



China Southern Airlines  
Guangzhou, China  
www.csair.com

#### Industry:

Travel & Transportation

#### Annual Revenue:

US\$7.98 billion

#### Employees:

36,000

#### Oracle Products & Services:

Oracle BPEL Process Manager  
Oracle JDeveloper  
Oracle Warehouse Builder

#### Oracle Partner:

Guangzhou Bingo Software  
Development Co., Ltd  
www.bingosoft.net

**“By constructing our archiving platform using Oracle SOA Suite, we have not only met our present needs but ensured a flexible, scalable infrastructure for the future.”** – Huang Wenqiang, Vice General Manager, Information Center, China Southern Airlines

## China Southern Airlines Builds Database Archiving Platform in Three Months Using SOA Technologies

China Southern Airlines is China’s preeminent airline, boasting the largest aircraft fleet and the most extensive network of all Chinese air carriers. Up to 57 million passengers traveled on China Southern Airlines in 2007, making it the world’s ninth biggest passenger airline. The carrier was the first airline in China to allow customers to check-in via the Web and their cell phone.

### Challenges

- Develop an archiving platform to store data generated by the electronic ticketing and the electronic customer systems
- Integrate the platform with the ticketing and customer systems and move data between individual systems with complex inter-dependencies that change with new business requirements
- Ensure the platform can efficiently process large amounts of data every week without affecting production systems
- Enable any process changes to be quickly implemented
- Establish a mechanism to recover the archiving platform in the event of failure due to data issues or network interruptions
- Select easy-to-use tools that will speed development time

### Solution

- Cut development time from a projected five months to three by using tools from Oracle SOA Suite
- Used Oracle BPEL Process Manager 10g to establish, deploy, and manage data archiving workflows for the platform
- Reduced recoding times from one week to one day by using service oriented architecture (SOA) to build the platform, enabling any workflow changes to be made without the need for lengthy redevelopment
- Allowed administrators to monitor the implementation process through a central management console, enabling them to quickly locate and solve problems
- Enabled a failed process to be operated manually in the short term, eliminating the need to re-implement the entire process and hold up other systems
- Ensured a smooth development by allowing developers to use different programming languages such as Java, XML and PL/SQL within the integrated Oracle JDeveloper environment
- Enabled developers to visually define and map a data collection process, and generate the process into a PL/SQL package