

### Summary

Coordinated state-local information systems offer the hope of integrated services to citizens and streamlined operations within government. Many government and professional organizations are searching for ways to make these essential systems more successful. But there is very little reliable information about what makes state-local projects succeed or fail. This study, sponsored by the New York State Governor's Task Force on Information Resource Management (now the NYS Office for Technology), was one of the first attempts in the US to analyze and document practices that lead to success.

The objective of this project was to identify and document the practices associated with successful state-local information systems by studying the experiences of eleven existing initiatives in New York State

The main result of the project is a handbook of best practices called *Tying a Sensible Knot: A Practical Guide to State-Local Information Systems*. It presents a variety of practices that project managers and participants can use to develop successful state-local information systems. The project also uncovered issues that constrain success, but that cannot be addressed by single project teams acting on their own. These constraints are the result of environmental factors that reduce the effectiveness and increase the cost of all state-local systems. The final project report discusses these systemic constraints on effective systems and offers recommendations for mitigating them.

### Publications & Results

#### Practical Guides (1)



#### Tying a Sensible Knot: A Practical Guide to State-Local Information Systems

Mon, 01 Jun 1997

State-local information systems must recognize and account for enormous diversity of community settings, organizational cultures, structures, staff. This report, based on eleven initiatives in New York State, presents principles and practices for ideal state-local information systems.

State-local information systems operate in an environment of almost stunning complexity. They must recognize and account for enormous diversity of community settings, organizational cultures, structures, and staff. To be successful, they must deal with mismatched fiscal years; a range of hierarchical, team, and matrix management styles; and program-driven vs. process-driven vs. customer-driven work environments. They need to be meshed into the fabric of on-going business processes and working relationships and relate to other information systems at both the state and local levels. They are clearly not "business as usual."

We define a state-local information system as one that links state and local agencies together in a coherent service delivery or administrative environment. Such a system facilitates information sharing for the achievement of mutual program or administrative goals.

This report was written to help state and local governments work more effectively in this challenging environment. It presents both principles and practices, based on documented experience, which can lead to successful state-local information systems. The material is drawn from a cooperative project sponsored by the New York State Governor's Task Force on Information Resource Management to identify and promote the practices that lead to effective state-local systems. The project involved more than 150 state and local officials engaged in eleven such projects. The participants helped document current issues, defined the characteristics of ideal systems, and shared their good and bad experiences.

## Reports and Working Papers (1)



### Partners in State-Local Information Systems: Lessons from the Field

Wed, 01 Oct 1997

A state-local information system is one that links state and local agencies together in a coherent service delivery or administrative environment. This report discusses the findings of a research project that examined eleven state-local projects in New York State.

Coordinated state-local information systems offer the hope of integrated services to citizens, and streamlined operations within government. Many government and professional organizations are searching for ways to make these essential systems more successful. But we lack reliable information about what makes state-local projects succeed or fail. A state-local information system is one that links state and local agencies together in a coherent service delivery or administrative environment. Such a system facilitates information sharing for the achievement of mutual program or administrative goals.

The Best Practices in State-Local Information Systems project, sponsored by the New York State Governor's Task Force on Information Resource Management, identified and documented a set of practices that led to effective state-local systems in eleven such projects.

Information needed to support the project objective was gathered in four ways: a literature and current practice review, standard project description, a survey of both state and local participants in each project, and focus group interviews with the project teams.

The final report discusses the findings of the project by detailing the systemic restraints on effective state-local information systems, and recommends next steps for mitigating the effects of the constraints.

## Lessons Learned

***The best practices uncovered and illustrated in this project are summarized below:***

**Define purpose and scope.** A well-defined project purpose and scope both rest on a solid understanding of the underlying program or policy. Together, they represent deliberate decisions about what part of the program the project should address and what realistically can be achieved given the resources available. Ideally, the selected purpose and scope not only attack current problems, but lay a foundation or build the capacity to deal with future ones.

**Choose a well-skilled and respected project leader.** The project leader is a critical success factor in state-local projects. Choose a person who is able to span the psychological and political distance between state and local governments; has a good understanding of local operations; enjoys the confidence and support of top-level executives; is an excellent communicator; is a resourceful manager of people, time, and money; and is flexible and willing to seize opportunities.

