ATEN
Simply Better Connections

KVM over IP Matrix System

Solutions for the Control Room of the Future

Contents

Why KVM over IP?

In addition to the unlimited distances offered by a networked solution, utilizing over IP technology for video, audio, and control data distribution and extension offers boundless flexibility and scalability for centralized or distributed network operation.

Advantages include the fact that controllers can configure connectivity architecture and the overall size of the KVM installation based on specific requirements, and systems can be designed to accommodate large distances, unlimited users, any-input-to-any-user configurations, high performance and varying levels of system redundancy and resilience.

So, the major benefit of IP-based KVM in the control room is limitless scalability and flexibility. An IP-based KVM system also provides more extension options beyond traditional keyboard-monitor-mouse, including server sharing, video extension, and multicasting.

For these reasons, IP-based control units mean you can upgrade your IP management efficiency at the same time as increasing productivity and reducing operational costs.

Leading the World in KVM Innovations

World acclaimed for innovations that drive connectivity and access solutions, ATEN brings you the advanced KVM over IP Matrix System. Leveraging our expertise in network and video technologies, we've brought together a unique blend of features that offer the optimum solution for extended applications in different environments.

Our KVM over IP Matrix System allows virtual KVM matrices to be installed in control rooms to create workspace flexibility with instant access to various servers and video sources. The ultimate benefits are the video wall function and shared access modes, combined with advanced security options. These make the KVM over IP Matrix System perfect for security, broadcasting and traffic control rooms. Furthermore, in retail environments, the system can connect point-of-sales consoles with computers to centralize the IT infrastructure in a server room. With additional support for touch screens, full HD, and virtual media, our solution provides the ultimate in flexibility and flow

ATEN's 45 years of excellence and more than 650 patents in these related areas means that we are at the forefront of the seamless integration of A/V with IT. We understand the increasing complexity of control room and server room requirements; we provide end-to-end design and manufacturing, and we strive to be as competitive as possible. And all that know-how translates into the right KVM over IP control solution for you.

What is ATEN's KVM over IP Matrix System?

The ATEN KVM over IP Matrix System is an innovative solution that combines KVM over IP extenders with the KVM over IP Matrix Manager (CCKM) to extend, control and monitor access to computers across a network in a multitude of ways. The system lets you set up a matrix of workstations that access computers across a network with the flexibility to configure each connection for the seamless data flow required for any and all applications.

KVM over IP Matrix System

Matrix Link App

CCKM
KVM over IP Matrix Manager

KVM over IP Extenders
(KX99 / KE99 / KE89 / KE69 series)

GbE PoE Managed
Switch (ES Series)

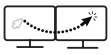
5K60 4:4:4

Digital Audio

PoE

Fiber-Optic

Video Wall



Boundless Switching

Preview

Scheduling

Powerful Hardware

The KVM over IP extenders (KX99 / KE99 / KE89 / KE69 series) are installed at computers and workstations, and are configured via the KE Management Software to create connections between them over a LAN. This allows extenders to bridge a connection between the workstations and the remote computers they access from anywhere on different LAN segments.

Powered by ATEN's advanced graphics processor and high performance Gigabit ethernet controller, the extenders delivers video up to 5K with vivid color and multicasting across a network without any delay.

All models feature ATEN's EDID Expert technology, which selects the optimum EDID settings for smooth power-up and highest quality display, as well as full USB and high speed virtual media support. Extender setups can be configured for one-to-one, one-to-many, many-to-one, and many-to-many workstation-to-computer connections.

Intuitive Software

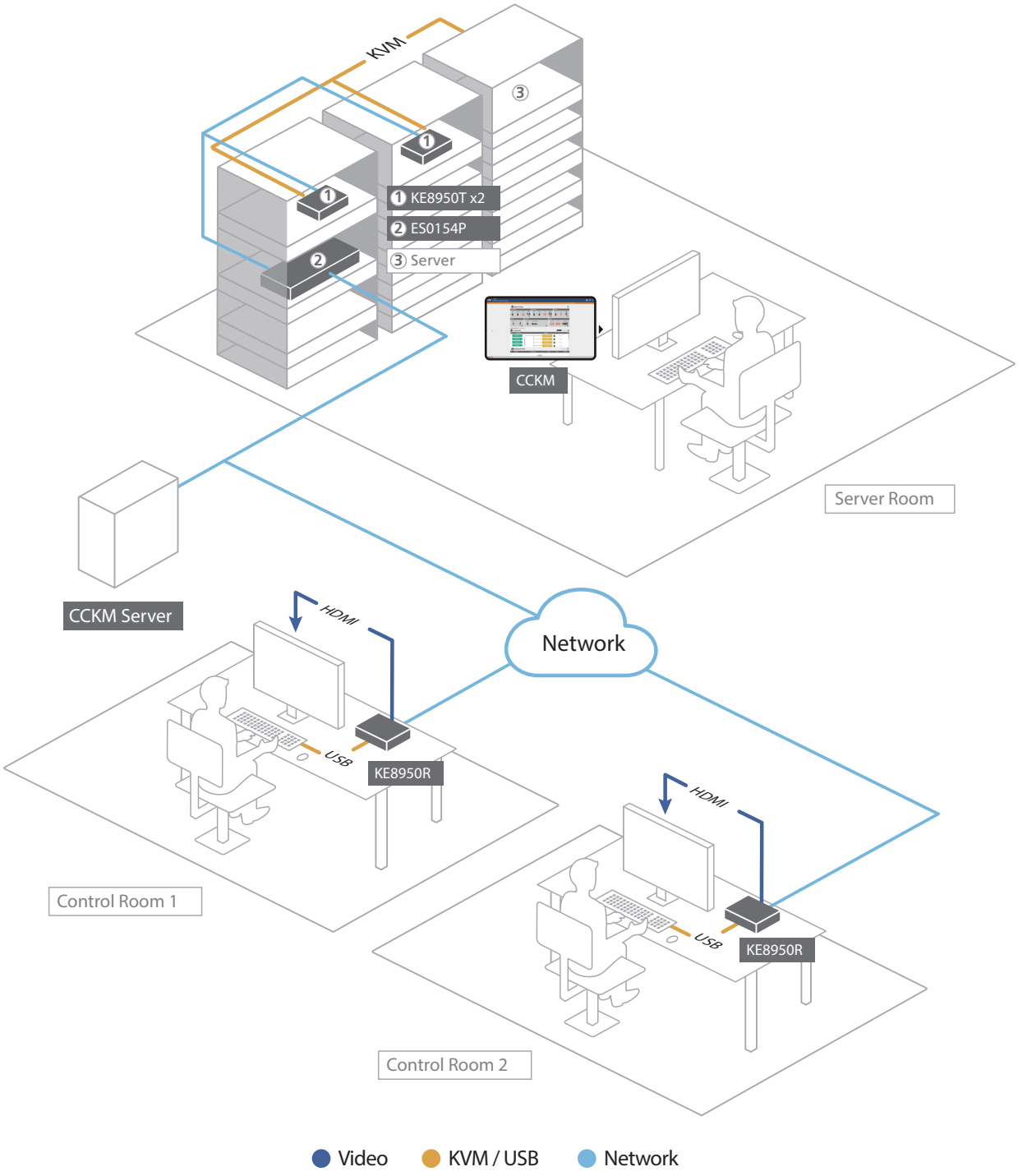
Via an intuitive GUI, the KVM over IP Matrix Manager (CCKM) allows you to define the connections and manage KVM over IP extenders with features such as device auto-detection, username/password authentication, switching and sharing of connections, scheduling, permissions, and more.

The KVM over IP Matrix Manager (CCKM) also offers redundancy settings that enable you to set primary and secondary servers in case of server problems, in addition to powerful security features that include external authentication support for LDAP and RADIUS, and more.

Whether you're extending computer access for a monitoring, broadcasting, editing or workstation setup, the KVM over IP Matrix System gives you the flexibility and control to manage any number of extended computers.

Eliminate Distance Limitations

Don't let distance or space limitations disrupt your creativity and production. The ATEN's KVM over IP Extenders can extend and deploy computers with up to 4K / 5K displays across multiple stations in a variety of applications that suit any environment. Expand computer use to stations across multiple rooms with dynamic access.



