



# Challenges to Broader Implementation of Shared Services in the U.S. Federal Government

**Strategy and Planning Committee  
Shared Services Subcommittee**

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*Committee Co-Chairs:*

Linda Cureton, CIO, NASA  
Simon Szykman, CIO, Commerce

*Subcommittee Co-Chairs:*

Joseph Klimavicz, NOAA OCIO  
Maureen Jones, DOT OCIO  
John Larsen, FAA OCIO

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## EXECUTIVE SUMMARY

The U.S. government is broadening the use of shared services to enable greater efficiency and better use of resources. Technological advancements enable broader incorporation of shared services. These advancements are occurring in an environment in which federal agencies work to meet growing mission requirements with constrained budgets. Sharing services enables federal agencies to redirect resources from administrative support functions to core mission services.

In the 2012 “Shared First” Strategy, the Federal Chief Information Officer (CIO) indicated that billions of dollars in potential savings could be achieved through consolidation and shared services: “OMB estimates that \$17 billion could be saved from shared services.”<sup>1</sup>

The Federal Cloud Computing Strategy, an enabler of shared services, released by the U.S. Chief Information Officer on February 8, 2011, encourages federal agencies to move a portion of the IT budget to cloud solutions. “An estimated \$20 billion of the Federal Government’s \$80 billion in IT spending is a potential target for migration to cloud computing solutions.”<sup>2</sup> While OMB has directed Federal agencies to move a portion of the IT budget to the cloud, it has not yet directed implementation for shared services. OMB asked the CIO Council to “document current issues and roadblocks to the broader adoption of inter-agency shared services in the Federal Government and propose solutions to resolve or ameliorate those issues.”<sup>3</sup>

Subsequently, the CIO Council Strategy and Planning Committee’s Shared Services Subcommittee (SPC SSS) collected and documented best practices in the Federal Shared Services Implementation Guide. This document serves as a counterpart to the Guide and is based on interviews with government providers of shared services, and the challenges and obstacles providers and customers face in implementation. It provides options to help accelerate implementation of shared services between federal agencies. While not addressed specifically here, the intelligence community can also benefit from sharing services.

This document identifies and discusses the five most significant challenges to broader and more rapid adoption of shared services between Federal Agencies, and provides recommendations and options to address them. The five most significant challenges are:

1. Governance Mechanisms
2. Contracting and Acquisition - Policies and Regulations
3. Funding and Funds Transfers

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<sup>1</sup> Government Computer News, Digital Dialogue: The Role of Shared Services, panelist Thomas Kireilis, program executive and product line manager, Software-as-a-Service, General Services Administration.

<sup>2</sup> Federal Cloud Computing Strategy, U.S. Chief Information Officer, Vivek Kundra, February 8, 2011, p. 1. <http://www.cio.gov/documents/federal-cloud-computing-strategy.pdf>

<sup>3</sup> Federal Information Technology Shared Services Strategy, Executive Office of the President, Office of Management and Budget, May 12, 2012, p. 13. [http://www.cio.gov/documents/Shared\\_Services\\_Strategy.pdf](http://www.cio.gov/documents/Shared_Services_Strategy.pdf)

4. Customer Readiness; and
5. Shared Service Provider Capability and Capacity

The following table provides an overview of the major challenges. Additional details and recommendations for addressing the challenges are contained in the body of this report. Addressing the challenges to allow widespread implementation of shared services in the U.S. Federal Government will require determined action from multiple stakeholders and leaders.

<b>Five Challenges to Broader Government Adoption of Shared Services</b>
<p><b>Governance Mechanisms</b> – Real incentives and mandates are lacking to require broader adoption of shared services across government. Leadership, in the form of active cooperation between COOs, CIOs, CAOs, and CFOs, across the Government is required to manage, implement standards and policies, and provide oversight and accountability for both the adoption and the provisioning of shared services.</p>
<p><b>Contracting and Acquisition Policy and Regulations</b> – A lack of awareness, training, and buy-in on the part of contracting officers stands as a barrier to broader incorporation of shared services. Existing contracts, lack of standardization, complexity, and difficulty in working Inter-Agency Agreements serve to block broader adoption.</p>
<p><b>Funding and Funds Transfer</b> – Difficulty in moving money between government agencies, color of money issues, individual agency processes, and multiple funding sources make it difficult to aggregate funds and pay for shared services.</p>
<p><b>Customer Readiness</b> – Many government agencies, fearing a loss of resources and control, lack senior and staff leadership commitment to adopt shared services. The absence of a government-wide, comprehensive inventory of available shared services, including intra-agency and inter-agency services further inhibits customer readiness. The lack of a comprehensive inventory significantly increases the difficulties for potential customers to develop a formal business plan to determine if shared services are the best option, provide a good return on investment, and save or repurpose resources.</p>
<p><b>Provider Capability and Capacity</b> – Adoption of one-off shared services over time has resulted in a lack of standards, varying business models, a need for customer service, lack of sufficient funding mechanisms, and a lack of consumer trust and confidence in providers.</p>

We have identified several options to mitigate each identified challenge. While all of the challenges are significant, our research has repeatedly identified governance and management mechanisms to be the most critical roadblock to wider adoption of shared services. We therefore believe the most important action to be appointing and empowering a group of shared service providers to address the recommendations. The current informal “roundtable” group of shared service providers should have its relationship with OMB, the CIO Council, and the Chief Operating Officers (COO), Chief Acquisition Officers (CAO), and Chief Financial Officers (CFO) Councils formalized, expand its membership, and be empowered to identify solutions to current and future shared services implementation challenges. A collaborative partnership between OMB, the Shared Services Round Table, and private sector representatives will provide capacity and resources necessary to deliver the OMB "Shared First" strategic vision.

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# Background

Sharing of common functionalities, such as pay, benefits, and travel reimbursement systems, allows government agencies to realize efficiencies and dedicate resources to objectives that more directly achieve mission. Government agencies benefit from being able to focus their efforts on missions and reducing resources devoted to non-mission related activities and functions. Implementing shared services allows government agencies to do so.

Over the years, as government information technology systems and the regulation and legislation that govern them have evolved, successes and roadblocks to successfully sharing services have emerged. The Federal CIO's 25 Point Implementation Plan to Reform Federal Information Technology Management calls on the Federal Government to develop a strategy for shared services that "will build on earlier Federal Government successes in shared services."<sup>4</sup> It also directs "Managing partners of shared services will assess the current state of shared services and release a roadmap to improve quality and uptake."<sup>5</sup>

On May 2, 2012, OMB published the Federal Information Technology Shared Services Strategy. The document is a follow-up to the 25 Point Implementation Plan to Reform Federal Information Technology Management. Both documents seek to increase return on investment, eliminate waste and duplication, and improve the effectiveness of IT solutions. Commonly referred to as "Shared-First," this strategy requires agencies to use a shared approach to IT service delivery.

