# XiO Cloud® Provisioning and Management Service, Premium



- Supports a direct device-to-cloud connection via the Microsoft® Azure® software IoT Hub without requiring any additional hardware
- Remotely provision, monitor, and manage Crestron® devices across an enterprise
- Apply changes to multiple devices at once by organizing them into groups and subgroups
- Update firmware and configure settings for multiple devices simultaneously
- Schedule actions such as program load, firmware updates, and reboots for a future time, including recurrence patterns
- Monitor the status of all connected devices remotely
- Claim hundreds of devices to the cloud before installation
- View real world device usage information using interactive and filterable charts
- Send alert messages to specified users when a device enters an error state
- View error logs in an alert status pane that also displays resolution status
- View and control touch screen devices remotely
- Track account usage and changes with cloud audit logs
- Integrate status information into other monitoring tools via REST API interface

The XiO Cloud® service is an IoT (Internet of Things) based platform for remotely provisioning, monitoring, and managing Crestron® devices across an enterprise or an entire client base. Built on the Microsoft® Azure® software platform and utilizing Microsoft's industry-leading Azure IoT Hub technology, XiO Cloud enables installers and IT managers to deploy and manage thousands of devices in the time it previously took to manage just one. Unlike other virtual machine-based cloud solutions, Azure services provide unlimited scalability to suit the ever-growing needs of an enterprise.

XiO Cloud supports a direct device-to-cloud connection via the Azure IoT Hub without requiring any additional hardware. The service allows for direct integration with Crestron's global manufacturing and logistics network, allowing devices to be configured before they are shipped to the installation site.

Where other cloud management solutions are focused on a narrow set of devices and functions, XiO Cloud brings the efficiency of cloud management to dozens of device models—ranging from configured UC solutions to custom-programmed control systems—all in a single interface. Support for new devices is made available via firmware updates. For a complete list of all devices that are currently supported by the service, refer to the "Supported Devices" section.

#### Licensing

Premium tier licenses (SW-XIOC-P series) for XiO Cloud enable advanced provisioning and management functions for one device. Licenses are purchased per device for <u>one</u>, <u>two</u>, <u>three</u>, or <u>five</u> years or for <u>one</u>, <u>two</u>, or <u>three</u> quarter years. For more information about the provided functions and features, refer to the "Specifications" section.

Crestron also offers room-based licenses (<u>SW-XIOC-EM</u>) that are purchased on a per-room basis with the option to add extra licensed functions, including support services and monitoring (<u>SW-XIOC-S</u>), and REST API access (<u>SW-XIOC-API</u>). All room-based licenses are billed monthly.

**NOTE:** As of the July 2020 release of XiO Cloud, all new accounts must use the room-based licensing model. Existing XiO Cloud accounts may continue to use device-based licenses or can be switched over to room-based licenses at any time.

## **Specifications**

## **Cloud-Based Service**

## No Special Ports or Permissions Required

XiO Cloud requires no special ports or permissions to deploy on an enterprise network.

## Real-Time Communication

XiO Cloud is able to communicate with devices in real time in both directions.

### Global Service with Local Redundancy

XiO Cloud is a worldwide service that is available globally but with local performance and redundancy.

#### Multitenant Hyperscale Cloud

XiO Cloud is a multitenant hyperscale cloud, which allows an enterprise to deploy thousands of devices within minutes from any location at any time.

## **Firmware**

#### Update Firmware

Firmware on one or more devices can be updated from XiO Cloud by selecting the desired firmware version.

### Schedule Firmware Updates

Firmware updates can be scheduled for a future time.



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## **Device Configuration and Management**

## Configure Settings for One Device

Settings for a device can be configured in the cloud even before the device hardware is received.

## Configure Settings for Multiple Devices

Settings for a group of devices can be configured in the cloud, allowing common settings to be configured only once instead of repeating the update on each device.

#### License Management

Licenses for device features can be added, removed, or transferred between devices.

#### Remote Reboot

One device or a group of devices can be rebooted via the cloud interface.

