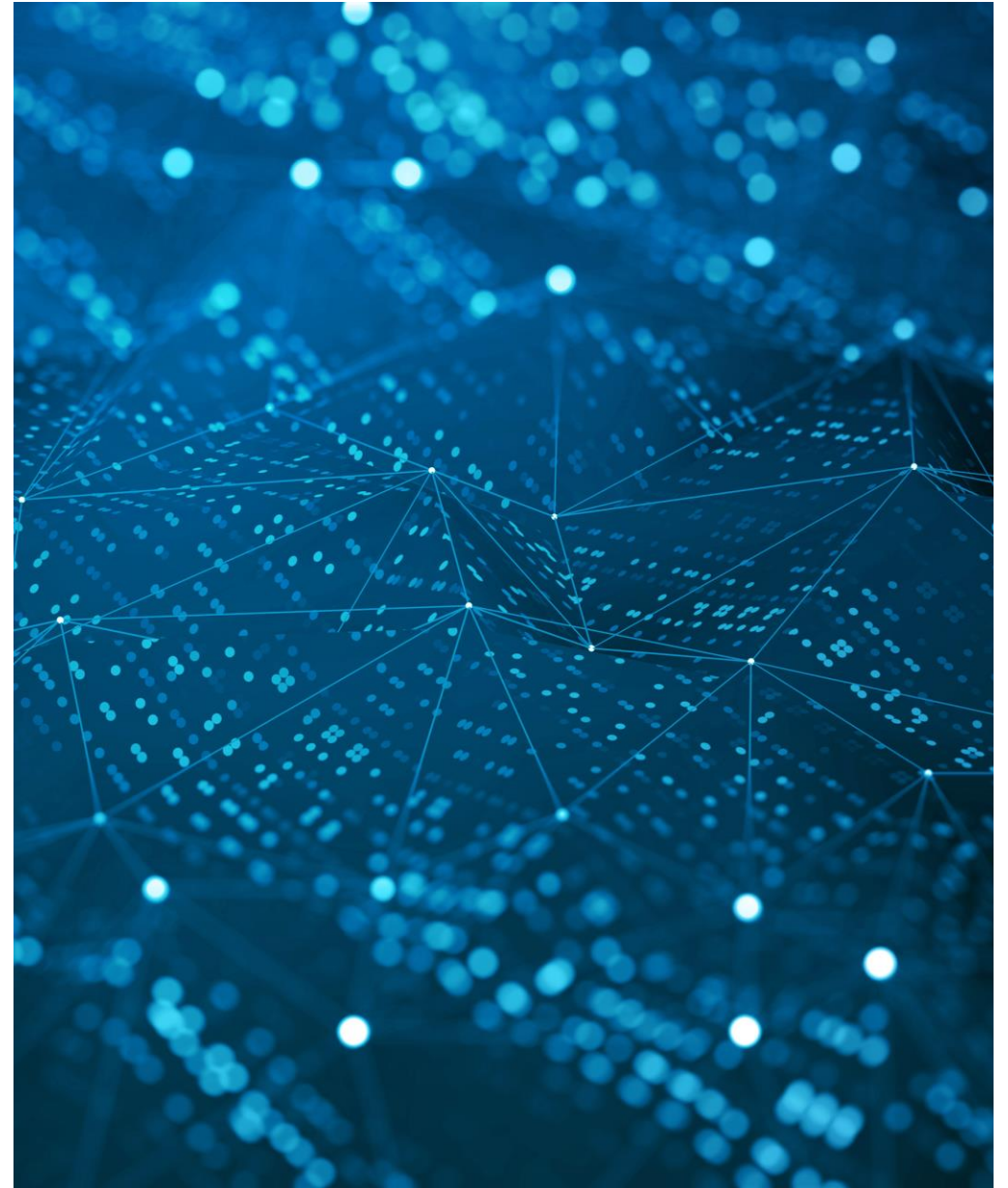# Crestron Design Fundamentals

What we'll be discussing…

- Design Process

- Industry Standards

- System Drawings

- Crestron Products and Design Guides

- System Management

- Sales Support Services

Documentation for a Proposal: The Big Three
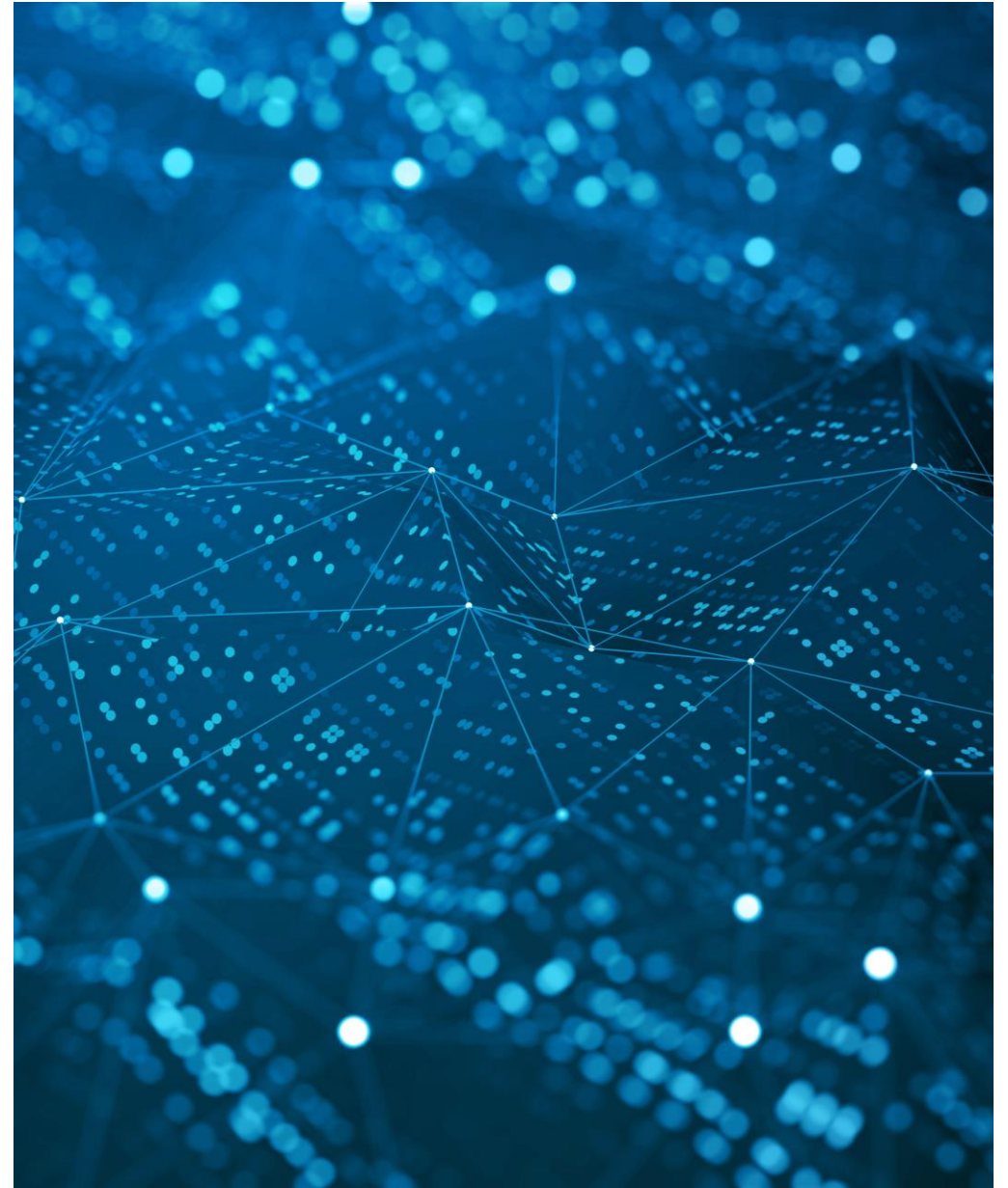
1. **Scope (or Statement) of Work**
    - Written description of the system

2. **Signal and Control Flow Drawings – Line Drawings**
    - Detailed drawings of how audio, video and control connect for the various components

