

Most strategies for achieving the goals of cost reduction, increased transparency, and improved service quality require coordinated action across the boundaries of organizations. Making information technology decisions through coordinated action often requires new governance capability. In pursuit of these goals, officials in New York State began looking toward enhanced enterprise Information Technology (IT) governance. The result was the launch of a collaborative and consensus-driven project led by the Center for Technology in Government and organized to ensure active participation of key actors in New York State government. The participants included officials from the New York State Office of the Chief Information Officer and the New York State Office for Technology (CIO/OFT), control agencies such as the Division of the Budget and the Office of the State Comptroller, members of the New York State CIO Council, and other agency and local government CIOs. In addition, input was gathered from existing IT-related governance bodies already operating in the state.

This project produced a set of recommendations for creating value for the state through enhanced enterprise IT governance.⁽¹⁾ The recommendations were designed to incorporate the authority arrangements and decision making processes necessary to achieve strategic enterprise IT objectives, such as those laid out in **Plan 2010 – Going from Good to Great**,⁽²⁾ in addition to further enabling agency and domain-level decision making. Through the Plan 2010, New York State agency CIOs are being empowered and expected to drive IT innovations, technology standardization, and interoperability in a collaborative environment to achieve integrated and cost-effective IT solutions. The Plan calls specifically for the creation of an “inclusive and collaborative decision-making process for future IT investments.”⁽³⁾ The recommendations and implementation success factors presented here support the realization of this goal.

This report is organized into four chapters with a set of appendices. Chapter one provides an introduction to the project and to enterprise IT governance, including the foundational concepts of governance. In addition, chapter one includes the public value framework, which was used in the project to ensure a focus on designing value-generating change. Chapter two presents key findings from the current practices review. Chapter three provides an overview of the evolution of enterprise IT governance in New York State, closing with a description of the current environment and some observations about the value and challenges in that environment. Chapter four includes the recommendations generated from the participants for enhancements to the current governance structure, along with some implementation guidance.

Understanding IT Governance

The phrase **enterprise information technology governance** is frequently used to describe any effort by an organization to move away from unconnected, department-based IT management toward coordinated, enterprise-wide governance of IT resources. Many definitions of IT governance can be found in both the practitioner and academic literature. Most characterize IT governance as the formal description of how organizations make decisions about IT and the scope of that decision-making. For example, Sambamurthy and Zmud define IT Governance as the arrangement of authority patterns over IT activities across an organization.⁽⁴⁾ One of the most widely cited definition is from Weill and Ross, who define IT governance as “specifying the decision rights and accountability framework to encourage desirable behavior in the use of IT.”⁽⁵⁾ Governance, in their view, answers these questions: What decisions must be made? Who should make these decisions? How will decisions be made? What is the process for monitoring results?”⁽⁶⁾

There are notable differences between the private and public sector concepts of enterprise and of IT governance. For example, the IT Governance Institute, which focuses mainly on the private sector, defines IT governance as follows:

- “Enterprise governance is a set of responsibilities and practices exercised by the board and executive management with the goal of providing strategic direction, ensuring that objectives are achieved, ascertaining that risks are managed appropriately and verifying that the enterprise’s resources are used responsibly.”⁽⁷⁾

Whereas the National Association of State Chief Information Officers (NASCIO), focusing on the public sector, defines the purpose of IT governance differently:

- “In state government, IT Governance is about ensuring that state government is effectively using information technology in all lines of business and leveraging capabilities across state government appropriately, to not only avoid unnecessary or redundant investments, but to enhance appropriate cross-boundary interoperability. The term ‘appropriate’ is used because in many cases state government has existing statutory constraints and bounding that can often limit as well as empowers proper governance.”⁽⁸⁾

Managing goal attainment, assessing and minimizing risk, and providing oversight of IT investments are the responsibilities of those involved in IT governance. The challenge New York State faces, together with many other

governments and private sector organizations, is how IT governance is done best in a large, complex, and multi-unit, multi-level organization like a state government. What is the enterprise? What are the implications and benefits of operating in an enterprise fashion? How can governance best be organized to operate in a newly coordinated way?