## **Scheduled Actions**

Actions such as program load, firmware updates, and reboots can be scheduled for a future time (including recurrence patterns).

## Load and Manage Control System Programs

Compiled programs can be added to a program library then loaded to a control system. Version management functions allow all devices to be updated to the newest version or rolled back to a previous version of the program code.

## Monitoring

## Live Status

In-depth status information is sent to the cloud within seconds of a change being made on the device.

## Interactive Dashboard

Device usage information is presented in interactive and filterable charts built using the Microsoft Power Bl® business analytics service.

## Text Message and Email Alerts

If a device enters an error state, XiO Cloud can send text messages or emails to specified users based on the error, the duration of the error, and the severity.

## Alert Status Pane

All errors are logged even if they have been resolved. The resolution status is also displayed for each error.

## Remote Touch Screen Control

Control and monitor a Crestron touch screen directly from the XiO Cloud user interface.

## **Activity Log**

Every change made via the cloud is logged for auditing, including when the change was made, who made the change, and the nature of the change.

## Status API

Status information is available via a REST API so that it can be integrated into other monitoring tools.

## User Management

## Locally-Provisioned Users

Users can be created and removed within the XiO Cloud service.

#### Role-Based Access

Users can be given different levels of access based on the group of devices, including read only, read/write, and administrator access levels.

#### Hide Groups from Certain Users

Device groups may be hidden from certain users so that only the appropriate users have access to specific devices within an enterprise.

## Single Sign-On

XiO Cloud can be integrated with common SSO services such as Microsoft® Active Directory® and Okta® services for single sign-on using corporate credentials.

## Inventory

#### Claim Single Device

Devices are added to XiO Cloud for management by entering the MAC address and serial number of the device.

#### Claim Multiple Devices

Hundreds of devices can be claimed in bulk by using a CSV file of MAC address-serial number pairs instead of claiming each device individually.

## Organize Devices by Group

Devices can be organized within a hierarchy of groups and subgroups so a single change can be applied to multiple devices.

## Download Inventory CSV File

The entire inventory of devices, including MAC address, serial number, and location within the group tree, may be downloaded.

## Claim and Name Multiple Devices

Devices can be renamed when claimed in bulk by adding an optional third device name field to the CSV import file.

## **Unclaim Devices**

Devices can be removed from the portal, which opens up the slot to a different device.

## Cloud User Interface

## Display Key Account Information to User

Users can view key account information, including expiration, device count, and service tier, at any time.

## **New Feature Notification**

A pop-up message window tells users about new features that have been added to the service with each release.



# XiO Cloud® Provisioning and Management Service, Premium

## **Supported Devices**

The following devices are supported by XiO Cloud as of the July 2020 release.

**NOTE:** The level of XiO Cloud functionality available varies by device. New XiO Cloud functions may be added for devices in future firmware updates.

### AM-200

AirMedia® Presentation System 200

#### AM-300

AirMedia® Presentation System 300

#### AMP-2800

2-Channel Power Amplifier, 800 W/Ch

#### AMP-4600

4-Channel Power Amplifier, 600 W/Ch

#### AMP-8075

8-Channel Power Amplifier, 75 W/Ch, 4/8  $\Omega$  or 70 V, North America and Japan, 100–120 V

## **AMPI-8075**

8-Channel Power Amplifier, 75 W/Ch, 4/8  $\Omega$  or 70 V, International, 220–240 V

## AMP-8150

8-Channel Power Amplifier, 150 W/Ch, 4/8  $\Omega$  or 70 V, North America and Japan, 100–120 V

### AMPI-8150

8-Channel Power Amplifier, 150 W/Ch, 4/8  $\Omega$  or 70 V, International, 220–240 V

#### AV3

3-Series Control System® Automated Processor

## CCS-UC-1

Crestron Mercury® Tabletop UC Audio Conference Console

#### CCS-UC-1-AV

Crestron Mercury® Tabletop UC Video Conference Console

#### CCS-UC-1-T

Crestron Mercury® Tabletop UC Audio Conference Console for Microsoft Teams® Software

