



**Industry Advisory Council**  
**eGovernment Shared Interest Group**

*Resource Paper On*

**Cross-Jurisdictional eGovernment  
Implementations**

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## EXECUTIVE SUMMARY

When the term “eGovernment” came into vogue several years ago, many enthusiasts and forecasters lauded it as the trend that would revolutionize the way government does business. The distributive power of the Internet meant that government—whose value goes well beyond the act of governance—would transform to enrich the lives of citizens by making access to data more transparent.

Accomplishments to date have, indeed, served citizens well, as demonstrated by the numbers. According to one report, 68 million American adults have used agency web sites for activities such as applying for benefits, commenting on public issues, and transacting business such as filing taxes, (Pew Internet & American Life Project, April 2002).

Yet despite the hoopla and celebration surrounding eGovernment, some particularly stubborn obstacles to further success remain. Undoubtedly, one of the more significant barriers is the presence of stovepipes within and between government organizations. Solving the problem has been difficult enough between agencies, but the problem takes on a whole new dimension when the objective is information sharing between jurisdictional levels.

The caution with which Federal, state and local governments approach cross-jurisdictional partnerships can be traced back to early U.S. history. Founding fathers such as Thomas Jefferson feared a strong central government as supported by the “federalists,” led by Alexander Hamilton. What emerged in over 200 years of history is a model in which authority is distributed between a central government and other self-governing units. Ultimately, adherence to this belief in distributed power resulted in sharing, overlapping and competing powers of these levels of government. Today, divisions in authority, accountability and control present unique challenges when managing across jurisdictional levels.

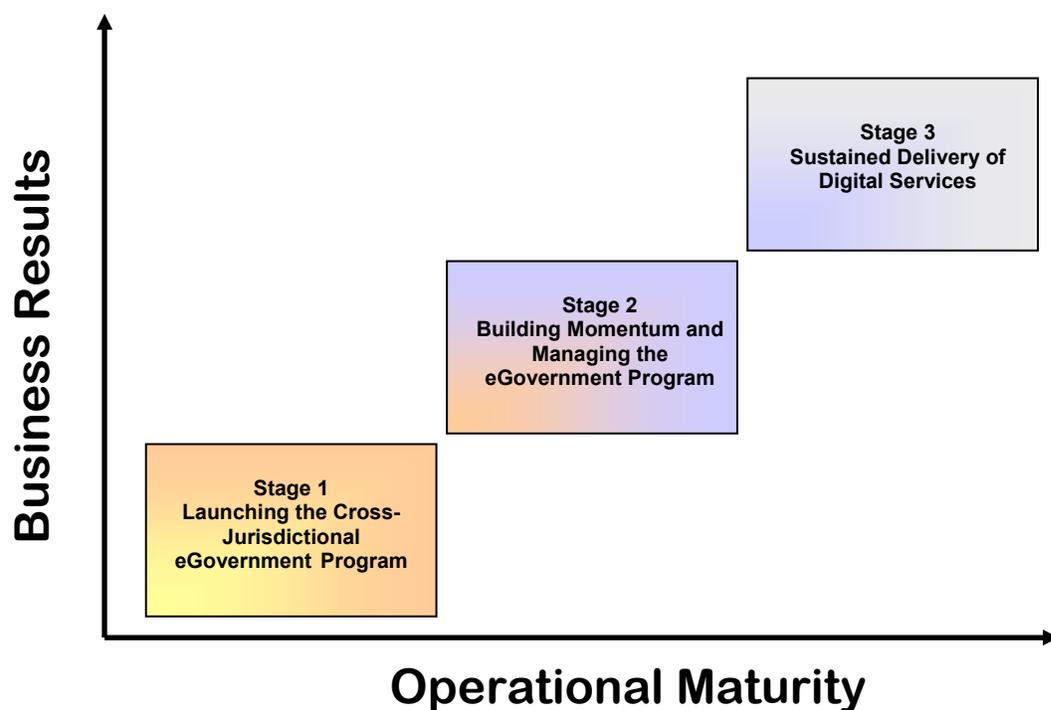
The events of September 11, 2001 provided what may be the strongest impetus yet for Federal, state and local governments to share information. One year after that tragic date, many new initiatives (such as threat notification) for cross-jurisdictional collaboration are underway, yet a declaration of success may still be premature.

The Industry Advisory Council’s eGovernment Shared Interest Group (SIG), together with the U.S. General Services Administration (GSA) and participation from the SIG’s U.S. Government Advisory Board, sought to address these issues in a 9-month study of cross-jurisdictional eGovernment implementations. An industry and government team of volunteers identified and examined representative examples of information technology (IT) or eGovernment projects where cross-jurisdictional participation was paramount. For purposes of this report, the team used the eGovernment definition from the President’s Management Agenda, which describes eGovernment as the use of digital technologies to transform government operations in order to improve effectiveness, efficiency, and service delivery.

Because the Industry Advisory Council works primarily for the benefit of the Federal government, case studies were required to include involvement from some level of the Federal government along with state or local government participation. The team began with a list of 44 projects gleaned from a variety of sources including the General Services Administration’s Office of Intergovernmental Solutions, various external award programs, and the news and trade media. Ultimately, 23 programs were researched and interviews conducted with project leaders and participants. The result was a consensus that such programs generally follow three stages of evolution (see Figure 1):

- Launching the Cross-Jurisdictional eGovernment Program
- Building Momentum and Managing the eGovernment Program
- Sustained Delivery of Digital Services.

Figure 1



In each of these stages, elements such as leadership, collaboration, and funding take on inherently different challenges. Thus, recognition of the program’s stage and adherence to principles mapping to that stage may help ensure a greater chance for program success.

In this report, we profile five of the 23 case studies researched and interviewed. We do not presume to call these case studies “best practices.” Rather, the lessons gleaned from their experiences should serve well any newly launched cross-jurisdictional eGovernment programs.

## 1.0 MATURITY STAGE ONE—GETTING STARTED

The initial phase of launching a cross-jurisdictional eGovernment program can be exciting in the enthusiasm expressed by program participants. The Industry Advisory Council and GSA research team learned the more successful programs were able to couple enthusiasm with a solid look at factors such as how well the program fit with participants' strategic plans and the level of executive and legislative support for the initiative. In this stage, lessons learned applied particularly to the areas of leadership, strategy and funding.

### Leadership

**Lesson 1. Determine the history and strength of any existing relationships. Centralism only works well when there has been a history of the Federal government assuming a strong leadership role in its business relationship with state governments. Where no history of strong Federal government leadership exists, participants should assume a distributed leadership model among Federal, state and local government stakeholders. As projects become more decentralized and complex, enlist a federated management style.**

When government entities already have an existing relationship in place (e.g., Federal and state), the chance of success may be higher. This is likely due to an established level of trust between the jurisdictional units, in addition to personal relationships among those involved. As such, cross-jurisdictional eGovernment program advocates might choose to answer a simple litmus test to decide how to move forward:

Q: Is there an existing relationship in-place?

A: If **Yes** – Leverage the legislative process to “mainstream” funding to a nationwide program. Alternatively, use association groups or umbrella organizations to market the program idea to stakeholders and partners.

If **No** – Start small by limiting the size of the workgroup participants, and build a shared vision among these participants.

In several of the case studies reviewed, the study team noticed the Federal government attempted to take on the role of leader. Often this entailed setting forth the terms of participation. In instances in which no legal mandates existed for states to follow through on the direction established by the Federal government, Centralism fell flat. For example, in a few of the case studies researched, state governments spent grant resources provided by the Federal government in a manner inconsistent with the original purpose.

