



## RELEASE NOTES

# TSW-570/TSW-770/TSW-1070/TSW-570P/TSS-770/TSS-1070/TS-770/TS-1070

Version 3.002.0040

## Product Description

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TSW-570 5" Touch Screen Wall

TSW-570P, TSW-570PR 5" Portrait Touch Screen Wall

TSW-770, TSW-770-GV, TSW-770R 7" Touch Screen Wall

TSW-1070, TSW-1070-GV, TSW-1070R 10" Touch Screen Wall

TS-770, TS-770-GV, TS-770R 7" Touch Screen Tabletop

TS-1070, TS-1070-GV, TS-1070R 10" Touch Screen Tabletop

TSS-770, TSS-770-T 7" Dedicated Scheduling Touch Screen

TSS-1070, TSS-1070-T 10" Dedicated Scheduling Touch Screen

-GV indicate Government models, which have the Wi-Fi, Mic and Bluetooth disabled.

R indicate Residential Models (Crestron Home only)

## Notes and Recommendations

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**IMPORTANT NOTES for firmware versions 3.001.0020 and 3.001.0031 and newer.**

- **This firmware is built on Android 12, if you upgrade to this version, you will not be able to downgrade to any lower versions that are on Android 10 or 8. This firmware will be posted on the Crestron auto update servers starting with 3.002.0034.001.**
- **Firmware upgrades from Android 10 versions will take up to 30 minutes.**
- **Firmware upgrades from Android 8 versions require a two-step upgrade process to an Android 10 version first.**
  - **Versions 2.001.0058 to 2.006.0054 are Android 10**
  - **Versions lower than 2.001.0058 are Android 8**
- **For Teams Panel users, if you upgrade to this version of firmware, because it uses AOSP/NGMS Microsoft components, you will not be able to downgrade to version 3.000.0110 or lower.**
- **Important note:**

For firmware versions 2.004.0033 and higher, the Chrome Browser is no longer part of the firmware image and will be downloaded from Crestron's auto update server, during the bootup sequence. Therefore, the touch screen will need to access the update server's URL shown below:

[https://crestrondevicefiles.blob.core.windows.net/70-series/production/applications/manifest\\_x70\\_apps.json](https://crestrondevicefiles.blob.core.windows.net/70-series/production/applications/manifest_x70_apps.json)

- Important note, versions 2.001.0058 and higher upgrades the Touch Screens OS to Android 10, if you upgrade to this version, you will not be able to downgrade to versions lower than 2.001.0058 firmware.
- Please note when using Static IP Configuration, a pingable Gateway address must be specified.
- For touch screens running the Microsoft Teams Panel Scheduling app, please read the following OLH before upgrading from a version lower than 1.006.0046.
  - [https://support.crestron.com/app/answers/detail/a\\_id/1001219](https://support.crestron.com/app/answers/detail/a_id/1001219)
- Important note, if you upgrade to any version between 1.005.005 to 1.006.0046 from a version lower than 1.005.0005 and do any of the following, you will not be able to downgrade to a prior version.
  - Do a restore or
  - Change a password of an existing user or
  - Create a new user
- Some Cisco wireless access points automatically disconnect and reconnect the wireless network according to their session timeout setting, if you want to reduce the frequency of this behavior, please configure the session timeout parameter on the Cisco WAP to its max value.
- This firmware version incorporates all features and bug fixes from the following versions.
  - 1.002.0055 (fixes related to Crestron Home)
  - 1.003.0082 (Support for MS Teams Panel scheduling application)
- Except for Microsoft TEAMS Flex systems, Crestron strongly recommends upgrading the firmware to the latest released version.
- For Microsoft TEAMS Flex system, please do not update the touch screen firmware, as this is handled / managed by the UC-Engine
- This firmware release supports TSW, TS and TSS based touch screens. It is not possible to convert a TSS to TSW touch screen or vice versa.
- TSS-770 and TSS-1070 do not support the following features that some or all TSW and TS touch screens do:
  - Custom Smart Graphics projects
  - Control system connections
  - Crestron Home (Pyng)
  - .AV Framework
  - RAVA SIP Intercom
  - Sonos app
  - Zoom Rooms page flip mode
  - TSS-752 style scheduling interface
  - Crestron HTML5 User Interface
- The following are minimum Software Tools and Database version required, note Crestron recommends always using the latest versions:
  - Smart Graphics 2.15.08.15

- VT Pro-e 6.2.01.31
  - SIMPL Windows 4.14.22.06
  - Toolbox 3.07.228.02
  - Crestron Database 202.00.001.00
  - Device Database 200.20.002.00
- When using the POE Occupancy sensor or the “Check In” button to drive No-Show functionality locally on the touch screen, for recurring meetings, if a “No-Show” event is detected for the 3<sup>rd</sup> consecutive meeting, the room will be freed from the recurrence.
  - Please refer to the following link for the latest ch5 reserve join, signal name fixes.  
[https://sdkcon78221.crestron.com/sdk/Crestron\\_HTML5UI/Content/Topics/UI-Reserve-Joins.htm](https://sdkcon78221.crestron.com/sdk/Crestron_HTML5UI/Content/Topics/UI-Reserve-Joins.htm)

## Firmware Upgrades

- Ensure the touch screen is given at least 30 minutes to complete firmware upgrade before power cycling. Normally it will complete in less time than this but in certain cases additional internal steps may be performed by the touch screen which requires a longer update time.

## Firmware Downgrades

- Firmware upgrades are exhaustively tested to ensure there are no unintended operational changes to the device after the upgrade. While attempts are also made to ensure device configurations are preserved on firmware downgrade, it cannot always be guaranteed due to data storage adjustments that may occur between versions. Thus, if a Touch Screen is to be left in a production environment after a firmware downgrade, performing a RESTORE after the downgrade is strongly advised to ensure consistent operation.

## Choosing an Application Mode

- TSS touch screens ship with Crestron Scheduling enabled by default and TSW touch screens ship with User Project enabled by default.
  - Sonos is not technically an application mode; it is invoked within the User Project mode.
- To choose a new application mode:
  - Browse to the web configuration interface and navigate to the Applications section of the settings tab and select the desired app from the drop-down.
  - Alternately, select apps using the “appmode” command at the text console in Toolbox.
  - A third alternative is to select the application using the Application Selection screen in Setup.
  - It is recommended to perform a restore after changing application modes
- Certain application modes disable the toolbar buttons on the touch screen if they are unused in that particular application.
- LCD brightness is controlled automatically when in Crestron Default (Crestron scheduling) mode.

## App Updates - Sonos

- The touch screen will only check for Sonos app updates after Sonos has been launched on that particular touch screen at least once. The touch screen will automatically check for Sonos updates at 02:00/2:00am local time and install the new version if found.

- Once Sonos is used at least once the current version can be checked in the Setup->About screen, and you can also check for new updates from there.
  - A manual check for update can also be done via the Crestron Toolbox console command by issuing the following command: *appupdate sonos* This command will enable the nightly check, even if a Sonos project has never been launched.
- If the touch screen has a newer Sonos App version than what is included in the firmware that is installed, the Sonos App will be downgraded temporarily. The Sonos App can be upgraded to the latest released version.
- The update button inside the Sonos app itself will not update the Sonos app on the TSW, the above method must instead be relied upon.

### App Updates – Non-Sonos

Supported app partners will release app updates from time to time, which the TSS/TSW/TS touch screen will automatically retrieve when available. A full firmware update is not required to update the partner apps. App updates are automatically applied at 02:00 local time when an update is available.

- For manual check/install, use one of the two methods below:
  - Browse to the web configuration, select App Upgrade from the Actions menu.
  - Enter the touch screen Setup->About screen to do an immediate check and install new updates of the current running app.
- If the TSS-XX touch screen has a newer App version than what is included in the firmware that is installed, the installed App will be left installed.

### Darwin App from Delos

The 70 series touch screens have the ability to launch the Darwin application using the same reserved join for Sonos (Open Sonos, 28511). To activate this capability, you must set the following console parameter.

- APPDUALMODE [SONOS|DELOS] Select sonos or delos.

The setting is defaulted to Sonos, once it is set to Delos reboot the Touch Screen. The same join to launch Sonos in custom projects will launch the Delos Darwin app instead.

Currently only the automatic connect mode is fully functional, Delos is aware of the issue and is working on a fix in their app.

The touch screen will only check for Darwin app updates after Darwin App has been launched on that particular touch screen at least once. The touch screen will automatically check for Darwin updates at 02:00/2:00am local time and install the new version if found. For manual check/install, use one of the two methods below:

- Enter the touch screen Setup->About screen to do an immediate check and install new updates of the current running app. Note in the setup menu, the app is still hardcoded as "Sonos" but the version number will be correct. This will be corrected in a future release.

