

## DM NVX Director™ Virtual Switching Appliance, 160 Endpoints



- *Network AV system configuration, management, and signal routing*
- *Compatible with Crestron® DM NVX® encoders and decoders*
- *Support of 160 endpoints and 20 domains*
- *Fully scalable for a network of any size*
- *Intuitive web-based graphical user interface*
- *Full programmable control of virtual matrices and physical endpoints*
- *Automatic endpoint device discovery*
- *Interdomain routing*
- *Multicast address control*
- *Credential management of DM NVX endpoints*
- *Custom naming and search tools*
- *Easy diagnostics and signal status display*
- *XML device map file import and export*
- *Built-in logging*
- *Multiple control system support*
- *XiO Cloud® service support*
- *Four 1000BASE-T RJ-45 ports*
- *1 RU 19-inch rack mountable*
- *Universal 100-240V internal power supply*

The Crestron DM-NVX-DIR-160 is an enterprise-grade network appliance that facilitates configuration, control, and management of a large-scale AV network using [DM NVX®](#) encoder and decoder endpoints. The DM-NVX-DIR-160 virtually emulates the functionality of a traditional hardware-based DM® matrix switcher, routing high-quality 4K streaming AV signals throughout a room, building, or campus.

The DM-NVX-DIR-160 supports a maximum of 160 DM NVX endpoints. Multiple DM NVX Director™ network appliances can be deployed to handle corporate enterprise, university, government, military, medical, transportation, sports, entertainment, hospitality, gaming, and retail applications.

### Simple and Flexible Configuration

The DM-NVX-DIR-160 automatically discovers up to 160 DM NVX endpoints on the network and enables each endpoint to be assigned as a logical input or output within a domain. Up to 20 domains are supported. For larger systems, multiple DM-NVX-DIR-160 network appliances can be used. Alternatively, the [DM-NVX-DIR-ENT](#), which supports 240 domains and includes additional enterprise features, can also be used.

### Easy Web-Based Setup and Control

The DM-NVX-DIR-160 provides an intuitive web-based user interface to facilitate system configuration, signal routing, and diagnostics of the complete AV network. Each domain and endpoint, as well as the inputs and outputs of each endpoint, can be designated with a user-friendly name. Navigating the entire system is easy using the search box to quickly find domains, endpoints, inputs, and outputs by name or address. A system overview screen is also provided, showing the video and audio signal status for every input and output in a graphical layout that is easy to view and navigate.

### Interdomain Routing

Video inputs can be routed to video outputs within a single domain. In addition, support of interdomain routing enables video inputs within a domain to be routed to video outputs of one or more other domains. Routing control of AV signals is accomplished by using the web interface or control system programming.

### Multicast Address Control

A custom multicast range can optionally be assigned for DM NVX encoder and decoder endpoints within a domain. The custom multicast range is determined by the assignment of a starting multicast address, the number of multicast addresses assigned to each DM NVX endpoint, and the number of DM NVX endpoints assigned to a domain. Multicast address control is accomplished by using the web interface.

### Credential Management of DM NVX Endpoints

Username and password credentials can be changed simultaneously for all DM NVX encoder and decoder endpoints within a domain. Alternatively, the username and password can be changed for only particular DM NVX endpoints within a domain. Username and password credential management is accomplished by using the web interface.

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### Multiple Control System Support

The DM-NVX-DIR-160 supports Crestron 3-Series® or later control systems. A single control system, referred to as the Global Domain control system, can be assigned to all domains simultaneously. In addition, support of multiple control systems enables the Global Domain control system or another control system, referred to as a Domain control system, to be assigned to each domain on an individual basis. The Domain control system that is assigned on an individual basis must be different for each domain. Assignment of multiple control systems is accomplished by using the web interface or control system programming.

### XiO Cloud® Service Support

The DM-NVX-DIR-160 is compatible with the Crestron XiO Cloud service, which is an IoT (Internet of Things) platform for remotely provisioning, monitoring, and managing Crestron devices across an enterprise or an entire client base. Built on the Microsoft® Azure® software platform and using industry-leading Azure IoT Hub technology, the XiO Cloud service enables installers and IT managers to deploy and manage thousands of devices in the amount of time it previously took to manage a single device. Unlike other virtual machine-based cloud solutions, Azure services provide unlimited scalability to suit the ever-growing needs of an enterprise. For more information, visit [www.crestron.com/xiocloud](http://www.crestron.com/xiocloud).

