Campus Technology

Design Guide

CRESTRON

The leader in campus technology

A global leader in AV, presentation, and collaboration solutions, Crestron is at the center of the transformation and standardization of classrooms and meeting spaces in higher education around the world.

Crestron makes it simple to deliver consistent student and instructor experiences on a large scale across entire buildings and campuses. Crestron packaged room solutions support standard network security policies and offer cloud-based provisioning and management to maximize system uptime, and optimize device and room usage.

Many of the world's leading educational institutions use Crestron solutions:

- Boston College
- Columbia University
- Emory University
- Florida International University
- Georgia State University
- Hofstra University
- Hong Kong Chinese University
- Imperial College (London)
- Indiana University Robert H. McKinney School of Law
- Massey University
- Messiah College
- MIT
- Miami-Dade Community College
- Morgan State University
- Northern Arizona University
- Northern Kentucky University
- Notre Dame University
- Olin College
- Otago University
- Purdue University
- Radford University
- Rice University
- Rutgers University
- South Texas College of Law
- St. Cloud State University
- St. Louis University
- Stetson University
- Surrey University (UK)
- Towson University
- University of California-Davis
- University of Central Florida
- University of Chicago Booth School of Business
- University of Iowa
- University of Nebraska Medical Center
- University of Nevada
- University of North Carolina
- University of Oregon
- University of Ottawa
- University of Rhode Island
- University of South Carolina Upstate
- University of Texas
- University of Texas-Pan American
- University of Virginia
- University of Wisconsin-Madison
- Utah Valley State College
- William Jewell College
- Winona State University

Reykjavik
Karlstad
Hamburg
Amsterdam
Berlin
Moscow
London
Cobham
Brussels
Duisburg
Frankfurt
Paris
Ulm
Zurich
Geneva
Milan
Madrid
Istanbul
Tel Aviv
Dubai
Toronto
Rockleigh
New York
Washington, D.C.
Chicago
San Francisco
Denver
Las Vegas
Hollywood
Los Angeles
Phoenix
Plano
Dallas
Atlanta
Orlando
Fort Lauderdale
Monterrey
Mexico City
Medellin
Guayaquil
Sao Paulo
Santiago
Johannesburg

Global presence, local support

Our people are dedicated to providing the best service and support in the industry. Crestron has offices in every major market and country around the globe. There are tens of thousands of certified Crestron engineers and technicians ready to assist you if needed. Count on our award-winning True Blue Service and Support Team to handle any issues 24/7 or even go on-site anywhere in the world at a moment's notice.

CRESTRON AV FRAMEWORK
Sign Off
Inputs
Channel
Type
Icon
Enabled
Display Name
Rank
Device
Endpoint
#1
VGA
Icon
Yes
Vga1
9
Device
#2
HDMI
Icon
Yes
hdmi
10
Device
#3
VGA
Yes
AIRMEDIA
8
Device
#4
VGA
Yes
Vga4
7
Device
#5
HDMI
Yes (Default)
MIRAGE
3
Device
#6
HDMI
Yes
BLURAY
6
Device

Easy to install – no programming required

Crestron packaged classrooms and meeting rooms are incredibly easy to install. Setup and configuration is simple using the browser-based tool: select sources and displays, set up device control, and you're good to go.

Just simple check boxes and drop down windows. You don't have to write a single line of code. Rooms are up and running within minutes. Customization is just as simple using Crestron Studio®, our drag-and-drop software, to add your school logo and unique functionality.

Classroom 231B
12:45 PM
November 26
Please Select a Source to Present
Wireless
Laptop
PC
Blu-ray
TV Tuner
CRESTRON

Easy to use

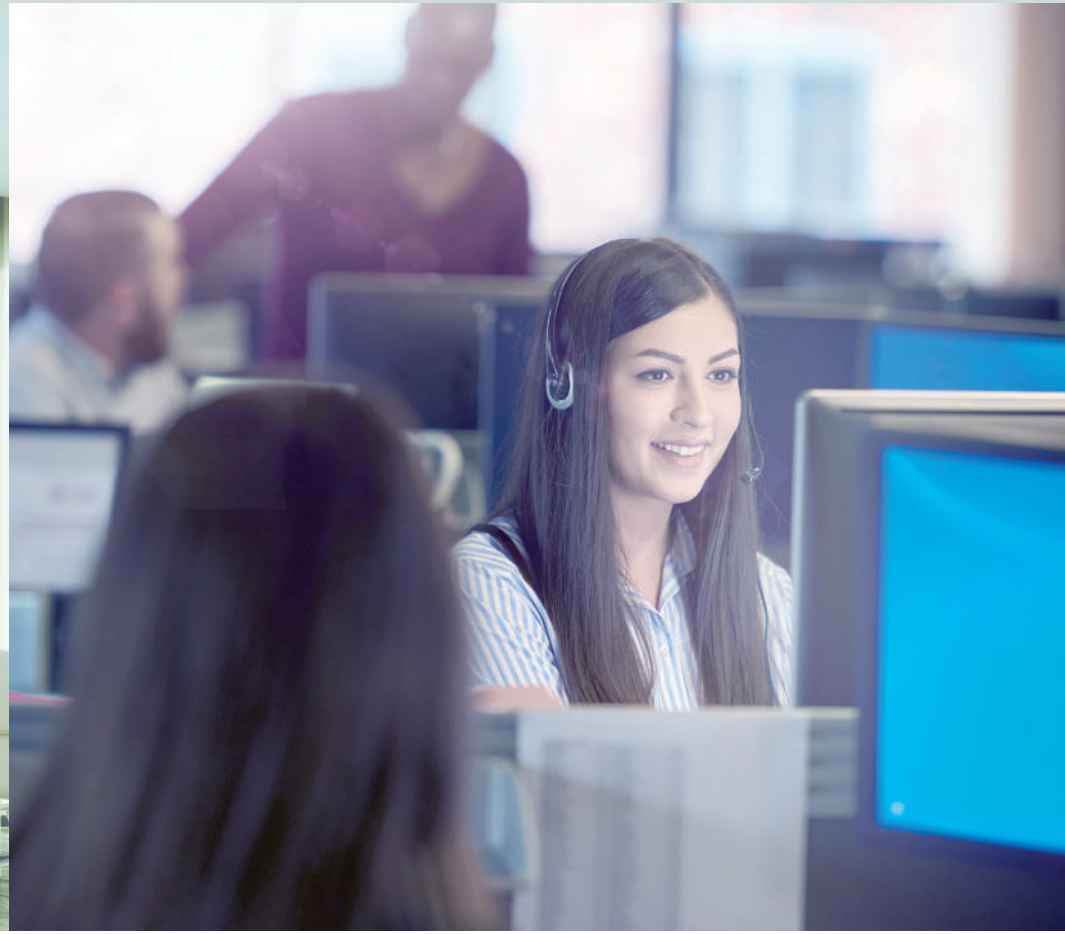
Our touch screen experience is simple and intuitive. It's easy to do whatever you want to do: "Present," "Call," "Share screen." One touch is all it takes. If that's not easy enough, the onscreen display welcomes you with your meeting details and simple connectivity instructions.

