



# Atlona Solutions for Education

**AV technology for enhanced  
engagement and collaboration**





## Who We Are

Atlona is redefining the future of educational environments by providing reliable, user-friendly, and innovative audiovisual solutions. Learning spaces, including classrooms, lecture halls, and auditoriums, are where knowledge is shared. Atlona AV signal distribution and control products help transfer ideas and skills easily. Our goal is to make learning spaces work better without unnecessary complexity.

## Atlona EdTech VIP Program

Our Education Technology VIP Program is built to serve AV and IT professionals in the K-12 and higher education communities. Membership is complimentary and provides access to following elite Atlona benefits, resources, and services. The goal of the program is to forge a partnership between manufacturer and educational institution so we can better understand and serve your needs.



### Atlona Academy

Increase your knowledge of AV through online training and in-person training events

### Design Assistance

Draw on the expertise of our support engineers to help design a solution for any application requirement

### Direct Technical Support

Dedicated technical support hotline for education customers

### Direct Advanced Replacement

Minimize downtime with direct access to replacement equipment

### Upgrade & Trade-in

Exclusive promotions for staying current with the latest AV technology

### Evaluation Equipment

Receive demo gear at no charge to evaluate for 90 days in your environment

### Preferred Inventory Allocation

Register your project with Atlona to gain priority access to incoming inventory

### Education Portal

Dedicated website for education products, collateral, pricing, and resources

### EduPoints Program

Earn credits that can be redeemed for gear, events, services, and more.

### Education Pricing

Preferred pricing for educational institutions

### Project Showcase

Proud of a project at your institution, let Atlona create a case study and help promote your achievement

### Advisory Council

Share your experience in direct conversations with our team about new products and improvements

Don't miss out on being an EdTech VIP. Join Atlona's Education Technology Program today at <https://atlona.com/education-technology-program/#signup>!

Learning spaces are where knowledge is shared, and Atlona makes AV signal distribution products to assist in the transfer of ideas and skills. The following pages contain some of our key AV technologies and products for the education market as well as design solution examples. For a complete overview of our product range, please visit [atlona.com](https://atlona.com).



The logo for OmniStream, featuring the word "OmniStream" in a white, stylized font with a trademark symbol, overlaid on a background image of a classroom.

## Uncompromised AV over IP performance and reliability

The ultimate networked AV distribution platform with best-in-class performance and reliability over Gigabit Ethernet. **OmniStream™** is ideal for classrooms, lecture halls, and other education applications that benefit from AV distribution over a network. Our latest generation brings advanced features and performance including the VCx™ codec for artifact free 4K/60 4:4:4 video, high-efficiency coding, simultaneous 4K and HD streams, multiview window processing, and more.



### Advanced Codec

Enhanced VCx™ codec with artifact-free presentation of graphics and fast-motion video



### Multiview Processing

Built-in window processing in decoder allows up to 4 sources to be displayed on a screen



### 4K/60 Fast Switching

Ultra-fast switching between 4K/60 video streams from Omnistream encoders



### Near-Zero Latency

Less than 1 frame of latency from encode to decode over Gigabit Ethernet

## Atlona OmniStream Products:



Single-Channel Networked AV Encoder

**AT-OMNI-111**



Wallplate Networked AV Encoder

**AT-OMNI-111-WP**



Wallplate Networked AV Encoder

**AT-OMNI-112**



Networked AV Decoder

**AT-OMNI-121**



USB to IP Adapter

**AT-OMNI-311**



IP to USB Adapter

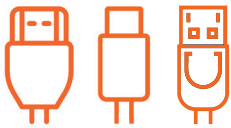
**AT-OMNI-324**





## Redefining AV for presentation and collaboration

The **Omega™ Series** is a family of switching, extension, and video processing solutions with features and technologies designed specifically for today's instructional and meeting spaces. They're essential AV system components made for simple user operation to deliver lesson material in both traditional and hybrid classrooms, lecture halls, and other presentation environments.