## CCS-UC-1-T-V

Crestron Mercury® Tabletop UC Video Conference Console for Microsoft Teams® Software

## CCS-UC-1-X

Crestron Mercury® X Tabletop Console

#### CEN-ODT-C-POE

Dual-Technology Occupancy Sensor, PoE, 2,000 Sq Ft

#### CP3

3-Series Control System® Automated Processor

#### Ch3V

3-Series Control System® Automated Processor

## CP4

4-Series™ Control System

### CP4N

4-Series™ Control System

#### **DGE-100**

Digital Graphics Engine 100

#### DM-DGE-200-C

Digital Graphics Engine 200 with 4K DM 8G+® Input

#### DIN-AP3

DIN Rail 3-Series® Automation Processor

#### **DIN-AP3MEX**

DIN Rail 3-Series® Automation Processor with infiNET EX® Network and ER Wireless Gateway

#### DM-MD8X8-CPU3

8x8 DigitalMedia™ Switcher

## DM-MD8X8-CPU3-RPS

8x8 DigitalMedia™ Switcher with Redundant Power Supplies

#### DM-MD16X16-CPU3

16x16 DigitalMedia™ Switcher

#### DM-MD16X16-CPU3-RPS

16x16 DigitalMedia™ Switcher with Redundant Power Supplies

#### DM-MD32X32-CPU3

32x32 DigitalMedia™ Switcher

#### DM-MD32X32-CPU3-RPS

32x32 DigitalMedia™ Switcher with Redundant Power Supplies

#### **DM-NVX-350**

DM NVX® 4K60 4:4:4 HDR Network AV Encoder/Decoder

#### DM-NVX-351

DM NVX $^{\circ}$  4K6O 4:4:4 HDR Network AV Encoder/Decoder with Downmixing

#### **DM-NVX-352**

DM NVX® 4K60 4:4:4 HDR Network AV Encoder/Decoder with Dante® Audio Networking

#### DM-NVX-D30

DM NVX® 4K6O 4:4:4 HDR Network AV Decoder

### DM-NVX-E30

DM NVX® 4K6O 4:4:4 HDR Network AV Encoder

## DM-NVX-350C

DM NVX® 4K60 4:4:4 HDR Network AV Encoder/Decoder Card

## DM-NVX-351C

DM NVX $^{\circ}$  4K60 4:4:4 HDR Network AV Encoder/Decoder Card with Downmixing

#### DM-NVX-352C

DM NVX® 4K60 4:4:4 HDR Network AV Encoder/Decoder Card with Dante® Audio Networking

#### DM-NVX-D30C

DM NVX® 4K60 4:4:4 HDR Network AV Decoder Card

## DM-NVX-D80-IOAV

DM NVX® 4K6O 4:4:4 HDR Network AV OPS Decoder

## DM-NVX-E30C

DM NVX® 4K60 4:4:4 HDR Network AV Encoder Card



# XiO Cloud® Provisioning and Management Service, Premium

DMPS3-200-C

3-Series® DigitalMedia™ Presentation System 200

DMPS3-300-C

3-Series® DigitalMedia™ Presentation System 300

DMPS3-300-C-AEC

3-Series® DigitalMedia™ Presentation System 300 with Audio Conferencing Interface

DMPS3-4K-50

3-Series® 4K DigitalMedia™ Presentation System 50

DMPS3-4K-100-C

3-Series® 4K DigitalMedia™ Presentation System 100

DMPS3-4K-150-C

3-Series® 4K DigitalMedia™ Presentation System 150

DMPS3-4K-200-C

3-Series® 4K DigitalMedia™ Presentation System 200

DMPS3-4K-250-C

3-Series® 4K DigitalMedia™ Presentation System 250

DMPS3-4K-250-C-AIRMEDIA

3-Series® 4K DigitalMedia™ Presentation System 250 with AirMedia® Presentation System

DMPS3-4K-300-C

3-Series® 4K DigitalMedia™ Presentation System 300

DMPS3-4K-350-C

3-Series® 4K DigitalMedia™ Presentation System 350

DMPS3-4K-350-C-AIRMEDIA

3-Series® 4K DigitalMedia™ Presentation System 350 with AirMedia® Presentation System