KX9970 / KX9980 / KE9950 / KE9952 / KE8950 / KE8952

4K / 5K DisplayPort / HDMI KVM over IP Extender

5K60 4:4:4 | Digital Audio | PoE | Fiber-Optic

The KE9950 / KE9952 / KE8950 / KE8952 (4K DisplayPort/HDMI KVM over IP Extenders) and KX9970/ KX9980(5K DisplayPort KVM over IP Extender) route KVM, audio, USB, and serial signals at unlimited distances via Cat 5e/6/7 over a LAN or via a SFP fiber optic transceiver module over an optical Ethernet network. Features include:

- All models support up to 5K (5120 x 2880 @60Hz / 5120 x 1440 @60Hz / 4096 x 2160 @60Hz / 3840 x 2160 @30Hz, at 36-bit color depth, 4:4:4) video resolutions and are compatible with HDCP
- Provides fast-switching, secured data transmission (with AES 128-bit/256-bit encryption) for flawless and visually lossless video compression quality.
- Supports in both extender and matrix modes for multi-display installations and video wall applications.
- The KE9952 / KE8952 feature PoE functionality, so the transmitters and receivers can receive power and communications over a single cable.

KE8980MR

4K Quad-Display KVM over IP Multiview Receiver

Quad Displays | Multiview | Physical + Virtual Servers | Ultra-Low Latency

The ATEN KE8980MR is a high-performance KVM over IP receiver designed for mission-critical control room applications. It can be configured to manage up to 16 servers in separate, resizable windows that can be freely positioned or overlapped across four displays. Additionally, in Operation mode, up to 108 servers can be monitored simultaneously in real time for optimal situational awareness. The receiver provides detailed, simultaneous visualization and control, optimizing situational response and operator efficiency in complex environments.

- Supports 2 HDMI and 2 DisplayPort outputs, each up to 4096x2160@60Hz resolution
- Multiview Control with Boundless Switching MX™
- Centralized Monitoring via Panel Array™
- Supports VMware, Microsoft, and Citrix via RDP/VNC, with seamless integration into CCKM

KE6900AiT

DVI-I Single Display KVM over IP Transmitter with Internet Access

KE6940AiT

DVI-I Dual Display KVM over IP Transmitter with Internet Access

The KE6900AiT and KE6940AiT are high-performance IP-based transmitters that, when paired with their respective receivers (e.g., KE6900AR and KE6940AR), provide console access from a remote location. This setup enables extended access to computer systems via USB consoles (i.e., USB keyboard, USB mouse, and DVI monitor) over intranet or internet. It allows the computer system to be placed in a secure, temperature-controlled environment, isolated from the workstation for optimal operator ergonomics. Features include:

- up to 1920 x 1200 @ 60 Hz; 24-bit color depth
- Support for video wall integration with up to 12 x 12 (144 displays max.) in each layout
- Support for digital (DVI) or analog (VGA) video output
- Support for 1 Gbps SFP fiber module expansions up to 10 km
- Multiple remote client viewer options (WebClient, WinClient, JavaClient) allow users to easily access the server remotely
- Supports recording of remotely-accessed computer operations using CCVSR

KE6920

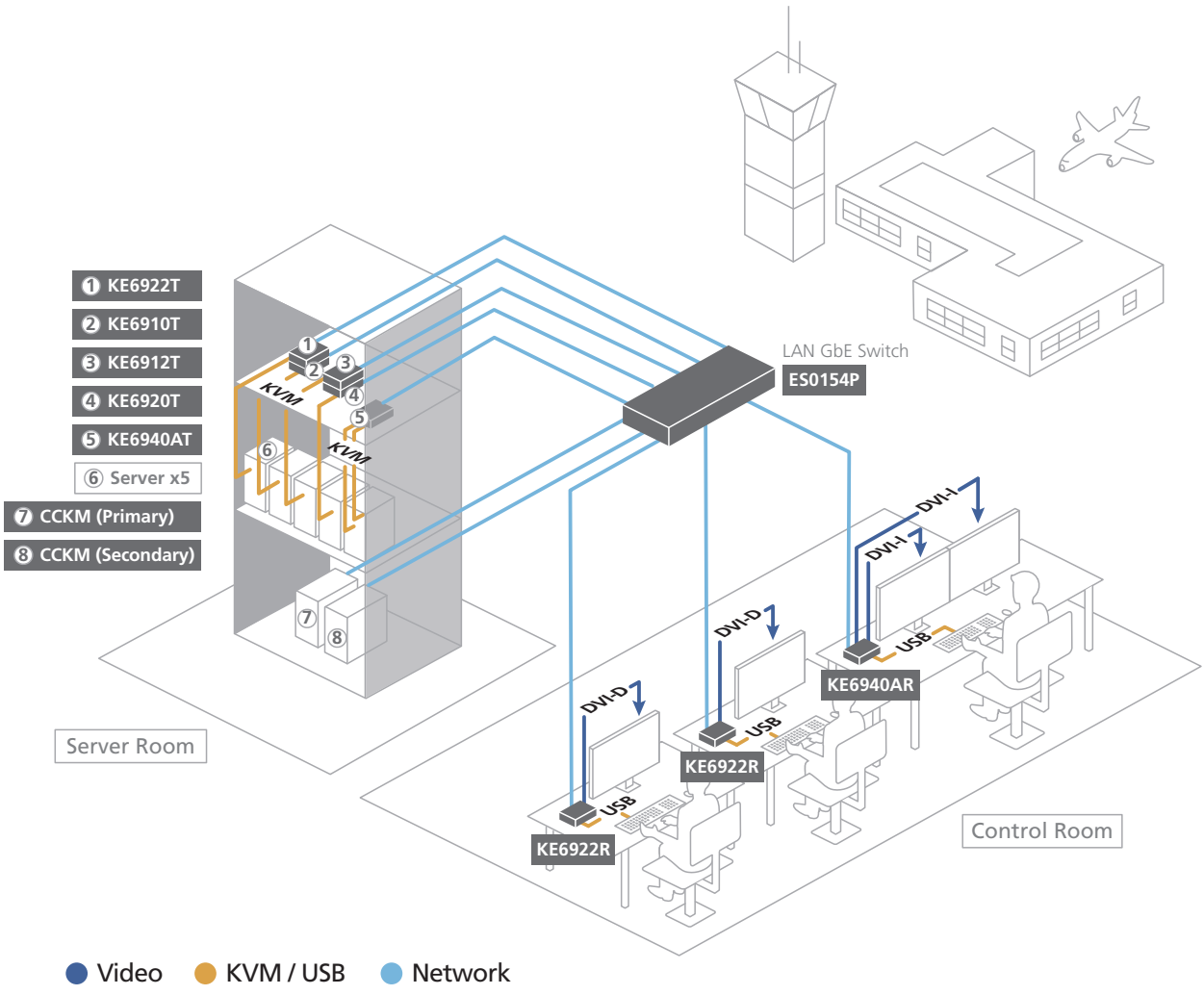
DVI-D Dual Link Single Display KVM over IP Extender

Digital Audio PoE Fiber-Optic

The KE6920 DVI-D Dual Link Single Display KVM over IP Extenders have exclusive features that are designed for the Air Traffic Control (ATC) industry with uninterrupted reliability and efficient monitoring and management for real time operation and decision-making. Features include:

- 2K x 2K video resolution (2048 x 2048 @ 60Hz) support
- Connection redundancy to ensure constant access to servers
- Fast switching within 0.3 seconds
- Authentication lock for automatic log-ins
- Power and network redundancy
- Disconnection alert

Both models support SFP fiber module for up to 10 km long-distance transmission, while the KE6912 features PoE functionality.



KE6900A

Single Display DVI KVM over IP Extender

KE6940A

Dual Display DVI KVM over IP Extender

The KE6900A / KE6940A DVI KVM over IP Extender solution consists of a transmitter that connects to the computer and a receiver that provides console access from a remote location. This is perfect for use in any type of installation where you need the KVM console to be placed for your convenience, but you want the computers to reside in a secure location. Features include:

- Up to 1920 x 1200 @ 60Hz visually lossless and low latency video transmissions
- Ability to route audio, KVM, USB and serial data separately
- The KE6900A supports one DVI-I input/output, while the KE6940A supports two DVI-I inputs/outputs.