### Universal Connectivity

Universal AV format compatibility with HDMI, DisplayPort, and USB-C



### USB Hub

Centralized management of local and remote USB devices



### USB-C Interfacing

Single-cable connection for AV data up to 60 watts



### Simple Operation

Connect and present with automatic switching and display control

## Atlona Omega Products



USB-C/HDMI Switcher, Mixer Amplifier, and USB Hub

**AT-OME-CS31-SA-C**



Wallplate Transmitter for USB-C with USB Hub

**AT-OME-EX-TX-WPC**



5x2 Matrix Switcher with USB and Wireless Link

**AT-OME-MS52W**



HDBaseT Receiver for HDMI with USB

**AT-OME-EX-RX**



Wallplate HDBaseT Extender with HDMI Input and USB Hubs

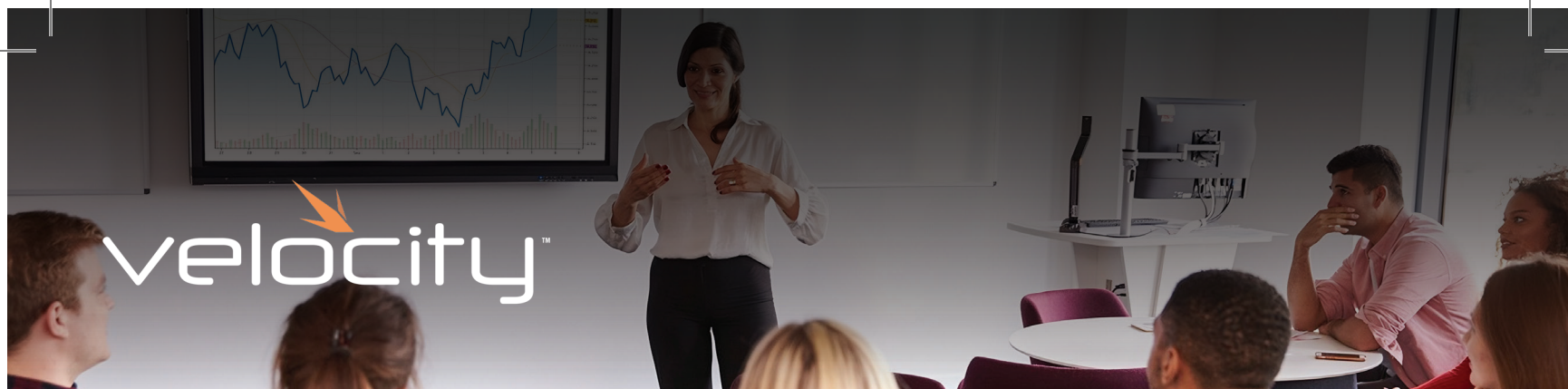
**AT-OME-EX-WP-KIT-LT**



2x1 Switcher with USB-C and HDMI Inputs plus USB Hub

**AT-OME-MH21-CP**





## AV control, scheduling, configuration, and management

Atlona **Velocity™** is an innovative IP-based control platform that offers a comprehensive set of capabilities for modern AV installations. It saves valuable time with the ability to configure control systems quickly as well as modify functionality free of extensive programming. In addition to AV control, Velocity includes calendar integration for room scheduling touch panels, centralized configuration of AV devices, and remote management from the cloud.



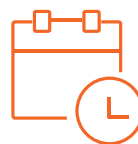
### Keypad-Touch Panel-BYOD

AV control at the touch of a button on a keypad, touch panel, or personal device



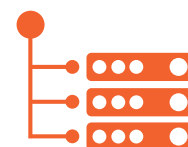
### Fast Configuration

Configure control systems quickly with intuitive navigation and menus



### Room Scheduling

Supports calendar integration with Google Workspace™, Office 365™, Exchange®, and Astra Schedule



### Device Manager

Centralized discovery, setup, and firmware / credential updates for Atlona devices

## Atlona Velocity Products:



Velocity 8 Button Keypad Controller

**AT-VKP-8E**



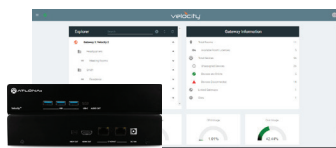
Velocity All-In-One 10" Touch Panel with Gateway

