

This chapter presents a set of nine fundamental principles to guide state- local information system initiatives. These principles support shared vision and commitment Œ vision of what is to be achieved and commitment to a collaborative way of achieving it. Sometimes the pressure to design and establish a system quickly leads us to forget or downplay some of these principles. However, our best practices research clearly shows that each one is important to success.

### Principles to Guide State-Local Information Systems

- **Understand the full range of local and state conditions**
- **Have a clear purpose and realistic, measurable expectations**
- **Commit to serious partnerships**
- **Choose the right people for the jobs that need to be done**
- **Expect to assemble a mixture of resources**
- **Communicate as if your survival depends on it**
- **Design a system that integrates with your business**
- **Demonstrate and refine ideas before you implement**
- **Let common sense guide you to workable solutions**

### Understand the full range of local and state conditions

Local and state governments deal with overlapping goals and concerns. A successful state-local project requires an understanding of the conditions under which both state agencies and local governments operate. Since the system will connect two or more levels of government and is likely to be in operation all over the state, its designers need a deep appreciation for the full range of issues that both kinds of participants face.

In order for state and local levels of government to work toward the same or complementary goals, they need to understand and appreciate one another's abilities, strengths, and limitations.

It may be fair to say that there are as many unique local conditions in the State of New York as there are local governments. Nevertheless, there are several areas where almost all local governments share common concerns. These include:

- **A generalist's point of view.** Only in the larger local jurisdictions will groups of individuals be found concentrating on or specializing in a single function. More often one person or only a few people must handle many issues. As such, they have a keen appreciation for integration, coordination, and functionality in information systems and other business activities. They are less impressed with a particular technology than with what it can do to support sensible operations.
- **Proximity to customers and constituents.** There is an immediacy in the connection between local government employees and their customers that seldom exists at the state level. Local officials live with those they serve. The same person buying a fishing license or applying for a building permit is also the person they see at school and social functions. In addition, local officials are often elected officials themselves or work directly with elected office holders.
- **Operations that respond to local conditions.** Geographic location, population demographics, and the conditions and characteristics of the local economy all lead to big differences in the demand for various services. Local governments are also affected by their proximity to state borders, urban centers, and recreation destinations. The techniques that are suitable in one place may be very unsuited to another.

Common goals & concerns State level concerns are often different from local ones, but they are equally legitimate.

- **Size and scope of programs.** New York State is one of the largest governments in the United States. Many state agencies oversee programs and budgets several times larger than many entire state governments. Since New York is geographically and demographically very diverse, there are often variations and options within single programs that make them more complex and difficult to manage and evaluate.
- **A specialist's point of view.** State agencies are very specialized in the work they do and the kinds of staff they employ. While every agency has general administrators and support functions, all are characterized by a particular programmatic focus and professional perspective -you won't find a public health point of view dominating the work of the Tax Department. Nor will you find much of the generalist perspective so common in

local governments.

- **Operations that respond to statewide and national conditions.** Some state agencies are constantly under the scrutiny of the federal government as well as a wide variety of well-organized interest groups. A number of state agencies receive a considerable portion of their funding from the federal budget and this often entails a wide array of federal requirements. Further, while their main focus is on the particular mission assigned to them by state law, state agencies are also part of a much larger "organization" called state government. They must deal within a larger political climate including the Governor and the Legislature which together represent constituencies and philosophies that are far more diverse than those faced by most local officials.

Both state and local agencies share much in common as well: a focus on citizen services and public expectations, concerns about workforce size and skills, a need to manage internal operations efficiently and effectively, and the problems of tight budgets, public accountability, competition for tax dollars, and decreasing staff. This area of common concern is large and is a solid basis for collaborative action.

### Have a clear purpose and realistic, measurable expectations

Establishing a clear and common understanding of the purpose for a project is difficult under the most ideal conditions. In state-local information systems projects, it can be an even greater challenge. Establishing common purpose, defining scope, and managing expectations in a state-local project are considerations of the first order. Since there are so many players who see the world from different points of view, confusion about these critical factors can spell serious trouble down the road.