Alternatively, when a longstanding relationship between the Federal agency and its concomitant state counterparts existed, and when legal mandates were in place to ensure proper use of Federal grant monies, the Federal government was more likely to serve as a strong leader in guiding cross-jurisdictional eGovernment programs.

#### Case Examples

The U.S. Department of Transportation's (DOT) Federal Highway Administration has a long history of working with the states through the interstate highway system. That historical relationship provided the foundation for success with the **Intelligent Transportation System (ITS)**. This program applies eGovernment and information technology to the nation's multi-modal transportation infrastructure.

Among other principles, the ITS program is founded on the notion of promoting the implementation of a technically integrated and jurisdictionally coordinated transportation system.

In 1991, the U.S. Congress set the stage for a national ITS program by passing legislation that mainstreamed ITS funding eligibility under the National Highway System and other programs. Because an existing network of stakeholders was already collaborating and communicating, the program got off to a successful start. An ITS program office was established to serve as the principal architect and executor of ITS leadership. As the principal architect and ITS leader, the ITS joint program office uses electronic technologies and the Internet to facilitate information exchange among the states and to advance ITS across the nation. The ITS program management office looks out for the best interests of the overall program, yet sets a premium on communications with its customers (the states).

Today, the ITS program enjoys approximately \$200 million in funding yearly, half of which is applied toward research and development with the other half serving as incentive funding for ITS deployment.

The **Government Without Boundaries** project, managed by the General Services Administration's Office of Intergovernmental Solutions, began at a workshop sponsored by the National Association of State Chief Information Officers (NASCIO). This project's goal was to provide a virtual pool of government information and services available from all levels of government. With the help of NASCIO, the word got out to a wide audience of state and local governments and helped build the excitement needed to gain participation from four states (New Jersey, Maryland, Virginia and Illinois) and four local governments (Fairfax County, Virginia; Howard County, Maryland; Monmouth County, New Jersey; and the City of Virginia Beach, Virginia).

Because it recognized that managing large teams would be difficult, the team behind **America's Career Kit Consortium** (ACK) limited the size of its workgroups. This initiative started with a Federal vision of how a Federally managed computer system could be delivered on the Web for direct use by job seekers and employers. In 1997, when a new training component was being planned, a consortium of users was established to provide formal input on the planning process and technical features. The consortium draws its members from state and local government agencies, community colleges, and private partners. A committee structure allows smaller groups to concentrate on specific issues. Issues that may address the entire group are first handled by the appropriate cross-cutting committee. Final committee recommendations are presented to the full consortium for approval. This initiative resulted in a suite of Web sites that provides information on jobs, labor market trends, training information, and workforce services.

**Lesson 2. Think beyond the needs of the immediate organization, and establish a shared vision with intergovernmental partners.**

Government officials must think beyond the needs of their immediate organizations and their enabling legislation. This results in a higher level shared vision among jurisdictional partners, while maintaining alliances to the parent organizations.

One particular project suffered early on from lack of state government involvement. Without a shared vision, the project yielded little value to the state government partners, other than the financial value derived from grant monies. In this instance, the state governments spent the grant funds the way they wanted—not the way the Federal government envisioned. Not surprisingly, the project has had marginal success.

When the cross-jurisdictional eGovernment program kicks off with decentralized stakeholders around the country, leadership inherently becomes more distributed. As such, leaders must share a common vision and management concept for progress to occur across multiple parallel implementations.

## Case Examples

The **National Electronic Disease Surveillance System** (NEDSS) is a pilot project that aims to transfer appropriate public health, laboratory, and clinical data efficiently and securely over the Internet. The project began with a Federal desire for such a system; however, state partners were not mandated to provide the health information necessary to make the system effective. Without a shared vision among the partner organizations, the project struggled to move beyond the pilot phase to widespread adoption.

The **Simplified Tax and Wage Reporting System** (STAWRS) pilot experienced similar lessons learned when it launched a project to reduce the burden of tax and wage reporting on employers, while improving the efficiency of government operations. Not everyone shared the STAWRS vision, but the state partners initially bought into the idea that STAWRS might cut down their administrative costs while generating more collections through compliance in their jurisdictions. Although state partners started off with an open mind, ultimately, the project leadership learned that a lack of understanding on the project's benefits undermined its ability to gain political support at the highest levels.

The U.S. Small Business Administration, when seeking to establish a clearinghouse for business-related legal and regulatory information, capitalized on existing decentralized field counsel and various state business liaison offices to provide feedback on the basic level of information required in order to get the a web resource started. As a result, in little more than 15 months, SBA and its partners created **BusinessLaw.gov**, an integrated legal and regulatory information site with compliance assistance tools and online transactions.

The **National Crime Information Center** (NCIC), one of the longstanding programs reviewed by our research team, is a FBI-hosted electronic file cabinet of criminal information for state and local law enforcement officers to conduct license checks, searches for wanted persons, and scans for outstanding warrants. The program was built on a shared management concept, in which the Federal government provides the hardware, software, and network lines to the states—as well as auditing of data—while the states provide the actual data and data updates. More than 2 million transactions run against the NCIC database each year. Any changes to the system go through a collaborative process in which representatives from the state or local entities participate in working groups and rank recommended system changes before going on to the next-level subcommittee and to the national policy board, representing members from multiple jurisdictions.

### **Lesson 3. Appoint a charismatic leader.**

Many of the initiatives researched demonstrated the importance of both strong and charismatic leadership.

### **Case Example**

When the research team interviewed county government leaders who supported participation in the **Government Without Boundaries** project, these leaders cited John Clark's—GWOB's program manager-- enthusiasm and ability to work with diverse interests. Mr. Clark's passion for the program and desire to let local governments and state partners make decisions garnered support for his leadership.

# Strategy

## **Lesson 1. Select areas that are tied to the strategic plan.**

In addition to enlisting the support of partners, a project with goals tied to organizational strategic plans can better weather political turnover that might otherwise disrupt program continuity.

### **Case Examples**

When interviewed, David Molchany, the CIO of Fairfax County, Virginia, stated his support for the **Government Without Boundaries** project was made easier because its goals were tied to the county's top strategic areas. This was particularly important to Fairfax County in order to maintain the momentum of enthusiastic support for the program through changing administrations.

For the State of Pennsylvania, public safety and the need to cut costs provided the impetus for the **Justice Network (JNET)**. Then Governor Tom Ridge formed a commission in the mid-1990's to identify opportunities to cut costs, to increase efficiency, to improve effectiveness, and to consolidate similar functions. One such opportunity evolved into JNET, a common on-line environment whereby authorized Federal, state, county, and local officials can access offender records and other criminal justice information from participating agencies. Today, JNET provides accurate and information to a diverse set of government stakeholders who use information from other justice specialty and jurisdictional oversight areas to catch criminals.

## **Lesson 2. Develop and maintain a business case.**

Understanding the business needs of an intergovernmental initiative is crucial to long-term sustainability. No technology, however promising, is a substitute for sensible, well-integrated business processes and practices. Use of a business case is important for defining the overall goals, objectives and expected benefits of the program so all partners have an understanding of how those goals fit with their own plans. Moreover, a well-developed business case can also ensure the program sustains support through changes in administration or the shifting of political winds.

## **Lesson 3. Set short-term goals.**

Report the achievements of short-term goals to sustain program support.

### **Case Examples**

The **Health Passport Project (HPP)** is a pilot effort to develop a secure, "smart" health card that facilitates information sharing and improves administrative efficiency, while placing individuals firmly in control of the information on their cards. The Western Governor's Association sponsored the program with participation from multiple state government partners charged with ensuring the health-related well-being of citizen groups. The health card allows each agency to store and read the data on the cards carried by their clients. In addition to establishing a shared vision among agency partners, roles and responsibilities were established by committee and tested to ensure workability. Actual implementation was achieved through a phased rollout complemented by regular meetings in which participants voted on the goals, schedule and actions of the program.