3. **Equipment List – BOM**
    - All parts and pieces that go into the design; the Bill of Materials
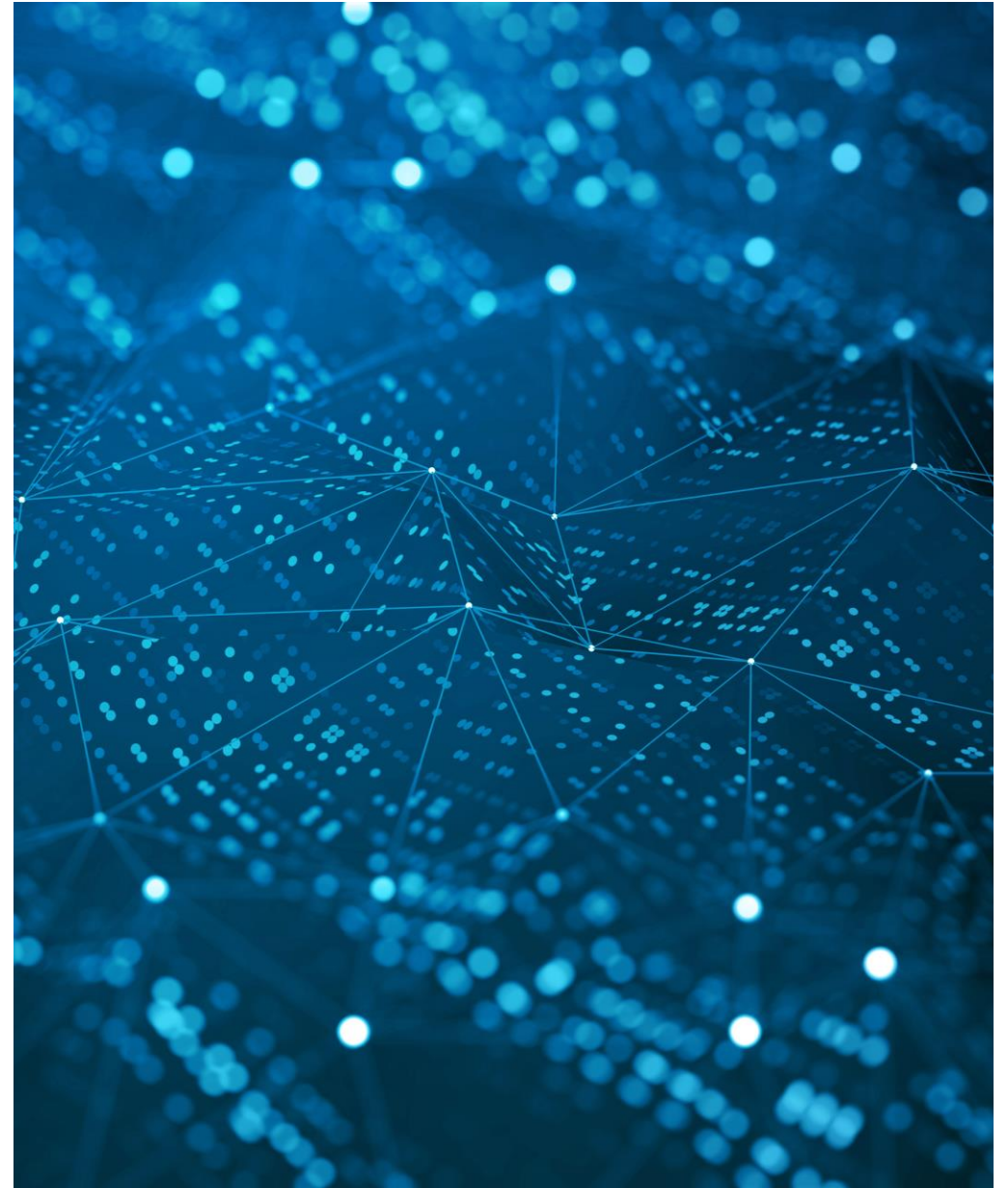
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Design Process

Design Process

The most important part of the design process:

- Design intent / Reviewing system with customer
- Develop the Scope of Work / Complete System Overview
- Create the System Drawings
- Proof of Concept / Bill of Materials
- System Implementation and Installation
- Final Bill of Materials and System Drawings
- Deployment / Commissioning
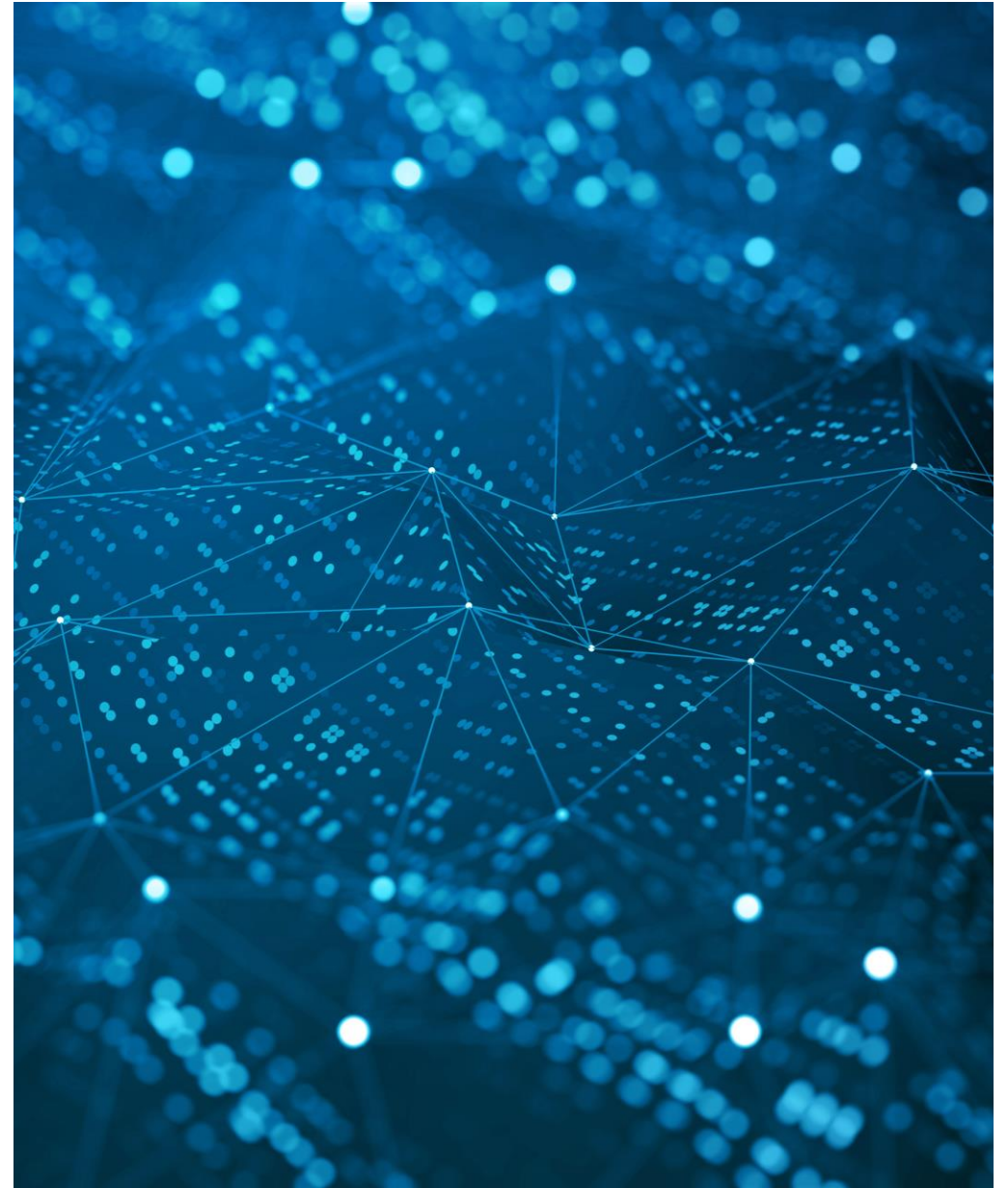- Client training / Post-installation support