*Common understanding of a shared and clearly articulated purpose is crucial in state-local initiatives. Realistic, measurable expectations about achieving that purpose are equally important.*

State-local projects are initiated for several reasons: in response to new laws, in response to customer demands, and in response to a changing environment, including new players and new tools. They operate in a broad programmatic or administrative context, but need to be focused on some particular goal. For example, there is great concern in our society about the effectiveness of public education. A project could address any of a hundred purposes within this broad concern: to connect elementary school libraries to the Internet, to help schools prepare students for jobs in today's economy, to make higher education affordable for all who qualify, and so on. No single project can address all (or even many) purposes; we need to agree on a specific focus for each particular effort.

Once a purpose is selected, we move to questions of reasonable expectations given the current situation and the money, time, people, and commitment available to change it. How shall we define and prioritize these expectations? How will we define and measure achievement?

These expectations are sometimes called the "project scope." The scope is defined by balancing desired goals against available resources and a realistic timeline. The project team must also create an implementation plan and a project budget which will match good intentions against an actual commitment of people and funds and establish a mechanism for ongoing project management. This process also entails defining outcome measures, setting targets for performance, and building in ways to gather the information needed to conduct performance assessments.

### Commit to serious partnerships

The dictionary defines *partnership* as "two or more people engaged in the same enterprise, sharing its profits and risks, and acting as trusted agents for one another." When we say partnership, we mean this active, interdependent, trustful relationship.

*Active, trustful partnerships focus on common goals and support healthy interdependence.*

Governments, like most organizations, have transformed their sense of organizational boundaries and interorganizational relationships. A new level of interdependence among government jurisdictions and agencies is being fostered by public policies that assume a high level of information sharing and interaction. In this environment, old ways of relating to one another are increasingly ineffective.

In the paper-based world, local governments received one-size-fits-all directives, prescriptions, and instructions from state agencies and responded by sending the required reports, forms, and money back into a monolith called 'The State.' State agency consideration of local conditions, processes, and technical capability was not an issue. Each local agency worked out its own methods. Everyone was an independent actor. Today, with extensive

information sharing requirements built in to most programs, we rely more and more on computerized systems that need to connect to all local jurisdictions. Local operating realities now often clash with state-level system requirements. In order to administer these more complex programs and take advantage of these new tools, both levels of government must view each other as partners in an overall effort to deliver services to the citizen or to improve the administrative functioning of government.

The particular need for partnership models in state-local projects stems from their unique nature. For example, in most of the projects we reviewed, the local participation resulted from local motivation to participate in an improvement effort. The local involvement was not mandated and funding was, in general, not provided by the state. Collaborative efforts built on partnership models of behavior are required to manage this new kind of engagement. The art of identifying appropriate partners, and building and maintaining active, trustful relationships must be practiced in all information systems projects, but particularly in state-local projects. The partnership model is often the best way to engage non-government participants as well: non-profit service agencies, professional associations, and private sector organizations may all be engaged in the partnership.

**Willing engagement in the same enterprise Shared benefits & risks + Trustful relationships = Partnership**

### Choose the right people for the jobs that need to be done

A project is only as good as the staff assembled to carry it out. In state-local initiatives it is important that both levels of government be well-represented and assigned appropriate responsibilities. It is equally important that the project team have complementary skills and experience in a variety of areas including management, program, administration, technology, and customer service.

**State-local system projects demand a full range of management, programmatic, administrative, technical, and customer service skills.**

A good rule to follow in considering project team members is to identify all project stakeholders and then establish a team that represents the range of interests on this list. A well-respected leader is a critical ingredient as well. Choose one who can build bridges within this diverse constituency.