**DSP-860** 

Crestron Avia® 8x6 Digital Signal Processor

DSP-1280

Crestron Avia® 12x8 Digital Signal Processor

DSP-1281

Crestron Avia® 12x8 Digital Signal Processor with Dante® Audio Networking

DSP-1282

Crestron Avia® 12x8 Digital Signal Processor with USB Audio, AEC, and Audio Conferencing Interface

DSP-1283

Crestron Avia® 12x8 Digital Signal Processor with Dante® Audio Networking, USB Audio, AEC, and Audio Conferencing Interface

FT-TS600-B

FlipTop™ Touch Screen, Black Anodized

FT-TS600-BALUM

FlipTop™ Touch Screen, Brushed Aluminum

FT-TSC600-B

FlipTop™ Touch Screen Control System, Black Anodized

FT-TSC600-BALUM

FlipTop™ Touch Screen Control System, Brushed Aluminum

HD-RX-4K-410-C-E

4K Multiformat 4x1 AV Switch and Receiver

HD-RX-4K-410-C-E-SW4

4K Multiformat 4x1 AV Switch and Receiver with 4-Port Ethernet Switch

HD-RX-4K-510-C-E

4K Multiformat 5x1 AV Switch and Receiver

HD-RX-4K-510-C-E-SW4

4K Multiformat 5x1 AV Switch and Receiver with 4-Port Ethernet Switch

MC4

4-Series™ Control System

MC4-I

4-Series™ Control System, International

MPC3-101-B

3-Series® Media Presentation Controller 101, Black

MPC3-102-B

3-Series® Media Presentation Controller 102, Black

MPC3-201-B

3-Series® Media Presentation Controller 201, Black

MPC3-302-B

3-Series® Media Presentation Controller 302, Black

MPC3-302-W

3-Series® Media Presentation Controller 302, White

PRO3

3-Series Control System® Automated Processor

RMC3

3-Series® Room Media Controller

TS-1542-B-S

15.6 in. HD Touch Screen, Wall Mount or VESA, Black Smooth

TS-1542-W-S

15.6 in. HD Touch Screen, Wall Mount or VESA, White Smooth

TS-1542-TILT-B-S

15.6 in. HD Touch Screen, Tabletop Tilt, Black Smooth

TS-1542-TILT-W-S

15.6 in. HD Touch Screen, Tabletop Tilt, White Smooth

TS-1542-TILT-SSB

15.6 in. HD Touch Screen, Tabletop Tilt, Signature Series Black

TS-1542-TILT-SSW

15.6 in. HD Touch Screen, Tabletop Tilt, Signature Series White

TS-1542-C-B-S

15.6 in. HD Touch Screen with DM 8G+ $^{\circ}$  Input, Wall Mount or VESA, Black Smooth

TS-1542-C-W-S

15.6 in. HD Touch Screen with DM 8G+ $^{\circ}$  Input, Wall Mount or VESA, White Smooth



# XiO Cloud® Provisioning and Management Service, Premium

## TS-1542-TILT-C-B-S

15.6 in. HD Touch Screen with DM 8G+ $^{\circ}$  Input, Tabletop Tilt, Black Smooth

#### TS-1542-TILT-C-W-S

15.6 in. HD Touch Screen with DM 8G+® Input, Tabletop Tilt, White Smooth

### TS-1542-TILT-C-SSB

15.6 in. HD Touch Screen with DM 8G+ $^{\circ}$  Input, Tabletop Tilt, Signature Series Black

#### TS-1542-TILT-C-SSW

15.6 in. HD Touch Screen with DM 8G+ $^{\circ}$  Input, Tabletop Tilt, Signature Series White

