

Case Study

TECHSYS consolidates disparate systems and increases ROI with new Operational System

Operational Support

TECHSYS delivered a solution that drastically improved the efficiency and effectiveness of scheduling and tracking resources and employees

Services featured

- Project Leadership
- Logical and Physical Database Design
- Business Analysis
- Requirements Gathering
- Application Design
- Application Development
- Testing
- Training and Mentoring
- Maintenance

Technology

- PowerBuilder
- PowerDesigner
- Sybase
- AIX

This company, a significant provider of transportation serving thousands of destinations with daily departures, saw the potential to maximize the return on investment (ROI) of its disparate systems by creation of a centralized operational application. TECHSYS helped this client to realize this vision. Today, the Operations unit of this company uses this system nationwide for scheduling and tracking the day to day operations of its fleet.

The business issue

This client is a major provider of transportation, serving more than 3,100 destinations with 16,000 daily departures across North America.

Traditionally, they relied on paper documents and phone conversations to track and schedule their fleet and operators throughout the United States and Canada. This process proved to be very cumbersome and inefficient, resulting in misinformation, delays, and coordination problems between locations. Several of the locations had their own isolated tracking systems, and some locations had no system at all. The existing systems did not interact with each other and could not be accessed globally by other independent subsidiaries.

What this client needed was a modern, efficient system for coordinating and tracking its resources across America – one that could control costs and insure rapid, reliable access to mission-critical information. So TECHSYS assisted in implementing an Operational Support system, which would help minimize the company's cost burden while maximizing the value to its customers. Due to successful and cost beneficial implementations of previous systems, the company looked no further than TECHSYS.

Our approach

The first step in providing for a successful solution was to perform analysis and assist the client in the requirements gathering for the system. This involved helping to capture and define the business requirements and analyze the current business processes associated with existing operations,

Operational Support

TECHSYS set out to define a clear, intuitive solution and create an efficient and easily manageable process while achieving an enhanced user experience, with less manual effort.

- Improved navigation and quality input
- Definition of user responsibility
- Creating a positive user environment

“Thanks to your hard work and dedication, we continue to see good sales growth, Keep up the good work.”

- COO

as well as new desired functionality. Logical and physical database designs were created as well as prototypes based on these requirements for review by the user community to ensure goals and guidelines were being met. Standards for development were created for all development teams to abide by. Using TECHSYS resources in conjunction with the client’s employees, the application was developed in a timely manner with emphasis on code reusability and ease of maintenance. TECHSYS expertise was transferred to the client’s employees throughout the project through formalized training classes and one-on-one mentoring.

The results

With the Operational Support system, employees no longer have to physically contact other locations for tracking or assigning of resources, and information can be analyzed on a global level. The system tracks and assigns inventory, both company and rental, to schedules, and maintains detail information and state requirements, including maintenance tracking. It also provides tracking and assigning of both company employees and part-time operators to schedules on a national basis. It allows users to locate operators anywhere in the nation, along with maintaining employee hours, DOT requirements, possible oversupply or shortfalls, and employment status. In addition, it keeps history of all assignments and employment statuses for future planning purposes. Information is immediately available and inventories are kept up to date.

Now, employees can access thorough, up-to-date operational information from any location, at any time. Beyond enhanced data availability; the solution provides greater visibility into operations and an arena for greater collaboration throughout the various company locations. Additionally, the application enabled the company to greatly simplify operations. Thanks to TECHSYS, what used to be a scheduling nightmare has become an efficient and easily manageable process.



Case Study

TECHSYS converts software vendor applications to new technology

Order Entry Website

Services featured

- Business Analysis
- User Interface Design
- Database Development
- Training and Mentoring

Technology

- ASP.Net
- Visual Studio
- C#.Net
- Javascript
- ADO.Net
- SQL Server
- XML

This leading provider of business-to-business IT solutions and services needed to move their existing applications from a client server architecture to one based on the Web. TECHSYS was instrumental in converting critical applications to a Web design that allowed the company to realize the gains achieved with a distributed design. Based on this new architecture, the company was able to operate more efficiently and respond quicker to the needs of its user community.

The business issue

This client is one of the world's leading, single-source providers of business-to-business IT solutions and services. They help companies control their spending by easing the burden of selecting, purchasing and managing software for their enterprise.

Since 1983, this company has been delivering value-driven technology solutions across the globe through sales and operation centers in North America, Latin America, Europe and the Asia-Pacific region. Customers include large, multinational enterprises from the Fortune 500, as well as mid-sized organizations from a wide variety of industries.

The client had a customer order entry system based on a two-tier client server architecture which traditionally met its needs but was becoming cumbersome to distribute changes to its many diverse locations. Additionally, there was no interface to the Web for product information to be obtained from its supplying vendors – the only way was to call the vendors for product specifications, which was time consuming and not user friendly. They had also purchased another company which had a legacy ASP application that needed to be integrated into existing order entry system.

What the client needed was a single Web based application that communicated with its Vendors applications, integrated with other internal applications, and was easy to distribute current and future changes.