## About this Study

The Federal CIO Council<sup>6</sup> established the Strategy and Planning Committee's Shared Services Subcommittee "to work with OMB on 'Shared-First' policy development and implementation, and to support Federal Agencies as they develop and implement their Enterprise Roadmaps, conduct PortfolioStat reviews, and create and execute their IT Shared Services Plans." This document addresses the objective to "document current issues and roadblocks to the broader adoption of inter-agency shared services in the Federal Government and propose solutions to resolve or ameliorate these issues."<sup>7</sup>

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<sup>4</sup> 25 Point Implementation Plan to Reform Federal Information Technology Management, U.S. CIO Vivek Kundra, December 9, 2010, p. 8, <http://www.cio.gov/documents/25-Point-Implementation-Plan-to-Reform-Federal%20IT.pdf>

<sup>5</sup> Ibid, p. 8

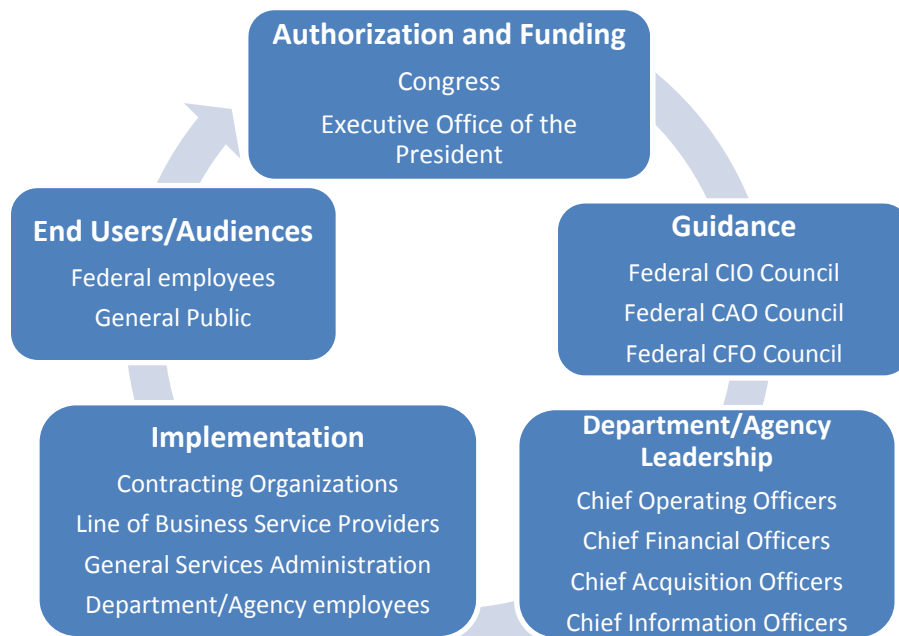
<sup>6</sup> The CIO Council is the principal interagency forum for improving agency practices related to the design, acquisition, development, modernization, use, sharing, and performance of Federal information resources. Established by Executive Order 13011 (Federal Information Technology) and later codified by the E-Government Act of 2002, the CIO Council is the principal interagency forum for improving agency practices related to the design, acquisition, development, modernization, use, sharing, and performance of Federal information resources. For more information, see <http://www.cio.gov/council-about.cfm/csec/1>

<sup>7</sup> Federal Information Technology Shared Services Strategy, Executive Office of the President, Office of Management and Budget, May 12, 2012, p. 13. [http://www.cio.gov/documents/Shared\\_Services\\_Strategy.pdf](http://www.cio.gov/documents/Shared_Services_Strategy.pdf)

The options provided are based on interviews, discussions, and presentations made by current consumers and providers of shared services in the Federal Government. Over the years, these adopters have encountered roadblocks, challenges, duplication of effort, and delays that serve to create organizational inertia or prevent the sharing of government shared services across the Federal Government. This document identifies the challenges and recommends solutions to eliminate and diminish them.

## Stakeholders

The stakeholders shown in Figure 1 below have the ability and are empowered at different levels to help overcome barriers to shared services. Without stakeholder commitment, engagement, and leadership, solutions will not be forthcoming. Conducting a stakeholder analysis will provide a clear picture of interest. When instituting broader adoption, it's important to consider and navigate the “politics” and motives: Who is supportive? Who is against? Who benefits? Who has something to lose (control, work, or authority)? Our research on shared services makes clear that implementation will require close collaboration and leadership by agency and bureau COO, CAO, CFO, CIO, and other senior management officials.



**Figure 1 - Shared Services Stakeholder Groups and their Functions**

## Definitions

Consistent with the Federal Information Technology Shared Services Strategy, a **shared service** is defined as:

*A function that is provided by one organization for consumption by multiple organizations within or between federal agencies.*<sup>8</sup>

**Commodity IT Services** are defined as:

*“A category of back-office IT services whose functionality applies to most, if not all, agencies (e.g., infrastructure and asset management, email, hardware and software acquisition, and help desks).”*<sup>9</sup>

**Support Services** are defined:

*“by the capabilities that support common business functions performed by nearly all Federal organizations. These include functional areas such as budgeting, financial, human resources, asset, property and acquisition management.”*

**Mission Services** are defined as:

*“the services and capabilities that are core Federal Government mission areas, such as disaster response, food safety, national defense and training and employment services. Some Mission Services may have a single Federal organization focused on providing that service, while other mission services will have multiple organizations.”*

A **line of business** (LoB) is defined as:

*“An operating unit defined functionally or structurally in an agency”.*<sup>10</sup>

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<sup>8</sup> Federal Information Technology Shared Services Strategy, Executive Office of the President, Office of Management and Budget, May 2, 2012, p. 5.

<sup>9</sup> Ibid, p. 16.

<sup>10</sup>The Federal Shared Services Implementation Guide by the CIO Council Shared Services Subcommittee defines line of business as “a cross-agency effort to define, design, implement and monitor a set of shared services for a set of specified and defined government business functions, processes or desired capabilities. A LoB is governed by a Managing Partner. A LoB community is composed of a Managing Partner, its Program Management Office (PMO), shared service providers, and their Customer/ Partner Agency and stakeholders. Throughout this document, we use the line of business (as an operating unit shared service provider) definition above. It is the definition for line of business used in the Federal Information Technology Shared Services Strategy “Shared First” Draft of December 8, 2011, p. 14.



