



***ATEN Paves the Way for Digital Signage Technology***

## Overview

A growing number of high-traffic locations such as shopping malls, plazas, bus terminals, hospitals, banks, cinemas and other public spaces where people gather have abandoned nearly all use of traditional advertising. Instead, they are using digital signage displays to deliver corporate and product messaging to their target audiences. Static advertising is gradually being replaced by large digital screen displays that can deliver interactive messages.

Additionally, real-time information requests have also increased the demand for digital signage. For example, it has always been important to provide the latest information to travelers in airports and other transportation hubs, which seems to be updated more frequently because of the latest technology. Traditional methods of updating information are unable to efficiently handle such processes.

Due to the demand for real-time information, these environments have turned to digital signage solutions to meet customers' demands. These environments generally cover a large area and need digital displays all over the installation; the long distance between the displays and source device is an important consideration. In addition, there may also be different types of displays on the installation that require different content to be displayed. In these types of

installation, the ability to easily select a different source for each display is a great benefit to administrators, providing customers and travelers with entertainment, news and other content experiences.

Excellent video quality is a major concern when adopting a digital signage solution, due to the demands of various A/V applications. Keep in mind that digital signage products are offered by manufacturers that utilize VGA, DVI and HDMI connections. Be sure to select solutions that will offer the best video quality based on your current display technology. Finally, a solution that offers interactive functionality, such as touch screen technology, is increasingly an important consideration as customers and travelers require customized real-time information on demand.

## Scenarios

The following are two key scenarios for digital signage installations:

- **Duplicating a single source to multiple displays** (ideal for department stores, shopping plazas and theaters). Installations in small environments generally utilize a point-to-multipoint configuration to duplicate the same content to multiple displays.
- **Routing multiple sources to many displays** (ideal for airports, bus terminals, railway stations and

### Scenarios



Duplicating a single source to multiple displays



Routing multiple sources to many displays

shopping malls). When it is necessary to show different information on many displays in public places, the multipoint-to multipoint capabilities of a digital KVM extension solution are ideal.

A key element in the success of a digital signage solution is the quality of video as it is carried in long-distance transmissions. A powerful tool in digital signage installations is the video splitter. This device not only duplicates the video/audio signal from a single source to multiple outputs, it also boosts the signal so it can be conveyed over long distances before unacceptable degradation occurs. Since the original signal is boosted, video loss is kept at a minimum and multiple splitters can be cascaded to accommodate even more output displays.

## Key Industries for Digital Signage

- **Retail:** A video installation in a retail environment enhances selling power with in-store and shopping mall digital advertising.



For example, price updates and sales specials can either be displayed in specific departments or storewide. Retailers can target consumers directly and effectively with point-of-sales displays, while advertisers can increase brand awareness in department stores, and shopping malls. Many manufacturers offer digital signage solutions that provide serial support that allows for touch screen monitors to be installed in retail environments to provide interactive, customer-oriented communications.

- **Transportation:** In busy train stations, subways, airports, rail lines, and bus terminals, providing updated information at the right time is essential. From public transportation



information systems to private travel companies, government and corporate installers are choosing digital signage solutions to deliver arrival and departure times, announcements and messages to specific gate locations, as well as updated information about delays and other changes in order to keep people moving and money flowing.



In addition, traffic control centers or information control centers must maintain dynamic systems for simultaneous monitoring.

Digital signage products allow administrators to easily choose what gets displayed on a monitor by routing and amplifying audio/video signals from multiple sources to multiple destinations.

- **Financial Services:** In the financial world, the strength of a trading room is directly related to the technology backbone. One of the fastest-growing outlets for digital signage is finance center displays, where our video products are used to deliver essential finance news, stock prices, and reports in real time to multi-screen workstations and computer projection systems with multimedia displays. LCD panels in trading platforms and terminals are supplied with satellite TV feeds, and bank products, service programs can also be demonstrated visually via digital screens.



- **Events/Trade Shows:** There are numerous applications for digital signage at tradeshow, computer stores and other demo sites. For example, video splitters allow one high resolution video source to be displayed on multiple video outputs. Since all



outputs are displaying the same input source, consumers in an electronics store can easily differentiate the video quality between

different brands of computer monitor, or even plasma displays and LCD panels.

- Entertainment:** The possibilities for digital signage in the entertainment industry are practically boundless. Movie theaters can utilize closed-circuit networks to show previews and coming attractions, show times, and even product advertising. Large sports arenas can use high resolution video platforms throughout their venues to broadcast scores and highlights, while small sports bars can show games and scores on large screens placed strategically around their premises. Venues such as bowling alleys and skating rinks can broadcast targeted messages and advertisements to customers, while large hotel chains can display information about reservations and resort amenities.