Well into the prototype implementation, the **Simplified Tax and Wage Reporting System** (STAWRS), led by the Internal Revenue Service and Social Security Administration, experienced difficulties integrating with legacy systems. Because process issues tend to be the tougher issues to address at the outset, STAWRS project leaders recommend other project managers attack the low-hanging fruit of legacy systems integration early on in order to demonstrate incremental success.

## Funding

**Lesson. Seek out seed money in the form of grants. Grant providers can ensure funds are allocated accurately-- with oversight or distributed leadership--based on assessing the history of its relationship.**

The grants process can present a good foundation and easy way to get started. Nevertheless, as such seed money may only sustain the slimmest pilot effort, an applicant should consider how the pilot project fits within the strategic plans of the agencies whose participation can sustain the project. If the project seems outside the boundaries of these strategic plans, the likelihood for success may be narrowed.

In addition, the grants approach works best when existing relationships can ensure funding is spent the way it was intended. If the grant recipients and grantors do not share the same vision, it is unlikely the grantors can be too prescriptive as to how the grant funds are spent. Programs which provided grants to states but did not have an existing level of oversight saw large sums of grant monies spent in a way that did not support the funding organization's original intent.

### Case Examples

In response to the Columbine High School shootings, the **School Violence Resource Center** at the University of Arkansas launched its project with a grant from the U.S. Department of Justice. The center hosts a Web site that provides wide-ranging research information on school violence to local, county and rural schools nationwide. In addition, the site lists best practices, or "model programs," that can be replicated or instituted by other schools. The program leader, Tom Canady—although employed by the University of Arkansas—is held accountable to the Bureau of Justice Assistance at the U.S. DOJ.

One program that experienced difficulties with centrist goals without appropriate levels of oversight was the **Health Alert Network**. This network infrastructure is designed to consolidate health information nationwide and provide a mechanism to alert public health officials to public health threat information. The lead organization, the Centers for Disease Control (CDC), provided grant funds to states but was overwhelmed by the staffing requirements to oversee how the grant monies were spent. In addition, because the state participants had a different vision for the project (the CDC desired roll-up information from the states that would allow data analysis and subsequent information dissemination vs. the states' desire for network capabilities), it was evident a prescriptive management style would only yield marginal success.

The U.S. Department of Transportation has a long history of partnership with state DOTs. State DOTs receive Federal funding for highway transportation projects based on a number of factors, including achievement of environmental standards. In this scenario, Federal government oversight ensures funding is allocated in the intended manner. These existing relationships can facilitate program implementation and success. For the DOT **Intelligent Transportation System**, a centrally managed model worked well.

## 2.0 MATURITY STAGE TWO

### Building Momentum and Structure

Following the initial phase of getting started, the challenge becomes setting and achieving small, incremental goals. During Phase Two, “Building Momentum and Structure,” cross-jurisdictional eGovernment project leaders and participants must approach fundamentals such as Collaboration and Strategy in a way that the initial enthusiasm and progress made in Phase I are not lost.

## Collaboration

**Lesson 1. Promote a collegial environment across all stakeholders. Use mechanisms such as focus groups and Memoranda of Understanding (MOUs) across agencies. Ensure stakeholders are included in all major decisions.**

### Case Example

The Bureau of Land Management’s (BLM) **National Integrated Land System (NILS)** project recognized from the beginning the importance of reaching out to state partners to obtain buy-in. To ensure clarity of requirements and roles, the project leader instituted a partnership agreement between the Department of the Interior/BLM and the U.S. Department of Agriculture’s Forest Service. Moreover, the NILS project has aggressively and continuously reached out to all partners through association conferences, government meetings/briefing, multiple public meetings/comment periods and through the Web. This outreach continues to the widest possible user communities. For example, the NILS project has and continues to reach out by conducting:

- Numerous requirements workshops with industry, BLM and Forest Service representatives (from multiple states), state/county governments, and universities.
- Site visits for the primary reason of verifying the requirements and business processes with Federal, state, and county agencies, industry and the general public.
- User Group Meetings – NILS project overviews were conducted at numerous meetings such as the National Association of Counties, Utah GIS Council, GIS in the Rockies Conference and National States GIS Council.
- NILS Public Meetings – In five cities across the country, the project teams presented the draft Concept of Operations Business Process Requirements Document. The goals of the meetings were to inform the public of the NILS Project, to present the requirements document and to solicit feedback. Over 180 people have attended to-date– people who represented individuals of the public as well as those from 65 different organizations.
- Internet - A NILS Internet site, located at [www.blm.gov/nils](http://www.blm.gov/nils), was developed to inform the general public and the NILS partners on all activities related to the project. In addition, the site contains all NILS documents, calendar of activities, meeting workshop notes and an online comment form.

**Lesson 2. Recognize the differences between technology-minded people and functional/mission-oriented/project-focused people. Enlist as many customer-oriented people with the appropriate contributions from the IT organization.**

## Case Examples

The **National Integrated Land System** of the Bureau of Land Management (NILS-BLM) linked IT groups with business-minded groups with geo-spatial business requirements. Cross-jurisdictional eGovernment project managers must deal with a wide range of stakeholders (not just the Federal CIO Council or the state government equivalent—NASCIO—but also business associations and organizations, e.g., the DOT ITS America) to attain success.

The Small Business Administration's (SBA) **BusinessLaw.gov** used its field legal staff, who were experienced in serving small business customers, to find legal solutions to business problems rather than the SBA IT shop. These customer-focused individuals were extremely successful in deriving customer requirements via focus groups. The field legal staff worked with businesses and legal organizations to create web search strings to facilitate the process of getting compliance information out to businesses.

**Lesson 3. A cross-jurisdictional eGovernment solution must be flexible enough to promote information interoperability across a variety of infrastructures and products that exist within the Federal, state and local arenas.**

## Case Examples

In the case of the **Simplified Tax and Wage Reporting System** (STAWRS) W-2 Demo project, requirements mandated that states have a certain level of infrastructure to process the W-2 information provided by the IRS and the SSA. Unfortunately, in the 1994-1998 timeframe, most states lacked the ability to process the wage and tax information electronically. Movement to a new technology or infrastructure can be a time-consuming process for state and local governments. The implementation of a cross-jurisdictional solution requires the focus on standards that facilitate both interoperability and flexibility among the participants.

**Lesson 4. Middle management ideally should be engaged at the Federal, state and local levels.**

## Case Examples

On the BLM **Service First** project, which used a common data model and software tools for the collection, management and sharing of survey data and lands record information, the work pace was slowed by mid-level managers who felt they should be asked for permission before local supervisors received funding. Although a grass roots approach got the project off to a fast start in the field, the low level visibility among middle managers impeded rapid success. The result was that local supervisors suffered from lack of funds in the outyears and were, therefore, operating at times on too lean a budget.

## Strategy

**Lesson 1. Change cross-jurisdictional business processes from the outset (e.g., keying in the data once or reconciling the data upfront). Doing it later will take more time and hinder project success.**

## Case Examples

With the **STAWRS W-2 Demo**, the lack of improvement to base processes that would allow all jurisdictions to process data was a hurdle that hindered cross-jurisdictional success. Because each base process had a different baseline, it was very difficult to “ready” them simultaneously and achieve consensus. Thus, an innovation strategy, which permits independent upgrades and varying time frames for upgrades must be considered in the process design. All entities will not innovate at the same rate, and a particular innovation will not have the same priority or ROI among all entities.

