Government *Without* Boundaries

A Management Approach to Intergovernmental Programs

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General Services Administration
Office of Intergovernmental Solutions
May 23, 2002

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Today, a citizen interested in recreation opportunities in Southwest Virginia would have to search hundreds of separate websites to find them all. In the future, a single visit to any government website would list all the government recreation facilities (federal, state, or local) available in that part of the state. The U.S. Federal Government, the State of New Jersey and the Commonwealth of Virginia along with Fairfax County, Virginia have been working collaboratively to create a "Government Without Boundaries."

The Government Without Boundaries (GWoB) program looks at government programs from the constituent's perspective. The vision is to create a virtual pool of government information and services available from all levels of government and accessible from any level by constituents, so that:

- Constituents can obtain information and services across all levels of government.

- Governments can identify and deliver integrated information and services to their constituents

Developing a government without boundaries provides many opportunities to improve quality service to citizens and government partners. Citizens, businesses, and all levels of government should be able to easily find and transact business without hiring accountants, consultants, and lawyers. Government employees should have easy and efficient access to information and resources as they serve on the front-line of providing citizen centric services.

To meet its goals, GWoB developed a collaborative framework in which participating jurisdictions work together in a service area or community of interest (C of I) to determine solutions for jointly identified priorities. In addition, the GWoB Collaborative Framework is used to define roles, responsibilities, and common objectives.

The collaborative framework is based upon five major principles. The principles provide a foundation, which allows collaboration between governments. *Collaboration must be organized and efficient* for participants to work across governmental jurisdictions and accept tasks that may not have immediate relevancy to their jurisdiction and leaders. *Different levels of participation should be permitted* to maximize project exposure to all relevant parties. All participants' priorities and issues must be provided *equal consideration regardless of jurisdictional affiliation. Differing levels of technical maturity* among participants is expected. Finally, j*urisdictional independence and identity is respected*.

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Three different groups must be involved: the business or functional experts, the technical experts, and the facilitator or leadership experts. The three groups have certain beliefs that must be considered during the collaboration process. These are: business needs drive the focus and priority of technology solutions, technology opens more doors than it closes, participants come the table as equal partners, and finally central coordination, not control, is required.

In Government Without Boundaries work, the technology issues are secondary to the political and cultural issues. Understanding the priorities and challenges that other governments face helps increase trust and clarify misperceptions. Every intergovernmental initiative demands an appreciation of the needs and capabilities of all participating organizations.

Among our major findings and lessons learned:

Administration changes among executive leaders at the federal, state, and local level during any intergovernmental initiatives should be anticipated and mitigated. In this regard, during GWoB's brief existence (since September 2000), two of the four executive champions of GWoB: Ms. Bette Dillehay, former Deputy Secretary of Technology, Commonwealth of Virginia, and Ms. Wendy Rayner, former Chief Information Officer (CIO), State of New Jersey are gone due to election of new governors in both states. By mid-January 2002 only Mr. Francis McDonough, Deputy Associate Administrator, Office of Intergovernmental Solutions, U. S. General Services Administration, and Mr. David Molchany, CIO of Fairfax County Government, Fairfax County Virginia are the remaining executive champions of GWoB. Such changes can and will take place at all levels of government for any project that spans more than several months. A modular approach to developing seamless electronic government services and a collaborative framework is necessary to sustain inter-jurisdictional efforts. That is, deliverables are expected from short-term (less than 24 months) task-oriented projects on an on-going basis.

Managing programs that cross government boundaries requires a new set of leadership skills. These skills include the art of negotiation, a vast knowledge of the culture and environment of partnering jurisdictions, and the ability to manage to a goal without direct authority over team members.

A high-level, multi-jurisdictional, shared vision must be developed to provide a basis for successful intergovernmental collaboration. In intergovernmental management, government officials need to think beyond the needs of their immediate organizations and their enabling legislation. This results in a higher-level shared vision, which must also provide for maintaining alliance to the parent organizations.

Different laws, rules, and enforcement mechanisms for key legal concepts (such as confidential treatment of personal information) exist in federal government, state, and local governments. The level of protection citizens can expect varies from subject to subject and government to government. A more unified legal framework in a GWoB program fosters a more uniform protection for citizens, reduces the cost and complexity of conducting business, and promotes the beneficial uses of shared information.

A source of funding and authority is needed to support intergovernmental programs. The current vertical, program specific funding models in use do not adequately support horizontal intergovernmental initiatives. Without dedicated sources of funding for these initiatives, governments will continue to build highly stove-piped, process centered applications that do not adequately serve citizens, and cause costly redundancy in government services.

Once funding, management, policy and legal frameworks are in place, we may take full advantage of emerging trends in IT, especially web services. And to link the current islands of automation, standards such as Single Object Access Protocol (SOAP), Universal Description, Discovery and Integration (UDDI), Web Services Description Language (WSDL) and Extensible Markup Language (XML) can be adopted by partnering

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jurisdictions to provide an efficient and cost effective approach. These standards allow ubiquitous infrastructures, the development of coordinated, leveraged applications, and sharing of information across jurisdictions. The GWoB pilot used these standards to lay a foundation for inter-jurisdictional applications.

In summary, Government Without Boundaries initiatives create new risks that require special insight. Initiatives that cross government boundaries cause new complexity and may result in reduced control in participating organizations. The different needs, priorities, and legal frameworks are balanced against the needs of the collective vision. In addition, managing by consensus always presents challenges, and, inevitably, most parties lose some control. However, an integrated solution offers the promise of better overall service, long-lasting results, and lower costs.

As a result of the GWoB pilot demonstration project, through the U.S. Department of Interior's Recreation.gov, a citizen can now access parks information for recreation facilities owned by the Federal government, the Commonwealth of Virginia and Fairfax County, Virginia. This limited integration of information and services from multiple levels of government is an example of the emerging seamless citizen-centric government of the future.

In this document, we provide a history and overview of the Government Without Boundaries program. In Part I, the Collaborative Framework used by the pilot group is discussed. Part II, *Inter-jurisdictional Interoperability and the GWoB Pilot,* addresses the group's approach to identify interoperability guidelines across jurisdictions within a community of interest. In Part III, we document the lessons-learned, and in Part IV, recommendations for next steps in GWoB are made.

Introduction

At the annual National Association of State Chief Information Officers (NASCIO) meeting in Baltimore, Maryland (September 27, 2000) a special meeting of the Intergovernmental Advisory Board (IAB) was held with several State Chief Information Officers. The purpose was to initiate an effort to enable all levels of government to collaborate as equal partners, provide citizen-centric services, and share leading practices to demonstrate seamless government. The effort that resulted is called Government Without Boundaries (GWoB). Since then, participants from several states, local jurisdictions, and the federal government have been meeting and working to make this concept a reality.

Traditionally, federal, state, and local governments independently develop online programs to serve citizens and businesses. However, citizens and businesses do not differentiate between levels of government when seeking out government services. This creates a performance gap in the eyes of our citizens. GWoB looks at government programs from the citizens' perspective and closes the performance gap by providing seamless and integrated services to its constituents. The GWoB project is an innovative and a collaborative effort between federal, state, and local governments involving both the "Government to Government" and "Government to Citizen" channels of electronic government.

During the past year, the Commonwealth of Virginia, Fairfax County, and the State of New Jersey developed intergovernmental pilots demonstrating "vertical integration." After demonstrating these pilots at the NASCIO mid-year conference in May 2001, and through some introspection on the part of the GWoB team, it was determined that more had to be done to integrate the two pilots horizontally. It is through this learning process that an approach to intergovernmental collaboration has been developed called the "Collaborative Framework".

The Collaborative Framework establishes a structure for the overall GWoB program. It facilitates the creation of various "communities of interest" in subject areas (e.g., Parks and Recreation). The Framework allows for collaboration within and across communities of interest. A community of interest is an area of focus that is of interest to certain jurisdictions and their constituents. Jurisdictions join or create a community of interest when they identify a specific need for inter-jurisdictional collaboration. They also establish new communities of interest when they feel they have a resource that should be shared with other jurisdictions; or when they have other reasons that are unique to their situation. For example, the current jurisdictions involved in GWoB initially joined because they felt the need to move forward in a collaborative way with other jurisdictions in the e-Government area. The Parks and Recreation community of interest came about after the various jurisdictions determined in surveys that a large proportion of citizens were asking for this type of online service.

The Parks and Recreation pilot (also referred to as Cycle I) was established to develop and assist in the implementation of core standards of interoperability. The ultimate goal was to create a seamless information architecture across all levels of government in the Parks and Recreation community of interest.

Introduction

Pilot Objectives:

Evaluate available tools and technologies to facilitate interoperability between government web sites and web enabled systems, with a focus on parks and recreation sites.

Create standards (e.g. XML schema, taxonomy, data elements) to facilitate interoperability between parks and recreation sites and web enabled systems.

Create a parks registry mechanism as a means of describing and aggregating data in a virtual pool available from all levels of government.

Create a means for integrating standards, and the information and services they define, into citizen centric services (applications).

Make standards and tools developed by the group for voluntary implementation available to other government and parks communities in the nation.

The GWoB Collaborative Framework and our experience in Cycle One of the Parks and Recreation Pilot will be shared with other governments to facilitate and encourage other intergovernmental initiatives. The resources available as a result of this preliminary work will be available at the GWoB website: http://www.gwob.gov.

Currently there are any number of federal-state-local government projects underway: Government Without Boundaries; Federal-State Change of Address; Federal-State Business Registration; XML.gov;

NASCIO Shared Components; STAWRS; IBM e-Government Project (with the National League of Cities); the Criminal Justice Integration Project; and undoubtedly a host of others. Although each of these efforts has the best of intentions, any given jurisdiction is left wondering which initiative to join and whether or not there is duplication of effort between some of these initiatives. The potential of the GWoB collaborative framework is to provide an approach that can be used to organize all of these various efforts. This is possible because GWoB provides a model for intergovernmental collaboration that can be replicated by other federal, state, and local governments.

The current situation is one of maximum fragmentation. If an entity determines that there is a need for collaboration with other programs or governments they are basically on their own. This includes federal agencies, as well as state and local jurisdictions. A large part of collaborative efforts is identifying and convening the right players, researching exactly what is going on in the area (a job that never seems truly completed), and organizing the initial meetings. Initial progress is limited until the group gets comfortable with itself and decides upon its actual mission, goals, and approach.

The creation of an ongoing community of interest provides staying power to any initiative of the C of I. When an independent initiative loses momentum, the community of interest is there to give support and encouragement, or

to offer a way to gather up the current work and save it for use in a future initiative. In the past how many initiatives died a premature death with no one around to salvage the remains for reuse later?

Part I

Collaborative Framework

What is the Collaborative Framework?

This part of the report has three sections. Section I discusses the principles that inform and guide intergovernmental collaboration. Section II briefly describes the Global Framework, which spans all C of Is and provides a "Whole of Government" approach to intergovernmental collaboration. Section III covers the C of I Framework and components, describing the process by which C of Is are formed to create deliverables. Throughout the sections, the experience of the Parks and Recreation Pilot is referenced to illustrate the Framework.

The Collaborative Framework is a structured approach to be used in intergovernmental collaboration when jurisdictions need to work together to develop solutions within a community of interest. In the framework, a community of interest is a concept or idea around which web content and services will be organized and made available. The notion behind working within communities of interest is that all levels of government provide common information and services to common constituencies. In cases where a service is common across jurisdictions, there is likely a business reason for intergovernmental collaboration.

Part I describes the architectural components and processes used to build a Collaborative Framework. The genesis for this framework came from the Government Without Boundaries (GWoB) initiative, with substantial contributions from the initial Parks and Recreation Community of Interest Pilot.

A critical element to understanding the Framework is to realize that it is deliverable-oriented, but not project-oriented. That is, deliverables are expected from short-term (less than 24 months) task-oriented projects on an on-going basis. They are not expected to depend on long-term projects that are centrally funded for a finite period of time.

Section I: Collaboration Principles:

Government Without Boundaries is an intergovernmental endeavor. The nature of intergovernmental collaboration is one of voluntary participation built upon collaboration between federal, state, and county governments. A jurisdiction participates and collaborates because it will meet its own needs and priorities. In the Parks and Recreation pilot, New Jersey was already developing a Calendar of Events application for parks and recreation facilities and saw the benefit of including information from other jurisdictions. Fairfax County used the application XML schemas developed by GWoB to integrate disparate databases. The U.S. Department of Interior leveraged the facilities search schema to enhance its Recreation.gov portal to include state and local governments in the pilot.