**AT-VTPG-1000VL**



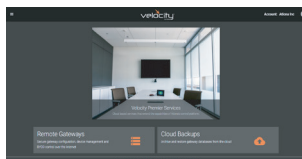
Velocity 7" Touch Panel

**AT-VTP-700VL**



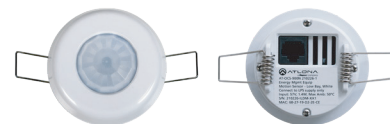
Velocity Hardware & Software Gateways

**AT-VGW-HW · AT-VGW-SW**



Remote Configuration, Management, and Control

**AT-VPS-RG**



Network-Enabled Occupancy Sensor

**AT-OCS-900N**

# Standard Classroom

## Challenge

Standard classrooms are where the majority of K-12 and higher education students receive the bulk of their instruction. Modern spaces include audiovisual components for sharing content from a variety of sources to support the lesson. In addition, it is critical that these rooms are easy to use, allowing teachers to concentrate on instruction instead of operating the AV system.

## Solution

Atlona enables powerful and efficient classroom systems. We design advanced presentation and collaboration technologies into easy-to-integrate devices and provide flexible means of control. Features such as AV switching for local and remote sources, USB routing, audio mixing, amplification, and more support enhanced learning environments where student instruction and learning come first.

