

Preparing for Outdoor Digital LCD Deployments

Outdoor deployments bring a set of unique challenges that requires consideration to maximize investment.

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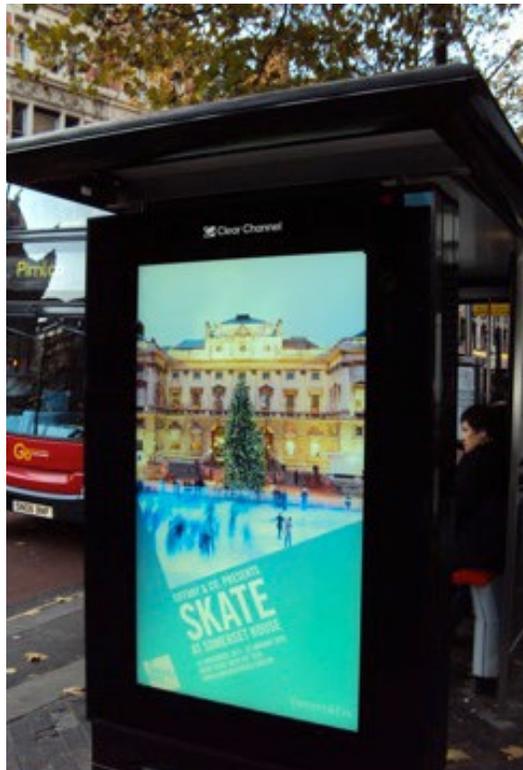
While businesses are consistently embracing digital signage as a tool to promote products, engage customers and convey information, many are unaware of the most efficient ways to deploy digital signage systems. Even companies that have had successful indoor rollouts don't understand the intricacies of deploying signage outdoors. Issues such as brightness, temperature, serviceability, power consumption and durability affect outdoor signage in ways different from indoor counterparts.

Environmental conditions

Indoors, conditions are stable. There's no direct sunlight, no rain or snow, no dust or dirt, no car fumes, no wind and no brake dust. The temperature holds steady between 65 and 75 degrees with under 50 percent humidity.

Outdoors, on the other hand, conditions feature temperatures ranging from 40 below zero to 122 degrees Fahrenheit. Humidity can skyrocket to over 90 percent. Gusting winds, pollution, rain and direct sunlight can take their toll on a screen. The competition from ambient light varies throughout the day. All of those factors make outdoor signage an entirely new ballgame.

"When you go outside, everything changes and it changes dramatically," said Peter Kaszycki, vice president of business de-



velopment for Manufacturing Resources International (MRI) of Alpharetta, Ga.

Brightness and visibility

Many users do not understand the degree to which consistent sun exposure, or sun load, can affect the unit. Daily sunlight's effect on signage can be exacerbated by factors including no/little cloud cover, smog

and the angle at which the sun is striking the screen (sunrise and sunset are more damaging to a screen than high noon). As a result, parts of the display can turn black because of solar clearing.

“The No. 1 enemy isn’t the heat, but the sun load,” said Kaszycki. “People often don’t take into account the impact of sun load on the unit.”

Even if parts of the display don’t turn black, many displays still lose 10 percent to 12 percent of their brightness every year. Kaszycki says MRI prevents this by using extra back lighting, which allows the display to keep its brightness for longer periods of time.

All-day usage

An important question deployers need to ask is whether their signage is able to operate 24 hours a day, seven days a week. In an indoor setting such as a retail store, signage will often run between eight and 15 hours a day. But outdoor signage must be able to run constantly.

Gene Ornstead of ViewSonic in Walnut, Calif., says companies sometimes make the mistake of thinking the same signage they use for indoor locations will work just as well outside. They buy a consumer-grade flat-screen TV because it looks similar and has high-definition capacity. But consumer TVs are not built to run all day, every day. If operated in such a manner, they will quickly malfunction — an all-too-common occurrence.

In addition, deployers should read the fine print on their signage’s warranties regarding daily usage. Some warranties are void if the customer uses the signage more than 16 hours a day.

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Location

Not all outdoor locations are created equal. A number of factors need to be considered for a digital signage display depending on its specific location. Frank Anzures, senior product manager at Christie Digital Systems of Cypress, Calif., says if a display is located in an area that’s very accessible to the public, then it should be resistant to human hitting, touching or scratching. If it’s near a pool or a park, it should be waterproof and resistant to impact in the event it is hit with rocks, balls or anything people may be playing with nearby. If it’s on uneven ground, it needs to be angled appropriately so people can see it.

A solution to the problems of vandalism or accidental damage is to use cover glass



to protect the screen. MRI uses 13.5-millimeter-thick ballistic resistant glass that can withstand the impact of a .22-caliber bullet.

Installation

Before installing, a few issues should be researched. What types of permits are required in the city and state? Is there a restriction on full-motion video if the signage can be seen by motorists? What will the power consumption be (an important question to ask to ensure that circuit breakers aren't popped when the display runs at full brightness)?

It is also important to go to the site and make sure the signage is not going to be installed in a dead spot for wireless connectivity.

Service options

Kaszycki says it's important to choose a signage company that can provide service for every aspect of the system. To save money, some consumers get different parts of the system from different companies. If the signage malfunctions in this scenario, then the display guy blames the enclosure guy, who blames the cooling guy, who blames someone else and so forth.

"No one will want to take the blame or the responsibility," said Kaszycki.

As a result, a deployer should work with companies that can fix any and all problems that may arise with the system. Doing so will minimize the amount of time the display is down and will save money.

No shortcuts to quality

It's tempting for businesses to try to save money by buying cheaper signage or using



the mix-and-match method of purchasing the system's parts. While that might save money in the short term, it will undoubtedly cost the buyer more money over the long haul with maintenance and replacement costs. A higher-quality product will cost more up front but will cost less to maintain and last longer.

About the sponsor: Manufacturing Resources International is an Alpharetta, Ga.-based company and an emerging industry leader in high-performance, reliable indoor and outdoor digital displays ranging from 26 inches to 84 inches in size. The company works for a wide variety of clients, including JC Decaux, Clear Channel, CBS Outdoor, and other major media companies.