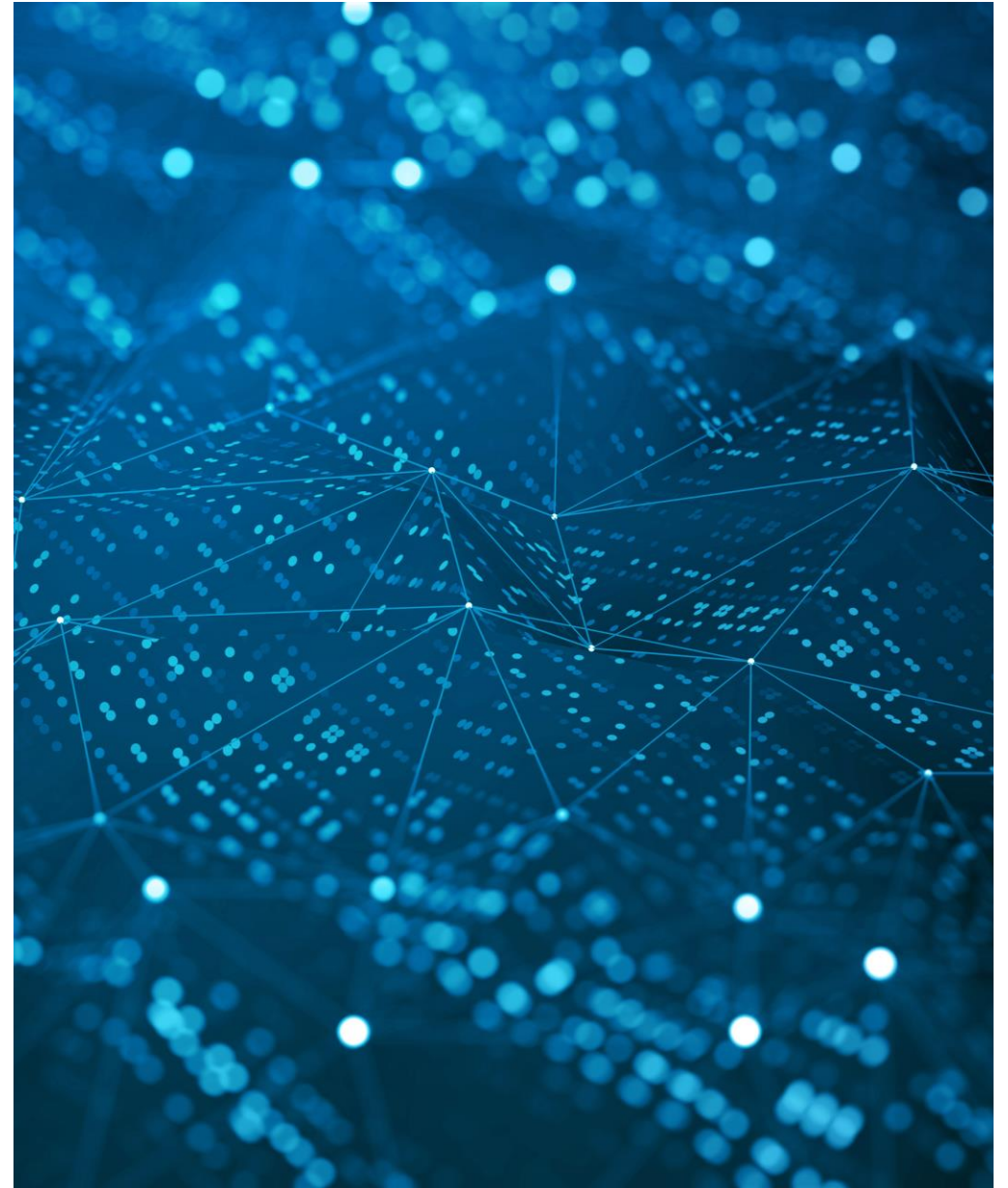# Industry Standards

Industry Standards

CSI: Construction Specifications Institute

- The Construction Specifications Institute (CSI) is a national association of more than 8,000 construction industry professionals who are experts in building construction and the materials used therein.

- CSI is the Industry Format for Developing a Division 27 00 00

- Some History about Division 27 00 00 – Low Voltage Standards

Developing a Scope of Work

- Develop the Scope of Work (SOW)

- Detailed design document

- Developing the key documents from Technical requirements

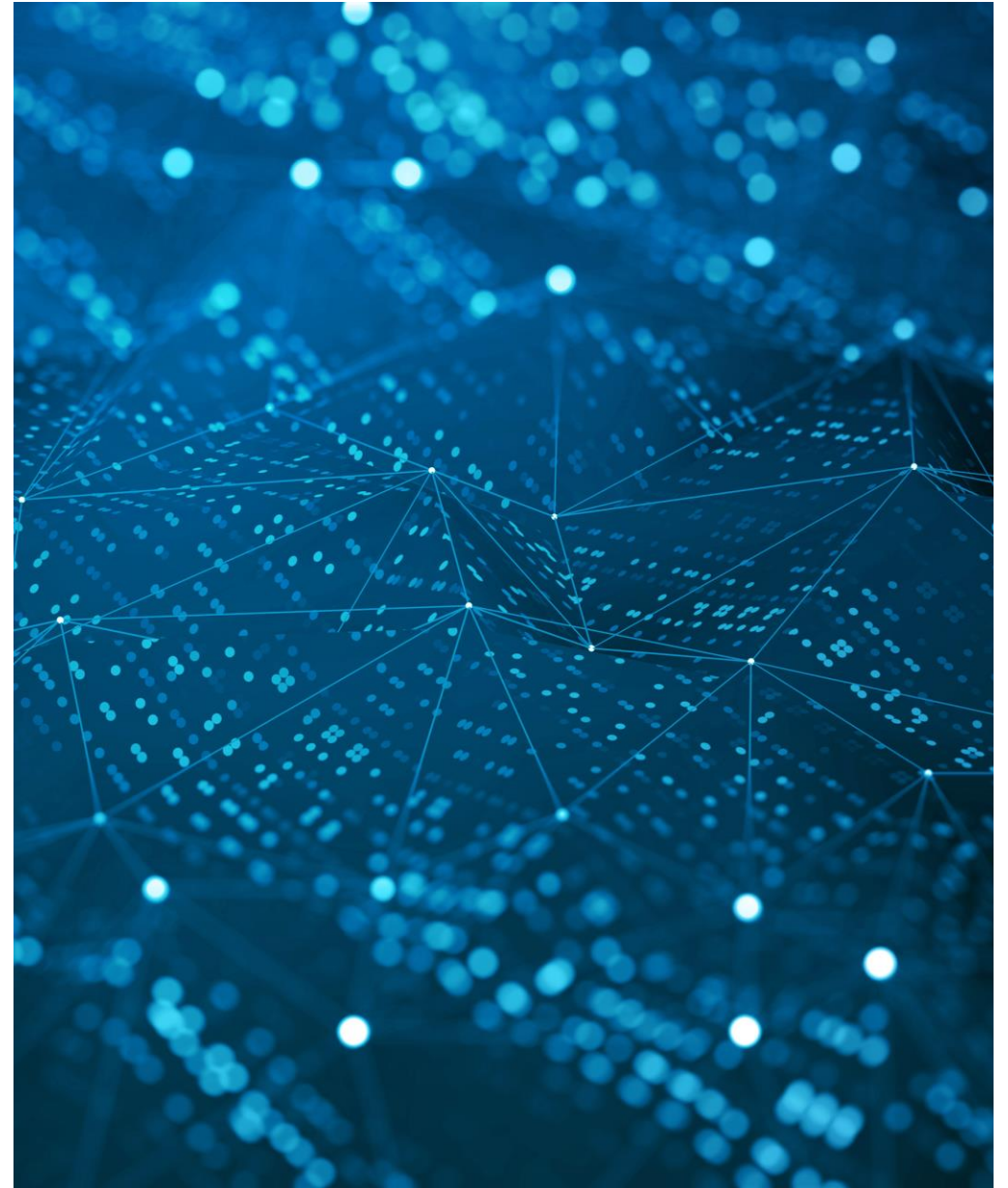- Project Management / Key Personnel

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Overview

- Executive Summary

- Company biography and history

- General Information about the project

- Description of functionality

- Product and Drawings

- Pricing information: Budget / BOM

- Key personnel and References
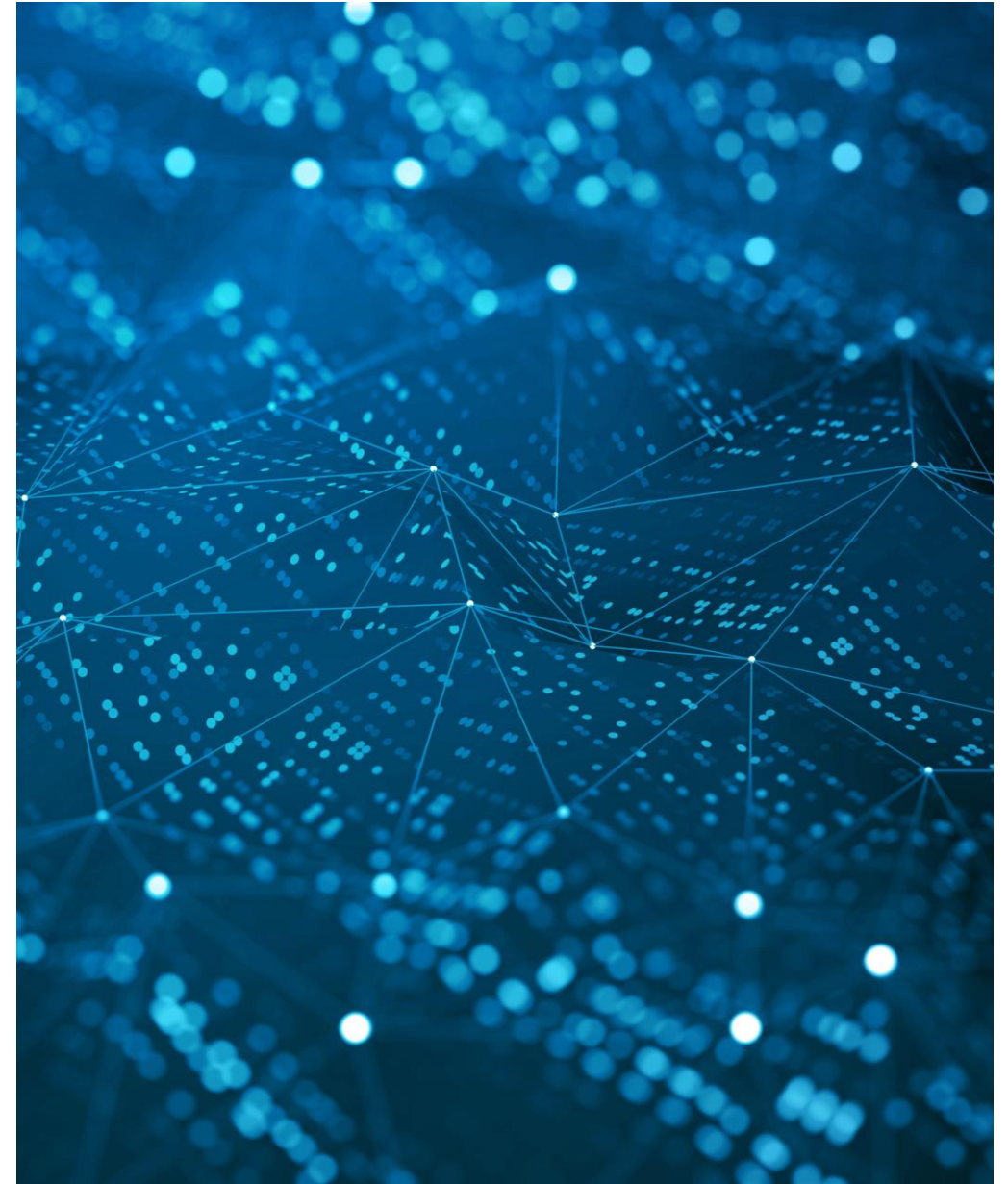
Additional Information

