create Group

Click **Create Group** at the bottom of the page to create a new touch screen group. The **Create Group** dialog box is displayed.

Create Group Dialog Box



The screenshot shows a 'Create Group' dialog box with the following elements:

- Name:** An empty text input field with a red error message below it: "Group Name field cannot be empty".
- Access Level:** A dropdown menu currently set to "Administrator".
- Active Directory Group:** A toggle switch that is currently turned off.
- Buttons:** "OK" and "Cancel" buttons at the bottom right.

Use the following settings to create a new group:

- **Name:** Enter a group name.
- **Access Level:** Select an access level for the group and its users from the drop-down menu.
- **Active Directory Group:** Turn on the toggle to turn authentication on via Active Directory for the group.

Click **OK** to save any changes and to return to the **Authentication Management > Groups** page.
Click **Cancel** to cancel creating a new group.

802.1x Configuration

Click the **Security** tab on the top left of the configuration interface to display selections for configuring IEEE 802.1x network authentication for touch screen security.

802.1x Configuration Tab Selections

The screenshot displays the '802.1x Configuration' tab within a web interface. At the top, navigation tabs include 'Status', 'Settings', 'Security', and '802.1x Configuration'. The main configuration area is titled '802.1x Configuration' and contains the following elements:

- IEEE 802.1x Authentication:** A toggle switch currently turned off.
- Authentication Method:** A dropdown menu set to 'EAP MSCHAP V2- password'.
- Domain:** An empty text input field.
- Username:** An empty text input field.
- Password:** A text input field with masked characters (dots).
- Enable Authentication Server Validation:** A toggle switch currently turned off.
- Select Trusted Certificate Authority(ies):** A list of certificate authorities with checkboxes, including:
 - AAA Certificate Services
 - AC RAIZ FNMT-RCM
 - ACCVRAIZ1
 - Actalis Authentication Root CA
 - AffirmTrust Commercial
 - AffirmTrust Networking
 - AffirmTrust Premium ECC
 - AffirmTrust Premium
 - Amazon Root CA 1
 - Amazon Root CA 2
 - Amazon Root CA 3
 - Amazon Root CA 4
 - Atos TrustedRoot 2011
 - Autoridad de Certificacion Firmaprofesional CIF A62634068

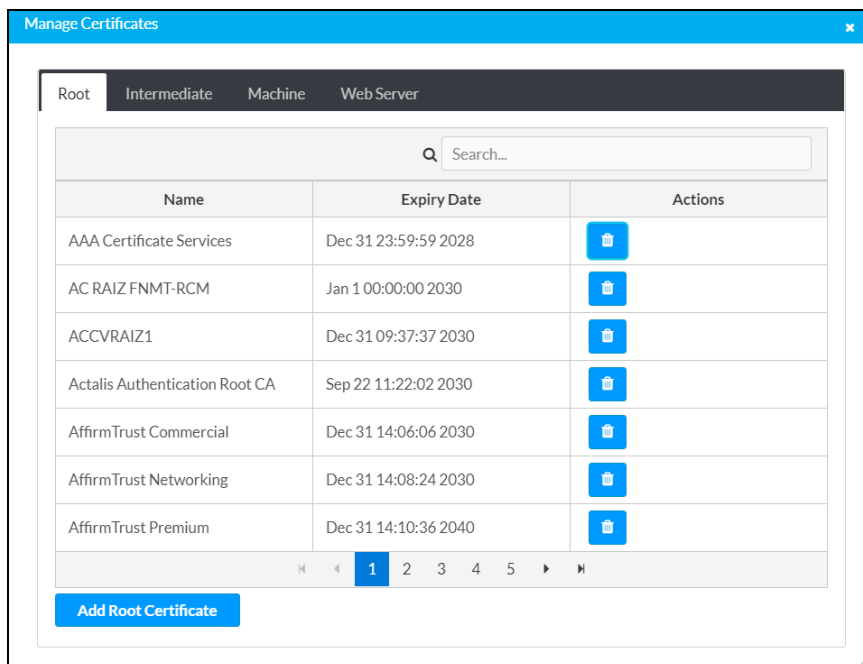
Expand the **802.1x Configuration** accordion to configure the following settings:

- **IEEE 802.1x Authentication:** Turn on the toggle to use 802.1x authentication for the touch screen.
- **Authentication Method:** Select an 802.1x authentication method (**EAP-TLS Certificate** or **EAP MSCHAP V2- password**) from the drop-down menu.
- **Domain:** If **EAP MSCHAP V2- password** is selected for **Authentication Method**, enter a domain name that is required for authentication.

- **Username:** If **EAP MSCHAP V2- password** is selected for **Authentication Method**, enter a username that is required for authentication.
- **Password:** If **EAP MSCHAP V2- password** is selected for **Authentication Method**, enter a password that is required for authentication.
- **Enable Authentication Server Validation:** Turn on the toggle to use server validation for increased security.
- **Select Trusted Certificate Authorities:** Select trusted CAs (Certificate Authorities) from the provided CAs to be used for server validation:
 - Click the check box to the left of a CA to select it as a trusted CA.
 - Enter a search term into the text field at the top of the CA menu to search for and display CAs that match the search term.
 - Click the check box to the left of the search field at the top of the CA menu to select all CAs as trusted CAs.

Select **Manage Certificates** from the **Action** menu to add or remove CAs from the list. The **Manage Certificates** dialog box is displayed with the **Root** tab selected.

Manage Certificates Dialog Box - Root Tab




Click the tabs near the top of the page to switch between the different types of CAs (**Root**, **Intermediate**, **Machine**, or **Web Server**). The same settings are provided for each type of CA.

Type a search term into the **Search...** text field to search for and display CAs that match the search term.

The following information is provided for each type of CA:

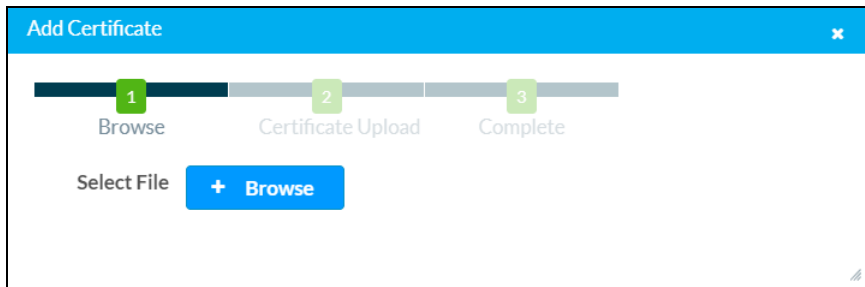
- **Name:** The CA name
- **Expiry Date:** The date and time that the CA is set to expire

If the CAs span 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.

Click the trashcan button  in the **Actions** column for a CA to delete it. A pop-up dialog box is displayed asking if the CA should be deleted. Click **Yes** to delete the certificate or **No** to cancel.

Click **Add [Type] Certificate** to add a CA of one of the four available types (**Root**, **Intermediate**, **Machine**, or **Web Server**) to the list of CAs. The **Add Certificate** pop-up dialog box is displayed.