Individually, team members should:

- Be committed to achieving project goals
- Understand and be capable of carrying out their roles
- Be able to make the necessary time commitment on a day-to-day basis
- Be available for the long term
- Possess good communication skills
- Be willing to represent both their own points of view and others in the larger community
- Contribute individual expertise to problem-solving while remaining open to a variety of approaches

As a group, the team should:

- Represent all stakeholders
- Possess the needed mix of specialized knowledge (on technical, management and policy topics)
- Possess the needed mix of practical skills (organizational, political, marketing, writing, technical, etc.)
- Be able to work together toward a common goal
- Form a strong cohesive unit capable of working cooperatively to identify and solve problems.

### Expect to assemble a mixture of resources

Some state-local information system projects are funded by a dedicated single budget appropriation, but more often you will need to finance a systems initiative with a more complex mixture of resources. Anyone who has been a recent college student (or parent) is familiar with the "financial aid package". For most people this means assembling the financial resources to pay for a college education out of some combination of savings, current earnings, grants, loans, and work-study assignments. In the context of state-local information system projects, the "package" may comprise: direct appropriations from either state or local legislatures or both, federal grants or formula matching funds, foundation grants, in-kind efforts, re-deployed existing resources, and private sector partnerships.

## Chapter 2. Principles for Working in the State-Local Environment

*Most state-local systems are supported by a variety of funding and in-kind resources contributed by different organizations, with different rules of accountability.*

The problem for you, as for the college student, is each resource comes with its own rules and requirements. Some can only be used for certain expenses, some can be used for any expense, some require a re-application every year, and others are guaranteed for longer periods of time. This situation demands a high degree of managerial expertise and creativity. Your project goals and milestones need to be linked to the resources that will be available in varying amounts, at various points in time, with different kinds of strings attached.

While a more traditional project budget might look like this on a spread- sheet . . .

Three-year Project Budget								
Total State Appropriation: \$2.125 million								
	Local Personnel	State Personnel	Equipment	Software	Training	Travel	Consulting	Total by Year
Year 1	50	50	35	75	100	5	40	355
Year 2	200	50	0	50	500	25	100	925
Year 3	200	50	0	50	500	25	20	845
Total by Purpose	450	150	35	175	1100	55	160	2125

. . .your project may look more like this:

Three-year Project								
Total Available: \$2.125 million								
Year & Source	Local Personnel	State Personal	Equipment	Software	Training	Travel	Consulting	Total by Year & funding source
<b>Year 1</b>	50	50	35	75	100	5	40	355
<b>State</b>		50	25	50	50		20	195
<b>XYZ grant</b>	30		10	25	50	5		120
Local	20						20	40
<b>Year 2</b>	200	50	0	50	500	25	100	925
State		50		50	250		80	430
<b>XYZ Grant</b>	60				200	25		285
<b>Local</b>	50						20	70
<b>ABC Grant</b>	90				50			140
<b>Year 3</b>	200	50	0	50	500	25	20	845
<b>State</b>					200	25	20	245
<b>Local</b>	100				100			200
<b>ABC Grant</b>	100	50		50	200			400
<b>Total by Purpose</b>	450	150	35	175	1100	55	160	2125

The picture may be even more complicated since the "local" line may actually be made up of many separate local entities, each with its own funding rules and cycles. Some sources of funding (like the XYZ grant) may expire before the project is complete. Others need to be sought before your needs are fully known. As a result, you need people on your project team with the skills to manage this mixed package of resources. They will need to allocate them to various purposes, spend and account for expenses according to the sponsors' various rules, and accumulate integrated cost information to support any reasonably complete program evaluation.

## Communicate as if your survival depends on it

Effective communication is a critical element of success in any project. Without good communication you foster a project management environment that breeds confusion, poor coordination, and frustration. Communication is both the enabler that allows the exchange of information and ideas among project team members, and the conduit through which information flows.

*Open interchange of concerns and ideas means an ongoing flow of complete, appropriate, timely, and accurate information tailored to the needs of each audience.*

When we talked with various participants in each of the projects and asked them to identify some of the lessons they had learned from their projects, most answered that good communication was a critical element of success. Moreover, when we asked them to identify some of the problems they had encountered, many of the answers were linked to communication issues. Clearly, communication is one of the most important aspects of any collaboration, and the success or failure of your project may ultimately depend on how well you communicate.

