**SECTION 27 41 16**

**INTEGRATED AUDIO-VIDEO SYSTEMS AND EQUIPMENT**

**GUIDE SPECIFICATION**

*Specifier: The Specifier/Design Professional is responsible for the accuracy of all project specifications, including system application and coordination with related sections. This guide specification is provided as a convenience and requires editing to match actual project requirements. CRESTRON ELECTRONICS, INC. SHALL NOT BE LIABLE FOR ANY DAMAGES ARISING OUT OF THE USE OF ANY OF ITS GUIDE SPECIFICATIONS. For Crestron design assistance and design review please contact Sales Support Services Department at 800.237.2041 or techsales@crestron.com.*

*Specifier: Please see PART 4 for a listing of products specified in this Guide Specification.*

**Table of Contents**

**1 GENERAL 3**

**2 PRODUCTS 3**

2.1 Cloud Device Management Service 3

2.1.1 Basis of design Cloud Device Management Service 3

2.1.2 Software Functions: 3

2.1.3 Environment Organization 4

2.1.4 Deployment Functions 4

2.1.5 Management Functions 4

**3 EXECUTION 6**

**4 APPENDICES 6**

4.1 SPECIFIED PRODUCTS 6

4.1.1 Crestron SW-XIOC-EM 6

4.1.2 Crestron SW-XIOC-S 6

4.1.3 Crestron SW-XIOC-API 7

4.1.4 Crestron SW-XIOC-WA 7

# **GENERAL**

*NOT USED in this Guide Specification. Specifier shall Specify PART 1 administrative and procedural requirements as needed.*

# **PRODUCTS**

## **Cloud Device Management Service**

*Specifier Note: XiO Cloud is a multi-tenant, SaaS application with high availability and elasticity. The XiO Cloud service is located in Azure’s US East and US West datacenters.*

### Basis of design Cloud Device Management Service

*Specifier Note:*

*Please see the following link for additional information:*

*https://www.crestron.com/Products/Featured-Solutions/XiO-Cloud*

#### Crestron SW-XIOC

### Software Functions:

#### The Cloud service shall allow all supported devices by the same manufacturer to be managed and configured from one central, secure location in the cloud.

*Specifier Note: Supported devices can be found at the following link: https://www.crestron.com/en-US/Products/Featured-Solutions/XiO-Cloud*

#### The Cloud service shall support monitoring 3rd party devices.

##### Monitoring 3rd party devices shall utilize a Linux based cloud connector application by smae manufacturer.

#### The Cloud service shall support the following:

##### Configure device and network settings

##### Configure device licenses

##### Update device firmware

##### View device status

#### The Cloud service shall be a multi-tenant, SaaS application

#### The Cloud Service Application shall utilize a cloud computing service composed of a global network of Microsoft-managed data centers.

*Specifier Note: XiO Cloud is hosted by Microsoft Azure.*

#### The Cloud Service application manufacturer shall be a Microsoft Partner.

### Environment Organization

#### The cloud service application shall support claiming of devices into an organized visual organizational hierarchy tree structure.

#### The cloud service application shall support claiming of multiple devices via the use of a .csv file containing device information.

### Deployment Functions

#### The Cloud Service shall support the following device deployment functions:

##### Configure devices remotely

##### Troubleshoot devices remotely

### Management Functions

#### Room Capacity Monitoring

*Specifier Note:*

*People Counting and Capacity Monitoring using Room Counting*

*This feature requires a compatible Crestron Flex system with compatible people counting camera.*

##### Social Distancing Alerts

###### Service shall support a people counting capability when managed room includes a unified communication system by same manufacturer.

*Specifier Note:*

*Users will be able to enter a maximum room capacity in XiO Cloud when a Flex system is in the room. If the Huddly camera counts more people than are allowed in the room, XiO can send a text or email alert.*

*See the following link for information on Crestron Flex systems:*

*https://www.crestron.com/Products/Featured-Solutions/Crestron-Flex*

##### Room Capacity Dashboard

###### Rooms equipped with Unified Collaboration system by same manufacturer shall support a dashboard indicating the percentage of time that the space spends in violation of preset maximum capacity guidelines.

*Specifier Note:*

*This feature requires a compatible Crestron Flex system with people counting camera.*

#### The Cloud Service shall support the following management functions:

##### Add and remove licenses

###### Add or remove licenses for a group of devices

###### Add or remove licenses for a single device

##### Load a control system program

###### Remotely load control system

##### Schedule Actions

###### Schedule actions for a group of devices

###### Schedule actions for a single device

##### Update settings and firmware remotely

###### Change settings of a single device

###### Change settings of a group of devices

##### Monitor Device Status

###### View Status of a single device

###### View status of a group of devices

##### Provide System Dashboard

###### Dashboards shall be interactive and contain different charts that can be cross-filtered by clicking on the chart and filters, including date range.

##### Implement security updates

##### Identify problems using audit logs

###### Application shall log all changes

##### Provide user management

###### Application shall provide the ability to create users with different levels of access and permissions.

##### Alerts

###### Application shall be capable of sending SMS and email alerts.

# **EXECUTION**

*NOT USED in this Guide Specification. Specifier shall Specify PART 3 On-Site work as needed.*

# **APPENDICES**

## **SPECIFIED PRODUCTS**

*Specifier Note: This Article includes Crestron products specified in this Guide Specification document. This Article is for reference only and should not be required in actual project manual unless included in an overall system equipment list.*

### Crestron SW-XIOC-EM

### Crestron SW-XIOC-S

### Crestron SW-XIOC-API

### Crestron SW-XIOC-WA