Add Certificate Dialog Box



To add a new certificate:

1. Click **Browse**.
2. Navigate to the CA file on the host computer.
3. Select the CA file, and then click **Open**.
4. Click **Load** to load the CA file to the touch screen. The upload progress is shown in the dialog box.
5. Once the touch screen has completed the upload, click **OK**.

Click the **x** button to close the **Add Certificate** dialog box at any time during the upload process. Clicking the **x** button before the CA file is uploaded to the touch screen cancels the upload.

Click the **x** button to close the **Manage Certificates** dialog box and to return to the **802.1x Authentication** page.

Crestron Fusion Configuration

Once the scheduling application is connected to Crestron Fusion, scheduling application settings may be configured through Crestron Fusion by using custom properties.

Custom properties expand the functionality of the scheduling application, such as passing properties for the touch screen to display and announcing an emergency alert generated by Crestron Fusion. Custom properties provide information that is important to the user and that can be included in the description of the room. Custom properties that communicate settings to the device are defined for each room and are set through the Crestron Fusion Setup web client.

NOTE: Custom properties set in Crestron Fusion have precedence over settings configured using the web browser interface.

For more information on setting up rooms and adding devices to rooms in Crestron Fusion Cloud, consult the [Getting Started Guide for Adding Devices to Crestron Fusion Software \(Doc. 7888\)](#).

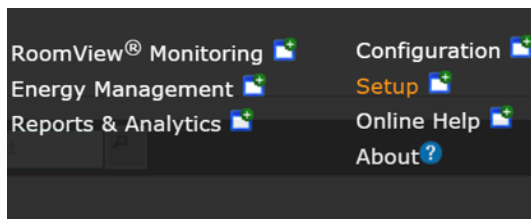
Add Custom Properties to a Room

Before attempting the procedure below, ensure that the scheduling application has been enabled on the touch screen and that a connection to Crestron Fusion has been established. The scheduling application-enabled touch screen must also have already been added to the appropriate room in the Crestron Fusion server.

To add custom properties to a room in Crestron Fusion:

1. Log in to the Crestron Fusion server.
2. Select **Open** > **Setup** from the Crestron Fusion header.

Crestron Fusion Page - Header



3. Select the **Objects** tab on the bottom of the **Rooms** tree on the left side of the page.

Crestron Fusion Page - Objects Tab



4. Select **Custom Properties** > **Rooms** from the **Objects** tree, and then click **Add**.

5. Enter the following information for each custom property that is being added:
 - **ID:** Enter the ID of the custom property exactly as it appears in this document.
 - **Name:** Enter any descriptive name for the property.
 - **Type:** Enter the custom property type (integer, string, Boolean, etc.).
 - **Searchable:** Check this box to make the custom property searchable (optional).

Add - Custom Property (Room) Dialog Box

The dialog box is titled "Add - Custom Property (Room)". It contains the following fields:

- ID: [Text Box] *
- Name: [Text Box] *
- Type: [Dropdown Menu] *
- Searchable:

*denotes a required field

Buttons: Save & Close, Close

6. Click **Save & Close** to save any changes. Click **Close** to cancel the addition.

Set Custom Properties for the Scheduling Application

After adding custom properties to the room as described in [Add Custom Properties to a Room \(on the previous page\)](#), use the Custom Property tab to configure the custom properties for the scheduling application.

To set custom properties for the Scheduling Application in Crestron Fusion:

1. Navigate to the **Rooms** tree as described in the first three steps of the [Add Custom Properties to a Room \(on the previous page\)](#).
2. Click the **Rooms** tab if it is not already selected.
3. Click the + (plus) sign next to the root directory to expand the directory tree.
4. Double-click on the desired room to open the **Edit - Room** dialog box.
5. Click the **Custom Properties** tab to view the available custom properties for that room.
6. To enable a custom property, either add a valid value to the appropriate text box or check the appropriate check box.
7. Click **Save & Close** to apply the selected properties. Click **Close** to cancel any changes.

Scheduling Application Custom Properties

The following tables list the Crestron Fusion custom properties that may be configured for the scheduling application. These custom properties correlate with the settings that are configurable via the web configuration interface.

For a complete list of custom properties for the scheduling application in the order that they appear in Crestron Fusion, refer to [Master List of Scheduling Application Custom Properties \(on page 79\)](#).

Work Hours Settings

Custom Properties - Work Hours Settings

| Custom Property | Types and Supported Value (s) | Description | Default Value | Notes |
|--------------------------------------|--|---|--|---|
| WorkHoursEn[Mon-Sun] ¹ | Boolean TRUE = enabled, FALSE = disabled | Sets the days of the week that the display's auto-on settings are in effect | enabled [Mon-Fri], disabled [Sat-Sun] | Disabling a day turns the display off for that entire day |
| WorkHoursStart[Mon-Sun] ¹ | String [00:00-23:59] | Sets when the display turns on automatically for a given day (in 24-hour format) | 08:00 | Time must be earlier than the WorkHoursStop time |
| WorkHoursStop[Mon-Sun] ¹ | String [00:00-23:59] | Sets when the display turns off automatically for a given day (in 24-hour format) | 18:00 | Time must be later than the WorkHoursStop time |

¹ The table below correlates the abbreviation following each of the above properties with a day of the week.

| Abbreviation | Day of Week |
|--------------|-------------|
| Mon | Monday |
| Tue | Tuesday |
| Wed | Wednesday |
| Thu | Thursday |
| Fri | Friday |
| Sat | Saturday |
| Sun | Sunday |

Display Settings

Custom Properties - Display Settings

| Custom Property | Types and Supported Value(s) | Description | Default Value | Notes |
|---------------------|---|---|---------------|-------|
| BackgroundAvailable | String [URL of background source file] | Sets the background source file URL for the available screens | empty | |
| BackgroundReserved | String [URL of background source file] | Sets the background source file URL for the reserved screens | empty | |

Broadcast Message Settings

Custom Properties - Broadcast Message Settings

| Custom Property | Types and Supported Value (s) | Description | Default Value | Notes |
|------------------------|--|--|---------------|---|
| BroadcastEmgTimeOut | Integer [0–90 minutes] | Sets the number of minutes before an emergency broadcast times out | 90 | BroadcastTimeOutEnable must be enabled; 0 = no timeout |
| BroadcastTimeOutEnable | Boolean TRUE = enabled, FALSE = disabled | Sets whether a timeout for broadcast messages is enabled or disabled | TRUE | Time must be earlier than the WorkHoursStop time |
| EnBroadcastMessage | Boolean TRUE = enabled, FALSE = disabled | Sets whether the scheduling application shows broadcast messages | TRUE | |