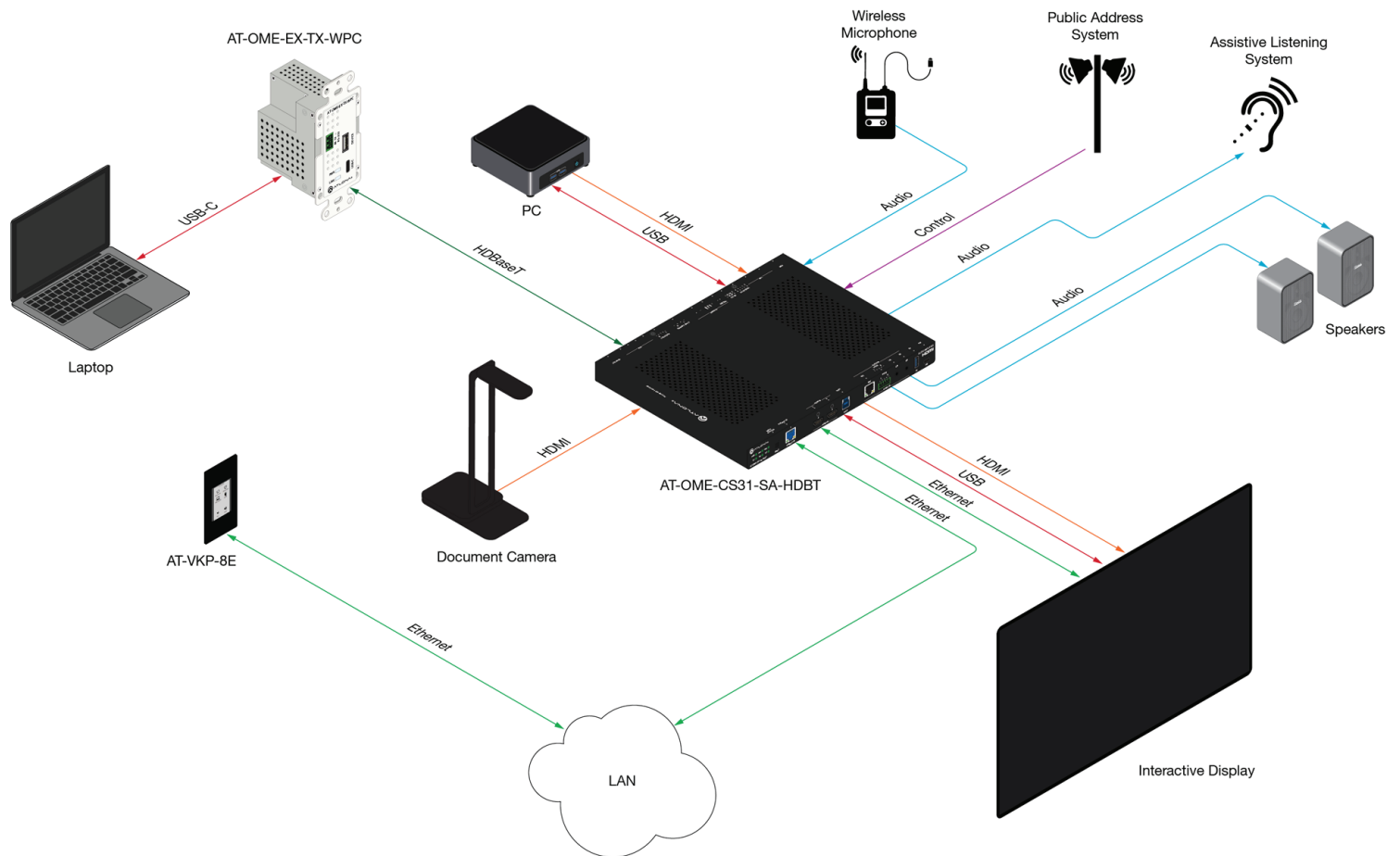


The **AT-OME-CS31-SA-HDBT** is a key component for enhancing the presentation and collaboration capabilities of today's classrooms. It supports 3x1 switching between one HDBaseT™ input and two HDMI® inputs for interfacing with common sources such as laptops, computers, and document cameras. A projector or display may be connected to the HDMI output. The HDBaseT input supports extension of video up to 4K/60 4:2:0, plus control, Ethernet, and USB over distances up to 330 feet (100 meters). For audio, the OME-CS31-SA-HDBT can mix three line inputs, de-embedded HDMI, and USB audio into its 50-watt amplifier and line level outputs. The USB 3.0 hub integrates two host computers with up to four peripherals such as cameras, speakerphones, or an interactive display. Additional features include ducking that automatically lowers program audio when the teacher speaks into their microphone and PA sense to mute audio when a school announcement is detected.

The OME-CS31-SA-HDBT includes automatic display control and auto-switching that allows the system to be turned-on or an input selected by simply connecting a source. If a physical user interface is desired, the system can be controlled by a **AT-VKP-8E** keypad controller or Velocity™ touch panel control system.



# Standard Classroom



# HyFlex Classroom

## Challenge

More than ever, schools and students are looking for alternatives to traditional methods of conducting and attending classes. Leading educational institutions are currently pursuing a hybrid / flexible, or HyFlex, course model that provides a variety of options for delivering lesson materials. HyFlex classrooms must include AV technology that facilitates live face-to-face and online instruction (synchronous), while also allowing students to view recorded course content on demand (asynchronous).

## Solution

The Atlona **AT-OME-MS42** matrix switcher provides AV and USB connections for the instructor's laptop and the room PC. The HDBaseT output of the switcher connects to an Atlona **AT-OME-EX-RX** receiver that supplies video and control signals to the display device.