**Recruit the right project team.** Assemble a team of both state and local staff who collectively have strength in three areas: management, technology, and policy. Without individuals capable of handling project management functions (time lines, workplans, budgets, recruiting) you run the risk of poor coordination, and wasted time and effort. If a project lacks adequately skilled technology personnel, it is likely that deadlines will be missed and applications may fail or contain crucial flaws. Teams that do not include well-informed program and policy staff, especially those engaged in direct service functions, are likely to miss the boat on substantive service goals.

**Sell the project to decision makers.** At the beginning of the project, develop a shared vision that identifies tangible benefits and shows how investments of state or local resources can achieve them. This vision (used consistently in important project documents and events) communicates to decision makers important information

about why the project is being undertaken, what the expected goals are, and how the realization of these goals will benefit their stakeholders.

**Communicate often and clearly with stakeholders.** Good communication practices ensure that all stakeholders (both those actively involved and those who will eventually be affected) are continuously and adequately informed about project goals and progress. This is not a one-size-fits-all endeavor. The techniques selected should be based on the particulars of the project and specific needs of each audience: What information do they need? How much detail? How often? Through what medium?

**Finance creatively.** A state-local information system effort will likely be financed by a package of resources that includes cash appropriations, grants, in-kind resources (public and private), and a lot of redeployed human effort. Creative financing entails not only the usual budget management skills, but the ability to convince others to contribute resources, to identify and capitalize on grant opportunities, to "leverage" resources, and to balance the constraints and rules that multiple funding sources can impose on a project plan.

**Adopt tools and techniques that can manage complexity.** These projects require tools to manage people, time, relationships, partnerships, ideas, conflicts, resources, information, and processes. Project managers need a range of techniques and the insight to use them in the right context to manage multiple streams of formal and informal communication and activity. Successful techniques are usually based on a keen understanding of the project's goals and common sense adaptation of both traditional and newly popular management tools.

**Look for existing models.** Any project can benefit from a systematic review of similar efforts in other places. Since private and public sector organizations in this country and others often conduct similar programs, there are nearly always models from which to learn. Academic researchers and nonprofit organizations may also have solved a problem, or at least developed part of the solution. There is a lot to learn from success stories and even more to be learned from cases where things didn't always go as planned.

**Understand & improve processes before you apply technology.** A system which successfully supports both the service delivery role of local governments and the information requirements of the state usually results from a clear understanding of the dependencies and requirements which govern the business processes that link them together. Project teams often find that a significant amount of the improvement they expect from a new system actually comes from understanding and improving these processes before they apply any technology.

**Match the technology to the job.** Before choosing a technical approach, give full consideration to the work processes and overall business context in which a state-local system must operate. Consider user capabilities and the organizational and staffing limitations of the agencies that will be implementing, using, and maintaining the system to deliver services. Conduct technical awareness activities such as literature reviews, searches on the World Wide Web, vendor presentations, or attendance at technology exhibitions and conferences. Prototyping is an excellent, relatively low-cost way to test the "fit" between a technology and the environment in which it must work.

**Use industry standard technology.** Industry standards exist for almost every type of hardware, software, and communications technology, including such things as data organization and access, data sharing, networking services, and document imaging. Standards enable interoperability and electronic messaging among system components. They also offer vendor independence and scalability when you use a common standard, you will be able to choose among different products that adhere to the standard and will be able to scale up to larger systems when the need arises.

**Adopt and abide by data standards.** Data standards usually include an agreed upon definition of the meaning of a term and an agreed upon format for how the term will be represented in the system. Standard data definitions and formats organized in a common data dictionary are an essential prerequisite for effective information sharing among government organizations and between the government and private firms. They provide a common language for information sharing, help ensure that the data sets will be described accurately, facilitate automation, allow for both central and distributed storage of data, and support electronic information exchange.

**Integrate with related processes and practices.** In most cases, state-local information systems projects are focused on standard business processes such as issuing a license, determining eligibility for a benefit, or recording a property transaction or vital record. However, these business processes are conducted throughout the state in very non-standard environments. Projects therefore need to focus on both the business process and the ability of individual organizations to adopt an information system to support that process. Tools such as data dictionaries, and process and workflow analysis help identify ways that different organizations can and should participate.

