

The modern courtroom is filled with AV technology. Video testimonies, crime scene footage, 3-D renderings, and other sources from computers, media players, and document cameras are incorporated into the case for all to see. In addition, a range of outputs to accommodate projectors, monitors, and annotation displays provide accurate imaging for lawyers presenting as well as judge, jury, and public viewing.

Needs Assessment

Purpose	Create a comprehensive and flexible system that allows AV content to be shared from a variety of sources as well as be viewed and annotated in multiple locations
Display	Large format display for the entire courtroom, multiple monitors for jury, annotation displays for judge, lawyers, and witnesses
Sources	Computer and laptops from multiple locations, document camera, annotation processor
Control	Provide intuitive access for turning displays on and off, routing video sources to monitors and displays, and adjusting audio levels
Audio	Distribute program audio throughout the room
Cable	Select the appropriate Category cabling system for Ethernet data



AV Routing

Atlona **OmniStream™** is a flexible, scalable, and cost-effective AV over IP distribution platform that is ideal for courtroom deployments.

There are several key locations in this application that require the ability to present, view, and annotate video content including lawyer desks, bench, and lectern. The desks and bench include the Atlona **AT-OMNI-111** networked AV encoder that accepts an HDMI input from a laptop or PC. **AT-OMNI-121** networked AV decoders provide HDMI to the annotation displays for interactive review of content from any presentation source. The lectern houses two AT-OMNI-111 encoders, one to accept HDMI from the laptop and the other from the document camera. Since the witness area is not for presenting material, it only has an OMNI-121 decoder for HDMI to the annotation display.

The jury area and main room display allow panelists and the public to view both video content and annotations from parties. The main large format display receives HDMI from an OMNI-121 decoder.

For the jury area, HDMI from an OMNI-121 decoder goes into a **AT-RON-444** distribution amplifier to show the same content on four displays.

In the equipment room, an OMNI-121 decoder receives video content from the presentation locations and supplies HDMI to the annotation processor. The HDMI output of the processor goes to an OMNI-111 encoder which can then be routed over the network to the various decoders and displays throughout the courtroom.

USB

Each location with an annotation display including lawyer desks, bench, lectern, and witness box have an **AT-OMNI-324** IP to USB adapter that accepts USB user inputs from the display. Those signals are carried over the IP network to the equipment room that has an **AT-OMNI-311** USB to IP adapter which provides the USB controls to the annotation processor.

Control

An intuitive graphical user interface, or GUI, on the two **AT-VTP-1000VL** 10" **Velocity™** touch panels provide convenient access to AV system functions to the judge or the clerk/bailiff. The **AT-VGW-HW-20** Velocity hardware gateway acts as the central control processor for the system. Over network connections, the gateway takes user input from the touch panels, allowing the judge or clerk/bailiff to select the appropriate video source, adjust audio levels, and turn displays on and off.