KE9900ST / KE8900ST / KE8900SR

Slim DisplayPort / HDMI / DVI-D Single Display KVM over IP Extender

Digital Audio

The KE9900ST / KE8900ST / KE8900SR / models are compact and affordable high performance IP-based transmitters / receivers, which provide more flexible combinations to build up an over IP solution that enables users to locate computers in a secure and temperature-controlled environment, away from users' workstations. Features include:

- Up to 1920 x 1200 @ 60Hz visually lossless and low latency video transmissions
- Can be paired with any KVM over IP extender for a cost-saving solution that stays within budget
- Space-saving 0U design transmitter can be set on a desk, mounted on a wall or at the rear of a rack

Comparison

Model	KX9980	KX9970	KE9950	KE9952	KE9900ST	KE8980MR	KE8950	KE8952
Support Interface	DisplayPort	DisplayPort	DisplayPort	DisplayPort	DisplayPort	HDMI, DisplayPort	HDMI	HDMI
Max. Video Resolution	5120 x 1440 @60Hz	5120 x 1440 @60Hz	3840 x 2160 @30Hz (4:4:4)	3840 x 2160 @30Hz (4:4:4)	1920 x 1200 @60Hz	4096 x 2160 @60Hz(4:4:4)	3840 x 2160 @60Hz (4:2:0)	3840 x 2160 @60Hz (4:2:0)
Audio	•	•	•	•	• (Digital)	•	•	•
Mouse Emulation	•	•	•	•	•	•	•	•
Tx Local Console	•	•	•	•	N/A	•	•	•
Boundless Switching	•	•	•	•	•	•	•	•
Fast Switching*	•	•	•	•	•	•	•	•
No. of Video Outputs	2	1	1	1	1	4	1	1
Video Wall*	•	•	•	•	•	•	•	•
RS-232	•	•	•	•	•	•	•	•
OSD	•	•	•	•	N/A	•	•	•
Virtual Media	•	•	•	•	•	•	•	•
Virtual USB	•	•	•	•	N/A	•	•	•
PoE	N/A	N/A	N/A	•	N/A	N/A	N/A	•
DC Jack	2	2	2	1	1	1	1	1
LAN	10 Gbps	10 Gbps	1 Gbps	1 Gbps	1 Gbps	1 Gbps	1 Gbps	1 Gbps
Internet	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Network Interface	RJ45 (SFP2)	RJ45 (SFP2)	RJ45 (SFP)	RJ45 (SFP)	RJ45	RJ45	RJ45 (SFP)	RJ45 (SFP)

Model	KE8900S	KE6900A	KE6940A	KE6900AiT	KE6940AiT	KE6920
Support Interface	HDMI	DVI-I	2*DVI-I	DVI-I	2*DVI-I	DVI-D
Max. Video Resolution	1920 x 1200 @60Hz	1920 x 1200 @60Hz	1920 x 1200 @60Hz	1920x1200 @60Hz	1920x1200 @60HZ	2560x1600 @60Hz
Audio	• (Digital)	•	•	•	•	•
Mouse Emulation	•	•	•	•	•	•
Tx Local Console	N/A	•	•	•	•	•
Boundless Switching	•	•	•	•	•	•
Fast Switching*	•	•	•	•	•	•
No. of Video Outputs	1	1	2	1	2	1
Video Wall*	•	•	•	•	•	•
RS-232	•	•	•	•	•	•
OSD	•	•	•	•	•	•
Virtual Media	•	•	•	•	•	•
Virtual USB	N/A	•	•	•	•	•
PoE	N/A	N/A	N/A	N/A	N/A	N/A
DC Jack	1	2	2	2	2	2
LAN	1 Gbps	1 Gbps	1 Gbps	1 Gbps	1 Gbps	1Gbps
Internet	N/A	N/A	N/A	•	•	N/A
Network Interface	RJ45	RJ45 (SFP)	RJ45 (SFP)	RJ45 (SFP)	RJ45 (SFP)	RJ45 (SFP*2)

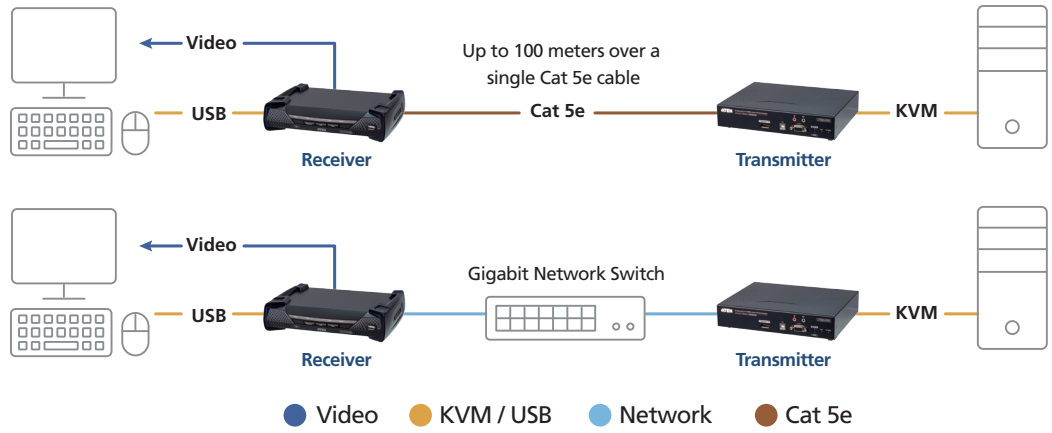
Note: *Supported by KVM over IP Matrix Manager (CCKM)

Flexible Configuration to Meet Your Needs

The KVM over IP Matrix System is designed for the ultimate in flexibility when setting up and managing devices on a network. By utilizing a network connection, we provide a straightforward and easy installation process, followed by simple, intuitive management with the KVM over IP Matrix Manager (CCKM), which allows you to create various types of connections. Customized connections can be defined by you and set with user and group access permissions.

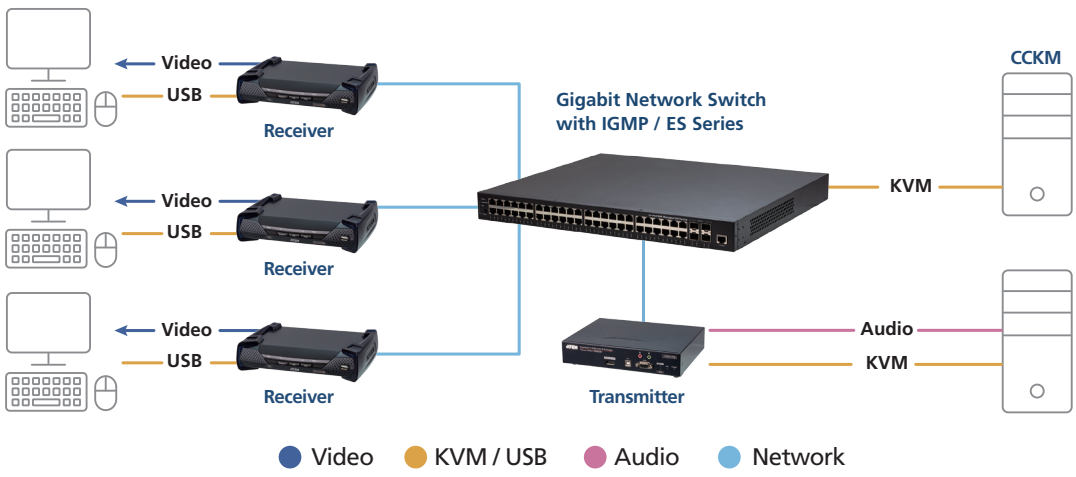
Extender Mode

One-to-One: This is the simplest setup; using a single transmitter to receiver connection that extends a computer's distance from the keyboard, mouse and monitor. One-to-one setups can be directly connected by a Cat 5e/6/7 cable between two units – up to 100 meters. The KX99 / KE99 / KE89 / KE69 series can also be connected via optical fiber cables for distances up to 10 kilometers. You can also manage point-to-point connections, set up over a LAN with no distance limitations, by assigning each device an IP address.



