

When Sabre Holdings set out in 2001 to build the Air Travel Shopping Engine (ATSE), a new platform for low-price airfare search and itinerary service, the company's IT brain trust decided to diverge somewhat from its traditional technology approach. Sabre Holdings, of course, is renowned for its airline reservation network, which was the world's first computerized transaction-processing system, and for Travelocity, the groundbreaking website that set influential e-commerce standards for usability and performance in the mid-1990s. Driven by the growth of the Internet, the dynamics between these two mainstays of the Sabre Holdings business have changed substantially in recent years. In turn, these changes have led the company to seek new technologies and new approaches to enhance its competitive position in the travel commerce market.



to increase the capabilities of the company's computing platforms. Second, because the "look to book" ratio has gone up, they have sought to reduce the overall cost of infrastructure.

The Challenge: A New Approach to Increase Capabilities

In years past, Sabre Holdings generally employed a "build-it-ourselves" methodology, using best-of-breed hardware and systems infrastructure, and also kept much of its application development and middleware work in-house. This approach worked well when the Sabre network primarily served the professional travel agent, skilled at performing targeted searches and executing quick transactions. With the rise of the Internet and Travelocity, however, the company has had to accommodate millions of individual online travel shoppers who prefer to browse around comparing flights, airports and itineraries. This kind of complex, high volume fare searching is very taxing on IT resources and doesn't necessarily result in bookings.

Sabre Holdings Chief Technology Officer Craig Murphy sums up the situation as "an underlying shift in our business away from working primarily with experienced travel agents to working directly with consumers." The net effect of this shift in the company's basic business model has been twofold. First, because intuitive consumers require more complex services, Murphy and his team have sought

The Solution: Bridging Diverse Systems With The GoldenGate Data Synchronization Platform

With these goals in mind, the company decided to pursue a leaner, more cost-effective approach for the ATSE platform. Specifically, Murphy and his team decided to implement an infrastructure based on open systems technologies that would provide cost efficiencies and greater flexibility down the road. "We learned the hard way," said Murphy. "In the past we had gotten locked into application silos with proprietary practices and vendor inflexibility." With the ATSE project, Sabre Holdings saw an opportunity to implement a platform using open source technologies that would enable the company to achieve business goals while avoiding the proprietary trap.

The applications used in Sabre Holdings air shopping services are CPU-intensive, which meant that the ATSE platform had to incorporate a large number of processors. Murphy and his team designed a hybrid computing environment based on a horizontally scalable server farm built of Unix and Linux-based commodity machines running MySQL databases. This server farm would be integrated with a cluster of HP NonStop systems, the platform that the company uses

