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## DM NVX<sup>®</sup> AV-Over-IP Sales Toolkit

# Everything you need to know

The #1 AV-over-IP solution across enterprise, education, medical, government, entertainment and esports industries.





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# AV-over-IP

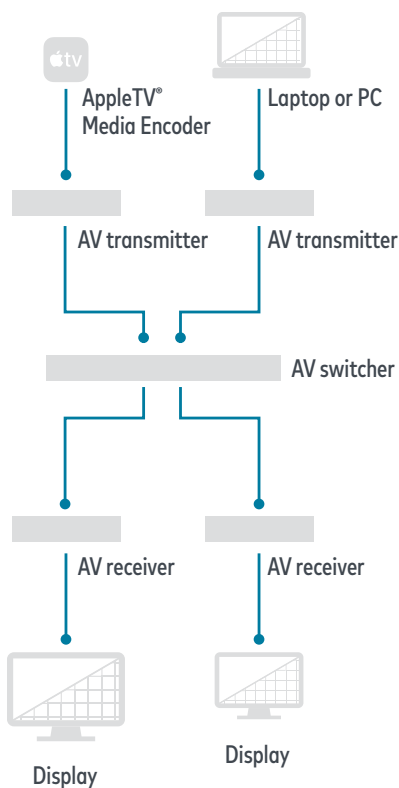
## What is AV-over-IP

AV-over-IP stands for Audio-Visual over Internet Protocol. It is the transmission of audio-visual data over a network (LAN). As the demand for higher quality content sent and received in real time grows, so does the demand for AV-over-IP solutions.

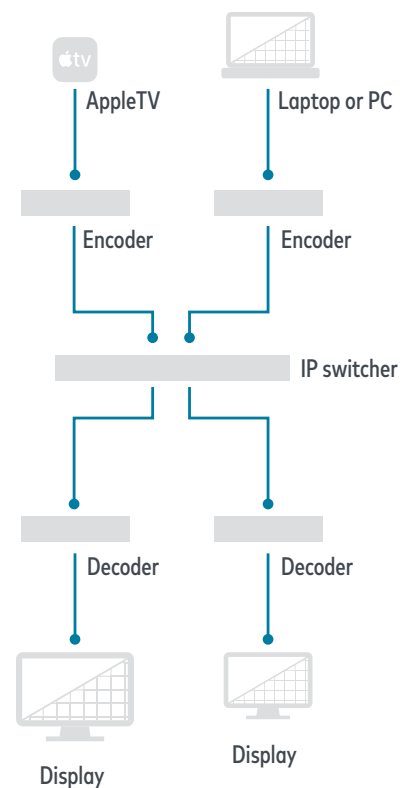
## How does AV-over-IP work

Unlike traditional AV solutions that employ AV switchers to send and receive audio and video signals, AV-over-IP utilizes standard network equipment to transmit and switch video and audio.