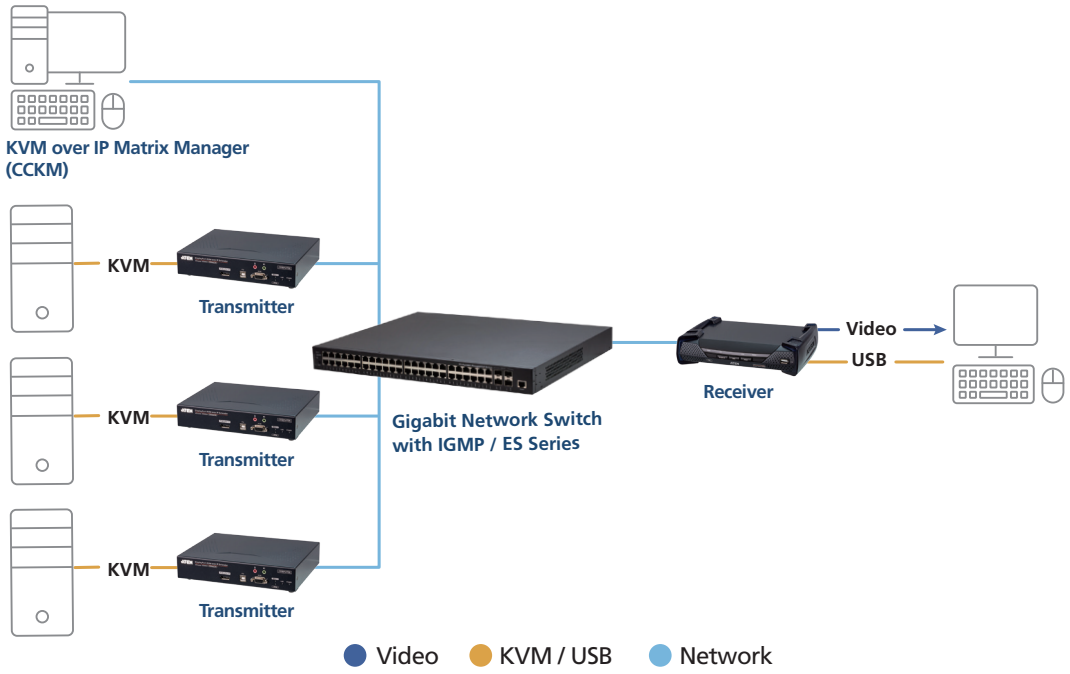
Splitter Mode – Shared Connection

One-to-Many: This setup allows a remote computer to be shared among multiple KVM receivers. Share and collaborate on projects with coworkers to increase productivity, exchange information and provide training. With the KE Series Extenders you can configure how to share a computer when multiple users access it: Exclusive (first user has control - others no access); Occupy (first user has control - others view only - when first is inactive - next user to move the mouse takes control); Share (all users have control at the same time); or View Only (all users can only view the content but have no control).



Switch Mode – Switching Access

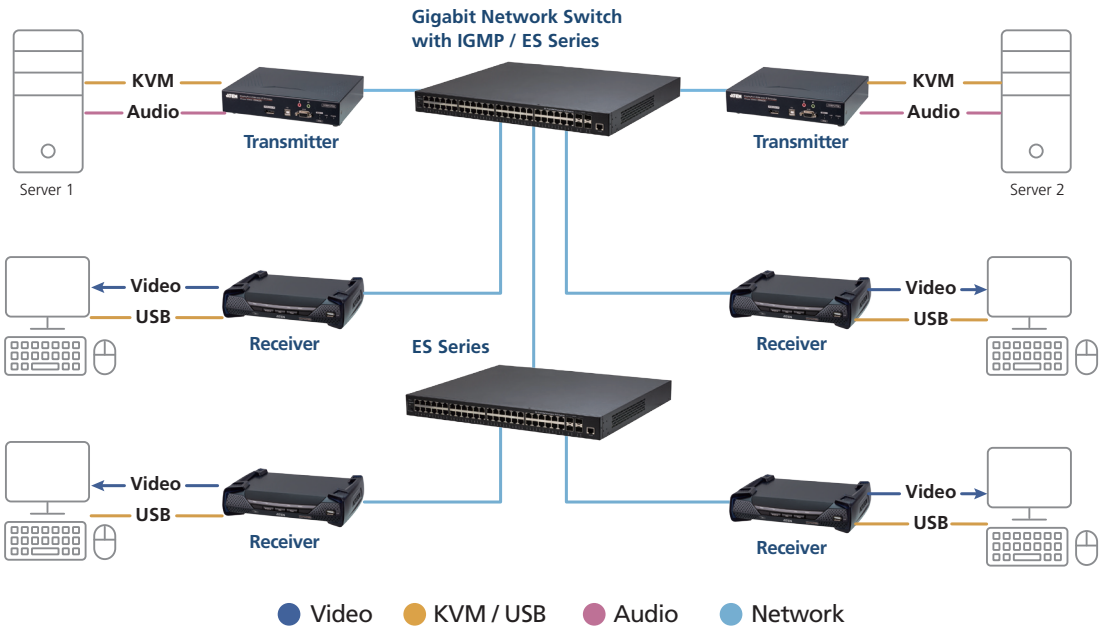
Many-to-One: This setup over a network allows the KVM receivers to switch access between different computers individually and simultaneously; and allows the streaming of video, audio, USB, and serial connections from different computers.



Matrix Mode – Multicast efficiently and intelligently

Many-to-Many: This setup delivers the ultimate in flexibility and performance by allowing multiple KVM consoles to switch access between different computer resources across a network. This provides dynamic and flexible extender setups with superior video quality and smooth KVM operations without delays or lags. Utilizing network bandwidth efficiently is crucial for media post production, live video streaming, and monitoring control. Multicasting helps optimize network traffic by directing information to the designated receivers without increasing network bandwidth.

*For one-to-many, many-to-one, or many-to-many use, the installation requires a network switch with IGMP functionality.



More KVM over IP Matrix Advantages

IP Network Technology

Eliminates the distance restrictions of control room management; enables a faster response to mission-critical data center emergencies.

Flexible and Scalable

The ATEN KVM over IP Matrix System allows computers and stations to be deployed anywhere then the KE devices extend the connections flawlessly.

Dynamic Management

Makes it easy to administer all KVM over IP extenders over a network with a new intuitive user-friendly web based GUI.

Physical and Virtual Server Support

In addition to physical server systems, the KE8980MR enables access to and control of virtualized environments on VMware®, Microsoft®, and Citrix™ platforms via RDP (Remote Desktop Protocol) and VNC (Virtual Network Computing).

Intuitive Boundless Switching

ATEN's KVM over IP Matrix Manager (CCKM) provides an intuitive way to switch control to another receiver by simply moving your mouse cursor across the screen border and onto the target computer display. Move the mouse cursor in any direction to switch the control focus without limitations.

Stunning Video Quality up to 5K

ATEN's advanced graphics processor delivers high-definition images up to 5K (5120 x 2880 @60Hz / 5120 x 1440 @60Hz / 4096 x 2160 @60Hz / 3840 x 2160 @30Hz, at 36-bit color depth, 4:4:4) for stunning colors and razor-sharp video quality even with the most intense video streams.

Lossless Compression for Flawless Graphics

ATEN's KVM over IP Extenders deliver real-time true to life images to the receiver's display using lossless compression so that the original data is perfectly reconstructed – technology that delivers the same video quality locally as is generated on the remote computer.

Advanced Color Space and All Popular Interfaces Supported

ATEN's KVM over IP Extenders support both RGB and YCbCr color space and the most widely-used types of video interface, including DisplayPort, HDMI, and DVI, to fulfill every demand from any control room environment.

Single / Dual Output Options

The KX9970 / KE8980MR / KX9980 / KE9950 / KE9952 / KE8950 / KE8952 / KE6920 / KE9900ST / KE8900ST / KE8900SR models support an DisplayPort / HDMI / DVI display at each end; while the KE6940A supports two DVI displays at each end providing a dual-display output.

PoE Functionality

The KE9952 / KE8952 features PoE (power over Ethernet) functionality, so the transmitter and receiver can receive power and communications over a single cable.

Zero Delay Switching

ATEN's unique Fast Switching technology features instant switching between different video resolutions on remote computers to a local display without latency. This provides immediate viewing of critical information for video surveillance or monitoring applications.

Range of Access Rights

Administrators can set four permission types to manage access requirements: Exclusive, Occupy, Share, and View only.

Immediate Share

Users can push and pull screen content to and from other consoles for collaboration, troubleshooting, or simply sharing.

Virtual USB

If the special functions of your keyboard or mouse are required but do not work with the console ports, you can plug the keyboard or mouse into the USB port and select "Generic USB Device Mode" to enable USB bypass and make those special functions available for console use.

Digital Audio Support

The KE99 / KE89 series supports full bass response for high quality 7.1 channel surround sound systems via DisplayPort / HDMI. HDMI audio can be extracted and stereo audio can be embedded.

Flexible Network Connectivity

All KE devices support unlimited distances via Cat Cat 5e/6/7 over a LAN, while the KX99 / KE99 / KE89 / KE69 series also supports connectivity via a SFP fiber optic transceiver module over an optical Ethernet network.

Video Wall Versatility

With unprecedented video quality and unmatched resolutions the video wall functionality allows users to create multiple video walls with up to 12 x 12 displays (144 displays).

Secure Data Transmission

ATEN's KVM over IP Extenders utilize AES 128-bit/256-bit encryption to secure KVM / audio / RS232 / data before it's transmitted over a network and decrypts on the receiver.

Blistering Fast Connectivity

With an integrated Gigabit chipset that allows a higher bandwidth throughput at up to 10x the speed of conventional 10/100 Mbps devices, we ensure a smooth network transmission that delivers high resolution graphics and crystal clear video flawlessly.