Crestron Fusion®

Campus monitoring and reporting

Crestron Fusion® monitoring and scheduling software adds a layer of intelligence. It combines powerful tools: network room scheduling, remote help desk, global device monitoring, and data collection and reporting.

CRESTRON FUSION
Crestron Fusion Current Scheduled Room Status
CRESTRON
Meeting In Progress, Room Occupied and System Power by RoomName



Room scheduling

Crestron Fusion integrates with the popular room calendaring platforms to improve workflow and room usage. Rooms are automatically returned to inventory in the event of a "no-show."

Help desk support

During classes and meetings, attendees can contact the help desk directly from the touch screen in the room. Crestron Fusion sends event alerts to IT staff, enabling them to quickly resolve issues remotely to maximize uptime. Crestron Fusion stores all technical documentation room-by-room for quick reference.

Global device monitoring

Crestron Fusion sends real-time status notifications for any device in any room on the network, so support staff can resolve events before they become issues and interrupt workflow. Additionally, support staff can automatically receive reminders to perform routine maintenance.

Data and reporting

Crestron Fusion can collect data and generate detailed reports about room and device usage to help schools optimize investments in space and technology. For example:

- How often are classrooms, meeting rooms, and other spaces booked?
- When are classrooms, meeting rooms, and other spaces booked?
- Who's using specific classrooms, meeting rooms, and other spaces?
- Was the classroom, meeting room, or space actually used when booked?
- How many people use the classroom, meeting room, or space per meeting?
- How often is the VTC system being used?
- How often is video enabled during lectures and conferences?
- Are wired or wireless inputs used for lectures and presentations?

Cloud-based deployment and management

Crestron packaged room solutions reach out to the cloud for easy, cost-effective, and efficient deployment and management. Simply assign the room solution to a location, provision based on your protocol, and it's ready to go. No time consuming programming, no proprietary programming languages. It's simple browser-based management with the network security IT professionals demand.

Crestron Device Management SaaS

Manage 100 or 1,000 devices in the same amount of time you manage one.

Integrate

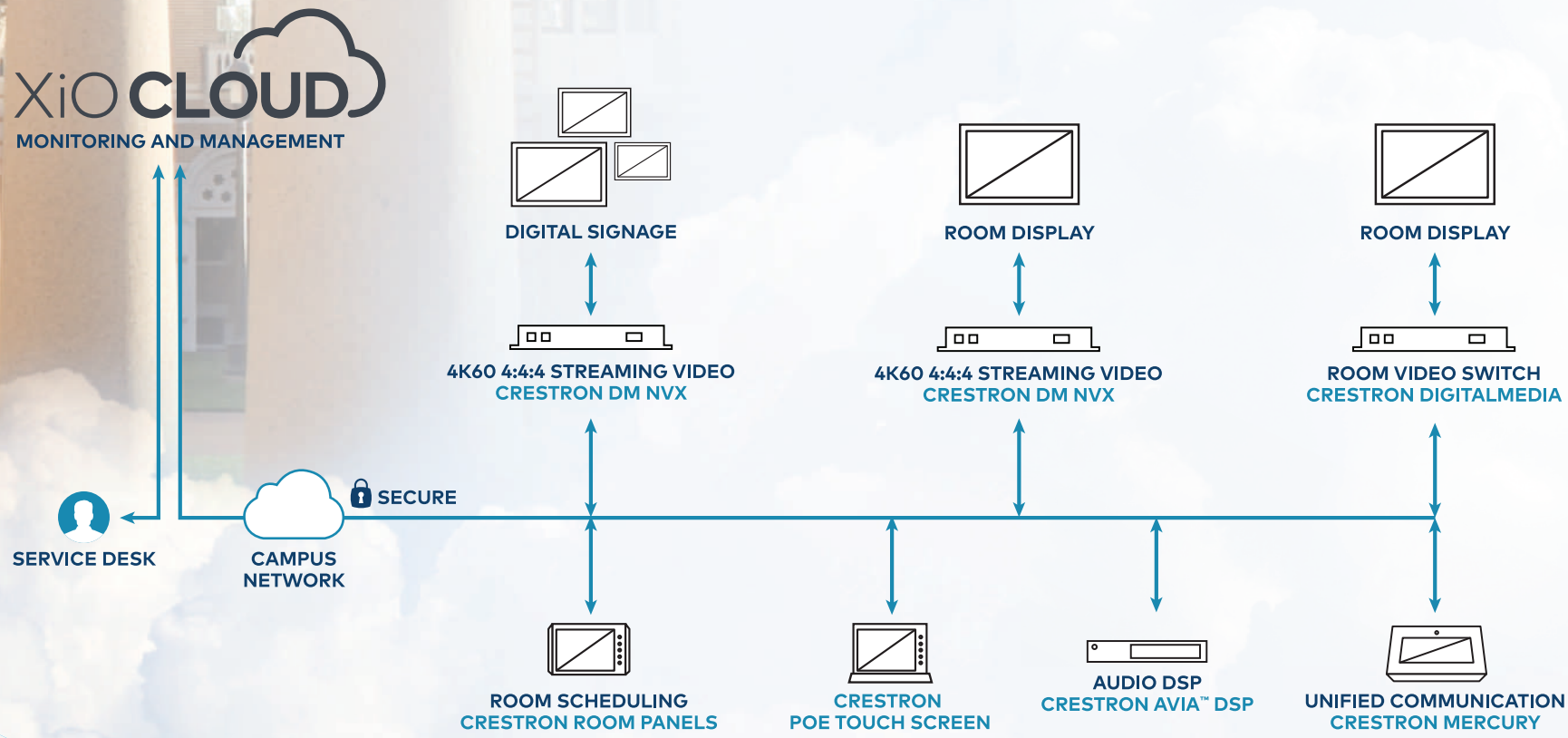
- No programming cloud AV management solution

Deploy and Manage

- Organize devices by groups and subgroups
- Silently push settings and firmware to one or all devices
- Apply, transfer, and remove device feature licenses