### Typical HDBaseT® Setup



### Typical AV-over-IP Setup



# DM NVX®

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## What is DM NVX

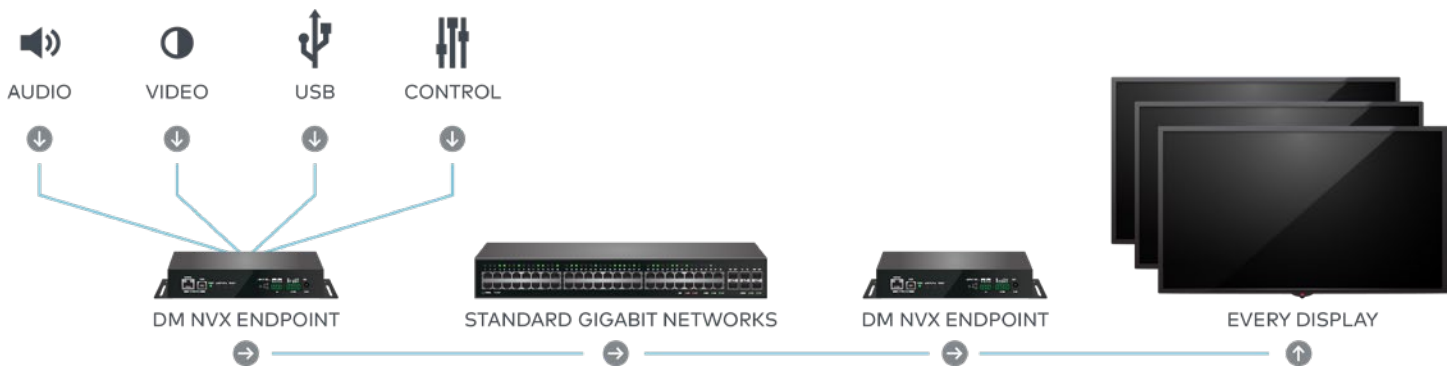
DM NVX® is Crestron's AV-over-IP solution. Technology that has been successfully deployed throughout the workplace, the world of education, entertainment, medicine, and the public sector.

DM NVX is a 1Gb network AV solution that works with any network, any application, any design, anywhere. It gives every organization the ability to get video, audio, USB, and device control, wherever you need them on the network.

Crestron goes beyond most networked AV solutions. DM NVX units can function as either a network AV encoder or decoder. That means you don't have to decide in advance whether you'll need an encoder or decoder for a certain location. Simply deploy the NVX units and make your selection during installation from the drop down menu.



# Features & Support



## Multi-layered Technology

DM NVX routes, distributes, manages all of your video, audio, USB, and device control signals. All of their content (not just some of it) is routed through a single unit. Which provides lower costs, greater flexibility and efficiency.

### AUDIO

Route any audio signal on the network. Supports the lossless transport of 7.1 surround sound audio signals, and stereo audio breakaway, across your entire network. AES67 is supported across the product range, while Dante and downmixing are available on select models.

### VIDEO

The only network AV solution with Pixel Perfect Processing. Every format including 4k60, 4:4:4 and HDR, is picture perfect every time. DM NVX is the standard for network AV.

### USB

USB 2.0 routing for use with a wide range of peripherals: keyboards, mouse, gaming controllers.

### CONTROL

Uses standard protocols to expand control across entire network providing greater flexibility. One box does providing greater system efficiency and easier management.

### NETWORK CAPABILITIES

The only 1Gb solution that works with any network, any application, any design. Complete with a full range of enterprise and government security features.



## DM NVX Hardware

DM NVX is an ecosystem of endpoints, each with unique functionality that act as one. DM NVX allows you and your customers to choose the features needed without sacrificing performance or interoperability. DM NVX. It is everything you need, nothing you don't.

	DM-NVX-363	DM-NVX-351	DM-NVX-360	DM-NVX-E30	DM-NVX-D30	DM-NVX-D80
	Encoder & Decoder			Encoder	Decoder	
<b>Video</b>						
Pixel Perfect Processing	✓	✓	✓	✓	✓	✓
4K60	✓	✓	✓	✓	✓	✓
4:4:4	✓	✓	✓	✓	✓	✓
HDR	✓	✓	✓	✓	✓	✓
HDR10+	✓		✓			
Dolby Vision®	✓		✓			
<b>Audio</b>						
Stereo 2-Channel	✓	✓	✓	✓	✓	✓
Digital HDMI	✓		✓			
DSP Downmix	✓	✓				
Dante	✓					
Audio Standards	AES67 • Dolby Digital® • Dolby Digital EX • Dolby Digital Plus • Dolby® TrueHD • Dolby Atmos® • DTS® • DTS-ES • DTS 96/24 • DTS-HD • High Res DTS-HD Master Audio™ • LPCM up to 8 channels					
<b>Connectivity</b>						
HDMI Input	1	2	1	1	N/A	N/A Direct-to- display
HDMI Output	1	1	1	N/A	1	
Power Supply	PoE+	UPoE	PoE+	PoE+	PoE+	via Display
<b>Security</b>	802.1x / AES-128 / Active Directory® / TLS / HTTPS / SSH / SSL / SFTP					

## Unite HDBaseT with AV-over-IP



**DM-NVX-E760** enables the ability to bridge traditional AV systems with AV-over-IP, leveraging existing IP networks – giving you the best of all AV distribution platforms.

