Social Security Administration

Enterprise Roadmap

Fiscal Years 2014 - 2017

Message from the CIO

I am pleased to present the Social Security Administration (SSA) Enterprise Roadmap for Fiscal Years 2014-2017. The Enterprise Roadmap outlines our strategy for delivering and improving the Information Technology (IT) solutions and services that we provide to support our administration of the Social Security and Supplemental Security Income (SSI) programs, and to provide substantial support to the related Medicare, Medicaid, and other government programs. The Roadmap includes views of our current business and IT architectures, and our plans for maturing those architectures to support our strategic business plans.

The programs that our IT supports are immense in scope: in FY 2013, we paid over $855 billion to more than 63 million Social Security beneficiaries and SSI recipients. To support these programs, we maintain immense amount of data supported by a large scale IT infrastructure. Our mainframe contains 14 petabytes of data, and our open, client-server IT infrastructure maintains 13 petabytes. In FY 2013, this IT infrastructure supported the processing of an average daily volume of nearly 150 million individual transactions. For the year, our IT operations supported approximately: 1.6 billion automated Social Security number verifications; 251 million earnings items; 5 million retirement, survivor, and Medicare applications; 3 million initial disability claims; 2.6 million nonmedical redeterminations; 1.5 million continuing disability reviews, including approximately 429,000 full medical continuing disability reviews; and 17 million new and replacement Social Security card applications.

In addition to maintaining large scale IT operations capable of supporting the considerable demands of our programs, we are committed to building online services targeted to our public's needs that are easy to use - reducing the need for the public to come to our field offices to complete their business with us. These modifications are an integral feature of our Roadmap and IT strategy. According to the most recently released American Customer Satisfaction Index E-Government Satisfaction Index, we have the three highest rated – and four of the top five – e-government websites in the Federal Government.

Two of our major online efforts are iClaim and *my* Social Security. iClaim is our easy-to-use secure online application for applying for disability, retirement, and Medicare. Using iClaim, applicants can file for benefits online at their own pace and on their own schedule. In FY 2013, over 1.27 million Disability Insurance (DI) claimants, or about 46 percent of DI claimants, filed online and over 1.25 million retirement claimants, or about 49 percent of retirement claimants, filed online. Similarly, *my* Social Security is a personalized secure online portal that individuals can use beginning at age 18 and continuing throughout the time they receive Social Security benefits. Through this portal, individuals who register can view their Social Security Statement, view detailed information on benefits received (for up to 24 months), get a benefit verification letter, start or change direct deposit information, and change their address – all online.

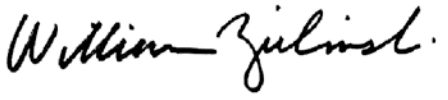
Our strategic investments in online services and our core IT operations have increased our productivity and efficiency—allowing us to keep up with ever-increasing workloads. For example, we currently have about the same number of employees as we had in 2007, even though our workloads have increased dramatically. Due in large part to these successful online services and our other IT initiatives, we are able to keep our administrative costs low – about 1.4 percent of the benefit payments we pay each year. This Roadmap details how we will use IT to maintain these low administrative costs.

Another key IT strategy is leveraging technology to combat fraud and to enhance program integrity. We take seriously our responsibility to maintain the public's trust through effective stewardship of program dollars and administrative resources. For example, we use statistically valid predictive models to enhance key agency program integrity functions while ensuring that our resources are used in the most cost effective and efficient manner possible. From FY 2000 through FY 2013, cases selected under just one set of models have resulted in the recovery or prevention of $1 billion in SSI overpayments.

We are also increasingly using data analytics to make our processes more efficient and more productive. Our Office of Disability Adjudication and Review (ODAR) has developed extensive and rigorous data analytics capabilities that allow it to identify patterns and areas for further examination of policy compliance and consistency. These capabilities allow ODAR to improve consistency and accuracy in adjudicating complex disability appeals.

Building upon our successes in using predictive models and data analytics, we are undertaking a special initiative to expand our use of data analytics to enhance our ability to detect and prevent disability fraud. Specifically, we will apply analytical tools that can determine common characteristics and patterns of fraud based on data from past allegations and known cases of fraud.

This EA Roadmap is a living document. It is updated annually to provide current and future views of our strategy to leverage IT to support our important programs and serve the American public. I am very pleased to present the Roadmap to you. We are proud of our current capabilities, and we are excited about our strategies and plans to expand them further in the future.



Bill Zielinski
Deputy Commissioner for Systems
and
Chief Information Officer
Social Security Administration

APPENDICES

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1.0 Introduction

The SSA Enterprise Roadmap (Roadmap) provides an overview of the governance processes that support our Enterprise Architecture (EA) program. It describes how our EA program supports the Federal Government Capital Planning and Investment Control (CPIC) process, and aligns with the Common Approach to Federal Enterprise Architecture.

This Roadmap supports the annual Federal Budget process, and will be submitted to the Office of Management and Budget (OMB) Office of E-Government and IT so that it can serve as an authoritative reference for IT portfolio reviews and program-level analysis and planning.

Our Roadmap documents and maps our strategic goals to business services, integrating technology solutions across all of our lines of business. It includes views of our current business and IT architectures, and our plans for maturing those architectures to support our strategic business plans. In the Roadmap, we discuss the overall EA, including our governance processes, implementation methodology, and documentation framework. We describe our processes for identifying performance gaps, resource requirements, and planned solutions. We also discuss our current and target architectures, and detailed transition plans for achieving our target state.

Information reported in this Roadmap is obtained from several authoritative sources, including the Agency Strategic Plan (ASP), Information Resource Management Strategic Plan (IRM), and our EA Repository.

Beginning in 2013, this Roadmap and our IRM Strategic Plan are submitted together as part of the Portfolio Stat process. The IRM provides a high-level, strategic view of our agency, and the Roadmap provides the details about how that strategic view will be implemented.

2.0 What's Changed

We released our first Enterprise Roadmap in August 2012. This annual document reflects changes in strategic direction for a variety of reasons such as budget, technology, and the needs of our customers – the American public. It also addresses federally mandated directives, policies, and guidance issued by the OMB. The Roadmap is designed as described in the Guidance on 2013 Federal Agency Enterprise Roadmaps, dated March 29, 2013, and M-13-09 Fiscal Year PortfolioStat Guidance.

To ensure that we deliver innovative quality service to our customers we continue to transform the way we do business by providing more online services. In Fiscal Year (FY) 2013, we introduced the *my* Social Security portal (MySSA) to the American public. People can now create an account and login through Social Security's secure registration and authentication process in MySSA. This online system provides users with the ability to obtain their Social Security Statement. Users who are beneficiaries can also obtain benefit verification letters, change their address, initiate or change their direct deposit information, and view their benefit information in a more streamlined fashion.

We also made significant improvements to strengthen the integrity of our programs by implementing a process to deter, detect, and investigate fraudulent activity within the MySSA Direct Deposit internet application. To ensure reliable, secure, and efficient IT services we continue to make progress in transforming our legacy systems and databases using more efficient and stable technologies. We have migrated many of our outdated data entry applications into new web-based applications, and transitioned our green screen systems (critical payments and third party payments) to web-based applications. We also centralized physical Paperless system architecture, eliminating the dependence for an off-the-shelf repository. We have also made progress on converting our legacy verification and data exchange systems to the new online data exchange system.

In support of transparency and open government, in FY 2013 we published a data inventory and release plan, released dozens of high value datasets, and expanded our social media presence (YouTube, Facebook and Twitter).