- Programming
- System Verification (testing)
- Client Training
- Client Sign-Off

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Industry Certificates

Certificates listed in Section 27 40 00

- AVIXA Certified Technology Specialist in Design
  - (CTS-D)
- AVIXA Certified Technology Specialist in Installation
  - (CTS-I)
- Registered Communication Distribution Designer
  - (RCDD)
- Association for Quality in Audio Visual Technology
  - (AQAV)
- Imagery Science Foundation Video Certification
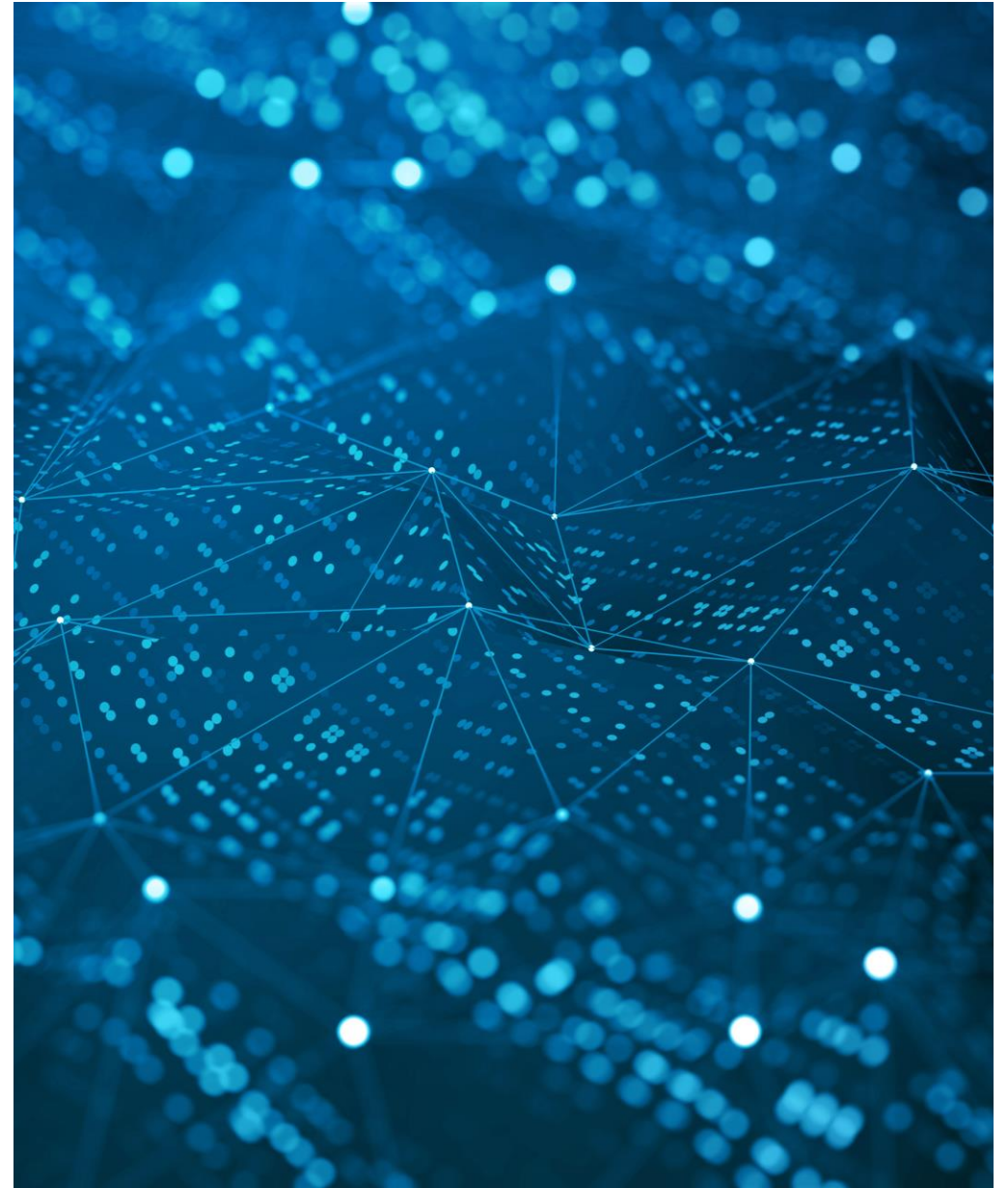 - (ISF-I or II)

May be required prior to bidding on the job!
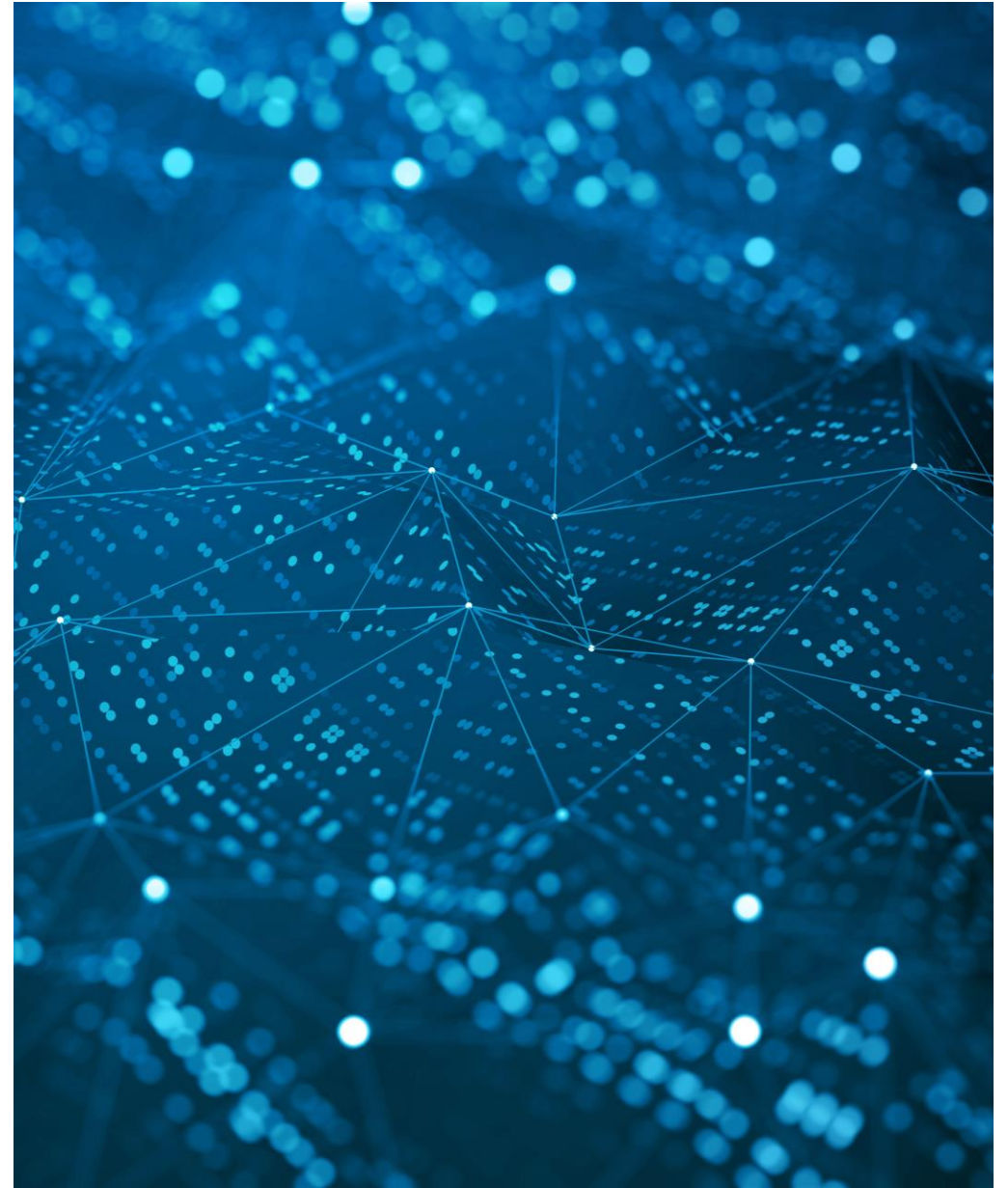
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Crestron Certificates

Crestron Certificates

- Crestron Certified Programmer

  - (MASTERS)

- Crestron Digital Media™ Certified Engineer

  - (DMC-E-4K)

- Crestron NVX-Design and Application

  - (DM-NVX-N)

- Crestron Shade Certification

  - (CSS)

- Crestron Network Specialist - Designer

  - CNS-D

Example of Required Certifications

1.3   QUALITY ASSURANCE

- Audio/Video contractor's qualifications

Certification in the following:

1. Crestron DigitalMedia™ Certified Engineer

2. Crestron NVX-Design and Application

3. Crestron Certified Programmer

4. Crestron Shade Certification

5. AVIXA Certified Technology Specialist in Design

6. AVIXA Certified Technology Specialist in Installation

7. Imagery Science Foundation Video Certification
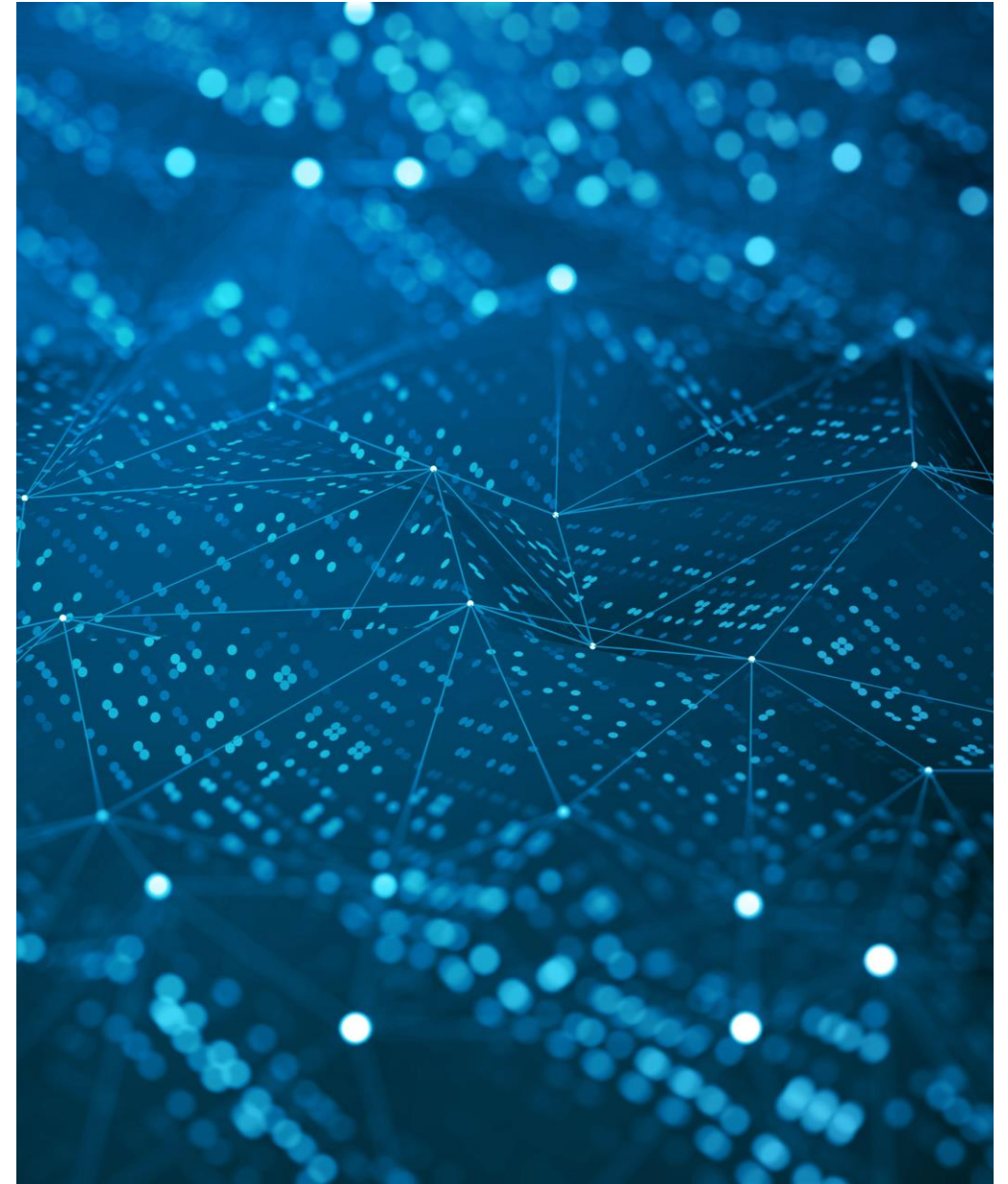
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System Drawings

System Drawings

System Drawings

- Review Scope of Work
- Review the complete drawing set (Title Page)
  - Review floor plans
  - Review each room type
  - Review individual room drawings
- Review Bill of Materials (BOM)
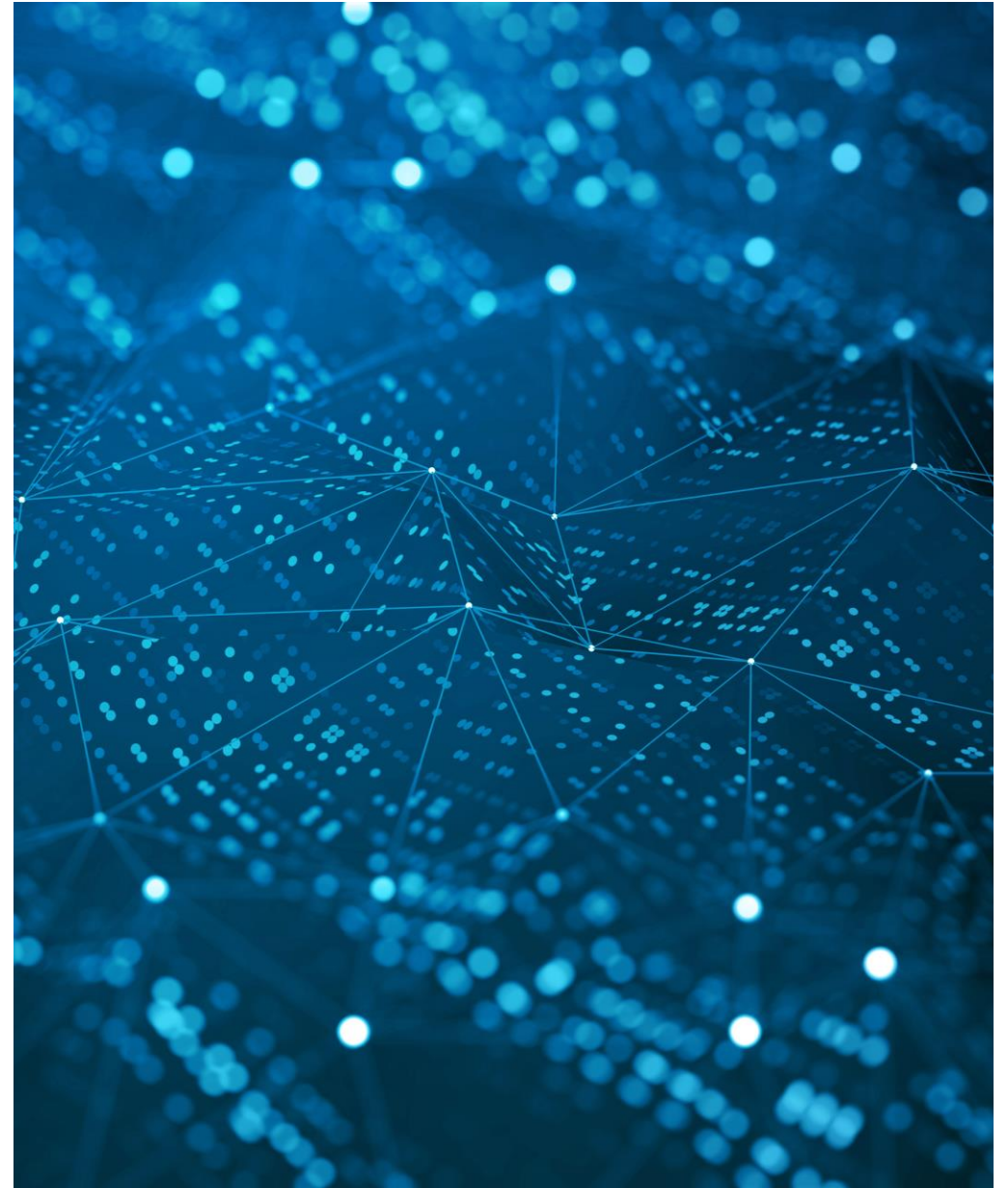
System Review…   Do all 3 Match?