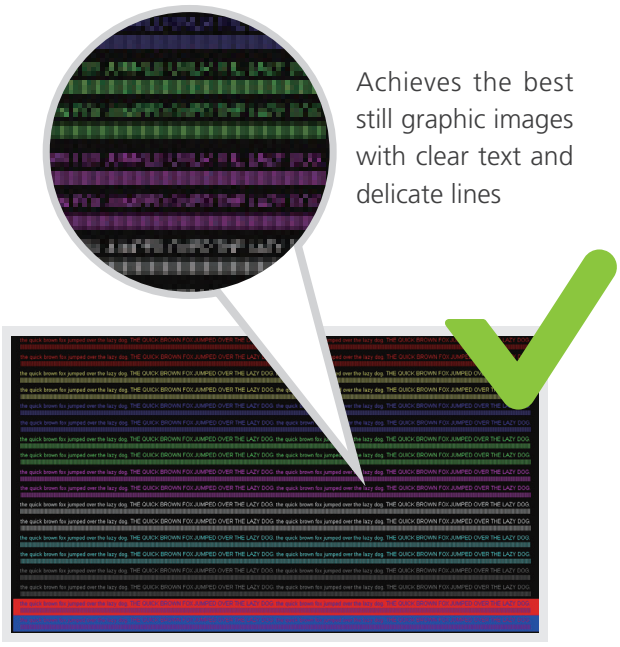
ATEN Real Visual Compression Technology

ATEN Real Visual technology is an advanced image compression technology that has been specially refined for utilization in ATEN's KVM over IP Extenders. It provides the highest rate of video data integrity for resolutions up to 4K@60Hz over a 1GB network switch and 5K@60Hz over a 10GB network switch, and provides high quality imaging for both text and natural scenery.

ATEN Real Visual compression is one of the most effective methods of image compression. By using ATEN Real Visual technology, the details of video in 4:4:4 color sampling can be preserved in the transmission process. The human eye is particularly sensitive to low frequency information (also called luminance) in images, and so because ATEN Real Visual compression boosts information in this area, effectively reducing distortion, this is what makes it especially useful in video applications over long distances.

ATEN's Real Visual technology delivers a compression process from the local transmitter to the remote receiver with latency of less than one frame – i.e., under 16 ms (1 ms with the KX series and 5 ms with the KE series). Compared to other kinds of compression, such as Standard H.264 that has a latency of more than 10 frames, ATEN Real Visual compression is therefore especially useful in KVM applications where it can mirror mouse movements with latency less than 1 ms/5 ms so that it does not impair the operator's experience. ATEN Real Visual compression also produces a higher rate of image integrity than other kinds of compression. For example, it completely eliminates JPEG mosquito aliasing effects, and this is extremely important for word processing or applications that require the highest video quality possible (4:4:4), such as medical imaging.

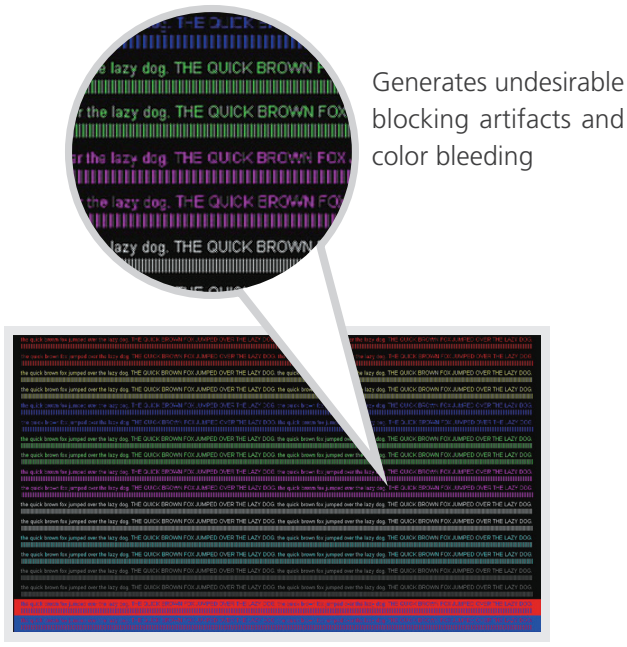
Video Quality Compression



Achieves the best still graphic images with clear text and delicate lines

ATEN Real Visual 4:4:4 Color Space

Achieves the best still graphic images with clear text and delicate lines



Generates undesirable blocking artifacts and color bleeding

JPEG 4:2:0 Color Space

Generates undesirable blocking artifacts and color bleeding

Dynamic Advanced Management - CCKM

ATEN's KVM over IP Matrix Manager (CCKM) provides IT administrators with tools to centralize the control and management of KVM over IP extenders in their IT environment. Currently in its latest version with a new easy-to-use installation wizard, it allows simple, intuitive administration of all KVM over IP extenders with an enhanced user-friendly, web-based GUI.

The KVM over IP Matrix Manager's (CCKM) Primary-Secondary architecture safeguards data transmissions through built-in redundancy factors, including automated database backup of Primary and Secondary servers and device configurations in addition to real-time database updating. Redundancy ensures that if the Primary server goes down, the KVM over IP Matrix System will remain functioning, since a redundant Secondary server maintains all the required services until the Primary server comes back up.

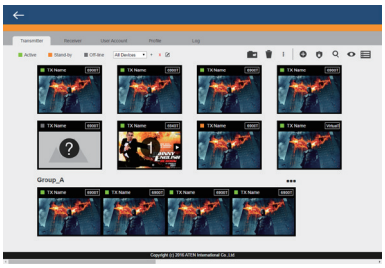
Through the KVM over IP Matrix Manager (CCKM), the KVM over IP extenders provide advanced features for username and password authentication, user authorization and auto-detection of all transmitters and receivers. With secure transmissions in mind, the KVM over IP Matrix System is implemented with RADIUS, LDAP and AD ensure secure authentication.

Dashboard

Provides system status, KVM over IP extender connections, user login, schedule profiles and current sessions at a glance.

Real-time Preview

Monitor all transmitters simultaneous on one screen.

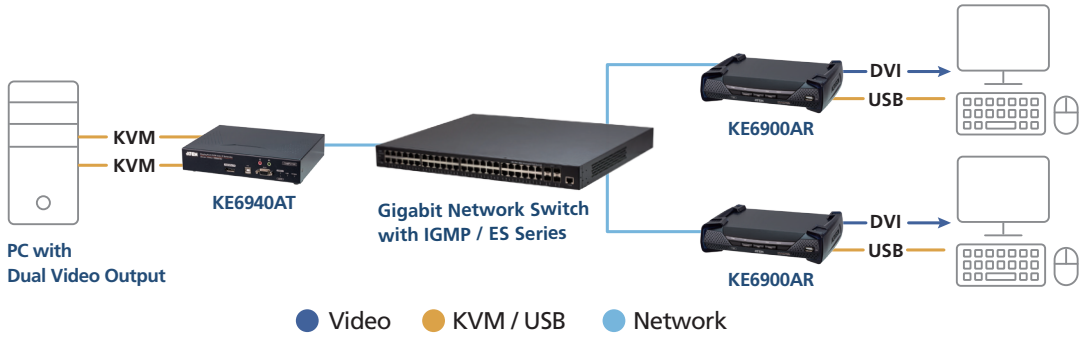


Boundless Switching

Switch between computers by moving the mouse across the display border.

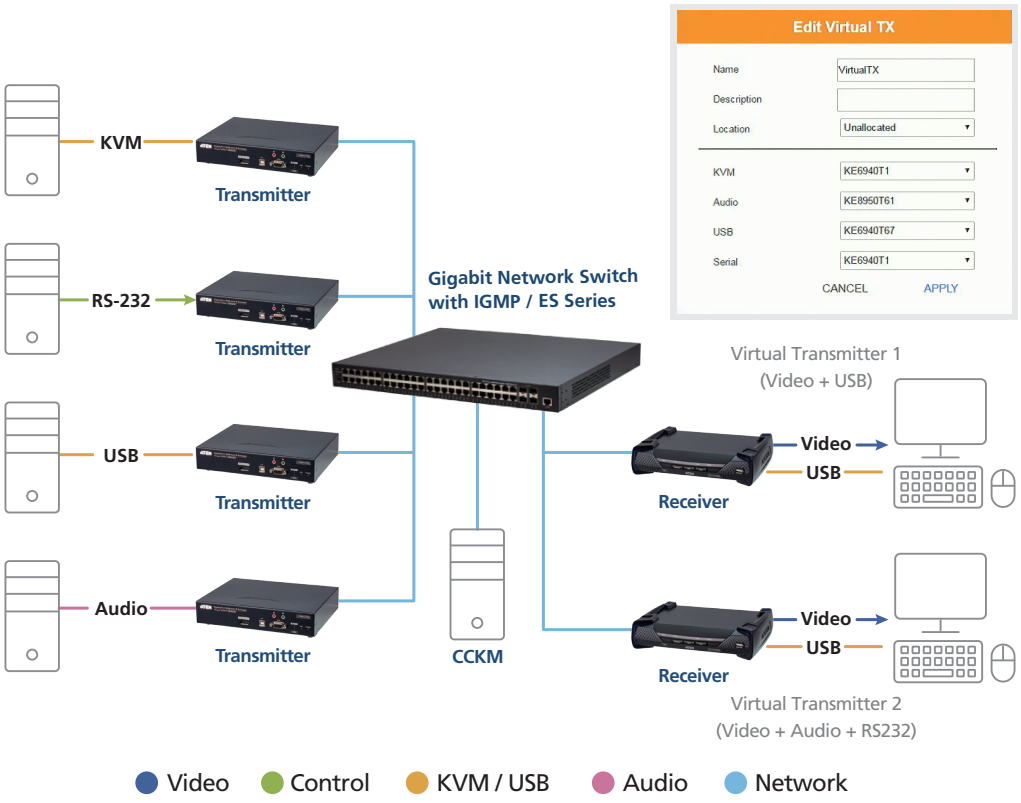
Intelligent Dual Video Output Management

Using KE6940AT, two video outputs from a PC can be delivered to multiple receivers as two separate sources. This is especially beneficial for single display receivers (e.g KE6900AR / KE8950R / KE8952R / KE9950R / KE9952R / KX9970R / KE6920) because operators can switch to either one of sources from the OSD instead of accessing source 1 only.