This version of our Roadmap includes modifications based on feedback received from Inter-Agency peer reviews, OMB feedback, and internal agency reviews. In addition, the recent budget restraints and cost reductions have affected some of the plans reported in the previous Roadmap draft submitted to OMB in May 2013. Priorities have shifted and some activities have been pushed to out years.

A few of the significant changes are listed below.

Enterprise Architecture (EA) Program Management Section

- Added a section to describe our EA framework as it relates to the FEA framework

Current Architecture Section

- Updated our strategic goals and objectives to reflect those outlined in the latest Agency Strategic Plan (ASP) for FY 2014 – 2018;
- Updated agency performance measures as outlined in the Annual Performance Plan (APP);

- Removed Portfolio documentation – this is now Appendix C;
- Added matrices showing alignment of our strategic Portfolios to the latest goals/objectives, and to portfolio initiatives;
- Added discussion about existing areas of IT duplication

Target Architecture Section

- Added summary of business needs aligned to IT solutions. Some of this information was included in the previous version. However, it was interspersed throughout the Portfolio documentation and not easily recognized;
- Added section describing our business process improvements;
- Added "mini-transition plans" describing planned activities addressing our strategic direction. These plans include estimated time frames spanning the next few years;
- Expanded the Digital Government section to include open data policy

Transition Plan Section

- Added milestones for our major investments;
- Updated the FY 2014 Transition Plan and Allocation of Work Years chart;
- Added section to describe risks and challenges associated with our target strategic direction

Acronym List

- Added table of acronyms used throughout the Roadmap

Appendix B: EA Outcomes and Measures

- Updated to reflect FY 2013 results

Appendix C: Portfolio Documentation

- Moved from main body of Roadmap (Current Architecture section);
- Added description, business outcome and measurement for each initiative within the Portfolio

Appendix D: IT Asset Inventory

- Updated IT Asset Inventory to align with Exhibit 300 data reported to OMB in September 2013

3.0 EA Program Management

Our IT Enterprise Architecture Program is a cornerstone of the overall information technology activities within the agency. As with any complex and integrated program, our EA Program is implemented and maintained by a formal EA Governance Plan. EA as a management program supports policy development, issuance of principles and directives, decision-making, and the effective/efficient use of resources. This section of the Roadmap documents the activities associated with administering EA as an ongoing program.

3.1 EA Framework

Our EA establishes the framework to ensure that IT investments align with the Agency Strategic Plan. This framework is based on principles that define the performance, strategy, business activities, data, application, infrastructure, and security architectures to which our IT project and plans must conform. The EA ensures compliance to architecture and IT-related legislation such as the Clinger-Cohen Act of 1996.

The framework provides the over-arching guidelines for defining our baseline and target architectures. The effectiveness of these architectures is evaluated according to appropriate performance measures reflected in the Annual Performance Plan (APP). It identifies the strategic information assets that define our business processes, the information necessary to operate these processes, the technologies needed to support business operations, and a transition strategy for implementing improved technologies in response to the changing needs of the agency.

We follow the Federal Enterprise Architecture (FEA) framework. The FEA v2 framework includes a hierarchical relationship of the major areas of the architecture: strategic plans, business activities, data & information, applications & systems, and infrastructure & networks. OMB looks at this framework from two perspectives: structural and functional. The structural view provides a view of the various departments, bureaus, and organizations within an agency. This structural view can continue to be de-composed down to lower levels. The functional view provides a view of the characteristics associated with each layer.

The following diagrams illustrate our view of the FEA framework.

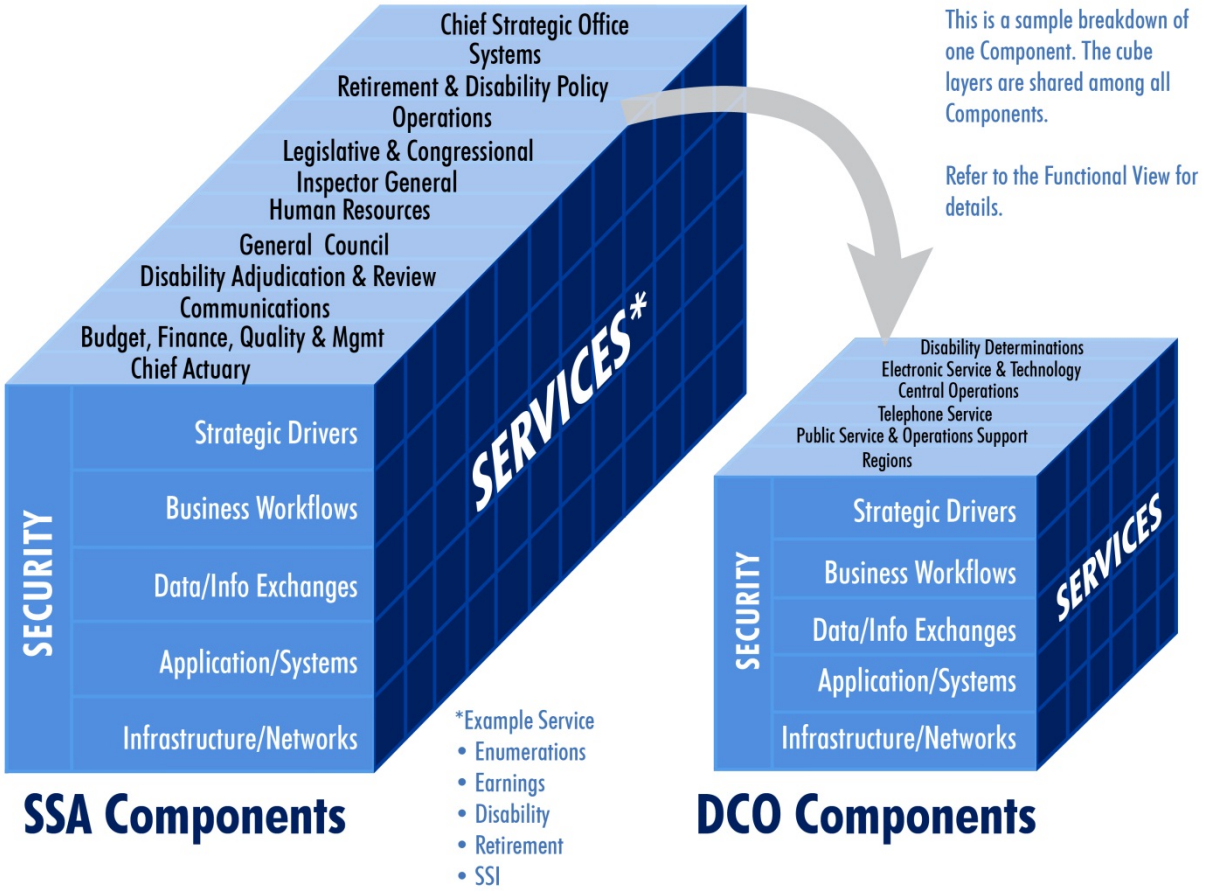

Figure 1: EA Framework – Structural View

We are a centralized agency. We do not have departments or bureaus. Our structural view begins at the organization (aka. Component) level. The larger cube in Figure 1 includes all of our Components. The smaller cube illustrates how the Operations Component is de-composed into offices and regions. We would also like to point out that the layers of the cube are "shared" among components within our agency. For example, our infrastructure and networks layer is common throughout the agency. Many of our applications and systems are common across organizations.