**Use prototypes to ensure understanding and agreement about design.** The philosophy behind prototyping is that system development is more effective when customers are partners in the design process. Prototyping allows for the building of the system to begin much earlier in the development process, and allows customers to see and influence the system as it is being built. The prototype makes tangible all the ideas that both designers and customers usually try to communicate to one another in words. The prototype makes it possible for both to see and understand the needs, functionality, and limitations of the design and to alter it as needed.

**Choose a capable pilot site.** Many system implementations are initiated with pilot tests that bring the system into the field to evaluate and refine design, performance, and integration with other systems and activities. The pilot site is a critical organization—one that is willing to undergo on-the-spot evaluation and identify and work on the inevitable problems that pilots are created to uncover and resolve. A capable pilot site must be representative of local conditions, have the organizational capacity and leadership commitment to carry out the pilot, and be geographically accessible for easy interaction among designers and users.

**Make the best use of vendors.** Technical expertise to support the implementation of a new networking technology, a new database engine, or a more intuitive graphical user interface is not the exclusive knowledge of government officials. Depending on resources and the needs of the project, outsourcing portions of the work to technical specialists can be an effective way to get the job done. Well-managed outsourcing allows the government staff to focus on those issues that demand their specialized knowledge and experience while relying on other experts to do the technical work.

**Train thoroughly.** The process of adopting a new system can be made much less difficult by offering well-designed, user-oriented training sessions and reference materials. User training needs to demonstrate not only how the system works, but how it fits into the larger work picture. It also needs to take place at the right time and be offered by methods that take into account the different ways that people learn.

**Support users.** The time period surrounding implementation is a critical one for user support. Offering immediate, appropriate support at this point in time will relieve anxiety and will encourage willing and effective users. But there are always new users and most systems continue to add or change features throughout their life cycle. User support needs to be continually updated and available through such methods as a formal help desk, newsletters, online help features, and lists of frequently asked questions.

**Review and evaluate performance.** A formal evaluation tells how well the system supports the purpose and goals of the project. A comprehensive evaluation is attractive to funders, policy makers, and taxpayers alike by answering questions such as: How well does the system meet customer needs? How well does it contribute to integrated service delivery or other service system goals; How well does it meet time-savings, streamlining, and other operational improvement and user effectiveness goals; and How well does the system meet cost-savings or revenue goals? The answers to these questions lead to decisions about changes, improvements, refinements, and lessons for future initiatives.

## Press Releases & News Stories

### Press Releases

Intergovernmental Project Wins National Award  
Thu, 03 Sep 1998

Tying a Sensible Knot: A Practical Guide to State Local Information Systems  
Mon, 29 Sep 1997

## Partners

### Government Partners

- New York State Governor's Task Force on Information Resource Management (now the New York State Office for Technology)

## Center for Technology in Government

- David Connelly, Public Administration, Graduate Assistant
- Sharon Dawes, Director
- Ann DiCaterino, Project Support Manager
- David Filbert, Political Science, Graduate Assistant
- Darryl Green, Project Support Manager
- Kai Larsen, Information Science, Graduate Assistant
- Jung-Sub Lee, Intern, National Computerization Agency, Republic of South Korea
- Claire McInerney, Information Coordinator
- Theresa Pardo, Project Coordinator

## Advisory Committee

### Special Work Group on Intergovernmental Information Systems

#### Co-Chairs

- Stanley France, Director, Schoharie County Central Data Processing
- Thomas Griffen, Executive Director, Office of Real Property Services

#### Members:

- Pamela Akison, Department of Health
- Joseph Cain, Department of Health, Immunization Program
- Edward DeFranco, Division of Criminal Justice Services
- JoAmy Guild, Department of Agriculture and Markets
- Richard Harris, Office of Real Property Services
- Terry Maxwell, NYS Forum for Information Resource Management
- Anne Marie Rainville, Governor's Task Force on IRM (now known as the NYS Office for Technology)
- Mary Redmond, State Library
- Gary Rinaldi, Department of Health, Immunization Program
- Peg Sauer, Department of Environmental Conservation
- Bonita Scott, Office of Real Property Services
- Jeffrey Swain, Office of the State Comptroller
- Paul Szvedo, Office of Real Property Services
- Steve Walter, State Office of the Aging
- George Warner, Department of Social Services
- Bill Wray, Department of Social Services

