

## High-Definition Messaging and Video Display System Keeps Passengers Informed

**Challenge.** Passengers at United Airlines' Terminal 1 at Chicago's O'Hare International Airport noted in surveys that they were confused about where to go for tickets, security and general information. Basic, static signs provided directions to ticket counters, for example, but dynamic messaging, which would give them such information as how long wait times would be, was non-existent. The heavily trafficked terminal at the world's second busiest airport routinely experienced bottlenecks in the lobby after the installation of new security check-in points bumped the ticket counters further into the lobby. United needed a way to efficiently share information in a fast, user-friendly way with the 50,000 passengers who pass through the terminal daily and to alleviate the long lines for ticketing and security.

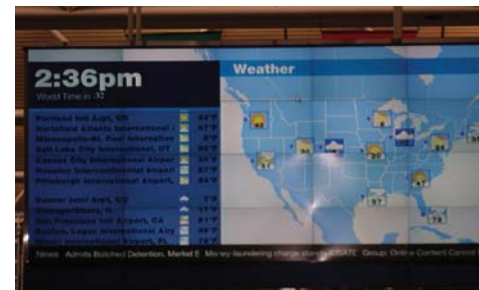
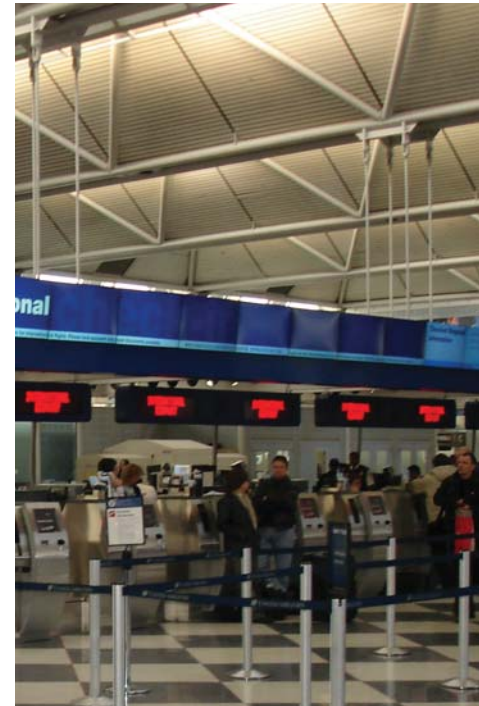
**Solution.** Sako & Associates (SAKO) was engaged to assist United Airlines and the City of Chicago Department of Aviation in planning, designing, bidding and overseeing the implementation of a high-definition electronic messaging and digital video display system in the lobby of Terminal 1.

SAKO developed the system, which consists of four basic digital video-sign elements:

- A 500-foot-wide video ribbon display, made up of 138 high-definition (HD) video display monitors, which runs the full width of the lobby above the check-in counters: Each of the HD 16 x 9 video displays is equipped with its own computer with MPEG-2 player, and they are all synchronized to act as one continuous video display. The ribbon display's purpose is to create order in the lobby by directing passengers to the appropriate check-in kiosk and then direct them to the security check-in lanes.
- Three security displays, each of which consists of four HD video display monitors used for security checkpoint instructions. The security displays, which are controlled by a network processor, indicate length of the security lanes to relieve crowd congestion.
- Two flight information display system (FIDS) video displays, each consisting of eight HD video display monitors: FIDS monitors, which replaced static CRT displays, are used to post up-to-the-minute flight information for all United Airlines flights. Each FIDS display is powered by a network processor, which feeds it content that is updated every few seconds.
- The grand marquee, the most prominent digital display in the lobby: This is a large, double-sided video wall with 20 HD video display monitors on each side. Images include live taxi area video, local and national weather maps, overlay text with important travel information, expected travel delays, news and sports tickers.

All of the content for the digital video display systems is created by United's staff and outside graphic design and content creation firms using the content creation workstations at the company's headquarters in Elk Grove Village, IL, and in a control room within Terminal 1. From the lobby control room, operators create, preview, edit and schedule content to all of the electronic messaging and video display systems. Seven IP digital video cameras in the lobby allow a content control manager to view all of the electronic messaging and video display systems to verify that content is properly displayed.

**Result.** The dynamic messaging system enables passengers to quickly grasp where they are, where they need to go and what they need to do next – all of which helps to reduce the stress of air travel. It also provides a wealth of other travel information to enhance their travel experience. United's control room now has the flexibility to quickly and easily change messages from one central point to fulfill requests for different types of information or to make spur-of-the-moment updates about severe weather conditions or new security directives.



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