# Challenges and Options to Address Them

## 1. Governance Mechanisms

The adoption of Federal shared services has evolved over time in order to resolve specific needs of the federal community. As a result, there is no consistent governance structure in place. *More specifically, the fundamental structure within the governance in place today hinders the Government’s ability to take advantage of commercial best practices and commonly accepted business principles.* Fundamental questions about authority, structure, and oversight need to be answered.

In addition to these governance issues, there are broader market considerations, such as being locked-in to one service provider. A lack of options can limit government agencies from accessing the most up-to-date technologies, eliminate the need for competitive pricing, and reduce service quality. It is essential that governance does not so constrict the marketplace that the advantages of a competitive market disappear. The goal is to empower purchasers with the ability to leverage commercial best practices and commonly accepted business principals through a focused governance mechanism.

While the goal of ensuring competition is desirable, real challenges existing in the form of forcing functions within the Federal Government. Absent a compelling “bottom line”, such as profit and loss in the commercial world, implementation of new approaches to achieve increased efficiencies in the Federal Government generally requires a very strong mandate and steady, tenacious, and vigorous implementation leadership, such as for the Year 2000 preparations. Only with clearly defined outcomes and aggressive leadership will the challenges outlined throughout this document be overcome.

Determining the best way to move forward from the existing state of shared service providers and customer in the U.S. Federal Government will require further study. The table below provides more detail on governance challenges and options to address them.

CHALLENGE: Governance Mechanisms	
Issues and Considerations	Options
<ul style="list-style-type: none"> <li>No mandate exists for adoption of shared services by Agencies</li> <li>Need for an expanded definition of shared services to encompass all functions that can be shared across government (i.e., IT, LoBs, mission)</li> <li>Shared services are inherently cross-functional and require active management and cooperation by several organizations and communities</li> </ul>	<ul style="list-style-type: none"> <li>Establish Presidential mandate for adoption of selected/identified shared services by FY15</li> <li>Clarify and deepen the definition of shared services and related terms. Review, de-conflict, and update government language surrounding shared services</li> <li>Establish an empowered partnership between OMB and a designated federal entity to provide governance, standards, and</li> </ul>

<ul style="list-style-type: none"> <li>• No entity actively manages shared services <ul style="list-style-type: none"> <li>○ There is a need for unified governance structure to include oversight, guidelines, accountability, and enforcement</li> <li>○ Need for standard policies for pricing, payment, funding, etc.</li> <li>○ Need to eliminate customer fears of provider lock-in</li> </ul> </li> <li>• Need to more broadly authorize and appropriately capitalize working capital funds and franchise funds for expanded shared services</li> <li>• Need to determine appropriate LoBs, mix of public/private providers, and market management guidance to determine number of providers per LoB to ensure competition.</li> <li>• Need for an understanding of shared service providers to ensure a robust offering to the Intelligence Community</li> </ul>	<p>oversight for future state shared services in line with “Shared First” philosophy. The partnership can establish standards to eliminate customer concerns, such as recommending appropriate lengths for service contracts (1-2 years)</p> <ul style="list-style-type: none"> <li>• Further focus, possible legislation required to authorize and appropriately fund working capital and franchise funds to expand shared services and to modernize technologies to maintain/enhance competitiveness</li> <li>• Renew and update Concept of Operations for LoB initiatives to align with Shared First strategy <ul style="list-style-type: none"> <li>○ Leverage a broker/exchange model that supports communities of interest and uses metrics to track and anticipate demand</li> </ul> </li> <li>• Apply and extend shared services guidance to the Intelligence Community</li> </ul>
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## 2. Contracting and Acquisition Policy and Regulations

There are numerous challenges in contracting and acquisition policy and regulations that individually and in combination are obstacles to rapid and wide-spread adoption of shared services across the U.S. Federal Government. Internal bureau and agency policies and procedures, lack of knowledge by customers and their supporting contracting officers, cumbersome processes for moving funds within and between Agencies, and existing contracts all are limiting factors in attempting to change the status quo for shared services.

For example, existing contracts can serve as a barrier to adopting shared services if they were not written with a scope that allows them to be extended to other bureaus or Agencies. Existing contracting and acquisition processes between agencies are cumbersome, inconsistent, not well understood, and need to be reshaped for agility, transparency and oversight. Contracting challenges identified by current implementers of centralized commodity IT services and LoB services include:

- Internal Agency contracting policies and procedures
- Lack of understanding by contracting offices about procuring shared services such as Commodity IT and Support Services
- Current Agency contracts do not contain proper terminology or clauses to allow expansion to other Federal customers
- Lack of standardization of contracting provisions and paperwork

Contracting officers are generally not well-trained or knowledgeable regarding what shared services are available. Incentives, training, standardized contracts and creating an inventory of available shared services would eliminate some of these barriers.

As noted in the CIO Council’s Federal Shared Services Implementation Guide,

“reengineering business processes is essential to shared service adoption in order to move from stove-piped workflows to processes that work across the agency enterprise and beyond. Processes should be optimized as workflows are consolidated across organizations at points where roles can provide centrally for others.”

In order to shift these processes successfully, a change in management approach is essential.

CHALLENGE: Contracting and Acquisition Policy and Regulations	
Issues and Considerations	Options
<ul style="list-style-type: none"> <li>• Lack of contracting officials awareness, training and buy-in for shared services               <ul style="list-style-type: none"> <li>○ Lack of uniform implementation of standards across government</li> <li>○ Lack of agile acquisition processes, standard operating procedures, and toolkits</li> </ul> </li> <li>• Inter-Agency Agreement process not widely understood.</li> <li>• Inconsistent internal bureau/agency contracting rules.               <ul style="list-style-type: none"> <li>○ Also, existing contracts (non-GWAC) were put in place prior to a call for broader implementation of shared services and thus can be barriers to forward movement</li> </ul> </li> <li>• Internal and commodity contracting vs. utility contracting limit broader adoption</li> <li>• Lack of uniform provider information, services, and pricing procedures</li> </ul>	<ul style="list-style-type: none"> <li>• Provide and require training and certification for broader contracting community before allowing contracting officers to purchase shared services.               <ul style="list-style-type: none"> <li>○ Define acceptable standards for performance and implement/provide customers with enforcement capabilities</li> <li>○ Contracting and acquisition workforce transformation</li> </ul> </li> <li>• Provide pre-completed (boilerplate) Inter-Agency Agreement forms for standard shared services transactions and fast-track provisions for shared services</li> <li>• Standardize contracting rules and simplify contracts               <ul style="list-style-type: none"> <li>○ Standardized language in contracts to allow for common sense contracting</li> </ul> </li> <li>• Use utility contracting, (using FAR 41)<sup>11</sup> for acquisition of some shared services, such as Cloud</li> <li>• Require standardized service offerings to allow apples-to-apples comparisons</li> </ul>

As the Federal Government works to expand shared services, government departments and agencies have a finite number of options to choose from in their path forward. All of these options (with the exception of status quo) require a degree of effort and resource allocation, with a varying level of effort depending on the option chosen. To expand shared services with the

most efficiency, long-term, clarity of goals, definitions, guidelines and standards are needed. Otherwise, an expansion of shared services will continue on in the fashion they have presently been implemented – on an as needed, agency-by-agency basis; and opportunities to realize efficiencies will be lost.