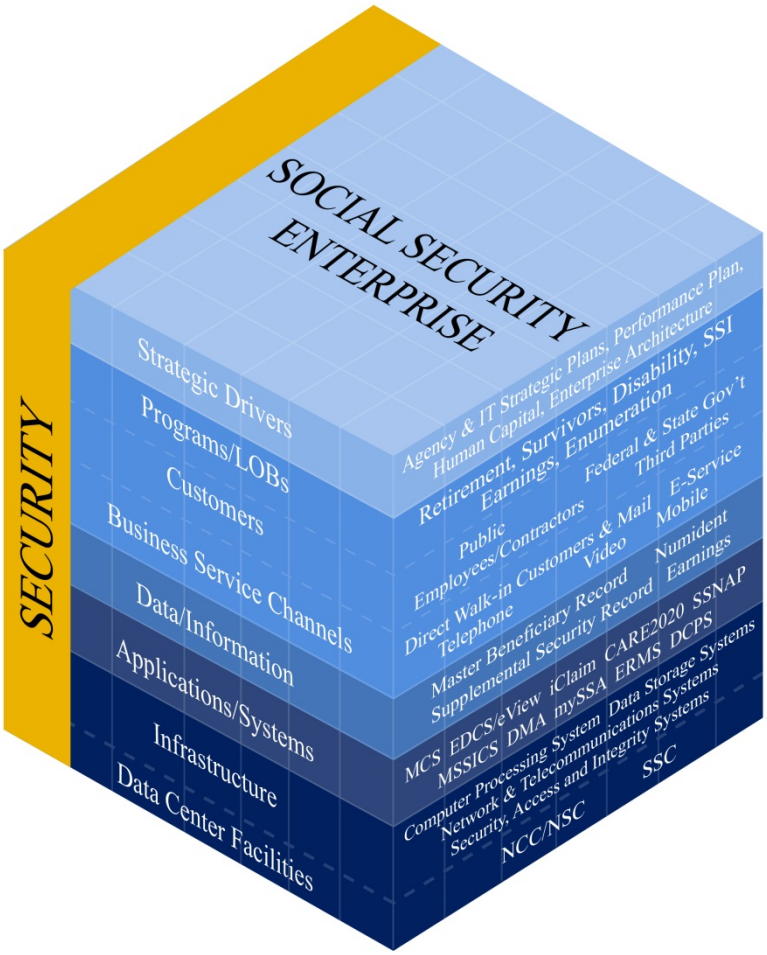

Figure 2: EA Framework – Functional View

The functional view of our EA framework starts with the strategic drivers that ensure our enterprise is managed efficiently and provides the highest of trust in services we provide. These drivers include comprehensive agency and IT Strategic Plans, the Annual Performance Plan, Human Capital planning, and Enterprise Architecture. Our EA program and CPIC process ensures that we appropriately manage all assets with prioritization and system component reuse/efficiency. A full cadre of IT professionals support our enterprise. Security covers all layers of the FEA framework. We embed Security controls into our entire systems life cycle. Our Project Resource Guide (PRIDE) includes Security policies, standards, and guidelines.

Our Business layer includes programs and lines of business, customers, and service channels. We are a single-mission agency that manages several key Programs and Lines of Business including Retirement, Survivors, Disability, Supplemental Security Insurance (SSI), Enumerations, and Earnings. We serve a myriad of Customers including the public (citizens and non-citizens), other Federal and State government agencies, our own employees and contractors, and third parties who are involved with our lines of business (representatives, medical providers, etc.). We interface with our customers through several Business Service Channels that provide them with choices that best meet their interaction requirements. Our information technologies provide key support to our front line customer

representatives who serve our walk-in customers and telephonic channel. We are progressively expanding our e-Service channel to provide direct service to our customers, which reduces the burden and costs associated with walk-in and telephonic channels. We are expanding our mobile offerings to enhance the service experience for our customers. In addition, we utilize other technologies such as video to provide alternative service where distance to our Field Offices or Hearings Offices is problematic for our customer base.

We manage critical Data/Information required to support our Programs and Lines of Business, including the Master Beneficiary Record (MBR), Supplemental Security Record (SSR), Numerical Identification File (NUMIDENT), and Earnings records. Our major lines of business are tightly interwoven and highly complex in their information flow and relationships. They require common platforms, re-usable service models, and user oriented designed applications/systems.

To support our Enterprise, we operate a highly efficient set of infrastructure that consists of key IT domains: Computing, Network/Telecommunications, Data/Storage, and Security. Our infrastructure is based upon a private cloud model that ensures that our information assets are tightly managed and protected. Our infrastructure also incorporates a shared services strategy where appropriate in which we utilize other services offered by vetted partners, or where we share services (e.g. E-Verify). Much of our underlying infrastructure leverages large commodity IT vehicles (NETWORX) and highly competed Blanket Procurement Agreements (BPA's).

Our data center facilities provide foundational support for our infrastructure. We operate two data centers, the National Computer Center (NCC) located in Woodlawn, MD, and the Secondary Support Center (SSC) in Durham, NC. These datacenters are designed to provide dual processing efficiencies and meet our critical backup, recovery, and continuity of operations (COOP) needs. Our NCC will be transitioned to our new datacenter, the National Support Center (NSC), located in Urbana, MD. The NSC will be Leadership in Energy and Environmental Design (LEED) Gold certified. Production at the NSC is scheduled for FY2016.

3.2 GOVERNANCE AND USE

Enterprise architecture establishes the agency-wide IT plan to achieve our mission, goals, and objectives through the integration of strategic planning, performance planning, budgeting, CPIC, security and privacy, acquisition, and other related IT and management processes. Simply stated, enterprise architectures are blueprints for systematically and completely defining an organization's current (baseline) and desired (target) environment. EA is essential for evolving existing information systems and developing new systems in ways that maximize their effectiveness and mission value.

Our EA is aligned with our strategic Portfolios. Each Portfolio represents a major business area, complete with projects, portfolio management infrastructure and a performance measurement process that provide the foundation for modernization and transformation activities from the baseline to the target EA.

3.2.1 IT Lifecycle Framework

We leverage a performance improvement IT Lifecycle Framework that ensures that IT investments align with the ASP. This framework is based on principles that define the performance, data, application, infrastructure (technology), security and business process architectures to which our IT projects and plans must conform. The EA program ensures compliance with this IT Lifecycle Framework, internal architectural directives, and IT-related legislation such as the Clinger-Cohen Act of 1996.

Our IT Lifecycle Framework is well integrated and effective, providing a foundation for sound IT management practices, end-to-end governance of IT investments and the alignment of those investments with our goals and objectives. The framework provides the over-arching guidelines for defining our baseline and target architectures. The effectiveness of these architectures is evaluated according to appropriate performance measures reflected in the APP. The framework identifies the strategic information assets that define our business processes, the information necessary to operate these processes, the technologies needed to support business operations, and a transition strategy for implementing new technologies in response to the changing needs of the agency.

Our IT Lifecycle Framework applies both government and industry best practices in EA, including:

- IT investment management,
- Systems engineering,
- Application Portfolio Management (APM), and
- Portfolio and project management

The IT Lifecycle framework comprises three phases – Architect, Invest and Implement, extending across the entire lifecycle of our IT.

The following diagram shows the Roadmap within the IT Lifecycle Framework.

