



The New York State-Local Internet Gateway Prototype Project

Current Practice Research

Christina M. Pagano
Meghan E. Cook

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Overview

In the fall of 2002, the Center for Technology in Government (CTG) at the University at Albany conducted current practice research to identify and examine existing government to government (G2G) portal projects. The purpose of this research was to determine if single sign-on intergovernmental portals, that channel business functions across programmatic areas and levels of government, exist in New York State or in other states. And, if they do exist, what are the policy, management, technological, financial, and other factors that influenced their development.

The main purpose of the research was to help inform the development of an intergovernmental prototype project at CTG. The *New York State–Local Internet Gateway Prototype* project (known hereafter as the Prototype) sought to address the problems created by the large and growing number of multiple, single function, stand-alone information systems connecting state and local governments. This multiplicity of systems has created a significant impediment to efficient work, as well as a financial strain, because many applications require their own hardware, software, security, office space, and business rules.

In our current practice research, we did not find a G2G portal that allows state and local governments to find information and transact business across a range of programmatic areas through a single sign-on mechanism. However, we did find G2G initiatives that are targeting more limited goals and each of these efforts exhibited common characteristics that we believe could be useful in intergovernmental work.

Methodology

This current practice research took place mainly from September 2002 to March 2003. Several methods were used to identify G2G initiatives, including the following.

- Scanning state Web sites. Although many G2G sites are often in a closed or non-public system and consequently not apparent in a simple search. When we did find an indication of G2G work, we called or emailed for more information.
- Asking state and local government professionals in NYS for information about any known G2G initiatives, and then following up with those leads in emails and phone calls.
- Posting a message on the National Association of State Chief Information Officers (NASCIO) listserv requesting information on any G2G projects in progress. After receiving replies, we followed up with subsequent emails and phone calls.

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From these inquiries we learned of G2G projects and received names of individuals to contact. In other instances we found contact names on the web site or sent email to the Webmaster requesting contact information.

In each case where we were able to talk to someone about the initiative, we asked some or all of the following questions:

- Is your state or agency engaged in G2G initiatives?
- How was the project defined?
- How did it get started?
- What does it do?
- Who owns the system?
- Who manages it?
- How was the project funded and where did the cost burden fall? How are the costs managed?
- What are the most important functions and capabilities?
- What do users have to say about the services?
- What was the biggest obstacle?
- Did you set performance measures and were they met?
- Was it worth the effort?

Using these sources and methods, we did not find G2G portal projects similar to the NYS State-Local Internet Gateway Prototype. However, this current practice research offered a snapshot in time of some more limited G2G activities in New York State and other states. This environmental scan of G2G projects was not intended to be an exhaustive review but rather an organized attempt to discover G2G innovations and to reveal some of the important factors, themes, and lessons learned.

Overall Findings

From our research, it appears that G2G services rarely are the initial objective of e-government. Most often G2G applications follow after efforts aimed at satisfying a need for citizens or businesses. One benefit of being a part of a later phase is that G2G applications can rest on existing infrastructures and therefore do not bear this initial cost burden. We also saw instances where connecting G2G information or transactions occurs solely to achieve a G2C or G2B outcome.

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When we did find G2G initiatives under development, we discovered little attention to an enterprise approach. More specifically, there were limited standards in use, issues with identity management and single sign-on, no clear cost structure, and limited or no joint governance structure. The initiatives were linking G2G business, but not doing so with a holistic view.

Finally, we found that the ongoing support and training required for G2G applications is greater and usually requires more resources than initially anticipated. We found, not surprisingly, that the most common and important characteristics of successful G2G efforts include a combination of leadership, credibility, collaboration, and participant buy-in.

G2G Initiatives throughout the United States

Information was collected about G2G initiatives from the states of New Jersey, Pennsylvania, Maine, Indiana, Minnesota, Indiana, Virginia, and Washington. The following are short descriptions about the initiatives in each of these states. None of these initiatives was complete at the time of the research, although some were partially operational. The projects are summarized in Table 1.

New Jersey – Local Access to State Information

The State of New Jersey's portal project enhances the state's ability to share information with local clerks and finance officers. The portal functionalities include role-based access, single sign-on, links to commonly used Web sites, and the capabilities to customize the site according to individual preferences. At the time we conducted this research, New Jersey was using the portal for communication purposes only, not transacting business with local governments. However, representatives spoke of ongoing work to develop an application, which will allow finance officers to manage their pension funds via the web.