The ways in which jurisdictions collaborate and interoperate will vary. In the Parks and Recreation Pilot, the approach used was a highly decentralized environment with limited central authority. The pilot was simply a loose

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affiliation of like-minded jurisdictions that offered, or would like to offer similar services. No participant had the ability to impose standards on another or dictate the services offered. Other intergovernmental initiatives may operate differently. In some cases, an initiative may have a central authority that can exert control over participants. Others might involve a participant that has the money and resources to develop a web-based application that allows other jurisdictions to "opt-in."

In some cases the central authority has an implied mandate to create an interoperable and seamless government service. In many other cases, multiple jurisdictions will have to adhere to common XML schemas. An authority cannot impose these schemas. The success of the schema rests on its voluntary adoption by all parties. Therefore, the GWoB Collaborative Framework was developed with sufficient flexibility to allow collaboration when central authority and a central mandate did not exist.

This raises the question: if no one forces jurisdictions to collaborate and integrate, which is often the case, why will they? What is the imperative for jurisdictions to collaborate? In the GWoB pilot and in other C of Is, the business need for collaboration originates from the expectation of citizens. The current shift to "one-stop" and "no-wrong door" web sites, and portal technology 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.

Intergovernmental Collaboration Principles:

A set of principles evolved during the pilot that illustrates the predominant themes of the GWoB effort. These principles were used to create the framework. The completed framework had to validate the principles. Any maturation of the framework must follow those principles. The principles are as follows:

Collaboration must be Organized and Efficient - The collaboration between and among the stakeholders must take place in an organized, efficient environment. The stakeholders represent many different organizations with different cultures and management styles. They need some structure to be effective. Also, the process must be direct and make efficient use of the participant's time. Long distance travel is a burden. Most of the stakeholders are already overburdened, and they deserve an environment that optimizes their time investment.

Flexibility to Participate - For the many jurisdictions, there will be a variety of commitments they are willing to make. Some want to be informed, but wait and see. Some want to observe, but not commit resources. Others want to test and prototype interim deliverables, but not develop them. Others may want to contribute money, not personnel (or vice versa). In many cases, this commitment level is constrained by forces outside the control of the participants. Every contribution is important, and value should be taken whenever and wherever possible.

Allow for Equal Participation Independent of Jurisdictional Level - There are several layers of governmental jurisdictions. These are the federal, the state, and regional, county and municipal levels. In some circumstances, the federal involvement may be directive (in cases when they exercise oversight for laws and regulations) and it may have a significant financial involvement. However, citizens usually request services from their local government. All jurisdictional levels must understand the roles of the others, the value they can contribute, and the obligations they must fulfill to their constituents.

Foster Leadership While Reducing the Information Technology Resource Gap between Jurisdictions - Innovation occurs in all jurisdictions. The Collaborative Framework must build on innovation in all jurisdictions. While many jurisdictions find skill and resources to be scarce, they can use the resources developed by the C of I in their own sectors. In this way innovative solutions will span the e-government digital divide.

Preserve the Autonomy of each Jurisdiction - C of I participants may be invited to change their design during the course of the collaboration process; but it is their choice. They should change it consistent with their own mission, the vision of their own management and their interaction with the public. Intergovernmental collaboration is designed to use the best of each participant's identity, products and services.

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Section II: The Global Framework

The Collaboration Framework and Channels

The Global Framework is a "government(s)-wide" model for intergovernmental collaboration. The picture above depicts the framework as envisioned by the Government Without Boundaries participants. It spans all intergovernmental C of Is and relies on facilitation to coordinate deliverables across C of Is. There are three layers, a Facilitation layer, a C of I layer, and a Technical layer. In short, the Facilitation layer provides the necessary support and approaches to be used to create communities of interest and coordinate efforts within and across service C of Is (e.g. parks and recreation, taxes). Practitioners in the C of I, along with technical experts, develop the tools and products necessary to create an interoperable and seamless government.

Facilitation Layer

Although the C of I is considered the primary point of collaboration, a C of I does not exist in a vacuum. Many C of Is will be able to use deliverables from other C of Is. Existing standards may apply to work in more than one C of I. A central coordinating group is needed to facilitate the creation and evolution of C of Is and provide a formal mechanism for defining roles, responsibilities and common objectives. This includes maintenance of the portal (i.e. Web site) to promote communication within and across C of Is, and to house deliverables and archive information. The purpose of this layer is to provide an environment for intergovernmental collaboration that is efficient, organized, flexible and inclusive. Among the responsibilities of the facilitation layer in a Government Without Boundaries program are:

- Managing C of I resources where centralization is required

- Providing mentoring of participants in intergovernmental programs

- Encouraging collaboration and integration across C of Is

- Creating a repository for the deliverable products from each C of I

- Providing basic support, administrative and otherwise, to create an organized and efficient environment for all participants

- Transferring knowledge and lessons learned
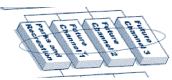
- Researching funding alternatives

The facilitation group acts impartially to ensure that intergovernmental objectives are being met. The core GWoB team has acted as the "facilitator" of the pilot projects. During Cycle I the facilitation team of GWoB developed the Global and Community of Interest framework and created the www.gwob.gov web site to house deliverables and encourage collaboration. The facilitation group developed the general direction of GWoB. The facilitation group consisted of jurisdictions that became active in the Parks and Recreation C of I. It included officials from New Jersey; Fairfax County, Virginia; the Department of Interior; and the U.S. General Services Administration; and other jurisdictions such as Maryland; Illinois; Howard County Maryland; and the U.S. Internal Revenue Service.

Work in the facilitation layer provides collaborative tools to facilitate the program. These tools enable active participation among geographically dispersed jurisdictions. The pilot group in GWoB used the project web site to encourage membership, and disseminate information and deliverables among participants and stakeholders. Discussion boards were employed to solicit comments on the pilot XML schemas. Over the long term, the facilitation layer would probably require an intergovernmental extranet as a necessary piece of infrastructure for interoperability and collaboration across jurisdictions.

In addition to facilitation at the global level, i.e. across all C of Is, each C of I will need a facilitation layer of its own to define roles, responsibilities, and common objectives within the C of I and involve all stakeholders.

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Communities of Interest (C of I) Layer

The Communities of Interest layer includes services around which web content and services are organized, linked, and readily available. For providers of services, it is an intersection of common interests held by multiple groups and levels of interests. It is what they have in common relative to the citizen concept. Examples of a C of I would be Parks, Youth or Aged Services, Fire Protection and Safety, and others. In some cases, a C of I may be clearly defined and understood by all participants. In other cases, a C of I may be loosely defined, and may split into multiple C of Is as participants revise their objectives. In the pilot, we have worked in the Parks and Recreation C of I. C of Is can be formed around types of service (taxes, parks and recreation), a specific service (business registry), or a constituent group (seniors).

Participants in the C of I (i.e. officials that provide the service around which the C of I is formed) from all jurisdictional levels collaborate to identify existing resources within the C of I and develop objectives based on resources and opportunities. A C of I is not a rigid concept; therefore, no C of I exists in a vacuum. In many cases, a C of I can use tools and best practices developed by another C of I. The facilitation layer allows for the transfer of these tools.

A comprehensive identification of all stakeholders is essential. A high percentage of potentially participating jurisdictions must collaborate to reach true interoperability. At the same time, jurisdictions must have the freedom to pursue individual initiatives, which align with their particular business needs. Ultimately, business needs drive technology solutions. In the GWoB Parks and Recreation Pilot, the existing resources and business needs of the Parks and Recreation practitioners drove the technical deliverables of the pilot.

The degree of participation in a Community of Interest is up to each jurisdiction. For example, there are a variety of methods for members of the Parks and Recreation C of I to participate in the Calendar of Events application. Participation can be "full" (jurisdictions use the decentralized administrative application to enter event information and include a link to the centralized calendar application on their website in lieu of any "local" calendar) or "partial" (e.g., XML can be utilized to upload a jurisdiction's event information, and the jurisdiction may wish to add a link to the multi-jurisdictional calendar in addition to their "local" calendar) for those jurisdictions that currently have a Calendar of Events that they do not wish to forego. Other "partial" schemes can be worked out. The reason for this flexibility is to allow as many jurisdictions to participate as possible. Of course, once involved, a jurisdiction would be allowed to change the manner in which it participates.

Among the objectives of the C of I layer are to:

- Provide business case
- Determine deliverables and priorities
- Market to C of I constituents, other jurisdictions, and benefactors of service
- Validate deliverables

Technical Layer

The technology layer of the global framework delivers the results from C of I collaboration. Jurisdictions deliver similar information and services to their constituents. The information and services can be structured or unstructured. Different words are used to describe the unstructured data. Different data models with more or less the same data entities define the structured data. Technical outputs of C of I collaboration facilitate the intergovernmental sharing of information and services despite the variations in information architectures across governments. Possible technical outputs include interoperability guidelines, a registry of web services within a C of I, an information glossary for services and information in the C of I, and common applications.

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The objectives of the technical layer are to:

- Provide technology solutions to address business concerns
- Review existing solutions
- Facilitate the development of guidelines for interoperability
- Provide sense of what is realistically achievable
- Create deliverables

This report will go into more detail regarding the approach to interoperability used in the GWoB Parks and Recreation Pilot in Part II.

Section III: C of I Framework:

Collaborative Framework Components

The Global Framework, just discussed, describes the overall approach to intergovernmental collaboration. The C of I Framework, being introduced here, is a phased approach, which consists of three major components - the C of I Cycle, the Roadmap, and the Views. These components are described below.

For the Cycle I demonstration project, we chose Parks and Recreation as the first community of interest to develop. Why? It met individual business needs of the participating jurisdictions. Also,

certain existing resources available to participants could be adapted for use. These factors allowed the team to work through many of the collaborative issues without the need for major investment with the accompanying risk of an expensive failure. Most importantly, surveys indicated that Parks and Recreation services are of a high priority to citizens.

C of I Cycle

Results must be accurate, efficient, repeatable and timely. However, not all services and information can be provided at one time and in one place on the Internet. It takes some time to identify and offer electronic services. Therefore, it is crucial to establish an incremental life cycle, where expectations can be satisfied, and both short-term and long-term objectives can be planned and implemented. The concept of a Current Wave (the current cycle, normally one year in duration) and a Next Wave (the next cycle, but with activities that may not bear results until the next cycle) allows for results to be seen quickly without sacrificing the type of results that requires some long-term commitments. Life cycle times vary according to the complexity of the C of I.

C of I Roadmap

The Roadmap is a series of steps, activities, and processes that produce measurable results and further the maturity of a C of I. The steps are executed during a cycle designed to produce results in reasonable time increments. The Roadmap is flexible and allows for adjustments that may be necessary in individual circumstances. A

Roadmap is prepared for each cycle of each C of I. See the Appendix I for a detailed overview of the Roadmap. Here is an overview of the phases of the C of I roadmap.

1) Identify C of I - Included in the phase is the facilitation process by which C of Is are nominated. What is the scope of the C of I? Does the C of I meet a demonstrated need of citizens and other constituencies that can be best met through intergovernmental collaboration?

2) Convene C of I Participants – This phase defines the jurisdictions, and private entities that are needed to create and manage the C of I. In this phase, the internal organization of C of I comes together, with entities such as a membership group for C of I development, an outreach group for working with non-profit and private entities, a facilitation group, a technical group to interface with the solution providers to match deliverables with business needs, and an executive group to monitor progress.

3) Identify Boundaries, Barriers and Opportunities – Identify the boundaries, barriers, and opportunities that exist for this C of I. Identify potential C of I resources that can be submitted, developed, or obtained by a C of I participant. Identify the known boundaries that exist within the represented jurisdictions and barriers to

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crossing them. Determine where the business opportunities lie and use the identified boundaries, barriers, and opportunities to develop a compilation of needs and requirements.

4) Develop the C of I Charter – Perform the necessary operations to organize the roles, responsibilities, and objectives for the C of I. Document the C of I purpose, objectives, roles and responsibilities, and other necessary agreements and conditions needed to guide the remainder of this C of I cycle in a charter. Prioritize the deliverables within a C of I and establish a business case for work within the C of I. (*See a Generic C of I Charter in Appendix II and the Charter for pilot work in the Parks and Recreation C of I in Appendix III*)

5) Create Deliverables – Execute the identified projects and initiatives designed to address the barriers, boundaries, and opportunities. Short-term deliverables are much preferred.

