



# MG Series

## AV over IP System



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# Overview

## MG Series AV over IP System

MG Series AV over IP system is a distributed management and control system based on network, nodes and digitization. The system utilizing low bandwidth, providing low-latency and lossless audio and video experience, breaking the limitations of the traditional centralized deployment mode. It is suitable for decentralized deployment of audio and video interconnection applications across floors, regions and networks. The system integrates audio and video long-distance digital transmission, signal switching, KVM and screen management. Working with the visual Web management system, visual control software for Pads and KVM system, which can be applied in various visual application scenarios such as command centers, large conference communication centers, monitoring centers, data centers and dispatch centers.



## ► Localization • Application Scenarios



Conference Room



Lecture Hall



Command Center

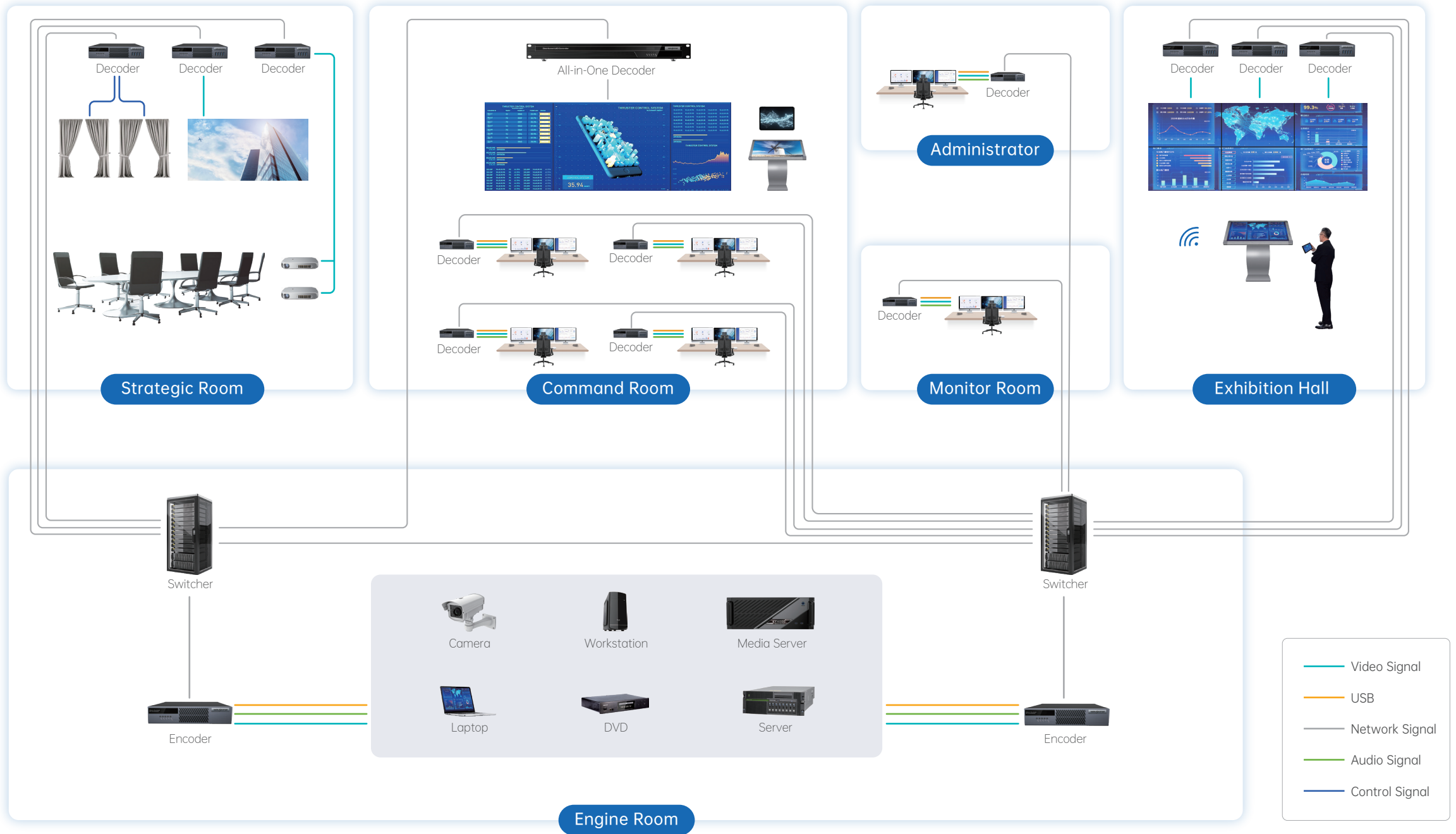


Control Center



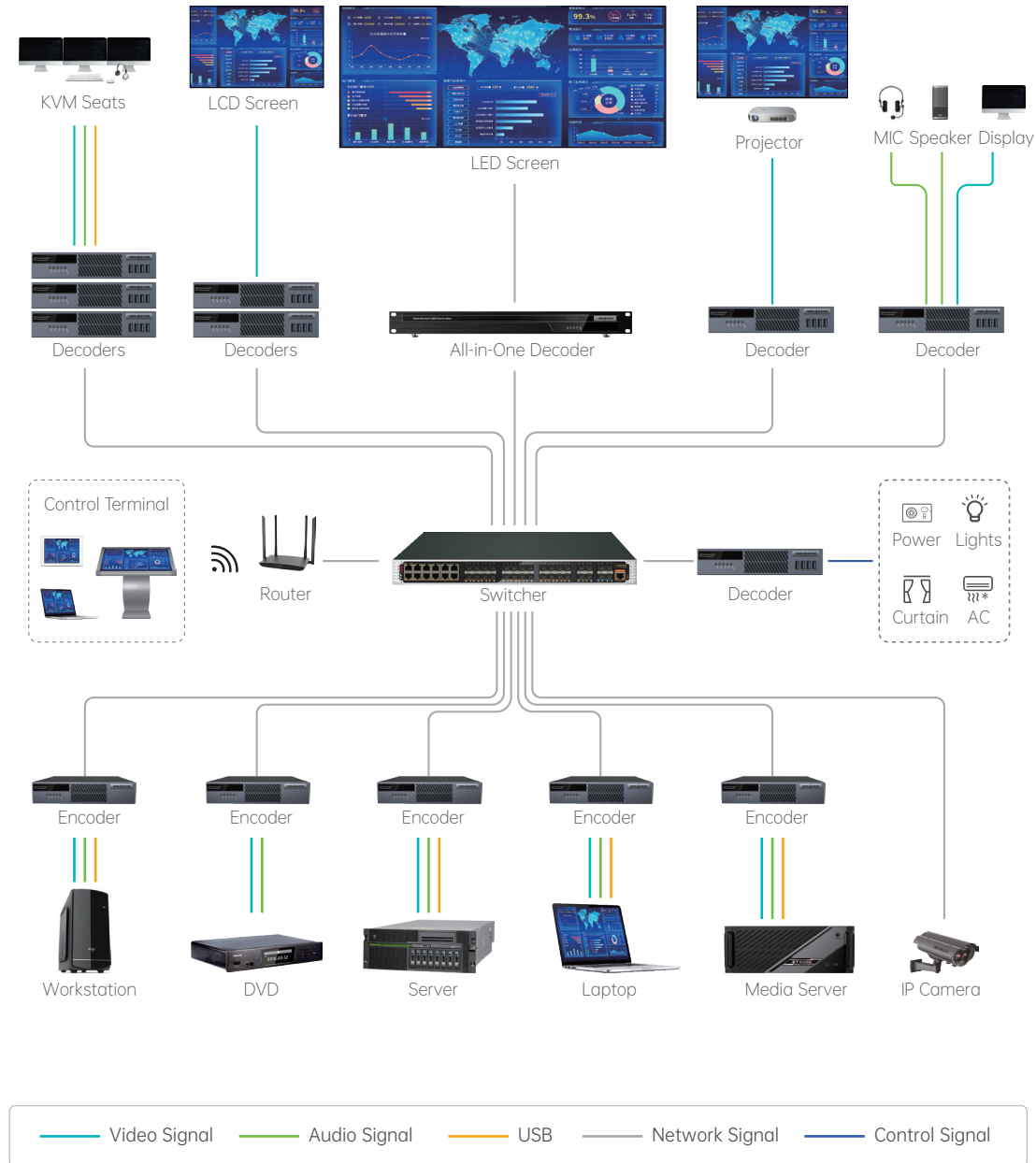
Data Center

► Multi-Scenario • Solution Diagrams





## ► System Topology Diagram



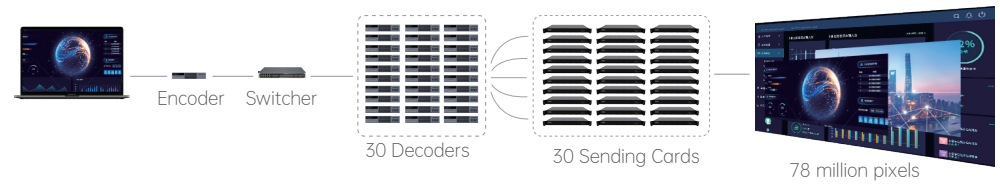
## Core Advantages

### All-in-One Highly Integrated

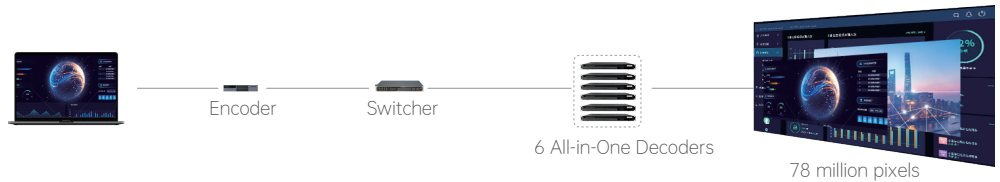
Combine the decoder and sending card into one device with a maximum 650W pixel loading capacity that supports arbitrary cabling and splicing. All-new MGT2000 supports 20 ports with maximum 1300W pixel loading capacity.

It's more reliable with half quantity of wires; easier with merge operation; more economical with half in size; more environmentally friendly with low-carbon energy.

#### Traditional Distributed + Sending Card Solution:



#### All-in-One Distributed Solution:





## Professional Splicing with No-tearing

Creating professional nanosecond