Pennsylvania – Framework for Local Web Services

The Commonwealth of Pennsylvania's Dynamic Site Framework (PA DSF) offers a scaleable, dynamic, data-driven web application framework, designed to help local governments build and maintain their own web sites. The idea is to consolidate the time, cost, and effort required to develop and maintain a web site, yet ensure that local governments can control content. Designated regions in the state or PA DSF 'host sites' offer grant funding and training and technical support for local governments.

PA DSF is a collaborative initiative that includes the Commonwealth's Office for Information Technology, the Governor's Center for Local Government Services, Department of Community and Economic Development, and local governments. Its purpose is to help local governments get started on the Web. It

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offers a platform for local governments and creates a common look and feel across the state. PA DSF is an example of state and local engagement, with the focus on the State's support for local efforts to begin to use the Web as well as the State's inclusion of local government in its strategic plan.

Maine – Online Vehicle Registration

The State of Maine features Rapid Renewal, an online vehicle registration renewal application. Forty municipalities and the state Bureau of Motor Vehicles have partnered to provide citizens with access to Rapid Renewal. Maine requires vehicle owners to go to both the state Bureau of Motor Vehicles and the town or city hall for vehicle registration renewal. The online service works in this way: vehicle owners input unique identifiers, which are queried against the state and local relational databases. The citizen may then pay the renewal fee in real-time and then complete the transaction. The information and renewal fees are then automatically distributed to the town/city and state accounts.

Minnesota – Cooperative Purchasing

The State of Minnesota's Cooperative Purchasing Venture (CPV) uses a members-only Web-based application for aggregate purchasing of goods and services under contract terms set by the state. For a membership fee of \$500, a 'government unit' (defined as a county, city, town, school district, or other political subdivision or any in or out of state agency) can participate. School districts across the state signed up for the CPV with the idea of enhancing their ability to purchase computer equipment. Participants receive an access code, which allows them into the secure area of the state's Materials Management Division where they can look up products and place orders. At certain times of the year a volume purchasing committee, which is part of the state's Information Technology Special Interest Division of the Minnesota Education Organization and the State's Office of Technology aggregates orders from across the state and negotiates with the vendors for the best price. In the first six months, participating school districts saved an estimated \$1.1 million.

Indiana – Criminal Conviction Records and Tax Collection

The City of Indianapolis and Marion County in the State of Indiana are participating in a pilot program to develop an intergovernmental portal to allow electronic transfer of criminal conviction records within the state. The Department of Corrections, the Department of Revenue, the Family and Social Services Administration, the State Police, and the Bureau of Motor Vehicles are working to develop a case management system containing court information that is electronically transferred among the agencies. The idea was to find a way to assist the courts with caseload management and to provide access to more timely and accurate information for law enforcement and other agencies. The vision is to eventually have a statewide system.

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Another G2G project in Marion County relates to warrants for late state taxes. The Summons Service Details Service, which is available through CivicNet, is a G2G collaborative project provided by the state Department of Revenue, the Marion County Civil Sheriffs' Office, and the Marion County Clerk. These state and local agencies share information and work in partnership to issue and serve court orders, and collect unpaid state taxes. This system has proven much more effective for tax collection compared to the former paper process. The system also generates a judgment of record on delinquent taxpayers, which becomes a part of the citizen's credit history.

Virginia – Parks and Recreation

Fairfax County in the Commonwealth of Virginia participated in a collaborative effort with the U.S. Federal Government, the Commonwealth of Virginia, and the State of New Jersey to execute a pilot program for integrated data related to parks and recreations programs. This pilot program was part of the Government Without Boundaries initiative. The goal of the pilot was to cut across levels of government to collect and then integrate government information and services and make it available to citizens. The cornerstone of this project was the development of a collaborative framework where all the governmental entities worked together build a model of the database application. The project relied on commitment from all levels of government and on the development of data exchange standards.

Washington – Building Permits

The City of Kirkland formed an alliance with eight other cities within King County in the State of Washington to participate in the initiative, MyBuildingPermit.com. This application was designed through collaborative city-state effort to provide a one-stop-shop for businesses to apply, pay for, and receive electrical, low voltage, mechanical, or plumbing permits. The site offers a common area for resources including a construction tip sheet, inspection checklists, and links to other helpful resources such as a downloadable fee schedule and an event calendar and seminar listing.