6) Assess Progress, Determine Next Steps and Repeat the Cycle - Assess the value the evolving C of I will have to the participants and their service-chain partners by soliciting feedback from citizens and C of I stakeholders. Use this feedback to revise C of I work for the next cycle.

Views

Three views exist – the facilitator view, the business view, and the technical view. The views within each C of I correspond to the layers of the Global Framework described in Part I. As steps are executed on the Roadmap, the results must be measured in terms of the different perspectives or views. Do the results satisfy a valid need? If not, the business view is missing. Is the solution practical and workable? If not, it is missing the technical view. Can others use the solution? If not, the facilitator view is missing. It is imperative that each view be heard and considered during the process and when measuring results.

Previously in this document, a set of principles were listed and briefly explained. These principles provide a vision of how the collaboration of government services and resources should proceed. However, business, technical, and facilitation views contain certain realities (or at least perceptions) that must be considered during the collaboration process. Failure to recognize these will put initiatives at risk.

Facilitation Views

Jurisdictions Deliver Similar Information and Services – Similar service types (e.g., tax collection, health services, etc.) deliver similar information and services. Participants should recognize that legal, geographical, financial, personal, and other differences aside; a C of I's participants have more similarities than differences.

Jurisdictional Differences Affect Participation – The jurisdictional level (i.e., federal, state, local, etc.) and functional design (i.e., how each state or locality provides services in their area of responsibility) may affect participation. Business requirements with high federal control will proceed differently than those will loose oversight. Further, each state runs taxes, transportation, social services, and other governmental functions in slightly different ways. Their organizational structure and legal constraints provide barriers that cannot be overcome during the collaboration process. With that said, collaboration is more effective when parties are willing to forego some of their control.

Formal Definition of Roles and Meetings – Collaboration should exist in the absence of regularly scheduled meetings. This requires clearly defined and assigned roles to eliminate redundancy or confliction of effort, enables geographically separated participation, and fosters synergy wherever possible. However, without regularly scheduled meetings, some in the same geographic location, the effort will falter. Face-to-face meetings establish *espirit de corp*, create a shared vision, engender trust, and serve as natural review points for milestones and deliverables within a cycle.

A formal mechanism for defining roles, responsibilities and common objectives is required. When defining roles, responsibilities and

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common objectives, it should be done according to an organized and efficient process that takes into account the views of all participants. Documenting these in a charter helps add structure to collaboration.

Parties Must Come to the Table as Equals – Without equality of treatment collaboration is not possible. There is a vast difference between working together and working under the defacto control of another office or agency.

Central Coordination – Regardless of the success of each participant, some form of centralized coordination must exist, either by a federal sponsor or a standards group. Additionally, this helps the promotion process for web sites, the media, conventions, and other public forums. Note that this is central coordination, not control. Where control should exist, it already does.

The Collaboration Process is the Governance Model – a C of I will be created when various jurisdictional participants agree on a need to collaborate. Some aspects of that C of I may include federally mandated or controlled elements. However, the historic tradition of (1) identify need, (2) look for money, (3) prototype with a small group of participants, and (4) declare victory, has not been a successful model. Again, if control (i.e., a governance model) is required, it already exists, or it will be mandated (e.g., HIPAA). Collaborating only when funds are available (e.g., when a federal grant or project is identified) is not collaboration – it is prototyping and should be managed

as such. The old funding/governance model perpetuates a culture of waiting for change, instead of creating needed change.

Collaboration needs to create real change in how service is delivered to citizens, not just spend money.

A dedicated support structure authorized to focus on intergovernmental collaboration will help facilitate and leverage the resources of all jurisdictions. This dedicated support structure will help to develop infrastructure, standards, and a library of best practices for the benefit of all jurisdictions. It will help identify leaders in intergovernmental management and pool their knowledge and experience. Best practices particular to intergovernmental management will also be easily identified and shared. A dedicated support structure will facilitate communication and ensure that the needs and priorities of all parties have equal consideration. This results in increased trust and cooperation and facilitates collaboration across governments.

Business Views

Business Needs Drive Technology Solutions – Business requirements must drive the use of technology. How, when, why, and any other interrogative for usage of technology must be driven by business needs.

Freedom to Choose Initiative – Participants must be free to choose the initiatives they support. Budgetary and political realities drive choices and those realities indicate where participation is likely.

Critical Mass of Committed Participants – A collaboration initiative should proceed only when sufficient interest exists among available participants. A solution should not be sought when a problem or need does not exist for a majority of participants.

Identify All Stakeholders – All affected stakeholders must be informed when a collaboration initiative begins. Not all stakeholders may be able to participate, but they should know that something is happening that will affect them in the future.

Technology Views

Technology is not the Primary Driver for Solutions – The availability of a technology should not drive collaboration initiatives. For example, the technical possibility of digital signatures should not drive a digital signature solution to a service where it is not needed either now or in the near future. Technical capabilities should not be a solution looking for a problem. The converse is not true – business problems must look for technical solutions, and must be willing to invest in technology when necessary.

Technology can be Implemented Incrementally – Participants must recognize the value of incrementally delivering capabilities. XML standards can be valuable long before data warehousing capabilities become beneficial. Firewalls can provide security before role-based authentication is available. Technology implemented consistently and commonly among collaboration participants brings great value, even for less glamorous technology implementations.

Part I: Collaborative Framework

Technology Should Open more Doors than it Closes – Technology solutions should interact and interface using open standardized solutions. These will not lock participants into a vendor, a product, or another participant's capabilities. Collaboration should create choices, not dependency. Exceptions should be rare.

Technology Support Should Not Exceed Available Skills – Technology choices should not exceed the skills sets of those responsible for support. A clever solution in one jurisdiction may work well for them, but may exceed the capabilities of participants in other jurisdictions. This reality does not prevent the selection of advanced solutions, but it should be considered in developing the implementation strategy.

Efforts Should Not Be Duplicated if at All Possible – In creating standards, it's better to borrow than buy. Instances of competing standards within the framework are to be minimized. If an accepted XML-based standard can be used in a government service, then it should be used rather than creating an additional stove-piped language for data exchange.

Strive toward Voluntary Standards – Standards are needed among C of I participants to make systems interoperable. However, in the intergovernmental environment these standards cannot be unilaterally imposed. Standards should be selected by consensus, and be implemented incrementally to ensure they meet the requirements of all jurisdictions.

Summary:

A true Government Without Boundaries will not exist as a monolithic, integrated, seamless solution. It will exist as a pool of resources, provided by some used by more. As it matures, boundaries will be crossed, barriers will be eliminated, and opportunities will abound. The Collaborative Framework describes principles, processes, concepts, and other significant ideas. These will mature over time, as participation increases and with experience.

The Collaborative Framework offers a way to organize inter-jurisdictional efforts and achieve leverage for all of our work. This will occur while respecting each jurisdiction's freedom to participate as it sees fit.

In conclusion, jurisdictions participate in communities of interest that meet their identified business needs. The C of I Framework facilitates collaborative creation of those deliverables. The Global Framework provides a mechanism by which all communities of interest can share lessons learned and facilitation resources. In the next section, we discuss the inter-jurisdictional interoperability issues and findings from the GWOB pilot.

Part II

Inter-jurisdictional Interoperability and the GWoB Pilot

Early in the pilot project, the group decided that an interoperable approach to services was needed for seamless government. The one-stop approach to services has seen many successes in recent years, with sites such as FirstGov and the many State and Local portals allowing for navigation and interaction across multiple agencies and departments. However, in an intergovernmental environment, jurisdictions often wish to retain control and branding of the services they provide. This means that a "one-stop" portal is *a* solution rather than *the* solution.

Government Without Boundaries is not a "one-stop" portal operating across all levels of government. Rather, it is a "virtual pool" of services that can be made available from a variety of sources; whether it is an intergovernmental one-stop, a federal site, state site, local site -- or, in some cases, a private sector site. Therefore, the group concentrated on interoperability across jurisdictions so that a citizen could go to any site, local, state, or federal, and still have the opportunity to receive the same level of service. We have borrowed the term "no wrong door" to describe our vision for seamless government.

The goal of the Parks and Recreation pilot is to devise a way to move from the current fragmented environment to an interoperable environment. Multiple jurisdictions have similar information and services operating on different platforms and operating at varying levels technical maturity. This information can be structured or unstructured. Different words are often used to describe the unstructured data. Different data models with more or less the same data entities define the structured data. Jurisdictions have varying levels of technical expertise. The approach to interoperability in the pilot had to accommodate all levels of technical maturity in a way that allowed all jurisdictions to participate.

Using the Collaborative Framework in Part I of this report, C of I guidelines and deliverables are identified and defined by all participants. Existing data and applications must be allowed to remain in tact. Each jurisdiction should be able to participate at its own unique level of technical expertise. The Collaborative Framework supports this need for flexibility.

Outputs of C of I collaboration are designed to facilitate the intergovernmental sharing of information and services despite the variations in information architectures across governments. Interoperability Resources are developed within each C of I. These guidelines for representing the data in a universal format will be established. A protocol that facilitates service interactions will be identified. Participants will be asked to register the web services they provide, along with the method for accessing those services in a web services registry, which could be built upon the new Universal Description, Discovery and Integration standard (UDDI). Finally, the C of I will create an information glossary for describing that information domain. These products will become the basic building blocks for promoting interoperability between government jurisdictions. Applications demonstrating interoperability through implementation of Application Schemas using these guidelines will be developed.

Part II: Inter-jurisdictional Interoperability and the GWoB Pilot

Guidelines supporting the creation of deliverables within a C of I are standards based. The following standards were considered in the pilot: communication through the Internet, Extensible Markup Language (XML) for the representation of data; Extensible Style sheet Language Transformation (XSLT) for the transformation of XML to HTML; Single Object Access Protocol (SOAP) as the message transport protocol to facilitate the interoperability of the application; and Secure Sockets Layer Protocol (SSL) as the protocol for security.

In this document, we outline the Interoperability Resources developed by participating jurisdictions in the Parks and Recreation Pilot.

Interoperability Resources

Interoperability resources are developed within a C of I. The following were developed by the pilot C of I to create an interoperable environment within the Parks and Recreation C of I. The resources were developed around two primary applications, a calendar of events building on an application developed by the State of New Jersey, and a facilities search leveraging the search capabilities of Recreation.gov.

Repository of Shared Applications

http://www.gwob.gov/parks/P&RInterOpApps.htm

This repository contains all of the interoperable applications that were developed in the GWoB Parks and Recreation Pilot. This repository contains a link to the actual application and a description of how jurisdictions can become involved with that application. For the pilot, we have the Shared Calendar of Events and the Recreation.Gov Activity/Facility Search. The applications chosen were based on the priorities and resources of the participating jurisdictions and Parks and Recreation officials. Other applications wishing to provide interoperability within the GWoB Parks and Recreation Information Domain create Application Schemas drawing from the data entities defined in the Parks and Recreation Information Glossary, which we will discuss later in this document. A jurisdiction would want to make its parks and recreation data available to as many applications as possible.

Multi-jurisdictional Calendar of Park Events

The State of New Jersey created a shared calendar of park events that contains information from local, state, and federal parks. Ultimately this calendar will contain event information from any interested local, state, and federal park in the country, allowing an individual to obtain park event information in a given location regardless of the jurisdiction of the parks.

The calendar will include the use of Geographic Information System to provide maps to events as well as driving instructions. An enhancement being explored is the use of GIS to provide park events for all parks in a given area (e.g., 25 mile radius of the user's home), with one simple search.

Parks and Recreation Facilities Search

The service allows you to search for recreation areas by state, by recreational activity, by agency, or by map.

Information Glossary

http://www.gwob.gov/parks/P&RTaxonomy.htm

The C of I program officials from each of the participating jurisdictions within the Parks C of I identified the data entities, which would be exchanged in support of the identified Shared Applications. The entities and attributes combine to create an Information Glossary, which will grow as other interoperable Parks and Recreation applications are identified. Application Schemas will be required for each effort. Data entities used in each of those application schemas should be submitted for inclusion in this glossary. Likewise, a new application wishing to provide for interoperability within a C of I would create Application Schemas drawing from the data entities already defined in the Information Glossary.

For the Parks and Recreation pilot C of I we worked on the following data entities

Agency - The institution responsible for submitting and maintaining data related to Parks within a given jurisdiction.

Contact Sponsor - An organization, which sponsors a Park event or activity.