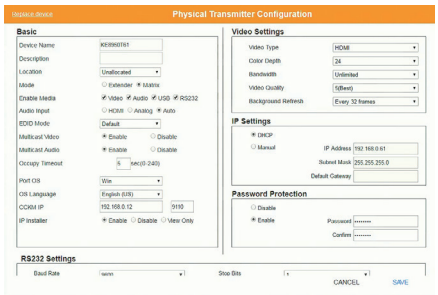
Virtual Transmitter

Separate KVM, audio, USB, or RS-232 data streams from different transmitters can be combined into virtual transmitters and connected to multiple receivers.



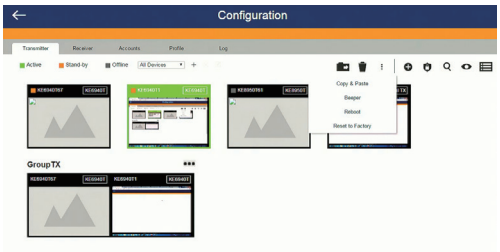
Easy Device Replacement

Device configurations are saved to help bypass the setup process when replacing transmitters/receivers with same settings.



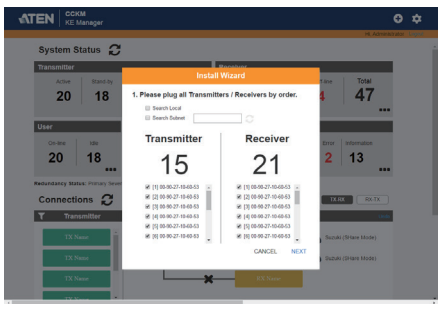
Configuration Copy & Paste

Select any required configurations you want to keep, paste them to the new devices, and everything is ready to go.



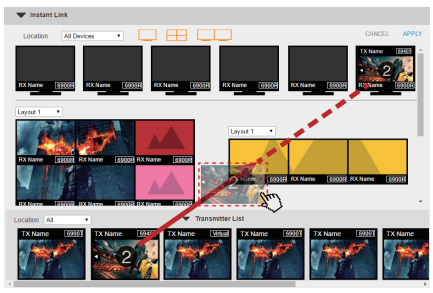
Install Wizard

Detects all devices in the LAN automatically for quick installation.



Instant Link

Connect transmitters and receivers with a simple drag-and-drop.



Versatile Video Walls

ATEN's KVM over IP Matrix Manager (CCKM) allows you to create custom video walls with up to 12 x 12 displays in various configurations, providing flexible, scalable installations with predefined display content that is easy to schedule.

Single Source

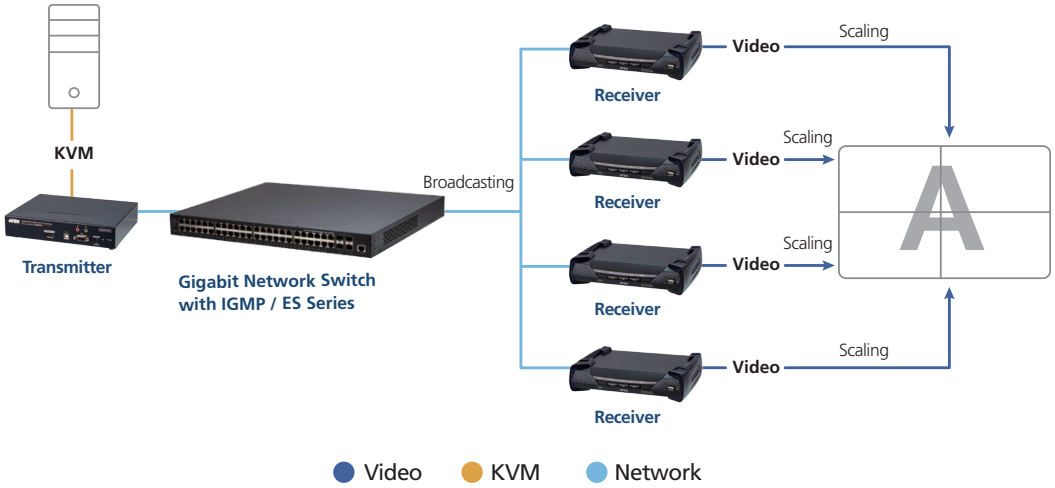
A source from a single transmitter can be cropped into sections for flexible display configurations:

Multiple Sources

Multiple sources from multiple transmitters offer unlimited combinations:

Video Wall Synchronization

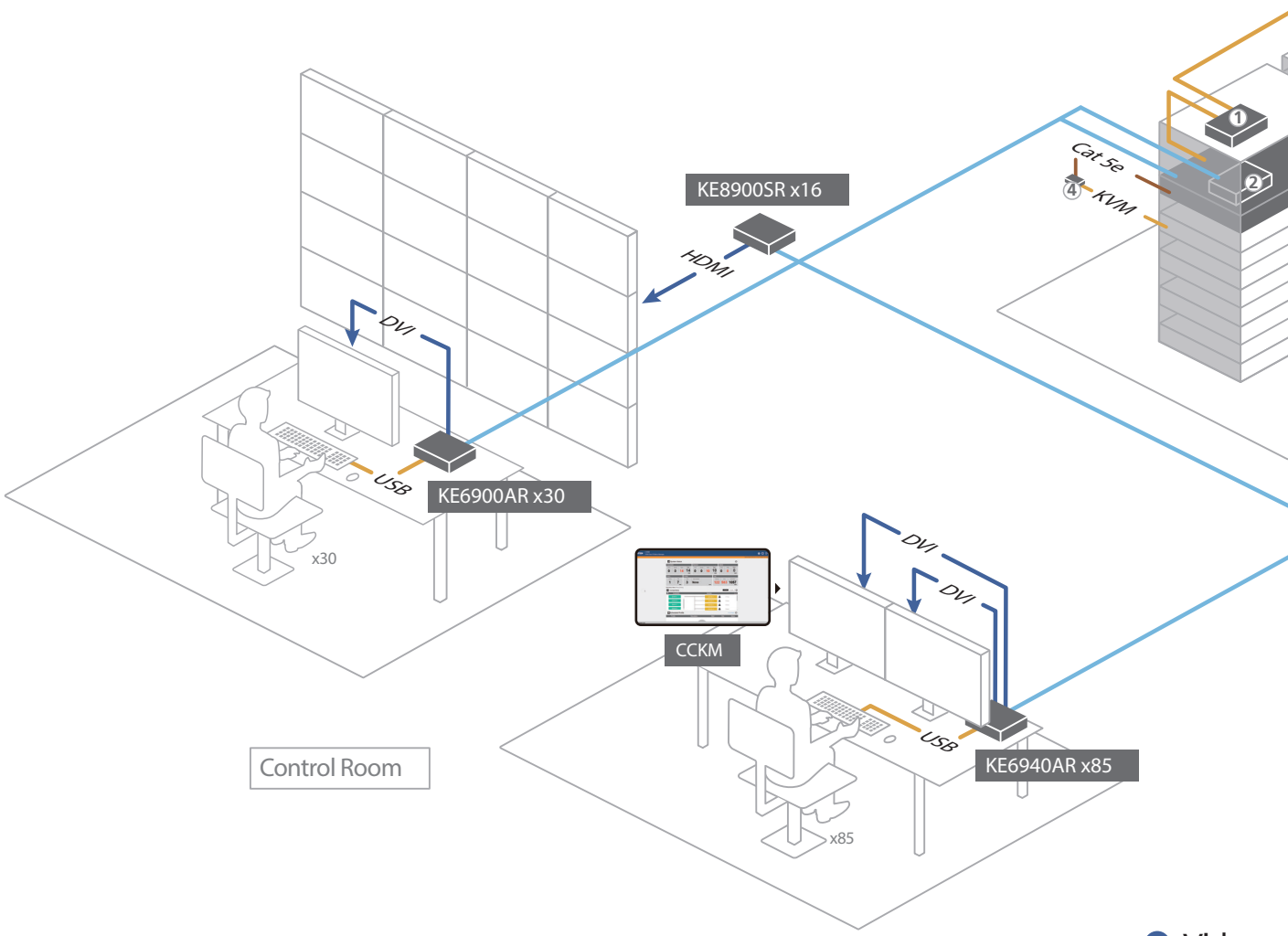
The KVM over IP Matrix System's multicast functionality means it is able to broadcast packets. When the network switch receives the packets, it simultaneously sends them to all of the designated KVM over IP extenders in the installation for display:



ATEN Solutions in Action

Utilities & Process Control Centers

In Utilities & Process Control Centers, operators continuously monitor and control constant flows of manufacturing, industrial control process, infrastructure/equipment status, and the dynamic change on demand to guarantee production and distribution in the best possible way. The challenges include providing an integrated real-time overview of process flow and equipment status for better situational awareness and decision making, along with a flexible and ergonomic system deployment for efficient yet managed access to devices. Information integration and visualization are especially important in these scenarios – from detailed network distribution information to topological overviews of the service area – in addition to redundancy/backup support to ensure continuous operations.



Video

Power Distribution Company, China

A state-owned power distribution company in China was looking to relocate and upgrade their large-scale dispatch control center to centrally monitor and manage dual-display and single-display workstations while incorporating an additional KVM solution for 96 communication control servers.

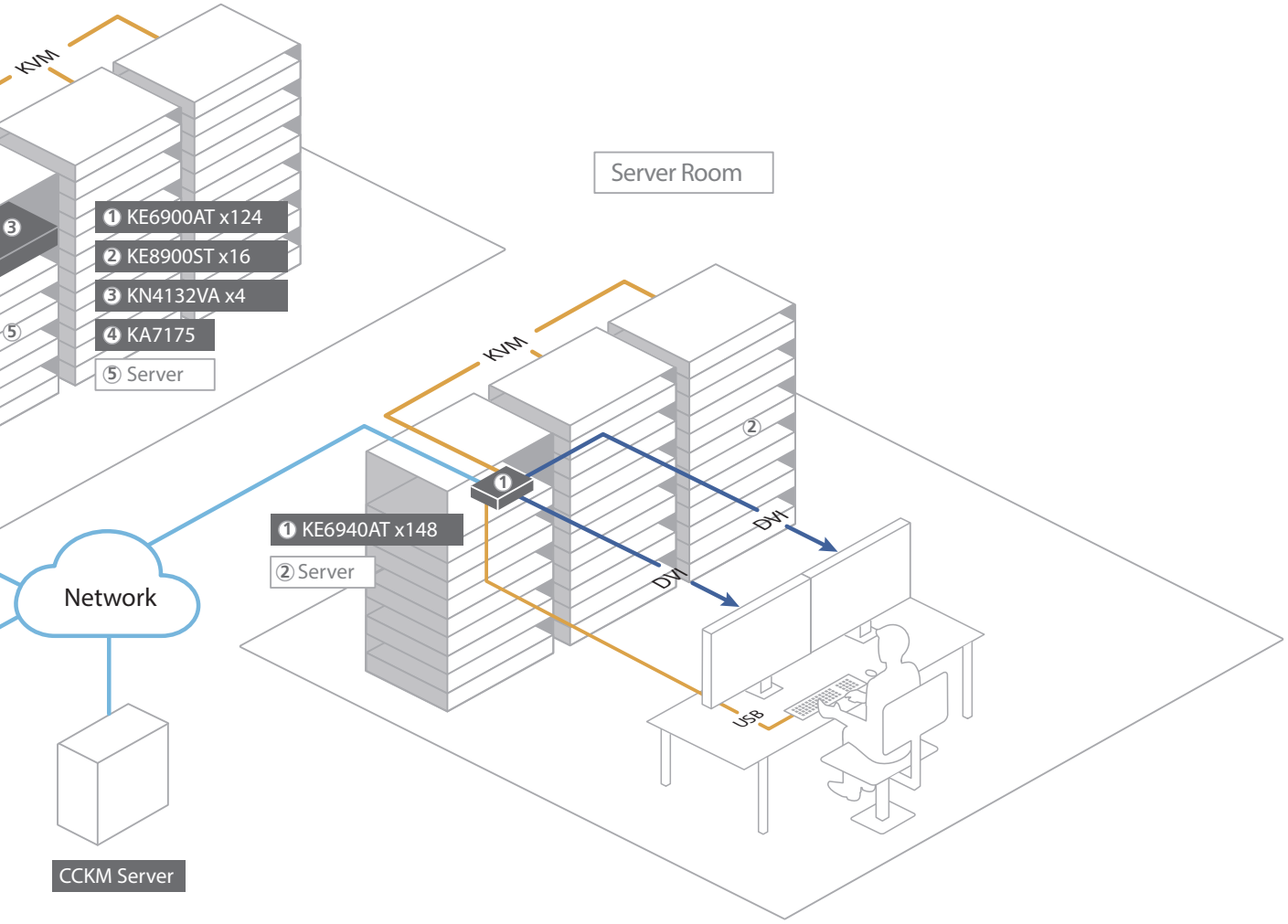
Challenges:

- Desktop extension of multiple single and dual-view workstations distributed across different areas of the power distribution system.
- Providing local and remote data center access from the communication control department to the dispatch center (and an additional monitoring control room).
- Desktop monitor to video wall switching for 2D visualization of the power grid and geographic information.

ATEN solution

Utilized their existing, robust network infrastructure to provide remote access and extended control of both single and dual-view workstations and remote monitoring and management over IP.

- KE6940AT/AR – Dual Display DVI KVM over IP Extender
- KVM over IP Matrix Manager (CCKM)
- KN4132V – 32-Port Cat 5 KVM over IP Switch with Virtual Media
- KE6900AT/AR - DVI-I Single Display KVM over IP Extender
- KE8900ST/SR - Slim HDMI Single Display KVM over IP Extender
- KA7175 - USB VGA Virtual Media KVM Adapter



KVM / USB Network Cat 5e

Control Rooms for City Surveillance, Italy

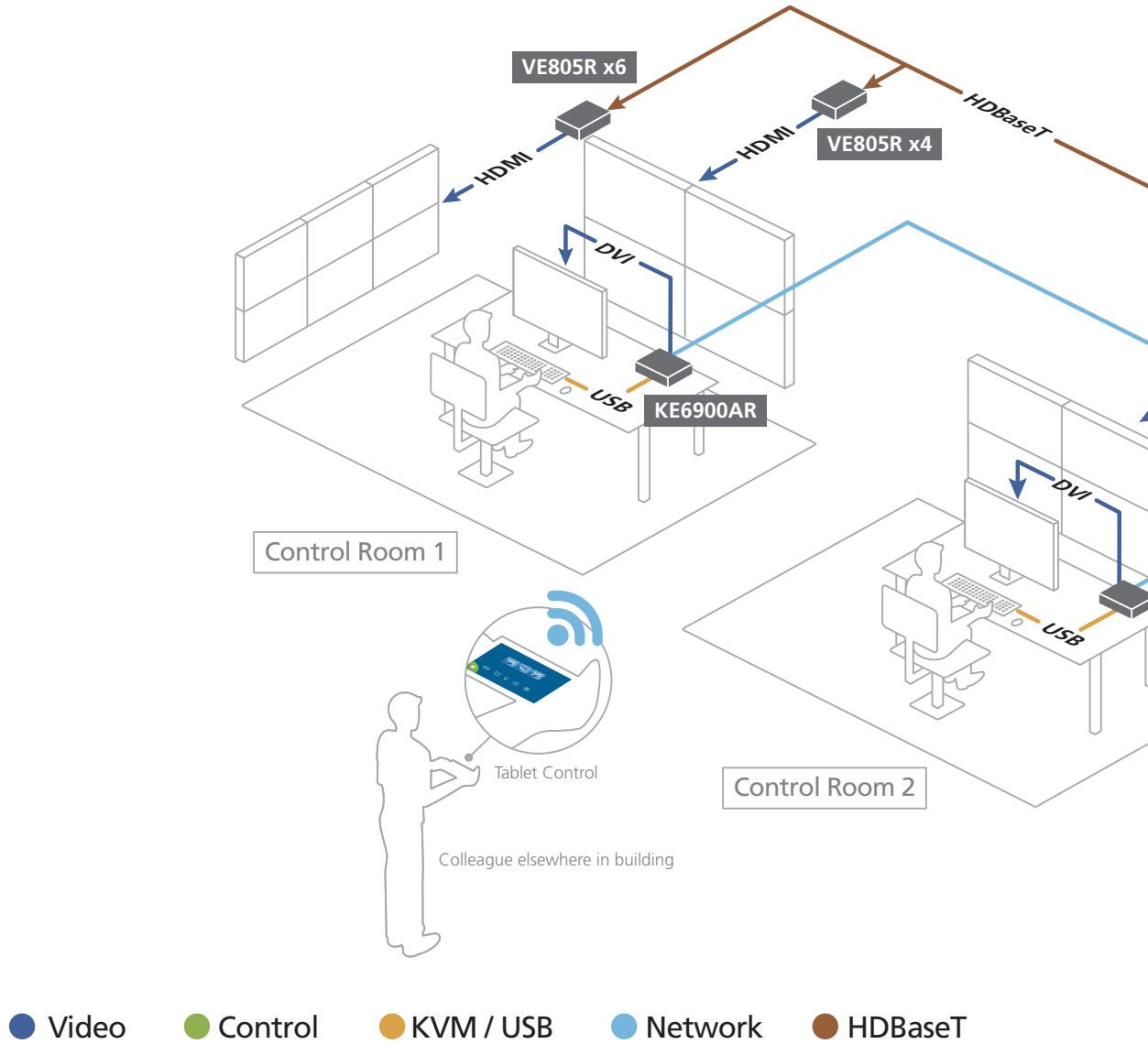
The State Police in Turin, Italy, required a system of new public surveillance control rooms to improve public safety and coordinate crime prevention efforts on a day-to-day basis, while also being able to double as operations rooms for major events, such as football matches, international summits, or crisis control scenarios.