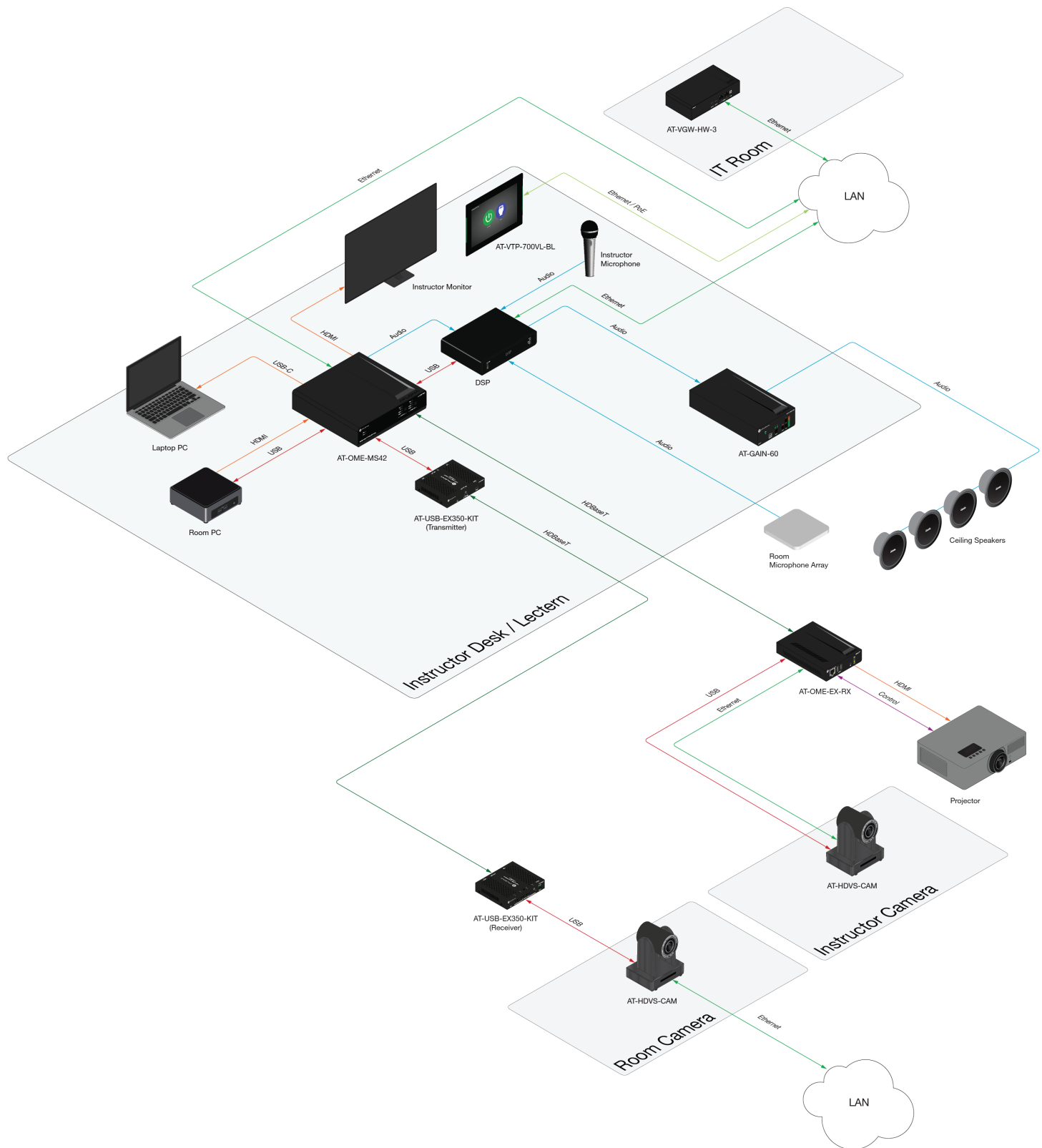
The classroom has two Atlona **AT-HDVS-CAM** PTZ cameras. One is focused on the instructor, and its USB signal is routed back to the switcher through the OME-EX-RX receiver. The second camera faces the classroom and uses the **AT-USB-EX350-KIT** USB 3.2 Gen 1 extender to route its USB signal back to the OME-MS42. An audio digital signal processor, or DSP, provides instructor and room microphone audio to the switcher over USB. These signals are available to the Zoom or Microsoft® Teams® conferencing application running on the instructor laptop or room PC, allowing selection of the instructor's microphone and camera during lectures, or the room microphone and camera for group discussions between in-class and online students. Recordings of the lesson are uploaded to a learning management system for later, on-demand use.

An intuitive graphical user interface, or GUI, on the Atlona Velocity **AT-VTP-700VL** touch panel and **AT-VGW-HW-3** hardware gateway act as the control system for the room. User input from the touch panel, or a BYOD smartphone or tablet, controls system power, source selection, audio level, and camera presets.