UI Settings

Custom Properties - UI Settings

| Custom Property | Types and Supported Value (s) | Description | Default Value | Notes |
|---------------------------|-------------------------------|--|---------------|---------------------------|
| ForceActiveAfterResStart | Integer [0–15 minutes] | Sets the time that the active screen remains on the display after a meeting begins (even if the idle timeout has elapsed) | 5 | 0 = disable this behavior |
| ForceActiveBeforeResStart | Integer [0–15 minutes] | Sets the time that the active screen remains on the display before a meeting begins (even if the idle timeout has elapsed) | 5 | 0 = disable this behavior |

| Custom Property | Types and Supported Value (s) | Description | Default Value | Notes |
|-----------------|--|--|---------------|--|
| IdleTimeout | Integer [1–20 minutes] | Sets the time that the application must be idle before displaying the idle screen | 5 | |
| ProjectIconUrl | String [URL of custom application icon] | Provides a URL reference to a custom application icon graphic file to replace the default application icon | empty | Supported graphic file types are PNG, JPG, and SVG |
| ProjectLayout | String [Horizontal, Vertical] | Sets the layout orientation for the application | Horizontal | |
| ProjectTheme | String [Light, Dark] | Sets the look and feel of the application theme | Dark | |

Automation Settings

Custom Properties - Automation Settings

| Custom Property | Types and Supported Value(s) | Description | Default Value | Notes |
|----------------------------|--|--|---------------|---|
| DeclineForNoShowAppliesDur | Integer [30–480 minutes] | If EnDeclineForNoShow is enabled, limits this feature to reservations up to and including the set number of minutes | 120 | |
| EnDeclineForNoShow | Boolean TRUE = enabled, FALSE = disabled | Sets whether a meeting is declined after a certain duration if is not checked in from the touch screen | FALSE | ForceOrgCheckIn must be enabled |
| ForceOrgCheckIn | Boolean TRUE = enabled, FALSE = disabled | Sets whether the reservation must be checked in from the touch screen | FALSE | |
| ForceOrgCheckInEndMin | Integer [0–30 minutes] | Sets how long the check-in button displays after the start of a reservation | 5 | Configuration limited to the length of a meeting; 0 = button is unavailable after meeting begins |
| ForceOrgCheckInMin | Integer [0–2880 minutes] | Sets how long the check-in button displays before the start of a reservation | 5 | Button does not appear if previous reservation still is not checked in; 0 = button is unavailable before meeting begins |

Room Settings

Custom Properties - Room Settings

| Custom Property | Types and Supported Value(s) | Description | Default Value | Notes |
|---------------------------------|---|---|---------------|--|
| AvailabilityThresholdMin | Integer [1-120 minutes] | Sets the time that a room cannot be booked prior to the start of a meeting | 10 | Required if AvailabilityThresholdRoomState is enabled |
| AvailabilityThresholdRoom State | Integer 0 = Disabled, 1 = Enabled | Sets whether the availability threshold behavior is enabled or disabled | 0 | |
| DateFormat | Integer [0-9 ¹] | Sets the date format of the display | 0 | |
| OfflineExpiry | Integer [0-24 hours] | Sets the time to delay the "Display Offline" message after the display is no longer connected to the network | 8 | A value of 0 shows the offline screen immediately upon loss of connection. |
| PanelPin | String | Sets the four-digit PIN that must be entered to access scheduling application features | 1234 | Required if PanelSecurity is set to Touch Screen PIN |
| PanelSecurityLevel | Integer 0 = Disabled/ Anonymous, 1 = Touch Screen PIN | Sets the security level of the scheduling application | 0 | |
| RoomFriendlyName | String | Sets a custom room name that overwrites the calendar name | empty | |
| RoomPrivacyLevel | Integer 0 = Public, 1 = Semi-Private, 2 = Private, 3 = Custom | Sets the privacy level of the scheduling application (what meeting information is shared on the touch screen) | 0 | Refer to Room for more information. |
| TimeFormat | Boolean TRUE = 12hr, FALSE = 24hr | Sets the time format of the display | TRUE | |

¹ The table below correlates the date format with the required integer.

| Format | Definition | Example | Property |
|--------|------------------------------|------------------------|--------------|
| WMDY | Day of week, Month Day, Year | Tuesday, March 3, 2020 | DateFormat=0 |
| WDMY | Day of week, Day-Month-Year | Tuesday, 3-March-2020 | DateFormat=1 |
| WMD | Day of week, Month Day | Tuesday, March 3 | DateFormat=2 |
| WDM | Day of week, Day-Month | Tuesday, 3-March | DateFormat=3 |
| MDY | Month Day, Year | March 3, 2020 | DateFormat=4 |

| Format | Definition | Example | Property |
|--------|--|-----------------------|--------------|
| DMY | Day-Month-Year | 3-March-2020 | DateFormat=5 |
| M.DY | Month.Day Year | March.3 2020 | DateFormat=6 |
| D.MY | Day.Month Year | 3.March 2020 | DateFormat=7 |
| WYMD | Day of week, Year-Month-Day (ISO format) | Tuesday, 2020-March-3 | DateFormat=8 |
| YMD | Year-Month-Day (ISO format) | 2020-March-3 | DateFormat=9 |

Reservation Settings

Custom Properties - Reservation Settings

| Custom Property | Types and Supported Value (s) | Description | Default Value | Notes |
|-------------------------|--|---|---------------|---|
| EnFreeUpRoom | Boolean TRUE = enabled, FALSE = disabled | Sets whether a meeting may be ended early from the touch screen | TRUE | |
| ExtendReservationEnable | Boolean TRUE = enabled, FALSE = disabled | Sets whether the reservation can be extended from the touch screen | TRUE | |
| ExtendReservationMin | Integer [0–59 minutes] | Sets the number of minutes that must elapse before the extend reservation button is displayed | 15 | Extend ReservationType must be set to "0" |
| ExtendReservationPer | Integer [0–100%] | Sets the percentage of a meeting that must elapse before the extend reservation button is displayed | 25% | Extend ReservationType must be set to "1" |
| ExtendReservationType | Integer 0 = Minutes, 1 = Percentage | Sets whether the extend reservation function is controlled by elapsed minutes or elapsed percentage | 0 | Extend ReservationEnable must be enabled |
| FreeUpRoomEnMin | Integer [0–59 minutes] | Sets the number of minutes that must elapse before the end early button is displayed | 10 | FreeUpRoomEn UseMin must be enabled |
| FreeUpRoomEnPer | Integer [0–100%] | Sets the percentage of a meeting that must elapse before the end early button is displayed | 5% | FreeUpRoomEn UsePer must be enabled |
| FreeUpRoomEnUseMin | Boolean TRUE = enabled, FALSE = disabled | Sets whether the end early button displays after a set number of minutes has elapsed | TRUE | EnFreeUpRoom must be enabled |
| FreeUpRoomEnUsePer | Boolean TRUE = enabled, FALSE = disabled | Sets whether the end early button displays after a set percentage of the reservation has elapsed | FALSE | EnFreeUpRoom must be enabled |
| ReservationEnable | Boolean TRUE = enabled, FALSE = disabled | Sets whether meetings can be reserved from the touch screen | TRUE | |
| ReserveNowEvenEndTime | Boolean TRUE = enabled, FALSE = disabled | Sets whether the available reservation end time options end exactly on the half hour or hour | FALSE | If disabled, reservation end time options are set in 30 minute intervals from the current time; Reservation Enable must be enabled |

| Custom Property | Types and Supported Value(s) | Description | Default Value | Notes |
|------------------|------------------------------|---|---------------|---|
| ReserveNowMaxDur | Integer [30–120 minutes] | Sets the maximum duration of a meeting that can be reserved from the touch screen | 120 | Reservation Enable must be enabled |