### 3. Funding and Funds Transfer

Funding and funds transfer challenges have three major components: a lack of knowledge about how to most effectively execute Inter-Agency Agreements needed to obtain LoB services; the difficulties in managing multi-year commitments with annual budgets, and internal Agency and Bureau money management and budget policies, processes and procedures. This challenge is often, though not exclusively, a Customer Agency/ Bureau problem.

Current service providers and customers consistently cited the amount of management involvement and time required to execute the process as a major issue. These problems generate additional challenges and disincentives for the LoB service providers as some funding mechanisms require that services be provided in advance of the transfer of monies.

<b>CHALLENGE: Funding and Funds Transfer</b>	
<b>Issues and Considerations</b>	<b>Options</b>
<ul style="list-style-type: none"> <li>• There are significant impediments to funds transfers between government agencies.</li> <li>• Restrictions on mixing multi-year funding with single year appropriations increases the complexity of transferring money between providers and customer agencies</li> <li>• Agency processes and multiple funding sources make aggregation of funds to consume shared services difficult</li> <li>• Limitations on the transfer of money from working capital funds to bill or pay other agencies for services or products</li> </ul>	<ul style="list-style-type: none"> <li>• Recommend best models of funding and fund transfers for future state shared services.</li> <li>• Streamline process for fund transfers between government agencies. Enable electronic funding transfers for shared services, and chargeback options (refunds, credits).</li> <li>• Need to more broadly authorize and appropriately capitalize working capital funds and franchise funds for expanded shared services (Focused legislation is required. Consider Congressional process changes when different appropriations committees are involved with funding sources.)</li> <li>• Establish funds for shared services to enable Agency pay-as-you-go funding, and end-of-year balancing the books mechanism.</li> </ul>

As with contracting and acquisition challenges, the funding transfer processes and options are complex. While those who work daily with these forms and processes may be comfortable with

them, others might find it helpful to have training and certification to navigate the multiple-page forms and guides and to know which ones are appropriate to use.

#### 4. Customer Readiness

Without a firm commitment from agency leadership to broaden the use of shared services, it will not happen. A Presidential mandate and incentives, such as resource realignment and tying implementation of shared services to performance standards, will likely produce the engagement and commitment needed from agency leaders. Without stakeholder commitment, engagement, and leadership, solutions will not be forthcoming.

Other customer readiness barriers to adoption include a lack of confidence in the process or service provider, internally-centered program-specific thinking, concern about continuous provision of services, security fears, and wariness over service provider lock-in. A major roadblock can be fear of resource realignment. Government employees may wonder: Will I have a job? What will the job be? Do I have the skills? Will I be properly trained? Who will I be working with? These concerns can result in impediments and an unwillingness to change practices.

There are additional concerns over whether shared services will result in saving resources. The absence of a comprehensive inventory of available goods and services that can be shared by government agencies necessitates agency purchases made without full knowledge of the available options, prices and terms. Also, in issuing new procurement requests, agencies will inadvertently duplicate the offerings of other agencies, wasting scarce resources. Some of these concerns are due to the lack of maturity of the shared services market and the evolving standards around the services.

Consultancy could help facilitate a user's migration to a shared service. Consultant experts should be certified through training by GSA. They could be hired by the potential user to work with them on the steps to purchase a shared service. Alternatively, the consultants could be centrally funded and made available to Agencies and Bureaus at no cost. They would be functional experts providing the potential shared services customers an independent third party assessment of the benefits and likelihood of success. It is anticipated that once the market matures and standards are established, the role of the consultant will diminish significantly.

Whether attempting to share a LoB or share commodity IT purchasing across government agencies, cultural and organizational challenges can serve as impediments. As noted in the Federal Shared Services Implementation Guide, executive support and cultural change are two critical factors for success in adopting shared services: "Agency leadership needs to embrace its shared service strategy, or the benefits of shared services at the business unit, program, and system levels will not be realized."

## CHALLENGE: Customer Readiness

Issues and Considerations	Options
<ul style="list-style-type: none"> <li>• Lack of leadership involvement, commitment and incentives to drive adoption of shared services</li> <li>• Need for business case development: realistic return on investment and timelines               <ul style="list-style-type: none"> <li>◦ Need for agencies and departments to decide what capabilities are appropriate for shared services</li> </ul> </li> <li>• Concerns about loss of capability during and after migrating to shared services. Need to ensure continuous service and availability during move to shared services, which requires sequencing of capabilities to be moved, and a timetable</li> <li>• Need for work force decisions, such as repurposing of personnel positions and retention of manpower</li> <li>• Concerns about customer requirements / issues getting addressed; particularly among smaller Agencies</li> <li>• “Politics” – getting key stakeholders to actively want the shared services succeed.</li> <li>• Lack of clarity about what is to be “shared”</li> <li>• Lack of clarity about who carries what risk, how it is to be mitigated and dealt with.</li> </ul>	<ul style="list-style-type: none"> <li>• Establish Presidential mandate for adoption of selected / identified shared services by FY15.               <ul style="list-style-type: none"> <li>◦ Provide senior management training, education, and incentives (e.g., performance standards)</li> <li>◦ The implementation of shared services focuses the Agency on mission excellence. Shared services should be easily implemented and administered so that any potential benefits from shared services could be redirected back to improving mission performance.</li> </ul> </li> <li>• Require Agency COO, CAO, CFO, and CIO to approve their Shared Services Strategy. Report implementation to OMB and require inclusion in strategic management plan               <ul style="list-style-type: none"> <li>◦ Obtain third party assessment to assess readiness, and/or obtain a third-party review of potential return on investment with metrics, and risk mitigation (broker and auditing functions)</li> <li>◦ Develop comprehensive inventory of available shared services and providers, and customers. A shared services “Catalog” represents a critical first step in the right direction.</li> </ul> </li> <li>• Provide a tool kit, standardized methodology, and roadmaps to implement shared services</li> <li>• Provide retraining and transition assistance as appropriate to redeploy employees to other mission functions</li> <li>• Leverage Business Process Management as a Service (BPMaaS), to assist the Agency LoB to create models to transform how that agency meets its mandates. Define Demand Management processes and responsibilities.</li> <li>• As a general approach, consult widely, but keep decision-making tight. Manage the politics. Develop and implement a communication plan, relationship management, choice and options where possible. Resolve inevitable conflicts and passive-aggressive behavior.</li> <li>• Conduct a stakeholder analysis. Provide clarity of motives, expectations, scope. Communicate the intent to all affected business units and ensure participation of leaders of all affected units.</li> <li>• Ensure the project manager is empowered and has access with a direct reporting line to the head of shared services and Agency CIO. Manage expectations of Agency CIOs.</li> </ul>