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Table 1. Summary of projects reviewed outside New York State.

| Jurisdiction | Initiative Focus | Coverage | | | E-gov Focus | | | Status | | Interactivity | |
|--------------------------|-----------------------------------|-----------|-----------------------------------|-------------------------|-------------|-----|-----|----------------|-------------|--------------------|-------------------------|
| | | Statewide | Programmatically Related Agencies | Stand Alone Application | G2G | G2C | G2B | In Development | Operational | Informational Only | Able to do transactions |
| New Jersey | Local Access to State Information | ✓ | | | ✓ | | | | ✓ | ✓ | |
| Pennsylvania | Framework for Local Web Services | ✓ | | ✓ | ✓ | | | | ✓ | ✓ | |
| Maine | Online Vehicle Registration | | ✓ | | | ✓ | | | ✓ | | ✓ |
| Minnesota | Cooperative Purchase | ✓ | | | ✓ | | | | ✓ | | ✓ |
| Indiana | Criminal Conviction Records | | ✓ | | ✓ | | | ✓ | | | |
| | Tax Collection | | ✓ | | ✓ | | | | ✓ | | ✓ |
| Fairfax County, Virginia | Parks and Recreation | | ✓ | | | ✓ | | | ✓ | ✓ | |
| Washington | Building Permits | | ✓ | | | | ✓ | | ✓ | | ✓ |

G2G Initiatives in New York State

Within New York State, we spoke with people involved G2G portal projects in the State Education Department (SED), The Department of Environmental Conservation (DEC), and Department of Civil Service. We also spoke to people from several NYS agencies involved in a shared human services initiative, CentraPort, which is a collaborative effort among five state agencies and local social services departments. These projects are summarized in Table 2. One, the DEC initiative, is fully operational. The others have some operational components but are also developing new features or expanding to new users.

NYS Education Department – Electronic Hearings Reports

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When New York State Education Department (SED) set out to comply with a federal mandate that required them to implement an application for school district hearing officers to submit electronic reports, they decided to design a portal that would allow several applications to be completed through a single sign-on mechanism. They created an application for electronic submittal of reports from hearing officers and added this and other applications within SED to the portal. They also developed a role-based system where individuals in school districts could access several applications that they would have to otherwise access individually.

NYS Department of Civil Service – Local Examinations

The New York State Department of Civil Service examination staff offers county civil service departments the ability to order examinations online. Because the idea was well received by local civil service offices, the state agency began to look at other possible online offerings such as general information and utilities. After conducting an informal survey of county civil service departments, the New York State Department of Civil Service began pursuing other services that would be useful for local offices such as online forms, training information, and tests.

NYS Department of Environmental Conservation – Sportsman Licenses

In 2002, the NYS Department of Environmental Conservation (DEC) launched *DECALS* (Department of Environmental Conservation Licensing System), a computerized licensing system for hunters to apply for and receive Deer Management Permits. *DECALS* is a stand-alone system that connects local clerks to DEC for the sole purpose of transacting hunting and fishing license permits. The system allows the clerk to scan an applicant's NYS Drivers License to add the hunter to the database and allow him to purchase a resident license. The information is then electronically submitted to the DEC.

NYS Office of Temporary and Disability Assistance, the NYS Office for Technology, NYS Department of Health, NYS Department of Labor, and the NYS Office of Children and Family Services – Health and Human Services Applications

Five NYS agencies worked together to develop an Intranet portal designed to connect counties to New York State health and human service agencies so that they can exchange information and access commonly used applications and Web pages more efficiently. *CentraPort*, as the portal is named, links county social services departments to information and applications that they need from four different state agencies – the Office of Temporary and Disability Assistance (OTDA), the Office of Children and Family Services (OCFS), the Departments of Health (DOH), and the Department of Labor (DOL). *CentraPort* co-locates access to related human services applications on a single Web site. Each individual's rights are assigned and managed by that person's employer and all participating organizations use the same rules and procedures. *CentraPort* co-locates both Web-based and older legacy systems. Users still need to

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sign on separately to the legacy systems, but they do not have to leave CentraPort to use them. Centraport also offers search tools to help users locate documents, statistics, training information, and Web sites within the Office of Temporary Disability and Assistance network and the New York State Human Services Intranet. While many of applications are operational, almost all are still in some form of development to expand current functions and, in some instances, to provide services that require cross program integration.

