

## Consulting

Spatial Systems can help you understand what GIS and FMIS technology is and how it can be used to help your organization. We provide consulting for the use of this technology to assist in developing an understanding of your organization's needs.

- **Enterprise GIS and FMIS** » Implementation of an entire system, from hardware and software procurement and setup to database development and integration. SSA can improve your current system or create one to fit your organization's specific needs.
- **Needs Analysis and Cost Benefit Study** » SSA can help your organization realize the benefit of GIS and FMIS to assist in daily functions. Through an assessment of your current capacity and technology, implementing these technologies can greatly improve the use of current data.
- **Quality Assurance/Quality Control (QA/QC)** » The accuracy of spatial data can determine the success or failure of a long term project. SSA provides QA/QC and data maintenance services for your data to ensure continued data quality meets not only specific regulations and standards but the standards of your organization.

## Enterprise GIS and FMIS

An Enterprise System provides broad-range access to geospatial data and applications throughout an organization. The overall goal of an Enterprise System is to create a common infrastructure to enable access to geospatial or facility operations data and solutions. Implementing an Enterprise GIS or FMIS allows for the integration with other enterprise systems (SAP, ERP, CRM) and adds the value of spatial technology to those systems. Enterprise GIS or FMIS will also increase your overall operating efficiency and therefore reduce costs to your operation. By moving to an Enterprise System, not only will productivity increase but others with access to this data will benefit in their analyses and decisions.

### Enterprise Framework

All businesses and organizations are looking to reduce overall costs, improve efficiency, and gain a competitive advantage. Enterprise Systems are scalable, reliable, and secure to make sure sensitive data is protected; and the Enterprise System can grow as your organization grows. These systems are open, interoperable, web-based when appropriate, and standards-based to assist with integration of other new and legacy enterprise systems.

### What can it do for my organization?

An Enterprise System can be a significant investment for many businesses and organizations; but effective implementation can lead to a higher level of data integrity and accuracy, increased productivity and access to data, and allows more effective use of the data you currently possess. No matter what industry you are in, an Enterprise System solution can provide maximum Return on Investment (ROI) and help achieve business goals.

### How can Spatial Systems help my organization get started with Enterprise GIS or FMIS?

Establishing an Enterprise System begins with examining your organization and business processes at the highest level. We take the time to analyze and develop workflows and examine existing systems to reveal their effects and impacts on the organization at various levels. As with any system, implementing an Enterprise GIS or FMIS System follows the Systems Development Life Cycle (SDLC) plan. Spatial Systems can take you and your organization through the implementation of an Enterprise System, from the planning stages to the deployment and maintenance phases.

## Needs Analysis and Cost Benefit Study

Although GIS technology has been around for over 30 years, only a relatively small percentage of those organizations who could benefit from it have begun the implementation process. While most Federal agencies and State offices have at some level been introduced to GIS, many of the offices within these organizations are still watching from the sidelines. At the County and Municipal level of local government, typically only the most affluent have had the opportunity to introduce GIS technology to their daily workflow. Most major utilities, but not many smaller ones, have thus far been able to make productive use of GIS. At the commercial and general public level, most organizations are using GIS only to facilitate travel.

FMIS technology has been around for a similar time frame, but nearly all FMIS systems lack a spatial component that facilitates visualization of the functions and data contained in the system. It turns out that the fundamentals of GIS technology provide a unique and valuable addition to the basic functionality of traditional FMIS implementations. Further, FMIS implementations utilizing spatial technology offer the ability to integrate inputs from Building Automation Systems—systems that control many of the operational costs of the infrastructure.

Principals at SSA have been involved in the productive implementation of these technologies for over 20 years. Why has it taken so long for the technology to become more commonly used? Effective use of GIS and FMIS requires hardware, software, and data that is integrated into the daily workflow of the organization. The hardware used today is most likely a windows-based desktop or a browser to the internet—common technology in almost any home. The software required can be expensive and in the past has certainly been a challenge to learn to use. But the availability of internet-based GIS and FMIS solutions for a decade now has begun to lessen the software cost and has improved the user-friendliness of the technology. Data—the lifeblood of these systems—has been getting developed in compatible formats for almost 20 years.

So, what is holding up the acceptance of these technologies? In most organizations a business case has to be made to spend the dollars necessary and to perhaps change the way business is done. This is the purpose of a needs analysis/cost benefit study. The prospective user organization should be evaluated from the perspective of how a system would become incorporated into the workflow, and how the use of such a system would improve that workflow. It requires a series of interviews with existing staff for the consultant to come to understand the responsibilities of the offices within the organization, how they interact with one another, what data is used, what format it is in, what existing applications need to be incorporated, and how these technologies can be brought to bear to the benefit of the organization. Then a case needs to be presented to management regarding the cost/benefit of implementation of such a system, and budgets need to be allocated accordingly.

Spatial Systems senior staff has been performing these types of studies since the early 1990's. Further, since SSA has been implementing this technology since 1995, we are very familiar with what has and has not worked for similar organizations in the past. We invite you to contact us for a preliminary discussion of how our experience and expertise can benefit your management and staff in deciding whether, when, and how GIS and FMIS technology should be introduced into your organization.

## Quality Assurance/Quality Control (QA/QC)

It is very common for an organization that is implementing GIS or FMIS technology to contract for data acquisition, data conversion, or programming/customization services. Normally that organization would take steps to ensure that a company selected for the work has the experience necessary to ensure they do a good job. Unfortunately, often a decision is based more on price than anything else, which is perfectly understandable if all provider companies were created equal.

The first step in data development should be establishment of a specification for the workproduct that will assure the necessary quality. The development of the specification can be performed by a qualified consulting firm that has experience in this kind of product development. The specification not only alerts potential vendors that you are serious about quality, but also gives you a way to measure whether the work product meets the requirements of your applications.

Once a vendor is brought on board, it is important to monitor the data as it is developed against the specification. By beginning the review early, it will be possible to identify systemic problems in the production process that may result in unacceptable data or software.

While it is possible for an organization to perform QA/QC services itself, the process takes time away from other responsibilities that existing staff have. Further, if the organization has never had this kind of data or software developed in the past, it may be difficult to consistently identify the best way to perform QA/QC services. Contracting with an independent firm to develop the specification, assist in the procurement process, and perform QA/QC services provides an opportunity to assure that you spend your money wisely and that you get what you pay for.

Please contact Spatial Systems Associates, Inc. if you would like to discuss how we may be of assistance in helping your organization understand the potential uses of GIS and/or FMIS technology, understand the costs and benefits of implementation, and understand the possible pitfalls that may lie ahead should you choose to move forward.