synchronization that truly stands the test of the naked eye and camera by NetSync plus NovaSync double synchronization technique that combines both software and hardware.



The system supports 10bit 4:4:4 encoding. Compare to the general 8bit 4:2:0 encoding, it's got a smoother grayscale gradient and better maintained the original color saturation.



## High Image Quality and Low Latency

The system supports full link 4K@60Hz from input to encoding, decoding, and then to the output display, which makes the image transmission free of distortion and more dynamic.



## Secure system with Decentralized

The system is decentralized without central server and it can be operated even exposed to minor damage which is more stable and secure.



## Diversified Displays Supported

The system supports both LED and LCD.

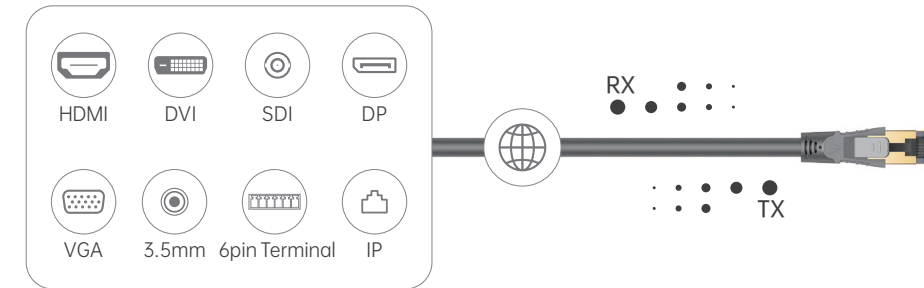
The LED screen supports a fully custom resolution, maximum width up to 16384, maximum height up to 8192.