Similarly, a culture that embraces “internally centered, program-specific thinking,” will be slow to move to a shared services environment. Government agencies, operating independently from one another for decades in an internally-centered, program-specific manner have resulted in a myriad of disparate systems that cannot easily be linked. Nor are they prepared to take advantage of commercial best practices. This limits the government’s ability to make real improvements in service quality and delivery costs.

A key challenge to shared services, therefore, is integrating and creating interoperable systems across government. Applying change management principles and solid planning are critical to the success of implementing shared services.

Another major barrier to adoption is the necessity for mission continuity while transitioning to shared services arrangements, particularly shared LoBs. Organizations must consider and address this need in the planning stages and models of best practices should be adopted for ease of transition.

As noted in the CIO Council’s Federal Shared Services Implementation Guide, “security and privacy are cross-cutting concerns enabling or constraining implementation of shared services architecture. Efficiency demands consideration of security and privacy from the initial planning stage to the start of the systems development life cycle (SDLC).”

Different Federal agencies have different types of data that need protection, ranging from personally identifiable information to health records to classified information that plays a role in securing the nation. When looking to share services, securing and protecting the integrity of data can become a major stumbling block.

Recommendations contained in NIST Draft Special Publication 800-144 Guidelines on Security and Privacy in Public Computing can serve as essential guidelines for shared services:

“As with any emerging information technology area, cloud computing should be approached carefully with due consideration to the sensitivity of data. Planning helps to ensure that the computing environment is as secure as possible and in compliance with all relevant organizational policies and that privacy is maintained. It also helps to ensure that the agency derives full benefit from information technology spending.”

The security objectives of an organization are a key factor for decisions about farming out information technology services and, in particular, for decisions about transitioning organizational data, applications, and other resources to a public cloud computing environment.

Applying the risk-based approach recommended by NIST for adopting a cloud environment can and should be applied to adoption of shared services. Decisions about what systems, products and LoBs can be securely shared across government will result in eliminating some candidates

for shared services; but will ultimately result in established standards, cultural acceptance across agencies of those standards, more secure systems, and public confidence in outcomes.

Finally, fear of resource realignment can cause personnel to put up roadblocks to shared services. As noted in the CIO Council’s Federal Shared Services Implementation Guide, “as the business requirements and technology solutions for shared services are identified, and as agency budgets remain flat or decline, financial and personnel resources must be moved away from lower value stovepipe workflows toward new programs that support shared services.” This reality can create a barrier to shared services; and necessitates implementation and policy setting at the highest executive levels of agencies.

## 5. Provider Capability and Capacity

While it is clear there are efficiencies to be gained by sharing services, the marketplace for shared service providers is limited; and not all providers are capable of providing the scale, security and functions required by all government agencies. For example, it might be easy for a shared service provider to deliver services to a small agency, such as the Department of Education. That same provider may not have the capacity, capability and/or will to provide services to a much larger agency, such as the Department of Defense.

Another consideration in selecting and sequencing shared services for adoption in anticipated savings. In general, the larger an Agency, the more resources are devoted to providing any single service. The Pareto Principal would indicate most savings will accrue from the adoption of shared services by the larger Federal Agencies. Conversely, implementation in smaller Agencies and Bureaus may free up fewer people for mission functions but have a much more significant impact.

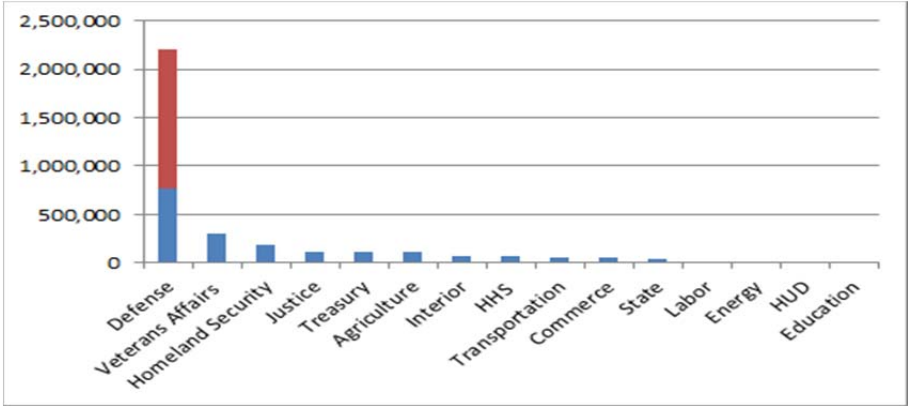
<b>CHALLENGE: Provider Capability and Capacity</b>	
<b>Issues and Considerations</b>	<b>Options</b>
<ul style="list-style-type: none"> <li>• Lack of mechanism to obtain and accrue investment funding for modernization and innovation</li> <li>• Lack of consumer trust and confidence in providers. Lack of customer service initiatives and training. Uncertainty around providers’ ability to expand scope of services to meet increased demand (capability and capacity)</li> <li>• Need to determine whether it’s better to build and grow an internal infrastructure or leverage existing shared services (“Shared First” philosophy)</li> </ul>	<ul style="list-style-type: none"> <li>• Establish franchise or other funds for shared service providers</li> <li>• Consider migrating shared service providers to independent service provisioning Agency.</li> <li>• Institute project portfolio management controls: risk management/uptime, LoB value, ROI calculations, and customer satisfaction reporting and management dashboards.</li> <li>• Establish minimum standards for service providers, commercial/industry metrics as appropriate.</li> <li>• Establish 1-2 year service contracts as a minimum while recognizing they are really long term strategic sourcing decisions.</li> <li>• Develop roadmap/checklists for becoming a shared service provider.</li> </ul>



	<ul style="list-style-type: none"> <li>• Align services of LoB providers with Agency mission.</li> <li>• Ensure accountability and transparency and institute service level agreements with metrics -- rewards and penalties.</li> <li>• Providers migrate to cloud provisioning model versus own infrastructure</li> </ul>
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Since the number of employees varies widely by Federal Agency, scalability for shared services is an issue. Cloud solutions inherently provide for rapid expansion of infrastructure, however, there are potential issues with whether the applications providing the services can rapidly absorb a large increase in customers and transactions. In addition, funding models, contract ceilings, and other factors may limit rapid transition to shared services. Smaller agencies may also be concerned about customer service. Will they get the attention of the service provider if they are a small fish in a big ocean? All of these considerations indicate a need to carefully manage the selection of additional shared services are offered for implementation and the order and timing in which Federal Bureaus and Agencies adopt or implement a shared approach.