Order Entry Website

TECHSYS Business Solutions – *Making
Business Systems Work. Together*

Our approach

The first step in the web site implementation was to perform analysis on the current application. Many users of the system were interviewed to gain inside requirements of the current application. The legacy ASP website obtained through acquisition of another company was also analyzed to determine integration points. And CNET was examined to ascertain how to best utilize its delivery of product specifications to the end users. Visual prototypes were presented and reviewed in an effort to find the best “look and feel” for the site.

In order to achieve a true access point for all applications, a single signon architecture was implemented. Once the user had logged on to the system, personalization was performed based on the products purchased by the customer associated with the account. Web services were also implemented to make requests to CNET for software product information. Middle tier objects were implemented that handled the business rules and data transfer between the database and application layers. Since integration was needed between ASP.Net and classic ASP, session transfers were developed to handle different states of the sessions using XML. Also, ASP.Net being backward compatible allowed the project to have a gradual migration process where client usability was not affected.

During the development of the application, feedback was solicited to verify that design goals were being addressed properly. At all phases of the implementation, TECHSYS expertise was called on to mentor and train the existing staff on all facets of Web application design, development, and interfacing with other applications.

The results

As a result of TECHSYS involvement in the project, the client was able to realize the benefits of a distributed application architecture. The pain and user-intensive delivery of application changes to many disparate locations was no longer an issue. Users were able to take advantage of a single point of entry to their applications by virtue of using single signon. Personalization greatly enhanced the user experience and productivity associated with targeting the right information at the right time. And user efficiency was gained by providing instant access to product specifications without the intervention of a CNET sales associate.



Case Study

TECHSYS automates city services with Work Order Management System

Work Order Management

Services featured

- Project Leadership
- Logical and Physical Database Design
- Requirements Gathering
- Application Design
- Application Development
- Testing
- Training and Mentoring
- Maintenance

Technology

- HTML
- Javascript
- ASP.Net 1.1
- ADO.Net
- SQL Server
- Crystal Reports
- Web Services

This municipality was burdened by the inefficiency of managing city services with a paper-based system. TECHSYS helped this city to implement an automated management system for handling work orders. Today, many city service departments use this system for dispatching and tracking a multitude of city services.

The business issue

More than 222,000 people live in this city, making it the 10th largest city in Texas, and the 83rd largest in the United States.

This city relied on paper documents and phone conversations to schedule and dispatch most of their city services including water, animal control, and street maintenance. Employees had to manually locate resources and assign work orders to city service workers based on the experience and knowledge of individual dispatchers, which led to inefficient management of routes and work schedules across departments. Managers and dispatchers had to make best-case guesses on the tasks and routes employees were assigned to.

What the city needed was a modern, efficient system for coordinating and assigning its resources to work orders – one that would determine the best utilization of its employees and resources. This would control costs, lead to truck and fuel conservation, and allow dispatcher to handle more cases. Additionally, managers could evaluate and analyze the responsiveness of their departments based on the reports from the system. TECHSYS was brought on board by the city to implement a Work Order Management system, which would help minimize the city's cost burden while maximizing the efforts of its employees. The city looked no further than TECHSYS, based on successful and cost beneficial implementations of previous systems.

Our approach

A project manager was assigned to overlook and administer all aspects of the implementation since TECHSYS was managing the project. The first step in this endeavor was to identify the scope and complexity of the project.

Wireless Compliance

*TECHSYS Business Solutions – Making
Business Systems Work Together*

Existing processes and modes of operation were analyzed to determine the current way of doing things, and new requirements were captured to identify the current problem areas. Use Cases were created to formulate the specifications of the system after interviewing the user community. TECHSYS was instrumental in architecting the new system and modeling the database. The system was built on a distributed framework to allow for scalability and ease-of-use. The project was created using ASP.Net 1.1, SQL Server 2000, and Crystal Reports. Additionally, web services were created to report GPS data to a Geographic Information System (GIS) to track and location the city's fleet. The application was developed in an expedient manner with emphasis on code reusability and ease of maintenance. Thorough testing was performed throughout the project to insure that the requirements were being met and the quality of code was being enforced. TECHSYS expertise was transferred to city employees throughout the project through one-on-one mentoring.

The results

With the new Work Order Management System, dispatchers no longer have to locate city resources by phone to determine their location and workload. Employees can immediately determine the most efficient and best routes to take using the functionality of the system. Work can be grouped in geographic locations to enhance the service employee's productivity and response time to better meet the needs of its citizens. Work Orders can be assigned, updated, reviewed, approved, and managed to create an efficient and responsive environment across multiple service departments. Up-to-date information is now captured and relayed to the managerial staff so decisions can be made based on real-time data instead of stale information. In addition, reports assist the staff in identifying problem areas that need further attention. Information is immediately available to all levels of city government.

Now, the city's employees can access thorough, up-to-date data at any time. This allows the dispatcher to reduce response time for city workers to respond to citizen requests for service and emergency situations. Fleet and physical resources can be better managed to get the most productivity out of their life cycle. What used to be a time-consuming and complicated process has become an efficient and easily managed activity.