Schedule Settings

Custom Properties - Schedule Settings

| Custom Property | Types and Supported Value(s) | Description | Default Value | Notes |
|-----------------|--|---|---------------|--|
| EnPushModel | Boolean TRUE = enabled, FALSE = disabled | Sets whether Crestron Fusion uses push registration instead of polling the network for scheduling updates | TRUE | Available only if Crestron Fusion is set to be the scheduling provider |
| FindBtnEnable | Boolean TRUE = enabled, FALSE = disabled | Sets whether the find button is displayed on the touch screen | TRUE | Available only if Crestron Fusion is set to be the scheduling provider |
| PollTime | Integer [5–60 minutes] | Sets how often the application polls the scheduling server when updates are not pushed to the application | 5 | |
| ReserveCustomEn | Boolean TRUE = enabled, FALSE = disabled | Sets whether custom reservation lengths can be selected for the room | FALSE | If disabled, reservations lengths are provided in 30 minute increments |

Master List of Scheduling Application Custom Properties

The table below lists the custom properties for the scheduling application in the order that they appear in the Crestron Fusion custom properties list.

For more information on a custom property, refer to that property's associated page number.

Master List of Scheduling Application Custom Properties

| Custom Property | Grouping |
|--------------------------------|--|
| AvailabilityThresholdMin | Room Settings (on page 75) |
| AvailabilityThresholdRoomState | Room Settings (on page 75) |
| BackgroundAvailable | Display Settings (on page 73) |
| BackgroundReserved | Display Settings (on page 73) |
| BroadcastEmgTimeOut | Broadcast Message Settings (on page 73) |
| BroadcastTimeOutEnable | Broadcast Message Settings (on page 73) |
| DateFormat | Room Settings (on page 75) |
| DeclineForNoShowAppliesDur | Automation Settings (on page 74) |
| EnBroadcastMessage | Broadcast Message Settings (on page 73) |
| EnDeclineForNoShow | Automation Settings (on page 74) |
| EnFreeUpRoom | Reservation Settings (on page 77) |
| EnPushModel | Schedule Settings (on the previous page) |
| ExtendReservationEnable | Reservation Settings (on page 77) |
| ExtendReservationMin | Reservation Settings (on page 77) |
| ExtendReservationPer | Reservation Settings (on page 77) |
| ExtendReservationType | Reservation Settings (on page 77) |
| FindBtnEnable | Schedule Settings (on the previous page) |
| ForceActiveAfterResStart | UI Settings (on page 73) |
| ForceActiveBeforeResStart | UI Settings (on page 73) |
| ForceOrgCheckIn | Automation Settings (on page 74) |
| ForceOrgCheckInEndMin | Automation Settings (on page 74) |
| ForceOrgCheckInMin | Automation Settings (on page 74) |
| FreeUpRoomEnMin | Reservation Settings (on page 77) |
| FreeUpRoomEnPer | Reservation Settings (on page 77) |
| FreeUpRoomEnUseMin | Reservation Settings (on page 77) |

| Custom Property | Grouping |
|-------------------------|---|
| FreeUpRoomEnUsePer | Reservation Settings (on page 77) |
| IdleTimeout | UI Settings (on page 73) |
| OfflineExpiry | Room Settings (on page 75) |
| PanelPin | Room Settings (on page 75) |
| PanelSecurityLevel | Room Settings (on page 75) |
| PollTime | Schedule Settings (on page 78) |
| ProjectIconUrl | UI Settings (on page 73) |
| ProjectLayout | UI Settings (on page 73) |
| ProjectTheme | UI Settings (on page 73) |
| ReservationEnable | Reservation Settings (on page 77) |
| ReserveCustomEn | Schedule Settings (on page 78) |
| ReserveNowEvenEndTime | Reservation Settings (on page 77) |
| ReserveNowMaxDur | Reservation Settings (on page 77) |
| RoomFriendlyName | Room Settings (on page 75) |
| RoomPrivacyLevel | Room Settings (on page 75) |
| TimeFormat | Room Settings (on page 75) |
| WorkHoursEn[Mon-Sun] | Work Hours Settings (on page 72) |
| WorkHoursStart[Mon-Sun] | Work Hours Settings (on page 72) |
| WorkHoursStop[Mon-Sun] | Work Hours Settings (on page 72) |

Appendix A: Enabling Modern Authentication for EWS

This appendix provides the procedures required to configure Modern Authentication (OAuth 2) support for the Crestron Room Scheduling App in the Microsoft® EWS (Exchange Web Services) service.

The Modern Authentication authorization model is provided by the Azure® Active Directory® service to integrate managed API applications with the same authentication model used by the Office 365® software REST APIs. Once Modern Authentication is configured in EWS, the Crestron Room Scheduling app uses this access method to provide heightened user authentication.

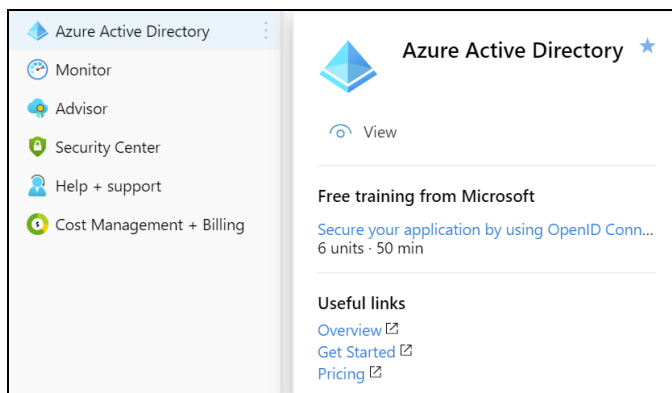
Configure the Crestron Room Scheduling EWS App

Use the following procedures to define a new application in Azure Active Directory.

Create the Crestron Room Scheduling App

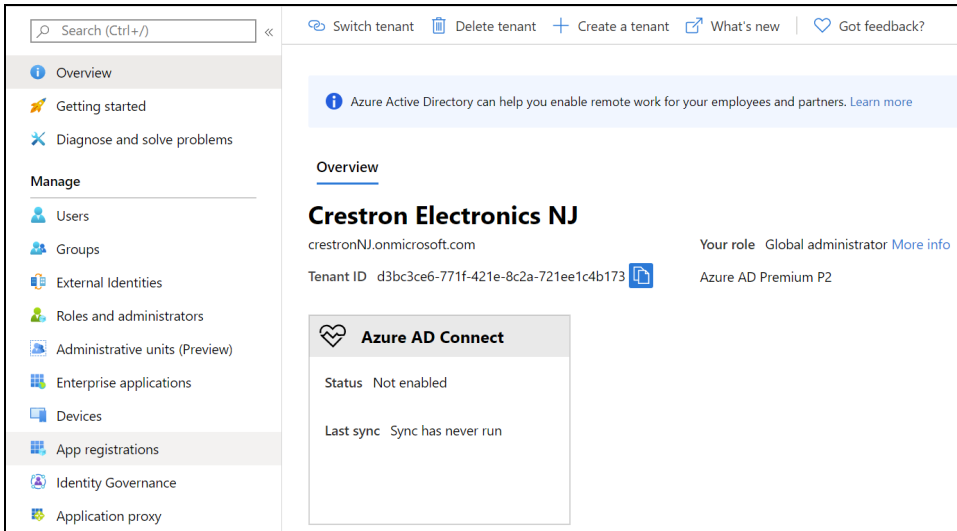
1. Sign into the Azure portal with a user ID with sufficient permissions to create an app.
2. Select **Azure Active Directory** from the left navigation menu.