### Scheduling Applications and Calendars– Supported Features

Scheduling Application	POE Occupancy Sensor Support	Initial Firmware Version	Reports Network Outage	Language Support	Supported Touch Screens

Crestron	Yes	1.2.31	Yes	Yes, 24 languages	TSW-570 TSW-570P TSW-770 TSW-1070 TS-770 TS-1070 TSS-770 TSS-1070
Robin	No	1.2.31	No**	English Only	TSW-770 TSW-1070 TS-770 TS-1070 TSS-770 TSS-1070
Teem	No	1.2.31	Yes**	English Only	TSW-770 TSW-1070 TS-770 TS-1070 TSS-770 TSS-1070
Appspace	Yes	1.2.31	Partial**	English Only	TSW-770 TSW-1070 TS-770 TS-1070 TSS-770 TSS-1070
EMS	No	1.2.31	Yes	English Only	TSW-770 TSW-1070 TS-770 TS-1070 TSS-770 TSS-1070
Zoom	No	1.2.31	No	English Only	TSW-770 TSW-1070 TS-770 TS-1070 TSS-770 TSS-1070
Gingco	No	1.2.31	No	German, English, Spanish	TSW-770 TSW-1070 TS-770 TS-1070 TSS-770 TSS-1070
NFS Rendezvous	No	1.2.31	No	English Only	TSW-770 TSW-1070 TS-770

					TS-1070 TSS-770 TSS-1070
Space Connect	No	1.2.31	Yes	English Only	TSW-770 TSW-1070 TS-770 TS-1070 TSS-770 TSS-1070
SpacelQ	No	1.2.31	No	English Only	TSW-770 TSW-1070 TS-770 TS-1070 TSS-770 TSS-1070
New Wave	No	1.2.31	No	English, Spanish Portuguese, Italian French, German Japanese Chinese / Cantonese Norwegian, Danish	TSW-770 TSW-1070 TS-770 TS-1070 TSS-770 TSS-1070
AskCody	No	1.2.31	Yes	English, Spanish German, French Danish, Swedish Norwegian, Finnish	TSW-770 TSW-1070 TS-770 TS-1070 TSS-770 TSS-1070
Indoor Finders	No	1.2.31	Yes	Arabic, Bulgarian, Catalan, Czech, Chinese, Croatian, Danish, Dutch, English, English (UK), Farsi, German, Greek, Spanish, Finnish, French, Hebrew, Hindi, Croatian, Hungarian, Italian, Japanese, Korean, Lithuanian, Norwegian, Polish, Portuguese (Brazilian), Portuguese (European), Romanian, Russian, Russian (UA), Slovak, Serbian, Thai,	TSW-770 TSW-1070 TS-770 TS-1070 TSS-770 TSS-1070

				Swedish, Turkish, Ukrainian, Vietnamese	
SharingCloud	No	1.2.31	Yes	English, French, German	TSW-770 TSW-1070 TS-770 TS-1070 TSS-770 TSS-1070
Matrix Booking	No	1.2.31	Yes	English	TSW-770 TSW-1070 TS-770 TS-1070 TSS-770 TSS-1070
22 Miles	No	1.2.31	Yes	Multi-Language support, please refer to 22 Miles	TSW-770 TSW-1070 TS-770 TS-1070 TSS-770 TSS-1070
iOffice Hummingbird	No	1.4.46	Yes	Please refer to iOffice	TSW-770 TSW-1070 TS-770 TS-1070 TSS-770 TSS-1070
Khardam Digital Building	No	1.4.46	Yes	Please refer to Khardam Digital	TSW-770 TSW-1070 TS-770 TS-1070 TSS-770 TSS-1070
OfficeSpace	No	1.5.2	No	English	TSW-770 TSW-1070 TS-770 TS-1070 TSS-770 TSS-1070
PepperDash Connect	Yes	1.5.2	Yes	English	TSW-770 TSW-1070 TS-770 TS-1070 TSS-770 TSS-1070
Door Tablet	Yes	1.6.19	Yes	Multiple languages, please refer to Door Tablet	TSW-770 TSW-1070 TS-770

					TS-1070 TSS-770 TSS-1070
Meeting4Display	No	1.6.19	Yes	Multiple languages, please refer to Meeti4Display	TSW-770 TSW-1070 TS-770 TS-1070 TSS-770 TSS-1070
Korbyt	No	2.1.58	Yes	Multiple languages, please refer to Korbyt	TSW-770 TSW-1070 TS-770 TS-1070 TSS-770 TSS-1070
PADS4	Yes	2.3.1011	Yes	Multiple language, please refer to pads4	TSW-770 TSW-1070 TS-770 TS-1070 TSS-770 TSS-1070
Envoy Rooms	No	2.3.1011	Yes	English	TSW-770 TSW-1070 TS-770 TS-1070 TSS-770 TSS-1070
KuiqMeeting	No	2.3.1011	Yes	English	TSW-770 TSW-1070 TS-770 TS-1070 TSS-770 TSS-1070
Nexboard	No	2.3.1011	Yes	Multiple languages, please refer to Nexodus	TSW-770 TSW-1070 TS-770 TS-1070 TSS-770 TSS-1070
Hyundai Autoever	No	2.4.1066	Yes	English, Korean	TSW-770 TSW-1070 TS-770 TS-1070 TSS-770 TSS-1070
Go Bright	No	3.0.0110	NA	English	TSW-1070

					TS-1070 TSS-1070
Digital Sign Client	No	3.2.0034	No	Multiple Languages, please refer to Add-On	TSW-770 TSW-1070 TS-770 TS-1070 TSS-770 TSS-1070

Calendar for Crestron Scheduling Application	Initial Firmware Version	Ad-Hoc Meeting Support	Supported Touch Screens
Exchange	1.2.31	Yes	TSW-570
Fusion	1.2.31	Yes	TSW-570P
Google	1.2.31	Yes	TSW-770
Ad Astra	1.2.31	Yes	TSW-1070
CollegeNET 25Live	1.2.31	Yes	TS-770 TS-1070 TSS-770 TSS-1070

Note: All partner scheduling applications support the LED accessories.

\*\*ROBIN app displays network disruption, but only checks physical network connectivity -- if the device is connected to a Wi-Fi hotspot or has a network cable plugged in.

\*\*TEEM: There is a network indicator (that looks like Wi-Fi) in the top right corner. Interacting with any of the buttons when the app is offline produces an error message.

\*\*Appspace - There is no indication in the app that the device is offline. However, the Room Card will turn gray for the status if the device is offline or cannot reach the cloud service. If the device loses connectivity to the Appspace server, portal itself you will see the 'Lost Connection' status after 15min. Once the device reports back to the server it will switch back to Online.

\*\*\* For best results and lightbar integration, minimum EMS version is v44.1 Update 28

## Crestron Scheduling

- Hard keys/hard key backlighting are automatically disabled in Crestron Scheduling mode. Even if manually turned on, the next time the scheduling interface starts they will turn back off.
- "Theme/Style Override URL" field is intended for .css files that override default styling rules. It should not be used for image files.
- If the touch screen is running a custom Crestron Scheduling App created with the Crestron Scheduling SDK, please be aware a firmware upgrade will overwrite the custom app with the default native app, therefore the custom app will have to be reloaded into the touch screen again.

## Indoor Finders

- When user tries to create a meeting longer than the room is allowed the error message only displays "Maximum event time permitted on this room is" without displaying the max time it is allowed.

- Some formatting issues were observed with the Check-in and the Extend Meeting messages displayed by the application.
- Some screen flickering was observed based on the background of the application.

## Sharing Cloud

- Currently LED is not functional, will be corrected in the next release.

## SpacelQ

- It was observed that the SpacelQ application crashes after an update of firmware. The display will show a white screen with a small blue swirl. This is an issue with the SpacelQ application, and they are currently working on resolving the problem. If you are running SpacelQ, it is recommended not to update the firmware until the problem is resolved. If the panel is in this state, the issue can be cleared by selecting a different application mode and selecting SpacelQ again.

## NewWave

- Current Room status does not display on Scheduling page for the first time after entering the credentials, the user will not see the current room status when the scheduling page is loaded initially the user will need to navigate to the next day and then back to today on scheduling page and panel will refresh and displays the correct meetings.

## Gingco

- Reserve Now – Gingco can only reserve meetings in 15-minute increments and never in the past. If a user wants to do a reserve now at 2:07 for example, the first reserve now block available will be 2:15 to 2:30.
- The Gingco app does not indicate when the panel is offline or unable to communicate with the server. Users that attempt to create a meeting from the panel will receive a failure message with no indication that the operation failed due to a network communications issue.

## NFS Rendezvous

- The NFS Rendezvous app does not indicate when the panel is offline or unable to communicate with the server.
- In some cases, the user may get into an authentication page that cannot be dismissed. A device reboot is required.
- There is a display issue on 7" touchscreens when the room is in a meeting. The organizer of the meeting is clipped and illegible.

## Space Connect

- The Space Connect app does not indicate a network outage and will appear to be online and functional when it is not able to communicate with the Space Connect portal.
- Network outage behavior – Rooms that show unavailable will change to available during a network outage.
- For ad-hoc meetings the End Meeting button is not always active.