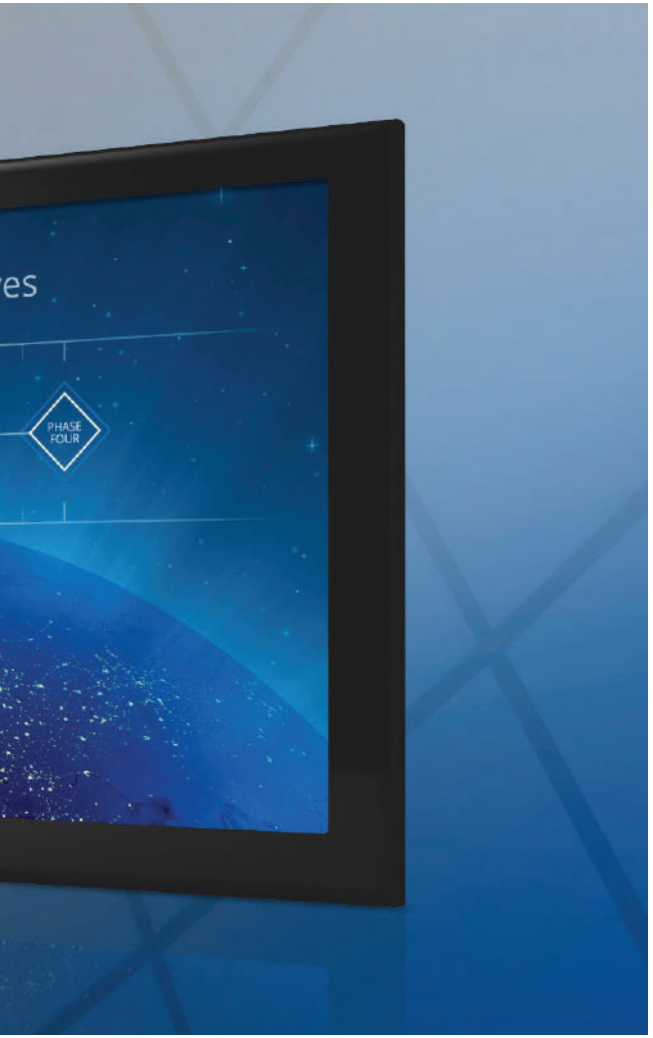
Monitor

- Live status and full monitoring of every connected device



Co-developed with Microsoft leveraging Azure® software, XiO Cloud provides secure connections and management for millions of devices across the campus. You get secure communications, outbound server connection, and enterprise-grade hardware. And it's all from one vendor, so there's only one call to make for support.

Primary Mission Objectives
Primary Mission Objectiv
PHASE ONE
PHASE TWO
PHASE THREE



Network security

Crestron campus technology supports the standard network security policies organizations already have in place. Every Crestron device is engineered with absolute security in mind.

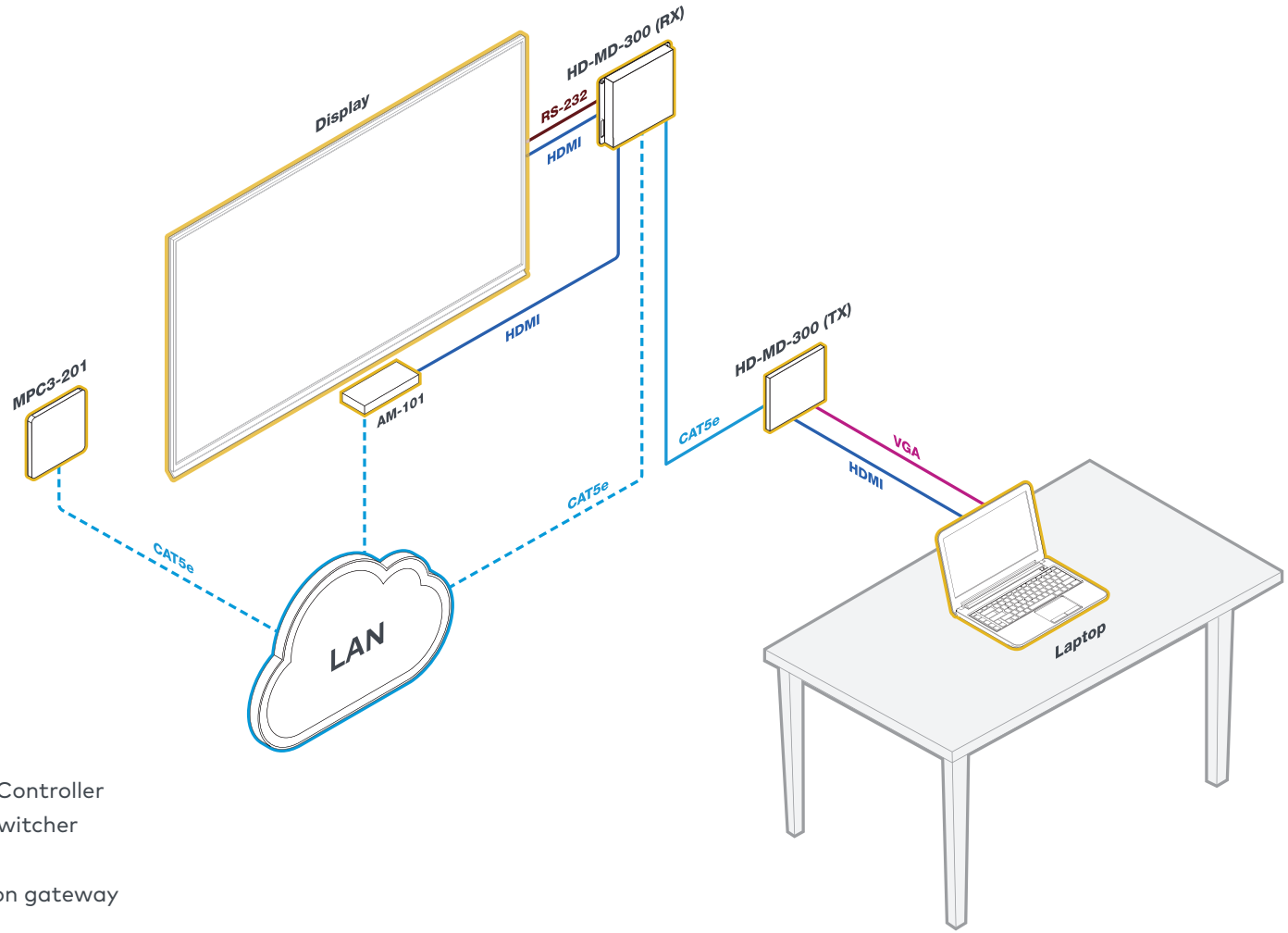
- **802.1x** ensures devices on the network have been explicitly sanctioned by the network administration team, which protects against unauthorized devices being added to the network
- **Active Directory**® credential management ensures administrative privileges and access rights of individuals are centrally managed
- Industry-standard **AES** block cipher with robust PKI for AV content encryption to protect content from unauthorized access as it traverses the network
- **SSL** ensures that control systems and endpoint devices communicate only with intended devices and that commands and status cannot be monitored by unauthorized devices on the network
- **SSH-based** command-line console access for device configuration and status protects the device console from access by unauthorized users
- **HTTPS** authenticates and encrypts the web interface to ensure DM NVX devices are only accessed by authorized users

Learning Essentials Classroom | Wall Plate EDU-600

Equip classrooms with the basic technology students and instructors need to present and share ideas from wired and wireless devices including laptops, mobile devices, and in-room computers. Enjoy simple room control from the sleek capacitive touch panel mounted on the wall. Features such as one-touch presentation start and auto-source select make the educational experience simple, engaging, and robust.