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Crestron Products / Design Guides

Crestron Products / Design Guides

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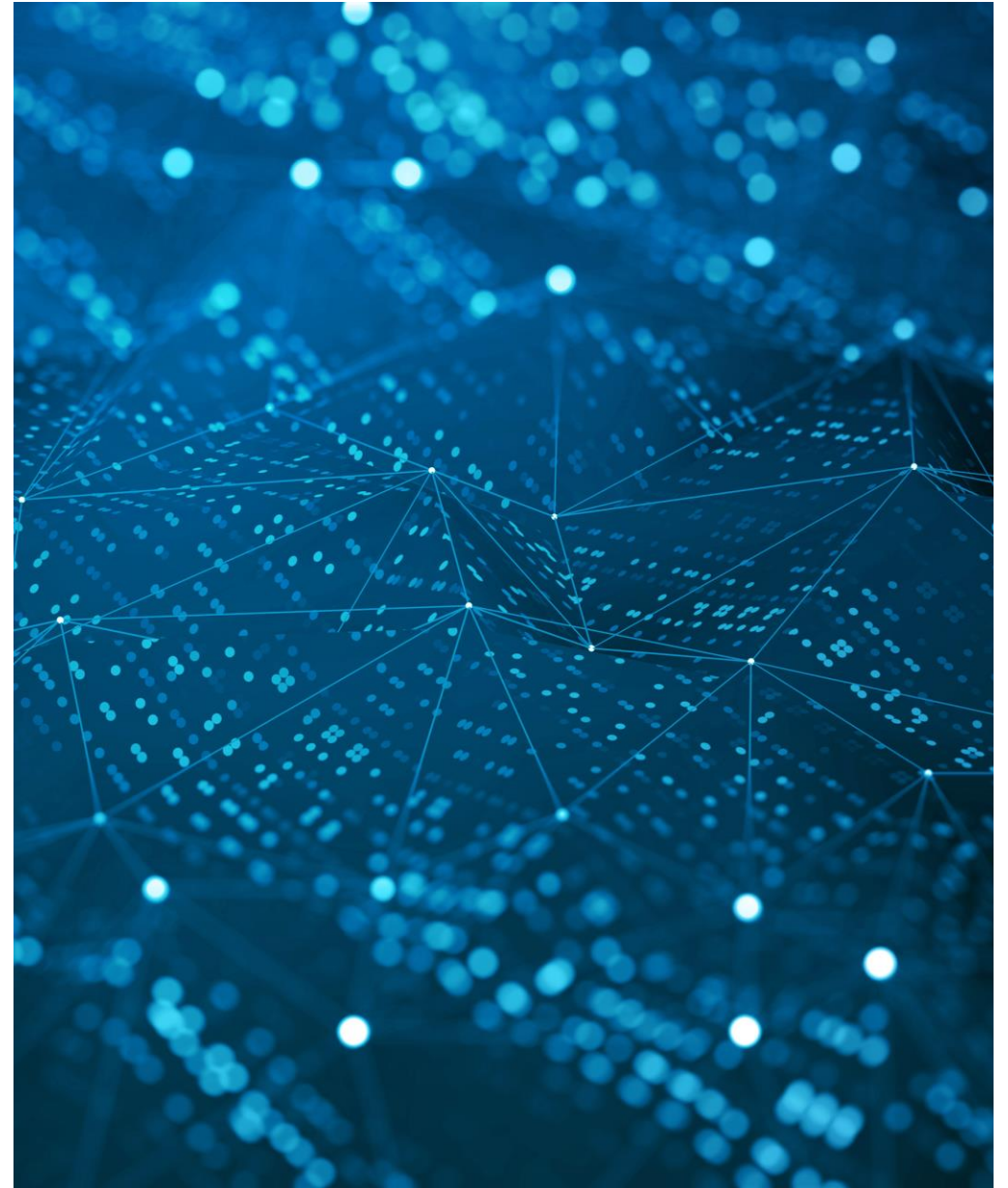# Utilizing Crestron Products in System Designs

- <u>Common Commercial Questions</u>

- Should I use DMPS?
- Should I use DM® Switch?
- Should I use DM NVX®?
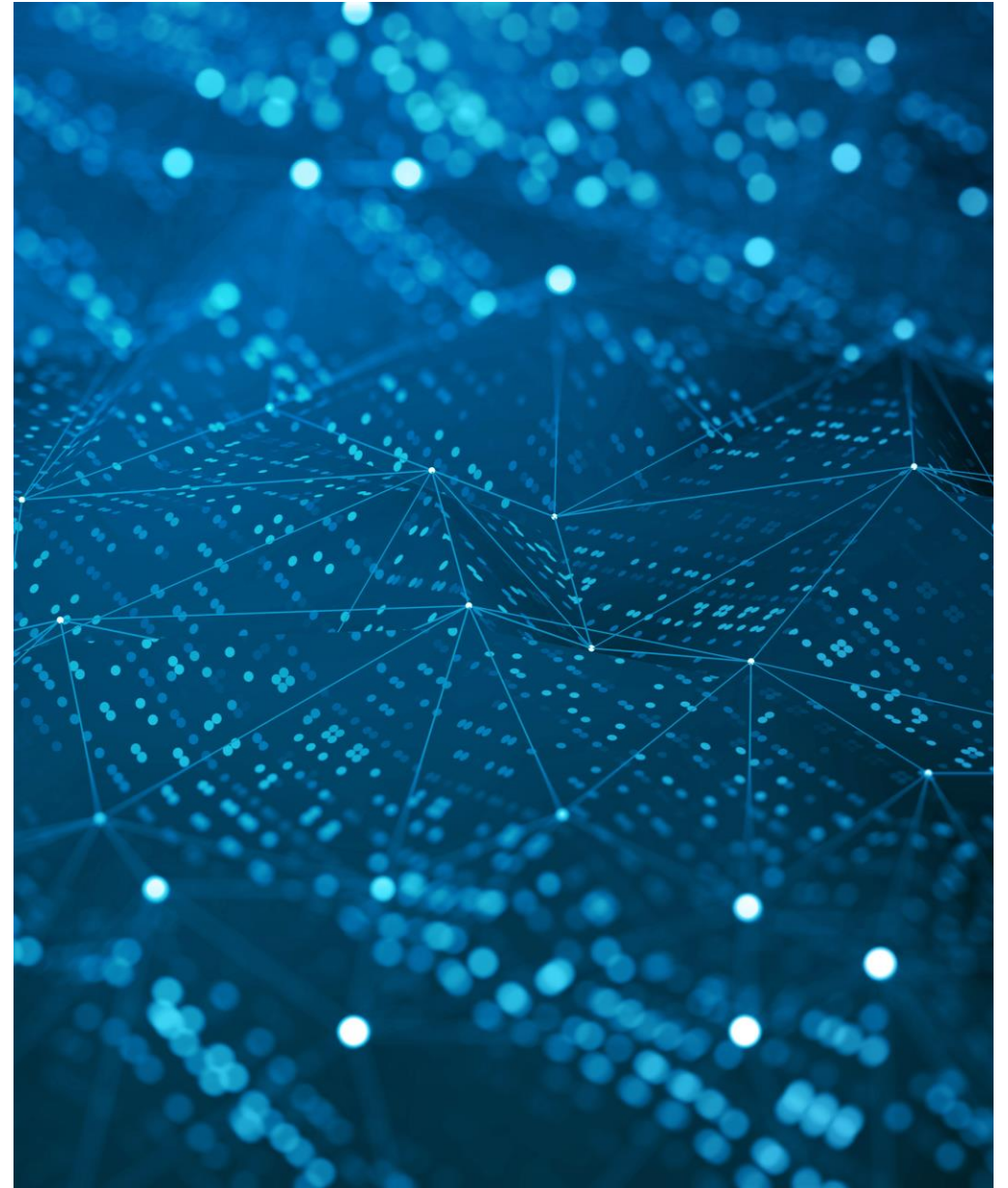
Utilizing Crestron Products in System Designs

- Common Residential Questions

- Should I use Crestron Home™ or custom system?
- Should I use DM NVX® or DM® Switch?
- Should I use a SWAMP?

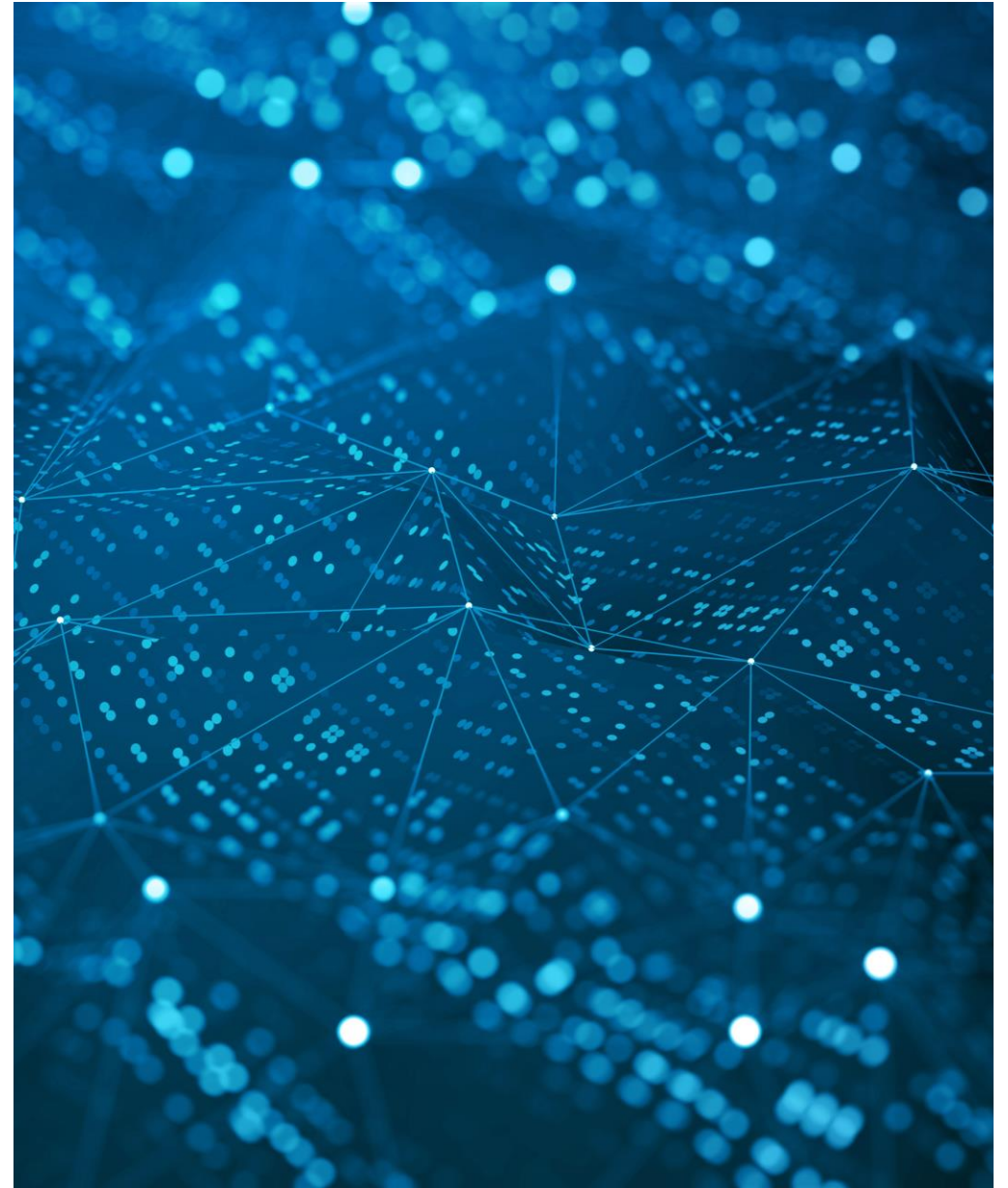# Crestron Tools: https://www.crestron.com/support/tools