## Teem

- It is recommended to disable the device Standby and Screensaver when using Teem. Teem provides a screensaver from their portal as part of the Teem app.

- Teem rooms require a Teem license assigned in the portal. With no license assigned, the TSS touch screen appears to be functional but does not report current info and the user cannot create meetings.
  - Recovery: Ensure that a license has been assigned to the room in the Teem portal.

## Appspace

- Only the Meeting Room card used for scheduling is supported on this release. Streaming video and images may be supported in a future release.
- This firmware image has 1.44.1 in the package, which does not control LED.
  - The 1.47.0 update is immediately available from the update site, which does control the LED. Users, after first switching to the Appspace app, will need to perform an update to get LED control.
    - Note - Devices already in Appspace mode running the 1.47.0 version do not require an additional app update after the firmware is installed.
- App updates are initiated from the Actions menu on the web configuration page, or from the About screen in Setup.

## EMS

- Users selecting the EMS application must provide the unique URL to their EMS deployment.
- When the EMS application loads, there is a profile dropdown and a room dropdown. Choosing a profile populates the room dropdown to select a room. The options are stored in a cookie, so anytime the cookie is cleared the user will have to go through the selection process again.
- The EMS web application will produce an error message if there is a network outage. Restart the panel after an outage to resume normal operation.
- Sometimes, after the TSS screensaver is dismissed, the EMS room needs reconnection.
  - Workaround: Leave the device Standby and Screensaver disabled.
- When creating reservations from the TSS touch screen, the user cannot select half hour segments from the time ribbon using the EMS app.
- Users cannot start an ad-hoc meeting unless it is on a :15-minute time slot.
- It was observed that after a high number of firmware upgrades, EMS would sometimes lose its configuration.

## PepperDash Connect

- Supports POE Occupancy Sensor for the following functionalities, refer to PepperDash directly for further details.
  - Displays occupancy status in the upper left
  - Occupancy based check-in support
  - Occupancy no show decline support
  - Occupancy automatic end early (curtail) support

## Google Calendar

- 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 panels are used for one user account. This limit does not apply to service accounts.

## System Requirements and Dependencies

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Other software versions:

- Smart Graphics 2.15.08.15
- VT Pro-e 6.2.01.31
- SIMPL Windows 4.14.22.06
- Toolbox 3.07.228.02
- Crestron Database 202.00.001.00
- Device Database 200.20.002.00

## Operational Installation/Upgrade Instructions

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Firmware upgrades can be performed using any of the following methods:

- Web Configuration UI
- XiO Cloud
- Autoupdate, which can be enabled/disabled from the Web Configuration UI and occurs at 02:00 local time whenever a new firmware update is available from Crestron.
  - Autoupdate is enabled by default
- Crestron Toolbox PUF tool
- FTP transfer/PUF command

## How to use the “proxyallow” Command

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Firmware version 1.004.0036 added the “proxyallow” command which enables the proxy server to do DNS resolution for external sites.

In most cases the only host that is needed in proxyallow, is the host mentioned in the configuration URL for the service.

For example, for the auto update service,

The default AUMANIFESTURL for X70 is:

[https://crestrondevicefiles.blob.core.windows.net/70-series/production/firmware/manifest\\_x70\\_firmware.json](https://crestrondevicefiles.blob.core.windows.net/70-series/production/firmware/manifest_x70_firmware.json)

To have auto update go through the proxy server when crestrondevicefiles.blob.core.windows.net is not resolved by the devices DNS, use the following command:

```
proxyallow -a crestrondevicefiles.blob.core.windows.net
```

Example use for X60/X70 Scheduling services:

- Exchange/O365
  - proxyallow -a login.microsoftonline.com;outlook.office365.com
- Fusion
  - Use the server named in the clouurl (labeled Fusion Cloud URL on the Web-UI). Additional servers may need to be added if there are multiple Fusion servers.
- Ad Astra

- Use the server's name mentioned in the Server URL:
  - If server was: https://test.aaiscloud.com/AS8DEMODEV\_CRESTRON/use
  - proxyallow -a test.aaiscloud.com
- 25Live
  - Use the server's name mentioned in the Server URL:
    - If server was: https://webservices.collegenet.com/r25ws/wrd/partners/run/use
    - proxyallow -a webservices.collegenet.com
- Appspace
  - proxyallow -a \*.appspace.com;\*.appspaceusercontent.com;\*.appspacestatic.com;graph.microsoft.com
  - addhosts discovery.cloud.appspace.com=34.102.167.151
  - Please note, not all application accepts wildcards
- XIO production servers
  - proxyallow -a prd-use-iothub.azure-devices.net;prd-usw-iothub.azure-devices.net;portal.crestron.io;dashboard.crestron.io;files.crestron.io;sfc.crestron.io;fc.crestron.io;manifest.crestron.io;api.my.crestron.com;prmediastorage.blob.core.windows.net;prduseremoteaccesssa.blob.core.windows.net

## Version History

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Version	Date
3.002.0040	7/29/2025

### IMPORTANT NOTE for firmware version 3.002.0040

- **Firmware upgrades from Android 10 versions will take up to 30 minutes.**
- **Firmware upgrades from Android 8 versions require a two-step upgrade process to an Android 10 version first.**
  - **Versions 2.001.0058 to 2.006.0054 are Android 10**
  - **Versions lower than 2.001.0058 are Android 8**
- **For Teams Panel users, if you upgrade to this version of firmware, because it uses AOSP Device Management (NGMS or Non Google managed Services) Microsoft components, you will not be able to downgrade to version 3.000.0110 or lower.**

## Bug Fixes

### General

- [TSW70-22162] Increased internal UDP buffer size from 1M to 4M to handle large Smart Graphics projects that are not rendering text in SRLs

## Known Issues

### General

- [TSW70-22079] In rare instances, CH5 Video Object is not visible even though the reserve join is high.
- [TSW70-22074] In rare instances, Delay in video object and content being displayed.
- [TSW70-22145] Transferring files via SFTP that exceed the internal storage will cause the panel to reboot into recovery.
- [TSW70-22143] Custom Admin Group User can delete his own group.
- [TSW70-22134] Permission denied on certain folders when using WINSCP or FILEZILLA to transfer or rename files.
- [TSW70-22121] When using UDP with an incorrect configuration, Rsyslog appears connected. Use the correct configuration to establish a connection.

### Crestron Scheduling Application

- [TSW70-22146] Device loses and re-establishes connection for Microsoft Exchange modern auth provider every 60-90 minutes. Recovers automatically within a minute.

### Zoom Application

- [TSW70-21773] For users that have been downloading Zoom APKs through ZDM, you may encounter an issue where your next firmware upgrades fail. To correct this, please reboot the touch screen, and then the firmware upgrade will succeed.
- [TSW70-22135] The Zoom portal may show “installing” even though the firmware update has been completed successfully. Cancelling this operation will report back the proper firmware version.

Version	Date
3.002.0034	7/08/2025

#### **IMPORTANT NOTE for firmware version 3.002.0034**

- **Firmware upgrades from Android 10 versions will take up to 30 minutes.**
- **Firmware upgrades from Android 8 versions require a two-step upgrade process to an Android 10 version first.**
  - **Versions 2.001.0058 to 2.006.0054 are Android 10**
  - **Versions lower than 2.001.0058 are Android 8**
- **For Teams Panel users, if you upgrade to this version of firmware, because it uses AOSP Device Management (NGMS or Non Google managed Services) Microsoft components, you will not be able to downgrade to version 3.000.0110 or lower.**

### New Features

#### General

- [TSW70-4100] CH5 APK can be updated from the app manifest
- [TSW70-21778] Added Proxy Allow in WebUI
- [TSW70-21248] Added Add-On Digital Sign Client 3<sup>rd</sup> Party App

- Selecting Digital Sign Client from the Application dropdown in XIO Cloud will be in a future XIO Cloud update
- [TSW70-19120] Added Support to add 3<sup>rd</sup> party application dynamically using app manifest
  - Only signed 3<sup>rd</sup> party applications are allowed to install
  - Panels will check for available apps during the normal app update check
  - Dynamic apps are not supported in XIO Cloud. This will be added in a future release of XIO Cloud.
- [TSW70-21710] Changed DST settings for Paraguay
- [TSW70-21776] New users are required to change their password on first login.
- [TSW70-21777] Removed Baltimore Cyber Trust Root certificate due to expiration.