Table 2. Summary of New York State projects reviewed.

| Agency | Initiative Focus | Coverage | | | E-gov Focus | | | Status | | Interactivity | |
|--|--|-----------|-------------------------------------|-------------------------|-------------|-----|-----|----------------|-------------|--------------------|-------------------------|
| | | Statewide | Programmatically - Related Agencies | Stand Alone Application | G2G | G2C | G2B | In Development | Operational | Informational Only | Able to do transactions |
| Education Department | Electronic Hearings Reports | ✓ | | ✓ | ✓ | | | ✓ | ✓ | | ✓ |
| Civil Service | Local Examinations | | | ✓ | ✓ | | | ✓ | ✓ | | ✓ |
| Department of Environmental Conservation | Sportsman Licenses | ✓ | | ✓ | ✓ | | | | ✓ | | ✓ |
| Office of Temporary and Disability Assistance, the Office for Technology, the Department of Health, the Department of Labor and the Office of Children and Family Services | Health and Human Services Applications | ✓ | ✓ | | ✓ | | | ✓ | ✓ | | ✓ |

Common Characteristics in G2G Initiatives

G2G initiatives require serious collaborative partnerships and use of technology to do intergovernmental work in new and innovative ways. This combination seems to drive the need for government to use its limited resources – funding, staff time, talent, accumulated knowledge of business processes, and ability

to work within the organizational culture – in new ways as well. During the interviews, several important factors that influence the success of a G2G program emerged.

G2G as a component of G2C or G2B

While G2G initiatives are usually not apparent to the general public, government innovators are realizing the benefits of such efforts. Many pursue the idea of a more coordinated intergovernmental connection because of improved information access and greater service efficiency for customers. Consequently, G2G was often a secondary effort designed to support G2B and G2C initiatives.

Many of the states we contacted had not begun offering G2G services yet. Those that did usually built them after first establishing G2C and G2B services. This was the case in the City of Indianapolis, where the former mayor championed citizen focused e-government. The infrastructure created mainly for G2C applications is now being used for internal G2G services.

Developing G2G applications as a way to deliver G2C or G2B services seems to occur when two or more government entities are required to complete a particular transaction for citizens or businesses. In order to provide an online application for businesses or citizens, two or more government entities needed to connect their business processes to allow multiple databases to interact and in some cases accept or disburse fees appropriately. Once the governmental entities can interact with each other they can offer citizens or businesses access to the application, submit information and/or fees, and receive the service.

For instance, in the State of Maine, car owners must go to both the Bureau of Motor Vehicles and their municipal government to obtain documentation required to renew their car registration. As described earlier, the state's Rapid Renewal program allows citizens to renew their motor vehicle registration and pay the local excise tax through an Internet application that meets both state and local requirements. Developing this G2G state local relationship was necessary for this G2C service to be possible.

Collaboration

The majority of interviewees cited collaboration as a critical success factor, whether among agencies, levels of government, or between government and non-government entities. New Jersey began its G2G effort with two state agencies; one agency had the expertise in technology and the other had solid pre-existing relationships with local governments. This combination of technical know-how and local insight helped them develop portal functionalities tailored for that user community.

Interviewees in New Jersey and at NYS DEC advocated building bridges with associations representing local governments. This strategy is intended to give the agency a measure of credibility as it begins to develop a working relationship with local governments. Interviewees in Washington suggested identifying

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local governments' needs and then creating a collaborative relationship that satisfies those needs. Fairfax, VA officials stressed the need to build a collaborative relationship and remember that it is necessary to build and maintain consensus among all the players.

Leadership

The main role for political leadership seems to center on getting projects started and funded. At the project level, leaders are the people who understand the political dynamics and know how to navigate through the turf obstacles. Some project leaders achieved an important level of credibility from serving in the agency for many years. They were able to maneuver projects through difficulties largely because of their understanding of the agency and its business processes, particularly with the knowledge of existing work practices and the history behind them.