Benefits:

- No programming required
- Wireless presentation from laptops, tablets, and phones
- Present via HDMI® and with legacy analog sources
- Easily control all room devices and displays from button panel
- Display from up to three sources
- Crestron XiO Cloud provides centralized provisioning and management
- Integrates with Crestron Fusion software for monitoring and reporting



What's included

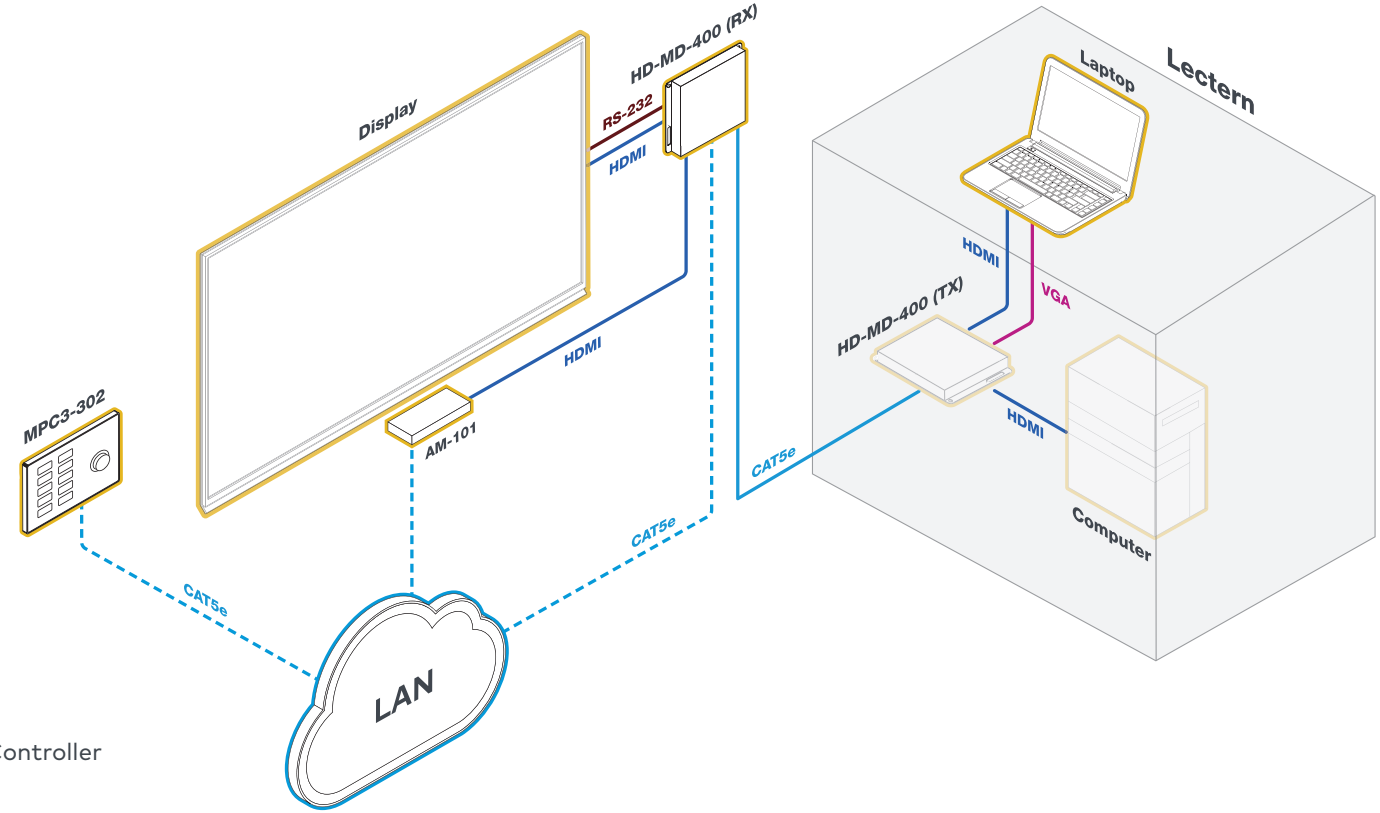
- 3-Series® Media Presentation Controller
- Wall Plate HD Scaling Auto-Switcher & Extender (230ft/70m)
- AirMedia® wireless presentation gateway
- 12′ HDMI cable (2)
- 20′ HDMI cable
- 50′ CAT5e plenum cable

Learning Essentials Classroom EDU-700

Equip classrooms with the basic technology students and instructors need to present and share ideas from a wireless device and two wired devices including laptops, mobile devices, and in-room computers. Enjoy simple room control from the sleek capacitive touch panel mounted on the wall. Features such as one-touch presentation start and auto-source select make the educational experience simple, engaging, and robust.

Benefits

- No programming required
- Wireless presentation from laptops, tablets, and phones
- Present via HDMI and with legacy analog sources
- Easily control all room devices and displays from button panel
- Display from up to four sources
- Crestron XiO Cloud provides centralized provisioning and management
- Integrates with Crestron Fusion software for monitoring and reporting