Azure Active Directory Selection



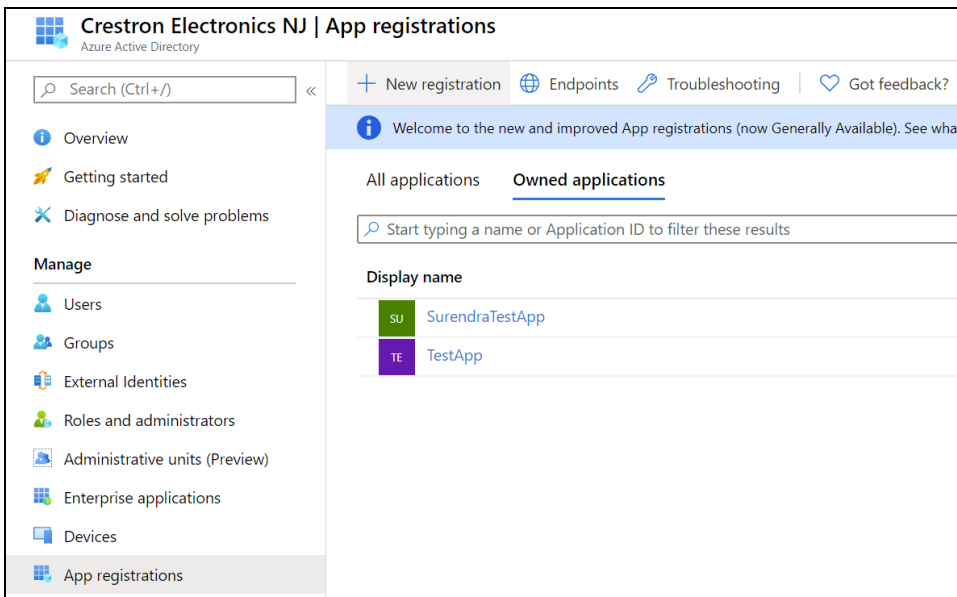
3. Select **App registrations** from the Azure widget menu.

App registrations Selection



4. Click **+ New registration**.

App registrations - New registration Screen



A dialog box for creating the app is displayed.

Register an application Dialog Box

Home > Crestron Electronics NJ | App registrations > Register an application

Register an application

*** Name**
The user-facing display name for this application (this can be changed later).

Crestron Scheduling Device ✓

Supported account types
Who can use this application or access this API?

Accounts in this organizational directory only (Crestron Electronics NJ only - Single tenant)

Accounts in any organizational directory (Any Azure AD directory - Multitenant)

Accounts in any organizational directory (Any Azure AD directory - Multitenant) and personal Microsoft accounts (e.g. Skype, Xbox)

[Help me choose...](#)

Redirect URI (optional)
We'll return the authentication response to this URI after successfully authenticating the user. Providing this now is optional and it can be changed later, but a value is required for most authentication scenarios.

Web ▼ e.g. https://myapp.com/auth

5. Enter the following information:

- **Name:** Enter a user-facing name of the application (in the Azure environment). This can be any string 120 characters or less. It is possible to have more than one application registered with the same display name.
- **Supported account types:** Select the supported account type. Only the **Accounts in this organizational directory only** option is supported by the Crestron Room Scheduling app at this time.

NOTE: The **Redirect URI (optional)** settings are not configured for this application.

6. Click **Register**.

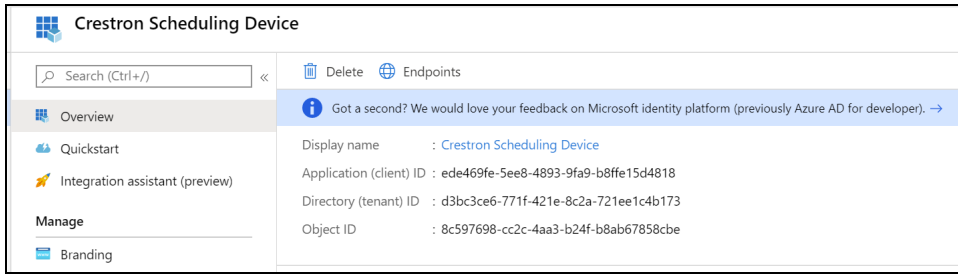
Obtain Authentication IDs

Once the app is registered, the application and directory IDs must be obtained to connect the Room Scheduling app to the Azure AD app.

1. Select **App registrations** from the Azure widget menu.
2. Select the application created for the Crestron Room Scheduling app. An application dialog box is displayed.

3. Select **Overview** from the navigation menu. Information about the Azure app is provided.

Application Overview Screen



4. Copy the following fields from the **Overview** pane to an accessible location. Use the **Copy to Clipboard** button that appears when hovering over each field to ensure accuracy.
 - **Application (client) ID:** The unique identification string for the Azure app.
 - **Directory (tenant) ID:** The unique identification string for the Azure directory.

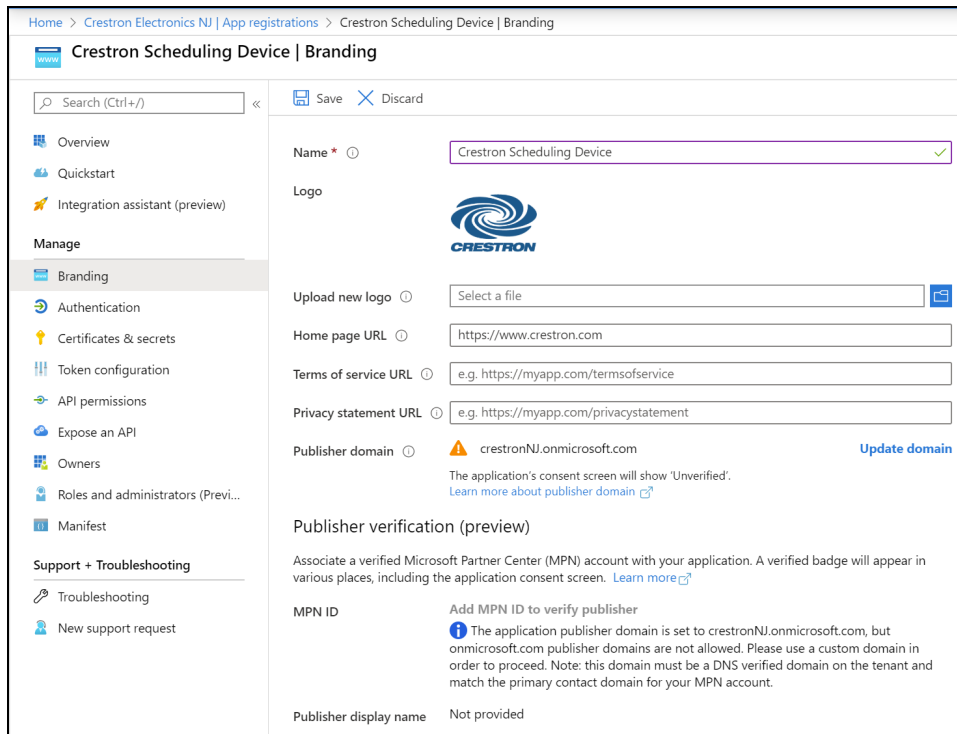
Configure Additional Settings

The following additional settings can be configured for the Azure app. These settings define the user consent experience, authentication details, and API access scopes available to the application.