Event - A noteworthy happening, social occasion, or activity being held at a Park.

Facility - A physical facility located within a Park.

Location - An area maintained as a public property where facilities and grounds are made available to the community for a variety of recreational activities and events (i.e. a Park).

In the information glossary, each entity was broken down to its data attributes, concept (a real English description of what the attribute describes), and sample data that would appear in a schema. An example is below

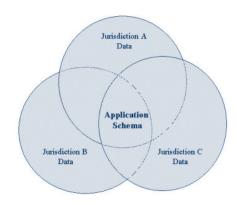| Attribute	Concept	Sample Data
Agency Name	The name of the institution responsible for submitting and maintaining the data to be exchanged	Fairfax County Park Authority

For example: To exchange contact data about the Agency managing a given Park, we developed the term "Agency Entity." It has the following attributes: a name, a physical address, an email address, and a URL. We then defined each of those attributes. Those entities and attributes identified in layman's terms in this Information Glossary became the building blocks for the Application Schemas.

Schema Repository

http://www.gwob.gov/parks/P&RAppSchemas.htm

XML schemas were developed to support the Parks and Recreation Pilot Applications. The drafts of the proposed schemas to support the applications developed were posted on the GWoB.gov Parks and Recreation site and made available for comment to all participating pilot jurisdictions for a period of time before we actually adopted that schema.

An Application Schema is an XML definition of the minimum data elements required to support participation in a shared application. The diagram below is a graphical representation of this concept. Applications wishing to provide for interoperability within the GWoB Parks and Recreation Information Domain should create Application Schemas drawing from the data entities defined in the Information Glossary. An application schema can be thought of as the intersection of the data entities that jurisdictions want to share.

For the pilot, we had four jurisdictions participating:

- Fairfax County had a Parks database.
- New Jersey had a Parks database, and a Calendar of Events Application for federal parks
- Virginia had html pages with Parks data.
- Department of Interior had a database supporting its Recreation.gov portal.

The only data from each of those distinct data sources that we were interested in exchanging were those items required by the shared applications (the Parks Calendar of Events, and Facilities Search) and defined in the Information Glossary.

Envision New Jersey, Fairfax County, Virginia, and the U.S. Department of Interior data stores as overlapping circles in the diagram above. The data entities that comprise the schema required to support the shared application is found in the intersection of those three circles.

See Appendix IV for the XML schema used in the Parks and Recreation Pilot.

Schemas consist of many components that can be combined as needed for applications, a modular approach to interoperability. Different applications in a C of I can share data elements, in separate schemas. Different C of Is may use elements and schemas developed for other purposes. For example, a calendar of events schema has uses far beyond Parks and Recreation.

Registry of Web Services

http://www.gwob.gov/parks/P&RRegistryofSvcs.htm

Once the data to be exchanged is identified and agreed upon, it is up to each jurisdiction to determine how it will provide that data to the jurisdiction hosting the shared application.

In the Parks and Recreation pilot, some jurisdictions were interested in exploring exchange of the data in XML format through the use of a web service. For example, Fairfax County created the web service (a snippet of code which generated the raw XML data) and registered it. The information portal is identified so that the hosting jurisdiction knows how to access the data. The Commonwealth of Virginia chose to create their XML data manually and registered a link to that data when it was created.

This registry contains web services produced by each jurisdiction participating in an application within the Parks and Recreation Information C of I. This web service provides data from jurisdictions participating in the pilot in a format defined in the Parks and Recreation Shared Calendar of Events Schema and Facilities Search Schema. For the pilot, the web services registry entries are URL links to Parks and Recreation data in the XML format.

The web services relative to events listed in the Parks Registry will be accessed by New Jersey, which is hosting the Shared Calendar of Events application. It is quite likely that commercial organizations would be interested in that same data. Web Services relative to the facilities search service will allow
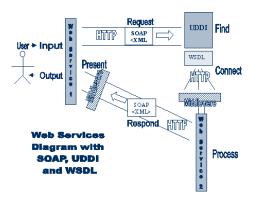
Recreation.gov to integrate state and local data into their search, and make their information available for state and local sites to search. Participants would simply be directed to this registry to access the data for use in their own unique applications.

The ultimate business goal for a jurisdiction is not for people to have to come to the jurisdiction's web site to find out about its parks. The ultimate goal is to have as many people as possible visit its parks. The more available park information is, the more people will visit the parks. This is the business reason for pursuing this project.

In the future, as XML becomes more widely used in government, jurisdictions would want to develop a web service request/response mechanism that can be securely transported via Single Object Access Protocol (SOAP) protocol for purely dynamic data exchange rather than doing it manually as was done for Cycle I. This prospect could closely resemble the UDDI standards under development.

Following the example of the pilot, New Jersey could write a web service for the Calendar of Events Application that sends a Single Object Access Protocol (SOAP) request, which executes the URL that another jurisdiction lists in the registry of web services. The registry provides a simple hypertext link to the information stored in the XML schema format. Using the dynamic approach, New Jersey's web service could execute the web service URL provided by other jurisdictions, and capture the data to be loaded into a data object

within New Jersey's own web service. That data object could then be parsed and the data stored to the Calendar of Events database housed in New Jersey.

Web Services Diagram with SOAP, UDDI and WSDL

The Web Services Diagram above illustrates the dynamic approach to web services. Following the UDDI model, WSDL (Web Services Definition Language) could be used to extract and execute all web services having "GWoB Park Events" identified as metadata. This would save developers from having to know and hard code the individual web service URL's for each of the participating jurisdictions. This is especially important since those URL's could change as often as servers change. It's also important because as the web services registry grows across services and jurisdictions, metadata will be needed to search for and identify through an exponentially increasing number of web services.

Part II: Inter-jurisdictional Interoperability and the GWoB Pilot

Guidelines for Use

http://gwob.gov/parks/P&RFacilitySearchSchemaGuide.htm

http://gwob.gov/parks/P&REventSchemaGuide.htm

Finally, "Guidelines for Use" are being developed to accompany each schema. These guidelines are an aggregation of the experiences that each jurisdiction has with implementing the schemas. Jurisdictions wishing to access other data for their services (e.g. Fairfax County wishing to query State and National Parks in their area through their portal), or wishing to make their services available to others (e.g. Fairfax wishing state and federal sites to access or query their Parks and Recreation information through their own applications), can use the various implementations of the schema to inform their efforts as they plan to integrate their data and/or applications into a shared service developed by a C of I.

The Parks and Recreation pilot Calendar of Events Application Schema definition is used by jurisdictions to provide data to a master Calendar of Events application hosted by the State of New Jersey. Each participating jurisdiction uniquely maps its existing data to that schema definition and provides a link to the XML schema containing that data in the Registry of Web Services. That same schema definition is then used by the jurisdiction hosting the application (New Jersey) to retrieve local jurisdiction data for inclusion

into its application. The processes encountered by each jurisdiction in using this schema definition to provide and/ or retrieve data are documented.

The Parks and Recreation pilot Facility Search Application Schema definition is used by jurisdictions to provide data to a master Facility Search application hosted by the U.S. Department of Interior. Each participating jurisdiction uniquely maps its existing data to that schema definition and provides a link to the XML schema containing that data in the Registry of Web Services. That same schema definition is then used by the jurisdiction hosting the application (U.S. Department of Interior) to retrieve local jurisdiction data for inclusion into its application. The processes encountered by each jurisdiction in using this schema definition to provide and/ or retrieve data are documented.

The Fairfax County Process is an example of an implementation of the schema that would appear in the Guidelines for Use. Fairfax County had an existing SQL 2000 database containing a variety of data related to Parks. It contained all items required by the Park Events Application Schema. A SQL stored procedure was created to retrieve event related data from that database as defined in that Park Events Application schema. (*See Appendix V for the detailed solution.*)

Role of the Collaborative Framework and Emerging Standards

For the pilot, interoperability resources supporting the creation of deliverables within a C of I are standards-based.

Content/information is networked from each jurisdiction into virtual, logical aggregations. Each jurisdiction maintains its own web sites and services, in their own formats. The Collaborative Framework described in Part I and Interoperability Resources in this section are designed to move jurisdictions toward a no wrong door approach for the integration of services.

In the pilot, standards such as communication through the Internet, Extensible Markup Language (XML) for the representation of data; Extensible Style Sheet Language Transformation (XSLT) for the transformation of XML to HTML; Single Object Access Protocol (SOAP) as the message transport protocol to facilitate the interoperability of the application; and Secure Socket Layer (SSL) as the protocol for security were explored. These and other tools, such as the efforts in Web Services and Universal, Description, Discovery and Integration (UDDI), combine to create a dynamic environment for shared services.

Part II: Inter-jurisdictional Interoperability and the GWoB Pilot

XML is not yet widely used among jurisdictions in government services. Therefore, integration across jurisdictions in the pilot was not entirely dynamic. Some participants were able to capture information in XML and parse it dynamically into existing applications. Others did not use XML-enabled applications and needed to manually map their information to the agreed upon schema. As noted earlier, jurisdictions currently operate on different platforms and at differing levels of technical maturity. Hence, a major goal of this project was to find a way to bring all jurisdictions along for the ride.

One item to be emphasized is the need for modularity of the XML schemas used by governments. In Cycle I, the events schema and facilities search schema shared common elements, which were reconciled across the schema. Likewise, other privately developed standards, such as GIS standards, and others could be incorporated into the government schemas. This allows for the scalability necessary to enable standards to take hold incrementally. Over time, the voluntary standards will become more widely adopted within and between C of Is, and more private sector solutions will be available for the inter-jurisdictional exchanges necessary for seamless government. Achieving seamless government through interoperability will occur on an evolutionary basis.

Part III

GWoB Cycle I Lessons-Learned

The following is a list of the lessons learned that are common to a majority of the federal, state and local participants engaged in the Government without Boundaries initiative. Lessons learned provide knowledge, and understanding is gained with experience. Both success and failure provide lessons learned. The lessons learned thus far from the Government without Boundaries initiative are dynamic in nature and will increase over time.

True intergovernmental collaboration is atypical. Establishing intergovernmental teams may be more difficult than you first realize. Because collaboration usually occurs outside of normal business responsibilities, engaging in a new intergovernmental project requires a significant investment of time 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. This is why the group developed a Collaborative Framework to help establish these communities around shared service C of Is. Moving to a collaborative partnership method of working is a big change from traditional methods. To maintain commitment and keep an intergovernmental project on track in spite of its atypical nature, a new type of leadership is required.

The make-up of participants is a key determinant of an intergovernmental initiative's success. A cross-section of jurisdictions representing different geographic locations, economies, government types, technical maturity levels and sizes is needed for a truly scalable, and inclusive solution. It is helpful but not essential to have the involvement of a state if a locality within that state is participating. Involving the federal stakeholders within an intergovernmental C of I at the outset is desirable, but can be difficult. Involvement of officials from both program and technical backgrounds is required to develop technically feasible solutions that satisfy a business need. Also, a well-rounded team of jurisdictions in terms of knowledge, skills, and abilities can determine the success or failure of the initiative. Participants should be motivated for their own reasons to collaborate.

For the pilot, we chose to work closely with a few jurisdictions within a single C of I, working through the intergovernmental issues on a smaller scale. It was assumed that scalability could still be built into the interoperability approach and collaborative framework with a limited number of participants. Although we feel that the Collaborative Framework and Interoperability Approach have validity for other jurisdictions and C of Is, and the pilot participants represented various levels of technical maturity and resource availability, it can be argued that the small size and geographic concentration of the group detracts from the overall effectiveness of the Framework. One of the reasons for the minimal pilot membership was the nature of collaboration we used: face-to-face. The means of facilitating collaboration plays a major role in determining which jurisdictions can participate in a project. While many jurisdictions might have been interested and willing to work on such an effort, the cost of participating in face-to-face meetings and the lack of web tools available for collaboration limited their

Part III: GWoB Cycle I Lessons-Learned

participation. The purpose of the GWoB portal and Parks and Recreation C of I portal were to demonstrate the use of a portal as a collaboration point for jurisdictions.