The U.S. Census Bureau, in a March 2010 report, estimates total Executive Branch Federal Government Civilian Employment at more than 2.7 million.<sup>12</sup> There are over 1.4 million military personnel in the Department of Defense.<sup>13</sup> When including the civilian/non-military personnel employed by the Department of Defense, the total employee count tallies more than 2 million – nearly the total of all other executive branch departments combined. Figure 2 below illustrates the range of employment in different federal departments.



**Figure 2 – Federal Agency Employees Civilians and Military**

<sup>12</sup> U.S. Census Bureau, [http://www.census.gov/compendia/statab/cats/federal\\_govt\\_finances\\_employment/federal\\_civilian\\_employment.html](http://www.census.gov/compendia/statab/cats/federal_govt_finances_employment/federal_civilian_employment.html), Report 499.

<sup>13</sup> U.S. Census Bureau, [http://www.census.gov/compendia/statab/cats/national\\_security\\_veterans\\_affairs/military\\_personnel\\_and\\_expenditures.html](http://www.census.gov/compendia/statab/cats/national_security_veterans_affairs/military_personnel_and_expenditures.html), Report 510.

This range in the staffing of personnel by agency creates unique challenges for the provider. Scalability and capacity planning are foundational. Providers must seek to identify opportunities for ongoing improvement to meet the needs of its customer base. This requires monitoring of best of breed processes and new innovations to ensure that service delivery provides the best possible capability and the best possible value. It also requires investment funding be built into business models.

Because there are significant challenges and gaps associated with doing shared services in the current environment, Figure 3 attempts to highlight the challenges by complexity and time. Both must be considered when addressing the potential of shared services. The opportunity for the government to make measurable improvements to operations can only be accomplished by dealing with these highlighted challenges through empowered leadership and focus.

The following figure outlines the work ahead to make progress on the implementation of shared services.

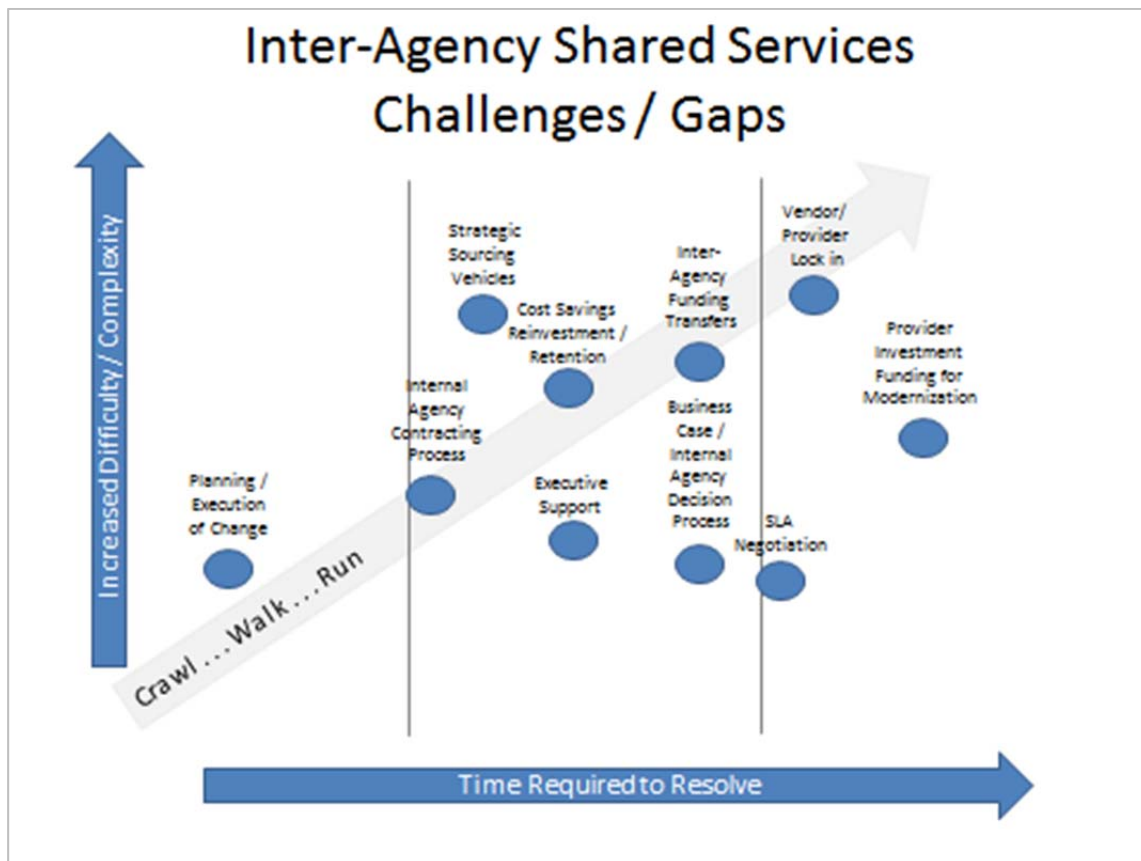
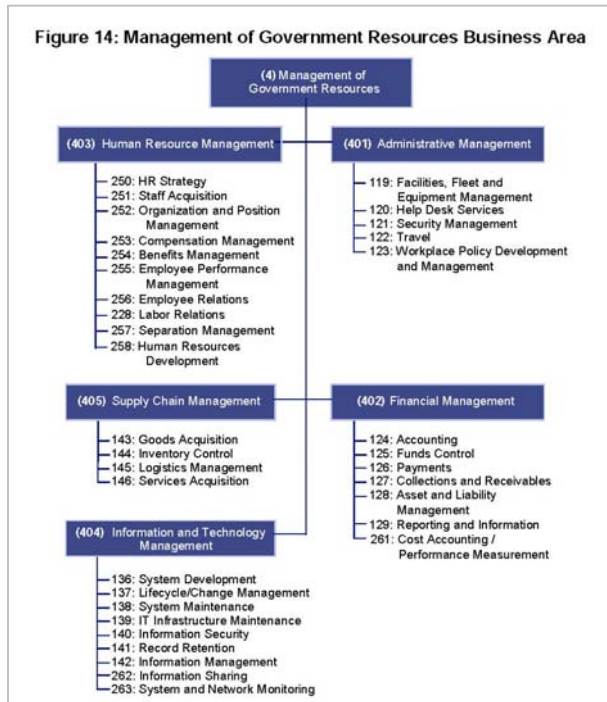


