

Samsung creates the world's largest video display wall in Las Vegas' McCarran International Airport



Overview

Business issue

McCarran International Airport needed innovative digital signage solutions to create additional marketing opportunities for advertisers and to provide increased exposure to its broad audience of travellers. The increased marketing opportunities and partnerships with advertisers would generate additional revenue for the airport.

Solution

McCarran International Airport agreed to partner with Samsung Electronics America to design and install a state-of-the-art video wall. Under the agreement, Samsung provided a total of 100 Samsung 460UT-2 LCD large format displays (LFDs) in exchange for branding rights and exposure to McCarran's 40 million annual passengers.

Results

The mutually beneficial agreement between McCarran International Airport and Samsung Electronics America resulted in the world's largest video wall and digital advertising network. Additionally, it is estimated that the video wall helps produce an additional US\$500,000 to US\$1 million in gross advertising revenue for the airport each year.

"Samsung is a world leader in display technology, and we saw this as a great opportunity to display our product in a world-class airport that attracts visitors from around the world. We are proud to partner with McCarran International Airport to showcase this state-of-the-art digital video display network."

– Doug Albrechts, Vice President
of Sales and Marketing,
Samsung Electronics America

About the client

McCarran International Airport serves Las Vegas, Henderson, and surrounding communities of Clark County in southern Nevada. McCarran International Airport was ranked the 22nd busiest airport in the world in 2010 with 39,757,359 passengers.¹

The ultra-thin bezel creates a near-seamless video wall.

Challenges

McCarran International Airport needed innovative and captivating signage solutions to reach its millions of travelers and to generate more partnerships with advertisers. Increased partnerships with advertisers would mean more revenue for the airport. However, the primary challenge of airport advertising is engaging departing and arriving passengers who are rushing to board a flight or who are inattentive because of travel fatigue.

The airport agreed that Samsung Electronics America would create a 100-unit video wall and four smaller displays using the new Samsung 460UT-2 LCD LFD. However, this venture presented structural challenges, such as the excessive heat generation and substantial weight of multiple video displays. The engineering solution required:

- Direct airflow to keep the video wall cool
- Video wall mounts and screens that could be safely supported, independent of the airport wall

Also, the sizeable video wall posed a greater risk of malfunction or damage to one of the displays. Therefore, the airport required a design solution with the flexibility to remove one screen at a time for maintenance.

“McCarran [International Airport] is one of the most technologically driven airports in the aviation industry. [We are] at it again with this landmark digital video wall. Its eye-catching stature allows the airport and advertisers to speak to travelers from all corners of the world, and also presents a unique opportunity to increase revenue.”

– Randall H. Walker, McCarran International Airport
Director of Aviation

Solution

In August 2010, the Clark County, Nevada, Board of Commissioners approved an agreement between Samsung Electronics America and McCarran International Airport. The agreement included the creation of the world’s largest video wall in the United States seventh busiest airport. Additionally, four smaller video walls were installed to display advertisements for the airport’s merchants. The video walls are also used for displaying event announcements, welcome messages and special offers from Las Vegas hotels and resorts.

Prior to the installation of the video walls, digital advertising was distributed among existing screens. The screens were scattered throughout various areas of the airport where passengers could easily miss the advertisements and messages.

The 460UT-2 video displays needed to have presence in order to make an impact on passengers. The proposal was made for a video wall of one hundred 46-inch 460UT-2 video displays, measuring 10.06 m x 5.8 m (33 ft x 19 ft). Each 460UT-2 features ultra-thin bezels that create a virtually seamless video wall.

The Samsung video wall is located in the rotunda of Concourse D and is visible to passengers as they descend the escalator into the concourse. Terminal 3 at McCarran’s new international terminal opened in June 2012. The video wall has a great impact on the passengers that pass its location above the Terminal 3 tram station.

When installing the video wall, Samsung worked with many vendors, including OSSI, Inc. of Oakland, California, and Premier Mounts, located in Anaheim, California, to create airflow space to dissipate the heat. According to Cyrus Baseghi, President and CEO of OSSI, “We installed 30 fans and horizontal louvers to vent the heat and had the mounting brackets redesigned to open the back of the LCD area for additional ventilation.” Redesigning the mounting brackets increased the depth of the mounting structure, which is now 1 ft away from the wall. The redesigned mounting structure facilitates airflow and allows the heat to be redirected away from the display.