Managing intergovernmental teams by consensus is difficult, but not impossible. Managing by consensus, as was done in this project, always presents challenges, and, inevitably, most parties lose some control. An increased understanding of the complexities and nuances of partnering across governments must be developed to increase trust. There is a need for sensitivity to team dynamics across political and jurisdictional lines. Understanding the motivation of why each partner is involved is important. Building alliances and relationships is crucial in moving the teams to a common goal. To that end, good communication among team members and other stakeholders is essential and it is more difficult because of geographic dispersion and the different cultures in each government. Understanding the skills, resources and an experience each partner brings to the project is key to leveraging them into the project. There is no need to reinvent the wheel. Developing a shared vision and defining project parameters must be done early in the process to provide a basis for successful collaboration. Clearly defined roles and responsibilities of participating organizations and individuals are important to allow participants to proceed when they are "back home." Pick a project that has value now, not just in the long run. Project managers must provide

active facilitation to support the team and establish the lines of communication among participants. Funding will always be an issue in managing such efforts. Define all assumptions and constantly validate them.

A GWoB type initiative is an ongoing, ever-changing process. An intergovernmental team needs to be flexible and open to change. Be prepared to shift directions or discontinue the project if factors change. Expect that the players will change and may change extensively as the political winds of a jurisdiction changes. Politics can sometimes get in the way. Anticipate change and maintain momentum. At the end of the pilot, state administrations in Virginia and New Jersey changed as a result of statewide elections. This led to new participants and in some cases, necessitated starting from scratch to re-establish support for the effort.

A GWoB-like project must be marketed and communicated. An intergovernmental project can be the best in the world, but if other jurisdictions do not know that it exists, what it is, how to participate, or how to use its deliverables, then it will not be a success. Start thinking early about how to market an intergovernmental initiative. Seize and create opportunities to give speeches and demonstrations, promote interest in what is being done. An outreach strategy should be developed. Be aware of other related initiatives. Educating project members is important to enable them to help the project. In

order to market the project and its deliverables, documentation of the entire process is a priority. Keeping track of the lessons learned is fundamental to the long-term success of the project.

Technology is the engine, not the driver, for seamless government. Although there are no silver-bullets, XML-based solutions and the adoption of web service standards show great promise in helping jurisdictions interoperate. Jurisdictions should strive toward standards to facilitate interoperability. These standards should be collaboratively developed and voluntarily adopted. A jurisdiction should borrow what it can to reduce redundant efforts. Building on privately developed open standards is one example of borrowing to achieve leverage. Take a modular approach with project deliverables - start small and make it scalable and interoperable. A technical solution should not tie jurisdictions to a particular vendor in order to interoperate.

We have more in common than we think. When working on intergovernmental efforts, it's important to recognize that all levels of government are grappling with similar issues relating to web-based services. All levels of government have the common goal of wanting to provide the highest level of service for the customer. Also, we generally serve the same constituents, with similar services. Because of these commonalities, all jurisdictions see the need for improved collaboration.

Part IV

Recommendations: Next Steps to Seamless Government

GWoBs' collaborative framework and interoperability guidelines should be integrated into many of the 24 Federal e-gov Task Force initiatives as necessary. In particular, Recreation One Stop is one of 24 initiatives selected by the Office of Management and Budget to accelerate federal government improvements in effectiveness, efficiency, and customer service. The purpose of Recreation One Stop is to build a user-friendly, web-based, one-stop recreation resource for citizens, offering a single point of access to recreational opportunities nationwide. This initiative plans to build on the GWOB pilot to utilize effective database management to design and implement capabilities applying emerging interoperability standards.

The project also plans to utilize the National Atlas of the United States where 20 federal agencies have partnered to offer mapping services for over 400 federal data layers. The end results will provide a comprehensive "national" source for recreation information (parks, museums, forests, lakes, monuments, etc.); linkages to transaction services for reservations, passes, maps, and related services; data standards for federal, state, and local partners; and associated services with private and non-profit sectors.

Complete the Parks and Recreation pilot demonstration project and make it available on the GWoB website at: http://www.gwob.gov.

On May 23, 2002, the GWoB team demonstrated of an enhanced Recreation.gov application (GWoB Cycle I, Parks and Recreation pilot demonstration) that successfully included the Commonwealth of Virginia's Parks facilities data and the County of Fairfax's Parks facilities data in Recreation.gov facilities search routine. This integration of information and services from multiple levels of government is an example of the emerging seamless citizen-centric government of the future.

All the GWoB members agreed that the GWoB collaborative framework and no wrong door approach should be advocated to other intergovernmental initiatives. The majority of the GWoB members also expressed interest in identifying and pursing another GWoB demonstration initiative but one that is transactional in nature and has business value to its intergovernmental partners.

GWoB will continue to fulfill its role in helping to define the business and facilitation needs for fostering intergovernmental collaboration. Core GWoB members will be integrally involved in all of those standards groups so that GWoB is a conduit to states and local governments ensuring that they have input into those emerging standards.

GWoB is the facilitation mechanism to federal, states and local governments for supporting the distributed standards based initiatives that already exist or will emerge. The standards initiatives that exist and or that we see emerging are: XML.gov for XML Schemas and Taxonomies, a Registry of Web Services for the government services, and an application repository for citizens through FirstGov.

GWoB will provide its web site as a sort of "Intranet for Intergovernmental Collaboration" that aggregate all of the emerging standards and lessons learned from the e-gov initiatives, and providing a source of intergovernmental best practices.

Acknowledgments

This report is based on the experiences, findings, and recommendations of the GWoB members and participants.

We would like to take this opportunity to acknowledge the contributions of all the participants and the leaders in intergovernmental collaboration and management of GWoB. We would also like to recognize the following GWoB Team members who co-authored significant portions of this report: Ms. Lynn Hadden, *Inter-jurisdictional Interoperability and the GWoB Pilot, and Mr. Randall Stephens, GWoB Collaborative Framework.*

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Acknowledgments

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Special thanks to the following GWoB Core team members:

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GWoB partners:
- Federal CIO Council
- FirstGov
- GSA's Office of Electronic Government
- National Association of Counties
- NASCIO
- Partnership for Intergovernmental Innovation
- University of Maryland
- XML.Gov Working Group

Appendix I

The Community of Interest (C of I) Roadmap

The Collaborative Framework (CF) is a roadmap, or a sequence of repeatable steps to be taken. The templates below provide the structure for how each cycle phase and step will be described.

Cycle Phase:

Cycle Name – The name commonly associated with the cycle

High-Level Activity – The verb-oriented name associated with the cycle

Description and Comments – A description and any additional comments about the cycle

C of I Variations – Any variations or comments associated with any C of I type variations that should be recognized for this cycle

Cycle Activity:

Truths – Guiding principles and realities associated with the activity

Deliverable(s) – The deliverable or resource that should exist as a by-product of this activity

Description and Comments – A description and any additional comments about the activity

C of I Views – Brief description of how each view participates for each activity. The three views are business, technical, and facilitation.

Phase A – Identify C of I

Cycle Name – Definition

High-Level Activity – Identify C of I

Description and Comments – The initial definition of the C of I and why it should exist.

C of I Variations – None.

Activity A.1. – Submit/Nominate C of I

Truth – C of Is should exist because of a real need by a constituent group or client base.

Deliverable(s) – Potential C of I participant or stakeholder identifies an opportunity for collaboration.

Description and Comments – From one or more potential C of I participants, collect suggestions and ideas for a C of I. The most likely submitter would be a potential champion who could also contribute a C of I Resource. Another likely source would be two or more service-chain providers who need or want to implement a C of I Resource. Citizen input on suggested deliverables should be sought when possible and practical.

C of I Views:

- Business – The jurisdictional participant acts on behalf of the citizen or the provider of services to the citizen.
- Technical – Technical input may be required to clarify any limitations or constraints on a C of I.
- Facilitation – The facilitators' act as a receiver of the submissions by potential C of I champions.

Activity A.2. – Clarify Scope

Truth – The C of I should have a clearly defined and easy to understand central focus.

Deliverable(s) – The C of I participants define the scope of the initiative or initiatives to be explored by the C of I.

Description and Comments – From the pool of similar C of I nominations, select one or more to help clarify the scope of a C of I. This definition is used only to help selected participants and should be clear enough to help potential participants determine their level of involvement.

C of I Views:

- Business – Review and approve scope definitions submitted by the facilitators.
- Technical – Technical input may be required to clarify any limitations or constraints on a C of I.
- Facilitation – The facilitators are the control point and will be responsible for generating and

refining the review and approval cycles needed to obtain agreement from preliminary champions concerning the scope definition.

Activity A.3. – Establish Needs and Requirements

Truths – The C of I must satisfy a clear need

Deliverable(s) – Preliminary C of I Definition Document

Description and Comments – Normally, the initial champion will bring either a resource or a need to the effort. The initial C of I requirement(s) provide the necessary focus to help select other participants.

C of I Views:

- Business – Submit needs and requirements based on the preliminary definition and scope of the C of I.
- Technical – Technical input may be required to clarify any limitations or constraints on a C of I.
- Facilitation – The facilitators document submitted needs and requirements and provide tracking and version control for those requirements.

Phase B – Assemble C of I Participants

- Cycle Name – Organization
- High-Level Activity – Assemble C of I Participants
- Description and Comments – Identify and assemble all potential C of I participants at all levels of participation.
- C of I Variations – None.

Activity B.1. – Identify Jurisdictional Participants

Truths – Every C of I must contribute to the elimination of boundaries and barriers within every governmental jurisdiction.

Deliverable(s) – Governmental Participants List

Description and Comments – Using the preliminary C of I Definition Document, identify a group of jurisdictional participants for the C of I. (Note: It is not important at this time to define and identify the level of involvement by each participant.)

C of I Views:

- Business – The business view will know the various governmental jurisdictions that should be associated with this C of I.
- Technical – Preliminary contact should be established between the technical implementers of the jurisdictions. They must eventually estimate what is feasible for each cycle.
- Facilitation – The facilitators should make the appropriate contacts and solicit as much participation as possible from a critical mass of jurisdictional partners.

Activity B.2. – Establish C of I Executive Board (CEB)

Truths – C of I progress should be monitored by participants with the resources to develop and the responsibility to provide the services associated with the C of I.

Deliverable(s) – CEB nominations

Description and Comments – From the initial group of jurisdictional participants, create an executive board for the C of I. This group approves priorities, establishes timelines, and provides resources to accomplish the various tasks and plans.

C of I Views:

- Business – The business participants for the CEB should be from the federal level, or from a prominent state level jurisdiction.
- Technical – The technical participants should be minimal for this group.
- Facilitation – The facilitators should include as many key players as possible without having too many to be unwieldy and as much state and local jurisdictional participation as possible.

Activity B.3. – Establish C of I Development Team (CDT)

Truths – Business requirements must drive technical solutions, and they must work as a team.

Deliverable(s) – CDT nominations

Description and Comments – The CEB will nominate and provide business and technical resources necessary to implement the C of I plans. This group will interface with each other, and the other C of I groups as necessary.

C of I Views:

- Business – The business participants for the CDT should be closely matched to the level of participation as the technical group. Additionally, jurisdictional participation should not be greater than the level of implementation supported.
- Technical – The technical participants for this group should be evenly matched or greater than the business group. As much as possible, the technical participants should be able to contribute in areas beyond their own contribution area.
- Facilitation – The facilitator participation should be light here. Some form of mentoring (from a lessons learned perspective) should be available, as well as enough participation to be able to provide knowledge transfer to other C of I efforts. Additionally, it should be enough to provide support as necessary.

Activity B.4. – Identify Commercial/Professional Participants

Truths – Non-governmental groups (e.g., commercial, professional, non-profits) must be used when possible, and must participate in a supporting role to the government service-chain.

Deliverable(s) – Non-Governmental Participation List

Description and Comments – The CEB will identify the commercial and professional groups that should be represented in the various C of I efforts. The nature of the C of I determines the type, number, and degree of participation.

C of I Views:

Business – The business participants will know the important professional bodies and commercial organizations that would be useful to the effort.

Technical – The technical participants will know of any technical initiatives or technologies that may aid the effort.

Facilitation – The primary role of the facilitators here would be to exert enough pressure on the key groups as identified by the business and technical views.

Activity B.5. – Identify Existing Resources from Submitting/Nominating Source(s)

Truths – Participants should be willing to invest in the process

Deliverable(s) – C of I Resource Commitment Agreements, C of I Organizational Structure

Description and Comments – From the initial pool of potential participants, identify the resources that will be available for the effort.

C of I Views:

- Business – From the initial pool of business participants, identify the resources that will be available for the effort.

- Technical – From the initial pool of technical participants, identify the resources that will be available for the effort.

- Facilitation – Rather light in this area, unless funding can be used for a significant solution.