## Product Features

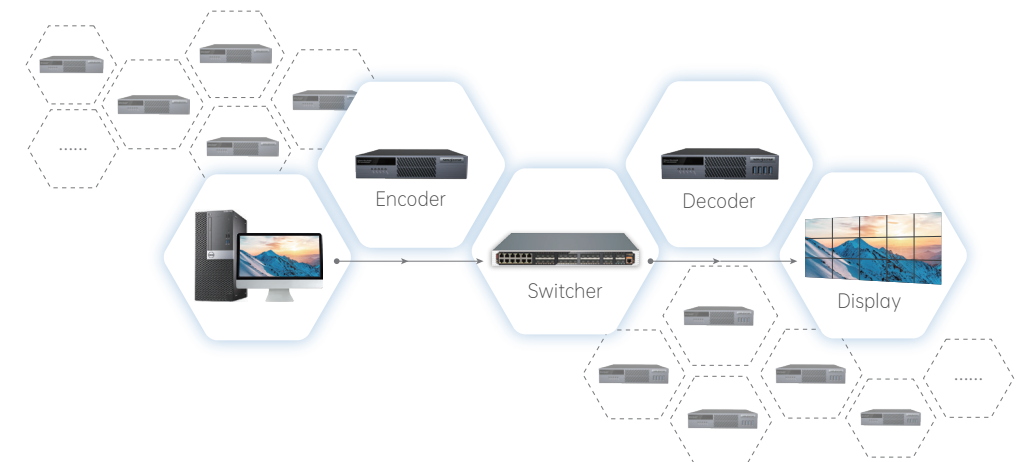
### Connect the World with One Network Cable

The system supports full networking of multiple commands, such as video, audio, control and third-party control. Only one network cable/fiber is required for system interconnection.



### Flexible Deploy with Unlimited Capacity Expansion

Bandwidth configuration can be flexibly adjusted. Capacity expansion can add encoders/decoders, and achieve cross-domain resource sharing.



Traditional Display

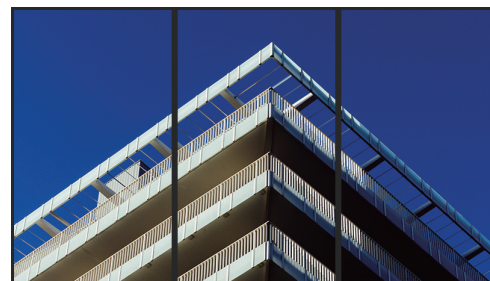
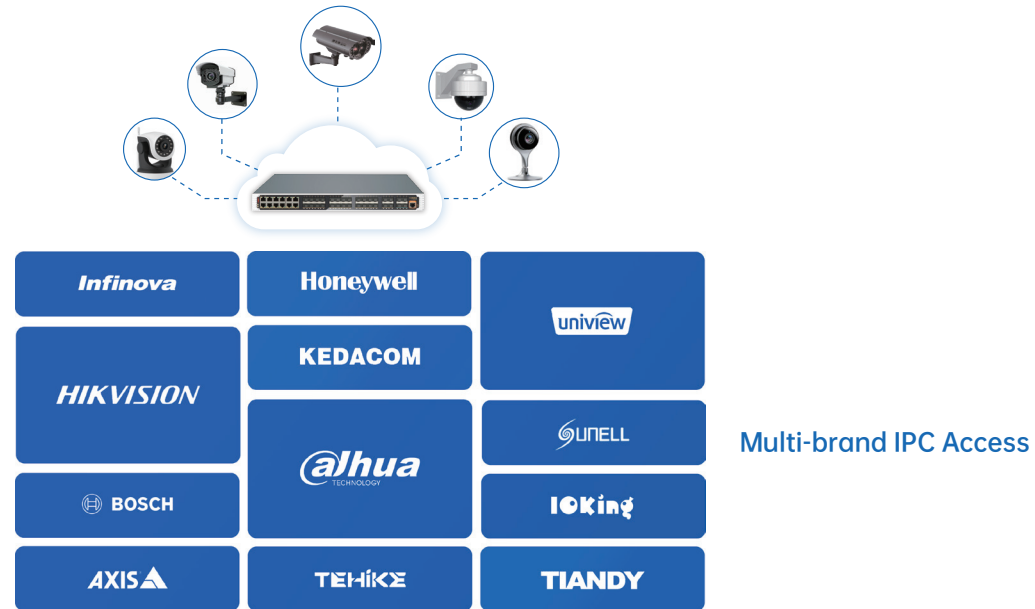


Image Border Compensation Correction



## Efficient with Multiple IPC

Fully supports ONVIF, RTSP and other protocols; Compatible with many brands such as Hikvision, Dahua, and Uniview, so that it can directly access without trans-coding.