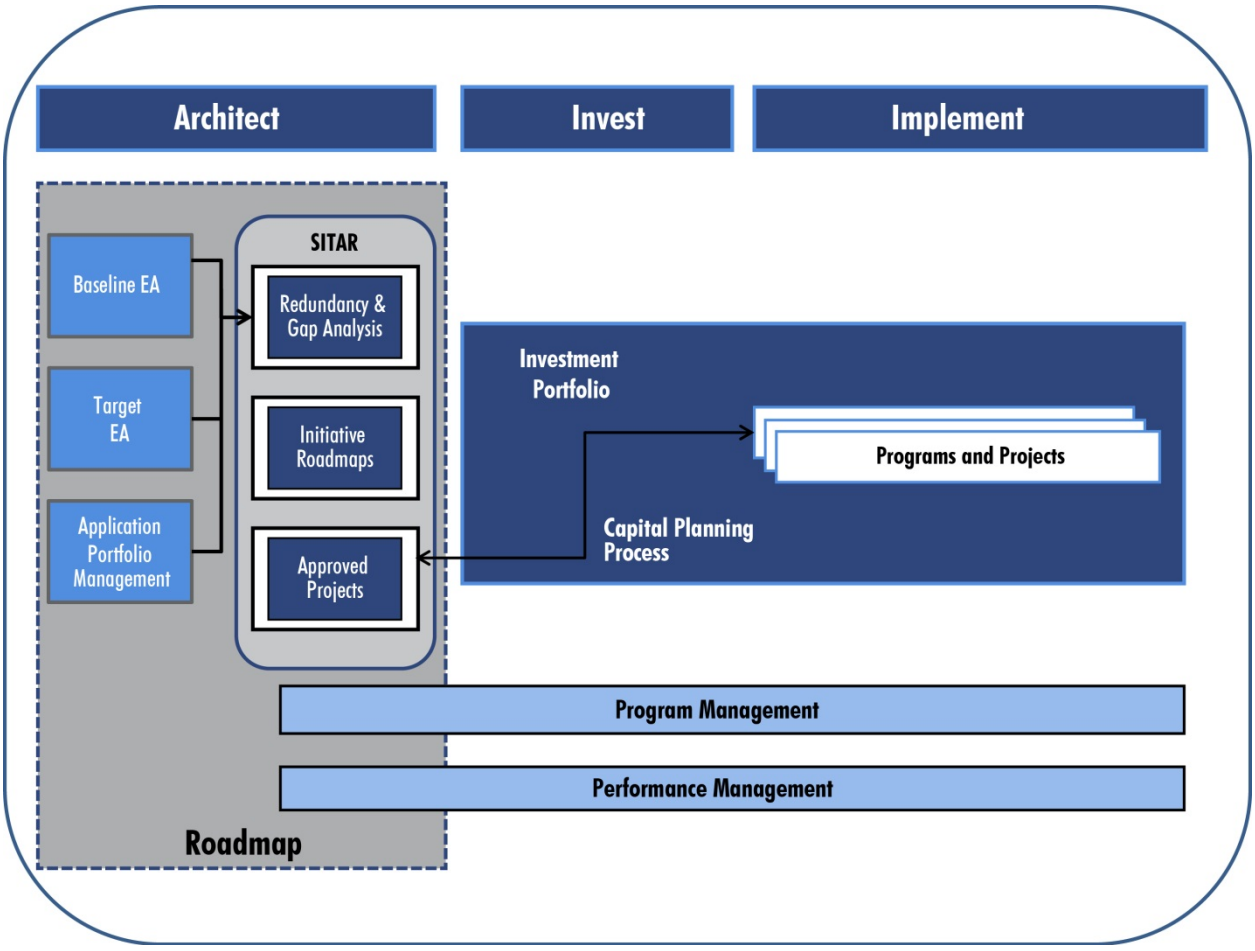

Figure 3: Phases of the IT Lifecycle Framework

The IT Lifecycle Framework is a perspective that organizes our processes to explain their contribution to EA Program Management. For example, the Architect Phase leverages elements of the EA process as well as elements of our investment management processes. Our Strategic Information Technology Assessment and Review (SITAR) process requires that Portfolio Executives conduct a gap analysis identifying business needs that drive IT investment proposals through the investment process. This distributed gap analysis ensures that the business lines are able to identify requirements and initiate proposals based on what they have identified as required to move them in the direction of the ASP and other strategic documents. Another gap analysis is performed by the Systems organization to review our existing architecture, strategic direction (as outlined in our ASP) and other target architecture plans. The review includes information collected through our APM process. This analysis helps us identify proposals and plans that are reviewed and prioritized into projects. The Capital Planning process uses the results from the Architect phase to identify current and future investment needs, which are ultimately implemented via the approved programs and projects.

3.2.2 EA Implementation

We currently use the Troux[1] EA modeling and repository tools, with EA inventories and artifacts housed in the Troux-based framework. Using these tools and agency EA practices we are able to:

- Organize IT and business infrastructures,
- Align our EA framework with government standards such as the Federal Enterprise Architecture (FEA) Common Approach Framework,
- Identify gaps, redundancies and incompatibilities in the EA,
- Provide support for Office of Management and Budget (OMB) Exhibit 53 and 300 documents,
- Deliver EA and business data for government-mandated maturity assessments, and
- Reduce change impact by gaining a full understanding of the business and IT relationship.

We have developed an APM process to further increase EA effectiveness, meet future demands, and identify potential issues and challenges. As part of an overall IT Management Strategy, APM provides:

- Better integration of our investment management, EA and governance processes,
- A holistic approach to determine software application health based on business value and underlying technology sustainability, and
- Vital enterprise information to assist in strategic planning, governance, risk management and architecture decisions

To ensure compliance with, and to maximize the benefit of, our EA program, we rely on four governing boards and groups: the Architecture Design Group (ADG), the Architecture Review Board (ARB), the Design Review Board (DRB), and the Infrastructure Review Board (IRB). As the names indicate, these four boards have different areas of focus and membership.

- The ADG provides Enterprise Architecture expertise and guidance to the ARB, DRB and IRB as well as documenting approved EA standards and maintaining a repository of EA artifacts. The ADG develops and implements enhancements to our enterprise architecture and related processes to provide outstanding consultative tools and support for business vision, application developers and infrastructure managers, and supports the IT investment review process to achieve our business goals when using technology.
- The ARB provides oversight and management of our overall EA. The ARB is responsible for ensuring that all of our IT investments align with our EA, thereby optimizing resources required to build and maintain our applications while continuing to meet our business objectives. The decisions made by the ARB include input from the DRB and IRB.

[1] Troux Technologies product suite provides various EA modeling and repository tools. We use Troux Architect, a client modeling tool, and the Troux Repository, which supports intranet user views (portals) and reports.

- The DRB provides oversight and expertise relating to the design, development, and maintenance of our internally developed applications. The DRB is responsible for defining the architectural design and development standards, and enforcing compliance with those standards.
- The IRB provides oversight and management of the IT infrastructure used to support our systems and applications. The IRB is responsible for dealing with the IT infrastructure, systems operations and support requirements, and security, including authentication and access control.

The ADG recommends architectural components for acceptance and adoption to the ARB and the Chief Architect. Additionally, the ADG, in concert with the Chief Architect, is currently developing an EA artifact knowledge base using Microsoft SharePoint technology, to maintain all EA models and practices and to make these available to all resources throughout the life cycle process of application development.

The ADG reviews projects in the planning stage to identify those that have the potential to expand the scope of our enterprise architecture. For these projects, the ADG will create a governance plan that describes the rationale for introducing new technology and outlines the strategy for its introduction. The intent is to consider the architectural impact of a project separately from its immediate business purpose. The governance plan will formalize the steps and responsibilities needed to create the architectural description of the new enterprise capability and recommend the review activities that are appropriate for the project.

The evolving role of the Chief Architect as a key consultant facilitated by a better informed ARB is our goal.

The following figure illustrates the IT Governance process.