What's included

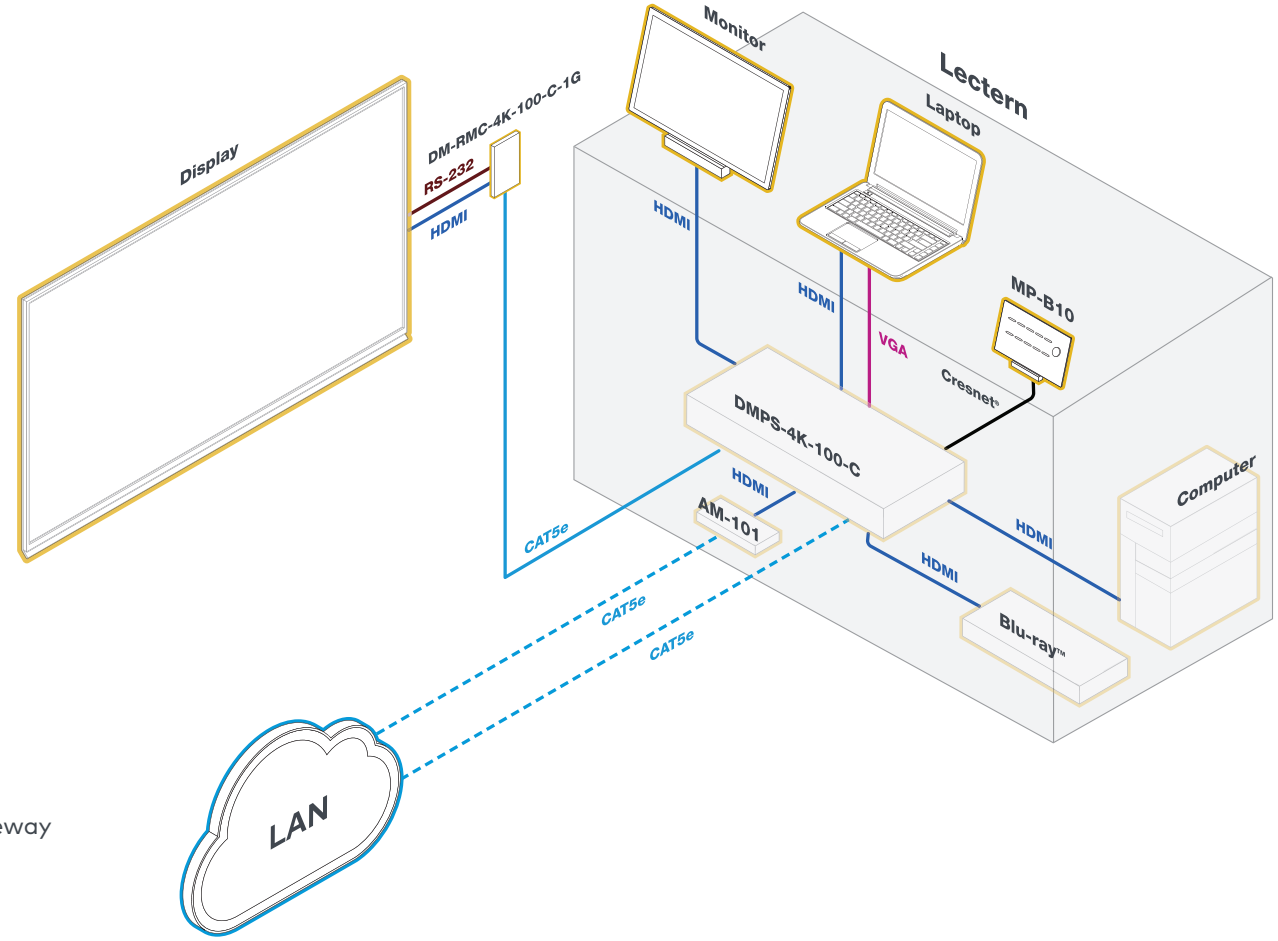
- 3-Series Media Presentation Controller
- HD Scaling Auto-Switcher & Extender (230ft/70m)
- AirMedia wireless presentation gateway
- 6' HDMI cable (2)
- 12' HDMI cable (2)
- 50' CAT5e plenum cable

Basic Single Display Classroom EDU-1000

Crestron has everything you need to teach, share, and propose ideas from a variety of sources in any room. With support for legacy analog sources and HD digital sources, EDU-1000 provides a highly flexible, cost-effective solution for small seminar rooms or typical lecture-style classrooms.

Benefits:

- No programming required
- Wireless presentation from laptops, tablets, and phones
- Present via HDMI in 4K60 and UHD and with legacy analog sources
- Easily control all room devices and displays from button panel
- Display from up to eight sources
- Mirrored content displayed to classroom on confidence monitor for the instructor
- Crestron XiO Cloud provides centralized provisioning and management
- Integrates with Crestron Fusion® software for monitoring and reporting



What's included

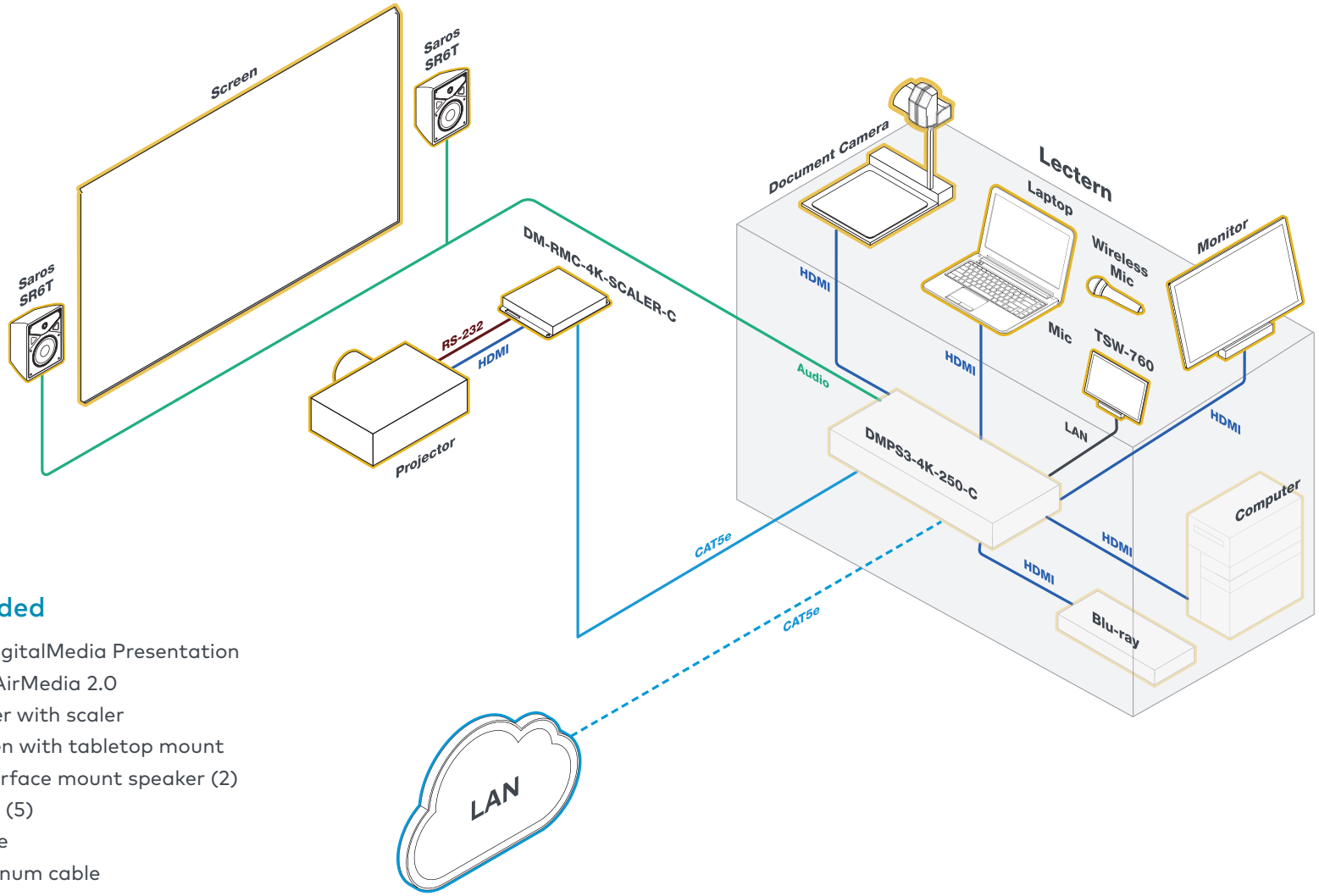
- 3-Series 4K DigitalMedia™ Presentation System
- 4K DM® receiver
- AirMedia wireless presentation gateway
- Media Presentation Button Panel with tabletop mount
- 6′ HDMI cable (5)
- 12′ HDMI cable
- 6′ VGA cable with audio
- 50′ CAT5e plenum cable

