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# **Application Guide**

Digital KVM Extension Solution for Control Rooms



# Centralized Control and Management

The latest management systems extensively utilize computers for data storage and processing. This expansion in the scale of management systems means that increasing numbers of computers are required and, therefore, administrators need to control and manage more and more servers which are widely distributed in various locations. As the scope is getting larger and larger, it becomes more difficult to set up an individual console for all the widely distributed servers. Administrators are less able to move back and forth to implement maintenance tasks, and many servers/systems may be located where there is no space to even install a console device. Also, human resources are becoming more limited, while the management systems become larger. It is less and less efficient for administrators to waste their time moving around among multiple locations. Due to this, more and more environments, such as traffic control centers, station control rooms, security monitor centers, factory control rooms, and more, are extending the consoles away from the servers and centralizing management in a dedicated control room. This enables administrators centralized manage widely distributed servers in a dedicated place.

Extending the distance between server and console for centralized control is a must in this kind of environment. Since the servers are widely distributed in various locations, the distance from each server to a control room may be different. When consolidating all the consoles to be operated in a control room, the extension distance becomes a major concern. Moreover, various critical operations are necessary, so that the high quality video which enables multiple administrators to implement essential tasks in real time is also required.

# Mission

ATEN's mission is to offer a solution which extends all the consoles away from the widely distributed servers and consolidates them in a dedicated location. The solution needs to provide long-distance extension capabilities and flexible installation. Reducing signal transmission delay for essential real-time operation as well as maintaining high video quality is also an important concern in developing this solution. Furthermore, an administrator may not only need to control dedicated servers but also implement collaboration with other colleagues. Therefore, it is clear that the solution needs to allow an administrator to exclusively control or share access with other administrators.



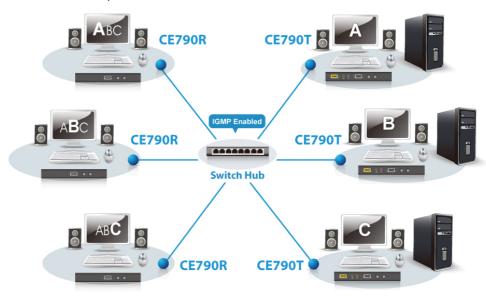


# UNLIMITED ACCESS from Anywhere Over the Intranet CE790 Digital KVM Extender



The CE790 is an IP based KVM Extender system with RS-232 serial functionality that allows access to a computer system from a remote USB console (USB keyboard, monitor, and USB mouse) located anywhere on your existing network infrastructure.

The CE790 system consists of a transmitter (CE790T) that connects to the computer system and a receiver (CE790R) that is located on the user's desk. For even greater flexibility, any number of transmitters can be configured with any number of receivers, providing access and control of various computing resources from any number of remote consoles via a standard TCP/IP network. Furthermore, the CE790 supports high quality digital audio and video streaming transmissions, ensuring that users obtain superior A/V signals from anywhere on the Intranet with no distance limitation. Each unit is assigned a unique IP address and connects via a single Cat 5e cable, making the CE790 Digital KVM Extender system perfect for use in the installation where you need multiple consoles in conveniently accessible locations, such as control rooms.



<sup>\*</sup> The CE790 can be installed in point to point, point to multipoint and multipoint to multipoint configurations. Multipoint configurations require a separate purchase - contact your dealer for details.

<sup>\*</sup> In multipoint configurations, the IGMP (Internet Group Management Protocol) function of your network switches/hubs should be enabled to avoid deterioration of data throughput. If you do not know how to enable IGMP, please contact your network administrator.