- Manufacturing/Security:** The use of CAT 5e cables allows digital signage products to extend the distance between a source device and its display in industrial video installations, making them ideal for factory or warehouse applications where remote video is required for monitoring or security purposes. Computers or video source devices are placed in a secure location, or where they are protected from harsh environmental conditions.



- Education:** Digital signage is ideal for educational situations. In classrooms, for example, instructors can use a video splitter to share material or operational steps on students' monitors while simultaneously explaining them. This is especially useful in IT classes, or in schools where resources such as PCs are scarce. Video conference lectures can be transmitted



simultaneously throughout large venues, such as theater halls and large meeting rooms. Presentation material can also be transmitted over Cat 5e cable to other rooms or floors, allowing audio and video material to be displayed on multiple remote screens in real time.

## Conclusion

It is clear that the digital signage industry has a bright future. According to a recent [report](#) by industry research firm [iSuppli](#), worldwide shipments of LCD and plasma screens for use in digital signage and professional displays are forecasted to grow a hefty 25 percent in 2010, reaching 1.99 million units, up from 1.6 million in 2009.

The report also noted that "because of renewed economic vigor after the recession, the industry can expect stellar growth during the following years as well, with increases of more than 40 percent annually from 2011 to 2013. By 2013, shipments of LCD and plasma displays for signage and professional displays will total 5.99 million units."

For companies seeking additional information and resources, there is no shortage of professional associations serving the digital signage market. [POPAI](#), [Digital Screenmedia Association \(DSA\)](#) and the [Digital Signage Federation \(DSF\)](#) are just a few organizations covering this space.

In addition to keeping pace with the real-time information needs of customers and travelers, an investment in digital signage can be utilized to deliver content-rich experiences in a virtually unlimited number of retail, professional, commercial and educational environments.

## ATEN Media Distribution Solution for Digital Signage

### Distribute high quality audio/video content over Cat 5e to multiple displays in real time

The ATEN complete MDS Media Distribution Solution is a cost-effective and efficient way to send high quality multimedia content over Cat 5e cable to multiple displays from a single input source. Flexible and scalable, this versatile all-in-one A/V over Cat 5e serial solution (Advanced only) gives you the freedom and means to set up any kind of high quality video display installation.

#### MDS Components

##### Advanced

VS1504 / VS1508  
Cat 5 Audio/Video Splitter



##### Receiving Devices

VB552  
VGA Over Cat 5 Repeater + Audio  
(Dual Audio/Video Output)



or

VE200R  
Audio/Video Extender  
(Dual Audio/Video Output)



##### Standard

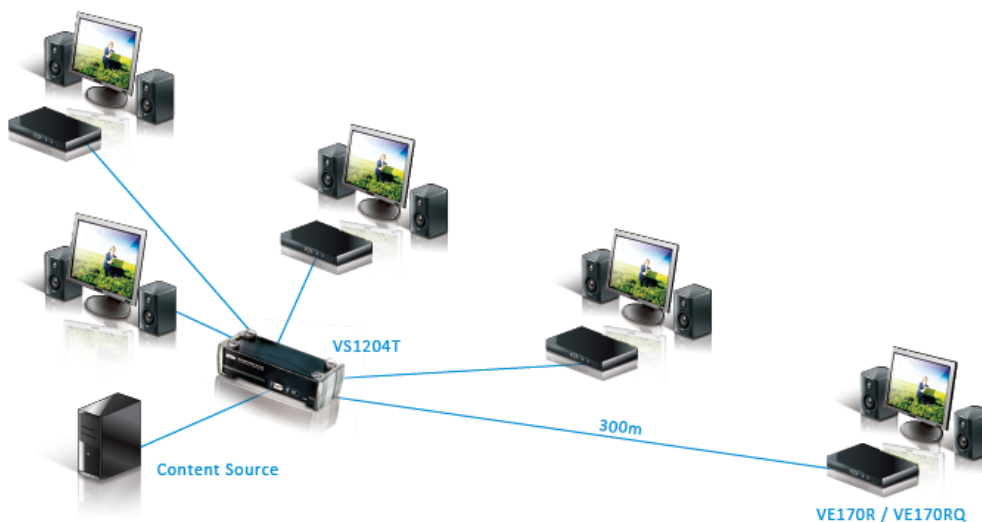
VS1204T / VS1208T  
A/V Over Cat 5 Splitter



VE170R  
A/V Over Cat 5 Receiver



VE170RQ  
A/V Over Cat5 Receiver  
(With Deskew)





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