They needed a solution that took into account the importance of visualization and information integration for fast decision-making and responses in these situations, so that they could improve operational flexibility with control room operators monitoring different urban areas, allowing them to inform agents in the field in real time.

ErreElle Net, an industry specialist, helped to set up several video walls and flexible workstations that used a combination of HDBaseT and KVM over IP technologies.

Challenges:

- **Mass Media Distribution**
  Multiple video walls were to be installed in three different control rooms with a wide variety of source devices
- **Remote Access**
  Operators needed to instantly access any of the computers, which were stored safely in a separate server area
- **Easy to Manage**
  Operators without any technical knowledge need to be able to control the video wall in each control room



ATEN Solution

- Centralized Control

Centralized control via a dedicated, custom-designed interface on handheld devices

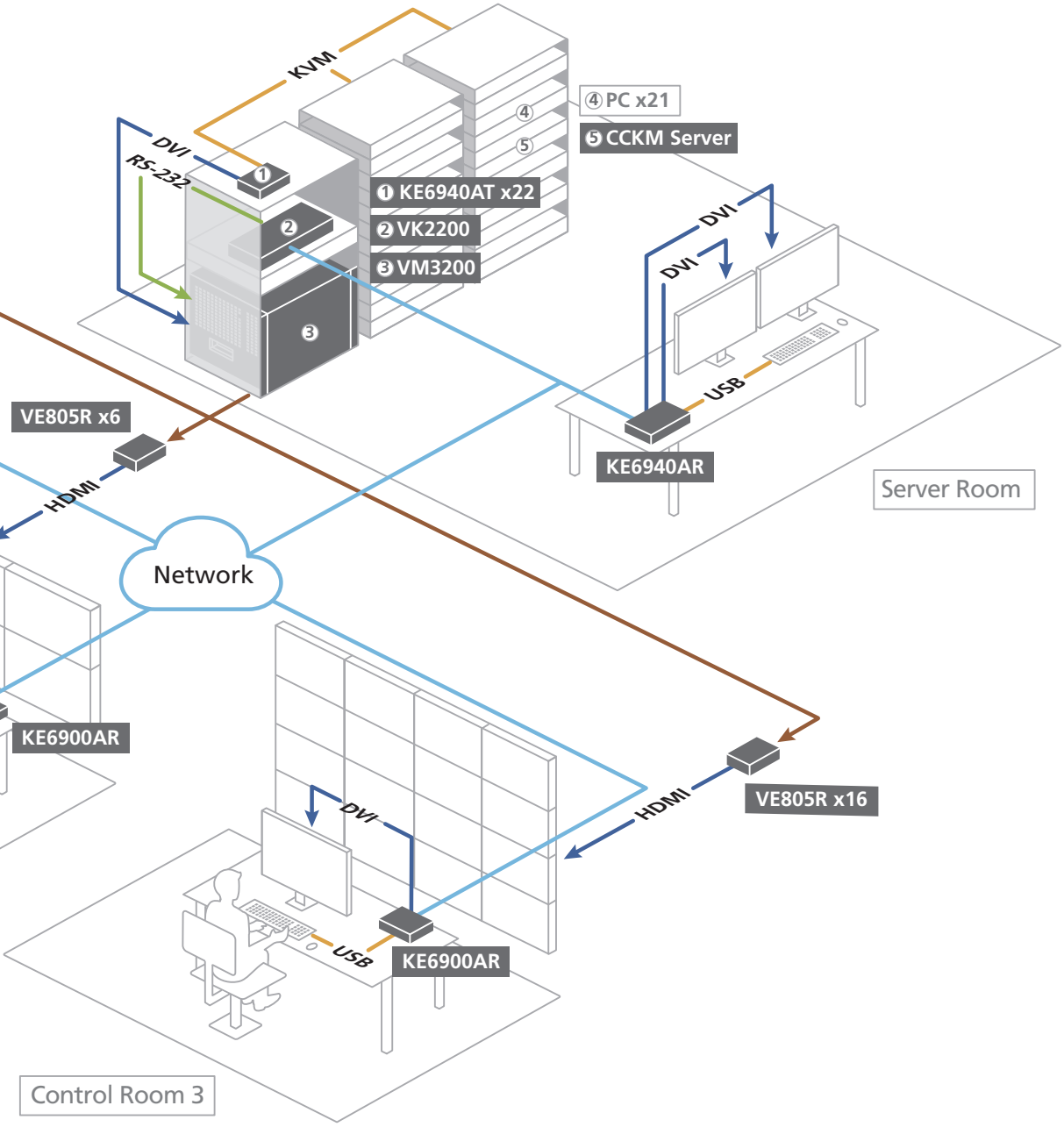
- Real-Time Monitoring

Connects a large amount of screens and sources for real-time monitoring of feeds from multiple cameras in various locations

- Improved Workflows

A unified, intuitive and workflow-based user environment that is highly flexible, configurable, and responsive

- KVM over IP Matrix Manager (CCKM)
- KE6940AT & KE6940AR – Dual Display DVI KVM over IP Extender
- KE6900AT & KE6900AR – Single Display DVI KVM over IP Extender
- VM3200 – 32 x 32 Modular Matrix Switch
- VK2200 – Control Box
- VE805R – HDMI HDBaseT-Lite Receiver with Scaler



Applications

The ATEN KVM over IP Matrix system is designed specifically to unlock the distance limitations and provide exceptional clarity for video intensive applications.

Control and Monitoring

The ATEN KVM over IP Matrix System provides versatile video walls for controlling multiple computers on one or many displays with multiple user access, meeting the demanding requirements of traffic control centers.

Media Post Production

The ATEN KVM over IP Matrix System can flawlessly distribute video up to 5K and digital audio to multiple workstations, facilitating effective collaboration in real time on a variety of media content.

Command Centers

The ATEN KVM over IP Matrix System can provide responsive, resilient yet secure operations for content integration, interagency collaboration, and mass-distribution in government or military agencies.

Security and Surveillance

The ATEN KVM over IP Matrix System eliminates the limitations and costs of surveillance software while offering versatile and customizable viewing layouts, allowing multiple local and remote access.

Banking and Trading

The ATEN KVM over IP Matrix System can multicast imaging and allow shared access to fulfill the needs of timely distribution of high quality images between hospital floors or across large facilities.

Medical

The ATEN KVM over IP Matrix System can multicast imaging and allow shared access to fulfill the needs of timely distribution of high quality images between hospital floors or across large facilities.

Air Traffic Control (ATC)

The ATEN KE6920 / KE8950 / KE8952 / KE9950 / KE9952 / KX9970 / KX9980 offer exclusive 2K x 2K resolution, authentication lock, and connection redundancy, allowing operators to make precise decisions with clear visual in real time with the highest reliability.

Memo

Simply Better Connections

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