

# Dynamic Data Provider (DDP)

**Client**

The client is a leading online international travel company

**Industry**

Travel

**Business Challenges**

- Understand client's business practices for business layer to interact with front-end.
- To maintain consistency of response time and data received from HOST system of hotel operators by Web Services.
- Maintain the best quality in terms of standards and defect levels.
- Maintain or manage better-agreed service levels.

**Technology**

- Web Services, C# and XML used for the business layer.
- Windows Service using C#.
- SQL Server 2000 used as the backend database.

**Benefits to the Client**

- Real time data availability for rates and status information from the HOSTS
- Available of the real-time data from 4 different hosts with minimum response time.
- Automated follow-up facility for the bookings done with the "On Request" status.

**Description**

Zenith Software Ltd (Zenith) has successfully leveraged technology to provide end-to-end customized Travel solutions to the diverse segments of the travel industry. The client requested Zenith to provide a DDP solution, which will link to the Integrated Partner host services to gather up-to-date hotel information regarding availability, rates and hotel details online.

**Functionality**

The database currently used as repository of all hotel inventories providing necessary information to the booking engine further requires information of rates and availability on real-time data through different hotel operators that facilitate HTTP web service interface.

The web service that would receive requests from front-end would interact with a data locator interface. The data locator will determine if hotels requested have real-time data available from HOST or static data on the client database.

The processing rules in the middle tier would be:

- API receives requests from client's Internet booking engine (IBE) for Search, Price breakdown, Hotel Details, Extra Services, and Special offers required for creating a booking.
- Data locator component would segregate hotels having information on client database and real-time information.
- Hotel Operators being more than one, request calls to each operator.
- Data locator would send out requests to hotel operator web services and receive responses for varying calls. Additionally the components would retrieve information from the database and merges the data with the response XML received from HOST.
- API receives merged XML of both real-time and static data from database in case of Search and subsequently either only from local database or the HOST.
- API responds to each API call in required XML format to the IBE.
- A separate Windows Service does the follow up procedures for the bookings with "On Request" status.

**Development Process**

Zenith followed offshore model for the development of the project. We deployed a team of Travel Domain experts for the project who after a complete systems study developed the solution.

The development lifecycle adopted was a combination of Iterative and Rapid Application Development (RAD). While the High Level Design was developed using an Iterative process, the other tasks followed RAD model.