Philadelphia International Airport guides travelers with Mac-based solution.

Airport installs state-of-the-art flight information system managed by Apple Remote Desktop 3.

At a Glance

Opportunity: After the expansion of its international terminal, PHL contracted AirIT—a global provider of IT services to the airport and airline industry—to install a state-of-the-art flight information system. The new system would also allow PHL to pursue its desire for a Mac OS X–based solution to take advantage of the platform's proven support of Java, multiple-display support, and overall stability.

Results: Apple Remote Desktop 3 provides the perfect solution, enabling AirIT staff to distribute software, monitor system status, and control remote systems—all from one Macintosh computer. The new system requires only a quarter of the IT staff that similar, non-Mac-based installations normally require. And with Apple Remote Desktop, updating all of the computers can be completed in less than a day versus the 5 to 7 days typical for an environment like this.

When the Philadelphia International Airport (PHL) opened its doors to four airlines and 100 passengers a day in the summer of 1940, few could have predicted the immense challenges of running an airport in the 21st century.

Today PHL has 120 gates in six terminals and serves more than 28 million travelers annually. Connecting those passengers to their planes and luggage requires a vast array of ever-changing, time-sensitive data processed by hundreds of computers and displayed on thousands of screens. So when PHL expanded capacity by opening its new 800,000-square-foot A-West international terminal, only a state-of-the-art flight information system would do. At the heart of this system are Macintosh computers running Apple Remote Desktop 3.

Faced with an aging terminal-based text display system and ever-growing demand, PHL contracted Air-Transport IT Services, Inc. (AirIT) to install a modern, multimedia-capable flight information system that would be easy to scale and maintain. AirIT is a leader in providing integrated IT solutions to the transportation industry, with metropolitan, regional, and international airport clients from Hong Kong to Wichita. AirIT brought in a powerful Java-based Multi-User Flight Information Display System (MUFIDS), to be integrated with an operational database and a gate management system. But former PHL Chief of Staff Jeff Shull wanted more.

Shull—now Senior Vice President at AirIT—was interested in building a Mac-based network using Mac OS X to harness the platform's proven support of Java, its ability to run on multiple displays, and its overall stability.

Customer Profile
Philadelphia International Airport and AirIT

"With Apple Remote Desktop, the airport was able to greatly reduce the cost of maintenance."

Jeff Shull, Senior Vice President
AirIT

Reduced TCO

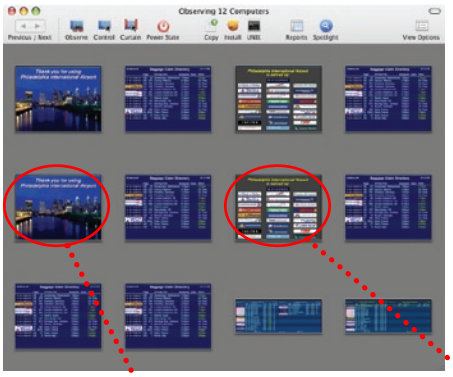
Shull says that his decision to adopt the Mac platform was based largely on total cost of ownership. Because the Mac provides stable support for multiple displays, the airport could save money on hardware right off the bat. And by using Apple Remote Desktop 3 as a comprehensive system management solution, the airport would be able to greatly reduce the cost of maintenance.

Maintenance of the new network was of primary concern to both companies. Airport computers tend to be located in hard-to-reach physical locations: tucked into ceilings, behind walls, and in awkward mountings. This meant that any time a system component had a problem or needed an update, servicing it could require extensive labor and tools—not to mention disrupting services to travelers and airlines. Apple Remote Desktop offered the perfect solution, enabling AirIT's PHL site manager to distribute software, monitor system status, and control remote systems—all from one Macintosh computer in the airport's basement.

