Digital Signage to Enhance Public Safety

By Ben Hardy

Safety and security are the two most important priorities among transportation professionals. According to the American Public Transportation Association, using public transit is 10 times safer than traveling by automobile, yet in the public space, are faced with specific challenges to ensure travelers stay safe that are not shared elsewhere.

First and foremost, public or mass transit involves greater numbers of people in one space and in emergency situations, different safety strategies need to be employed. An increasingly common and practical approach to help enhance transportation security is with digital signage. Digital signage has the ability to use video and audio messaging to feed passengers dynamic safety information in a faster, more streamlined way than static signs. One of the most important features of digital signage is how easily it can be updated with critical information. Messages on digital signage can be changed instantaneously from a centralized location via a server, whereas a static sign can only be updated if an employee physically goes to where the sign is and swaps it out. Digital signage can also integrate with real-time data, such as news, weather, emergency alerts, delays, directions and instructions.

These real-time capabilities are especially useful during emergencies. Officials can take control of displays instantly and update the content to provide information on where passengers should go (or, sometimes just as importantly, where not to go) and how to contact transit police/security. Agencies can even use them to provide live commands to assist travelers – improving the speed of communications as well as providing a safer environment for passengers.

According to a Rich Media Technologies study, digital signage is 63% more attention-grabbing than static signs. Even in non-emergency situations, digital signage can help protect passenger safety with reminders such as, "if you see something, say something" or public service announcements on harassment, keeping bags off seats, or how and when to contact transit police/security. Content delivered through this medium is much more likely to draw the eye than static signage.

Digital Signage Technology: LCD vs LED

The top two options for transit agencies looking to invest in digital signage to boost public safety and security are liquid crystal displays (LCD) and light-emitting diode (LED) displays. Both LCD and LED displays can be used effectively for public safety and security messaging, but location and budget will dictate which type of display is best for a specific installation.

When to Use LCDs

LCD is a more traditional technology that utilizes a transmissive LCD panel and LED backlights, and has all video processing and power within a self-contained system. It allows for a lower pixel pitch than its LED counterpart and therefore higher-resolution capabilities for closer viewing distances. While LCD displays come in all different forms and levels, it is important to choose a robust display with capabilities beyond that of a traditional television. Integrated active cooling for thermal dissipation, full external control, a full metal chassis and a matte finish in the panel (or high-haze panel) to make screens readable in bright or direct sunlight, are all qualities associated with commercial-grade displays.

LCD displays can be used for outdoor digital signage applications, including outside train and bus stations. However, it is important that the display is specifically designed to handle extreme weather, direct sunlight, and solar load; not having the right solution for the application can lead to equipment failure. If a display is desired in a location where conditions are not ideal, separate enclosures with shatter-proof protective glass as well as additional heating and cooling can be necessary to house the displays and protect them from the environment.

When to Use LEDs

LEDs are light-emitting diodes, meaning they directly emit colors and light and are not reflective the way an LCD is. LED displays work well for any kind of distance viewing, including advertising, or if content warrants a large, seamless display (such as with a video wall). LED displays can be produced with fine pixel pitches to give the displays high

clarity and picture quality up close. They can also be produced with a wider pixel pitch and very bright intensity, allowing viewing at great distances, even in outdoor spaces. This provides transit agencies with greater flexibility regarding the type of content they choose to display (including font type and size), as well as where the displays are placed – travelers will be able to read them whether they are up close or far away.

If users are looking for the same quality and resolution as LCD, the LED display needs to be bigger and placed farther away from viewers; however, costs per inch and cost per pixel are generally higher with LED. Integrators can help ensure the best display is used. LEDs should be installed locations where they cannot be touched or harmed; this will help reduce the chance of damage or vandalism to the displays.

Public Safety Best Practices

Transit professionals should keep the following digital signage best practices in mind:

· Centralized Control

Optimizing communication is critical in an emergency. Having the right software, such as a content management service can provide a centralized control from a single network or point allows one person or team to monitor displays and control content. A solid content management service can make all the difference when a transit agency needs to immediately push alerts to every screen in a particular location. This can be done in real time from anywhere by an authorized person with access to the network. An agency can set up pre-written messages for certain situations such as a fire or collision, and simply hit a button to push the messaging to displays.

· Messaging

The effectiveness of a public safety messaging program greatly depends on the content. One recommendation is to work alongside or at least obtain feedback on content from local public safety entities, transit police or federal agencies such as Homeland Security to ensure that the messaging and design are appropriate and user friendly. best practices for messaging campaigns and emergency alerts and is able to design and create the most effective content such as a combination of images and text to ensure children and foreign-language speakers can understand and follow instructions.

· Location

Where displays are installed has a massive impact on their effectiveness. Just because it seems like a digital signage display will fit in a certain location, it does not mean people will see it or pay attention to it. Qualified public safety organizations can work with agencies to conduct traffic-pattern studies that can ensure signage is placed in optimal locations. Also, the type of structure required to mount the display and whether the location is indoor or outdoor will impact both location and price.

· Budget

In terms of cost, it is important to have a plan that includes the goals and needs of the public safety messaging programs. This will help ensure the budget fits the vision. Budget should be determined early in the project so an integrator can help recommend the best

possible solution for the messages and appropriately balance the budget with the vision and plan.

Furthermore, some higher-quality displays can send email alerts to an admin if there are any issues with the sign or with the way the content is

displaying. All displays can be networked, so if a screen goes down, the admin is alerted immediately. But not every display offers this option, so having a point person to monitor displays is important.

· Perspective

Think about the passengers and travelers utilizing the transit – what are they looking at, where are they looking and what information would help them the most? Sometimes less is more when it comes to the message so travelers are not overwhelmed with too much information. A clear, concise message in an environment that is not cluttered with signage ensures that the messaging is visible and effective.

Conclusion

Digital signage for public safety in a transit setting can keep travelers informed and aware. This helps create a more secure future for both passengers and transit agencies.

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