**Lesson 2. The participating organizations must settle on enterprise-wide standards but let the other jurisdictional entities come to the table as they wish.**

Realize that commonality can be a carrot and incentive to participate. Use common approaches such as templates, component re-use and Web services. This will allow governments and businesses to interoperate by sharing common data among distributed and decentralized architectures.

## Case Examples

Based on the results of the **STAWRS** demonstration, the Commonwealth of Virginia decided to put its W-2 data online to facilitate customer service. On the **National Electronic Disease Surveillance System** (NEDSS), a decision was made to allow organizations to adopt standards, rather than imposing standards from the top-down.

Where interoperability is concerned, no two entities are alike, i.e., everyone has invested a certain amount of time and money in their architectures and will be reluctant to incur the expense and disruption associated with change. In the General Service Administration’s **Government without Boundaries** (GWOB) project, interoperability was a primary goal among project stakeholders from the beginning. All stakeholders agreed to a technical approach for interoperability and implemented a demonstration to prove the concept.

**Lesson 4. There are several incentives to change including:**

1. **Legislative threat to agency survival**
2. **Threat to withdraw funding**
3. **Positive – Tie bonus structure in part to collaboration**

**Successful cross-jurisdictional managers used these incentives to create change across organizations.**

Incentives should encourage change, not force it. In cases of Federal-to-state rulemaking, negative incentives are difficult, if not impossible, to invoke without legislation. The Federal government cannot “threaten” state agency survival directly, nor would it seem a good strategy to do so.

## Case Example

On the **BusinessLaw.gov** project, the SBA used a variety of incentives over an 18-month period to encourage collaboration among all the stakeholders to create innovative ways to get legal compliance information online.

A key incentive to innovation is the demonstrated success of an initiative. Therefore, a successful demonstration in one area or by just one entity can be showcased for others to see and follow.

**Lesson 5: Legal underpinnings are a substantial consideration in cross-jurisdictional projects. Laws such as tax regulations are very complex. Although it may be efficient to share data across governmental entities, it may also jeopardize privacy. Therefore, a legal team is an important component of cross-jurisdictional work efforts.**

Different laws, rules, and enforcement mechanisms for key legal concepts (such as confidential treatment of personal information) exist within the Federal government and across the states and local governments. As a result, the kinds and levels of protection citizens can expect vary from subject to subject and government to government. A more unified legal framework will foster a more uniform protection for citizens, reduce the cost and complexity of conducting business, and promote the beneficial uses of shared information. Working toward a unified legal framework is an enormous undertaking, and, in many cases, it may be more efficient to live with the different laws.

### Case Example

Legal organizations must consider the legal implications of whether a document should be filed in its current format or whether the process can be streamlined in accordance with the findings of focus groups. Based on the results of the STAWRS demonstration, the IRS and SSA checked with their corresponding legal organizations and determined the legal reporting formats of tax and wage reporting information. The legal work went beyond reporting formats and included investigation of the IRS code to determine whether and what data could be shared with participating entities and, most importantly, how the states could use that data.

**Lesson 6. Managers should opt for a “no wrong door” vs. “one-stop shop” strategy in implementing eGovernment solutions. This will make it easier not only for the ultimate customer to locate services, but it will also overcome objections to dilution of brand equity at state or local levels.**

The term “one-stop shop” highlights the basic challenge of “simplifying and unifying” across governmental entities and suggests that a boldly different approach may be needed. In the eGovernment arena, such an approach might consist of a digital post office, e.g., which permits “no wrong door” but also facilitates a “one-stop shop” for access and authentication, which represent two substantial hurdles to widespread eGovernment adoption.

The shift to “no-wrong door” web sites is predicated on the notion that seamless government is good, and that citizens need not know the structure of government to receive services. This creates an imperative among governments to collaborate. Moreover, several project leaders interviewed for this study learned that a Federally branded cross-jurisdictional project did not enjoy a wide level of support from other government entities, which had already made significant investments in their own branded Web sites.

### Case Example

In its participation with the GWOB project and as part of the services it offers to businesses and citizens, Fairfax County, Virginia wanted its citizens to come directly to the county Web site, not through Federal or state government sites.

# Funding

**Lesson 1.** Pooling money is one of the most difficult ways to move forward. If it is done, success will depend on accountability back to the funding entities.

## Case Examples

Many of the successful projects such as **BusinessLaw.gov** and **Government Without Boundaries** operated on a shoestring budget. All but one of the projects researched were funded at the Federal level through legislation (e.g., **National Crime Information Center**), grants (e.g., **School Violence Resource Center**), or some combination of grants and program funding (e.g., **Intelligent Transportation System**). Only the **Health Passport Project**, though largely successful, was developed solely as a prototype and received a combination of funds from the Federal government and the private sector, through the Western Governors' Association.

**Lesson 2.** There were differences of opinion on how much Federal government financial seeding of a project is necessary to make it successful. Should the Federal government give the states seed money to get involved, then hope there are enough benefits for the states to sustain the funding on their own? It remains unclear when it is appropriate for the Federal government to stop subsidizing state or local operations.

## Case Examples

The **STAWRS W-2** demo was subsidized by the IRS over four years to permit the states to determine the value and viability of funding it at the state level. During this period, 33 states generally failed to conduct the ROI justifications to facilitate separate funding. Conversely, for the DOT **Intelligent Transportation System** project, the Federal government provides funding for R&D and seed deployment. The challenge then becomes getting state and local governments to understand the benefits of ITS and to invest some of their transportation dollars in these technologies. For those states and localities that have embraced large scale ITS deployment, investments have far exceeded the amount funded at the Federal level. The ITS funding model has continued for more than 10 years with great success.

### 3.0 MATURITY STAGE THREE—MANAGING AND SUSTAINING CROSS-JURISDICTIONAL INITIATIVES

## Leadership

**Lesson 1. Strong leaders with demonstrated skills in negotiation are essential to sustain a project.**

To maintain commitment and to keep an intergovernmental project on track in spite of its atypical nature, a new type of leadership is required. Because collaboration usually occurs outside normal business responsibilities, engaging in a new intergovernmental project requires a significant time investment for people with full-time traditional job responsibilities. It also takes time to build teams that possess the necessary skills and represent a cross-section of jurisdictions.

As such, leaders with new and advanced skills must be identified and developed. Necessary skills include the art of negotiation and the ability to manage to a goal without direct authority over team members or financial resources. Also, leaders must have significant knowledge of the culture and environment of partnering jurisdictions.

**Lesson 2. Long-term leadership should be fulfilled through a full-time, dedicated program manager and/or program office.**

One of the obstacles to cross-jurisdictional project sustainment is finding people who are able to make significant time commitments to volunteer efforts. Thus, long-term success is more likely when a full-time program office and a program manager are designated.

### Case Example

The DOT **Intelligent Transportation System (ITS)** program, one of the longest ongoing cross-jurisdictional initiatives of those studied, established an ITS program office to serve as the principal architect and executor of ITS leadership for: 1) research and development (R&D), testing, and deployment of relevant technologies; 2) policy coordination; 3) resource accountability; and 4) technology transfer. While the U.S. DOT provides strong overall ITS program leadership through the ITS Joint Program Office, it leverages relationships with stakeholder to gather feedback, disseminate information, and implement program initiatives. The ITS program office currently has a staff of 18.

**Lesson 3. Beware of special interests, which can inhibit program progress.**

As the full range of the constituent base and partner organizations is identified, keep in mind that some entities may not want the program to succeed if it in any way negatively impacts their operations. In such instances, the program manager and partners will be challenged to hold the ultimate good of the project above such special interests.

## Case Example

As the IRS and SSA began moving the **Simplified Tax and Wage Reporting System** demonstration to the next phase, the IRS learned the project was not warmly received by some in the business community. The reason: Because the project would standardize tax and wage reporting, businesses would no longer enjoy the loopholes of working across different state tax codes.