Configurators

- DigitalMedia™ Switcher Configuration Tool

- DigitalMedia™ Upgrade Tool

- DM Lite™ Configuration Tool

- FlipTop™ Configuration Tool

- CDTS- Crestron Design Tool Shades

Design Guides and Resources

- Municipal Drawings
- DM NVX® Design Guide
- Crestron Flex Design Guide

- CAD Library
  - **Answer ID: 5841**
- Application Drawings
  - **Answer ID: 5797**
- The Design Center
 - **Answer ID: 1000491**

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System Management

System Management

Crestron Fusion® and Crestron XiO Cloud™

- Crestron Fusion® monitoring and scheduling software adds a layer of intelligence to turn an organization into a high-performance enterprise.

- It's easier than ever to get all the powerful tools clients really want, including network room scheduling, remote help desk, global device monitoring, and data collection and reporting.
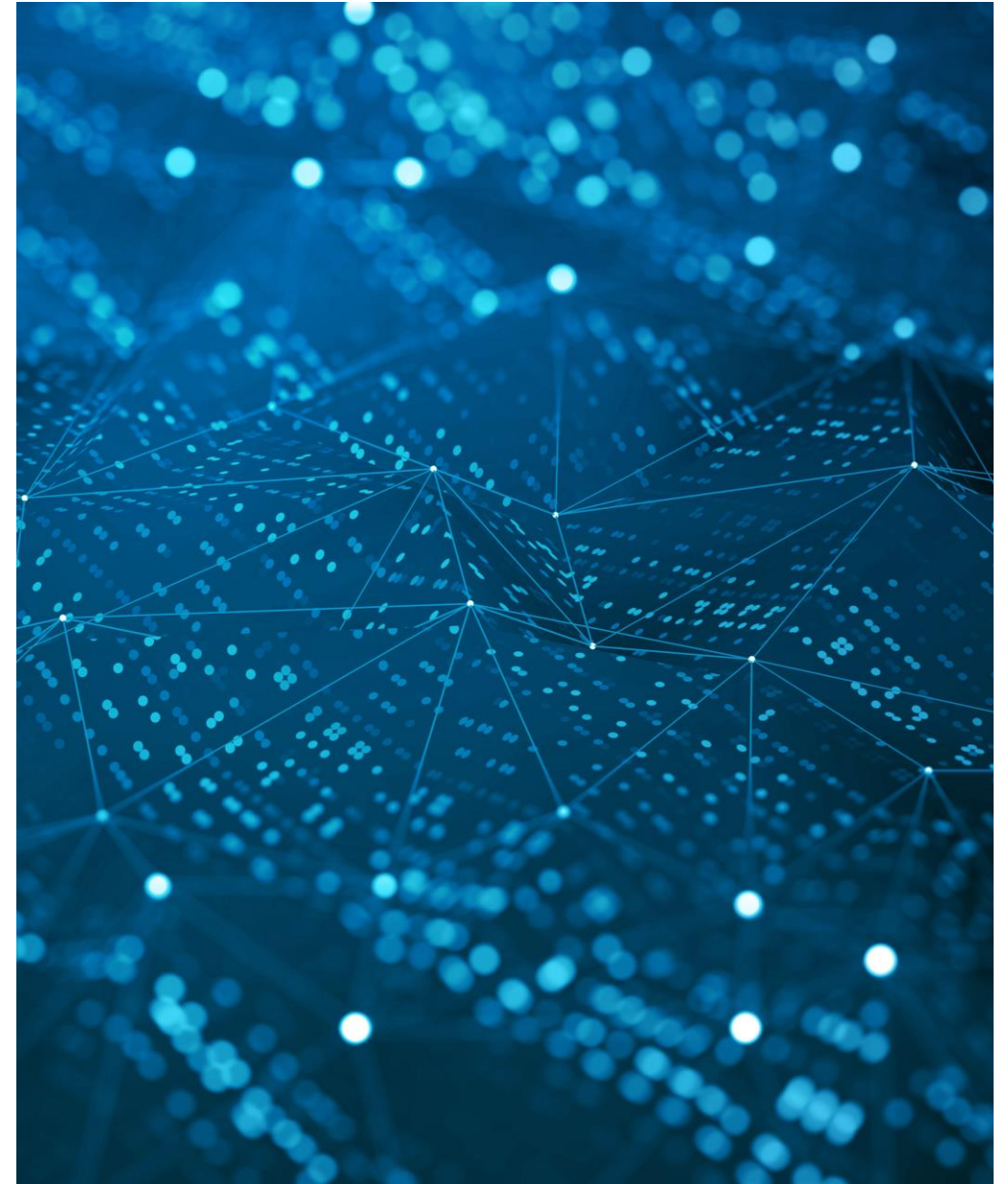
Connecting workplace technology

The complete package

- Secure communication

- Outbound server connection
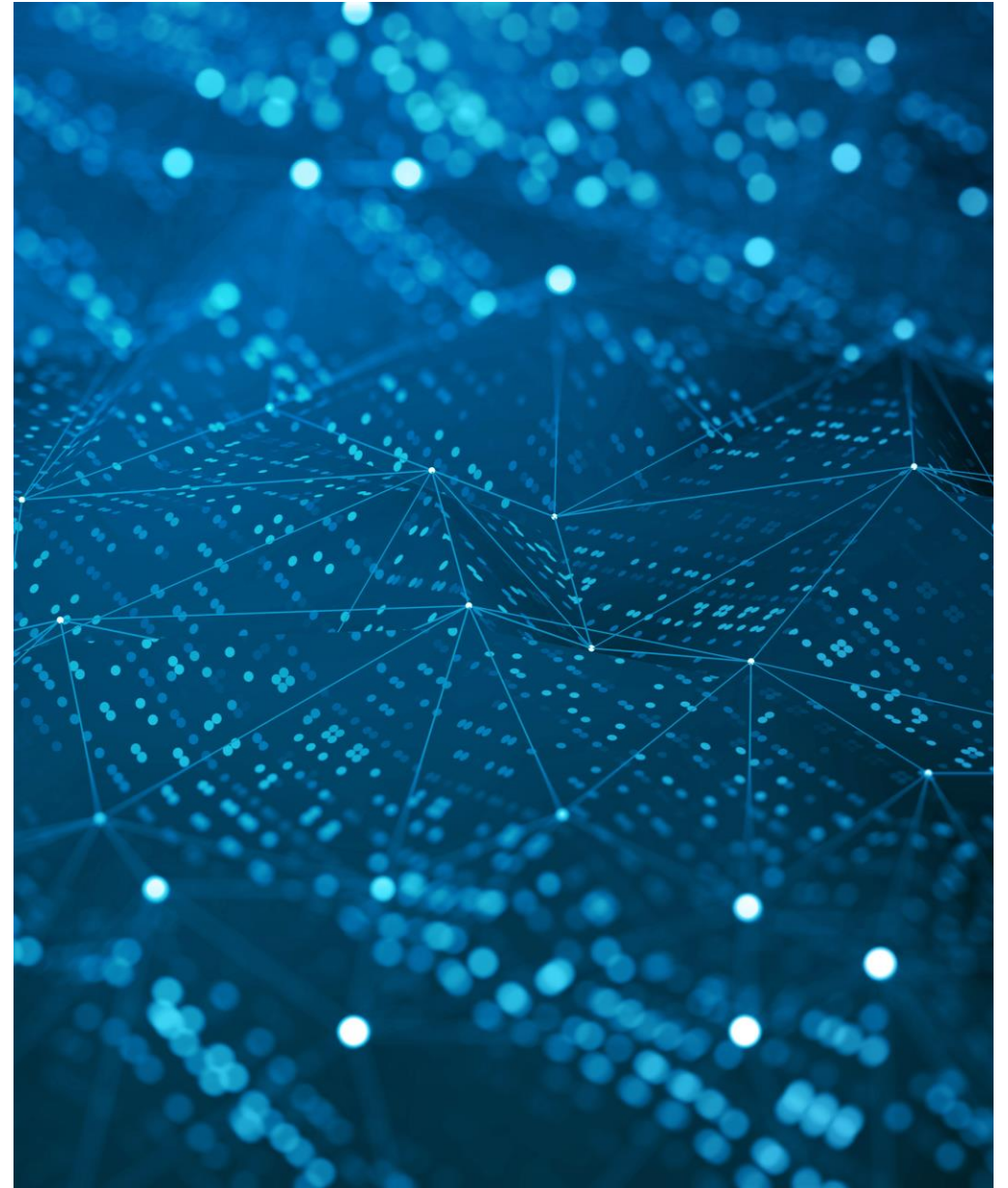
- Enterprise-grade hardware