## MS Teams Panel

- **For Teams Panel users, if you upgrade to this version of firmware, because it uses AOSP Device Management (NGMS or Non Google managed Services) Microsoft components, you will not be able to downgrade to version 3.000.0110 or lower.**
- [TSW70-2632] Move all Protected App Settings to One Section Inside Teams Panel Admin Settings
- [TSW70-12513] Allow Teams Panel to read ANR and Tombstone logs

## Crestron Scheduling Application

- [TSW70-21680] API added to allow remote check-in of next available meeting.
- [TSW70-21906] Changed Decline for No Show Decline reservations up to value to accept 10 to 480 minutes

## Bug Fixes

### General

- [TSW70-19500] Removed screenshot console command.
- [TSW70-22073] Corrected issue where Auto Brightness was not operating properly after updating to 3.x firmware versions.
- [TSW70-21962] Corrected issue where CH5 Video Object would stop streaming intermittently.
- [TSW70-21833] Corrected issue where DHCP lease was lost if network was removed but panel still had a valid lease length.
- [TSW70-22020] Corrected issue that would allow for privileged escalation to root via SCP command.
- [TSW70-22131] Corrected issue where Peer-to-Peer RAVA calls won't establish after a network outage.
- [TSW70-22075] Corrected issue where Peer-to-Peer RAVA calls won't establish after sitting idle overnight.
- [TSW70-21236] Corrected issue where a user could enumerate internal directories using SCP.
- [TSW70-21715] Corrected issue with DHCP lease not getting Gateway address after panel restore.

- [TSW70-21949] Corrected issue where SNMP was establishing a connection even though it was set for AuthPriv-v3.

### Crestron Scheduling Application

- [TSW70-21789] Corrected issue where ad-hoc reservations under 30 minutes from the panel resulted in an error

### Zoom Application

- [TSW70-21626] Corrected issue where Home button would not switch between Zoom app and custom project.
- [TSW70-21773] Corrected the issue where the firmware upgrade failed due to Zoom APKs not being deleted after being installed from ZDM.

### Known Issues

#### General

- [TSW70-22079] In rare instances, CH5 Video Object is not visible even though the reserve join is high.
- [TSW70-22074] In rare instances, Delay in video object and content being displayed.
- [TSW70-22145] Transferring files via SFTP that exceed the internal storage will cause the panel to reboot into recovery.
- [TSW70-22143] Custom Admin Group User can delete his own group.
- [TSW70-22134] Permission denied on certain folders when using WINSCP or FILEZILLA to transfer or rename files.
- [TSW70-22121] When using UDP with an incorrect configuration, Rsyslog appears connected. Use the correct configuration to establish a connection.

### Crestron Scheduling Application

- [TSW70-22146] Device loses and re-establishes connection for Microsoft Exchange modern auth provider every 60-90 minutes. Recovers automatically within a minute.

### Zoom Application

- [TSW70-21773] For users that have been downloading Zoom APKs through ZDM, you may encounter an issue where your next firmware upgrades fail. To correct this, please reboot the touch screen, and then the firmware upgrade will succeed.
- [TSW70-22135] The Zoom portal may show “installing” even though the firmware update has been completed successfully. Cancelling this operation will report back the proper firmware version.

#### Version

3.001.0031

#### Date

5/14/2025

## New Features

### MS Teams Panel

- **For Teams Panel users, if you upgrade to this version of firmware, because it uses AOSP Device Management (NGMS or Non Google managed Services) Microsoft components, you will not be able to downgrade to version 3.000.0110 or lower.**
- Integrated the latest AOSP APK's per below:
  - Panels APP Teams app: **2025031901 (3.3.2)**
  - Authenticator: **6.2410.7268**
  - Microsoft Intune:**24.09.1**
  - Admin Agent: **753**
- Teams Panel users please do not update to this firmware until Microsoft releases this in TAC, it normally takes 5 to 10 business days after Crestron's release of a new firmware version to be posted in TAC.

Version	Date
3.001.0020	4/09/2025

#### **IMPORTANT NOTE for firmware version 3.001.0020**

- **This firmware is built on Android 12, if you upgrade to this version, you will not be able to downgrade to any lower versions that are on Android 10 or 8. This firmware will not be posted on the Crestron auto update servers but will be available in XiO Cloud.**
- **Firmware upgrades from Android 10 versions will take up to 30 minutes.**
- **Firmware upgrades from Android 8 versions require a two step process of upgrading to an Android 10 version first.**
  - **Versions 2.001.0058 to 2.006.0054 are Android 10**
  - **Versions lower than 2.001.0058 are Android 8**
- **For Teams Panel users, if you upgrade to this version of firmware, because it uses AOSP Device Management (NGMS or Non Google managed Services) Microsoft components, you will not be able to downgrade to version 3.000.0110 or lower. Please do not update to this firmware until Microsoft releases this in TAC, it normally takes 5 to 10 business days after Crestron's release of a new firmware version to be posted in TAC. The last certified firmware version in TAC is 2.006.0054 and MS is currently certifying version 3.000.0110.**

## New Features

### MS Teams Panel

- **For Teams Panel users, if you upgrade to this version of firmware, because it uses AOSP Device Management (NGMS or Non Google managed Services) Microsoft components, you will not be able to downgrade to version 3.000.0110 or lower.**
- Added support for AOSP Device Management (NGMS or Non Google managed Services), please refer to MS documentation on migration to AOSP for user accounts. Following MS Apps are integrated in this firmware.

- Teams panel app: 3.3.0{1449/1.0.97.2024122401}
- Intune Version: 24.09.1
- Authenticator Version: 6.2410.7268
- Admin Agent Version: 1.0.0.202407050618.product
- Teams Panel users please do not update to this firmware until Microsoft releases this in TAC, it normally takes 5 to 10 business days after Crestron's release of a new firmware version to be posted in TAC. The last certified firmware version in TAC is 2.006.0054 and MS is currently certifying version 3.000.0110.

## Bug Fixes

### Crestron Home

- Corrected performance issues and this version has support for Crestron Home.

### General

- Corrected issue with Automatic Gain Control for SIP (AGC) not working.

## Known Issues

### Known Issues for ZDM

- For users that have been downloading Zoom apk's through ZDM, you may encounter an issue where your next firmware upgrades fails, to correct this, please reboot the touch screen and then the firmware upgrade will succeed.

### Version

### Date

3.000.0110

3/10/2025

#### **IMPORTANT NOTE for firmware version 3.000.0110**

- **This firmware, upgrades the Touch Screen's OS to Android 12, if you upgrade to this version, you will not be able to downgrade to any lower versions. This firmware will not be posted on any Crestron auto update servers.**
- **Firmware upgrades from Android 10 versions will take up to 30 minutes.**
- **Firmware upgrades from Android 8 versions require a two step process of upgrading to an Android 10 version first.**
  - **Versions 2.001.0058 to 2.006.0054 are Android 10**
  - **Versions lower than 2.001.0058 are Android 8**
- **Crestron Home is not supported with this firmware version, do not try to upgrade to this firmware when your application mode is set to Crestron Home, the firmware is designed to detect the application mode and automatically not install. Crestron Home will be supported in the next upcoming firmware, targeted for beginning of Q2 2025.**
- **Automatic Gain Control for SIP audio is not functional, customers who are using SIP functions on their projects should not upgrade to this firmware.**

## New Features

### General

- OS update to Android 12
- Added Go Bright 3<sup>rd</sup> party Scheduling
  - Currently not supported for 7inch touch screens

## Bug Fixes

### Zoom Application

- Corrected issue where devices would not download the Tutela certificate to allow enrollment to ZDM.
- Resolved issue with ZRC crashing while requesting the far end camera control if the dialog exceeds 91 characters
- Corrected issue for room scheduling mode where the device would not come online in ZDM

### Crestron Scheduling Application

- Corrected issue where the touch screen shows only up to the first 10 meetings
- Corrected issue where “appointment” slots were available to book, therefore causing conflicts. An “appointment” defined by MS is an outlook meeting without any attendees.

## Known Behaviors and Issues

### Known Issues for ZDM

- Currently there are issues with previous versions of firmware that will not allow upgrades to 3.000.0110, therefore this firmware version will not be posted on ZDM, customers should update manually so they can update from ZDM from this point forward.

### General

- Paraguay has changed to Daylight saving time, until we update our database, customers can use “E. South America Standard” time.

### Important Information for 3<sup>rd</sup> Party Apps

- Note, the following apps have been end of life by the 3<sup>rd</sup> party partner, Crestron will maintain the terminal version of the partner application for existing customers, but support will be limited, please contact the 3<sup>rd</sup> party APK manufacturer for further details.
  - SpaceIQ
  - EMS
- Note, the following 3<sup>rd</sup> party apps have not been verified and tested with this firmware release, and upgrading to this version is not required for these applications. Crestron recommends

customers work with their scheduling solution provider to verify and test compatibility with this release. Crestron will maintain this list and provide updates to these notes as partner applications are tested

- Space Connect
  - Office Space
  - Hyundai Wallpad
  - PADS4
  - Korbyt
  - Nexodus
- DS-Client is shown on the dropdown Application Mode selection but is not currently supported.