Flexible Single Projection Classroom EDU-2000

The flexible EDU-2000 builds on the benefits of the EDU-1000 with greater expandability. Ideal for traditional classrooms and lab spaces, it's scalable to suit small (30) to large (300) numbers of students, with the selection of the proper display and audio accessories. The included speakers suit the 30-50 student range.

Benefits:

- No programming required
- Wireless presentation from laptops, tablets, and phones
- Present via HDMI in 4K60 and UHD
- Easily control all room devices and displays from 7" touch screen
- Display from up to eight sources
- Independently switch content between the confidence monitor and the classroom display
- Crestron XiO Cloud provides centralized provisioning and management
- Integrates with Crestron Fusion software for monitoring and reporting



What's included

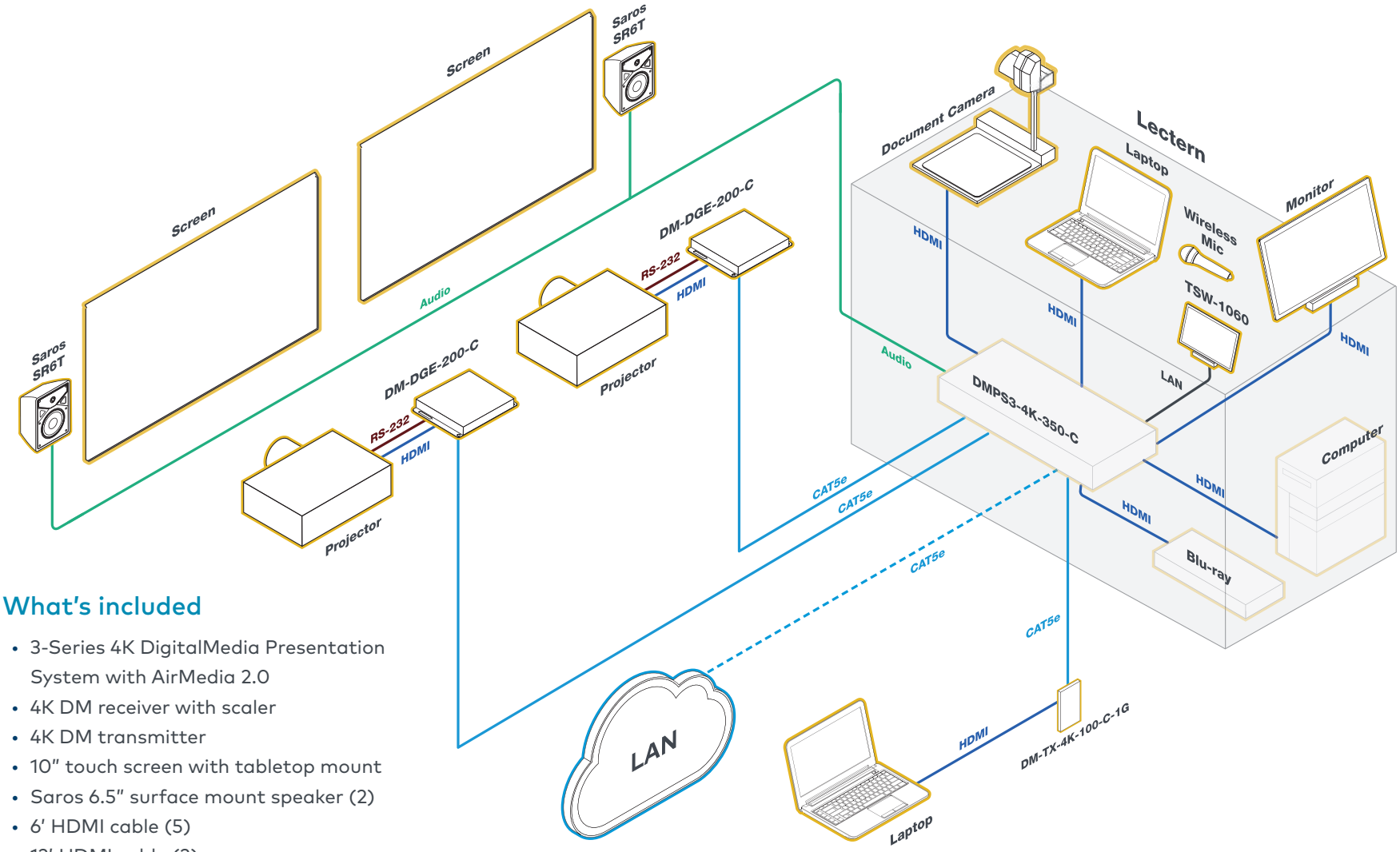
- 3-Series 4K DigitalMedia Presentation System with AirMedia 2.0
- 4K DM receiver with scaler
- 7″ touch screen with tabletop mount
- Saros® 6.5″ surface mount speaker (2)
- 6′ HDMI cable (5)
- 12′ HDMI cable
- 50′ CAT5e plenum cable

Flexible Dual Projection Classroom EDU-3000

The EDU-3000 includes all the benefits of the EDU-2000, plus even greater flexibility to meet the needs of traditional classrooms, active learning, and lab settings. It's scalable to accommodate from 30 to 300 students, depending on the selected display and audio options. The transmitter gives instructor and students the ability to present remotely or connect remote equipment.