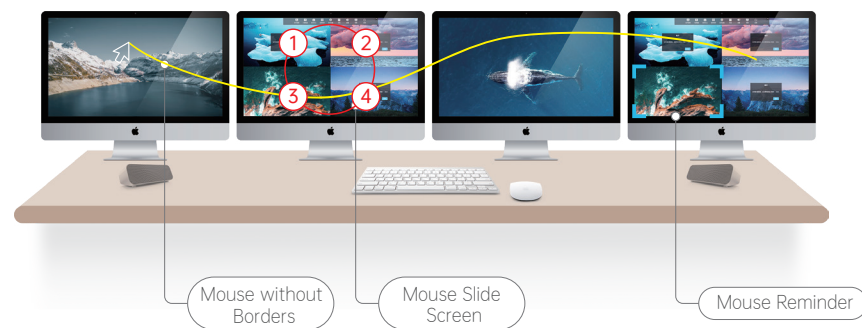
## Powerful Integrated with Comprehensive Control

The system supports various third-party control peripherals such as Series Port, IR Port and RELAY Port; integrated control of sound, light, machine and electricity. It also supports remote switching machine.



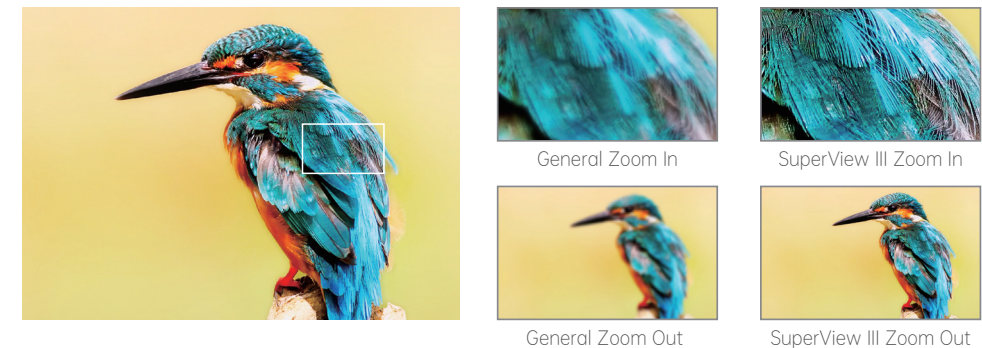
## Fully Control with KVM

The system supports multiple screens for one person; a single screen with multiple Windows; mouse slide screen, cross-screen, remind and other functions. Enjoy the ultra-fast experience from just one person perspective.



## Fine Scaling with SuperView 3.0 Technology

The system adopts NovaStar's SuperView 3.0 Scaling Algorithm. It's able to do the reconstruction of the picture details, to ensure that the zoom image is sharp and clear.





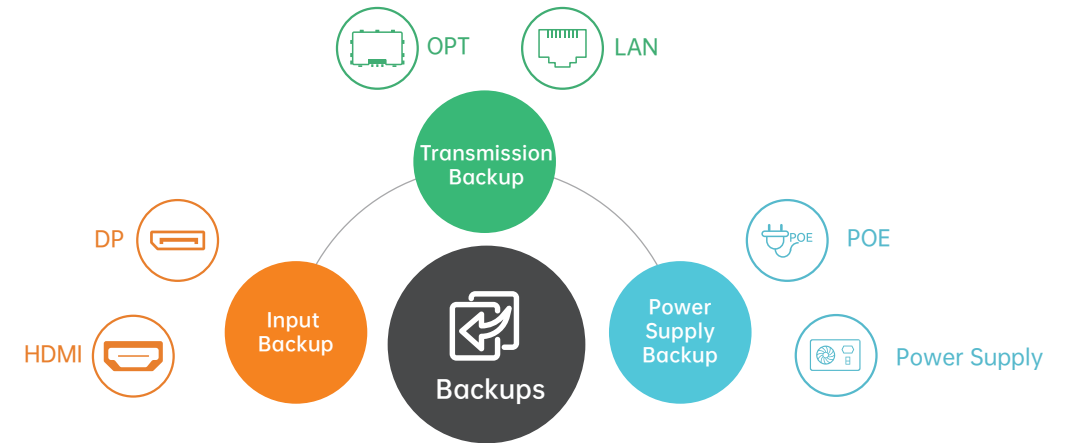
## HD Background Image with Practical Subtitles