The Identification of Public Value

The potential of information technology for transforming state government is widely recognized. There are many available strategies for achieving these transformative effects, such as increased transparency and improved service quality. However, in most cases the strategies themselves require significant changes in the way governments and government leaders operate. Exploiting the potential of information technology for government transformation requires new forms of coordinated action across the boundaries of government agencies and with other partners outside the formal institutions of government. Making information technology decisions in this way, through coordinated action across the boundaries of multiple organizations, requires new resource allocation models and new capability for consensus building and collaboration.

In response to this increased attention toward goals that require coordinated action, New York State officials began to ask questions about current enterprise IT governance capabilities and to consider what additional value could be created for the state through enhancements to that capability. Identifying how to enhance public value through new governance arrangements was central to preparing this report. The project used a collaborative and consensus-driven process to seek descriptions of the desired results. Project participants were asked to identify value propositions for an enhanced enterprise IT governance structure and the characteristics of a governance design that would most likely achieve the objective of an “inclusive and collaborative decision-making process for future IT investments.”⁽⁹⁾ Three questions were posed to participants and stakeholders throughout this project; their responses provide the foundation for the recommendations.

1. What value must be created to make the enhancement of enterprise IT governance in New York State worthwhile?
2. What changes have to occur for that value to be created?
3. Does New York State have the capability to make and sustain the necessary changes?

We returned to these questions repeatedly throughout the project to ensure that our attention would remain on value creation. The value focus also helped maintain awareness of the technical and political context of IT governance and avoid simplistic generic strategies that did not take the New York State context into account.

The way we focus on value creation distinguished our approach from many of the existing efforts of IT governance development. The foundation of this approach rests in the public value framework developed by the Center for Technology in Government.⁽¹⁰⁾ In this framework, public return on investment (ROI) is defined as a measure of the delivery of specific value to key stakeholders and the improvement of the value of government as a public asset. The framework identifies five types of public value: financial, political, social, strategic, ideological, and stewardship. For each type of value, there are three possible value-generating mechanisms: increases in efficiency and/or effectiveness, enabling of otherwise infeasible but desirable activities, and intrinsic enhancements to the stakeholders, such as improved transparency.

The task of assessing value is challenging because not every aspect of public value is relevant for a particular governance structure or investment. Drawing on this framework, the project activities were organized to identify what value must be realized through enhanced enterprise IT governance to justify the investments necessary to create that enhanced capability. This project was designed to incorporate multiple stakeholder perspectives on the value proposition for enhanced enterprise IT governance for New York State government. For more detailed information about the project methodology, see Appendix B.

Table 1. Mapping the Value of Enhanced Enterprise IT Governance

		Scope of Governance		
Recipient of Value		Agency	Domain Level	Enterprise* Level
	Agency	Better alignment with agency business, improved sharing of services within agency, simpler standardization.	Ability to benefit from the collaboration by allowing smaller agencies to have a voice in a larger forum.	Benefit from aggregate buys such as with e-licensing and PC contracts.
	Domain	Ability to coordinate resources.	Leverage skills and technology. Ability to create a “domain vision” that represents the whole versus individual silos.	Economies of scale.
	New York State Government	Statewide cost savings.	Better alignment within the policy domains of the State.	Multi-year planning and ability to weather the changes in political swings.
	Public	Customer centric focus of agency mission and vision.	Provides a streamlined perspective of a policy domain. Better customer service.	Overall cost savings and improved customer service.
<i>*In this case the enterprise is New York State Government</i>				

We asked participants on several occasions how new governance structures and capabilities could generate value for the state. The stakeholders identified four possible recipients of value: agencies, program domains (e.g., criminal justice), New York State government as an enterprise, and the public (see Table 1). They considered the mechanisms for creating that value as well. Recognizing that IT governance does not exist at just one level in the state, participants noted that many entities have created enterprise decision making capability and are delivering value to their stakeholders as a consequence. This capability for coordinated action within and across the levels of state government was considered to be a great strength of the state. Participants noted that the greatest value from enhanced enterprise IT governance would accrue to individual agencies, program domains, and the state not by replacing multi-level IT governance, but by building on it and leveraging it toward a new level of coordinated action.