## Collaboration

Managing intergovernmental teams by consensus is difficult, but not impossible. Inevitably, most parties lose some control. In order to bolster the sustainability of an intergovernmental initiative, an increased understanding of the complexities and nuances of partnership and collaboration must be developed. Adopting a participatory, consensus-based management approach will be especially effective in building necessary trust and confidence.

### **Lesson 1. Understand what motivates each partner when moving the team to a common goal.**

Sensitivity to team dynamics across political and jurisdictional lines is essential. All partners should be accepted at the table as equals. Understanding the skills, resources, experiences and cultures of partners is key to successful cross-jurisdictional management.

## Case Examples

The **Government Without Boundaries** project found that partners were more inclined to participate when the project mapped to those jurisdictions' strategic goals. As the project leader, the General Services Administration sought other jurisdictional partners with similar goals and motivations.

The **BusinessLaw.gov** program took a different approach. It capitalized on the motivation, skill and experience of a distributed field counsel to create a cross-agency, intergovernmental legal and regulatory information gateway for business. By placing its trust in the field staff, the SBA ultimately gained a better understanding of the needs and goals of state government offices as well as the business and association communities.

### **Lesson 2. Develop and maintain good communication among team members and other stakeholders. Ensure frequent collaborative interaction.**

When partnerships are established, i.e., with Federal, state, county and municipal participation, all parties must be willing to listen and participate in the decision-making process. Partners develop a sense of ownership in the program when they are directly involved with its design and implementation.

Collaboration among partners must be frequent, easy and convenient. Success depends on open communication between all involved parties, including periodic, face-to-face meetings.

## Case Example

In order to reduce highway fatalities, the U.S. Department of Transportation's **Knowledge Sharing Initiative** launched to allow the Federal Highway Administration and states to exchange ideas and information in a timely and efficient manner. The resulting knowledge management portal serves as a community of practice that has far exceeded expected benefits. Widespread and frequent use by all levels

of government, industry, international communities, and citizens ultimately led the project to be “re-used” for other modal communities (e.g., motor carriers) and business units within the FHWA.

## Outreach

For maximum project sustainability, cross-jurisdictional projects must be marketed. A cross-jurisdictional project can have many critical elements in-place such as leadership and vision, but if other jurisdictions do not know it exists, what it is, how to participate, or how to use its deliverables, then its chances for success may be greatly diminished.

**Lesson. An outreach strategy should be developed that includes elements such as conference participation and speeches to promote interest in the project.**

Outreach should focus on several levels in the organization. Education of project members is critical to encourage and sustain participation. Middle management and internal targets must be educated to ensure continuous support. Elected officials must be engaged in order to maintain the momentum of the project. (Political engagement can be helpful when politicians become “champions” of an initiative and raise the level of program awareness and debate.) Finally, outreach to involve grass roots organizations to lobby on the program’s behalf will help the initiative survive political turnover.

### Case Example

The standout example of outreach among the case studies reviewed for this report was the DOT’s **Intelligent Transportation System**. This program sets a premium on communications with its partners, whether those entities are the U.S. Congress, state DOTs, or the transportation industry. To stay in tune with these groups, the ITS Joint Program Office conducts conferences and incorporates multiple mechanisms (e.g., the Web, press releases, and newsletters) to market and communicate the program’s benefits.

## Strategy

A long-term strategy for managing and sustaining cross-jurisdictional projects is critical and should adhere to the following lessons learned:

**Lesson 1. Maintain the business case.**

As governments begin the private sector practice of developing business cases for eGovernment programs, regular updates to the business case become critical for sustaining legislative and executive support. With a solid business case behind it, the program stands a better chance of withstanding shifts in political winds.

**Lesson 2. Consult constituents early and often to fully understand their needs and priorities.**

Stay in touch with the constituent base to prioritize future enhancements and to ensure delivery of the right products and services. Many well-meaning government programs fail because the needs and concerns of constituents were not considered.

**Lesson 3. Use metrics based on outcome, not output.**

In order to sustain legislative and executive support for the program, ensure the metrics cited for success are those that support the operational effectiveness of the effort (e.g., number of citizens served), rather than simple metrics of Web usage (e.g., number of hits to a program's Web site). Understandably, operational metrics that map to the missions of the organizations can be more difficult to quantify. To help overcome this challenge, baselines should be established in the early stages of the program.

## 4.0 PROFILES OF FIVE CASE STUDIES

### 4.1 CASE STUDY #1

#### BUSINESSLAW.GOV

The BusinessLaw.gov web site integrates legal and regulatory information with compliance assistance tools and online transactions. The site is the brainchild of the U.S. Small Business Administration (SBA), which recognized a need for a single point of access to all the laws and regulations that affect U.S. businesses.

Laws and regulations cost businesses nearly \$500 billion in 2000 and continue to represent major impediment to their success. Businesses face a dizzying array of legal and regulatory issues, from employment law to environmental regulations. To complicate matters, most businesses are subject to regulations from numerous government entities at the Federal, state and local levels, which adds to the confusion and time needed to become compliant.

Besides serving as a clearinghouse for regulatory information, BusinessLaw.gov provides online tools that help businesses determine whether they are in compliance, as well as tools that offer compliance solutions.

## Implementation

### Building Relationships

The SBA involved a variety of Federal, state and private organizations through stakeholder meetings. Specifically, SBA held focus groups made up of its field attorneys, resource partners, law schools, state agencies, and industry partners. Using the existing decentralized administrative architecture of SBA's *US Business Advisor* and capitalizing on the motivation, skill and experience of a dedicated field counsel, SBA created a cross-agency, intergovernmental legal and regulatory information gateway for business. The site needed to leverage the research and writing skills of field legal staff from all 50 states, the District of Columbia, Guam, Puerto Rico and the Virgin Islands. The result: in little more than 15 months, SBA and its partners created an integrated legal and regulatory information site with compliance assistance tools and online transactions.

### Leadership

SBA assumed the leadership role across the various organizations, while ensuring lines of communication were wide open through regular focus group sessions.

The IAC study team also noted the passion and charismatic qualities of the program leader, Jim van Wert, which the team believed helped bring these organizations in line with an overarching vision.

### Strategy

To begin the web design and development process, SBA's Office of Policy Planning signed an agreement with the Office of General Counsel to detail the Seattle District Counsel to the project as manager and content builder. With the help of resource partners and focus groups, the project manager developed a template for the State of Washington that included more than a dozen categories of useful legal

information that could be helpful throughout the life cycle of a business, e.g., getting legal help, licenses and registration, business structure, paying taxes, selecting a location, etc. Based on this template and more than 30 generic plain English guides, the project manager created a team of more than 250 individuals to conduct the research, provide the content, and submit the information for quality and consistency review, and subsequent posting to the site. The project manager moderated a threaded discussion web site and conducted regular conference calls to ensure communication among team members.

### Collaboration

Regular meetings and teleconferences were held with all stakeholders to discuss the project's progress and to share information. The site is a superb, repeatable example of market-based government. The process used 20,000 state and local links built by lawyers from every state with input from business executives and resource partners, such as counselors, law schools and libraries.

### Funding

Using labor detailed from the Seattle District Counsel, the SBA was able to make the site operational with an investment of \$100,000.

### Marketing

The SBA involved all stakeholders in the beginning and continues to seek their input today through ongoing meetings and teleconferences. Specifically, the SBA works with various state Small Business Administrations, business liaison functions, organizations such as trucking unions, and associations such as the National Association of State Chief Information Officers (NASCIO) and the National Governors Association (NGA). Involvement with associations, in particular, has been useful in getting additional states involved in the project. Additionally, incremental rollouts are "publicized" to the stakeholders to sustain interest levels and participation.

