Smart-AVI
SMART AUDIO VIDEO INNOVATION

# N2N-AVH100

## 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

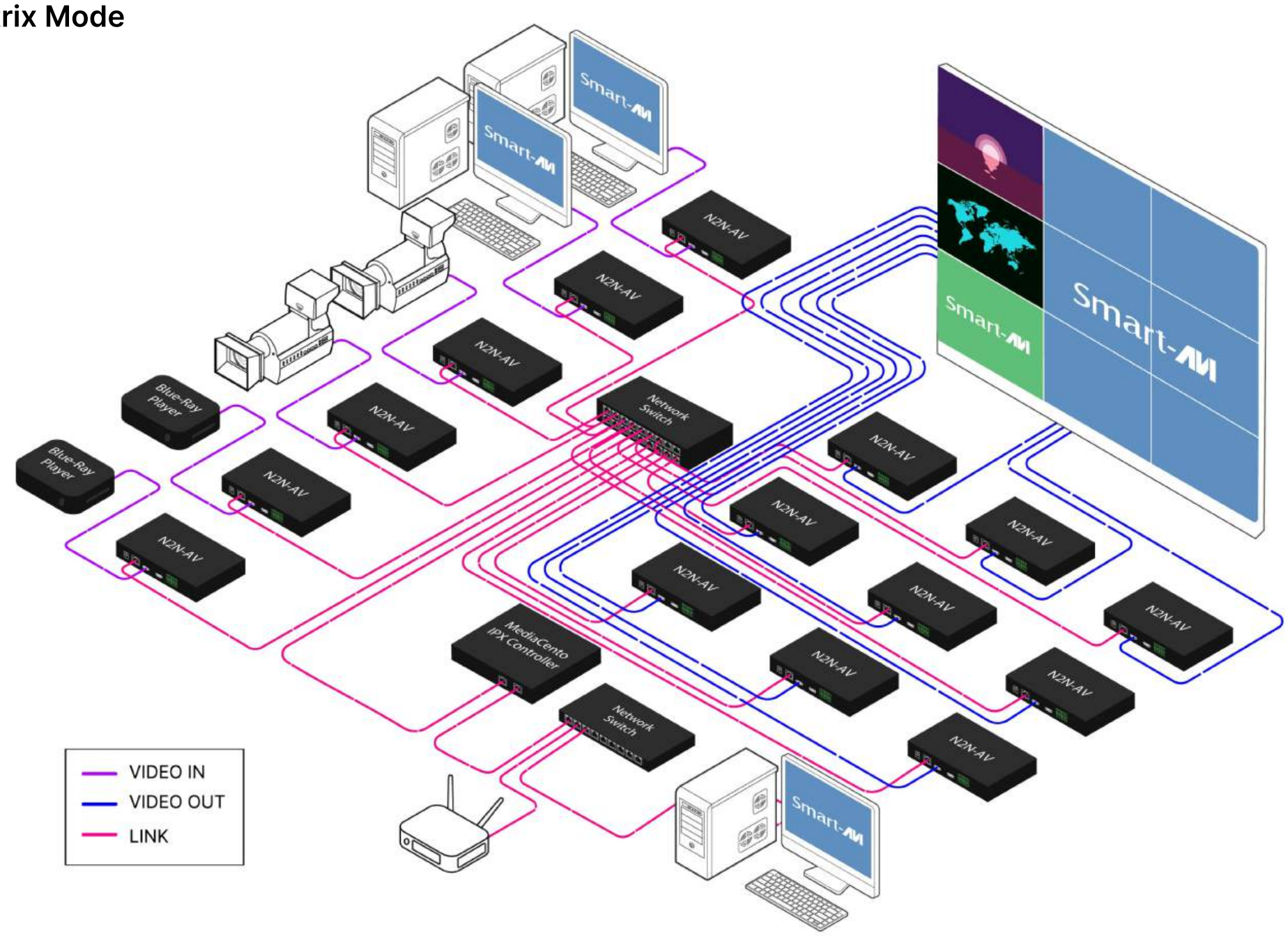
Server Room Management

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.**

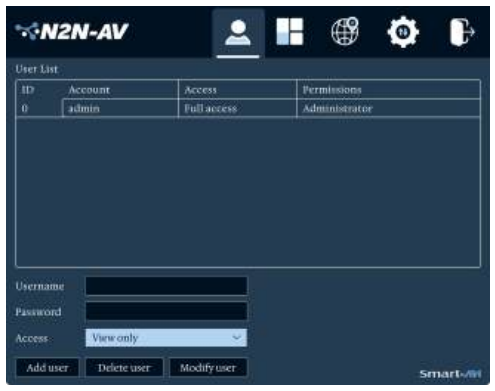
# COMPLETE CONTROL, FROM THE SCREEN TO THE WORLD

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.

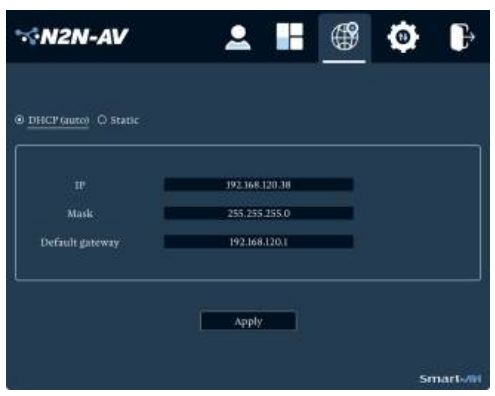
- Select any transmitter on the network to view and control, directly from the on-screen menu.
- Choose multiple encoders at once to build custom multi-view layouts (single, 1×2, 2×2, and beyond).
- Rename sources and receivers for fast, clear identification across the system.



### 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 |

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## SPECIFICATIONS

| N2N-AVH100 HDMI CAT5 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<br>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 | |
| **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 | 150mm x 100mmx25mm | |
| Weight | 0.63kg | |

| Ordering Information | | |
|---|---|---|
| **Part №** | N2N-AVH100-S | N2N-AV HDMI 4k30 cat5 ethernet encoder/decoder Includes: [N2N-AVH100 & 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. For runs beyond 100m, see the 300 Series with SFP fiber.

Designed and Manufactured in the USA

Tel: (888) 994-7427 • (702) 800-0005

2917 E Alexander Rd. North Las Vegas, NV 89030