Version	Date
2.006.0054	10/03/2024

**Release Notes Update:**

**For Teams Panel users, the device does not support Android Enterprise, you must enable INTUNE's Android Device Administrator.**

Version	Date
2.006.0054	9/04/2024

**For Teams Panel users please do not update to this firmware until Microsoft releases this in TAC, it normally takes 5 business days after Crestron's release for a new firmware version to be posted in TAC. Microsoft will not be certifying version 2.006.0046, the last certified firmware version in TAC is 2.004.1054.**

## Bug Fixes

### General

- Corrected issue where the project download would fail from VC4 controllers. This would happen if the SSL setting was off on the touch screen and the VC4 controller was hardened to use HTTPS connections. Note if SSL is enabled on the touch screen it will always look for a HTTPS connection from the control system and not accept HTTP.
- Corrected issue where the backup project would not come up after a failed project download from a VC4 controller. This issue was introduced in version 2.006.0046.
- Corrected issue where the touch panel was not properly handling the authentication message for a NTLM Proxy.
- Corrected issue for Microsoft Teams Panel where Device Type was showing as Null, this issue was in version 2.006.0046

## Known Behaviors and Issues

### Known Issues

- Project download from a VC4 may fail after upgrading firmware if the touch screen is updating any internal apps, such as the browser or Sonos, to recover just initiate a room restart on the VC4 controller.

Version	Date
2.006.0046	8/20/2024

**For Teams Panel users please do not update to this firmware until Microsoft releases this in TAC, it normally takes 5 business days after Crestron's release for a new firmware version to be posted in TAC. The last released firmware version in TAC is 2.004.1054**

## Bug Fixes

### General

- Corrected issue where Radius authentication fails when using a certificated signed with AES256 encryption.
- Corrected issue where the touch screen is on a control subnet of DMPS3-4K-350 or CP3N, and does not pull a DHCP address from the control subnet if the Processor is power cycled and the touch screen remains powered.
- Corrected issue where the user was unable to create/end meeting from Crestron Default Scheduling application when selecting TimeZone (UTC+08:00) Kuala Lumpur, Singapore.
- Corrected issue where the browser for custom projects would not work on certain websites.
- Corrected issue where you could not be install any 3<sup>rd</sup> party scheduling app or the Crestron General Web app, in the following scenarios:
  - If you were in a different app mode and try to switch to the desired app mode.
  - If you updated the panel firmware to version 2.004.1079, straight out of the box, before you switched to the desired app mode.
- Improved internal algorithms to eliminate false touch events that may occur in certain environmental conditions with higher than normal EMS.
- Corrected issue where multiple application updates would cause the system to use up disk space, and potentially causing a failure in a firmware upgrade.
- Corrected issue where a firmware upgrade would fail if upgrading from Zoom Device Management Portal, for prior versions please upgrade your firmware via a another method to 2.006.0046.

## New Features

### Crestron Scheduling App

- Support for GCCH and DOD for Microsoft calendars, for both Graph API and EWS, when using Modern auth, the user will have a choice of selecting the environment as Commercial, GCCH or DOD, please refer to product manual for more information.
- Added support for adhoc meetings for AD-Astra and 25 Live calendars, depending on database performance for the calendars it may take up to 20 seconds to create an adhoc meeting.
  - End and Extend buttons for recurring meetings using 25 Live Calander are not supported and will throw an error when pressed. Suggestion is to not enable the End or Extend buttons.
- Removed the requirements to have the following application permissions:
  - MailboxSettings.Read
  - User.Read.All - This is used to auto populate the room name otherwise, otherwise it will go by the email name

## MS Teams Panel

- Updated Microsoft Teams Panel app to the following versions, please refer to Microsoft for release notes on the new apks.
  - Microsoft Teams Version 1449/1.0.97.2024061108
  - Company Portal Version 5.0.6152.0
  - Admin Agent Version 1.0.0.202402202353.product, 703

## General

- Added ability for Crestron General Web to interface with Crestron's POE Occupancy Sensor via Java Script interface, please refer to OLH 1001103 for further information.
- Added ability to load client side certificates when using Crestron General Web, this will allow the touch screen to authenticate to the server running the web application.

## Known Behaviors and Issues

### Known Issues

- Note that previous firmware versions kept a backup copy of any 3<sup>rd</sup> party applications after an app update and depending on the size of the app it would use up whatever additional disk space in the touch screen. This would cause issues for apps like Zoom which is relatively very large compared to other applications, when there are multiple app updates between firmware upgrades. If you are having issues with a firmware upgrade from a prior release, please reboot the system and the disk space resources will be cleared, then you can proceed to initiate the firmware upgrade again. This issue has been addressed in the 2.006.0046 release.

### Version

2.004.1079

### Date

5/21/2024

Latest update and workaround on this known issue

## Important known Issue

- You will not be able to install any 3<sup>rd</sup> party scheduling app or the Crestron General Web app, in the following scenarios:
  - If you were in an different app mode and try to switch to the desired app mode.
  - If you updated the panel firmware to this version, straight out of the box, before you switched to the desired app mode.
- Workaround, initiate a restore after changing the app mode and the panel will be able to install the new app mode.

Version	Date
2.004.1079	5/2/2024

## Bug Fixes

### General

Enhanced auto update logic for 3<sup>rd</sup> party APK's as per below:

- If hash is **different** and cloud version is the same as installed version, the device **will** download the APK
- If hash is **different** and cloud version is greater than installed version, the device **will** download the APK
- If hash is **different** and cloud version is **lower** than installed version, the device **will NOT** download the APK
- If hash is the same and cloud version is the same as installed version, the device **will NOT** download the APK
- If hash is the same and cloud version is **greater** than installed version, the device **will NOT** download the APK
- If hash is the same and cloud version is **lower** than installed version, the device **will NOT** download the APK

This will prevent an apk like Zoom from downgrading, if the APK version available in the Crestron cloud is lower than the APK that was loaded on to the panel via a different management service like ZDM . This has no effect for MS Teams Panel, since this apk is not updated from the Crestron cloud.

Version	Date
2.004.1066	4/10/2024

## Bug Fixes

### General

- Improved disk space usage monitoring and cleanup for Appspace APK.

- For panels being used with Crestron Flex Video Conference systems, improved internal algorithms to eliminate false touch events that may occur in certain environmental conditions with higher than normal EMS.

## New Features

- Enhancements made to reduce paging time for Crestron Home.
- Added command line parameters to disable SHA1 algorithms.  
SHA1 algorithms are enabled by default.
  - sshserver sha1 off – to disable
  - sshserver sha1 on - to enable
  - webserver sha1 off – to disable
  - webserver sha1 on - to enable
  - Must reboot the panel after the parameter change.
- Added Hyundai Autoever scheduling app.

Version	Date
2.004.1054	12/6/2023

**For Teams Panel users please do not update to this firmware until Microsoft releases this in TAC, it normally takes 5 business after Crestron’s release, for a new firmware version to be posted in TAC.**

## Bug Fixes

### General

- Corrected issue where recurring meetings get truncated for decline for no show when it happens for just a single instance.
- Corrected issue where future instances of recurring meetings were not being displayed when using Graph API for O365.
- Corrected issue with Video stream not working when the stream URL to the panel adds a trailing “/”.

### MS Teams Panel

- Corrected issue where Intune would show the device as non-compliant even when the block usb debugging option was marked as “blocked”.
- Updated Microsoft Teams Panel app to the following versions, please refer to Microsoft for release notes on the new apks.
  - **Teams APK Version:** 1449/1.0.97.2023080401
  - **AA APK version:** 1.0.0.202306202019.product

## New Features

This version includes the latest security updates and improvements.

### Improvements to ZDM functionality

- Changed behavior so the panel will no longer require a reboot to enroll in ZDM.

## Improvements to Crestron Home

- Improved auto answer performance for paging.

## Known Behaviors and Issues

### Known Issues

- When using graph API's, the decline for no show feature does not remove recurring meetings after the 3 occurrences of no shows.
- Occupancy is still triggered, and the panel receives occupied status from the occ sensor even after device pairing is disabled. A reboot of the panel is required to correct this issue.

Version	Date
2.004.1041	9/12/2023

### Bug Fixes

- Corrected issue where the touch panel was presenting a random MAC address when using a Cisco ISE.
- Corrected an issue when modifying multiple parameters in the webui, the "save" button does not get activated, which can give a false impression that the parameters are already saved.
- Corrected issue where the firmware would periodically drop the communication on the network and then recover automatically.
- Added ability to use hostname for option 12 on DHCP.
- Corrected issue where certain panels would not register to ZDM.

### Known Issues related to ZDM functionality

- Some panels may require a manual reboot after registering to ZDM.
- Firmware updates are not currently supported through ZDM.
- Downloading logs are not currently supported through ZDM.

For Teams Panel users please retain the previous version of firmware (2.004.1029) which is currently posted on TAC

Version	Date
2.004.1029	6/20/2023

**For Teams Panel users please do not update to this firmware until Microsoft releases this in TAC, it normally takes 5 business after Crestron's release, for a new firmware version to be posted in TAC.**

### Bug Fixes

### Security

- Important internal security enhancements and fixes.

