Smart-AVI
SMART AUDIO VIDEO INNOVATION

N2N-AVH300

Low-Bandwidth 4K AV-Over-IP, Powered By H.264 / H.265

N2N-AV is a network-based AV distribution platform that lets operators view and route video and audio from any source — computer, media player, camera, or other HDMI/DisplayPort device — to any display, over standard IP infrastructure, with no software installed on the source.

N2N-AV HARDWARE PLATFORM · 4K UHD

No source-side software · CAT5 or fiber Browser-based routing

Designed and Manufactured in the USA

FEATURES AND CAPABILITIES FOR REMOTE SERVER MANAGEMENT

- Distribute multiple sources from one network
- Use less network bandwidth with H.264/H.265 compression
- View several systems on one screen with multiview
- Switch between sources quickly and seamlessly
- Manage devices through desktop manager or web console
- Support HDMI and DisplayPort systems
- Accepts computer, media player, camera, and other AV sources
- Adapt the platform for OEM or custom projects

N2N-AV APPLICATIONS

Centralized browser-based monitoring, viewing, and distribution across multiple locations.

Command & Control Center

Data Center Operations

Security Monitoring

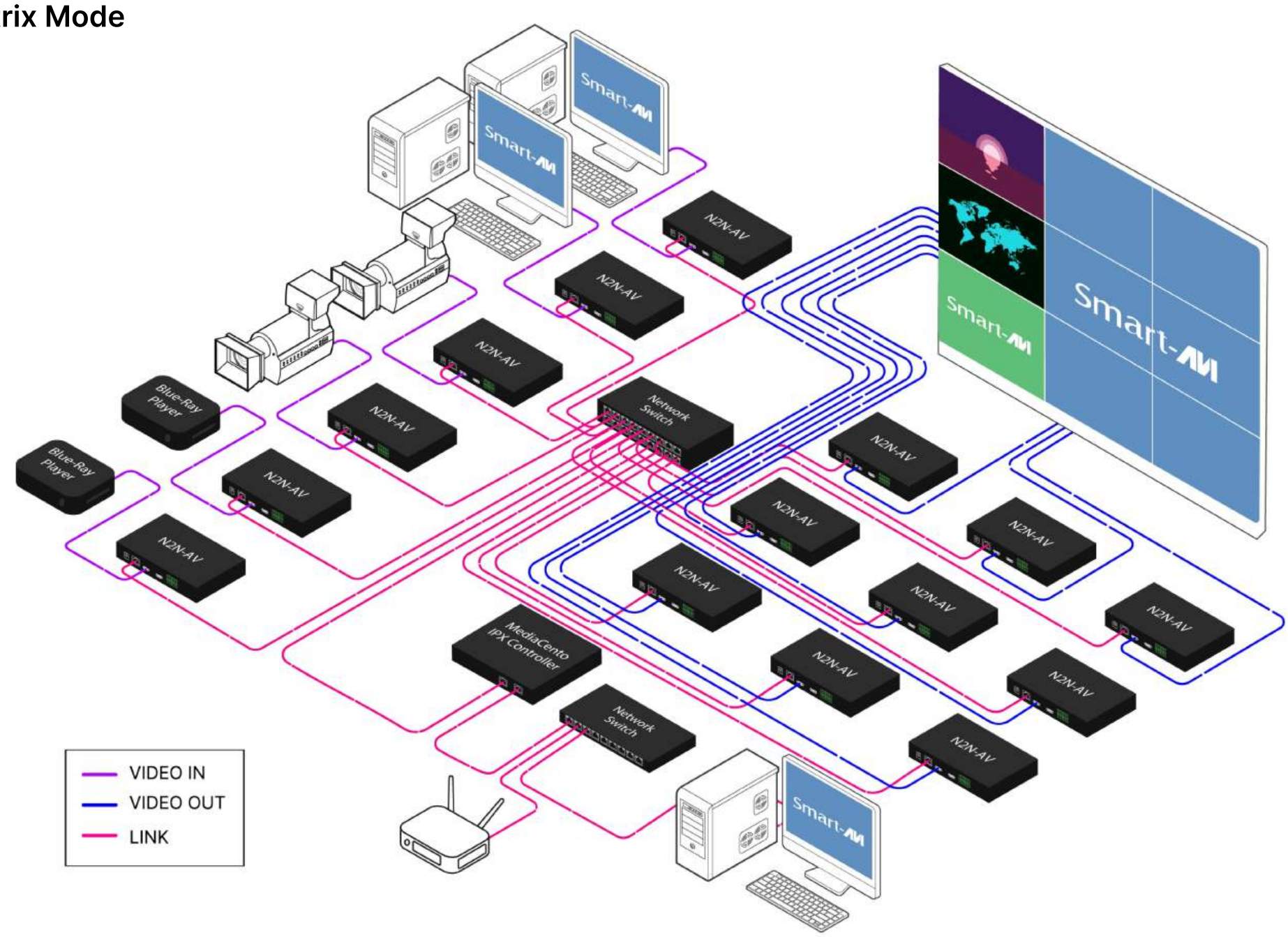
Server Room Management

AV / Multimedia Control

Conference & Collaboration

N2N-AV lets an operator view, monitor, and route video and audio from computers, media players, and cameras — from one centralized workstation, no proprietary matrix hardware or source-side software required.

Matrix Mode



What travels over the network:

- **AV stream:** Live HDMI/DisplayPort video delivered with H.264/H.265 compression for clear, low-latency distribution
- **Audio:** Stereo audio carried alongside video to the decoder
