

Over the past decade, state agencies and local governments throughout New York State have increasingly used information technology to support their work. During this period, dramatic increases have occurred in the use of computing and networks for government services and internal business operations.

Today, state and local government use of information technology is manifested in many independent systems that each support one business function or satisfy one particular program need. As a result, a large and growing number of individual systems for G2G (government-to-government) business relationships are employed across state and local levels. This multiplicity of systems is often a significant impediment to efficient work, as well as a financial strain, because many systems require their own hardware, software, security, office space, and business rules.

To test an alternative strategy, a broadly representative group of state and local officials used their experiences and mutual desire for a better situation to envision an ideal fully functioning state-local gateway for government business in New York State. They devised a set of principles to guide the development of a prototype to test this vision. Prototyping was adopted as the best approach to a situation in which efforts to streamline, simplify, and rationalize the current situation present their own complexities and challenges. Any transition to a more integrated and coordinated way of working adds new demands for planning, management, design, operations, and resource allocation. All of these issues were addressed in the Prototype effort.

Gateway Prototype

The New York State-Local Internet Gateway Prototype was built to identify, demonstrate, and evaluate key factors associated with the design, development, and deployment of a single point of contact for G2G work among state and local governments. The Prototype development was conducted in three stages. The first focused on the refinement of the idea of a gateway and the selection of applications to be included in the Prototype. The second stage was the development of a Prototype (the Gateway and three business applications), and the final stage consisted of Prototype testing and refinement. During these three stages, the project participants were organized into specialized teams and partnered with corporate software development teams. Together, they then tested the Prototype.

In design terms, the Gateway Prototype channeled multiple G2G business functions through a secure, single sign-on, role-based system accessible through the Internet. The Prototype used selected applications to explore policies, infrastructure, data, management, and cost considerations. The Prototype structure allowed all users access to:

- links to Resources on information relevant to state and local officials,
- a searchable, unified Contact Directory of state and local professionals, and
- user support functions including Frequently Asked Questions (FAQ) and Help features.

Three role-restricted applications were selected to represent common categories of state-local business functions so that the learning from the Prototype could be generalized beyond these specific cases.

- **The Contact Repository Application** supported the directory of contact information for state and local officials. This application was chosen to represent an authentic shared data resource with decentralized data management. All contact information was updated electronically through a decentralized process that made each locality or state agency its own data owner.
- **The Dog Licensing Application** supported transactions that take place between cities, towns, and villages and the NYS Department of Agriculture and Markets. Functionality included searching, reporting, registering a new license, and renewing or transferring a license. This application represented a high volume G2G transaction process.
- **The Parcel Transfer Verification Check Application** performed a data quality check to flag possible errors in reports of real property transfers made by county real property officials and town and city assessors to the NYS Office of Real Property Services. The application applied nine business rules to each record and flagged records that may have had an error, thus alerting assessors to review them. This application represented rule-based G2G exception reporting.

A vision for a better way of working

During the conceptualization, construction, and testing of the Gateway Prototype, state and local government

professionals frequently commented that the entire project represented "a better way of working" compared to their current environment. This sentiment referred to both the Prototype itself and the collaborative project approach.

Two broad themes emerged from the project experience and evaluation: the importance of investing in ongoing peer-to-peer relationships and endorsement of the principles of enterprise. Relationships and enterprise thinking form the basic structure of effective state-local business relations; both are necessary, but neither alone is sufficient.

Relationships. Participants in the project repeatedly emphasized the importance of long term, peer-to-peer business partnerships among state and local governments. They understood how active collaboration focused on a shared goal can yield high quality results. They also emphasized the mutual respect that comes from recognizing that every participant has expertise to contribute and needs to be considered. More specifically, the theme of relationships extends to recognizing the importance of active intergovernmental engagement and local representation as well as the importance of paying attention to state level coordination and the increasing complexity of vendor roles in intergovernmental work.

Enterprise approach. The second broad theme of the project strongly validates the concept of enterprise as applied to government. Enterprise thinking emphasizes the interdependencies among the different domains, organizations, and levels of government. It seeks to capitalize on the relative strengths of different players and to tie them together through the use of standards, partnerships, and shared resources. Enterprise thinking focuses on the broad purposes of government and relies on a complete understanding of the business processes that accomplish those purposes. Some elements of enterprise thinking include standard infrastructure, identity management, role-based security, and single sign-on as well as usability, data standards and quality controls, and intergovernmental information policies.

The benefits of working in a carefully thought out G2G environment are amply demonstrated by this project. The project also highlights the realistic challenges of accepting and acting upon an enterprise view of government. Consequently, the project results suggest a set of practical strategies that can be used to bind the structure together and reinforce the value of relationships and enterprise principles. These strategies include joint governance, communication, business process analysis, field work, specialized project management, training and support, and understanding the complete cost structure for these initiatives.

Recommendations for initial future investments

Our investigation showed broad and enthusiastic support for a single point of contact for G2G work in New York State as a "better way of working." However, the demonstrated complexity of implementing this concept suggests that incremental and modular approaches make the most sense for future development. We believe the following represent the best near term opportunities for moving in this direction.

Identify and provide coordinated access to relevant public information and resources on the Web. The first and easiest opportunity is to create and maintain organized access to Web resources relevant to state and local professionals. The Resources section of the Prototype represents a good start. Users appreciated the opportunity to have many resources, including NYS and federal government information, professional organizations, legal resources, and data resources, all categorized and summarized for them.

Use the Web to co-locate access to related programmatic functions. The Gateway Prototype demonstrated how multiple job functions associated with a particular professional role or service domain could be brought together in one Web interface accessible by a single sign-on process. Although the Prototype incorporated only a few applications, the logic and appeal of this approach was evident to the participants, who could readily envision how all their own business applications could be brought together in a single interface.

Develop a single authentic repository of contact information with decentralized data management. The application that generated the most excitement and unanimous desire to see made functional is the Contact Directory and its associated Contact Repository Application. Although it represents a high degree of integration and complexity, the need for such a resource is pressing and self evident: no single authentic source of contact information exists, yet every state agency and local government needs this information to do its work.

Conclusion

The New York State-Local Internet Gateway Prototype project represented goals and challenges of vital interest

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to every state and to any other federated system of government. The findings and lessons reveal the importance of understanding and balancing the goals of data and service integration against the related challenges of complexity and cost. The project results should be of value to many who are attempting to strike that right balance.