Benefits:

- No programming required
- Wireless presentation from laptops, tablets, and phones
- Present via HDMI in 4K60 and UHD
- Easily control all room devices and displays from 10" touch screen
- Display from up to nine sources
- Independently switch content between the confidence monitor and the classroom display
- Crestron XiO Cloud provides centralized provisioning and management
- Integrates with Crestron Fusion software for monitoring and reporting
- Broadcast messaging with Crestron Fusion on room display



What's included

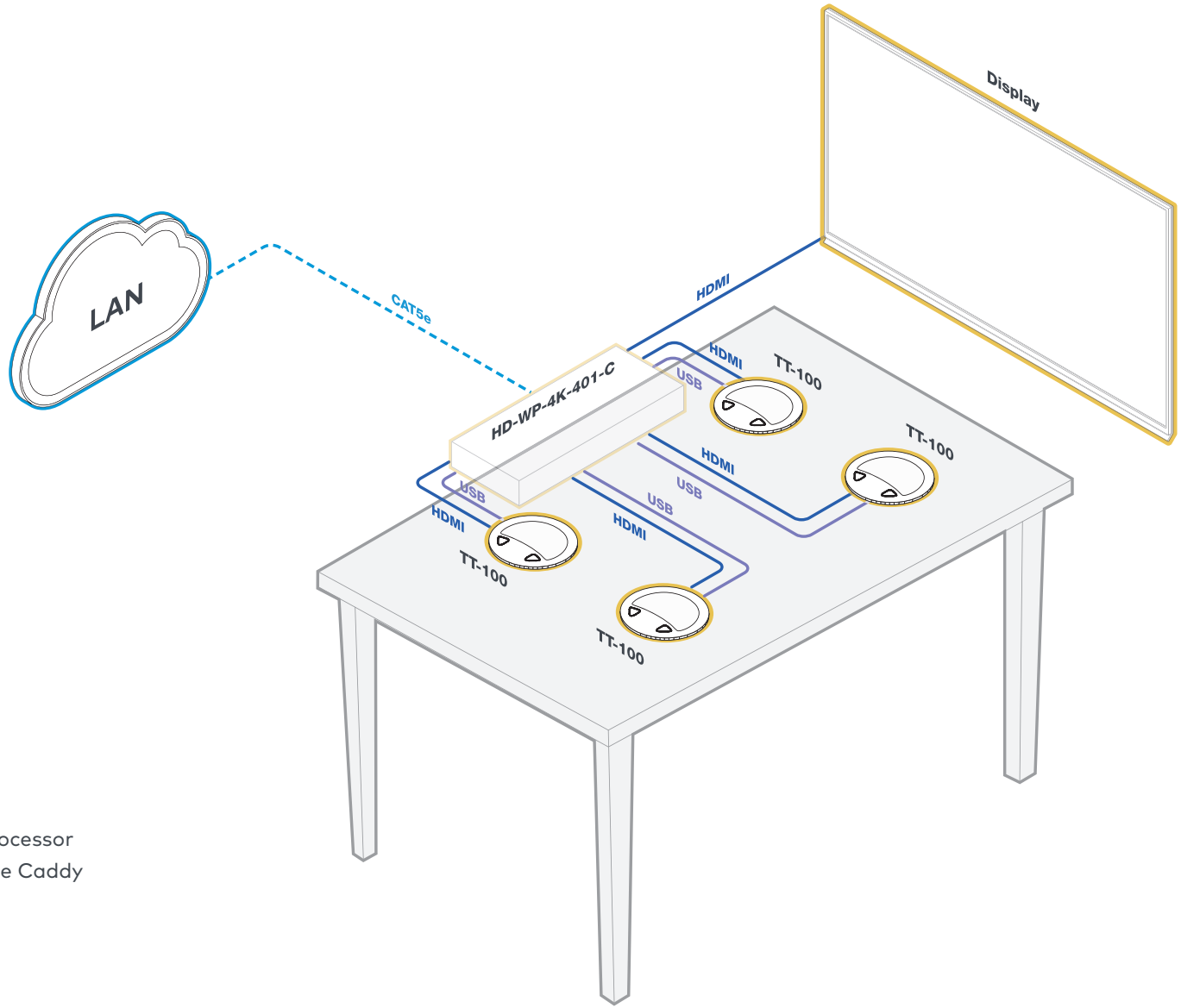
- 3-Series 4K DigitalMedia Presentation System with AirMedia 2.0
- 4K DM receiver with scaler
- 4K DM transmitter
- 10″ touch screen with tabletop mount
- Saros 6.5″ surface mount speaker (2)
- 6′ HDMI cable (5)
- 12′ HDMI cable (2)
- 20′ HDMI cable
- 50′ CAT5e plenum cable (3)

Student Collaboration Workstation EDU-500

Ideal for libraries, learning commons, and spaces adjacent to classrooms, EDU-500 provides the ability to simultaneously share content from up to four student laptops on the room display. Easily flip between multi-view mode and viewing content from one laptop. For larger spaces, an optional DM receiver can be added.

Benefits:

- No programming required
- Present via HDMI in 4K30 and UHD
- Collaborate with up to four people simultaneously
- Switch from multi-window view to a single source with button press
- Display Control via CEC or RS-232 without programming



What's included

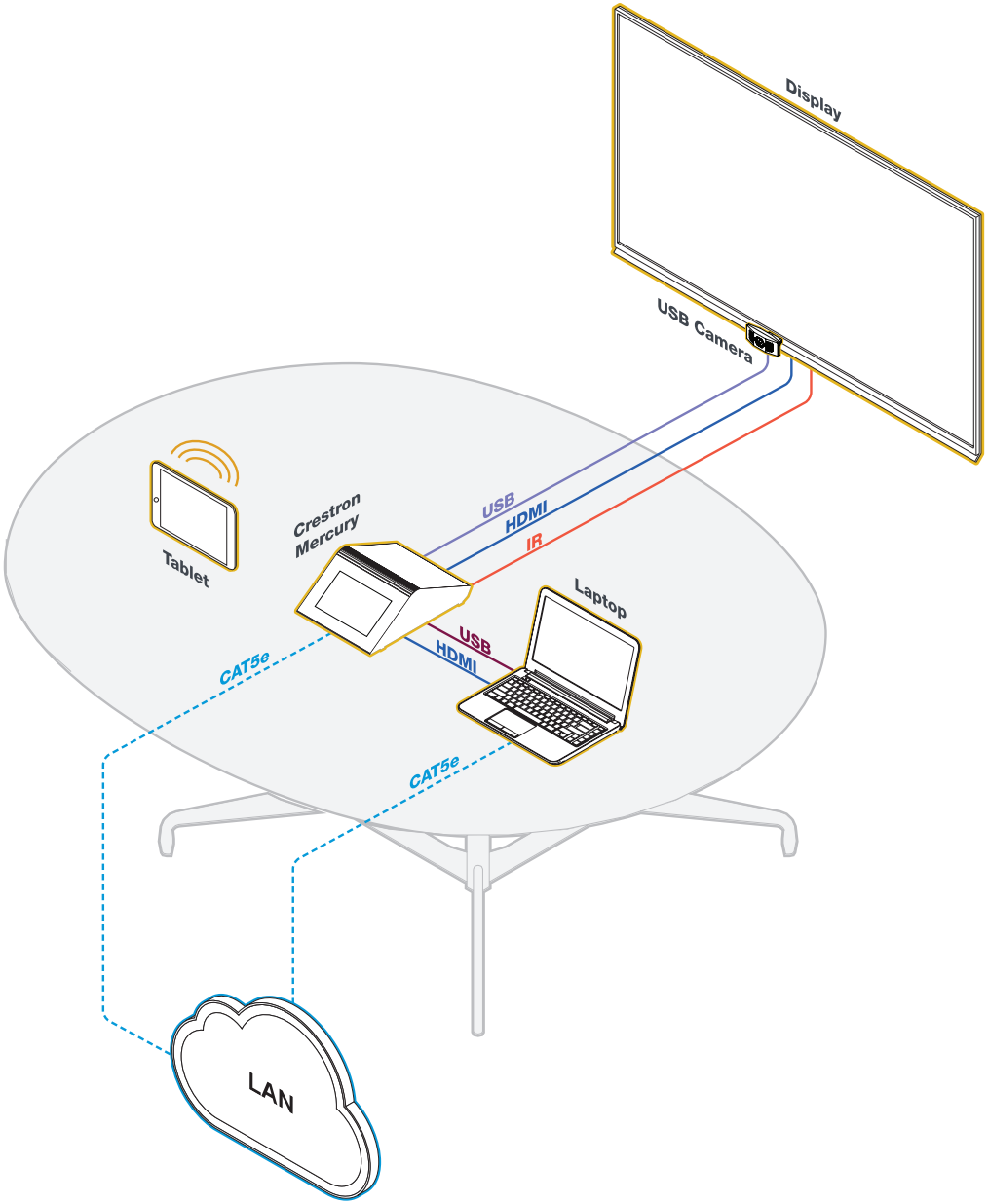
- 4K Multi-Window Video Processor
- Crestron Connect It™ Cable Caddy with 120V outlet (4)
- 6′ HDMI cable (4)
- 20′ HDMI cable