Branding

Select **Branding** under the **Manage** section of the application navigation menu to configure branding settings for the app.

Application Branding Screen



The following branding settings can be configured for the Crestron Room Scheduling app:

- **Name: Required.** Set the user-friendly name of the application. This is the same name that was defined when registering the application, but it can be changed here.
- **Upload New Logo:** Set a user-facing logo for this application that appears on the consent screen. The image file for the logo must meet the following requirements:
 - Image dimensions of 215 x 215 pixels
 - Central image dimensions of 94 x 94 pixels
 - Uses the file type .bmp, .jpg, or .png
 - File size less than 100 KB
- **Privacy statement URL:** Provides a link to the application privacy statement in the consent screen.
- **Publisher domain:** Sets the process that must be completed to verify ownership of the domain. Most users will probably already have a verified domain. If the domain is not verified, the application will work, but the consent screen will warn the user they are consenting to an unverified application.

Authentication

Select **Authentication** under the **Manage** section of the application navigation menu to configure authentication settings for the app.

Application Authentication Screen

Crestron Scheduling Device | Authentication

Search (Ctrl+/) Save Discard Got feedback?

Overview
Quickstart
Integration assistant (preview)

Manage

Branding

Authentication

Certificates & secrets
Token configuration
API permissions
Expose an API
Owners
Roles and administrators (Previ...
Manifest

Support + Troubleshooting

Troubleshooting
New support request

Platform configurations

Depending on the platform or device this application is targeting, additional configuration may be required such as redirect URLs, specific authentication settings, or fields specific to the platform.

+ Add a platform

Supported account types

Who can use this application or access this API?

Accounts in this organizational directory only (Crestron Electronics NJ only - Single tenant)

Accounts in any organizational directory (Any Azure AD directory - Multitenant)

[Help me decide...](#)

Warning: Due to temporary differences in supported functionality, we don't recommend enabling personal Microsoft accounts for an existing registration. If you need to enable personal accounts, you can do so using the manifest editor. [Learn more about these restrictions.](#)

Advanced settings

Default client type

Treat application as a public client. Yes No

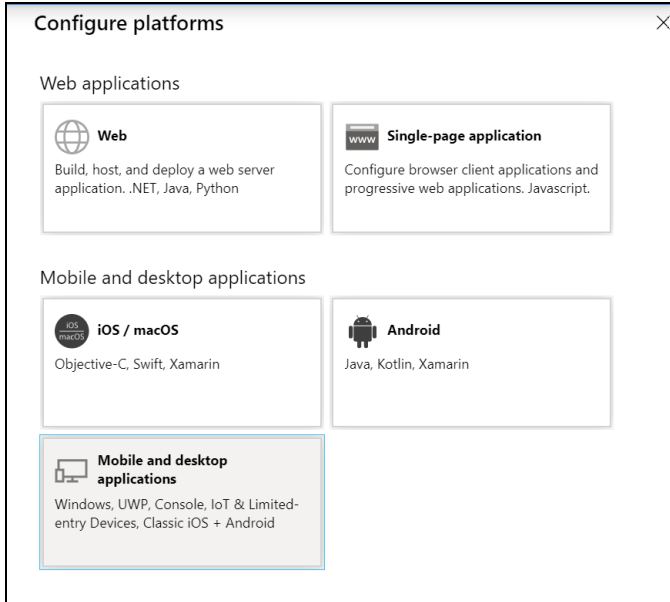
Required for the use of the following flows where a redirect URI is not used:

- Resource owner password credential (ROPC) [Learn more](#)
- Device code flow [Learn more](#)
- Integrated Windows Authentication (IWA) [Learn more](#)

The following authentication settings can be configured for the Crestron Room Scheduling app:

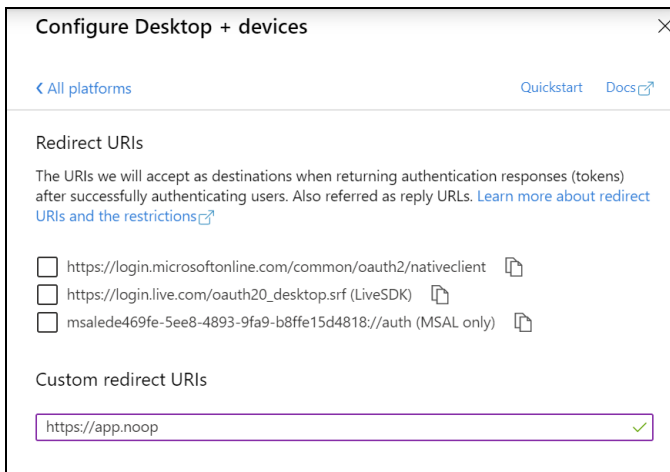
- **Add a Platform:** Click this button to create a platform for app authentication. The **Configure platforms** pane is displayed on the right side of the screen.

Configure platforms Pane



Select **Mobile and desktop applications** to display settings for configuring this platform.

Configure Desktop + devices Pane



Azure AD requires the use of a redirect URI, but the Crestron Room Scheduling app does not. Enter a valid URI address and click **Configure**.

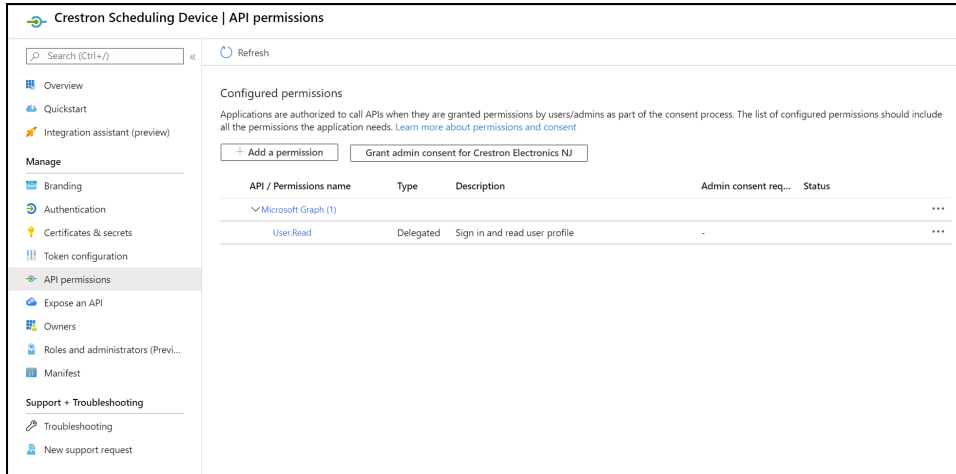
NOTE: Certain sites require selecting the third checkbox (**MSAL only**) within this pane in order for authentication to work properly.

