



## Chapter VIII

# Systems Requirements and Prototyping

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### EXECUTIVE SUMMARY

*This case study is based on a multi-year information systems plan for a marketing firm. Initially, the investigation was enterprise-wide. We describe the critical components of the enterprise system, including the software and hardware architectures. For the application systems, the accounting system and the job scheduling system receive top priority. Since the accounting system was a commercial off-the-shelf product, our focus was on the development of the job scheduling system. We explain the manual job scheduling process and how the automated system might be developed. The justification for adopting Microsoft's Access, SQL server, Exchange, and Project as the development tools is presented. Microsoft Access was used just for the prototyping. Eventually, the job scheduling system will be implemented on the Project software with some rewriting of Visual Basic codes. To date, a prototype using Access had been developed and demonstrated. It received favorable comments and has been approved for the next development phase. The case study concludes with remarks on the advantages, issues and lessons learned from the project.*

## BACKGROUND

The subject of our study is a reputable market research firm that spans more than sixty years. The firm is employee owned. Clients of the firm include well-known names in business and Fortune 500 companies. The firm maintains sales offices in Atlanta, Boston, Cincinnati, Dallas, Detroit, Los Angeles, New York, Philadelphia, and San Francisco. The company had a mission “to help clients measure and monitor customer needed and requirements in order to provide a fact-based foundation for continuous quality improvement efforts focused on enhanced customer satisfaction and retention.” Currently, the firm offers a variety of services; including:

1. Assessment of internal and/or external client profile.
2. Analysis of performance goals at managerial and operational levels, products and services, and customer satisfaction.
3. Assistance in design, implementation, and training of program evaluation processes.

All of these services involve data collection and analysis. For data collection, the company offers:

- Telephone and mail surveys
- Personal in-depth interviews and group sessions
- Comment cards in-room, point-of-transaction or with product
- Traditional in-person focus group discussions
- Teleconference focus group discussions
- Benchmarking visits to best in class companies
- Mystery shopper and quality audits of performance
- On-site visits to customer locations to facilitate client/customer team meetings

Usually the data needed by a project requires a combination of the above activities. The design and analysis of data were managed by the statisticians of the company, many of whom hold advanced degrees. The company strives to produce quality services for its clients corresponding to the mission statement.

### The Organizational Structure

The organization of the company was straight forward. Units of the organization were setup by functions. The president of the company directly manages: administrative division (human services, accounting, computer operations, etc.), marketing division, consulting/analytical service division (data analysis), research service division (managing project and report production), customer satisfaction division, and the customer research division. A number of departments may exist within each division. For example, the human services department was a branch of the administrative division.

### Current Information Systems

The company had a small systems department responsible for maintaining hardware and software operations. It did not have staff to support information systems develop-

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