Audio

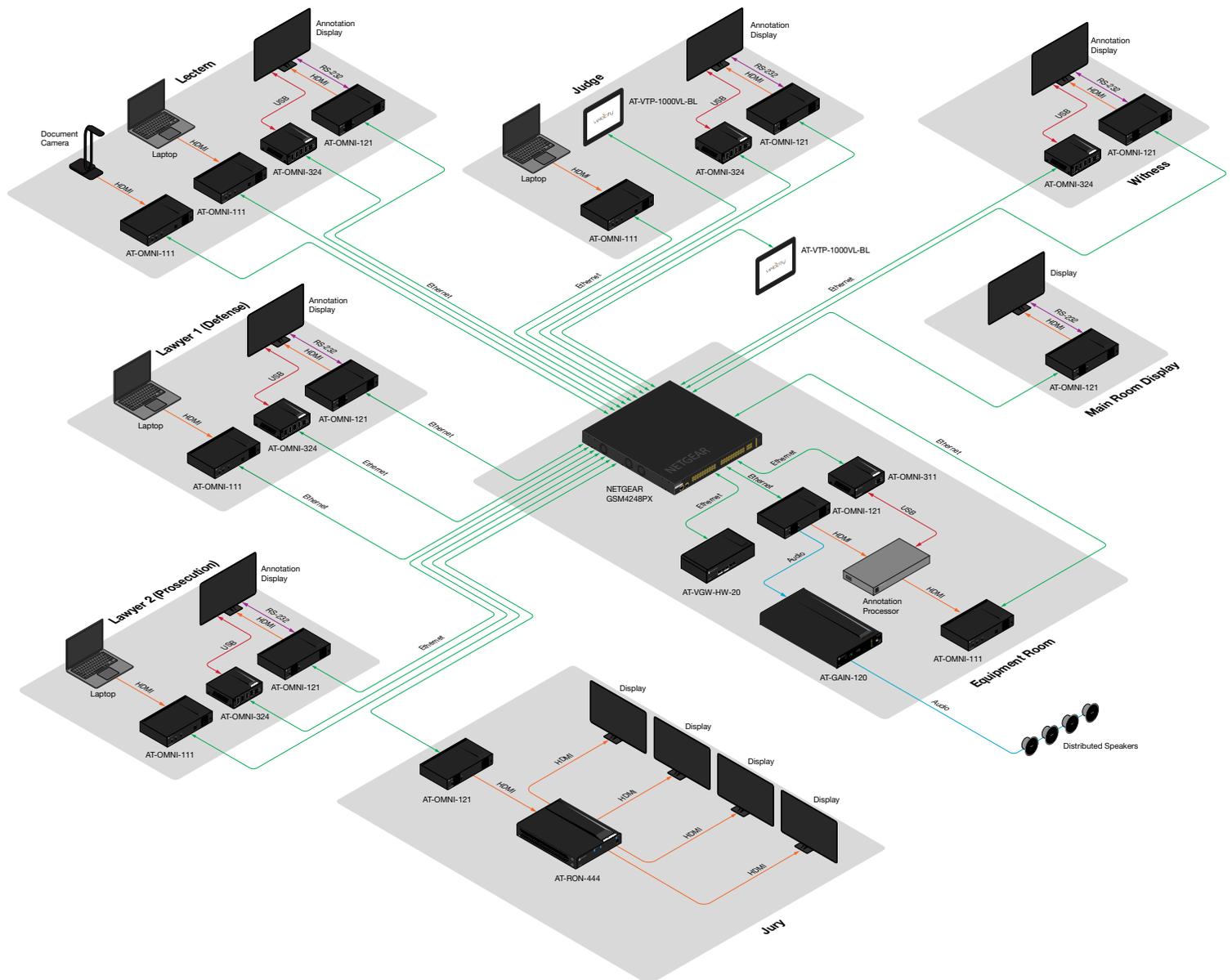
The OMNI-121 decoder in the equipment room provides program audio to the **AT-GAIN-120** amplifier which supplies 120 watts of power to ceiling speakers located throughout the courtroom.

Network Switch

The **NETGEAR-GSM4248PX** available from Atlona is a 40 port Gigabit managed network switch designed specifically for AV over IP systems. It is preconfigured for out-of-the-box, streamlined integration with OmniStream encoders and decoders. In addition to handling network traffic related to the system, it includes PoE to remotely power the endpoints.

Cabling and Connectivity

Panduit unshielded Category 6A cabling provides the highest performance and optimal reliability for delivery of LAN data to connected AV equipment.



Courtroom Bill of Materials

QTY	Description	SKU
6	OmniStream Networked AV Encoder	AT-OMNI-111
8	OmniStream Networked AV Decoder	AT-OMNI-121
5	OmniStream IP to USB Adapter	AT-OMNI-324
1	OmniStream USB to IP Adapter	AT-OMNI-311
1	Four-Output HDMI Distribution Amplifier	AT-RON-444
2	Velocity 10" Touch Panel	AT-VTP-1000VL-BL
1	Velocity Hardware Gateway	AT-VGW-HW-20
2	Tabletop Mount for Velocity 10" Touch Panels	AT-VTP-VTM
1	120 Watt Power Amplifier	AT-GAIN-120
1	Managed Network Switch for OmniStream Systems	NETGEAR-GSM4248PX
	Panduit Vari-MaTriX HD Category 6A Copper Cable	PUP6AHD04BU-G
	Panduit Category 6A RJ45 UTP Jack Module	CJ6X88TGBU
	Panduit Category 6A UTP Field Term RJ45 Plug	FP6X88MTG
	Panduit Category 6A 28 AWG UTP Patch Cord	UTP28X7BU
	Laptops, document camera, monitors, annotation displays, annotation processor, document camera, speakers, and miscellaneous cabling	Furnished by others



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