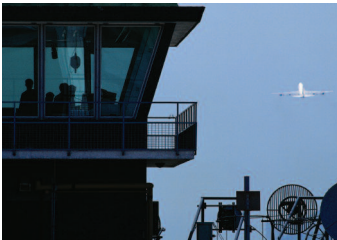


# FEDERAL AVIATION ADMINISTRATION

EDS, FAA team to boost industry safety and convenience



## Services featured

- Enterprise Application Management
- Infrastructure Services

*"[Before,] I was looking at data that was up to an hour old. In an hour, I could be five hundred miles closer to a problem I don't know about. After EDS enhanced the system, [it's] sub-second access."*

Pilot

- The Federal Aviation Administration (FAA) oversees traffic control in the busiest air-traffic system in the world. Yet the agency's mid-80s information technology (IT) structure was a patchwork of programs, hardware and applications. Under intense pressure from government and industry, the FAA needed a far-reaching, but budget-conscious, overhaul of its systems and infrastructure.

## The business issue

Until 1998, air-traffic control in the world's most crowded air space depended on an outmoded and unreliable collection of computer hardware and programs. The FAA's application, written in the 1980s in undocumented Assembler code, used a proprietary database and operating systems. Neither the manufacturer nor other third-party vendors could support the hardware, which regularly failed.

The FAA's mission "to improve aviation safety and prevent the disruption of commerce," includes improving reliability of, and access to, aeronautical safety data. Failure to perform this mission successfully has even more drastic consequences than lost income or reduced productivity. It can cost passenger their lives. So in the mid-1990s, the agency decided to build a National Airspace System (NAS) Aeronautical Information Management Enterprise System (NAIMES), serving both the FAA and the Department of Defense. But a series of independent and uncoordinated efforts saw little success. In 1998, the FAA asked EDS to partner with the agency in an enormous makeover of the entire system.

## Our approach

The FAA initially assigned EDS to upgrade the existing Notice to Airmen (NOTAM) system to modern client-server technology. Another supplier initially attempted the project two years before, at a cost of \$24 million, but failed to produce a solution. One of the reasons the agency chose EDS over its major competitors was EDS' in-depth knowledge of the existing application. It also offered a low-risk plan that would prevent system outages while the FAA's new, more responsive and reliable national information center was under construction.

EDS began by moving the application to a UNIX-based IBM mainframe emulator to take the legacy hardware out of the equation. In less than two years, at a cost of less than \$4 million, EDS rolled out the first phase of the updated information system.

In the second phase of the operation, EDS completely updated the system, using new Sun hardware and operating systems, as well as a new application built on JAVA, Oracle and Unified Modeling Language (UML). Compared to the old system that once suffered an eight-hour outage, the new national airspace system ensures a minimum 99.975 percent availability.

Every flight that moves people or cargo in or across the United States depends on the coordinated and real-time information - including data for air traffic control, flight planning, weather, airport delays and other input - that the new NAIMES system provides.



# FEDERAL AVIATION ADMINISTRATION

*“We have a partnership  
in success ... [enabling]  
the timely and accurate  
management of aeronautical  
safety data.”*

Official  
Federal Aviation Administration

## The results

The system makeover, planned and implemented by the EDS-FAA team, has dramatically improved American aviation safety within the constraints of a fixed budget. Now, pilots and air traffic controllers get the critical data they need when they need it most. For the first time, aviation stakeholders have real-time, Web-based access to mission-critical systems. System availability has improved to 99.975 percent. Updates or enhancements to the system now take hours instead of months.

The FAA has now moved other systems to NAIMES, including the Aeronautical Information System Replacement that provides flight-plan filing functions to the FAA and the Department of Defense.



## Contact

**Sun Microsystems**  
4150 Network Circle  
Santa Clara, California 95054  
toll-free: 1 800 555 9SUN (U.S. only)  
phone: 1 650 960 1300 (outside U.S.)  
visit: sun.com

**EDS**  
5400 Legacy Drive  
Plano, Texas 75024-3199  
toll-free: 1 866 337 2584  
phone: 1 972 605 6000  
visit: eds.com  
e-mail: info@eds.com