It was apparent from our discussions with the project participants that good communication involves more than just sending and receiving messages. It also involves establishing and maintaining good relationships. Some of the projects we examined demonstrated that positive and supportive relationships among individuals was a key to success. When we asked them to elaborate, participants told us that when they treated one another with respect, equality, and courtesy, communication was not a barrier and it was easier to tackle and solve problems. Often the opportunities for informal discussion while on the road or preparing for a major event led people to get to know and trust one another as individuals, not just as professionals linked by a common work assignment.

Another important aspect of communication is how best to send and receive information among the wider group of stakeholders so that they stay engaged, informed, and enthusiastic about the project. Unfortunately, there is no single formula for accomplishing this, since the goals of every project and the project stakeholders are never the same. You need to understand the nuances of your particular project and set up communication techniques that are tailored to your project's particular circumstances. Spend some time thinking about who your stakeholders are, what their information requirements are, and what techniques can be used to best communicate with them.

For example, if you are establishing a cross-functional project team that consists of customer service and technical staff from local government, and program and technical staff from a state agency, you need to consider the common information requirements for the entire team (such as project timeline information) and the specific information needs of the various stakeholders (such as documentation for the technical staff about updates in software releases). The communication techniques you use to keep the cross-functional team apprised of general project activity will be different from the techniques you use to inform the technical staff of changes to the system software. In the first, you might use periodic team meetings or status reports to keep everyone involved and informed. In the second, you might use formal release notes, memos, e-mail, and telephone calls to discuss the details of software changes as soon as they occur.

### Design a system that integrates with your business

No government information system stands completely on its own. Each system is implemented in a work environment that includes people, processes, organizational relationships, and other systems. State-local system initiatives typically augment or enhance rather than replace existing systems. As a consequence, design teams should aim for systems that recognize (at least) and integrate (at best) with the staff, activities, and existing information systems of both the state and local participants. To do this, the team needs to be aware of the existing components of work, optimistic about the potential for integration, and realistic about the willingness, resources and technical infrastructure that are necessary to change existing processes.

*A new or revised system should take account of, link with, and enhance existing operations.*

Understanding the user environment and customer expectations and factoring them into the design or re-design of a business process helps ensure that some diversity in these environments can be accommodated. Engaging in a collaborative effort to define standard business requirements and a standard set of data elements are two ways to help assure uniformity of purpose and content while allowing for some customization in implementation. Armed with these commonly developed requirements, local agencies can often work with both state and local resources to implement a sensible system. Local MIS Departments, where they exist, can be valuable partners in working through the issues of integration at the local level. Sometimes local MIS staff are bypassed in the connection between state and local program agencies and this usually means an important point of view and source of expertise has been left out of the equation and local technical staff are then unprepared to support the system locally.

Systems need to be integrated at the state level as well. In our study, we saw many examples of multiple systems created by different units of a single state agency that were developed at different points in time for different programmatic reasons, with no attempt made to connect to existing systems in the same agency. The same problem exists in the need to connect systems across different state agencies.

Government programs and systems also affect people and organizations outside of government. Some programs link government agencies and non-profit service providers or commercial businesses whose own processes need

to be harmonized in some way with the government system. If the functional ability of these external players is important to the success of the state-local system or program, they need to be at the table along with their public sector counterparts.

### Demonstrate and refine ideas before you implement

The admonition "look before you leap" is grounded in practicality and applies to many situations in the realm of system development and project management. Most of the projects we studied have integrated this concept into their practices. When developing a large, integrated system that involves stakeholders with a wide variety of perspectives, it is a good idea to find out how others have approached the same issues. Often other states, localities, or private businesses have experiences to offer as models. Before you choose a single approach and decide to implement it, look closely at similar experiences and devise a set of reasonable alternatives for your system. Look carefully at each possible approach to identify all of its strengths, weaknesses, and implications. Build a paper model or system prototype to show these ideas in more concrete form to users, customers, and other stakeholders. Invite feedback and act on it. In doing this you may uncover problems that you did not see at first, or you will refine your approach, or you may adopt a new approach that is better than the original.