Phase C – Identify Boundaries, Barriers, and Opportunities

- Cycle Name – Organization
- High-Level Activity – Identify Boundaries, Barriers, and Opportunities
- Description and Comments – Identify the boundaries, barriers, and opportunities that exist for this C of I.
- C of I Variations – None.

Activity C.1. – Inventory Potential C of I Resources

Truths – Reuse should be considered before development

Deliverable(s) – Resource Inventory

Description and Comments – Identify potential C of I resources that can be submitted, developed, or obtained by a C of I participant.

C of I Views:

- Business – Once additional business partners join the process, their potential C of I resources should be considered in the pool of candidates.

- Technical – After additional technical partners join the process, an evaluation of skill sets and tools should occur.

- Facilitation – Light in this area.

Activity C.2. – Identify Jurisdictional Boundaries to Cross

Truths – C of I efforts must focus on ways to eliminate existing boundaries that traditionally isolate jurisdictions.

Deliverable(s) – Jurisdictional Boundary List

Description and Comments – Identify the known boundaries that exist within the represented jurisdictions. Other jurisdictions, commercial partners, or professional bodies can cross these boundaries. Additionally, they can be business and/or technical in nature.

C of I Views:

- Business – The business partners should identify the current and longstanding boundaries that exist to separate, constrain, and isolate them from their peers and jurisdictional partners.

- Technical – The technical partners should identify the technical boundaries that keep their applications and solutions from expanding their usage beyond their current client base and from potential users.

- Facilitation – This is another area where mentoring and lessons learned from other C of I efforts could be beneficial.

Activity C.3. – Identify Barriers to Eliminate

Truths – C of I efforts must focus on ways to remove barriers that impede or hinder progress.

Deliverable(s) – Initiative Barrier List

Description and Comments – Identify the known business, technical, or political barriers that could prevent or hinder the crossing of jurisdictional boundaries. The distinction between boundaries and barriers is this – a boundary is a traditional hindrance that prevents service delivery between jurisdictions; a barrier is a reality or perception that prevents or hinders movement toward crossing that boundary. (Note: there is no value in eliminating a barrier to a boundary no one is trying to cross.)

C of I Views:

- Business – The business partners should identify the business barriers that exist to prevent crossing the identified boundaries.

- Technical – The technical partners should identify the technical barriers that exist to prevent crossing the identified boundaries.

- Facilitation – This is another area where mentoring and lessons learned from other C of I efforts could be beneficial.

Activity C.4. – Identify Opportunities

Truths – Vision must be encouraged and nurtured

Deliverable(s) – Opportunity List

Appendix I:
The Community of Interest (C of I) Roadmap

Description and Comments – Identify the technical or business opportunities a participant has available or will make available during the C of I cycle. This includes the facilitation group that may have a resource available from another C of I. It may enable or facilitate a deliverable in either the Current Wave or the Next Wave.

 C of I Views:

- Business – The business partners should identify targets of opportunities where a solution could provide a significant benefit. The opportunity should be a resource they could provide or agree to validate.

- Technical – The technical partners should identify targets of opportunities where a solution could provide a significant benefit. The opportunity should be a resource they could provide or agree to test.

- Facilitation – The facilitation group may have a resource available from another C of I. It may enable or facilitate a deliverable in either the Current Wave or the Next Wave.

Activity C.5. – Develop Goals-Objectives-Strategies (GOS) Model

Truths – Clearly defined goals must drive all efforts, not politics or fund availability.

Deliverable(s) – GOS Model

Description and Comments – The identified boundaries, barriers, and opportunities represent a compilation of needs and requirements. These items should be consolidated and molded into a GOS model that clearly communicates the direction and motivation of the C of I.

 C of I Views:

- Business – N/A

- Technical – N/A

- Facilitation – N/A

Phase D – Establish Charter

- Cycle Name – Organization

- High-Level Activity – Establish Charter

- Description and Comments – Perform the necessary operations to organize the roles, responsibilities, and objectives for the C of I.

- C of I Variations – None.

Activity D.1. – Generate C of I Charter

Truths – C of I definition, goals, and responsibilities must be publicly known.

Deliverable(s) – C of I Charter Author designation

Description and Comments – Document C of I purpose, objectives, roles and responsibilities, and other necessary agreements and conditions needed to guide the remainder of this C of I cycle.

 C of I Views:

- Business – The business partners should provide additional clarity to the C of I definition, negotiate roles and responsibilities, and decide other issues of relevance to the C of I.

- Technical – The technical partners should provide a tempering voice of what is actually possible within the objectives and constraints of the C of I effort.

- Facilitation – This is another area where mentoring and lessons learned from other C of I efforts could be beneficial.

Activity D.2. – Prioritize Solution Targets

Truths – Efforts must be focused and targeted.

Deliverable(s) – Solution Target Prioritization List (part of C of I Charter)

Description and Comments – The C of I Development Team (CDT) matches potential solutions to identified barriers, boundaries, and opportunities. Once paired, these Solution Targets are prioritized for implementation. Current Wave deliverables must be available to the C of I during this C of I cycle, while Next Wave deliverables must have implementation plans developed during this C of I cycle.

 C of I Views:

- Business – The business partners should match the barriers, boundaries, and opportunities (BBO) lists with the candidate C of I resources. Unmatched items from either

side indicate a Next Wave deliverable (an unmatched BBO) or an answer looking for a problem (an unmatched candidate resource). The matched pairs should be labeled Solution Targets and prioritized according to urgency, value, and viability criteria.

- Technical – The technical partners should provide input to the prioritization effort in the areas of level of effort and time estimates, technical possibilities, and long-term operational requirements.

- Facilitation – The facilitators can aid the prioritization effort with regard to similar efforts in other C of Is (i.e., wait), problem areas (i.e., Next Wave), and quick wins (i.e., Current Wave).

Activity D.3. – Document Business Case

Truths – A firm business case must exist for every C of I initiative.

Deliverable(s) – Business Case (part of C of I Charter)

Description and Comments – A business case is documented for the Current Wave and Next Wave deliverables.

C of I Views:

- Business – The business partners should establish a business case for the Solution Targets selected.

- Technical – The technical partners can aid the cost estimations for work provided or avoided.

- Facilitation – This is another area where mentoring and lessons learned from other C of I efforts could be beneficial.

Activity D.4. – Create C of I Charter

Truths – C of I definition, goals, and responsibilities must be publicly known.

Deliverable(s) – C of I Charter

Description and Comments – The C of I Charter provides a concise description of the objectives, roles and responsibilities, initiatives, etc., for the Current Wave and Next Wave. A key part of the charter would be rules of engagement (including how shifts in power/resources from one partner may affect the effort), exit strategies, and proprietary issues (source code, licenses, etc.).

C of I Views:

- Business – N/A
- Technical – N/A
- Facilitation – N/A

Activity D.5. – Create Operational Support Plan

Truths – Every C of I initiative must survive initial implementation.

Deliverable(s) – C of I Resource Operational Support Plan

Description and Comments – The operational support plan includes all the life cycle phases (i.e., planning, delivery, implementation, and operation of the support plan). Some of

the Current Wave deliverables will require some centralized management of components and resources. The same will be true of the development of the Next Wave deliverables. This process insures those efforts will occur. Every developed C of I resource must continue to provide value and support beyond the initial implementation period. This plan is a document that goes into effect after the original development and implementation milestones are accomplished.

C of I Views:

- Business – The business partners should identify and plan for the long-term support of any delivered C of I resources within a C of I management context.

- Technical – The technical partners can provide input for environmental requirements, personnel skill sets, operational costs, and other technical costs associated with long-term support of any delivered C of I resources.

- Facilitation – The facilitators may provide a significant portion of the resources for management of the C of I resources. Their input helps temper the type of support pursued.

Phase E – Create Deliverables

- Cycle Name – Implementation
- High-Level Activity – Create Deliverables

- Description and Comments – Execute the identified projects and initiatives designed to address the barriers, boundaries, and opportunities.

- C of I Variations – None.

Activity E.1. – Implement Current Wave Deliverables

Truths – Tangible results must be seen with frequency and within short time frames.

Deliverable(s) – C of I Resources

Description and Comments – Positive momentum must be established for the C of I. Something of substance must be delivered in a predetermined cycle, and be available for clients and constituents.

C of I Views:

- Business – The business partners should provide enough personnel resources to aid the development and validate the result of implemented Solution Targets.

- Technical – The technical partners should provide enough personnel and technical resources to aid the development of Solution Targets.

- Facilitation – This is another area where mentoring and lessons learned from other C of I efforts could be beneficial.

Activity E.2. – Plan Next Wave Deliverables

Truths – Planning never ends.

Deliverable(s) – Next Wave Implementation Plan

Description and Comments – For initiatives that require longer than the Current Wave cycle to deliver, plans should be developed to track progress and build enthusiasm for those initiatives.

C of I Views:

- Business – Depending on the type of Next Wave deliverables identified, the business partners may or may not have tasks to perform for the Next Wave.

- Technical – Depending on the type of Next Wave deliverables identified, the technical partners may or may not have tasks to perform for the Next Wave.

- Facilitation – This is another area where mentoring and lessons learned from other C of I efforts could be beneficial.

Activity E.3. – Begin Next Wave Initiatives

Truths – The process is repeated.

Deliverable(s) – C of I Infrastructure and Next Wave Recommendations

Description and Comments – This process begins the work for the long-range initiatives identified by the C of I Executive Board.

C of I Views:

- Business – Depending on the type of Next Wave deliverables identified, the business partners may or may not have tasks to perform for the Next Wave.

- Technical – Depending on the type of Next Wave deliverables identified, the technical partners may or may not have tasks to perform for the Next Wave.

- Facilitation – This is another area where mentoring and lessons learned from other C of I efforts could be beneficial.

Activity E.4. – Implement Operational Support Plan

Truths – Delivered resources must survive initial implementation period.

Deliverable(s) – Support Agreements

Description and Comments – This process executes the Operational Support Plan so that completed deliverables have the necessary support for clients and constituents.

C of I Views:

- Business – The degree of involvement by business partners is determined by the nature of the support function and the CEB.

- Technical – The degree of involvement by technical partners is determined by the nature of the support function and the CEB.

Appendix I: The Community of Interest (C of I) Roadmap

- Facilitation – The facilitators may provide a significant portion of the resources for management of the C of I resources.

Phase F – Assess C of I Maturity

- Cycle Name – Publication
- High-Level Activity – Assess C of I Maturity
- Description and Comments – Using the inventory of resources currently existing for the C of I, assess its value to the participants and their service-chain partners.
- C of I Variations – None

Activity F.1. – Solicit Feedback and Assess Progress

Truths – Progress and resources must meet real business needs of participants

Deliverable(s) – Publication Survey and Analysis

Description and Comments – An effort is necessary to determine the effectiveness of the Current Wave efforts.

C of I Views:

- Business – The business partners should develop a survey to evaluate the effectiveness of the deliverables, both for peers and citizens. Afterwards, they should perform an objective analysis to better inform the facilitators (for other C of Is) and their Next Wave, if one is to occur.

- Technical – The technical partners should provide whatever assistance is needed to the business group.
- Facilitation – The facilitators' participation is key to understand the costs and benefits of each effort.

Activity F.2. – Develop C of I Distribution Plan

Deliverable(s) – C of I Distribution Plan

Description and Comments – Once the Current Wave deliverables become available, it will be necessary to package them in a way that makes them accessible to the jurisdictional clients and the citizen constituents they serve.

C of I Views:

- Business – The business partners know the best way to communicate with their peers and citizens and are critical to this effort.
- Technical – The technical partners should perform any remaining tasks to make the deliverables acceptable and accessible to expansion of the user base.
- Facilitation – This is another area where mentoring and lessons learned from other C of I efforts could be beneficial.

Activity F.3. – Determine Next Steps

Truths – The C of I must evolve and mature.

Deliverable(s) – Schedule for Next Cycle

Description and Comments – Determine the next steps of maturity for the C of I. They should involve an expansion of scope and/or identification of additional capabilities to include within the C of I. It is possible that the C of I could fragment into multiple C of Is, be assimilated into other C of Is, or terminated.

C of I Views:

- Business – Using the feedback and analysis of previous steps, the business partners should validate the direction of the Next Wave efforts, and schedule the beginning of the next C of I cycle, assuming the C of I is valid and should mature further.
- Technical – The technical partners should make recommendations for how known resources and technical trends should influence the direction for this C of I.
- Facilitation – This is another area where mentoring and lessons learned from other C of I efforts could be beneficial.