## Participants

### State Agencies

- Department of Agriculture and Markets
- Department of Civil Service
- Department of Motor Vehicles
- Department of Social Services
- Department of Environmental Conservation
- Department of Health
- Division of Probation and Correctional Alternatives

- Department of State
- Division of Criminal Justice Services
- Empire State Development
- Governor's Task Force on IRM
- NYS Library
- Office of Probation, Community Corrections
- Office of the State Comptroller
- Office of Real Property Services
- State Archives and Records Administration
- State Board of Elections
- State Office for the Aging

### Local Government Associations

- Association of Town Clerks
- Local Government Information Technology Directors
- NYS Association of Towns
- NYS Government Finance Officers Association

### Counties

- Albany County
- Chautauqua County
- Chemung County
- Columbia County
- Cortland County
- Dutchess County
- Delaware County
- Monroe County
- Nassau County
- Onondaga County
- Oswego County
- Orange County
- Otsego County
- Rockland County
- Saratoga County
- Schoharie County
- Suffolk County
- Ulster County
- Westchester County

### Cities

- Oswego
- Rochester
- Rome
- New York City, Department for the Aging
- Rye, Finance Department
- Yonkers

### Towns

- Bergen
- Binghamton
- Byron
- Canton
- Champion
- Clifton Park
- Cobleskill
- Cortlandville
- East Fishkill
- Edinburg
- Ellery
- Hamburg
- Huntingto
- Lancaster
- Lebanon
- Malta
- Marcellus
- Mendon
- New Lebanon
- North Hempstead
- North Collins
- Perth
- Pittsford
- Putnam Valley
- Schodack
- Somerset
- Unadilla
- Union
- Williamson

### Villages

- Garden City
- Port Chester

### Other Participants

- National Center for Health Statistics
- Upper Hudson Primary Consortium
- NYS Forum for Information Resource Management

## Funding Sources

This project was funded by a portion of CTG's New York State budget allocation plus in-kind contributions of professional expertise provided by more than 150 state and local government participants.

## Original Scope of Work

The objective of this project was to identify and document the practices associated with successful state-local information systems by studying the experiences of these eleven initiatives in New York State:

- Aging Network: Client Based Service Management System Project
- Electronic Filing of Local Government Annual Financial Reports
- Electronic Death Certificate Project

- Electronic Transfer of Dog License Data
- Hunting and Fishing Licenses
- Immunization Information Systems Project
- Probation Automation Project
- Real Property System Version 4
- SALESNET (Real Property Transfer Reporting)
- Local Social Services District Imaging Project
- Electronic Voter Registration

Information needed to support the project objective was gathered in four ways: (1) a literature and current practice review; (2) an effort to describe the eleven participating projects in a standard, comparable way; (3) a survey of both state and local participants in each project; and (4) focus group interviews with the project teams. The Governor's Task Force established a Special Work Group on State-Local Information Systems to serve as both a planning and advisory body for the overall project.

## Related Web Sites

### The Intergovernmental Solutions Program

<http://www.albany.edu/igsp/>

A partnership between the University at Albany's Rockefeller College of Public Affairs & Policy and New York State to develop a professional learning community focused on intergovernmental effectiveness. Program goals are to capture and share knowledge about how successful intergovernmental work occurs.

### Office of Intergovernmental Solutions

[http://www.gsa.gov/Portal/content/orgs\\_content.jsp?contentOID=115009&contentType=1005&PMGZ=1&](http://www.gsa.gov/Portal/content/orgs_content.jsp?contentOID=115009&contentType=1005&PMGZ=1&)

The Office of Intergovernmental Solutions is part of the US General Services Administration. It aims to build a community of intergovernmental managers to identify, analyze, and help solve major issues affecting electronic governments in the 21st century. This Web site is a place where government officials can go to learn about practices in other governments to find sources of information and experts in related initiatives.

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