Figure 3 - Inter-Agency Shared Services Challenges – Complexity & Time to Resolve

# Appendix A: Shared Service Inventory Examples

The number of potential shared services is difficult to determine and may grow over time as the overall level of knowledge and competency grows across the Federal Government. As an initial estimate, a review of the Federal Enterprise Architecture Business Reference Model and Service Reference Models identifies over 50 potential areas/functions for shared service implementation.<sup>14</sup>

Another approach would be to migrate to a focus on end-to-end processes, such as Hire-to-Retire, or Procure-to-Pay, rather than LoB, as the organizing construct for shared services. Such an approach would facilitate addressing the cross-functional nature of shared service implementations and explicitly allow consideration of the business process reengineering required to accrue larger scale resource efficiencies.



**Figure 15: SRM Overview**

Service Domains	Service Types
Customer Services	<ul style="list-style-type: none"> <li>Customer Relationship Management</li> <li>Customer Preferences</li> <li>Customer Initiated Assistance</li> </ul>
Process Automation Services	<ul style="list-style-type: none"> <li>Tracking and Workflow</li> <li>Routing and Scheduling</li> </ul>
Business Management Services	<ul style="list-style-type: none"> <li>Management of Process</li> <li>Organizational Management</li> <li>Investment Management</li> <li>Supply Chain Management</li> </ul>
Digital Asset Services	<ul style="list-style-type: none"> <li>Content Management</li> <li>Document Management</li> <li>Knowledge Management</li> <li>Records Management</li> </ul>
Business Analytical Services	<ul style="list-style-type: none"> <li>Analysis and Statistics</li> <li>Visualization</li> <li>Knowledge Discovery</li> <li>Business Intelligence</li> <li>Reporting</li> </ul>
Back Office Services	<ul style="list-style-type: none"> <li>Data Management</li> <li>Human Resources</li> <li>Financial Management</li> <li>Asset / Materials Management</li> <li>Development and Integration</li> <li>Human Capital / Workforce Management</li> </ul>
Support Services	<ul style="list-style-type: none"> <li>Security Management</li> <li>Collaboration</li> <li>Search</li> <li>Communication</li> <li>Systems Management</li> <li>Forms Management</li> </ul>

This estimate may be an order of magnitude too low. For example, the Department of Defense's Business Enterprise Architecture identifies 48 separate functions within Financial Management and 127 separate potential services in the Human Resources Management function.<sup>15</sup> While some of the Human Resources activities could be bundled as part of a shared

<sup>14</sup> FEA CRM 2.3, October 2007.

<sup>15</sup> DoD BEA 9.0, August 2012, [http://dcmo.defense.gov/products-and-services/business-enterprise-architecture/9.0/products/printable\\_diagrams\\_s.pdf](http://dcmo.defense.gov/products-and-services/business-enterprise-architecture/9.0/products/printable_diagrams_s.pdf)

service, additional work is needed to identify the inventory of potential shared services, alignment to LoBs, and potential service providers. A partial listing of functions currently performed by Shared Services providers are in bold italics in the tables below.

## **Department of Defense Financial Management Functions**

Allocate Funds	Manage Delinquent Debt
Collect Program and Budget Information	Manage Disbursements
Conduct Budget Review	Manage Execution Fund Account
Define Cost Performance Model	Manage Execution with Treasury
Develop and Resolve Programmatic Issues	Manage Financial Reporting Requirement
Develop Budget Guidance	Manage General Ledger Structure
Develop Program Guidance	Manage Investments
Establish Accounts Receivable	Manage Liabilities
Evaluate Budget Submission	Manage Scheduled Payments
Evaluate Program Information	Manage Standard Financial Information Structure
Evaluate Strategic Goals	Negotiate OMB Passback
Execute Apportionment	Perform Cost Performance Analysis
Execute Continuing Resolution	Perform Executive Level Planning
Execute Rescission Deferrals and Cancellations	Perform Executive Management
Implement Case in Foreign Military Sales Trust Fund	Perform Reprogramming and Transfers
Incorporate Program Decisions	Populate Cost Performance Model
Issue Budget Decision	Post to General Ledger
Issue Fiscal Guidance	Prepare Certified Business Partner Payment
Issue Policy and Guidance	Prepare DoD Submission for President's Budget
Issue Program Decision Memorandum	Provide Program and Budget Information
Manage Accounts Receivable Balance	Record Loans and Grants
Manage Baseline for Reprogramming	Support Congressional Budget Review
Manage Billing	Track Congressional Action
Manage Collections	Update FYD