# HyFlex Classroom



# Lecture Hall

## Challenge

Lecture halls today need much more than a computer and a projection screen. They require the flexibility to deliver content on multiple screens and allow presentation from various locations to suit a variety of teaching styles. AV systems must accommodate multiple AV sources, allow integration of audio equipment including microphones, and support remote learning.

## Solution

The Atlona Omega™ Series **AT-OME-PS62** 6x2 matrix presentation switcher with USB hub is the heart of a lecture hall system for management of AV signals. Mounted at the instructor's podium, it provides connections for primary AV sources including laptop, room PC, document camera, remote podium, and PTZ camera. The HDBaseT output of the OME-PS62 connects to an **AT-OME-EX-RX** receiver for the large format projector and supports extension of AV, Ethernet, control, and USB signals up to 330 feet (100 meters) over a single shielded Category 6A cable.



The second output of the switcher is connected to an **AT-HDR-CAT-4ED** four output extended distance HDBaseT distribution amplifier that sends content up to 330 feet to **AT-HDR-EX-100CEA-RX** receivers connected to supplemental repeater displays in the room as well as an overflow room display if needed.

At student/guest podium is available as a second location for AV presentation. It includes an **AT-OME-TX11-WP** wallplate HDBaseT transmitter with HDMI input that delivers content from a user's BYOD laptop back to the OME-PS62.

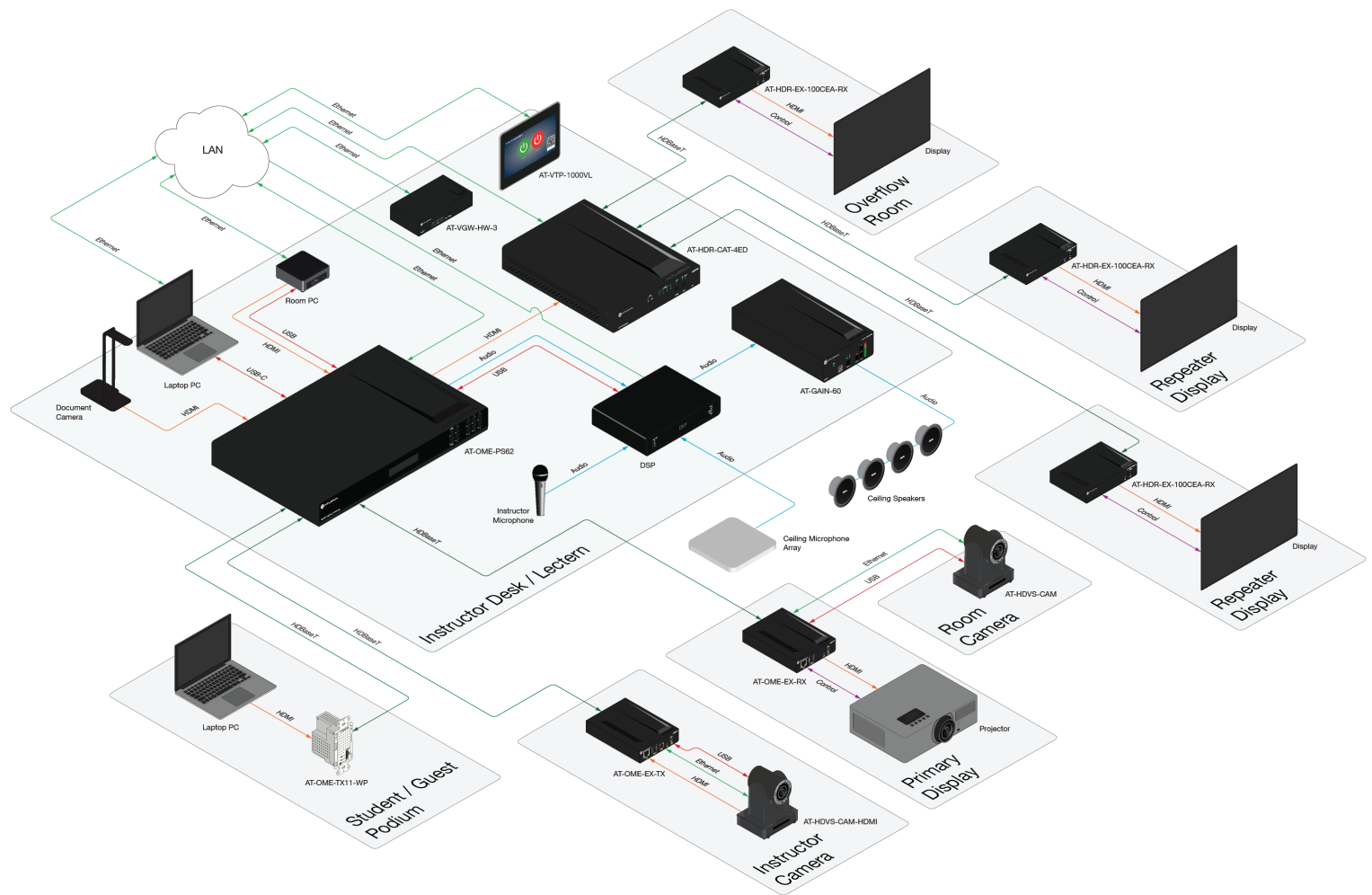
USB integration is a key element of this solution, providing the audio and video functionality necessary for common video conferencing applications that support remote learning. The system allows routing of the instructor's microphone and **AT-HDVS-CAM-HDMI** PTZ camera for direct instruction, or the room microphone and HDVS-CAM PTZ camera for group discussions between in-class and online students.