## **Other Challenges/Lessons Learned**

### 1. Overcome geographical decentralization

The SBA used a template approach (component reuse) for common research techniques and identification of common data elements. Data was hosted centrally while collected on a decentralized basis. Centralized edits ensured quality and consistency before finally posting to the site remotely. This approach allowed flexibility and facilitated an incremental rollout.

### 2. User buy-in

The SBA used the field legal staff within the agency to build the site, thus minimizing the use of "techies," and guaranteeing the solution focus on serving customers. With a limited budget, the cross-jurisdictional team was forced to rely on maximum use of commercial off-the-shelf (COTS) technologies.

### 3. Beware of information saturation

The SBA learned the paramount goal was to improve information flow and information-sharing. With a wide swath of legal data, the project easily could have become overwhelmed. Instead, incremental rollouts--on topics of general interest ranging from the most basic, such as licensing and permits, to highly specialized ones such as e-commerce and exporting--helped move the project along in bite-sized fashion.

## Outcomes and Benefits

The BusinessLaw.gov web site became operational in 15 months on a minimal budget. It provides 20,000 links to state and local government information, transaction help, and individual services, while saving businesses and agencies time and money through integrating compliance assistance tools, links to plain English guides and forms-driven transactions in one place.

The SBA estimates it saves \$370 million annually through:

- Time and money saved by businesses seeking to comply with laws and regulations
- Reduced agency costs for answer and help desks
- Increased agency savings by shifting from enforcement to voluntary compliance activities
- Increased compliance by businesses.

Businesses will save time looking for information organized in a user-friendly manner in one portal. The SBA estimates that businesses alone enjoy \$58 million in savings based on the following assumptions:

- 8 million businesses with employees
- 60 percent of businesses have access to the Internet
- 30 percent of businesses are capable of conducting Internet searches for compliance information
- Businesses save one hour annually through searching one portal rather than all agency sites
- One hour is worth \$40.

## 4.2 CASE STUDY #2

### HEALTH PASSPORT PROJECT [HPP]

The Western Governors' Association (WGA) recognized that citizens eligible for public health services often receive services and benefits from a variety of public agencies and private medical providers. However, there is no easy mechanism to share clients' health records among these agencies and providers. The result is wasted time and money.

The WGA sponsored a pilot program conducted in North Dakota, Wyoming and Nevada called the Health Passport Project (HPP). HPP provided approximately 15,000 smart cards for clients to access, deliver and share information related to their services and benefits. HPP demonstrated how a secure health card facilitates information sharing and improves administrative efficiency, while placing individuals firmly in control of the information on their cards.

State partners included Medicaid, the Optimal Pregnancy Outcome Program, the Immunization Program, Maternal and Child Health Services, the Food Stamp program, and the Community Services Agency Head Start program. In addition, many private partners contributed including a major immunization manufacturer, an insurance carrier, and health care providers.

### Implementation

#### Building Relationships

Relationships were created through new program offices and site managers with state and business knowledge. A Project Office for each state was established, and Health Passport Site Managers were appointed for day-to-day operations and coordination with the private and public sector participants and for interaction with both the Federal and state governments.

#### Leadership

The WGA established roles and responsibilities by committee, then tested them to ensure workability. Leadership from the top was critical to success.

#### Strategy

The WGA's strategy was to deliver the pilot from

- 1) A centralized vision with common software and hardware
- 2) A decentralized decision process on programs, services, and providers with significant communications and planning
- 3) A phased rollout delivery of capabilities.

#### Collaboration

Regular meetings were held, and each participant had a vote in the vision, goals, schedule and actions taken. Focus groups were conducted to get stakeholder input from citizens and health care providers. Customer satisfaction surveys were used to make changes in the strategy and implementation action plans.

## Funding

Federal partners, providing funding were the Public Health Service, Centers for Medicare and Medicaid Services, Maternal and Child Health Bureau, Head Start Bureau, Centers for Disease Control and Prevention, National Library of Medicine, U.S. Department of Agriculture Food and Nutrition Service, and the General Services Administration (GSA). In addition, the private partners contributed both financial and in-kind resources to the project at each of the three demonstration sites. The budget for the project, including design, development, acceptance testing, training, and a 2-year pilot with 20,000 clients, was \$4.2 million.

## Marketing

Initially, the marketing for program acceptance was done during the feasibility study when program directors from community agencies or private providers, who served the target population, were interviewed for cross-program interaction or similar data collection on common clients. Once the pilot locations were selected, the agencies were once again surveyed for possible participation.

## **Other Challenges/Lessons Learned**

1. Establishing intergovernmental teams is hard work but can be done.
2. Building team trust takes time.
3. Creating common business processes for cross-sections of states representing differences in geographic, economic, functional and technical maturity is possible but slow.
4. Developing a consistency in knowledge, skills and abilities is difficult.
5. Coordination of funds for multi-state, and multi-function projects is difficult for both public and private stakeholders.
6. When interfacing agencies do not change their processes it affects the business processes that are being modified.
7. State governments and the federal government have different priorities.
8. Better marketing and business cases are needed to engage and retain private medical providers.

## **Outcomes and Benefits**

For Public Health Agencies:

- More accurate and up-to-date health information on clients
- Reduced administrative costs when new business processes were implemented
- Reduced client costs by avoiding redundant tests conducted by another provider.

For Public Health Food Benefit Retailers (Grocers):

- Faster reimbursements from the state because benefits are transferred electronically
- Reduced error rates from inadvertently selling ineligible public health food benefits
- Reduced instances of fraud.

For Public Health Clients:

- Empowerment by giving clients control over their health data
- Reduced stigma from purchasing food benefits by using a 'credit-card like' mechanism
- Reduced time spent at different providers' offices repeating personal data
- Convenience of access to health data at kiosks
- Kiosk technology used to educate clients on health issues.

General Outcomes and Benefits:

- A user-controlled smart card for use across programs, jurisdictions, and public/private boundaries
- Benefits of direct interaction among multiple partners and the ability to work together
- Value in having *multiple* applications available through a single card-based system.

### **4.3 CASE STUDY #3**

#### **SIMPLIFIED TAX AND WAGE REPORTING SYSTEM (STAWRS) W-2 DEMO**

The purpose of this cross-jurisdictional initiative is to reduce the burden of tax and wage reporting on employers, while improving the efficiency of government operations. The goals of this initiative include decreasing the number of tax-related forms that an employer must file, providing timely and accurate tax information to employers, increasing the availability of electronic tax filing, and modeling simplified Federal and state tax employment laws.

The Simplified Tax and Wage Reporting System (STAWRS) program developed three major initiative areas: single point filing, streamlined customer service, and simplified requirements. The initial demo involved the Internal Revenue Service (IRS) and Social Security Administration (SSA) from the Federal level, plus numerous state government participants.

For purposes of the IAC study, the research team focused on Phase One of the project--a proof of concept for new ways to handle W-2 information between Federal and state governments.

#### **Implementation**

##### *Building Relationships*

Thirty-four states participated in the STAWRS W-2 demonstration project. The states initially bought into the idea that it would cut down on administrative costs and generate more collection and compliance within their jurisdictions.

##### *Leadership*

The Social Security Administration agreed to capture state data from paper W-2 forms if IRS agreed to reimburse its costs. In return for sample data that states would receive, states agreed to evaluate data in various state compliance programs, document benefits and project usefulness of receiving wage data in later years. The hypothesis of the project was that if data were proven beneficial, the Federal government would supply to the states the W-2 information on a regular and reimbursable basis. States would no longer need to capture state wage information.