- **Matrix switching:** Any source routed to any display via desktop app, browser, or OSD
- **Multiview:** Several sources composited onto one display in flexible grid layouts
- **Video walls:** A single source stretched across multiple decoders and monitors

Low bandwidth. Real-time control. No source-side software. Designed and built in the USA.

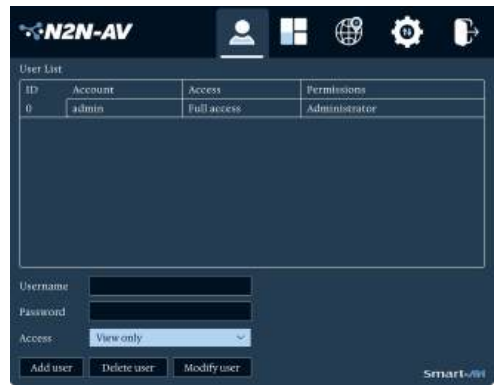
COMPLETE CONTROL, FROM THE SCREEN TO THE WORLD

The N2N-AV Series gives every user in the system the right level of control — from a single on-screen menu at the desk, to full administrative command of the network, to a browser-based console reachable from anywhere in the world.

1. Local Control via OSD (On-Screen Display)

Every user gets instant, local control at the point of use — no software or login required.

- Select any transmitter on the network to view and control, directly from the on-screen menu.
- Choose multiple encoders at once to build custom multi-view layouts (single, 1×2, 2×2, and beyond).
- Rename sources and receivers for fast, clear identification across the system.



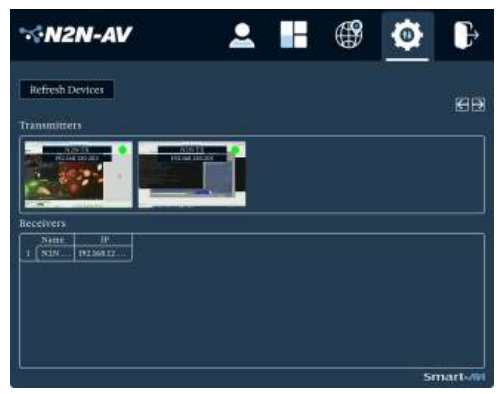
2. N2N Manager — the Administrator's Command Center

N2N Manager is the ultimate solution for administrators, delivering full visibility and control of every encoder and decoder on the network from one desktop application.

- View and route any encoder or decoder on the network from a single dashboard.
- Discover devices automatically, assign device roles, and configure IP addresses across the entire fleet.
- Create user accounts and set granular access permissions by source or group.
- Monitor real-time device status and activity logs system-wide.