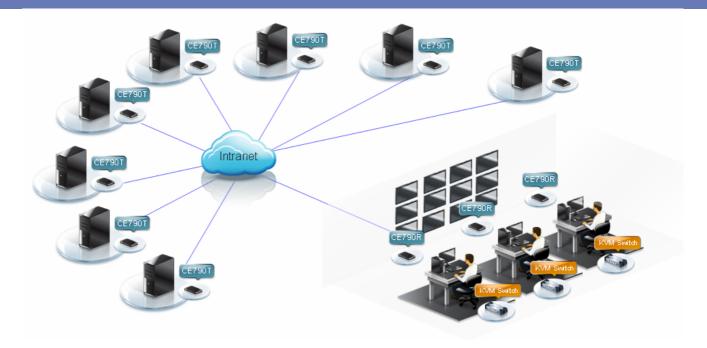


# >> Gathering all the Consoles in a Secure Control Room

#### Applications: Traffic Control Centers, Station Control Rooms, Security Manitor Centers, Factory Control Rooms

To extend all the consoles away from a number of widely distributed servers and consolidate them in a dedicated location, connect a transmitter (CE790T) for each server to the existing Intranet. Then, the console devices can be installed depending on the number of administrators in a control room. Connect the console devices with the receivers (CE790R) and connect to the Intranet for a multipoint-to-multipoint configuration. This setup provides administrators with the means to access and control the widely distributed servers from their desks.

In addition, an administrator may need to control his own computer, located under his desk and used for general tasks. A KVM switch can be integrated into the installation by connecting it via the console ports of the receiver. This allows the administrator to control his computer and multiple computing sources from a single console. With an intuitive On Screen Display (OSD), an administrator is able to select an IP address, is auto detected by the system, and easily access the server it belongs to.



#### **KVM Switches** – An Essential Server Management Device

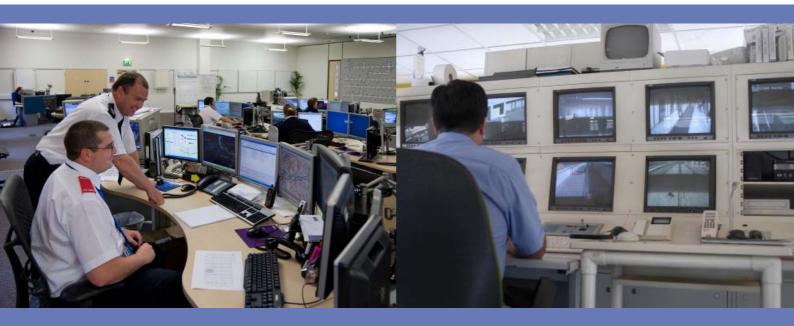
A KVM (Keyboard, Video and Mouse) switch is an advanced, hardware-based solution that allows centralized access to multiple computers easily and conveniently from a single keyboard, monitor, and mouse. A KVM switch is useful in an extensive range of environments, suitable for SOHO users, small and medium businesses, and large corporations. ATEN offers a wide range of KVM switch to meet various needs. Please visit our website for more product information.



# **Benefits**

- Transmits over Intranet works over existing LAN environment unlimited distance, no trailing smear.
   With this feature, the solution greatly reduces the total installation cost and time, especially in large public places.
- Flexible Configurations allows flexible point-to-point, point-to-multipoint, and multipoint-to-multipoint
  administration. It fulfills the expansion need of console/computer by allowing the easy addition of the
  Transmitter/Receiver to the installation. Furthermore, it also greatly reduces maintenance time and costs and
  allows you to set up the receivers depending on the number of administrators.
- **Digital Audio/Video Streaming** This allows A/V signals transmitted via the Intranet to maintain an excellent quality (up to 1920 x 1080). With superior video signal support, the CE790 maximizes the possibilities of A/V applications.
- RS-232 serial functionality support allows you to connect to a serial terminal for configuration and serial
  devices such as touchscreens and barcode scanners.
- Dual Console Operation allows control of your computing source from both the receiver and transmitter
  consoles, meaning an administrator can not only to access the server at his desk but also implement tasks
  from the console ports of the transmitter if necessary.
- Easy-to-use Provides an intuitive On Screen Display (OSD) on both the transmitter and receiver units for
  easy setup and operation. The administrator is able to manage any server simply by selecting its IP address
  via the OSD.
- KVM Switch Integration offers a flexible and cost-saving and space-saving solution.

\*The specification and pictures are subject to change without notice.





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