- One vendor
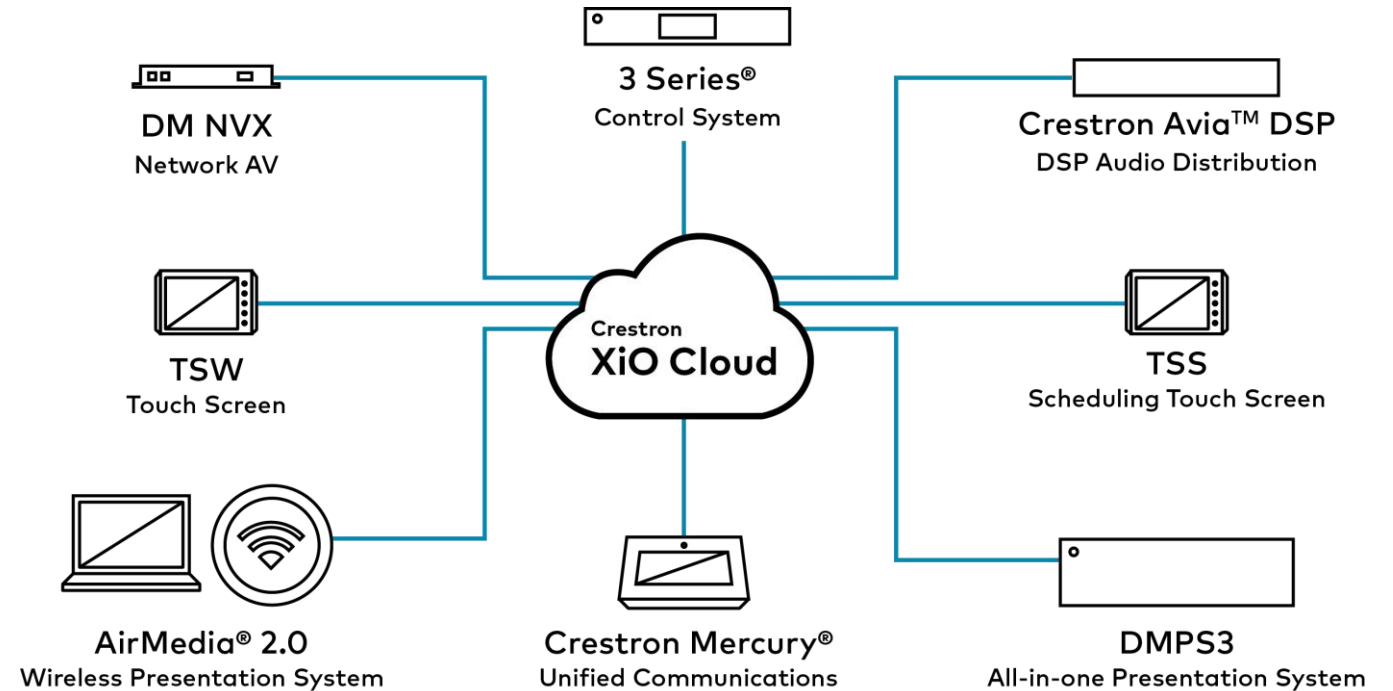
Crestron VC-4

Crestron VC-4

VC-4 / Virtual Control

Crestron Virtual Control server-based system provides a scalable solution for deploying programs, rooms, and devices across an enterprise

- Runs on Linux platforms / Ubuntu® server

- VC-4 eliminates control systems in every room

- Crestron XiO Cloud™ with VC-4

- Requires Crestron XiO Cloud™

- Requires C# programming

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Crestron Sales Support Services

Crestron Sales Support Services

What does Crestron Sales Support Services offer?

Everything associated with pre-sales design needs

System Design/Engineering

- Control/Integration

- Audio Distribution

- Video Distribution

- Lighting

- Shades

- HVAC/Climate Control

Sales Support Services Chat

- No time to call Sales Support Services? Then chat with us.

- Chat Hours: 9AM-5PM CET, M-F

- Online Live System Design Assistance

- Access Sales Support chat from the Support Center on Crestron.com

- Our staff of solutions engineers are standing by to assist you in real-time

Sales Support Chat

Sales Support Services

- +32 15 50 90 02
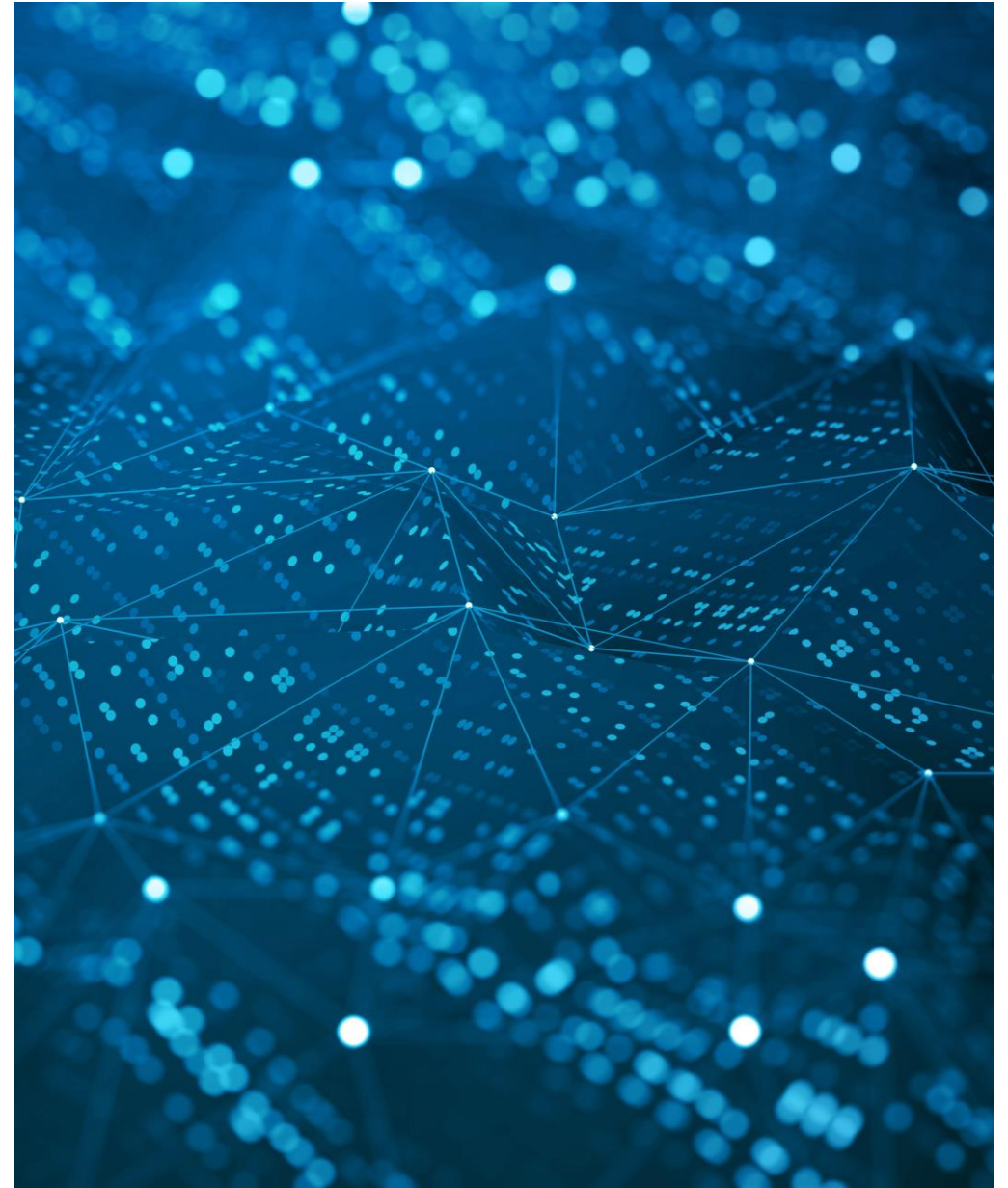
- techsaleseurope@crestron.com

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In Review - Find the Right Person

Remember:

- "The Design Intent" and SOW

- Talk to all Parties using the System

- Make sure the SOW, Drawings and BOM all Match

- Submit your project to techsaleseurope@crestron.com

Follow these steps to make sure your job is a Success!

Thank you for Attending

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