*Prototypes and demonstrations make ideas tangible to users and open to improvement throughout the design process.*

One of the best ways to accomplish this is to use a process improvement method to either understand and improve upon existing processes or create new processes to satisfy business needs. There are many methods to choose from such as business process improvement, business process innovation, information engineering, and prototyping. Each of these techniques, when used correctly, engages designers and users in a focused dialog that yields a great deal of information that helps everyone make better choices. They produce maps, diagrams, small prototypes, and other illustrations that engage groups in a common understanding of the problem, process, or system. In the projects we studied, we saw how effectively these demonstrations could:

- replace many individual mental pictures of the new system with one tangible representation that all can understand in the same way,
- remove some of the fear and resistance to change that comes from simply not knowing what to expect,
- give designers and users a common vocabulary for asking and answering questions and recommending changes and additions,
- encourage people to think not just about the system itself, but about how it will fit into existing operations.

### Let common sense guide you to workable solutions

The nature of intergovernmental projects provides many opportunities for managing relationships, work, and problems in novel ways. These opportunities can be mined for creative approaches to moving project activities toward successful completion.

*Trust the experience and good sense of participants to define needs and uncover practical ways to meet them.*

Optimal solutions, however, do not always entail the use of the most elaborate technologies or the latest management techniques. You don't necessarily need a "brand name" tool or pre-packaged commercial methodology. Generally the most valuable resources any project possesses are the individuals involved. Often the best solution is found in the common sense and practical experience of the participants. They bring to the table a wealth of knowledge about programs, practices, people, and politics.

Many of the projects we studied involved veteran professionals with a strong sense of what could work in a given situation. They had a deep appreciation for the limits of time, money, staff, and authority, but also had a willingness to try realistic new ideas. Since there are so many local agencies involved in each project, participants often learned from one another and shared their insights with state staff as well. Many project teams understood the critical importance of project planning, process analysis, data definitions and the like because they had encountered these as practical problems in their regular jobs. They knew these were important considerations and usually figured out how to deal with them without the aid of expensive consultants or special project management methodologies or software tools. In projects strapped for resources, this was often the only way to get the job done. Happily, it is often a very effective way.

### A summary of reasonable expectations

The principles outlined above should lead you to well-informed, reasonable expectations about two things: what you should expect from others and what you should be prepared to do yourself to make a state-local project succeed. We've summarized these expectations in the following table:

<b>If you are a system designer you should expect ...</b>	<b>If you are a system user you should expect....</b>
* to design a system that meets program goals and the operational needs of users	* the system will be designed to meet your most important programmatic and operational needs
* to make a case to your leaders that sufficient resources need to be invested in the project	* to make a case to your leaders that sufficient resources need to be invested in the project
* to spend a significant amount of time in the field observing and assessing program operations	* the project design will take into account how you actually do business
* to design a system that integrates as much as possible with existing systems and business practices	* to change some of your processes and business practices in order to abide by reasonable standards and take advantage of the new system
* to solicit and act on comments and recommendations made by users	* your experience and knowledge, especially related to direct service delivery will be given full consideration
* to commit a substantial amount of time, staff and other resources to activities that define, design, test, and implement the new system	* to commit a substantial amount of time, staff and other resources to activities that define, design, test, and implement the new system
* to communicate regularly with users and offer ample opportunity for them to influence the design-in- progress	* to devote time to the review and improvement of interim products, prototypes, and other partial results
* to compromise on your desires for a standard statewide solution	* to compromise on your desires for a customized solution
* to take into account the need to link this system with other systems	* to advise designers about the necessary linkages to other related state & local and non- governmental systems
* to prepare, deliver, and maintain effective training material and other support services	* to devote sufficient time and resources to staff training, to have ready access to ongoing support services
* to encounter problems and work cooperatively with users to resolve them	* to encounter problems and work cooperatively with designers to resolve them