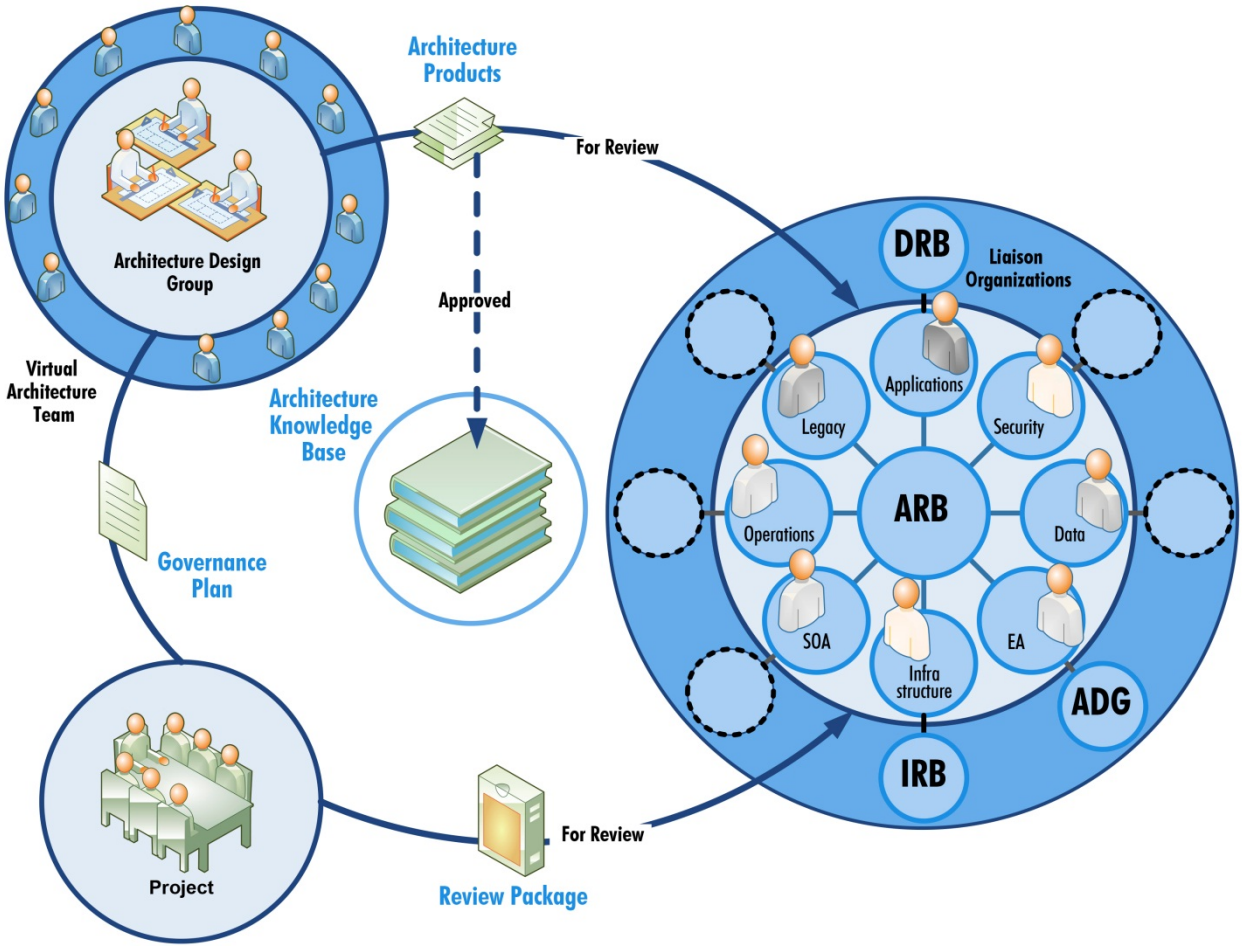

Figure 4: IT Governance Process

The ADG leads a Virtual Architecture Team that is responsible for managing Architecture Products. These products are reviewed by another governing body lead by the ARB and consisting of representatives from the following area: Applications (and DRB), Security, Data, EA (and ADG), Infrastructure (and IRB), SOA, Operations, and Legacy. Once these Architecture Products are approved, they are stored in the Architecture Knowledge Base.

The Virtual Architecture Team is also responsible for managing the Governance Plan that assists Project teams to develop project review packages, which are also reviewed by the ARB governance body.

3.2.3 EA Transition Methodology

We use an architecture-based approach that ensures alignment of its IT infrastructure to the business and mission needs. The FEA-compliant approach that we employ includes:

- A baseline of the current architecture and an understanding of the value stream
- A target architecture that aligns with strategic needs and fills capability performance gaps

- An actionable transformation roadmap, which is reviewed quarterly to assess progress and to adjust for changes in strategy or opportunities. Activities include conducting alternative analyses as well as quickly adjusting to changes in priorities and constraints.

Our proven methodology for IT architecture modernization has been in use since the early 1980's. With evolutionary enhancements, some suggested through OMB's guidance, our approach methodically focuses on standards, identifies and reduces redundancy, and modernizes through a technology roadmap that leverages technology to improve productivity.

With the additional development of an APM process, we are able to enhance our ability to provide better decision-making information and reduce overall IT costs by:

- Identifying quantitative and qualitative evaluation criteria using existing data sources,
- Incorporating metric data capture into existing processes,
- Synchronizing data sources on a fiscal year basis, and
- Integrating APM into proven IT Management approach.

Many characteristics of our environment enable modernization and the transition process, while others impose constraints that restrict how and when a successful transition may be implemented. We employ a large, highly skilled system development staff to support our transition process. This staff is responsible for:

- Over 275,000 programs, developed since the 1960s,
- Several petabytes of highly compressed data that has been collected in ever more increasing granularity since 1936,
- Two data centers, as well as the local and wide area networks, required to automate the citizen-centered services delivered by the tens of thousands of public servants in the field across the USA and in the foreign service posts,
- Methods and processes required to offer world-class service in an ever-changing IT environment, and
- The knowledge to keep pace with executive, legislative and judicial mandates in order to incorporate the latest updates into our processes.

We have adopted standard practices to stay abreast of current technology at minimum cost, and to reduce the likelihood of falling behind the technology curve. These practices include:

- Upgrading mainframe operating system within six months of product version stabilization,
- Three-year refresh cycle for desktop infrastructure in order to stay current with those technologies that are significantly upgraded on a regular basis,
- A Commercial Off-The-Shelf (COTS) software refresh cycle that ensures vendor support of the versions in use,

- A disciplined, Capability Maturity Model Integration (CMMI) based system development lifecycle to minimize the errors and waste associated with erratic systems deployment,
- A mature Data Resource Management (DRM) program that provides current and accurate metadata, as well as reusable software components, for our major data holdings so that these data are usable and shareable throughout our infrastructure regardless of platform,
- Maintaining EA governance over the system development lifecycle,
- Migrating software to a Service Oriented Architecture (SOA), where appropriate, to support government and industry software reuse policy,
- A disciplined and mature governance process via the ARB that ensures project adherence to our EA,
- A technology infusion process that provides for an organized and orderly migration path for the adoption of new technologies within our EA,
- An APM process that meets the needs for integration of investment management, EA, and other governance processes,
- A reuse enforcement process mandated by the EA, integrated into the System Development Lifecycle (SDLC), and governed by the ARB, resulting in cost avoidance and savings that contribute to the goals of a sound IT and investment management strategy and,
- A disciplined investment management process, with executive-level review and selection of project proposals through SITAR. The SITAR meets regularly to ensure project proposal alignment with the strategic business plans.

3.3 Support for Strategy and Business

To ensure our IT investments align with our strategic business needs, we follow the performance management framework set forth in our ASP. This framework provides for appropriate oversight, monitoring, and assessment of our efforts towards achieving short and long-term outcomes that support our strategic goals.

An important component of the ASP is leveraging technology to enable us to meet our goals and achieve the desired business outcomes.

The figure below illustrates the key role of IT planning in the performance management framework.