Small to Medium Meeting Room | 4 - 12 people CE-1000

Crestron does for meeting rooms what it does for classrooms. Based around Crestron Mercury®, the only open UC solution, the CE-1000 room solution delivers everything needed to call, present, and video conference using any service – Crestron doesn't lock you into any one proprietary platform. Plus, the audio performance is engineered to the highest standards and cloud provisioning makes it easier to deploy and manage across the entire campus.

Benefits

- Collaborate using any web conferencing or UC service or application
- Present wired or wirelessly
- Full open SIP and Bluetooth® conference phone
- See room availability and meeting details on room display
- Cloud-based provisioning and management
- Gather room usage data with built-in occupancy sensor
- Control the room display via RS-232, CEC, or IR
- Integrated 7-inch touch screen, high-performance speaker, four microphones, AV connectivity, occupancy sensor, and more



What's included

- Crestron Mercury Tabletop Meeting Solution
- HD conferencing camera
- Infrared control USB cable
- 6′ HDMI cable
- USB cable
- 15′ USB cable extension
- 20′ HDMI cable

Options to customize your spaces

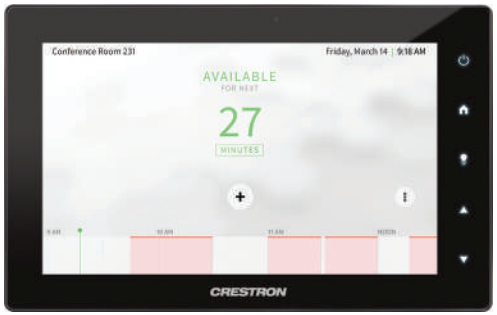
Crestron offers the most powerful, flexible, and scalable campus technology platform. Start with our ready-to-deploy classrooms and meeting spaces, then expand and customize to meet your unique needs.

Room scheduling options

Room availability hallway sign SSW, SSC

Simple, cost-effective way to make it easy to find a free meeting room with just a quick glance down the hallway.

- Connect to control system or directly to TSW touch screens
- Red/green standard availability or program any color or sequence
- Custom engravable



Room scheduling touch screens TSW-760, TSW-1060

Connect directly and securely to popular calendaring platforms, making it convenient to book available spaces in advance or for ad hoc meetings.

- 7" and 10" models available in black and white finishes
- Directly connect to Microsoft® Exchange, Office 365®, and G Suite® software
- Natively supports popular room booking programs, such as Appspace®, Robin Powered™, Teem®, and EMS
- HTML 5 support makes it easy to design dynamic graphics, add branded logos, and deploy a consistent UX

Occupancy sensors

Enable collection of room occupancy and usage data, which helps organizations optimize investments in space and technology.

- Report room usage data back to Crestron Fusion
- Meeting rooms are automatically returned to inventory in event of a "no-show"
- Turn room "on" and "off" automatically

Crestron Fusion

Available via cloud-based or on-premises deployment, Crestron Fusion monitoring and scheduling software adds a layer of intelligence to turn colleges and universities into high-performance educational institutions. Connecting Crestron room scheduling devices to Crestron Fusion opens up a world of possibilities:

- Room usage data and reporting
- Device monitoring and instant alerts
- View room availability enterprise-wide

Connectivity options

FlipTop™ FT2-700

Configurable connectivity and control solution in a stylish, space-saving flush-mount tabletop design.

Crestron Connect It™ Cable Caddy TT-100

Cost-effective tabletop presentation interface offering AV connectivity and one-touch source select in a compact, stylish device that's easy to install.

USB extender HD-EXT-USB-2000-C

Simple, reliable solution for extending high-speed USB signals up to 100 meters (330 ft) over one CAT5 twisted-pair cable.

Audio options

Saros® architectural speakers

In-ceiling, surface mount and pendant speakers designed to deliver excellent speech intelligibility and audio reproduction.

Modular amps

Professional performance, EnergyStar® certification, built-in fault protection, and convenient modular construction.

Sound bar SAROS-SB-200-P-B

Provides enhanced audio performance for any flat panel display.

Mic pods CCS-UCA-MIC

For Crestron Mercury rooms with longer tables, these microphones provide convenient mute access at every seat.

Crestron A+ Education Partner program

The Crestron A+ Education Partner program has played an integral role in bringing the latest technology and training to thousands of educational institutions worldwide, and given back more than $26M toward education. The program provides educational institutions with a host of benefits:

- Special pricing on all Crestron products*
- Earn Rewards points on purchases, which can be redeemed for Crestron products, merchandise, or to cover travel and training costs for training at any Crestron office†
- Free system design, specification, and post-installation technical assistance
- Direct advance replacement on all Crestron products
- 5-year direct advance replacement on select products
- Extended warranty on parts and labor from 3-years to 5-years
- Direct RMA on all warranty repairs

* A+ pricing in U.S. and Canada only. †U.S. and Canada only.

Notes

Notes

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