- **Supported account types:** Select an account type for the app. This setting is the same as the one set when registering the app and should not change from **Accounts in this organizational directory only**.
- **Default Client Type:** The **Treat application as a public client** toggle must be set to enabled.

API Permissions

Select **API Permissions** under the **Manage** section of the application navigation menu to configure API permissions for the app.

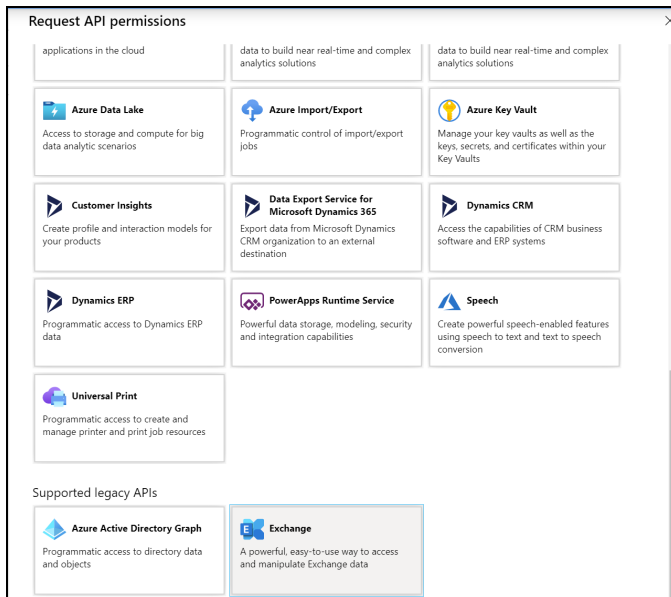
API Permissions Screen



The following API permissions settings can be configured for the Crestron Room Scheduling app:

Click **Add a Permission** to create a new API permission for the app. The **Request API permissions** pane is displayed on the right side of the screen.

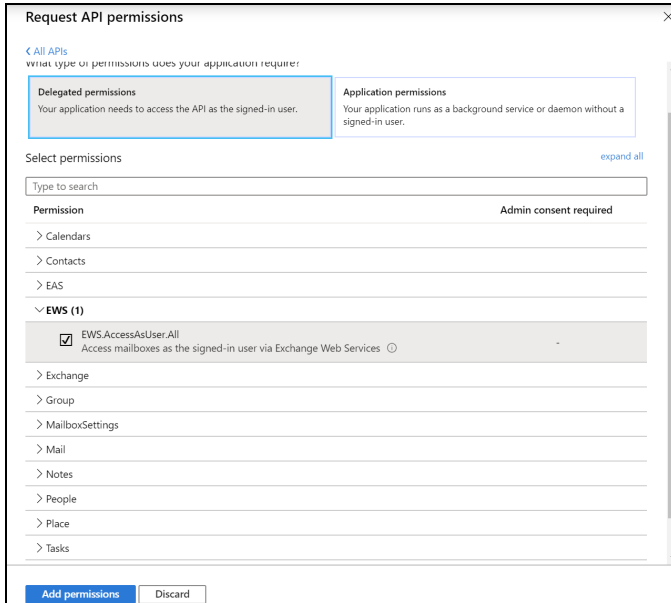
Request API permissions Pane



To set the API permissions for EWS:

1. Select **Exchange** to display a list of permissions for EWS.

Request API permissions Pane - Exchange

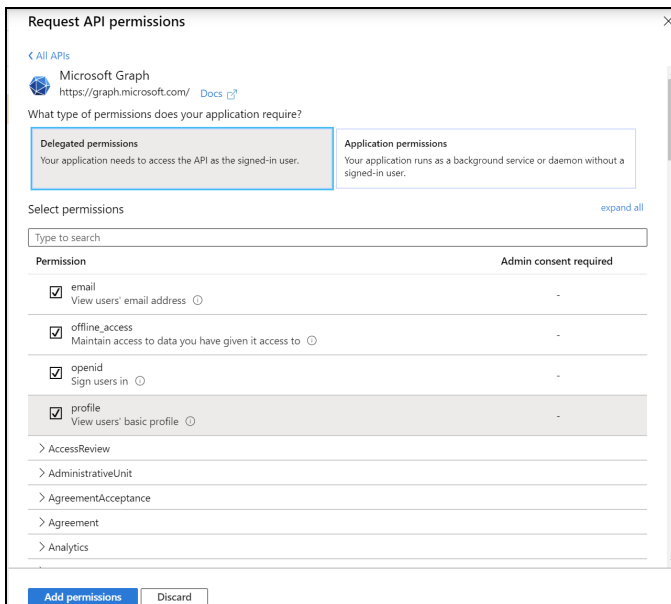


2. Expand the EWS accordion.
3. Fill the checkbox next to **EWS.AccessAsUser.All** to allow the application to make requests to the Exchange Web Services API on behalf of the configured user.

To set the API permissions for the Microsoft® Graph function:

1. Select **Microsoft Graph** to display a list of permissions for Microsoft Graph.

Request API permissions Pane - Microsoft Graph

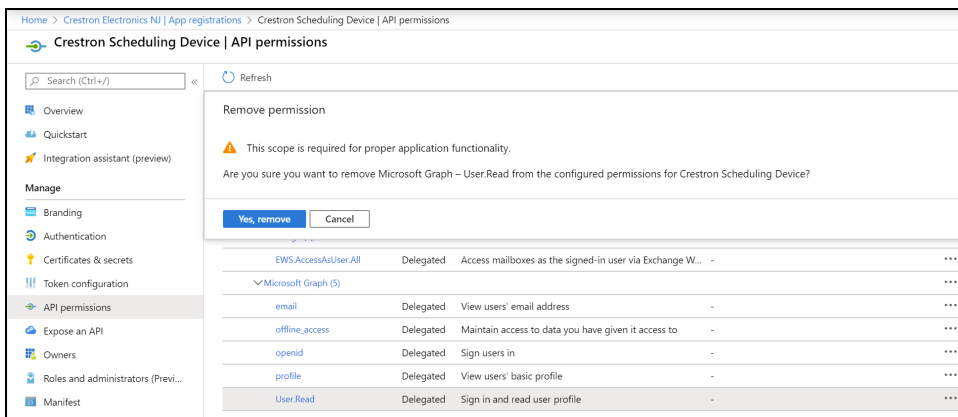


2. Fill the checkboxes next to the following settings to enable the functionality described below:

- **offline_access:** Allows the application to receive a Refresh Token, which can be exchanged for a new Access Token, when it expires. This is required for long running applications, so user consent is not required each time an access token expires.
- **openid:** Allows the application to receive an ID Token, which provides basic profile information about the authenticated user. This scope is required for the next two scopes, as they are delivered in the ID Token.
- **email:** provides the email address of the authenticated user. The application uses this to get the calendar address if none is entered during device configuration.
- **profile:** Provides basic profile information about the authenticated user, such as the display name and photo URL.

