

Cisco **Helps** CoolSign® Go Anywhere

Background

AdSpace Networks, Inc., one of the nation's leading providers of digital public advertising, is using Cisco technology to help get the attention of their target audience, everywhere their target audience goes.

Founded in 1998 and with offices in Burlingame, California, Las Vegas, and New York, AdSpace Networks, Inc., and CoolSign, its proprietary, patent-pending technology, offer advertisers and retailers a high-impact, dynamic medium that precisely targets audiences at points-of-purchase. Whether deployed at retail stores or at high-traffic public venues such as airports, convention centers, casinos, movie theaters, shopping malls, and stadiums, the rich, full-motion CoolSign imagery attracts consumer attention and creates lasting impressions.

The Challenge

Each CoolSign installation—part of a network of digital signage—consists of a personal computer running the CoolSign software, and a compatible display—a

video monitor, gas plasma flat-panel screen, or other type of electronic display. CoolSign are typically either wall-mounted or installed in freestanding kiosks.

Using its CoolSign technology, AdSpace Networks supports an end-to-end message delivery and control system that leverages today's low-cost, high-performance multimedia, networking, and display technologies. From its Network Operations Center (NOC) in Las Vegas, the company delivers, monitors, and updates the content appearing on hundreds of digital displays across the country.

Each CoolSign display is connected to a local area network (LAN). The installation is then connected to the AdSpace NOC via DSL, cable modem, satellite, or other link supporting IP connectivity. The company's CoolSign software and network connectivity allow each display to be addressed and controlled independently, so that advertising, merchandising, and promotional messages can be updated and scheduled to most effectively target the desired audience.

The Solution

Cisco has played a key role in establishing the network connectivity upon which AdSpace relies. “All our displays need are power and connectivity to the LAN,” said Tom McGowan, Director of Partner Relations for AdSpace. “At some locations, we can easily interconnect displays with CAT 5 cabling, but at many other sites, such as at food courts or in theater lobbies, running cable out to the displays is physically impractical, aesthetically undesirable, or potentially hazardous.”

To get around the limitations of such CoolSign sites, AdSpace relies on Cisco Aironet® wireless technology.

At sites where hard-wiring is not possible, each CoolSign display's personal computer is additionally equipped with a Cisco Aironet PCI client adapter. A small cable connects the client adapter to a directional antenna mounted within the kiosk or hidden in the frame of the display's wall mount. The display then communicates with one of several Cisco Aironet access points' omni-directional antennas positioned in the area around the site.

AdSpace teamed with Cisco for a wireless solution after investigating a variety of Wi-Fi compliant products, McGowan says. “We've been impressed by the quality of the Cisco Aironet product line. Aironet just works more dependably and has more features than the other products we looked at.”

AdSpace is no newcomer to Cisco products: The company has been employing Catalyst® 3548 switches and a Cisco 1700 Series router at its NOC, and intends to upgrade to a Cisco 3600 Series or 7000 Series router as bandwidth requirements grow.

Benefits

For AdSpace, the benefits associated with Cisco include the ability to network its displays without running cable, the ability to easily reposition displays, and the additional security provided by the Cisco Aironet 350 Series products.

“If we need to install a new display or relocate an existing display,” said McGowan, “all we have to do is move the display and plug it back in. The PC reboots and automatically re-establishes the wireless connection.”

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—Tom McGowan,
Director of Partner Relations,
AdSpace

According to Joe Griffin of RedRock Communications, a Cisco partner based in Las Vegas that assists with many CoolSign installations, “The Cisco Aironet 350 Series not only supports the 802.11 standard's Wired Equivalent Privacy (WEP) architecture with 128-bit encryption keys, but Cisco takes security capabilities one step further. Cisco uses the new 802.1x security framework and features mutual authentication, session-based encryption keys, centralized user administration, and Cisco wireless Extensible Authentication Protocol, or LEAP, support.”

To date, AdSpace has installed its CoolSign-powered displays in a variety of venues across the country, including movie theaters, Las Vegas casinos, and a major shopping mall in Ohio.

AdSpace's most extensive installations have been with its CoolSign Theater Network, where today, between four and six displays are deployed in each of more than 40 of the most well-attended Loews Cineplex movie theaters in New York, Los Angeles, Chicago, Philadelphia, San Francisco, Boston, Dallas, Washington, DC, and Seattle.

Installations using Cisco Aironet rarely present a problem in movie theaters, but occasionally providing power to display site can be a challenge.

“That's one of the beauties of using the Cisco Aironet 350 Series access point,” says Griffin. “It has in-line power capability.”

“The Cisco Aironet 350 Series access point's in-line power capability permits remote power along an Ethernet cable. The power can be provided by a Cisco powered switch, a powered patch panel, or a small, in-line power injector.”

Many of the most renowned casinos in Las Vegas, including Caesar's Palace, Excalibur, Harrah's, and Mandalay Bay, are using CoolSign displays as high-profile signage on the gaming floor and elsewhere. While many of the displays are wired, wireless connectivity will become increasingly important as the casinos add more CoolSign displays or reposition existing displays.

“Even casinos who aren't using wireless today will probably want to add that capability eventually,” says McGowan. “As they expand and put up new walls, they invariably find that the sheet metal and steel present problems for laying cable, and that's where

a wireless solution comes in.” Indeed, AdSpace has just completed installation of several CoolSign displays using Cisco Aironet wireless connectivity at the Luxor Casino in Las Vegas.

As AdSpace expands its CoolSign business to new customers with different requirements and applications, Cisco is helping deploy digital signage. Cisco Aironet 350 Series wireless bridges, as an example of the technology that is making this deployment possible, are designed to provide high-speed, long-range connectivity for Ethernet-wired devices between structures, even structures separated by obstacles such as freeways or large parking lots.

Moreover, the Cisco Aironet wireless bridge is built to withstand widely varying temperatures and is ideal for harsh climates. At the Easton Town Center in Columbus, Ohio, a wireless bridge has been installed as part of the overall CoolSign network.

“Easton Town Center is a large shopping mall with indoor and outdoor sections,” McGowan explains. “For the outdoor areas, we installed plasmas in custom-built, weather-proof enclosures, and we beam the signals back indoors with the aid of a wireless bridge.”

The Future

“The market for digital signage is just beginning to take off,” McGowan says. “It’s being made possible by the existence of technologies like Cisco Aironet technology that allow the displays to be positioned wherever people shop, travel, or attend events.”

“If you’re a retailer or an advertiser trying to reach a specific audience, it’s all about getting your message to where the people are, and Cisco Aironet wireless connectivity makes that possible.”



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