

All carriers at Sacramento Int'l – including Southwest – are part of its common-use network.



Common-Use Passenger Processing & Smart Technology Permeate Terminal B

By Jodi Richards

factsfigures

Project: Information Technology Network

Location: Terminal B, Sacramento Int'l Airport

Project Manager: AECOM

Network Engineering & Design: Nexus

Common-use System: AirTransport IT Services

EASE Workstations: 160

Printers (boarding passes, bag tags & sales receipts): VidTroniX

Common-use Self-Serve Kiosks: 106 (terminals A & B)

Self-Service Kiosks: Air-Transport IT Services; IER

Resource Mgt., FIDS & Airport Operational Database: AirTransport IT Services

FIDS Monitors: Samsung

Displays: 250

Display Size: 32 -57 inches

Common-use Baggage System: Vanderlande

Low-Voltage Design Engineers: Catalyst Consulting Group

CCTV/Access Control: Access Systems

Audio Paging Systems: Innovative Electronic Designs

Audio Engineers: Coffeen Fricke and Associates

Advertising: Clear Channel Airports

When the new Terminal B at Sacramento International Airport (SMF) opened for operations in early October, travelers, tenants and airlines stepped into a state-of-the-art facility. The new information technology system that was installed replaces elements that had been online since 1967.

A common-use platform was selected early in the planning process to provide flexibility and add capacity while reducing the number of gates the new terminal would ultimately require, recalls

Steve Baird, SMF's deputy director for information technology and telecommunications.

"When we looked at the alternative of doing things the traditional way with exclusive leases on gates and ticket counters, it was going to take more brick and mortar," explains airport director G. Hardy Acree. Instead, SMF chose to employ technology in a smart way to allow for a smaller, more efficient facility, he adds.

According to Baird, the original design called for 28 gates, but common-use technology allowed that number to be reduced to 19. That move alone saved the airport between

\$90 million and \$100 million in construction costs, he notes.

Common-use, however, is not new to SMF. In 2003, the airport converted some of the former Terminal B to common-use technology because the airport was running out of space in the undersized terminal, Acree explains.

Air-Transport IT Services (AirIT) was selected to provide its Extended Airline System Environment (EASE™) in "temporary mode" in the aging terminal, knowing it would be replaced, relates company president and COO Chris Keller.



Chris Keller

Since that time, AirIT has been under a support and maintenance contract with SMF and was brought onto the "Big Build" project in August 2010 to bring the existing system into the new Terminal B. The extension brings all of the airport's carriers — including Southwest Airlines — onto the EASE shared-use system.

Building the System

According to Baird, SMF was looking to provide a network-centric architecture that allowed the airlines to run their own reservations systems, which EASE provides. When an

airline employee steps up to any one of the 160 workstations, the screen shows multiple airlines, Baird explains. The employee selects the appropriate airline and is able to boot up that airline's operating system, just as if the employee was operating on the airline's own equipment. Gate and ticket counter displays also reflect the appropriate airline.

SMF also uses AirIT's Airport Operational Database (AODB), Resource Management System (RMS) and Flight Information Display System (FIDS) and its property and revenue management system PROPworks®.

The RMS is an application for planning and allocating resources such as gates and ticket counters in the common-use environment. It is connected to the airport's FIDS, so updates are displayed in real-time. Baird says the resource management system allows airport personnel to map out what gate loads will look like throughout the day. The common-use baggage system, designed by Vanderlande, is also part of the resource management system.

In addition to less brick and mortar, before common-use system provides other benefits as well. "The airlines and the airport have the flexibility to use shoulder gates or ticket counters that they wouldn't normally have available to them," Keller notes. "If there are any irregular ops, they have the ability to log into those resources and use them where they'd otherwise have to do it manually or not at all."

Baird recalls a lot of pushback from the airlines about common use when planning for the Big Build began in the early 2000s. However, "When they saw that we were operating their own reservations systems, the resistance fell, and we were able to get all of the carriers here on the system," he reports.

Keller says AirIT's technology breaks down barriers for airlines to transition to shared use because EASE allows them to operate in their own native environment. "They don't lose any of their system functionality or business processes," he explains.

More than 40 airlines currently operate on EASE at more than 20 airports, Keller reports.

Two Target Audiences

SMF's goal was to ensure that its new terminal had the necessary infrastructure and network to accommodate the needs of both the airport and its tenants, Baird explains. That meant increasing network capacity and building a dual path to every location — so if a piece of the network was ever disabled, there would be another route.

The size of the network alone offers flexibility. Plans originally called for a 1-gigabyte (GB) system, but the specification was changed to 10GB in 2010, notes Baird. "We wanted to make sure that we would have more than enough capacity for now and into the future," he explains.

The airport IT department worked with county employees and partnered with Cisco on the design and capacity requirements of the infrastructure. Nexus helped determine SMF's equipment needs — which parts of the network could be upgraded or expanded and which needed new elements.

Free wireless internet access has been extended throughout both terminals. It also extends beyond the aircraft tails for the airlines' convenience. When the project was introduced in 2004, roughly 3,000 people were accessing the airport's Wi-Fi system monthly. Today, the free Wi-Fi averages more than 90,000 unique monthly customers, Baird reports.

Paying for the popular perk doesn't seem to be an issue. "There's enough advertising dollars out there to cover the cost of free Wi-Fi," he adds. "The customers are happy, and we're happy as well. It's a win-win for everybody."

SMF also added a distributed antenna system, which supports the airlines on the low megahertz band for safety and will include cell carriers up to their 4G and 4LTE systems, Baird notes.

The new FIDS includes roughly 250 Samsung monitors, ranging in size from 32 inches across to 57 inches. Each gate features two monitors — the left displays standard flight infor-

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Ad Partner in Place

Clear Channel Airports recently entered into a new 10-year contract with Sacramento International Airport to manage its advertising showcase program for both terminals, beginning with the opening of the new Terminal B.

Under the agreement, Clear Channel provided a 17-foot long, 4-foot high matrix LCD video wall comprised of ten linked screens for the new arrivals area. Eight of the ten screens will be dedicated to large-format corporate messages, while two are reserved for airport messages.

The baggage claim area features 70-inch flat-screen, high-definition LCD monitors affixed back-to-back on all bag carousels. A network of 46-inch flat-screen, high-definition LCD monitors is located in the concourse below the airport's FIDS displays. Other advertising elements provided by Clear Channel include a digital touch-screen service center next to the airport's staffed information booth and large graphics hung on the soffits in the lower level of baggage claim, installed using Clear Channel's LED Tension Fabric Display System. ■

mation, while the right is available for special airline announcements or programs. Integrated paging scrolls important messages on FIDS displays and adds another dimension to customer service.

The Terminal B project also includes a new closed-circuit television (CCTV) system, which upgrades the airport from an analog camera system to a digital one, complete with attendant storage devices — a major improvement that allows the airport higher resolution video, Baird relates.

Overall, the IT project was "highly collaborative," he notes, with regular meetings throughout the design and construction process to keep participants informed.

Having just experienced the process firsthand, Baird encourages other airports upgrading their IT systems to allow extra time at the end of such projects. "When the last nail is hammered and the last coat of paint goes up, there's still a lot of IT work to be done," he says. "IT is usually the first one in doing the in-ground work and also the last ones out."

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Congratulations to Sacramento County Airport System on a successful opening of the new Terminal B. AirIT is proud to be associated with the Airport and this project.

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