An intuitive graphical user interface, or GUI, on the Velocity™ **AT-VTP-1000VL** 10" touch panel provides convenient access to AV functions with the AT-VGW-HW hardware gateway acting as the central control processor for the system. Over network connections, the gateway takes user input from the touch panel to send power commands to the projector and displays, select switcher sources, adjust audio settings, and select a preset or PTZ functionality for either the instructor or classroom camera.

A third-party digital signal processor is dedicated to routing audio for the system. Instructor and room microphones are presented to the conferencing software as USB devices. Audio from the OME-PS62 sources are also routed through the DSP and on to the Atlona **AT-GAIN-60** amplifier, which supplies up to 60 watts of power to speakers mounted in the ceiling.



# Lecture Hall



# Active Learning Classroom

## Challenge

Technology enhanced active learning classrooms need to combine both direct instruction and small group collaboration. The AV technology must allow instructors to share lesson content, from a variety of sources at their lectern, to a large format display at the front of the room as well as the displays at student pods throughout the room. Then, when it's time for group work, students should be able to share content from their BYOD devices on the display associated with their pod.

## Solution

A networked AV system such as Atlona **OmniStream™** is an ideal fit for this active learning environment because it allows for unrestricted routing of AV signals. Sources from various locations, such as the lectern and student pods, are encoded onto a managed Gigabit network, and routed decoders connected to the various displays. A Velocity touch panel control system allows the instructor to easily determine which sources are shown on each display.



The instructor's lectern includes an AT-OMNI-111 networked AV encoder that interfaces with the Omega™ **AT-OME-SW32** three input switcher for laptop, room PC, and document camera sources.