Version	Date
2.004.1026	5/30/2023

**Important Note: For firmware versions 2.004.0033 and higher, the Chrome Browser is no longer part of the firmware image and will be downloaded from Crestron's auto update server, during the bootup sequence. Therefore, the touch screen will need to access the update server's URL shown below:**

[https://crestrondevicefiles.blob.core.windows.net/70-series/production/applications/manifest\\_x70\\_apps.json](https://crestrondevicefiles.blob.core.windows.net/70-series/production/applications/manifest_x70_apps.json)

**For Teams Panel users please do not update to this firmware until Microsoft releases this in TAC, it normally takes 5 business after Crestron's release, for a new firmware version to be posted in TAC.**

## New Features

- Added new DST policies for the following time zones, please refer to OLH answer ID 1001847 for more details.
  - Egypt Standard Time (44)
  - Morocco Standard Time (35)
  - West Bank Gaza Standard Time (133)
  - Greenland Daylight Time (26)
- Updated Microsoft Teams Panel Admin Agent to version 413.
- Updated Crestron HTML5 to version 1.2.3.44

## Bug Fixes

### General

- Corrected issue where after a reboot, the touch screen loses communication with the POE Occ sensor.
- Corrected issue for the TSW-570P setup project would not prompt the user to change their password on first login.
- Corrected issue with the XiO Cloud remote control screen showing a blank page for Zoom Rooms app when it was on the "enter activation code" screen. The following console command will be to be set for this to work.
  - ENBLEREMOTESECURE on
- Corrected issue where Zoom credential could be lost during an app upgrade if page flip mode was enabled.

## Known Behaviors and Issues

### Known Issues

- If you installed the lasted Zoom app from the Zoom Device management portal, please disable app auto-update by using the following console command,

- Appupdate disable

If you do not disable the app auto-update the touchscreen will update the app to the version that is on Crestron's default manifest, which maybe a older version than what is from the ZDM portal.

- When changing multiple parameters in the Webui, the initial Save button click may not save the changes and the user may have to click the Save button again.
- Starting in 2.4.33 release, Users with AD credentials will not be able to log in to the domain after doing a restore on the panel. Please set the following console command to "off" to reenale the legacy AD credentials:
  - authdomainmode off

## Version

## Date

2.004.0033

3/17/2023

(rev2 of release notes updated "Bug Fixes" info)

**Important Note: For firmware versions 2.004.0033 and higher, the Chrome Browser is no longer part of the firmware image and will be downloaded from Crestron's auto update server, during the bootup sequence. Therefore, the touch screen will need to access the update server's URL shown below:**

[https://crestrondevicefiles.blob.core.windows.net/70-series/production/applications/manifest\\_x70\\_apps.json](https://crestrondevicefiles.blob.core.windows.net/70-series/production/applications/manifest_x70_apps.json)

## New Features

- Added ability to use Graph API for Modern Auth for the Crestron Scheduling application.
- Added ability for MS Teams Panel app to read Occupancy Sensor information from Crestron's POE Occ Senser (CEN-ODT-C-POE) when it is paired with the touch panel.
- Updated Microsoft Teams Panel app to the following version, please refer to Microsoft for release notes on the new apks.
  - Microsoft Teams Version: 1449/1.0.97.2022747803
- Added new DST policies for the following time zones, please refer to OLH answer ID 1001847.
  - 9 - Mountain Standard Time (Mexico) - will be impacted on April 2, 2023
  - 13 - Central Standard Time (Mexico), customers in Chihuahua should use this time zone - will be impacted on April 2, 2023
  - 26 - Greenland Standard Time
  - 49 - Jordan Standard Time – impacted on Oct. 5, 2022
  - 51 - Syria Standard Time - impacted Oct. 4, 2022
  - 133 - West Bank Gaza Standard Time - DST date change
  - 58 - Iran Standard Time - will be impacted on March 22, 2023
  - 95 - Fiji Standard Time - new firmware disables DST
  - 1 - Samoa Standard Time - impacted Sept. 26, 2021
- Added support for Zoom Device management.

## Bug Fixes

## General

- Users that log in to the Webui or Setup Project for the first time will now be prompted to change their initial passwords that they received from the master admin. Note the user will be unable to reset the password if they started the login process on one instance of the browser, closed that instance and then navigated to the device IP using another existing instance of the browser. They must close all browser instance and start again.
- Corrected issue where on rare occasions, after a reboot or power reset the touch screen would be stuck on displaying the Crestron Logo.

## MS Teams Panel

- Corrected issue where panel did not go into sleep mode after changing office hours unless it was rebooted.

## Known Behaviors and Issues

### Known Issues and Behaviors

- For the Crestron Scheduling app, meetings are showing one hour behind on the scheduling panels after 2nd April 2023 for Time zones Mountain Standard Time (Mexico), Central Standard Time (Mexico).  
Workaround:
  - For customers using Mountain Standard Time (Mexico), they will have to use time zone 8 -US Mountain Standard Time (Arizona)).
  - For customers using Central Standard Time (Mexico), they will have to use time zone 12 - Central America Standard Time).
- For the Crestron Scheduling app, user is unable to create ad-hoc meetings when time zone is set to West Bank Gaza Standard Time (UTC+02:00) this only occurs when using MS Graph API for Mod Auth.  
Workaround:
  - For customers using MS graph API in West Bank Gaza Standard Time zone
  - While in DST - use time zone 54 - Arab Standard Time
  - While not in DST - they will have to use time zone 153 - Sudan Standard Time
- XiO-Remote Control shows a blank screen when the touch panel is running the Zoom Rooms app mode, and the app is displaying "enter activation code".
- Setup page displays IP address, subnet Mask and Default gateway as 0.0.0.0 when they are set statically from Setup page and "Apply Changes' is performed on it, a reboot of the panel will correct this issue.
- When using FQDN instead of the Ip address to launch the webui one must install a device trusted root certificate and webserver certificate and add to 'Trusted Root Certificate Authorities'.

### Version

2.003.1024

Bug Fixes

### Date

2/7/2023

## MS Teams Panel

- Corrected issue when a firmware upgrade was initiated in Teams Admin Center, the upgrade status would show as failed, even though the firmware was upgraded on the panel.

Version	Date
2.003.1020	12/22/2022

Bug Fixes

### General

- Corrected issue, when using AgileQuest on Fusion the Crestron scheduling app did not handle the check in correctly.

Version	Date
2.003.1011	12/8/2022

### New Features

- Added following new scheduling apps.
  - KuiuMeeting
  - Nexboard
  - Envoy Rooms
  - PADS4
    - Please disable standby mode on the panel when running PADS4
- Updated Microsoft Teams Panel app to the following version, please refer to Microsoft for release notes on the new apks.
  - Microsoft Teams Version: 1449/1.0.97.2022747803
  - Company Portal Version: 5.0.5484.0
  - Admin Agent Version: 1.0.0.202209060820.product

### Bug Fixes

#### General

- Corrected issue where customer created certificates were not being recognized.
- Corrected issue in the WebUI and Setup Menu where it would display same information in the primary and secondary DNS field for Static IPv6, if the user deleted any IPv6 DNS setting.

#### MS Teams Panel

- Corrected issue where the Teams Panel Admin password does not get changed when the DUT user pushes the config from DM.

### Known Behaviors and Issues

#### Known Issues

- Master volume control is not linear when playing MP3 files or Video streaming.

Version	Date
2.003.0037	10/27/2022

## New Features

- Added IPV6, all limitations and known behavior for IPV6 are listed below. Please note that IPV6 is disabled by default.
  - Support for IPV6 is only for dual enabled networks with both IPV4 and IPV6 and not supported in IPV6 only networks.
  - A reboot is required whenever IPV6 is enabled or disabled.
  - The following functional features are not supported with IPV6 only, if you have a dual enabled network with IPV4 and IPV6, they will continue work through IPV4.
    - Video streaming
    - SIP
    - SNMP
    - IPV6 over Wi-Fi
    - 3rd Party Scheduling apps
    - XiO over IPv6
    - Fusion
    - Proxy server
  - DHCPv6 is not supported (only SLAAC and Static IP addresses are supported)
  - Restore command disables IPV6, therefore if you initiated the restore command remotely on an IPV6 only network, you will need to go to the touch screen's setup menu to enable IPV6 again.
  - 'IPv6config' and 'IPv6config /all' command output is blank for IPv6 DHCP address since DHCP is currently not supported. Also note that IPconfig or IPconfig /all command will not show and IPV6 information. To view IPV6 information please use IPv6config commands.
  - Assigned SLAAC addresses are not EUI 64 based addresses.
  - When using multicast filtering if you have a device in the network that produces high bit rate multicast streams (like an NVX), the ethernet switch must be configured carefully to make sure the high-bitrate streams are only passing through the ports that are required. Configuration capabilities differ between different brands and models of switches, ideally you would want to pass IPv6 multicast but block the addresses of the streams where appropriate.
  - When in static IPv6 configuration there is no option to add a domain name statically, therefore FQDN needs to be used and the DNS server will need to have static IPv6 address to FQDN mapping.
  - AD login can take over a minute when there is an invalid IPV6 static DNS entry.
  - The default router must be configured in the text console using the "ipv6defrouter" command.
  - The "ipv6defrouter" command does not prompt the user to reboot after adding a default router, a reboot is required after adding the router.
  - The webui status page shows the RDNSS server address labeled as DHCP instead of SLAAC/RDNSS.