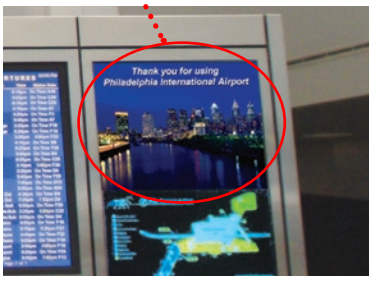
AirIT ported its Flight Information Display System from a PC environment to the Mac in just a few weeks. The work centered primarily on system startup, screen control, and resolution. The final deployment included three separate external system interfaces and over 500 displays spread across A-West's three levels. The system delivers critical information to airport staff and travelers—ramps, arrival and departure gates, and baggage claim assignments—as well as rich content such as video advertisements in MPEG format.

Remote control

The benefits of the new Mac-based system were immediately apparent. According to Drew Sundin, PHL Site Manager with AirIT, the new system requires less IT staff than other AirIT installations. Shull agrees: "With Apple Remote Desktop, the airport was able to greatly reduce the cost of maintenance."



The number of viewed desktops can be adjusted so that airport staff can view the appropriate level of detail for each screen.



With the Multi-Observe window of Apple Remote Desktop, hundreds of flight displays can be viewed and managed remotely. Airport staff can observe multiple client desktops and all their attached displays in a single window to ensure that displays are functioning correctly.

"While we still require a manual walk-through for physical inspections, most of what we need to accomplish in interacting with these systems can be done from one computer in my office."

Drew Sundin, PHL Site Manager
Philadelphia International Airport

In addition to the cost saving, Sundin has noted a time saving of nearly 70 percent for maintenance tasks using Apple Remote Desktop compared with similar environments. In those systems, updating all of the computers manually can be a 5- to 7-day chore. With Apple Remote Desktop, the same updates can be completed in less than a day. This is due in large part to the point-and-click access the Mac provides to any problematic parts of the system, minimizing the need to haul out a ladder and attend to them physically and individually. Furthermore, the software's reporting capabilities have streamlined such time-intensive activities as asset management of serial numbers and the tracking of software and system builds and configurations.

Sundin also points to the ability of Apple Remote Desktop to run UNIX scripts on remote computers, distribute software in an automated fashion, and monitor the status of each display across the entire terminal from his central control station. "While we still require a manual walk-through for physical inspections," he notes, "most of what we need to accomplish in interacting with these systems can be done from one computer in my office."

Also key to the new system's success is the software's built-in scheduling tool, which allows maximum flexibility for updates and system restarts. These tasks can be deployed automatically during periods of low use, so AirIT's staff can administer PHL's systems without interfering with the ability of passengers and staff to view information on the terminal floor.

Onward and upward

The powerful new features in Apple Remote Desktop 3 have made running AirIT's system even simpler. According to Sundin, "The improved organizational features of Apple Remote Desktop—including smart computer lists, labels, custom views, and groups—enable fully customizable, dynamic presentation of our unique environment's information systems." He also finds that the software's intuitive new tools—such as Automator actions, remote drag and drop, and remote copy and paste—help him to perform otherwise repetitive and tedious tasks with relatively little pain.

Apple at PHL

- Apple Remote Desktop 3
- Mac OS X Server
- Mac OS X
- AppleCare
- 12-inch PowerBook G4
- Power Mac G4
- Mac mini (for new installations)

The upgrade even helps him to address important airport security concerns. "With Apple Remote Desktop 3's Curtain Mode, we no longer need to be concerned about revealing sensitive system information to the public whenever a change needs to be made via a client machine's GUI."

Since the deployment in Terminal A-West, PHL has outfitted two more of its six terminals with the new AirIT system—a network now containing over 300 Macintosh computers. Given the success of the Mac-based solution at PHL, AirIT offers the same solution to other airports looking for state-of-the-art flight information systems. It's a natural fit: AirIT's approach is based on a modular, scalable design. This allows clients such as PHL to use only those parts of the system that are necessary, add new products as required, and keep pace with future growth or changes in technology. Apple's hardware and software enables these systems to be installed and modified with minimal effort, allowing AirIT to better reach its goal of "accurate real-time information designed to improve operational efficiencies as well as a more positive passenger experience for the traveling public."

For More Information

For more information about AirIT and its integrated airport operations product suite, visit www.airit.com.