



## SUCCESS STORY.

# Project Planning Application For Public Services Planning Body

### About the Client

The client is a City Area Council Agency, and plays a nodal transportation planning role for the regional metropolitan area. The client facilitates a collaborative planning effort between various local governments, transportation agencies and the federal government.

### Business Challenge

The regional planning agency's transportation planning effort, conducted in a three year cycle, starts with the Project Submittals process. Submittals for various types of transportation projects (roads, highways, transit, bicycle, pedestrian, preventive maintenance, etc) were received via regular mail. Submittals had multiple formats, depending on the project type, with each submittal containing several pages of information on various project parameters. Each submittal also included several document attachments related to environmental compliance, public usage data, and project costs and finances.

Information from all project documents was manually extracted, entered into spreadsheets and consolidated for reporting purposes. This served as the primary input for the agency's regional transportation plan. Individual project plans were reviewed, evaluated and prioritized for federal funding. Information from all projects is then consolidated for regional roll-up reporting and further planning activities.

The agency's Transport Department began an initiative to automate the above process through an internal software development effort. The project was scheduled to be completed in time for a "Call for Submittals" publicized across the region. However, project schedule was critically delayed. To complete the solution on time, the agency sought external help to take over the detailed software design and development activity.

Silicus Technologies was selected as the software services vendor through a competitive bid process. Silicus demonstrated high agility in quickly assimilating the client's requirements. Key technical design issues were addressed upfront, and Silicus committed to deliver a full working solution within the tight delivery timeline.

### Silicus Solution

#### CLIENT SERVER CHOSEN INSTEAD OF BROWSER BASED APPLICATION

Silicus initially recommended a full web-based workflow for the process. However, given the partial progress already made by the agency towards developing a client-server application, and the project's critical time and budget schedule, Silicus continued with the agency's high level design.

The solution was completed in a Microsoft development environment, utilizing Visual Basic, relational database technology and an efficient e-mail, FTP based integration to consolidate information, documents from various sources into a central project database.

#### USING VB FORMS AND COM+ FOR BUSINESS LOGIC

Silicus Microsoft developers used a combination of Visual Basic Forms and Microsoft Transaction Server (MTS) / COM+ middle tier objects. Silicus used Remote Data Objects (RDO) framework to create and manipulate components within the ODBC system. Using RDO, the developers created methods to handle the database connection, queries, stored procedures and result manipulations. Visual Basic Forms were used to define and develop controls and event handling within the application UI. The MTS / RDO combination was used to manage the flow of transactions between the business logic and database layer.

Silicus delivered a fully functional working solution within the specified timeline. The client-server application development project, started by the client, was salvaged and re-used to speed up the development.

## Technologies Used



**LANGUAGE**  
Visual Basic



**PLATFORM**  
Windows



**DATABASE**  
SQL Server



**FRAMEWORK**  
DCOM

## Client Benefits

### MICROSOFT DEVELOPMENT EXPERTISE FROM A LOW-COST LOCATION

The project was critically delayed before Silicus' Microsoft developers took control and delivered a fully working solution within the "Call of Submittals" process. The services were delivered from a low cost location, ensuring no undue costs incurred as a result of the initial delay

### ADDRESSED AND MITIGATED RISKS ASSOCIATED WITH THE TRANSFER OF PROJECT EXECUTION RESPONSIBILITY

The Silicus team demonstrated high agility in quickly assimilating the client's requirements. Key technical design issues were addressed upfront, and Silicus committed to deliver a full working solution within the tight delivery timeline. This was achieved through reliable and predictable software development processes adopted by Silicus through each development stage.

### DELIVERED A ROBUST AND FUNCTIONALLY RICH APPLICATION FOR END USERS

The application improved the agency's planning capability, equipping users with better means to consider a wider range of transportation investment choice. It facilitated an improved interaction experience between various stake holders, and streamlined the submittal process leading to a faster planning cycle. The centralized database led to ease of information consolidation, reporting for all projects.

Additionally, a self-service functionality reduced mail processing and document handling costs at the agency offices leading to overall significant improvement in productivity through elimination of manual data entry

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