The system supports UHD (maximum width up to 16384) point-to-point base images to achieve a stunning visual effect. It also supports the dynamic banner with full-color subtitles, welcome slogans, emergency notifications and some other needs.



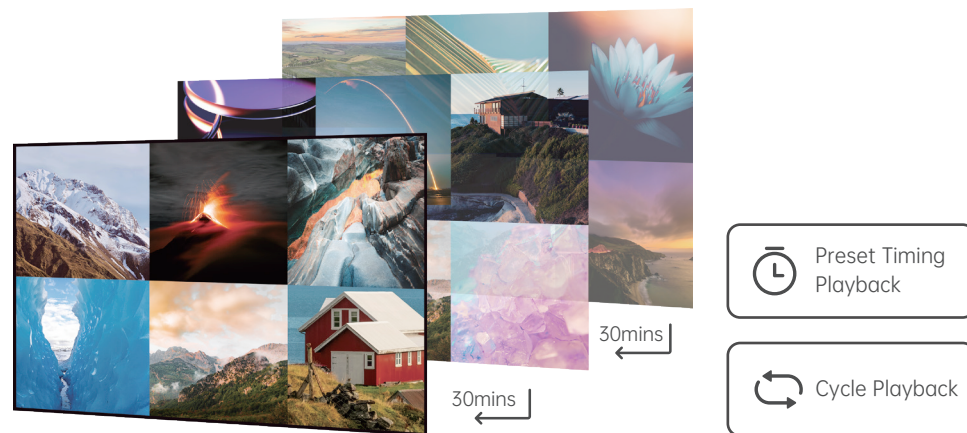
## Full Chain Backup

The system supports signal source hot backup, OPT and RJ45 backup, POE and external power supply redundancy backup to secure the transmission.



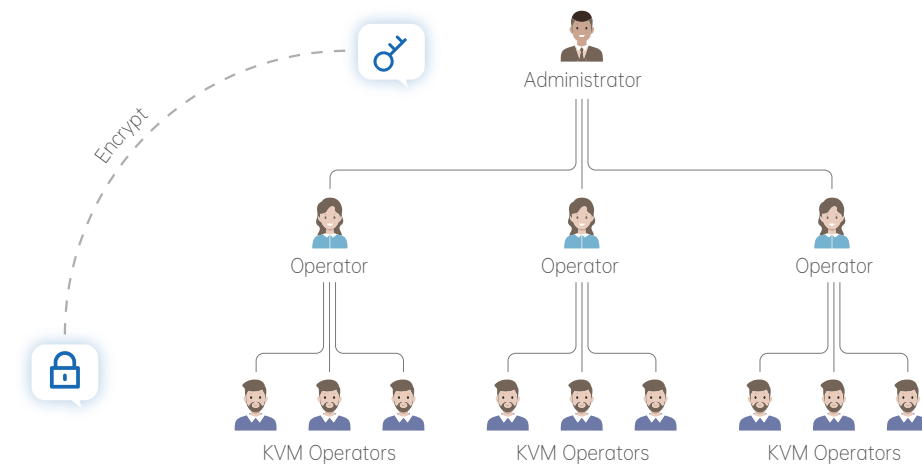
## One-click Pre-plan, Preset Playback

Two playback modes: Preset Timing Playback and Cycle Playback.