2.1 System Settings Interface

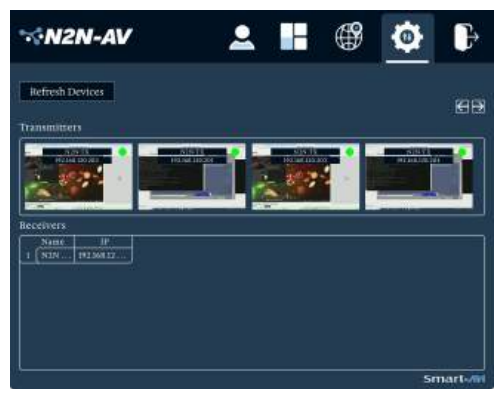
Centralized configuration screen for network, device, and IP settings — the starting point for setting up and maintaining every unit on the system.



3. N2N-AV WebConsole — Control From Anywhere in the World

N2N-AV WebConsole puts the same system-wide reach in a standard web browser — no agent installation required.

- Manage the full system — every encoder and decoder — from any browser, on any network.
- Access and operate the system from anywhere in the world with an internet connection.
- Gives remote administrators and operators the same reach as being on-site.



At A Glance

Control Layer	Who It's For	Reach
OSD	Any user, at the display	Local — select, view, rename sources on screen
N2N Manager	Administrators	Full network — configure, monitor, and control every device
N2N-AV WebConsole	Admins & operators, remote	Anywhere — full system control via any web browser

Front

Back

SPECIFICATIONS

N2N-AVH300 HDMI CAT5/Fiber 4k30 Encoder/Decoder/Codec

Video	
Video In/Out	Each unit can be setup as encoder or decoder
Encoder In	HDMI 1.4 Compliant, Video Bandwidth Up To 10.2 Gbps Local loop Out HDMI 1.4
Decoder Out	HDMI Port 1.4 Compliant, Video Bandwidth Up To 10.2 Gbps
Video Resolution	Up to 3840x2160x30Hz
Connector	2×HDMI (19-Pin Female)
System	
Interface	EDID Storage & Emulation
Latency	70 ~ 110ms
Protocols Supports	TCP unicast, UDP multicast, RTSP, RTMP
Compression Supports	H.264 / H.265
RS-232	Pass-Through up to 115200
Management	OSD, N2N Manager, N2N-AV WebConsole
Front Panel	LED with IP information
Audio	
Format	PCM 2.0/2.1/5.1/7.1, Dolby Digital 5.1 ch, Dolby Digital Plus, Dolby TrueHD, DTS 5.1 ch
In/Output Interface	3.5 mm Stereo Aux Socket (Female)

Sources		
Compatible With	Computer, media player, set-top box, camera, or any HDMI/DisplayPort AV source	
Local Control	No keyboard/mouse pass-through — pure AV distribution, routed via OSD, N2N Manager, or WebConsole	
Network Interface		
RJ-45 10/100/1000M Transmission Distance	Up To 100 m	
SFP	Single Mode: up to 10 km Multimode: up to 500 m	
Other		
Power	Input Voltage	85~264Vac
	Output Voltage	12V DC 3A 36W
Reliability	(MTBF) 135,540 Hours (MIL-HDBK-217F (N2) Parts Count Prediction Calculator)	
Environmental Operating Temperature	0°C to 45°C (32°F to 113°F)	
Environmental Operating Humidity	10 % to 90 %, non-condensing	
ESD Protection	Protection Per IEC 61000-4-2	
Support Warranty	1-Year	
Certification	CE, FCC, RCM, UL	
Dimensions	210mm x 113mmx30mm	
Weight	0.8kg	

Ordering Information		
Part №	N2N-AVH300-S	N2N-AV HDMI 4k30 cat5/fiber ethernet encoder/decoder Includes: [N2N-AVH300 & PS12VD3A]

A working link requires two units of the same part number, one set as transmitter and one set as receiver. Add one unit per additional source or display. Fiber links require an SFP module and dual single-mode fiber, ordered separately.

Designed and Manufactured in the USA

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