Appendix II

The GWoB Charter Template

(This document is a template for the basic elements of a charter for a Government Without Boundaries (GWoB) C of I. Modifications to the structure of the template should be made in coordination with a GWoB facilitator.)

Purpose:

This paragraph should be a single paragraph description of the purpose of the charter. It should contain an additional definition of the C of I. The purpose can be broad and general, or narrow and specific, but the objectives should be derivable from this section.

Objectives:

This section should be short, one or two line statements of objectives. They should be explicitly stated or implicitly inferred in the purpose. Each objective should have one or more deliverables that can satisfy all or part of the objective (implying that no objective should be stated that the schedule cannot accommodate in the Current Wave or the Next Wave timeline.) The objectives are barriers, boundaries, or opportunities, and are defined as follows:

Boundaries – A boundary is a real or perceived gulf that exists between what service or resource is to be provided, and the recipient (normally a citizen) of that service or resource. Boundaries are usually lack of education or awareness. A boundary can also exist between two resources.

Barrier – A barrier is a real or perceived hindrance that prevents a service or resource from being provided to the recipient.

Opportunity – An opportunity is the capability to bridge a gulf or connect existing resources to improve the quality and/or availability of available resources. It can be the capability to eliminate or bypass a known barrier.

(Note – it is not important to classify the objectives as one of the three types.)

Schedule:

The schedule should have two primary sections – the Current Wave or the Next Wave. Ideally, both should last approximately twelve months, with a three-month plus or minus variance maximum. Great effort should be made to establish a milestone in each calendar quarter to provide a deliverable or an interim deliverable. Finally, a statement about meeting frequency, location, and participants should exist in this section.

Appendix II: The GWoB Charter Template

Deliverables:

A deliverable will be a C of I resource to be provided to C of I members. They must at least partially satisfy one or more objectives. A deliverable is a:

- Service, either automated (e.g., a web applet) or manual (with documented procedures)
- Information, either structured or unstructured
- Dynamic or static information
- Bridge Applications that link or facilitates interoperability between two or more resources

Each deliverable should be documented in the following fashion:

Name – A short name descriptive enough so that C of I participants with functional knowledge will easily recognize the resource.

Business Description – A brief description of the resource from a business perspective.

Functional/business stakeholders should be able to understand the value of the resource from the description.

Technical Description – A brief description of the technical environment that will make this resource available. Technical stakeholders should be able to discern the potential usage of the resource from the description.

C of I Business Case – A description of why this resource is important, and the value it adds to the C of I. It can describe a simple cost-savings model, an improvement in productivity, added value to the citizens, or some other "soft" justification. The case should be strong enough that other C of I participants understand the value and worthiness of the effort.

Stakeholders:

This section provides a list of the stakeholders and a general statement describing their level of involvement. The description should be broad enough to match the roles and responsibilities section that follows this section. There are several classifications of members. They are as follows:

Governmental Jurisdictions:

Federal

State

Locality (e.g., town, county, city, municipality, parish, etc.)

Super localities – normally a metropolitan area consisting of multiple towns and counties, or two or more localities that have agreed to form a distinct identity (e.g., a town and county, a college and city, or multiple localities along a river or with a specific characteristic, such as a historic trail.)

Regions – subdivisions of a state, or groupings of multiple states.

Professional and Trade Bodies and Associations:

Professional bodies like a park rangers association or a doctors association.

Non-profit advisory boards.

Advocacy groups representing a segment of the citizenry with interest in the C of I

Commercial Organizations:

Commercial entities representing a consortium of private interests

Vendors

Committees:

Based on the objectives, deliverables, and stakeholders' interest, a number of committees within the C of I will be necessary. Normally, a committee is needed whenever two or more stakeholders are responsible for the delivery of a C of I resource. The stakeholders will determine membership.

(Note: Each C of I will have one or more facilitators available from the GWoB group to aid in whatever areas necessary. They will not necessarily be voting members, unless financial or personnel resources are obligated.)

Roles and Responsibilities:

This section will list the actions and processes that must be performed to facilitate the delivery of a C of I resource. Each action must address three areas:

Obligations – defines the behavior that is required to produce the deliverables.

Permissions – defines the behavior that is allowed to occur.

Prohibitions – defines the behavior that must not occur.

The language provide in these definitions comes from the software architecture field. In the context of GWoB, they mean the following:

Obligations – defines what a stakeholder has committed resources to provide.

Permissions – defines what a stakeholder is allowed to do. GWoB is not in a position to "give permission" to a participating stakeholder. This "permission" simply documents an activity a stakeholder is considering, or will do (for their own reasons). The purpose of this responsibility is to let other stakeholders know what potential "lessons learned" or "best practices" may be available to them at some point later in the process and to reduce duplication of effort.

Prohibitions – defines the behavior that must not occur. GWoB is not in a position to restrict or prohibit the actions of a participating stakeholder. This "prohibition" simply documents efforts that should not be undertaken, usually for reasons of known "lessons learned" or "best practices", or because another stakeholder or C of I is performing a similar task.

(Note: Facilitators serve in two capacities. The first capacity is to assist in the delivery of resources as necessary. Their role should be indicated for each deliverable. The second capacity is the general support of the C of I. The nature of that support should be documented last in this section.

Appendix III

The Government Without Boundaries Parks and Recreation Interoperability Subcommittee Pilot Charter

Purpose:

The purpose of the Parks and Recreation pilot is to develop and assist in the implementation of core guidelines of interoperability for Parks and Recreation services and information with the ultimate goal of creating a seamless information architecture across all levels of government.

Objectives:

- Evaluate available tools and technologies to facilitate interoperability between government web sites and web enabled systems, with a focus on parks and recreation sites.
- Create standards to facilitate interoperability between parks and recreation sites and web enabled systems (e.g. XML schema, Taxonomy, data elements)
- Create a parks registry mechanism as a means for aggregating and describing the virtual pool of data that is available from all levels of government
- Create a means for integrating guidelines and the information and services they define into citizens' centric services relevant to Parks and Recreation.
- Make standards and tools developed by the group available to the larger government and parks communities for voluntary acceptance and further implementation.

For more information, refer to the "Collaborative Framework."

Membership - The following groups are eligible to participate in the Project:

- State, Local and Federal Government IT officials with interest in intergovernmental management and interoperability
- State, Local and Federal Parks Officials
- Technology Associations
- Parks Associations

New government members and parks associations are asked to sign a "Letter of Intent" pledging resources and staff to the project.

Each participating jurisdiction must provide at least two members to the subcommittee: one technical official, and one parks and recreation official.

The invitation is open to anyone that meets the eligibility criteria. However, if the number of members becomes too large to manage, the Chair, assisted by the GWoB Advisory Board, will determine which government and private partners will be selected to participate.

Appendix III: The GWoB Parks and Recreation Interoperability Subcommittee

It is foreseeable that private sector technologists will be needed to assist in developing the interoperability schemas and tools. At that time, Technology Associations and Companies will be required to submit a proposal outlining their participation in the project, based on the "Announcement for Partners" (forthcoming).

Co-Chairs:

Lynn Hadden, Senior Web Architect, Fairfax County

Keith Stewart, National Business Center, U.S. Department of Interior

Responsibilities:

- Monitor progress toward stated objectives
- Provide strategic direction
- Identify potential participants
- Invite and approve members
- Evaluate participation proposals from technology associations and companies
- Publicize efforts to relevant constituents
- * GSA will support the Chair in setting up meetings and establishing contacts will prospective members

C of I Executive Board (CEB):

An executive board for the Parks and Recreation pilot is formed from the initial C of I of jurisdictional participants. This group approves priorities, establishes timelines, and provides resources to accomplish the various tasks and plans.

C of I Development Team:

The CEB will nominate and provide business and technical resources necessary to implement the C of I plans. This group will interface with each other, private sector and profession groups, and the other C of I groups as necessary.

Within the Parks and Recreation pilot subcommittee, will be two advisory groups:

GWoB Advisory Group:

James Mackison, U.S. General Services Administration (GSA)

John Clark, U.S. GSA

Janice Akers, Commonwealth of Virginia

Greg Lambard, State of New Jersey

Greg Scott, Fairfax County Virginia

Midori Morgan Gaide, STARWS Project

Officials to be determined

GWoB Advisory Group Responsibilities;

- Assist Chairs in coordinating objectives and activities with those of the overall Government Without Boundaries Project.
- Assist Chairs in all responsibilities as needed

Technical Advisory Group:

A technical advisory group will be needed to guide the group in the technical development of interoperability tools and intergovernmental services. The group could eventually consist of private sector technology companies.

Technical Advisory Group Responsibilities:

- Educate the larger subcommittee about technical solutions to meet objectives
- Assist entities outside of the subcommittee in implementation of standards and tools developed by the group.
- Assist the overall Government Without Boundaries Program in the development of a Proposed Information Architecture for Seamless Government

Duration:

The subcommittee will exist through the completion of core interoperability standards for web enabled park and recreation information and services, and a pilot that incorporates application specific interoperability standards into a shared application in a way that demonstrates the proposed information architecture for seamless government.

Meetings:

To be determined.

Parks and Recreation Pilot Application Schemas

Facilities Search Schema

```xml
<?xml version="1.0" ?>
- <xsd:Schema xmlns:xsd="http://www.w3.org/2001/XMLSchema">
- <xsd:element name="Facilities">
- <xsd:complexType>
- <xsd:element name="Facility">
- <xsd:complexType>
- <xsd:sequence>
  <xsd:element name="AgencyName" type="xsd:string" minOccurs="0" />
  <xsd:element name="AgencyURL" type="xsd:string" minOccurs="0" />
  <xsd:element name="ImageURL" type="xsd:string" minOccurs="0" />
  <xsd:element name="JurisdictionType" type="xsd:string" minOccurs="0" />
  <xsd:element name="JurisdictionName" type="xsd:string" minOccurs="0" />
  <xsd:element name="FacilityName" type="xsd:string" minOccurs="0" />
  <xsd:element name="FacilityType" type="xsd:string" minOccurs="0" />
  <xsd:element name="Latitude" type="xsd:string" minOccurs="0" />
  <xsd:element name="Longitude" type="xsd:string" minOccurs="0" />
  <xsd:element name="StreetAddress" type="xsd:string" minOccurs="0" />
  <xsd:element name="City" type="xsd:string" minOccurs="0" />
  <xsd:element name="State_Territory_Provence" type="xsd:string"
  minOccurs="0" />
  <xsd:element name="PostalCode" type="xsd:string" minOccurs="0" />
  <xsd:element name="County" type="xsd:string" minOccurs="0" />
  <xsd:element name="Country" type="xsd:string" minOccurs="0" />
  <xsd:element name="LocationName" type="xsd:string" minOccurs="0" />
  <xsd:element name="LocationType" type="xsd:string" />
  <xsd:element name="LocationURL" type="xsd:string" />
  <xsd:element name="Activities" type="xsd:string" />
  </xsd:sequence>
  </xsd:complexType>
  </xsd:element>
  </xsd:complexType>
  </xsd:element>
  </xsd:Schema>
```