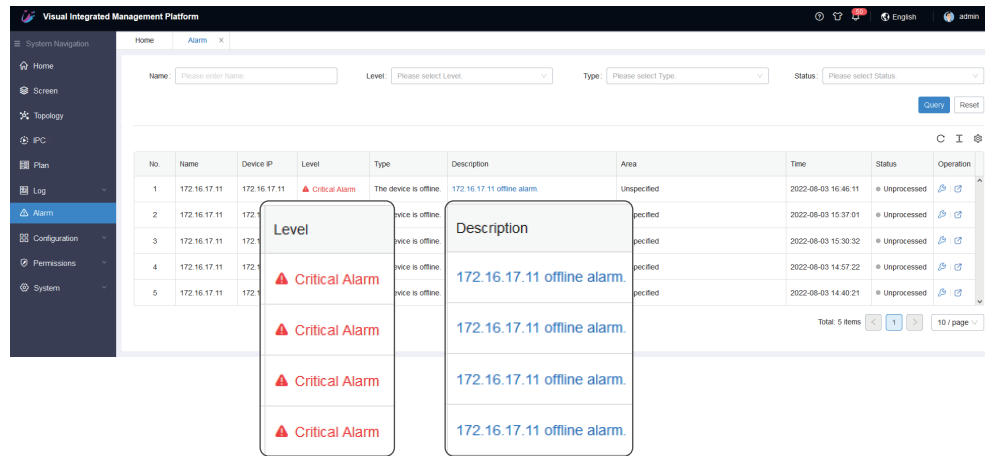
## Multi-level Management with Data Encryption

The system supports multi-level user management and permissions layered; it also supports control instruction encryption and USB transmission encryption. In order to comprehensive guarantee system information security.

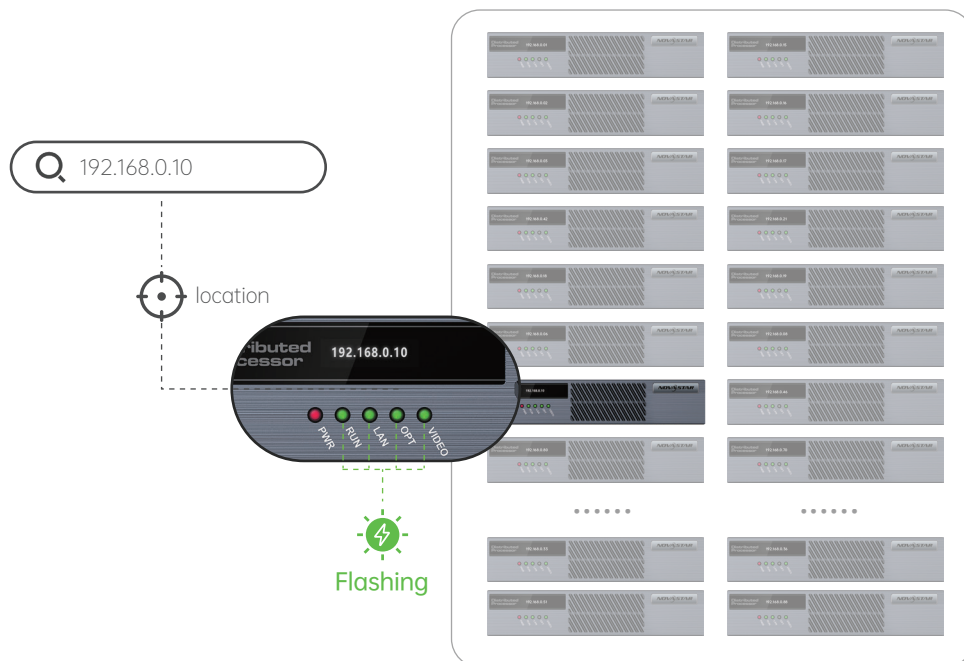


## Status Monitoring with Exception Warning

It supports comprehensive monitoring of system running status, timely warning of abnormal situations.



Device name search and instant location of the target device.