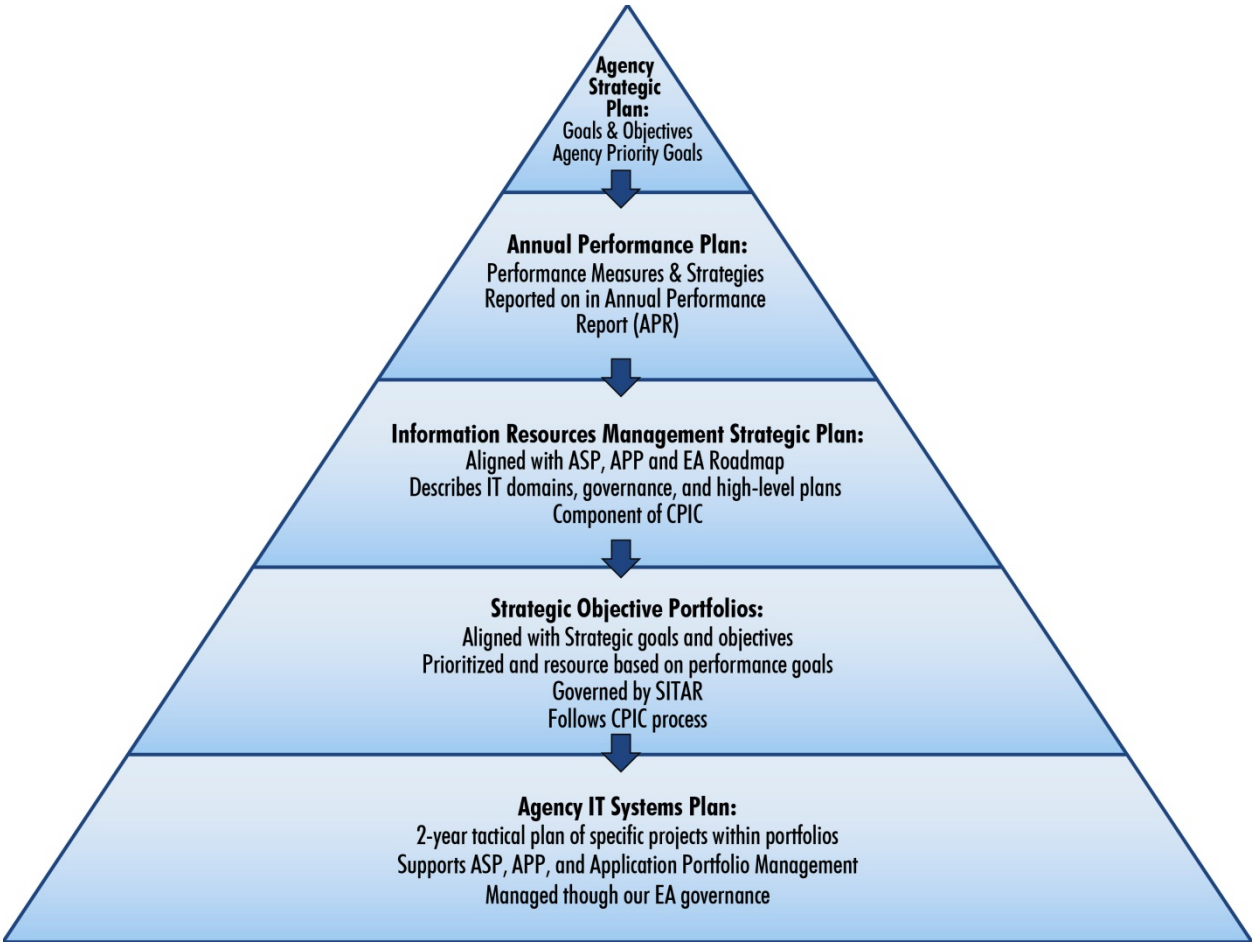

Figure 5: IT Planning – Performance Management

At the pinnacle of the triangle, the ASP drives all lower level planning, including the objectives, priorities and constraints the managers adopt in constructing more detailed support plans. It reflects the goals and supporting objectives, strategies and performance targets over a multi-year period, normally four to five years. Each of these goals is dependent to some extent upon IT.

Aligned to our ASP is our Annual Performance Plan (APP). The APP describes how we will achieve our goals, identifies priorities among the goals and monitors our progress. It describes strategies we will follow, explains why we chose these strategies, and identifies performance targets and key milestones we will accomplish in the current and next fiscal years. Many of the expected business improvements or outcomes rely upon the enterprise availability of our IT services.

Once we establish our APP, we ensure that our priorities and planning documents are consistent with achieving our goals and objectives. Achieving our strategic objectives and performance goals requires direct alignment of capital and enterprise architecture planning.

In the Annual Performance Report (APR), we discuss the results of our progress toward meeting the goals and objectives outlined in our APP. The APR clearly articulates how our work benefits the public,

enabling the public to understand the actions we have taken to make progress and improve our performance.

The IRM Strategic Plan describes how IRM activities help to accomplish our mission and realize our strategic goals and objectives. The IRM plan, used for managing investments, is a key component in our CPIC process.

Our Strategic Portfolios are established and monitored through our CPIC process to ensure alignment with our strategic planning, performance plan goals, strategic IRM planning, and the Roadmap (this document). Our CPIC process facilitates IT project oversight and the integration of Office of Systems (OS) processes for making budget, financial, acquisition, program management, and assessment recommendations. The result of this process is our IT Systems Plan, which guides our OS in assigning work to our IT staff.