Additional gross advertising revenue of US\$1 million per annum is expected.

Samsung and Premier Mounts installed custom brackets and a suction cup system to provide flexible maintenance capabilities. When a display needs repair, only one display is removed, versus an entire row of displays. The content feeds to the screens are individual to each screen so that when a screen requires maintenance, the entire system does not need to be shut down.

The entire video wall is supported by a single box truss that carries the load independently with vertical leg supports. Las Vegas-based Vision Sign worked with the airport and Samsung to design, engineer, fabricate and install the structural frame. The 34-foot tall frame that supports the 10 ft x 10 ft array of 460UT-2 LCD panels is constructed of steel and uses 1,640 ft of 1 ft x 3 ft x 0.125 ft rectangular steel tubing.² The frame was delivered in four pieces and assembled in McCarran's Concourse D rotunda. The four pieces were welded together on-site and raised into place using two warehouse forklifts and two electric winches.

The frame was engineered to support 100 custom mounting brackets, which were attached to the steel tubing. Each bracket secures one 460UT-2 LCD display to the master frame.³

Passengers moving through Concourse D could see the video wall and its messages. To ensure that passengers in other concourses could see the messages, Samsung installed a 10-screen video wall and three 3-screen video walls using the 460UT-2 LCD LFD. These smaller video walls are located in concourses throughout the airport and display the same message.

“The quality and clarity of our new digital advertising network will surpass anything in the industry and will provide advertisers a new and engaging way to reach the upscale traveller.”

– Shauna Forsythe, Chief Executive Officer,
Alliance Airport Advertising

Benefits

Alliance Airport Advertising estimates that the video wall produces an additional US\$500,000 to US\$1 million in gross advertising revenue for the airport each year. Airport merchants, including high-end fashion and jewelry stores, entertainment and dining facilities, are seeing an increase in traffic by advertising on the new digital advertising network.

The Samsung video wall attracts much attention and promotes messages to a vast audience. Some passengers who have never seen such a massive digital display are even posing for pictures and consequently making the video wall an iconic tourist attraction.

Through the McCarran International Airport project showcasing the Samsung LCD LFD technology, revenues increased and new creative usages have been envisioned. The airport's first-move advantage has led to similar show-cases at malls, hotels, and other airports.

Samsung 460UT-2 LCD LFD displays

The Samsung UT Series 46 LCD displays feature bezels of just 2.4 mm (0.1 in.) on the bottom and right, and 4.3 mm (0.17 in.) on the top and left, for a total of 6.7 mm (0.26 in.) bezel to bezel, enabling video walls to be virtually seamless. The Samsung 460UT-2 also offers total solutions for video matrix. Simple video matrix installation is possible with embedded video wall feature, supporting up to a 10 x 10 video wall.

Legal and additional information

About Samsung Electronics Co., Ltd.

Samsung Electronics Co., Ltd. is a global leader in semiconductor, telecommunication, digital media and digital convergence technologies with 2011 consolidated sales of US\$143.1 billion. Employing approximately 222,000 people in 205 offices across 71 countries, the company operates two separate organizations to coordinate its nine independent business units: Digital Media & Communications, comprising Visual Display, Mobile Communications, Telecommunication Systems, Digital Appliances, IT Solutions, and Digital Imaging; and Device Solutions, consisting of Memory, System LSI and LCD. Recognized for its industry-leading performance across a range of economic, environmental and social criteria, Samsung Electronics was named the world's most sustainable technology company in the 2011 Dow Jones Sustainability Index. For more information, please visit www.samsung.com.

For more information

For more information about Samsung 460UT-2 LCD LFDs, visit www.samsunglfd.com.



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1. Airports Council International, Passenger Traffic 2010 Final.
2. "Signage Flies High: McCarran features a one-of-a-kind display experience," Shonan Noronha, EdD, Sound & Communications, February 14, 2011.
3. "Signage Flies High: McCarran features a one-of-a-kind display experience," Shonan Noronha, EdD, Sound & Communications, February 14, 2011.

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