## Product Specifications • MG Series 4K AV over IP Processor



Product	MG420 Encoder	MG421 Decoder
CODEC	1× 4K×2K@60Hz Encode	1× 4K×2K@60Hz or 2× 4K×2K@30Hz or 4× 1920×1080@60Hz Decode; 8× 1920×1080@30Hz Decode
Video Port	1× DP1.2 Input and 1× HDMI2.0 Input; 1× LOOP Output, DP1.2/HDMI2.0 Output; Supports MAX 4K×2K@60Hz; MAX Input Resolution 8192×7680	1× HDMI2.0 Output; Supports MAX 4K×2K@60Hz; Custom Resolution, MAX Capacity 8192×7680
Audio Port	1× 3.5mm Stereo Input/Output; Support Audio and Video Synchronous/Asynchronous Output	
OPT/LAN Port	1× LAN, Supports PoE; 1× OPT; Supports Mutual Backup Between the LAN and OPT	
USB Port	1× USB-A; 1× USB-B; Used for control signal transmission.	2× USB-A 2.0; 4× USB-A 3.0; Supports KVM keyboard and mouse access.
Third-party Port	Supports 1× RS485, 1× RS232, 1× IR Input, 1× IR Output, 1× IR Output, 2× I/O, 1× Relay	
Others	Video Encoding	Video Decoding, KVM, Display Control
Algorithm & Protocol	Supports H.265, H.264 decoding mode, and support H264/H.265 optional; Supports uncompressed audio stream or AAC decoding; Supports access to audio and video data conforming to protocols such as TCP, UDP, RTSP, RTP and ONVIF	

Product Specifications . **MG Series 4K AV over IP Processor**



Product	MGT1000 All-in-One Decoder	MGT2000 All-in-One Decoder
CODEC	1× 4K×2K@60Hz or 2× 4K×2K@30Hz or 4× 1920×1080@60Hz Decode	1× 4K×2K@60Hz or 2× 4K×2K@30Hz or 4× 1920×1080@60Hz Decode; 8× 1920×1080@30Hz Decode
Video Port	10× RJ45 LED Output; Custom Resolution, MAX Capacity 10240×8192; Total Capacity 650W	20× RJ45 LED Output; Custom Resolution, MAX Capacity 16384×8192; Total Capacity 1300W
Audio Port	1× 3.5mm Stereo Input/Output; Support Audio and Video Synchronous/Asynchronous Output	
OPT/LAN Port	1× LAN; 1× OPT; Supports Mutual Backup Between the LAN and OPT	
USB Port	2× USB-A 2.0	
Third-party Port	Supports 1× COM, 1× IR Input, 1× IR Output, 1× I/O, 1× Relay	Supports 1× RS485, 1× RS232, 1× IR Input, 1× IR Output, 1× I/O, 1× Relay
Others	Video Decoding, LED Display Control, Free Cabling	
Algorithm & Protocol	Supports H.265, H.264 decoding mode, and support H264/H 265 optional; Supports uncompressed audio stream or AAC decoding; Supports access to audio and video data conforming to protocols such as TCP, UDP, RTSP, RTP and ONVIF	

Product Specifications . **MG Series 2K AV over IP Processor**



Product	MG200 Encoder	MG201 Decoder	MGT600 All-in-One Decoder
CODEC	1× 2K@60Hz Encode	1× 4K×2K@30Hz or 2× 1920×1080@60Hz or 4× 1920×1080@30Hz Decode	1× 4K×2K@30Hz or 2× 1920×1080@60Hz or 4× 1920×1080@30Hz Decode
Video Port	1× HDMI1.3 Input; 1× LOOP Output, HDMI1.3 Output; Supports MAX 2K@60Hz; MAX Input Resolution 4096×4096	1× HDMI1.3 Output; Supports MAX 2K@60Hz; Custom Resolution, MAX Capacity 4096×4096	6× RJ45 LED Output; Custom Resolution, MAX Capacity 10240×8192; Total Capacity 390W
Audio Port	1× 3.5mm Stereo Input/Output; Support Audio and Video Synchronous/Asynchronous Output		
OPT/LAN Port	1× LAN		
USB Port	1× USB-A; 1× USB-B; Used for control signal transmission.	2× USB-A 2.0; Supports KVM keyboard and mouse access.	2× USB-A 2.0
Third-party Port	Not Support		
Others	Video Encoding	Video Decoding, KVM, Display Control	Video Decoding, LED Display Control, Free Cabling
Algorithm & Protocol	Supports H.265, H.264 decoding mode, and support H264/H 265 optional; Supports uncompressed audio stream or AAC decoding; Supports access to audio and video data conforming to protocols such as TCP, UDP, RTSP, RTP and ONVIF		