### TSCW-730-B-S

7 in. Touch Screen Control System, Black Smooth

#### TSCW-730-W-S

7 in. Touch Screen Control System, White Smooth

#### TSS-7-B-S

7 in. Room Scheduling Touch Screen, Black Smooth

### TSS-7-W-S

7 in. Room Scheduling Touch Screen, White Smooth

#### TSS-10-B-S

10.1 in. Room Scheduling Touch Screen, Black Smooth

#### TSS-10-W-S

10.1 in. Room Scheduling Touch Screen, White Smooth

## TSW-560-B-S

5 in. Touch Screen, Black Smooth

#### TSW-560-W-S

5 in. Touch Screen, White Smooth

### TSW-560-NC-B-S

5 in. Touch Screen without Camera or Microphone; Black Smooth

#### TSW-560-NC-W-S

5 in. Touch Screen without Camera or Microphone; White Smooth

### TSW-560P-B-S

5 in. Touch Screen, Portrait, Black Smooth

## TSW-560P-W-S

5 in. Touch Screen, Portrait, White Smooth

#### TSW-760-B-S

7 in. Touch Screen, Black Smooth

## TSW-760-W-S

7 in. Touch Screen, White Smooth

## TSW-760-NC-B-S

7 in. Touch Screen without Camera or Microphone; Black Smooth

#### TSW-760-NC-W-S

7 in. Touch Screen without Camera or Microphone; White Smooth

#### TSW-1060-B-S

10.1 in. Touch Screen, Black Smooth

#### TSW-1060-W-S

10.1 in. Touch Screen, White Smooth

#### TSW-1060-NC-B-S

10.1 in. Touch Screen without Camera or Microphone; Black Smooth

#### TSW-1060-NC-W-S

10.1 in. Touch Screen without Camera or Microphone; White Smooth

#### **UC-ENGINE**

UC Engine for Microsoft Teams® Software

#### **UC-ENGINE-SD**

UC Engine for Microsoft Teams® Software

#### **UC-ENGINE-SD-Z**

UC Engine for Zoom Rooms™ Software

## UC-P100-T

Crestron Flex P100-T – VoIP Desk Phone for Microsoft Teams® Software

#### UC-P110-T

Crestron Flex P110-T – VolP Desk Phone with Tilt Screen for Microsoft Teams® Software

#### VC-4-CORE

Virtual Control Server Software – Core License for up to 5 Rooms

## VC-4-ROOM-1-49

Virtual Control Server Software – Add-on Single Room License for 1–49 Rooms

## VC-4-ROOM-50-99

Virtual Control Server Software – Add-on Single Room License for 50–99 Rooms

## VC-4-ROOM-100+

Virtual Control Server Software – Add-on Single Room License for 100+ Rooms

## VC-4-ROOM-1YR

Virtual Control Server Software - Single-Room License, 1-year subscription

## VC-4-ROOM-2YR

Virtual Control Server Software - Single-Room License, 2-year subscription

#### VC-4-ROOM-3YR

Virtual Control Server Software - Single-Room License, 3-year subscription

## VC-4-ROOM-5YR

Virtual Control Server Software - Single-Room License, 5-year subscription



# XiO Cloud® Provisioning and Management Service, Premium

## Models

#### SW-XIOC-P-1

XiO Cloud® Provisioning and Management Service, Premium, for one device, 1 year subscription

#### SW-XIOC-P-2

XiO Cloud® Provisioning and Management Service, Premium, for one device, 2 year subscription

#### SW-XIOC-P-3

XiO Cloud® Provisioning and Management Service, Premium, for one device, 3 year subscription

#### SW-XIOC-P-5

XiO Cloud® Provisioning and Management Service, Premium, for one device, 5 year subscription

#### SW-XIOC-P-1Q

XiO Cloud® Provisioning and Management Service, Premium, for one device, 1 quarter year subscription

#### SW-XIOC-P-2Q

XiO Cloud® Provisioning and Management Service, Premium, for one device, 2 quarter year subscription

#### SW-XIOC-P-3Q

XiO Cloud® Provisioning and Management Service, Premium, for one device, 3 quarter year subscription

This product may be purchased from an authorized Crestron dealer. To find a dealer, please contact the Crestron sales representative for your area. A list of sales representatives is available online at

www.crestron.com/How-To-Buy/Find-a-Representative or by calling 855-263-8754.

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