Calendar of Events Schema:

```xml
<?xml version="1.0" ?>
- <xsd:Schema xmlns:xsd="http://www.w3.org/2001/XMLSchema">
- <xsd:element name="Events">
- <xsd:complexType>
- <xsd:element name="Event">
- <xsd:complexType>
- <xsd:sequence>
 <xsd:element name="AgencyName" type="xsd:string" minOccurs="0" />
 <xsd:element name="AgencyURL" type="xsd:string" minOccurs="0" />
 <xsd:element name="ImageURL" type="xsd:string" minOccurs="0" />
 <xsd:element name="JurisdictionType" type="xsd:string" minOccurs="0" />
 <xsd:element name="JurisdictionName" type="xsd:string" minOccurs="0" />
 <xsd:element name="ContactSponsorName" type="xsd:string" />
 <xsd:element name="ContactSponsorURL" type="xsd:string" minOccurs="0" />
 <xsd:element name="ContactSponsorPhone" type="xsd:string" minOccurs="0" />
 <xsd:element name="ContactSponsorEmail" type="xsd:string" minOccurs="0" />
 <xsd:element name="ContactSponsorType" type="xsd:string" minOccurs="0" />
 <xsd:element name="EventName" type="xsd:string" minOccurs="0" />
 <xsd:element name="EventDescription" type="xsd:string" />
 <xsd:element name="StartDate" type="xsd:dateTime" minOccurs="0" />
 <xsd:element name="EndDate" type="xsd:dateTime" minOccurs="0" />
 <xsd:element name="StartTime" type="xsd:dateTime" minOccurs="0" />
 <xsd:element name="EndTime" type="xsd:dateTime" minOccurs="0" />
 <xsd:element name="AgeGroup" type="xsd:string" minOccurs="0" />
 <xsd:element name="EventUrl" type="xsd:string" minOccurs="0" />
 <xsd:element name="EventEmail" type="xsd:string" minOccurs="0" />
 <xsd:element name="RegistrationNeeded" type="xsd:string" minOccurs="0" />
 <xsd:element name="EventADAAccess" type="xsd:string" minOccurs="0" />
 <xsd:element name="EventFeeDescription" type="xsd:string" minOccurs="0" />
 <xsd:element name="EventComments" type="xsd:string" minOccurs="0" />
 <xsd:element name="FacilityName" type="xsd:string" minOccurs="0" />
 <xsd:element name="FacilityType" type="xsd:string" minOccurs="0" />
 <xsd:element name="Latitude" type="xsd:string" minOccurs="0" />
 <xsd:element name="Longitude" type="xsd:string" minOccurs="0" />
```

```
<xsd:element name="StreetAddress" type="xsd:string" minOccurs="0" />
<xsd:element name="State_Territory_Provence" type="xsd:string"
minOccurs="0" />
<xsd:element name="PostalCode" type="xsd:string" minOccurs="0" />
<xsd:element name="City" type="xsd:string" minOccurs="0" />
<xsd:element name="County" type="xsd:string" minOccurs="0" />
<xsd:element name="Country" type="xsd:string" minOccurs="0" />
<xsd:element name="LocationName" type="xsd:string" minOccurs="0" />
<xsd:element name="LocationType" type="xsd:string" />
<xsd:element name="LocationURL" type="xsd:string" />
</xsd:sequence>
</xsd:complexType>
</xsd:element>
</xsd:complexType>
</xsd:element>
</xsd:Schema>
```

Appendix V

GWoB Sample Guideline for Use

The Fairfax County Process:

Fairfax County had an existing SQL 2000 database containing a variety of data related to Parks. It contained all items required by the Park Events Application Schema. We created the following SQL stored procedure to retrieve event related data from that database as defined in that Park Events Application schema.

```
CREATE PROCEDURE [dbo].[GetEventsAsXml] AS
SELECT Agency.AgencyName AS AgencyName, Agency.AgencyURL AS
AgencyURL, Agency.LogoURL AS ImageURL,'County' AS JurisdictionType,
Sponsor.SponsorName AS ContactSponsorName, Sponsor.SponsorUrl AS
ContactSponsorURL, Sponsor.SponsorPhone AS ContactSponsorPhone,
Sponsor.SponsorEmail AS ContactSponsorEmail, Event.EventTitle AS
EventName, Event.EventDesc AS EventDescription, ParkEvent.StartDate AS
StartDate, ParkEvent.EndDate AS EndDate, ParkEvent.StartTime AS
StartTime, ParkEvent.EndTime AS EndTime, Event.AgeGroupInfo AS
AgeGroup, ParkEvent.EventUrl AS EventURL, ParkEvent.ParkEventEmail AS
EventEmail, Event.ReservationNeeded AS RegistrationNeeded,
Agency.ADAInfo AS EventADAAccess, Event.FeeInfo AS
EventFeeDescription, ParkEvent.Comments AS EventComments, ' ' AS
FacilityName, ' ' AS FacilityType, Park.ParkLatitude AS Latitude,
Park.ParkLongitude AS Longitude, Park.StreetNumber + ' ' +
Park.StreetName + ' ' + Park.SteetTyp AS StreetAddress, Park.City AS City,
Park.State AS State_Territory, Park.ZipCode AS PostalCode, 'Fairfax' AS
County, 'USA' AS Country, Park.ParkName AS LocationName,
Classification.ClassificationTitle AS LocationType, Agency.AgencyURL AS
LocationURL

FROM Classification INNER JOIN

Park ON Classification.ClassificationCode = Park.ClassificationCode
INNER JOIN Agency INNER JOIN ParkEvent ON Agency.AgencyAbbr =
ParkEvent.AgencyAbbr INNER JOIN Event ON ParkEvent.EventID =
Event.EventID ON Park.ParkID = ParkEvent.ParkID LEFT OUTER JOIN
EventSponsor INNER JOIN Sponsor ON EventSponsor.SponsorId =
Sponsor.SponsorID ON Event.EventID = EventSponsor.EventID

FOR XML AUTO, XMLDATA

GO
```

Please note that the query was written to select the data in the correct order and the fields were selected "AS" the element name required by the schema. We then included this stored procedure in a web service that we created using ASP.Net. The link shown in the Registry of Web Services as http://166.94.9.167/getparkevents/getEvents.aspx executes the web service. We then refined the stored procedure to allow for specification of events for a given month. That modified stored procedure is shown below.

Appendix V: GWoB Sample Guideline for Use

```
CREATE PROCEDURE [dbo].[GetEventsByMonthYear]

@StartMonth int,

@StartYear int

AS

SELECT Agency.AgencyName AS AgencyName, Agency.AgencyURL AS AgencyURL, Agency.LogoURL AS
ImageURL, 'County' AS JurisdictionType, Sponsor.SponsorName AS ContactSponsorName, Sponsor.SponsorUrl AS
ContactSponsorURL, Sponsor.SponsorPhone AS ContactSponsorPhone, Sponsor.SponsorEmail AS
ContactSponsorEmail, Event.EventTitle AS EventName, Event.EventDesc AS EventDescription, ParkEvent.StartDate
AS StartDate, ParkEvent.EndDate AS EndDate, ParkEvent.StartTime AS StartTime, ParkEvent.EndTime AS EndTime,
Event.AgeGroupInfo AS AgeGroup, ParkEvent.EventUrl AS EventURL, ParkEvent.ParkEventEmail AS EventEmail,
Event.ReservationNeeded AS RegistrationNeeded, Agency.ADAInfo AS EventADAAccess, Event.FeeInfo AS
EventFeeDescription, ParkEvent.Comments AS EventComments, ' ' AS FacilityName, ' ' AS FacilityType,
Park.ParkLatitude AS Latitude, Park.ParkLongitude AS Longitude, Park.StreetNumber + ' ' + Park.StreetName + ' ' +
Park.SteetTyp AS StreetAddress, Park.City AS City, Park.State AS State_Territory, Park.ZipCode AS PostalCode,
'Fairfax' AS County, 'USA' AS Country, Park.ParkName AS LocationName, Classification.ClassificationTitle AS
LocationType, Agency.AgencyURL AS LocationURL

FROM Classification INNER JOIN Park ON Classification.ClassificationCode = Park.ClassificationCode INNER
JOIN Agency INNER JOIN ParkEvent ON Agency.AgencyAbbr = ParkEvent.AgencyAbbr INNER JOIN Event ON
ParkEvent.EventID = Event.EventID ON Park.ParkID = ParkEvent.ParkID LEFT OUTER JOIN EventSponsor INNER
JOIN Sponsor ON EventSponsor.SponsorId = Sponsor.SponsorID ON Event.EventID = EventSponsor.EventID where
Month(StartDate)=@StartMonth and Year(StartDate)=@StartYear

GO
```

Appendix VI

GWoB Glossary

Application Repository – A repository that lists all interoperable applications that are developed within a *C of I*.

Best Practice Template – An outline or collection of lessons learned about a topic within a *C of I*.

C of I – For a citizen constituent, it is an intuitive concept or idea around which web content and services will be organized, linked, and be readily available. For providers of those services, it is an intersection of common interests held by multiple groups and levels of interests. It is what they have in common relative to the citizen concept.

C of I Cycle – The period of time determined to be appropriate for a *C of I* to complete each phase of the *C of I Roadmap*. One cycle involves the execution of a single pass through the *C of I Roadmap* and should last no longer than one year.

C of I Development Team (CDT) – The *CDT* is responsible for identifying solutions candidates, proposing solutions and candidates, and delivering the products needed by the *C of I*.

C of I Executive Board (CEB) – The *CEB* consists of the primary champions for the C of I, and has the authority and responsibility to commit resources to the maturation of the *C of I*.

C of I Resource – An application, content, or other type of web service or capability available to all participants of a *C of I*.

C of I Roadmap – A series of steps and processes executed to further the maturity of a *C of I*.

C of I View - A general stakeholder category within a *C of I* defined by a distinct perspective and skill set. A *C of I* consists of three views: business, technical, and facilitation. Each view contains certain realities (or at least perceptions) that must be considered during the collaboration process.

Charter - The "contract" between jurisdictions within a *C of I* that defines the Purpose, Objectives, Roles and Responsibilities, and other necessary agreements and conditions needed to work within the *C of I*

Appendix VI: GWoB Glossary

Current Wave – The current business cycle for a *C of I*. Delivery of Current Wave C of I Resources is likely to occur during the current wave.

Collaborative Framework - A structured approach to intergovernmental collaboration in which jurisdictions work together to determine solutions to jointly developed collaboration priorities within a *C of I*.

Goals-Objectives-Strategies (GOS) Model – A GOS Model includes the goals, objectives, and strategies developed by the *C of I* Development Team. It is generated from an effort to identify barriers, boundaries, and opportunities and provides the primary input to the charter development process.

Guidelines for Use – An aggregation of the experiences that each jurisdiction has with implementing the application schemas within a *C of I*

Information Glossary – A glossary of data entities, definitions, and related attributes in use within a *C of I*.

Interoperability Resource – A tool, not necessarily technical, used within a *C of I* to facilitate integration of systems across jurisdictions allowing for seamless transactions and interactions with government.

Jurisdictional Participant – A Jurisdictional Participant is a stakeholder within one of the various levels of government. The level could be federal, state, city, town, county, district, region, or any other type or combination of governmental entity.
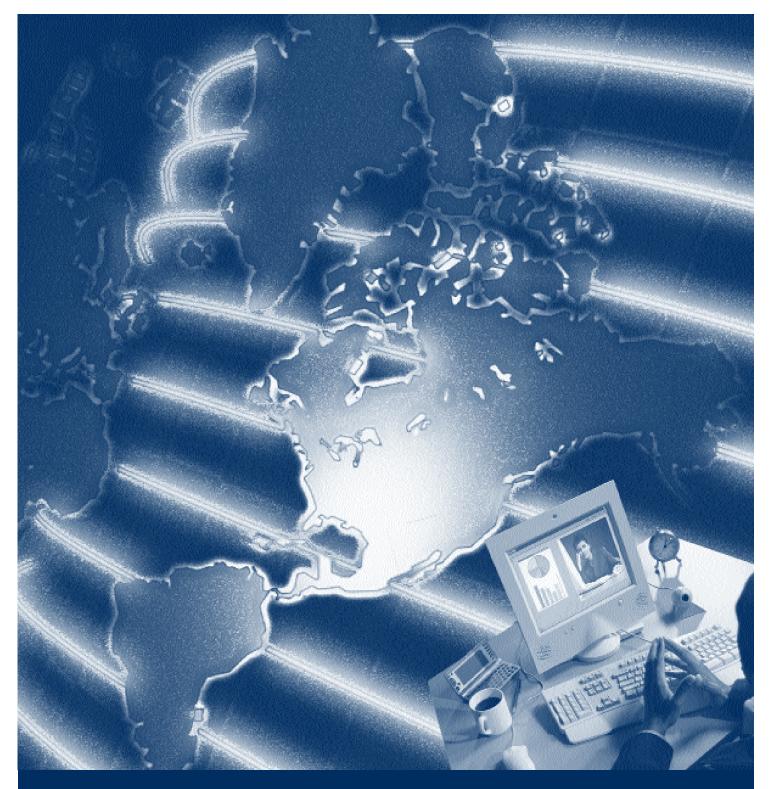
Next Wave – The next business cycle for a *C of I*. It is expected that delivery of Next Wave *C of I* Resources will occur during the next *C of I* Cycle, either because of the level of effort and resources required or the timing of the opportunity.

Schema Repository – A repository of XML schemas developed to support interoperable applications within a *C of I*

Solution Target – A Solution Target does not exist until an identified barrier, boundary, or opportunity is paired with a proposed solution. The Solution Target becomes the objective for an initiative.

Registry of Web Services – A registry of available services from jurisdictions participating in an application within a *C of I* that can be published and accessed over the Internet.

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**U.S. General Services Administration
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May 23, 2002