## Department of Defense Human Resources Functions

Account for Time, Absence, and Labor  
Account for Workforce  
Administer Assignment Action  
Administer Correction of Military Human Resources Record  
Administer Grievance Process  
Administer Legal Personnel Programs  
Administer Interservice Transfer  
Administer Intraservice Transfer  
Administer Transfer between Military Personnel Classes  
Administer Transfer To and From Active Duty  
Administer Performance Program  
Administer Physical Fitness Program  
Administer Performance Evaluation  
Administer Position Management  
Administer Promotion Appeal  
Administer Recognition Program  
Administer Reenlistment Process  
Analyze Education Course Evaluation  
Analyze Individual Training Course  
Assess Quality of Life Program  
Conduct Applicant Interview  
Conduct Casualty Assistance Needs Assessment  
Conduct Education Course  
Conduct Family Support Needs Assessment  
Conduct Individual Training Course  
Conduct Promotion Selection  
Consolidate Human Resources Profiles  
Coordinate Human Resources Management Policy and Guidance  
Coordinate Family Support Services  
Coordinate Personnel Distribution Plan Implementation  
Create Individual Training Course  
Create Human Resources Profiles  
**Create Human Resources Record**  
Deliver Casualty Assistance Services  
Deliver Morale, Welfare and Recreation Program  
Determine Applicant Qualification  
Determine Compensation Eligibility  
Determine Deductions  
Determine Earnings  
Determine Education Resource Requirements  
Determine Individual Training Course Resource Requirements  
Determine Occupational Competencies  
Determine Type of Absence  
Develop Education Course Curriculum  
Develop ESOH Solution  
Develop Human Resources Management Policy and Guidance  
Develop Personnel Distribution Plan  
Document Casualty Assistance Program Selections  
Establish Quality of Life Program  
Evaluate Family Support Services  
Execute Disposition of Human Resources Information  
Execute Individual Assignment  
**Execute Payroll**  
Execute Promotion  
Generate Personnel Grade Change Order  
Generate Transfer Order  
Identify Available Education Resources  
Identify Available Individual Training Course Resources  
Identify Education Requirements  
Identify Individual Training Course Requirements  
Identify Promotion Candidates  
Initiate Casualty Process  
Maintain Human Resources Record  
Maintain Individual Training Course  
Maintain Quality of Life Program  
Manage Administrative Absence  
Manage Adverse Actions  
Manage Applicant Prospecting  
Manage Career Path  
Manage Civilian Personnel Separation and Retirement  
Manage Civilian Staff Acquisition  
Manage Competency Testing  
Manage Credentials  
Manage Death Casualty Process  
Manage Education Enrollment  
Manage Enlistment Extension  
Manage Foreign Government Support  
Manage Human Resources Information Security  
Manage Human Resources Interaction  
Manage Individual Training Course Enrollment  
Manage Law Enforcement  
Manage Leave  
Manage Line of Duty Determination Process  
Manage Military Health Services  
Manage Military Personnel Retirement  
Manage Military Personnel Separation  
Manage Military Personnel Transfer  
Manage Missing Casualty Process  
Manage Officer Involuntary Retention  
Manage Operational Duty Experience Competency  
Manage Other Benefits  
Manage Other Federal Government Support  
Manage Organizational Structure

Manage Personnel Classification  
Manage Personnel Demotion  
Manage Personnel Development  
Manage Personnel Development Resource Scheduling  
Manage Physical Evaluation Process  
Manage Private Organization Support  
Manage Recruiting and Accession Waiver  
Manage Recruitment Applicant  
Manage Reimbursements  
Manage Retirement Benefits  
Manage Separation of Non-DoD Personnel  
Manage Special Category Agreement  
Manage State and Local Support  
Manage Transition Assistance Programs  
Manage Travel Authorization  
Manage Travel Resource Scheduling

Manage Travel Voucher  
Manage Traveler Visibility  
Manage Unauthorized Absence  
Manage Workforce Occupational Safety Analysis  
Manage Wounded, Ill or Injured Casualty Process  
Perform Casualty Closeout Process  
Perform Quality of Life Program Management  
Perform Service Induction  
Perform Workforce Analysis  
Perform Workforce Budgeting  
Perform Workforce Planning and Programming  
Provide Education Benefits  
***Provide Human Resources Information***  
Provide Human Resources Management Policy and Guidance Decision  
Provide Personnel Requirement Request Decision  
Support Health Insurance Programs  
Track Personnel Availability  
***Update Human Resources Personal Information***

## Appendix B: Acronyms

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<b>CAO</b>	Chief Acquisition Officer
<b>CFO</b>	Chief Financial Officer
<b>CIO</b>	Chief Information Officer
<b>CO</b>	Contracting Officer
<b>COO</b>	Chief Operating Officer
<b>DoT</b>	Department of Transportation
<b>FAA</b>	Federal Aviation Administration
<b>FAR</b>	Federal Acquisition Regulation
<b>FEA</b>	Federal Enterprise Architecture
<b>GSA</b>	General Service Administration
<b>GWAC</b>	Government Wide Acquisition Contract
<b>IAA</b>	Inter-Agency Agreements
<b>ICA</b>	Independent Contractor Agreement
<b>IDIQ</b>	Indefinite Delivery, Indefinite Quantity
<b>IPAC</b>	Intra-Governmental Payment and Collection System
<b>IT</b>	Information Technology
<b>LoB, LoBs</b>	Line of Business, Lines of Business
<b>NIST</b>	National Institute of Standards and Technology
<b>OMB</b>	Office of Management and Budget
<b>SLA</b>	Service Level Agreement
<b>SDLC</b>	Systems Development Life Cycle or Software Development Life Cycle
<b>SPC</b>	Strategy and Planning Committee
<b>SSSC</b>	Shared Services Subcommittee
<b>WCF</b>	Working Capital Fund

## Appendix C: Interviews Conducted

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Shared Services Canada, Grant Westcott, Chief Operating Officer

U.S. Department of Agriculture, National Finance Center HR Line of Business, Flip Anderson

U.S. Department of Defense, Office of the DoD Chief Information Officer Daniel Risacher, and Rob Viemeyer; Office of the Under Secretary of Defense (Comptroller), Jacqueline DePaulitte

U.S. Department of Health and Human Services, Enterprise Architecture Program, Paul Bartley Deputy Assistant Secretary for Program Support

U.S. Department of Homeland Security:  
Information Systems Security Line of Business  
Working Capital Fund  
Office of Information Technology Services  
Enterprise Services Delivery Office  
Strategic Sourcing Program Office  
Enterprise Business Management Office's IT Policy and Compliance Division

U.S. Department of the Interior, National Business Center, Joe Ward, Director

U.S. Department of State, International Cooperative Administrative Support Service (ICASS), Peter Hogan, Deputy Director

U.S. Department of Transportation/U.S. Federal Aviation Administration, Enterprise Service Center, Bo Peeler, Director, Office of Information Technology

U.S. General Services Administration

Office of Management and Budget, Office of Federal Procurement Policy, Jack Kelly

U.S. National Aeronautics and Space Administration, Shared Services Center, Michael Smith, Executive Director

U.S. Office of Personnel Management, Liz Mautner

U.S. Department of Treasury, Bureau of Public Debt, Cindy Springer



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U.S. Department of Agriculture

National Finance Center HR Line of Business

U.S. Department of Health and Human Services

Enterprise Architecture Program

U.S. Department of Homeland Security:

Information Systems Security Line of Business

Working Capital Fund

Office of Information Technology Services

Enterprise Services Delivery Office

Strategic Sourcing Program Office

Enterprise Business Management Office's IT Policy and Compliance Division

U.S. Department of the Interior

National Business Center's Acquisition Services Directorate and HR Line of Business

U.S. Federal Aviation Administration

IT Standards

U.S. General Services Administration

U.S. National Aeronautics and Space Administration

Shared Services Center

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Gartner, Inc., Steve Hawald and Simon Mingay

Forrester Research, Inc.