



SUCCESS STORY.

Online Travel Reservation Portal Development Silicus Helps Transportation Software Company Enhance Online Reservation Portal

About the Client

The client is a provider of operations management software for small to mid-size ground transportation companies. The client's flagship software is an advanced automated reservation management system capable of handling thousands of reservations per day.

Business Challenge

The reservation portal module within the existing software was developed in PHP. The portal had limited functionality and was posing maintenance issues to the client. The software was a desktop application and so any updates had to be installed on each end customer PC. The client was looking for a partner to help migrate and modernize the portal on the .NET platform to a web based system with a vibrant UI and enhanced functionality. The client selected Silicus for our expertise and track record on the Microsoft.NET platform.

Silicus Solution

While migrating the reservation portal to the .NET platform, Silicus architected the software for easy maintenance and end-client data security. The following architectural considerations were adopted:

- The main database is hosted by the client, while each end customer has a separate database hosted within their premises. There will be an instance of the software running on client machines that accesses the central software. Each end customer is given a unique URL to access the software
- The centralized database or data center is connected to a key generator, and contains the update logic and end customer information / access rights
- The client administrator can login to the admin module and change connection settings, generate unique URL's, etc.

Users can login and create reservations for themselves as well as other based on their role and access privileges.

The software was developed to cater to 3 types of users:

- Receptionist within a company with limited access
- Normal users who can only create reservations for themselves
- When a normal user within the end customer organization creates a reservation, the request goes to the client system for authorization
- Administrators who can create reservations for themselves and others and have other rights as well
- Administrators within end customer organizations can directly create reservations without authorization

- Administrators can also assign drivers and vehicle through the online system

The reporting module was developed using Crystal Reports and could generate powerful and intuitive Accounting, Invoicing and Income related reports for end customers.

Given the web based multi-user nature of the software, security of the software was one of the key concern areas. The software was coded using OWASP principles and the software was checked using vulnerability assessment tools.

Technologies Used



LANGUAGE
C#, ASP.NET, .NET 3.5



PLATFORM
Microsoft.NET



DATABASE
SQL Server 2005



WEB SERVER
IIS 5.0



REPORTING
Crystal Reports 2008



ARCHITECTURE
Web based client-server architecture



3RD PARTY INTEGRATIONS
QuickBooks, Automatic Data Processing (ADP), Message Paging via Nextel Wireless Services, Map Point, Tele-Track for flight information tracking

Client Benefits

CENTRALIZED DATA CENTER WITH LOCAL END CUSTOMER DATABASE

- This ensures confidentiality and security of end client data
- This made update distribution easier as changes need not be replicated on every client machine

SILICUS ADOPTED A MODULAR ARCHITECTURE USING .NET 3.5 FOR IMPROVED SOFTWARE PERFORMANCE

Migration to the .NET framework allowed for easier enhancements and software maintenance and support

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