If the Microsoft Graph **User.Read** scope is added automatically, it can be removed. If there is a warning, it can be ignored.

API Permissions Screen - User.Read Scope



Connect the Scheduling App to EWS

Once an app has been registered in Azure AD, the Crestron Room Scheduling app can be connected to EWS from the touch screen web configuration interface.

To connect the Crestron Room Scheduling App to EWS:

1. Navigate to **Settings > Schedule**.
2. Select **Exchange/O365** from the **Schedule source** drop-down menu.
3. Toggle the **Enable Modern Authentication** switch to **Enabled**.

Settings Tab - Schedule (Exchange/O365) - Enable Modern Authentication

The screenshot shows the 'Schedule' tab for 'Exchange/O365'. The 'Enable Modern Authentication' toggle is turned on. Other fields include: Polling Interval (5), Custom Reserve Time (Disable), Schedule source (Exchange/O365), Exchange Calendar Email Address (empty), O365 Tenant ID (19340754-1997-4e13-9c), and Client ID (Application ID) (dbbd2ba5-f8ce-4eab-b7c).

4. Enter the following information in the appropriate fields:
 - Enter the email address associated with the Microsoft Exchange scheduling calendar in the **Exchange Calendar Email Address** text field.
 - Copy and paste the directory tenant ID obtained in [Obtain Authentication IDs \(on page 83\)](#) into the **O365 Tenant ID** text field.
 - Copy and paste the application client ID obtained in [Obtain Authentication IDs \(on page 83\)](#) into the **Client/Application ID** text field.
5. Select **Save Changes** from the **Action** menu.
6. Navigate to **Status > Schedule**. The **Exchange/O365** subsection displays a **Register now** button.

Status Tab - Schedule (Register now Button)

The screenshot shows the 'Exchange/O365' status page. It displays 'Exchange/O365 Registration Status' as 'Not Registered' and 'Exchange/O365 Registration Request' with a blue 'Register now' button.

7. Click **Register Now**.

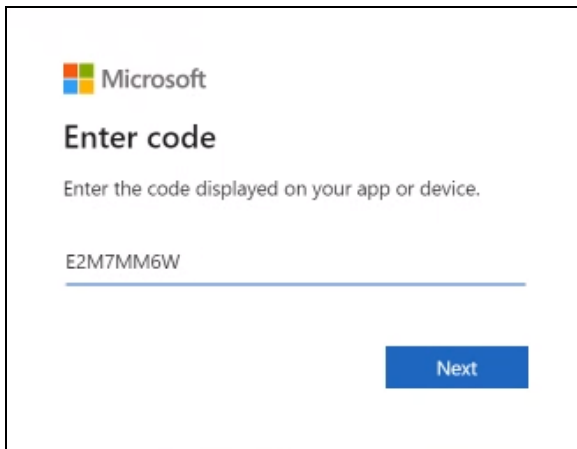
When the web configuration interface refreshes, the **Exchange/O365** subsection displays a **Sign in with Microsoft** button next to **Exchange/O365 Registration Request** and an **Exchange/O365 Registration Code**.

Status Tab - Schedule (Registration URL and Code)

The screenshot shows the 'Exchange/O365' status page after registration. It displays 'Exchange/O365 Registration Status' as 'Waiting for Authorization', 'Exchange/O365 Registration Request' with a 'Sign in with Microsoft' button, and 'Exchange/O365 Registration Code' as 'E2M7MM6WX'.

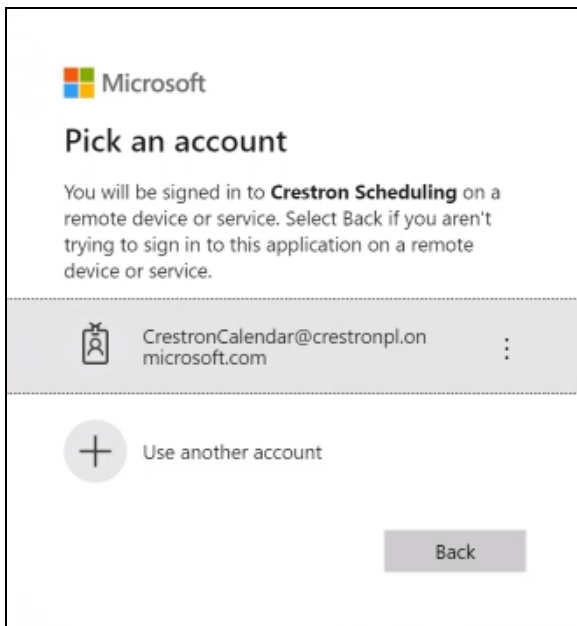
8. Click **Sign in with Microsoft**. An **Enter Code** dialog box is displayed.

Enter Code Dialog Box



9. Enter the provided Exchange/O365 registration code in the text field and click **Next**. The **Pick an account** dialog box is displayed.

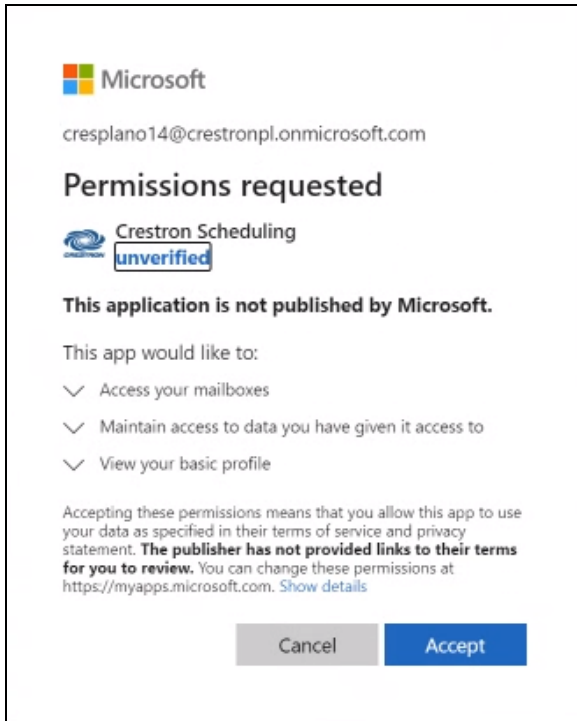
Pick an account Dialog Box



10. Select the EWS account that contains the desired scheduling calendar and enter the account password if prompted.

11. If the account has not yet been verified, a **Permissions requested** dialog box is displayed. Click **Accept** to verify the account.

Permissions requested Dialog Box



When the web configuration interface refreshes, the **Exchange/O365 Registration Status** updates to **Registered**. The Exchange scheduling calendar connects to the scheduling application without requiring a reboot.

Status Tab - Schedule (Registered)



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