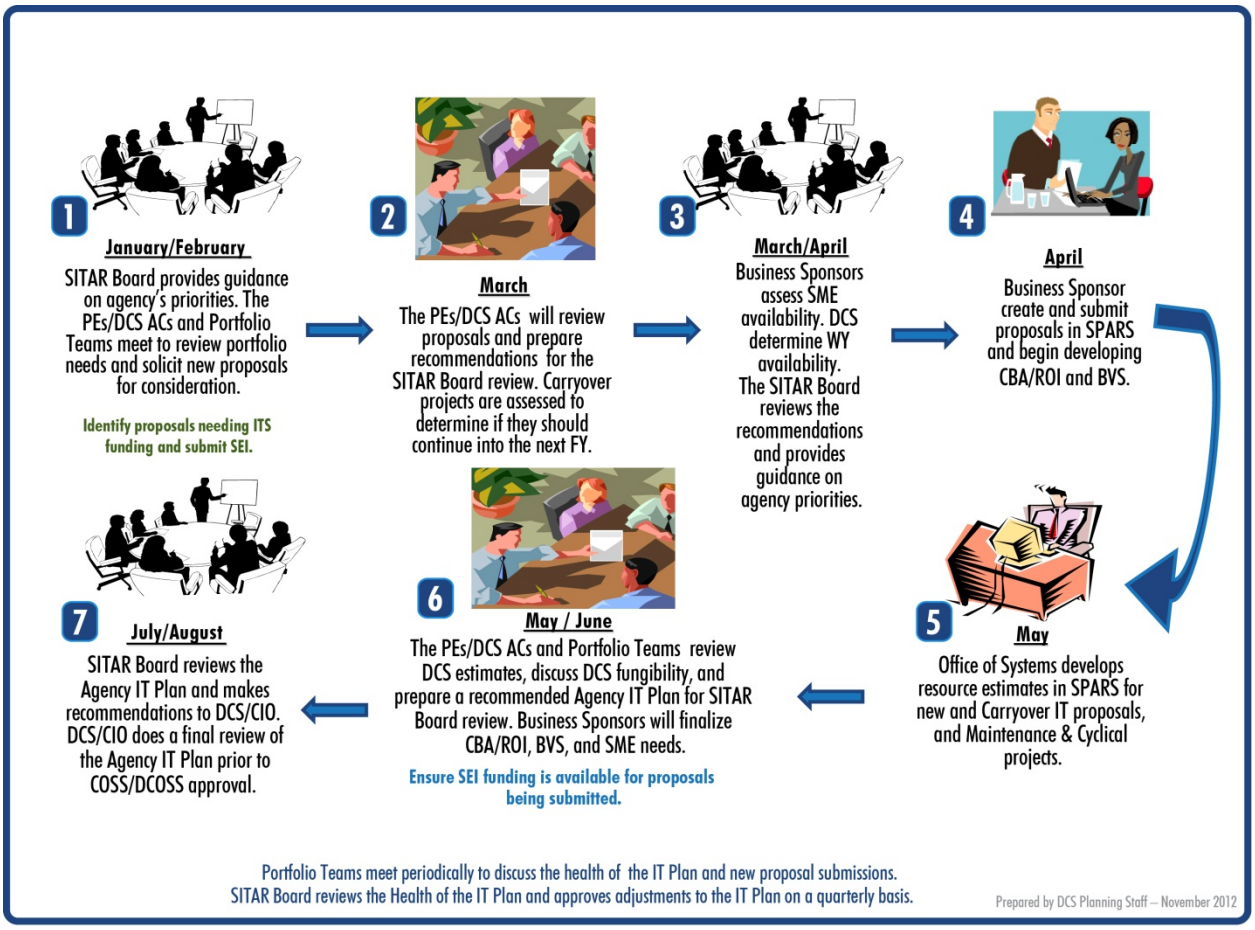

Figure 6: IT Planning Process

3.4 Roles and Responsibilities

The following positions, roles and responsibilities make up the governance, development, and implementation of the Enterprise Architecture program within the our IT environment.

Position	Role	Responsibilities
Commissioner of Social Security	Agency Head / Executive Sponsor	Supports the EA program as a valuable methodology and authoritative reference. Authorizes and approves resources.
Deputy Commissioner for Systems / Chief Information Officer (CIO)	Executive Leadership and Decision-Making	Works with the Commissioner, other Deputy Commissioners, business unit managers, and program managers to gain / maintain support for the EA program. Appoints and supports the Chief Architect. Leads the resolution of high-level EA issues. Helps to integrate EA with other areas of business and technology governance.
Other Deputy (and Associate) Commissioners	Executive Support	Participates in EA Program governance. Promotes the EA as an authoritative reference. Uses EA information and products in business and IT planning / decision-making.
Chief Architect	Program Management	Appointed by the CIO to manage the EA Program by serving as the head of the EA Program Management Office functions. Working with standing and ad hoc committees such as the ARB and ADG, identifies and approves EA methods and standards. Coordinates architecture projects. Leads the configuration management process.
Enterprise Architect(s)	Architecture Integration	Under the direction of the Chief Architect, these subject matter experts comprise the ADG and work with executives, managers, business owners and staff to identify requirements and solutions across all domains and levels of scope.
Solution Architect(s)	Problem Solving	In coordination with the Chief Architect, ADG, and/or specific Enterprise Architects, works collaboratively with stakeholders to identify solutions for unique business and technology requirements. Does analysis and documentation. There will usually be one of these positions within each Associate Commissioner-level organization and/or Strategic Portfolio.
Portfolio Executive(s)	Line of Business Executive Leadership	In coordination with agency leadership and other stakeholders, including the CIO and Chief Architect, works collaboratively to update business strategic plans and priority goals, and identify linkages to program activities. Works closely with the SITAR board to ensure the best implementation of our IT resources.

Position	Role	Responsibilities
Data Architect(s)	Data Analysis and Design	In coordination with the Chief Architect and other architects, works collaboratively with stakeholders to provide technical analysis and design for data-level solution architecture projects and data-related business and technology requirements. Ensures that data solutions meet integration, interoperability, privacy requirements. Does analysis and documentation.
Infrastructure Architect(s)	Network Analysis and Design	In coordination with the Chief Architect and other architects, works collaboratively with stakeholders to provide technical analysis and design support for infrastructure-level architecture projects. Ensures that IT network and data center hosting solutions meet integration and interoperability requirements. Does analysis and documentation.
Section 508 Coordinator	Section 508 Analysis, Design, and Governance	Ensure standardization of mandatory metrics are collected and reported to the Chief Information Officer to report quarterly to the Office of Management and Budget. Additionally, the Section 508 Coordinator will continue to refine its role as it matures and establish target performance goals.
Chief Information Security Officer (CISO)	Security and Privacy Analysis and Design	In coordination with the Chief Architect and other architects, works collaboratively with stakeholders to provide technical analysis and design for security-related architecture projects and security or privacy-related business and technology requirements. Ensures that security and privacy solutions support risk mitigation plans. Does analysis and documentation.
Information Security Architect	Security and Privacy Analysis and Design	In coordination with the CISO, Chief Architect and other architects, works collaboratively with stakeholders to provide technical analysis and design for security-related architecture projects and security or privacy-related business and technology requirements. Ensures that security and privacy solutions support risk mitigation plans. Does analysis and documentation
Line of Business Managers	Requirements Identification	Supports the EA program and ensures that program managers participate in architecture projects by identifying business and IT requirements for program activities.
Program Managers	Requirements Identification	Participates in architecture projects and configuration management activities.

Position	Role	Responsibilities
		Identifies business and IT requirements for program activities.
Capital Planning and Investment Control (CPIC) personnel	IT Investment Analysis	Uses EA principles and directives along with EA Program guidance to support the development of alternatives analyses and to make proper IT investment decisions.
Functional Expert	Subject Matter Expertise	Located within each business group, participates in architecture projects to provide subject matter expertise in a functional requirement area.
Repository Manager	Repository Support	Maintenance of EA website and repository, associated content, and links to other websites as needed.

Table 1: EA Roles and Responsibilities

3.5 EA Program Budget

We began developing our EA program in 2003. OMB legislation and directives (Clinger-Cohen Act of 1996, OMB Circular A-130, and OMB Circular A-11) prompted the need for us to procure an EA modeling tool. This EA Repository includes the information necessary to connect our strategic goals, objectives, and performance measures with our IT portfolios, projects, and applications. The EA Repository provides the ability to organize our IT and business infrastructures, align our EA framework with the FEA, as well as identify gaps, redundancies, and incompatibilities in our EA. The EA Repository also provides support for delivering EA and business data for government-mandated assessments, and helps identify change impact by presenting clear documentation of business and IT relationships.

The following table illustrates the initial start-up costs associated with that effort, as reported in a recent GAO survey.

	Initial Development Costs (FY 2003 – FY 2008)	Average Annual Maintenance Costs
Agency Personnel	$1,932,700	$893,630
Contractor	$715,304	0
Tools	$810,354	$42,436
Training	$149,330	0
Total	$3,609,688	$936,066

Table 2: EA Start-Up Costs

The ongoing effort for supporting our EA program includes the following line items, as reported in the latest Exhibit 53 (Budget Year 2015 – reported in September 2013).

Investment Title	DME (Planning, Development Spending/Capital Spending) ($M)			Operational & Maintenance Spending [non-DME] ($M)			Total		
	2013	2014	2015	2013	2014	2015	2013	2014	2015
Non-Major Infrastructure Application Portfolio Management	1.974	0.206	0.386	0	0	0	1.974	0.206	0.386
Non-Major IT Architecture	18.926	17.729	19.385	8.111	3.407	3.715	27.037	21.136	23.100

Table 3: EA-Related Investments

3.6 EA Value Measurement

EA performance measures are put in place to gauge the overall effectiveness of our EA Program. Measures can take the form of output-based, objective values or outcome-based, subjective values. In order to effectively evaluate a program as broad and all encompassing as Enterprise Architecture, it is necessary to have components of each measurement type in the review. OMB has identified a core set of outcomes and measurements, common across all Federal Agencies. We have adopted those measures into our EA program. Refer to APPENDIX B: for the core outcomes and measurements that we are currently tracking.