## Specifications

### Device Support

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**Endpoints:** Supports 160 DM NVX devices, each configured as an encoder or decoder

**Domains:** Supports 20 domains (allows grouping of endpoints in up to 20 individual subsystems)

### Communications

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**Ethernet:** 100/1000 Mbps, auto-switching, auto-negotiating, auto-discovery, full/half duplex, TCP/IP, UDP/IP, CIP, DHCP, SSL, TLS, SSH, IPv4, HTTPS web browser setup and control, Crestron 3-Series® or later control system integration

**DM NVX (via Ethernet):** HDCP 2.2, AES audio/video content encryption, RTP, RTSP, SDP, ONVIF, IGMPv2, IGMPv3, SMPTE 2022, FEC (Forward Error Correction)

### Connectors

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**MGMT (front):** (1) 8-pin RJ-45 connector, shielded, female; 100BASE-TX/1000BASE-T Ethernet port for hardware management

**USB 2.0 (front):** (2) USB Type A connectors, female, black; USB 2.0 host ports for factory use only

**USB 3.0 (front):** (2) USB Type A connectors, female, blue; USB 3.0 host ports for factory use only

**Ethernet 1 – 4 (front):** (2) 8-pin RJ-45 connectors, shielded, female; 100BASE-TX/1000BASE-T Ethernet ports for web browser, endpoint, and control traffic

**100-240V~ 2-4A 50/60Hz (rear):** (1) IEC 60320 C14 mains power inlet; Mates with removable power cord, included

### Controls and Indicators

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**MSG:** (1) Blue LED, identifies the device when the unit identification process is initiated

**Ethernet 1 – 2:** (2) Green LEDs, indicate Ethernet activity on the corresponding Ethernet port

**DISK:** (1) Yellow LED, indicates SSD (solid-state drive) activity

**PWR:** (1) Green LED, indicates the unit is powered on

**RESET:** (1) Recessed push button, initiates a hardware reset

**Power Button:** (1) Push button, initiates boot up or shutdown

**MGMT:** (1) Amber LED and (1) bicolor green/orange LED; indicates Ethernet activity, speed, and link status for the management Ethernet port

**Ethernet 1 – 4:** (1) Amber LED and (1) bicolor green/orange LED per each of (4) ports; each pair indicates Ethernet activity, speed, and link status for the corresponding Ethernet port

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### Power

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**Mains Power:** 4 Amps @ 100-120 VAC, 50/60 Hz;  
2 Amps @ 220-240 VAC, 50/60 Hz

**Power Consumption:** 35 Watts at 100% CPU usage and fan speed

### Environmental

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**Operating Temperature:** 50° to 95° F (10° to 35° C)

**Operating Humidity:** 8% to 90% RH (non-condensing)

**Non-Operating Temperature:** -40° to 158° F (-40° to 70° C)

**Non-Operating Humidity:** 5% to 95% RH (non-condensing)

**Heat Dissipation:** 119.4 BTU/hr

### Construction

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**Chassis:** Metal, black finish; vented front, rear, and sides; variable speed fan cooled

**Mounting:** Freestanding or 1 RU 19-inch rack-mountable (rack ears included)

### Dimensions

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**Height:** 1.72 in. (44 mm)

**Width:** 17.21 in. (437 mm) without rack ears; 19.00 in. (483 mm) with rack ears

**Depth:** 10.49 in. (267 mm) without rack ears

### Weight

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10 lb (4.54 kg)

### Compliance

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**Regulatory Model:** DM-XIO-DIR-160

UL® Listed for US and Canada, CE, IC, FCC Part 15 Class B digital device

### Model

**DM-NVX-DIR-160:** DM NVX Director™ Virtual Switching Appliance, 160 Endpoints

### Accessories

For a list of accessories, visit the [DM-NVX-DIR-160](#) product page.

This product may be purchased from select authorized Crestron dealers and distributors. To find a dealer or distributor, please contact the Crestron sales representative for your area. A list of sales representatives is available online at [www.crestron.com/How-To-Buy/Find-a-Representative](http://www.crestron.com/How-To-Buy/Find-a-Representative) or by calling 855-263-8754.

This product is covered under the Crestron standard limited warranty. Refer to [www.crestron.com/warranty](http://www.crestron.com/warranty) for full details.

The specific patents that cover Crestron products are listed online at [patents.crestron.com](http://patents.crestron.com).

Certain Crestron products contain open source software. For specific information, please visit [www.crestron.com/opensource](http://www.crestron.com/opensource).

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