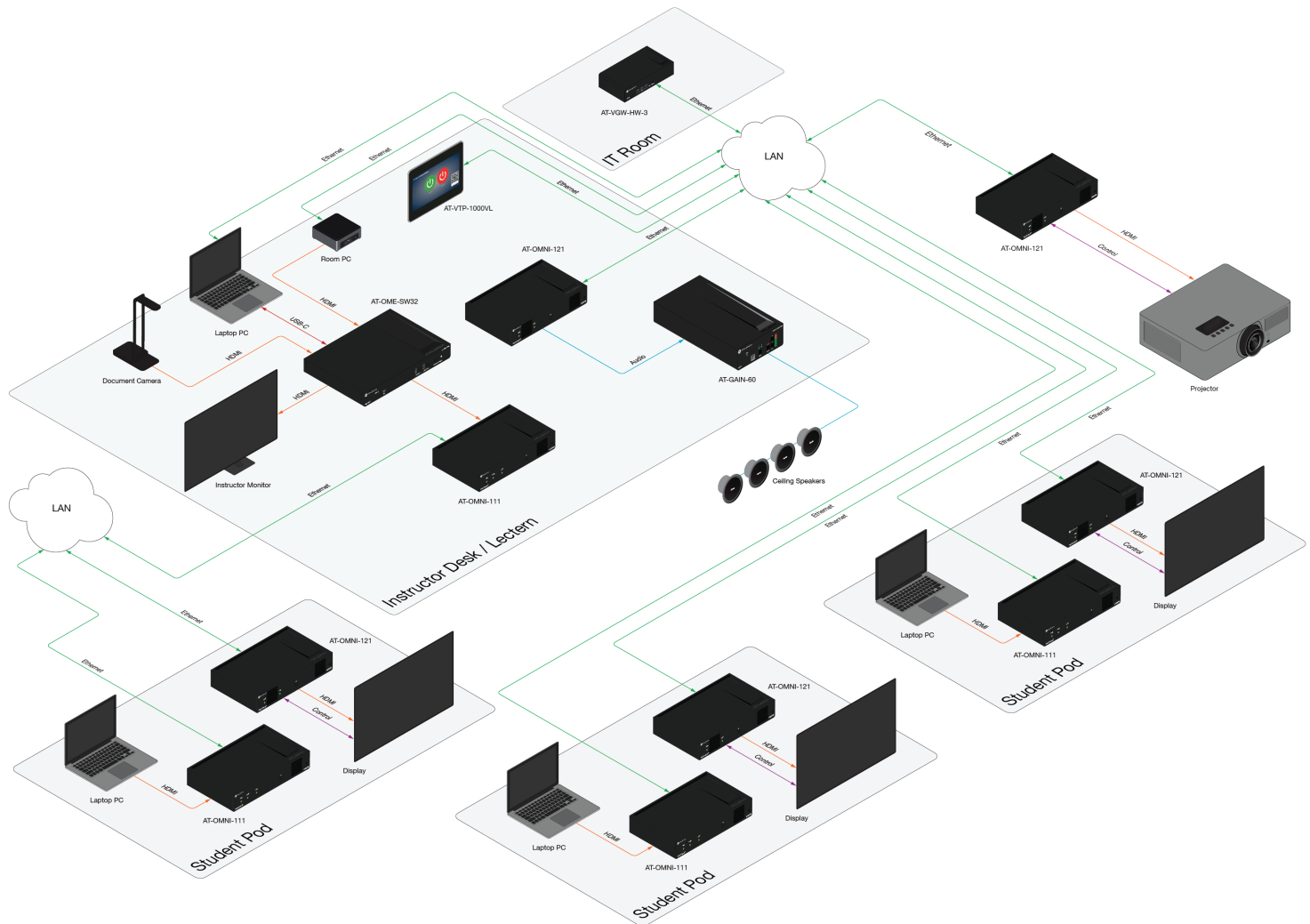
Each student pod includes an AT-OMNI-111 encoder that interfaces with a student's laptop and an AT-OMNI-121 decoder connected to the local flat-panel display. AV over IP allows student content to be shared at their pod, or the instructor can share student content to all displays.

An OMNI-121 at the lectern feeds the **AT-GAIN-60** power amplifier allowing audio from any source to be routed to a series of speakers distributed throughout the room. The OMNI-121 at the projector decodes content for the large format display.

A managed Gigabit network switch serves as the hub of the networked AV system, with sufficient power to deliver PoE to all OmniStream endpoints.

Atlona's Velocity™ **AT-VGW-HW** gateway facilitates system setup, management, and control. The **AT-VTP-1000VL** touch panel allows the instructor to select from a series of display modes, each with a set of intuitive user controls.

# Active Learning Classroom







Copyright © 2025, Atlona Inc., a division of Hall Research. All Rights Reserved.  
Dolby, Dolby Vision, and the double-D symbol are trademarks of Dolby Laboratories.  
All other brand names and trademarks or registered trademarks are the property of their respective owners.