IPv4 and IPv6 equivalent commands:

Text Console Command	IPv4	IPv6
Enable/Disable	NA	IPV6 [interface] [ON OFF]
Display IP Address	ipconfig /all	ipv6config /all
Configure Static IP Address	IPAddress, IPMask and IPROUTE	IPV6Address [interface] [<ADD/REMove> <address>]
DHCP ON/OFF	DHCP [device_num [ON   OFF   REL_RENEW]] [/now]	DHCPv6 is not supported
Ping response ON / OFF	ICMP [ON OFF]	IPV6PINGResp [ON OFF]
Add Static DNS Servers	adddns	adddns
List DNS servers	listdns	listdns
Delete Static DNS Servers	remdns	remdns
Print route table	ROUTEPRINT	IPV6ROUTEprint
Add a static default router	DEFRouter	IPV6Defrouter
Configuring Hostname	hostname	hostname

## Other New Features

- Added the ability to configure SNMP via the Web User Interface.
- SFTP/SSH/WebUI sessions have additional limits regarding concurrent sessions in order to prevent potential DoS attack. (NDM-000200, WSR-000001)
- The device can now be configured such that local password changes require a minimum number of positions in which characters are changed. (NDM-000329) This can be enabled or disabled using a new flag -CHANGE associated with the SETPasswordrule/GETPasswordrule command.

## Other Known Issues

- Pressing the “back” when on the Wi-Fi WAP Selection page in the Setup Menu does not navigate out of the page.  
Workaround: Use the gear icon on the bottom left corner and it will go back to the setup menu’s home page.

## Bug Fixes

### MS Teams Panel

- Corrected issue with DUT not asking for language selection after a factory reset.
- Corrected issue with back light brightness configuration pushed from DN was not reflecting on the DUT.
- Corrected issue with the panel showing “Error running UI” after the CP component was upgraded from TAC.

Version

2.001.0058

Date

7/14/2022

**Important notes:**

- **Version 2.001.0058 upgrades the Touch Screens OS to Android 10, if you upgrade to this version, you will not be able to downgrade to a lower version firmware.**
- **Firmware 2.001.058 has been approved by Microsoft's Android 10 Certification program and is supported for use with Microsoft Teams Panel.**
- **Please note when using Static IP Configuration, a pingable Gateway address must be specified.**

## New Features

- General
  - The Operating System has been upgraded to Android 10
  - Added Korbyt Scheduling application

## Bug Fixes

### General

- Corrected issue with SNMP walk not working after a period of time.
- Corrected issue with the SNTP where the touch screens attempt to reach the Google NTP even when the local NTP is specified
- Corrected issue where the latched feedback would go low when scrolling through the item in Subpage Reference List.
- Corrected issue with the entered URL not being saved in the Webui for the Door Tablet app.

### Crestron Scheduling

- Increased password length for Exchange/o365 accounts to be up to 256 characters.
- As per Microsoft's recommendation to eliminate routing and errors on the server side, modified to set the X-Anchor header to the value of the "Calendar Email Address" whenever impersonation or delegation access is used. Please refer to the following links for further information:
  - [https://docs.microsoft.com/en-us/archive/blogs/webdav\\_101/best-practices-important-and-critical-headers-for-ews](https://docs.microsoft.com/en-us/archive/blogs/webdav_101/best-practices-important-and-critical-headers-for-ews)
  - [https://docs.microsoft.com/en-us/archive/blogs/webdav\\_101/best-practices-ews-authentication-and-access-issues](https://docs.microsoft.com/en-us/archive/blogs/webdav_101/best-practices-ews-authentication-and-access-issues)
- Corrected issue where the scheduling app was clearing the OAuth registration token if there were multiple transient connection issues with the Calendar. This resulted in the touch screen sometimes being unregistered to the o365 Calendar.
- Corrected issue with the Check-In button not disappearing after a Check-In is completed.

## Known Behaviors and Issues

### Known Behaviors

- Android 10 will now initiate connections to the DNS servers using TLS, if the DNS server does support TLS, once the initial connection request fails it will fall back and initiate a non-TLS connection.

### Known Issues

- Lightbars will not work with the Sharing Cloud Scheduling app, this will be corrected when we integrate the next version of the sharing cloud app.

- For the Teem scheduling app the battery alert displays on the screen, until this is addressed, please disable the alert from the Teem's portal.
- Using Chrome and Microsoft Edge browsers to access WebUI is not supported when certificates are uploaded with the curve SECp521r algorithm.
- It may take up to 5 minutes to load a user project from VC4, if the communication fails over from HTTPS to HTTP.

Version	Date
1.006.0046	3/10/2022

**For touch screens running the Microsoft Teams Panel Scheduling app, please read the following OLH before upgrading.**

- [https://support.crestron.com/app/answers/detail/a\\_id/1001219](https://support.crestron.com/app/answers/detail/a_id/1001219)

**Important note, if you upgrade to this version from a version lower than 1.005.0005 and do any of the following, you will not be able to downgrade to a prior version.**

- **Do a restore**
- **Change a password of an existing user**
- **Create a new user**

#### New Features

- General
  - Added URL field in the WebUI for Door Tablet application mode

#### Bug Fixes

##### General

- Corrected issue where a firmware upgrade initiated from XiO Cloud may intermittently fail.
- Corrected issue with the video stream from a PAL camera not working.
- Corrected issue with the Crestron Scheduling application where it would intermittently lose sync with the Google Calendar.
- Corrected issue where the Zoom application would intermittently lose its pairing after an application upgrade.

Version	Date
1.006.0019	12/17/2021

**Important note, if you upgrade to this version from a version lower than 1.005.0005 and do any of the following, you will not be able to downgrade to a prior version.**

- **Do a restore**
- **Change a password of an existing user**
- **Create a new user**

#### New Features

- General

- Added support for RFID device, please refer to the RFID product page for further information.
- Added the latest version of Microsoft Teams Panel scheduling application with the following new features (Please note that TAC upgrades for this firmware will not be available until January 2022 until then these new features will not be available):
  - Check-in and room release for active room management
  - Calendar layout update to combine consecutive available timeslots into one timeslot
  - Wallpaper refresh
- New scheduling providers:
  - Door Tablet
  - Meeting4Display

## Bug Fixes

### General

- Corrected intermittent issue with the lightbar not working after a reboot.
- Corrected issue for Crestron HMTL5, where joins were not re-synching when the program restarted.

## Known Behaviors and Issues

### Known Issues

- Firmware updates initiated by the XiO Cloud admin would not succeed, this is an intermittent issue, and the firmware update will succeed in the next auto update cycle.
- PAL camera video streams with resolution of 768x 576i will not work, this issue is targeted to be fixed in the next firmware release.

### Version

### Date

1.005.0005

9/08/2021

**Important note, if you upgrade to this version and do any of the following, you will not be able to downgrade to a prior version.**

- **Do a restore**
- **Change a password of an existing user**
- **Create a new user**

## New Features

- General
  - Added FIPS (Federal Information Processing Standards) mode. A restore must be done to enable FIPS.
  - Added new application “Crestron General Web”, this new application mode allows the touch screen to display any web hosted application. When selecting this application, the user will need to enter the valid URL of the webserver.
  - Added the ability to configure 2 additional NTP servers for backup.
- New scheduling providers:
  - PepperDash Connect

- OfficeSpace

## Bug Fixes

### Crestron Scheduling

- Corrected issue during initial registration, where it may take up to 5 minutes for the touch screen to connect with the Calendar.

## Known Behaviors and Issues

### Known Issues

- When configuring Wi-Fi in the local setup menu, the “Select a WAP” field may not get populated with access points if you turned on Wi-Fi and applied changes and did NOT reboot. A reboot of the touchscreen will correct this problem.
- On rare occasion that LED will not light during after a reboot, another reboot will correct the problem.

Version	Date
1.004.0115	8/12/2021

## New Features

- Added the latest version of Microsoft Teams Panel scheduling application with the following new features:
  - Tailor Teams panels experience with Teams Extensibility/Line of Business (LOB) app support
  - Room Check-in notification
  - Zero-Touch provisioning for IT Admins: Remote provisioning and remote sign in
  - Privacy: Hide meeting names for sensitive spaces

Version	Date
1.004.0046	6/16/2021

## **This firmware version incorporates all features and bug fixes from the following versions**

- **1.002.0055 (fixes related to Crestron Home)**
- **1.003.0082 (Support for MS Teams Panel scheduling application)**

## New Features

- General:
  - Added NTLM Proxy support.
  - Enabled SIP to run on custom projects for ZOOM page flip mode.
  - Added “proxyallow” command which enables the proxy server to do DNS resolution for external sites. (Refer to section “how to use the proxyallow command”)
  - Added “sonos” command which allows for the disabling of the launching of the Sonos app.
  - Added ability to configure up to 3 NTP servers.

