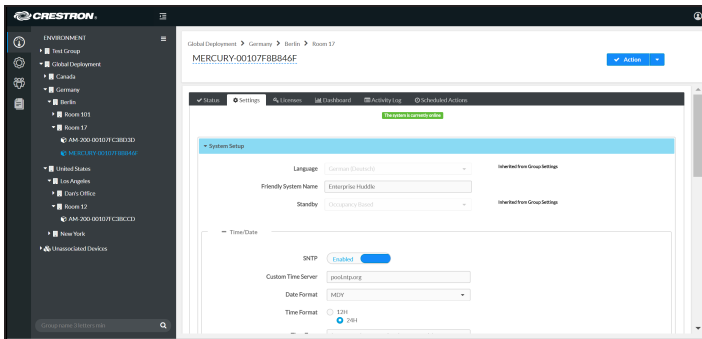


XiO Cloud® Provisioning and Management Service, Support License



- Supports a direct device-to-cloud connection via the Microsoft® Azure® software IoT Hub without requiring any additional hardware
- Remotely monitor Crestron® devices within a physically-defined room
- Monitor multiple devices at once by organizing them into groups and subgroups
- 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
- Monitor supported third-party devices within Crestron-integrated rooms
- Monitor supported third-party devices outside of a Crestron system via the Crestron XiO Cloud™ Gateway software

The XiO Cloud® service is an IoT (Internet of Things) based platform for remotely provisioning, monitoring, and managing Crestron® devices and supported third-party 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.

Licensing

The room-based licensing model is similar to a traditional hardware purchase model: purchase a specified number of room licenses, and the XiO Cloud service will run the number of rooms purchased. All room-based licenses are billed monthly.

- To start with room-based licensing, purchase one [SW-XIOC-EM](#) Endpoint Management license for each room in the account. The Endpoint Management license provides management and configuration functionality for all devices in a single room, including configuring supported third-party devices within the XiO Cloud environment.
- Additional licenses can be purchased to enable extra licensed functionality for the account:
 - The [SW-XIOC-S](#) Support license provides support and monitoring functionality for all devices in a single room, including supported third-party device monitoring within the XiO Cloud environment.
 - The [SW-XIOC-API](#) REST API license provides access to the XiO Cloud REST API for rooms within an account. A REST API license must be purchased for each room in the account to use this functionality.
- All purchased room-based licenses are added to a customer's license pool and can be added to, removed from, or transferred between rooms directly from the configuration user interface.

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 ([SW-XIOC-S](#) and [SW-XIOC-P](#) series) or can be switched over to room-based licenses at any time.

Third-Party Device Integration

XiO Cloud provides three different methods for configuring and monitoring supported third-party devices within the service.¹

NOTE: An SW-XIOC-EM Endpoint Management license is required to configure third-party devices within XiO Cloud. An SW-XIOC-S Support license is required per room to monitor third-party devices and receive alerts.

- Supported third-party devices that use the Crestron Connected® communications protocol can be claimed to the XiO Cloud service directly without requiring a Crestron control processor.

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- Supported third-party devices within Crestron-integrated rooms can be monitored using the Crestron Drivers framework, including projectors and displays, cable and satellite boxes, streaming media players, Blu-ray Disc® players, video conferencing devices, and others. A 3-Series®, 4-Series™, or [Crestron Virtual Control \(VC-4\)](#) control system can function as the gateway, requiring only that third-party devices are added to a user program running on the control processor. After claiming the control processor to the XiO Cloud service, the devices will appear automatically and need only to be claimed to a licensed room to start monitoring.
- Supported third-party devices external to a Crestron system can be monitored using the standalone [Crestron XiO Cloud Gateway software](#). Crestron XiO Cloud Gateway software provides the following monitoring capabilities:
 - Monitor Ethernet devices over Ping
 - Monitor Ethernet service availability over TCP port monitoring
 - Monitor switcher devices, digital signal processors, and power controllers over SNMP
 - Monitor all devices over an Ethernet API using the Crestron Drivers framework

Crestron XiO Cloud™ Gateway software is downloadable software that adds features to the XiO Cloud® service². Crestron XiO Cloud Gateway software functionality requires an XiO Cloud subscription, subject to the terms of the Crestron Cloudware License³.

- Power on and power off commands can be executed for all third-party devices that support this functionality.

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.

Monitoring

Live Status

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

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.

Monitor Third-Party Devices in Crestron Systems

Monitor supported third-party devices within a Crestron system using the Crestron Drivers framework, including projectors and displays, cable and satellite boxes, streaming media players, Blu-ray Disc® players, video conferencing devices, and others.

Monitor External Devices via Crestron XiO Cloud™ Gateway Software

Monitor supported third-party devices that are not connected to a Crestron system via the add-on Crestron XiO Cloud™ Gateway software, which is installed onto a Linux server. The XiO Cloud Gateway software can monitor devices over the Crestron Drivers framework, Ping, TCP, and SNMP.

Cloud User Interface

Display Key Account Information to User

Users can view key account information, including expiration, device count, and licensed functionality, 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.

Model

SW-XIOC-S

XiO Cloud® Provisioning and Management Service, Support License for one room

Notes:

- The level of third-party device support and compatibility is dependent on the availability of third-party device drivers, which may be subject to the control of the applicable third-party device manufacturer.
- The Crestron XiO Cloud™ Gateway software is licensed under Crestron's On-Premises Software License and Maintenance Agreement available at www.crestron.com/Legal/software-products-on-premises-and-cloudware/on-premises-software-license-maintenance-agreement.
- The XiO Cloud® service is licensed under Crestron's Cloudware License Agreement, available at <https://www.crestron.com/Legal/software-products-on-premises-and-cloudware/cloudware-license-agreement>.

XiO Cloud[®] Provisioning and Management Service, Support License

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.

The specific patents that cover Crestron products are listed online at www.crestron.com/legal/patents.

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