Drawing on the principles of the public value framework and the value map in Table 1, a set of value propositions for enhanced enterprise IT governance emerged. Participants in this process included CIOs and technology staff from state agencies, authorities, and local governments; results were also reviewed with other key stakeholders. Together the value propositions provide the rationale for pursuing enhanced enterprise IT governance in New York State and the basis for evaluating any enterprise IT governance strategy the state pursues.

1. **Reduce redundancy and establish prioritization mechanisms.** The diversity of agencies, organization structures, and levels in New York State government can result in redundancy and conflict over priorities. There is a need, therefore, for opportunities to collaborate in order to solve common business problems through IT solutions that complement, not dominate, the missions and goals of agencies. Prioritization is a difficult, but potentially powerful process for state government. Effective prioritization—at the agency, domain, or state level—provides a foundation for coordinated enterprise-level strategies and initiatives.
2. **Reduce political directions and swings.** Political change is a constant within any government. A well-designed governance structure cannot eradicate political swings, nor should it. An effective governance framework can provide a continuity plan to span political leadership changes and create consistency of vision for IT projects, which are often multi-year endeavors that span more than one administration.
3. **Establish standards.** Improved interoperability is an important goal for IT in New York State government.

Technology and information standards are a foundation for the interagency collaboration necessary for interoperability to become an achievable goal for many of the state's departments and units. The IT community in New York State government is eager for guidance in the form of goal-oriented, not product-based, standards. Enhanced enterprise IT governance for New York State should set out clear rules for developing statewide standards, while still retaining the flexibility to handle exceptions to those rules.

4. **Foster sharing of services and information through agency collaboration.** With clear standards in place, New York State government has the potential for expanded shared services offerings and innovative collaborations. Although government is diverse, there are many shared goals and constituents that make agency collaboration a worthwhile and necessary goal. Enhanced enterprise IT governance for state and local government should provide a space for greater coordination and collaboration among agencies, authorities, and localities.
5. **Align IT with the business of the state government.** Alignment of IT with business needs is a commonly accepted goal of IT governance, yet it is very difficult to achieve. Programmatic needs drive government organizations. This alignment has potential value at the agency level and at the state level. Enhanced enterprise IT governance for state and local government should provide mechanisms for alignment between IT investments and programmatic priorities.

(1) See Appendix A of this report for a list of the companion documents produced as a part of this project, which are available on the CTG web site at www.ctg.albany.edu.

(2) NYS CIO/OFT. **Plan 2010 - Going From Good To Great: CIO/OFT Strategic Roadmap**. (2008). Retrieved from <http://www.oft.state.ny.us/News/FinalNYS2008GoalsandStrategies.pdf>.

(3) NYS CIO/OFT, **Plan 2010**, 4.

(4) Sambamurthy, V. & Zmud, R. W. "Arrangements for information technology governance: A theory of multiple contingencies." **MIS Quarterly**, 23 (1999): 261-290.

(5) Weill, P. & Ross, J. W. **IT governance: How top performers manage it decision rights for superior results** (Boston: Harvard Business School Press, 2004), 8.

(6) Weill & Ross, 10.

(7) IT Governance Institute. **Board Briefing on IT Governance, 2nd Edition** (2003), 6. Retrieved from <http://www.itgi.org/>.

(8) National Association of State Chief Information Officers (NASCIO). **IT Governance and Business Outcomes – A Shared Responsibility between IT and Business Leadership** (2008), 1. Retrieved from <http://www.nascio.org/>.

(9) NYS CIO/OFT, **Plan 2010**, 8.

(10) Center for Technology in Government. **Advancing Return on Investment Analysis for Government IT: A Public Value Framework** (Albany: CTG, 2007). Available at http://www.ctg.albany.edu/publications/reports/advancing_roi.