- Added ability to have CIP connections go through the proxy server. Now when you enable proxy, the CIP connections will also route to your proxy server. Connections to local control systems will not go through the proxy if “excludelocal” is ON, excludelocal by default is ON. The excludelocal parameter is set by using the “proxy” console command. If you are not sure whether this is on or off, go to the console and type in “proxy”.
- Note all 3<sup>rd</sup> party scheduling applications except for Microsoft Teams Panel, are now downloaded from Crestron’s production manifest. Therefore, the touch screen will need to access the url. The production manifest url is shown below:
  - [https://crestrondevicefiles.blob.core.windows.net/70-series/production/applications/manifest\\_x70\\_apps.json](https://crestrondevicefiles.blob.core.windows.net/70-series/production/applications/manifest_x70_apps.json)
- Crestron Scheduling:
  - Added parameter to disable the idle screen in “UI Settings”.
  - Added parameter for min reservation length for walk up meetings in “Reservation”.
  - When using Fusion as the calendar source, enabled the Check-in feature to sync across multiple panels assigned to a single room.
  - Added parameter “Enabled Reversed Color for Check-in” in “UI Settings”, when enabled the led color and display status will go to Occupied when someone checks in before the meeting start time.
  - Changed the Active Screen to directly show the Check-in, End Early and Extend Meeting buttons, when they are enabled.
  - Added support for push notification from Exchange for updates to the Calendar, please see article for push notification limits.
    - <https://docs.microsoft.com/en-us/exchange/client-developer/exchange-web-services/ews-throttling-in-exchange#throttling-considerations-for-ews-notification-applications>
- New scheduling providers:
  - iOffice Hummingbird
  - Khardam Digital Building
  - Microsoft Teams Panel (incorporates everything that was released in version 1.003.0082)
    - Per Microsoft’s requirements, to sign into the scheduling application, the user will need to have a M365 meeting room standard license or equivalent (like M365 E5) associated with the room resource account.

## Bug Fixes

### General

- Increased project memory size to 700 MB, for optimal performance of Smart Graphics Projects.
- Addressed multiple issues related POE power negotiation, which caused the lightbars and C-Signs not to work.
- Resolved issue with Web UI going completely white after changing certain settings.
- Resolved issue where the SRLs and serial text were not getting populated on project.
- Resolved issue with MJPEG video being sluggish and choppy.
- Resolved issue with MJPEG video not working when configured with an HTTP url.

## Crestron Scheduling

- Addressed multiple time zone issues when using Google calendar.
- Resolved issue where the panel was losing registration with o365 using modern authentication.
- Resolved issue where the touch screen does not come out of standby for work hours if there is not meeting scheduled for that day's work hours.

## Crestron HTML5 User Interface

- Resolved issue where multiple RCB ramped analog joins from control system would not be propagated to CH5.
- Resolved issue where Repeat Digitals were not properly sent when in Contract Smart Objects.
- Resolved issue where Digital Reserve Joins were not working with the CH5 Button.
- Upgraded Webview to version 87.

## Crestron Home

- All bug fixes in firmware version 1.002.0055
  - Touch panels failing to display the video streams from security cameras.
  - Touch panels failing to display the video when receiving a call from the 2N door station.
  - The Crestron Home app on the touch panel might be stuck on white screen with no home controls.

## Known Behaviors and Issues

### Known Issues

- Crestron Scheduling
  - During initial registration with the Calendar, it may take up to 5 minutes for the touch screen to connect with the Calendar,
  - A user can book a walk-up meeting with duration less than the min reservation length time when "Reserve Now Even End Time" is enabled.
- Smart Graphics Projects
  - Sometimes a slight delay was noticed when transitioning between pages.
  - On some instance a delay was seen in loading the Button text and Send Serial text.
- 3<sup>rd</sup> Party Scheduling
  - Space Connect - Lightbar not functional – the 3<sup>rd</sup> party partner is actively working to address this on the APK.
- Initial pairing with the Crestron One application must be done within 5 feet of the Touch Screen.

### Version

1.002.0040

### Date

11/23/2020

### Bug Fixes

### General

- Resolved issue with intermittent subnet connectivity loss. This would only happen if there were a power cycle or power outage and the touch screen powers back up but the network connectivity is still not available for a period of time. Communication external to the subnet would still be

functional. A reboot or recycling the power when the network is back up would recover the subnet connection.

- Resolved intermittent issue, during multiple power reboots, if the DHCP server is slow to respond to the touch screen request, the panel would assign itself a local link IP Address (169.254.xx.xx), another reboot of the panel would resolve the problem.
- Resolved issue where on rare occasions, multiple reboots caused the touch screen to lose its IP address. This would only occur for Wi-Fi connections and the issue could be recovered by another power cycle or a reboot of the touch screen.

## Known Issues

- For POE Occupancy sensor pairing, only IP Address and Hostname are currently supported and not FQDN. (added 3/4/2021)

Version	Date
1.002.0031	11/06/2020

This version provides feature parity with the 60 Series Touch Screens, including support for:

- Crestron One mobile room control
- Modern Authentication for the Crestron Scheduling app
- POE Occupancy Sensor integration
- Matrix Booking and 22 Miles Scheduling apps

Note that this version of firmware will be posted on the Autoupdate server by 11/9/2020.

## Bug Fixes

### General

- Resolved multiple issues with intermittent network connectivity losses for both Ethernet and Wi-Fi.
- Improved performance for deploying configurations in XiO Cloud and the Web UI.
- Decreased boot up time to approximately 2.5 minutes.
- Resolved issue where on rare occasions the panel may reboot without any manual initiation or power loss.
- Resolved issue where the proximity sensor stops functioning intermittently, requiring a reboot of the touch screen to clear.
- Resolved issue where the auto brightness stops functioning intermittently.

## Known Behaviors and Issues

### Behaviors due to New Features

- The 70 series touch screens use the soft toolbar buttons and the light to show the thin edge of the toolbar when the toolbar is hidden will be enabled by default. Because of this the display will not be completely dark in a dark room when in standby mode and the screen saver is disabled. The edge light can be disabled via a console command:  
VKMINBRIGHTNESS [ENABLE | DISABLE]

- ENABLE - In standby mode, LCD turns on as minimum brightness to recognize Virtual toolbar
- DISABLE - In standby mode, LCD perfectly turns off

This parameter is disabled when the touch screen is running Crestron Home.

- The 70 series touch screens by default uses a new auto-brightness algorithm which has two modes of operation, a day and night mode. Having these two modes provide a more granular level of light for the display. The original Crestron algorithm used in the 60 series is still available and can be activated by the console command:

AUTOBRIGHTNESS [CRESTRON | FRAMEWORK]

- Crestron – to enable original algorithm
- Framework – to enable new algorithm

Note the high and low preset values only apply when using the original Crestron algorithm.

The “Threshold” parameter works differently for the 2 algorithms.

- For “Framework” the threshold value acts as a scaling factor for the level of brightness.
  - If adjusted above 50% the brightness level produced by the algorithm will be increased.
  - If adjusted below 50% the brightness level produced by the algorithm will be decreased.
- For “Crestron” the threshold value acts as the ALS transition point between low and high preset values.
- For 80 MHz wireless channels, only UNII1 and UNII3 bands are supported. Please make sure in your wireless access point configuration that these are the only bands that are selected for 80 MHz channels.

## Known Issues

- Enabling 802.1x from the Web UI will require a reboot of the touch screen.
- On rare occasions depending on the angle of the light, the Sunlight may cause false proximity detection.
- When in the Control System accordion of the Web UI, if the processor has authentication enabled, you will now need to go to the Security tab to enter the control system credentials.
- NTLM Proxy support will be available in the next release.
- Video stream from 2N door stations may appear slightly choppy for objects in motion.
- Intermittent subnet connectivity loss. This will only happen if there is a power cycle or power outage, and the touch screen powers back up but the network connectivity is still not available for a period of time. Communication external to the subnet will still be functional. A reboot or recycling the power when the network is back up will recover the subnet connection.
- Intermittent issue, during multiple power reboots, if the DHCP server is slow to respond to the touch screen request, the panel will assign itself a local link IP Address (169.254.xx.xx), another reboot of the panel will resolve the problem.
- On rare occasions, multiple reboots may cause the touch screen to lose its IP address. This only occurs for Wi-Fi connections and the issue can be recovered by another power cycle or a reboot of the touch screen.
- When running the Crestron Scheduling app, touch screens that are connected to Fusion will change the Background Media type from Video to Image after reboot or making changes to other Room custom properties.