In Indianapolis, the Mayor was the dynamic force behind the creation of e-government services. In New Jersey, the governor declared it a priority to build a Web-based portal for local governments to access state government agencies a priority and created a line in the budget for it. NYS SED decided to use portal technology to comply with the federally mandated reporting process but also took advantage of that situation to add applications that local school districts wanted.

Buy-in

Buy-in is a must at all levels if the project is to move forward. Project managers must have the ability to deal with the range of players, from those who think the project is a great idea to those who say they would rather have things stay the same. Keeping everyone at the table is paramount and making certain that buy-in is achieved and maintained is a difficult and unrelenting job.

One interviewee from the State of Washington said that the single most challenging process was getting all of the entities to agree on each aspect of the project. Others echoed this sentiment. The interviewee from the New York State Education Department suggested that those starting out use small successes to gain momentum and build buy-in by implementing applications incrementally. The CentraPort team made the point that the new application or system must offer more than the current system or there is no incentive for local governments to use it.

Managing expectations

Interviewees emphasized the need to keep communication lines open among stakeholders and to provide regular updates to keep everyone aware of the projects status in order to earn credibility and build trust. They emphasized the importance of making certain that all players have a shared view of the project and

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a common understanding of what will happen so that they will remain supportive of the effort. The NYS SED interviewee, as well as others, said to start small and build slowly. New Jersey and CentraPort project staff stressed the importance of delivering exactly what the users said they needed. Several interviewees advocated spending time to learn what needs to be done; figure out what to do when regulations don't agree; find the one thing that's easy to do, but make sure it's not so easy that it becomes 'so what.' The interviewee from the state of Washington stressed the need to resist aiming for 100% perfection. Instead, acknowledge up-front that there are aspects of any project that are very difficult and you cannot squander scarce resources trying to achieve the nearly impossible.

Cost Strategies

Funding with regard to dollars did not seem to be an overwhelming burden among those we spoke with at the state level. When a person in a leadership position designated a particular IT project as a priority, the money followed. The much larger costs for states seemed to be time and increased responsibility for staff members who carry the ongoing job of supporting and training local government staff. In Pennsylvania, local governments in certain regions received grant funding, training, and technical assistance to help them establish a G2C Web presence. In Indianapolis, costs were not a primary issue since existing infrastructures built for G2C services suited their purposes to advance G2G initiatives. In Virginia, the portal itself, which is managed by a for-profit company, is funded by small portion of fees from agencies. Several interviewees pointed to the costs associated with the time and effort needed for training and support which were described as being far more arduous than initially anticipated.

Common Problems

Interviewees spoke of the difficulties getting G2G intergovernmental projects started. They stressed the need to keep the applications easy for users; to be prepared to deal with issues related to business processes; and to be ready to make changes. They also discussed the need to cope with staff changes mid-project. Others pointed to the sizable commitment of staff time for training and support and that it will likely be far more than initially anticipated. They also emphasized the need to listen to users and the importance of implementing programs slowly and deliberately. As advanced as some projects sounded, most still had a parallel paper process and both needed to be managed.

At the time of this research there appeared to be little activity related to measurement – one interviewee said that his measure of success is that the system is still functioning. Most of those interviewed indicated that their project was either unfinished or too new to be able to apply any type of meaningful measurement. Others had not considered how to measure the success or failure of the project.

Conclusion

This current practice report represents a snap shot in time of a sampling of G2G IT initiatives in the United States. Certainly in the time since gathering this data, new programs were introduced and existing programs were expanded, maintained, stalled, or abandoned. The concept of coordinating and integrating intergovernmental business across boundaries and programmatic areas is still new and many states are only now embarking on those initiatives. As the need continues for a more coordinated way of working, many will begin to establish principles to guide them through the inevitable complexity.

Of the efforts examined, we found little evidence of cross-programmatic statewide initiatives. Further, we learned that there are few measures or attempts to measure effectiveness or degree of success. We did not probe deeply enough into any initiative to gather information on the true costs incurred by all entities involved with these initiatives and no one we interviewed indicated that full cost information was gathered or available.

Interviewees talked about the difficulties and struggle to overcome obstacles, yet every person said that their project was worth the effort. As complicated and obstacle-ridden as some projects became, most said that once things got underway, staff started to feel good about doing something new. Others made the point that once a new system was in place it was easy to expand to include other applications. Making a useful start seemed to be a key to continued G2G efforts and commitment.