- An endpoint that bridges DM and HDBT outputs to a DM NVX network
  - Fully interoperable with current DM NVX ecosystem
  - Native integration of Crestron DM®, DMPS® and DM Lite® systems to DM NVX
- 1-Gang wall plate solution
  - 4K60 4:4:4 support when pairing a DM-TX-4KZ-100-C-1G
  - 4K60 4:2:0 when pairing with a HD-TX-101-C-1G-E
- Ideal solution for applications that require integrating AV-over-IP into existing HDBaseT systems or expanding an existing room system for broader distribution
- Native support for audio over IP to integrate with DM NVX and 3rd party systems

## What you need to Integrate HDMI® Sources with DM NVX AV-over-IP

**USB over IP Network Extenders** transports USB signals over the network

A range of USB Extenders that give you the ability to connect USB peripherals at multiple locations throughout a business or educational facility and route them to one or more different devices or displays over the local ethernet network. Consider the applications: KVM (Keyboards and mice), UC (cameras, mics and headsets), and e-gaming (controllers, and thumb drives).

### Card Chassis



### Cables



### USB Extenders



### Fiber Solutions



# Management & Control

## DM NVX Director

- Route content
- Monitor endpoints
- Visualize your AV network
- Manage at a campus level and create logical groups (domains) for your NVX platform. Break them into rooms or groups—whatever suits your business needs
- Visualize your AV network



## Crestron Fusion®

- Analytics and reporting

## Crestron XiO Cloud

- An IoT-based platform
- Manage and update firmware on endpoints
- Monitor online/offline status

Crestron  
**XiO CLOUD**



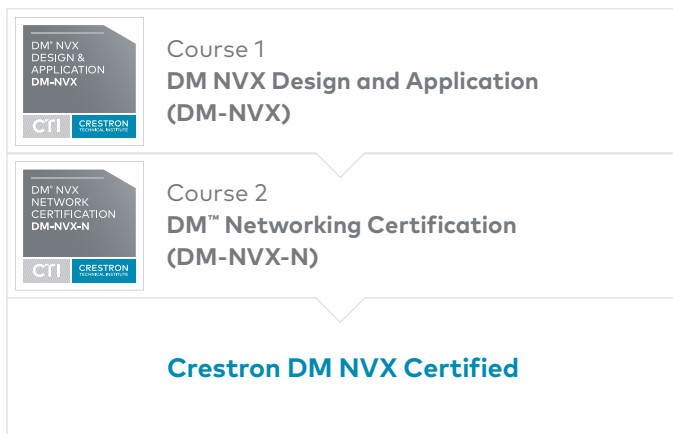


# DM NVX & AV-over-IP Training Pathways

As a sales engineer, you're responsible for planning and managing the distribution of audio and video signals throughout enterprises, campuses or organizations. To continue to grow and develop your skills please see below Training Pathways. To find out more about training, visit [crestron.com/training](https://crestron.com/training)

## DM NVX Pathway

Become **Crestron DM NVX Certified**. Following the completion of this pathway, you will have the skills to successfully design and deploy a DM NVX solution. (Available to Design Engineers, Programmers, Technicians, and Sales.)



## AV-over-IP Pathway

Become **Crestron AV-over-IP Certified**. Following the completion of this pathway, you have the in-depth technical skills to design a complete Crestron networked-based solution for Audio, Video, and Control. (Available to Design Engineers, Programmers, and Technicians.)



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