The states went into the project with an open mind but with no formal consensus as to what benefits would be derived. There was no specific buy-in from the political leadership of participating state governments, so leadership was generally lacking at the state levels.

##### *Strategy*

The IRS and SSA teamed to do the W-2 demonstration. Both Federal agencies agreed the SSA would receive and process data from employers, while the IRS would distribute the information back to the states.

The W-2 Demonstration had a single focus: the Federal government would provide state wage information from paper W-2s to the states to determine the value of the data. The decision on using paper W-2s was made to minimize the impact on businesses and was the least cost solution. Yet, no common understanding of the ultimate benefits or purpose was established before project initiation.

The SSA agreed to capture state data from paper W-2 forms if IRS agreed to reimburse its costs. In return for sample data that states would receive, states agreed to evaluate data in various state compliance programs, document benefits and project usefulness of receiving wage data in later years. The hypothesis of the project was that if data were proven beneficial, the Federal government would supply to the states the W-2 information on a regular and reimbursable basis. States would then no longer need to capture state wage information, and employers would not need to send W-2 information to states, thereby reducing the employer reporting burden.

### Collaboration

The proof of concept used a collaborative approach to get buy-in from a consortium of government partners at the Federal and state levels, as well as from the business community. The SSA and IRS Commissioners signed an interagency agreement to initiate the project. The agreement described the goals of the project and stipulated the IRS would reimburse the SSA for all costs because of statutes that prohibited the use of SSA trust funds for this activity.

### Funding

The IRS supplied all the funding for the demonstration.

### Marketing

Regular meetings were held over a 4-year period between all stakeholders to discuss the demonstration's progress and to share information among all stakeholders.

## **Other Challenges/Lessons Learned**

### 1. Get buy-in from the states

A lack of general leadership from participating state governments, resulted in no buy-in from the political leadership at the state levels.

### 2. Centralism vs. State Rights

Some friction occurred between Federal and state governments over control. Most states could not justify the long-time implementation investments due to a lack of champions within each state.

### 3. Lack of ROI justifications by state governments

There was no mechanism to get states to determine the ROI to justify their long-term investments. The demonstration concept was that Federal and state wage information submitted once would serve the interests of all jurisdictional levels and businesses, but this was not enough to sustain resource commitments from all partners.

### 4. Lack of IT infrastructures within most states:

Most of the demo project's state participants ultimately did nothing with the W-2 data because they lacked the infrastructure and specific funding to deal with this new requirement.

### 5. Lack of empowered decision makers

There was no single authority responsible for the overall success of the project. The IRS and SSA performed their roles and expected the states to determine the long-term viability of the project. Several instances of success occurred within the states. For example, the State of Arizona significantly increased its tax revenues as a result of simplifying W-2 reporting. No effort was made to quantify the benefit of single filing for businesses.

#### 6. Interoperability among partner entities isn't easy

With multiple different government domains involved, the team was challenged to ensure the technologies and solution selected by one state would be usable in another state six months later.

### **Outcomes and Benefits**

This was one of the earliest projects to attempt collaboration between Federal organizations and 34 states. It resulted in many data discrepancies identified between state and Federal databases. A monolithic architecture was envisioned that would circulate the information, provide quality checks and eliminate inconsistencies. This architecture was to provide a common level of security among all participants. Yet, the approach failed to permit flexibility and facilitate an incremental rollout.

#### Expected benefits:

- Reduced burden on businesses/employers for reporting wage and tax information
- Savings in printing and mailing costs of W-2s
- More accurate and timely Federal tax information available to the states

#### Realized benefits:

- Uncovered and facilitated correction of data inconsistencies
- Provided a forum for states to share innovative best practices
- Showed that cooperation and collaboration was possible between the Federal Government and states in the wage and tax arena
- Helped the SSA generate the capability to receive the W-2s electronically.

## 4.4 CASE STUDY #4

### NATIONAL INTEGRATED LAND SYSTEM (NILS)

The National Integrated Land System (NILS) is a joint project between the U.S. Bureau of Land Management (BLM) and the USDA Forest Service in partnership with the states, counties, and private industry to provide web-based business solutions for the management of cadastral (public survey) records and land parcel information in a Geographic Information System (GIS) environment. The goal of NILS is to provide a process to collect, maintain, and store parcel-based land and survey information that meets the common, shared business needs of land title and land resource management.

The program launched in 1998 when the BLM and the Forest Service recognized a need to unify surveying processes and geo-spatial information systems (GIS). The use of GIS and web technologies were seen as enablers for facilitating land management.

Today, NILS addresses:

- The need for a common data model and software tools for the collection, management and sharing of survey data, cadastral data and land records data
- The need to unify the surveying with GIS and web technologies to facilitate cooperative land management.

### Implementation

#### Building Relationships

The NILS program management office (PMO) ensured from day one that NILS ties to the business requirements and processes of its constituents. As part of its collaborative approach, the PMO leveraged BLM's experience in holding extensive public hearings. For example, the PMO holds monthly meetings in which participants have a voice in the vision, goals, schedule, and actions of the NILS program. Follow-up meetings are also conducted to verify constituent understanding of the issues. For example, the PMO has had public meetings in five U.S. cities to present the NILS concept of operations and process requirements. Over 185 attendees from Federal, state, and local governments, academia and the public have attended.

#### Leadership

The PMO is a joint office led by a non-technical manager from the business side of the BLM. Moreover, the business-oriented team members answer the "what," while the IT experts in the PMO answer the "how." This ensured the focus remained not on technology, but on solving business problems.

#### Strategy

The NILS team adopted a joint approach to solving both the BLM's and Forest Service's needs in a collaborative manner. The strategy is anchored upon:

- Being inclusive through public hearings/meetings held not once but many times
- A focus on business requirements – not just technology
- Continual verification of processes with constituents
- Intra-agency MOUs signed early in the process to ensure full understanding and commitment to meeting business requirements.

## Funding

Funding and staffing are provided jointly by the BLM and the Forest Service.

## Marketing

Continual outreach to constituents is needed and must be budgeted. It is an area that generally gets cut first, but should not. The NILS PMO sees this as a critical program component to ensure it stays connected with constituents.

## **Other Challenges and Lessons Learned**

Establishing cross-jurisdictional teams is a challenge and requires:

- Building the teams takes time. Establishing a MOU upfront is very important.
- Ensure tighter connection to constituents by taking the time to understand how they use the data and information. For example, don't ask, "What do you need?" Rather, ask, "How do you use the data/information to do your job?"
- Establish early on a project PMO with defined roles and responsibilities. When designating a PMO, keep in mind that business answers the "what," whereas IT answers the "how."
- Plan for incremental milestone deliverables. Under promise and over deliver.
- Grass roots efforts have less visibility and can therefore move more quickly than efforts which require high-level support. The downside to working at the grass roots is that funding can be a greater challenge. For example, this program would have liked more funding for outreach. Additionally, it pays to work all levels of leadership. Working at the grass roots is fine to show quick results, however, senior leadership support ultimately must be obtained! Therefore, enlist the full support of management.
- Involve the state and local governments by demonstrating benefits to them. One example with NILS, is its experience with Durango County in Colorado. In this instance, the program provided clarity regarding geographical areas in Durango County that were, in fact, not Federal lands. (County records had these areas erroneously designated as Federal. As a result, the county was able to open "new" areas/addresses that could provide additional tax revenues.
- Leverage industry. Involving industry in the development and implementation can ensure COTS availability to the maximum degree possible. For example, work with the technology company, ESRI, maker of GIS and mapping software, allowed maturation of products to meet needs without developing government-unique solutions.
- Identification of strong leaders at all levels involved is important for maintaining commitment and keeping the project on track.
- Technology is relatively easy. Business requirements and outreach are much more difficult. In that regard, the program manager should have a business – not an IT-- background.

## **Outcomes and Benefits**

The example of Durango County demonstrates just one of several benefits to be derived through NILS: A greater realized tax base. In addition, upfront understanding of business requirements and processes can benefit both citizens and businesses.

## 4.5 CASE STUDY #5

### INTELLIGENT TRANSPORTATION SYSTEM (ITS)

In the early 1990's, the U.S. Department of Transportation (DOT) recognized the need to address the nation's aging transportation network. Specifically, the agency wanted to leverage and apply information technology and electronics to the multi-modal transportation infrastructure.

The DOT established a Federal program to foster development and implementation of Intelligent Transportation System (ITS) technology by state and local governments and private industry. The ITS Joint Program Office (JPO) was established in the Federal Highway Administration (FHWA) to serve as the principal architect and executor of ITS leadership for:

- 1) Research and development (R&D), testing, and deployment of relevant technologies
- 2) Policy coordination
- 3) Resource accountability
- 4) Technology transfer.

The key principles of the ITS Program are to:

- 1) Promote the implementation of a technically integrated and jurisdictionally coordinated transportation system
- 2) Support ongoing applied research and technology transfer
- 3) Ensure ITS technologies are safe and cost-effective
- 4) Create new industry by involving the private sector in all aspects of the program.

The government entities and stakeholders include the DOT modal administrations (e.g., Federal Highway Administration, Federal Transit Administration, etc.), who administer specific ITS projects, the ITS JPO, specific ITS projects, state and local governments, the transportation industry and private professionals, and citizens. The U.S. Congress is also involved in determining which ITS projects get implementation funds.

### Implementation

#### Building Relationships

The DOT already had a well-established network of stakeholders with which it was in regular communication and collaboration as part of its overall mission to maintain and improve the nation's transportation infrastructure. These relationships include associations and umbrella organizations such as ITS America, which is a Federal advisory committee that provides input to ITS on policy and programs. While DOT provides the overall ITS program leadership through the JPO, it leverages these relationships to gather feedback, disseminate information, and implement program initiatives.

#### Leadership/Collaboration

The DOT provides strong program leadership through the JPO, which works in collaboration with the other stakeholders. The Program leverages Web technology and a knowledge management portal to facilitate communication, information exchange, and program coordination.

### Strategy

The network of relationships was already established. DOT initiated the ITS program first as a multi-modal, shared responsibility but recognized early on that a Joint Program Office was needed to provide effective leadership and coordination. As Web technology advanced, the program leveraged it to facilitate communication, knowledge sharing, and continued relationship building. The ITS web site includes an electronic document library that serves as the repository of all documents developed using ITS funds (regardless of author/source). It also includes the ITS Resource Guide, which is a “desk reference” for what’s on the site. Hard copies of the guide are also provided. The top levels of the Web site are centrally managed by the JPO, while the respective program areas manage detail pages.

### Funding

The Federal government provides funding for research and development (R&D) and technology transfer training. There are also matching Federal funds for testing, as well as Federal and state/local funds for deployment of ITS products/technologies. This is a large program. In the early years, most funding went for R&D. Today, as the ITS program has matured, more funding goes for deployment incentives (\$100M/year).

### Marketing

The JPO recognized the critical need for marketing the program in order to change traditional mindsets. This was done by employing multiple communications mechanisms, Web technology, and involvement of related associations. It also incorporates ITS into other transportation events. Additionally, the program works extensively on determining and communicating the benefits and return on investment of ITS initiatives.

## **Other Challenges/Lessons Learned**

### Challenges

One challenge was to foster understanding and acceptance that there is more to transportation than paving roads. This was addressed by demonstrating the benefits and return on investment (ROI) for non-traditional concepts, but there is a continuing need to generate sufficient, meaningful metrics on the benefits of the use of ITS products/technology. Another challenge is balancing many different political views and vested interests of a high profile program. The JPO must constantly interface with the U.S. Congress to determine which ITS projects and locations get deployment funding. The JPO works with selected localities to determine the specific ITS activities that will get done. While this is more constrained than full ITS discretion to allocate funds and projects, it works satisfactorily.

### Lessons Learned/Recommendations

Central (i.e., Federal) control of funds fostered cooperation. The JPO looks at the overall interests, whereas the modal administrations provide targeted perspectives. The program’s experience is that it is absolutely critical for customers to be involved and that their voices be heard. Relevant associations were engaged to ensure ownership in the success of the program and help with “selling” it to specific customers. Quantify and promote the benefits often. Set a premium on communication and use multiple mechanisms to accomplish it, such as written documents, Web sites, press releases, and scheduled events.

## **Outcomes and Benefits**

There are numerous ITS initiatives deployed or under development. Identified and forecasted benefits include:

- ITS systems for metropolitan traffic management
- Traffic surveillance and signal control systems = 8-25% travel time improvements
- Freeway management systems = 50% fewer crashes while handling 8-22% more traffic at faster speeds
- Electronic fare payment = 3-30% increased revenue collection
- Electronic toll collection = 200-300% increased capacity
- ITS for commercial vehicles (e.g., shared vehicle weight data between states)
- Onboard safety systems, electronic clearance, and automated roadside safety = 14-32% fewer fatalities
- Hazardous Material (HAZMAT) incident response cost savings = \$85 million per year
- Automated administrative processes' benefit/cost ratio = 4:1
- Electronic clearance systems' benefit/cost ratio = 7:1
- Freight mobility systems productivity improvements = 25 percent per truck per day
- Emergency notification devices forecasted to reduce crash discovery time from 9 minutes to 1 minute
- Lane-keeping and collision-avoidance technologies forecasted to prevent 19,000 crashes per year
- In-vehicle devices to address lane-change, rear-end, and roadway departure crashes are forecasted to eliminate 1.1 million crashes per year
- Collision-avoidance technologies are forecasted to prevent 52,000 crashes per year in urban areas

## 5.0 ACRONYMS

<b>ACK</b>	America’s Career Kit Consortium
<b>BLM</b>	Bureau of Land Management
<b>CDC</b>	Centers for Disease Control
<b>CIO</b>	Chief Information Officer
<b>DOI</b>	Department of the Interior
<b>DOJ</b>	Department of Justice
<b>DOT</b>	Department of Transportation
<b>FAA</b>	Federal Aviation Administration
<b>FBI</b>	Federal Bureau of Investigation
<b>FHWA</b>	Federal Highway Administration
<b>GIS</b>	Geo-spatial Information System
<b>GSA</b>	General Services Administration
<b>GWOB</b>	Government Without Boundaries
<b>HPP</b>	Health Passport Project
<b>IAC</b>	Industry Advisory Council
<b>IRS</b>	Internal Revenue Service
<b>IT</b>	Information Technology
<b>ITS</b>	Intelligent Transportation System
<b>JNET</b>	Justice Network (of Pennsylvania)
<b>JPO</b>	Joint Program Office
<b>MOU</b>	Memorandum of Understanding
<b>NASCIO</b>	National Association of State Chief Information Officers
<b>NCIC</b>	National Crime Information Center
<b>NEDSS</b>	National Electronic Disease Surveillance System

<b>NGA</b>	National Governors Association
<b>NILS</b>	National Integrated Land System
<b>PMO</b>	Program Management Office
<b>R&amp;D</b>	Research and Development
<b>ROI</b>	Return on Investment
<b>SBA</b>	Small Business Administration
<b>SIG</b>	Shared Interest Group
<b>SSA</b>	Social Security Administration
<b>STAWRS</b>	Simplified Tax and Wage Reporting System
<b>USDA</b>	United States Department of Agriculture
<b>WGA</b>	Western Governors' Association

## 6.0 CASE STUDY RESOURCES

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