In addition, we have identified a methodology for measuring the effectiveness of our EA program from two other perspectives: tactical and portfolio.

3.6.1 Tactical Metrics

We have developed a process for determining a set of tactical metrics demonstrating the effectiveness of our EA program. The methodology used to determine these metrics has been fully documented, providing the ability to evaluate these metrics on a continuous basis. This process includes open communications, on a regular basis, between the EA staff and the Chief Architect to identify areas of concern. These concerns are translated into metrics that will be continuously monitored and formally reported at the end of each fiscal year. This year the report includes a summary of our FY 2013 major milestones, and a list of our planned FY 2014 priorities.

For FY 2013, the following areas were measured:

- Procurement
- Architectural Due Diligence
- Reusable Services
- Architectural Knowledge Base

- Enterprise Service Availability
- Customer Satisfaction

The specific metrics reported for FY 2013 are included in APPENDIX B: .

Procurement

We have realized cost savings associated with consolidated IT procurements. Since the implementation of the Enterprise Software Engineering Tools (ESET) initiative we have been able to consolidate procurements across organizations. These consolidations resulted in significant cost savings that would not have been possible had these procurements been obtained independently.

In 2013, the ESET process enabled us to realize significant re-use of existing licenses for employees reducing the total overall purchases of Microsoft Software. These same principals have been applied to the Office of Systems and other software using the ESET process to show similar cost savings.

We were also able to show significant savings in FY 2013 in the area of IBM Mainframe hardware purchases. By consolidating requirements and bundling purchases, we were able to reduce costs of the individual requirements. In addition, we realized cost savings associated with our Enterprise Software Support and Maintenance strategic sourcing initiative.

Architectural Due Diligence Rate

Because of our mature EA governance processes, we have realized significant improvements in the quality and efficiency of the software we develop. Those improvements are evidenced by the improvements of projects' compliance ratings. We have seen an increase in the number of projects that receive a fully compliant rating during their initial presentation to the ARB. In previous years, unsupported practices and issues with implementation of supported practices were discovered during initial project presentations to the ARB, resulting in return visits to the ARB. However, due to better-defined standards and supported architectures, improvements to our EA governance process, increased EA awareness, and improved communications throughout the development community; projects are developing solutions that are much more compliant with our EA.

Additionally, we have seen an increase in the number of projects that do not require a formal ARB meeting. Projects are required to complete a questionnaire to describe their current and future business and technology architectures. Based on those responses, it may be determined that the applications affected by these projects are fully compliant and can be exempted from a formal ARB meeting. This process illustrates how increased EA awareness has positively affected our development efforts.

Reusable Services Usage

Over the past few years, we have experienced a significant increase in the development of modular services that can be shared by multiple applications as opposed to stand-alone software developed for single use. Some of the services recently developed include:

- Scheduling and management of appointments made with the public;
- Accessing and editing a variety of Title II beneficiary information;

- Accessing, editing and searching the National Vendor File

Some of the benefits associated with reusable services include reduction in software development time and maintenance costs. The software development time is reduced when applications call existing software services rather than require coding the functionality directly. Reusing existing software services also reduces software maintenance costs because software changes (e.g. enhancements or new functionality) are made in one place and shared by many applications.

We have also developed a set of core services that provide standardized access to specialized functionality. Core Services are a suite of intranet-based utilities designed to simplify core (or common) routines required by many web-based applications. The utilities leverage open, accessible technologies, eliminating the drawbacks commonly seen in proprietary coding techniques. The functionality of each core service is different, but the concept of providing centrally located code that can be used by dozens of developers across the nation is the Core Services suite's greatest benefit.

These core services are a specialized type of reusable services, and they provide the same benefits as the ones mentioned above: reduced software development time and maintenance costs. These core services also provide an additional benefit: improved data quality. They ensure that the data being returned to individual applications is current, valid and of consistent format. Reusing these core services reduces software maintenance costs because software changes are made in one place and shared by many applications.

In addition, we have developed a common reusable framework for developing web applications, called the DCS Framework. This framework simplifies development and configuration of web applications by providing a standardized infrastructure and implementation methods. More recently, the User Experience Framework (UEF) was developed to provide standardized user interface design standards and interactions, and associated code to design and develop usable, accessible software interfaces.

This framework ensures the avoidance of costs associated with designing, developing and maintaining non-standard code. In addition, the use of standardized code and implementation methods could potentially reduce time to delivery.

We have recently implemented the WebSphere Services Registry & Repository (WSRR) to manage our services. Enterprise services are services designed for use by multiple applications. They utilize the complete SOA infrastructure (i.e. registered in WSRR, configured in DataPower, uses enterprise service bus). Non-enterprise services are also registered in WSRR, and may or may not use the infrastructure. They are generally localized services that have the potential to become enterprise-wide in the future. In FY 2013, we have seen a significant increase in the number of enterprise services using WSRR. In fact, all of the core services listed above are using WSRR.

Architectural Knowledge Base

The Architecture Design Group (ADG) provides Enterprise Architecture expertise and guidance to the agency. The ADG identifies and documents approved EA standards and best practices, and recommends architectural components for acceptance and adoption into our environment. During FY 2013, we have increased the number of architectures documented and approved. In addition, we introduced the

Architecture Knowledge Base repository using Microsoft SharePoint technology to maintain EA models, documentation, and architectural decisions. This knowledge base is available to all internal resources. During FY 2013, we also expanded the functionality of our Architecture Knowledge Base to include built-in workflow to track document modifications and manage the review and approval process.

Service Availability

We completed a wide range of planned enhancements to our enterprise IT infrastructure in FY2013. Each of these enhancements helps to improve the availability of our IT services. As the following table illustrates, our enterprise service availability has improved each year.

Fiscal Year	Availability
2013	99. 9563%
2012	99.9488%
2011	99.8901%
2010	99.8381%

Table 4: Fiscal Year Service Availability

We also monitor the availability of our principal service channels. The significance of these high levels of our enterprise availability is highlighted when they are also viewed in the context of the significant increases of transaction volumes and the number of problems that were identified and resolved as part of our ongoing Service Management initiatives.

	Enterprise	Online	*DDS eDIB	Data Exchange	Internet	Telephone	Weekend
Enterprise Availability	99.9563%	99.9761%	99.9321%	99.9996%	99.6660%	99.9469%	99.8964%
Service Level Objectives	99.5%						

Table 5: FY 2013 Enterprise Service Availability

*Disability Determination Services – Electronic Disability

Customer Satisfaction

The IT Planning Staff recently completed its survey of the 2013 SITAR lessons learned. This survey included a series of questions to determine the level of satisfaction with the EA program. The majority of those questions were directed to the Portfolio Executives and the Office of Systems Associate Commissioners. Two of the questions, pertaining to the Application Portfolio Management (APM) process, were directed to the Portfolio Executives only.

3.6.2 Portfolio Outcome Metrics

As we continue to evaluate our EA program and how we measure its effectiveness, we realized that there was a gap. We are very good at measuring our EA program from an overall agency perspective, using some of the metrics identified in the Annual Performance Plan. We can also measure the effectiveness of our EA program at a much lower level, from a project and infrastructure perspective. However, we were not so good at measuring the effectiveness of EA from a Portfolio or business perspective. To address this gap we recently developed a methodology to assist Portfolio Managers with identifying measurable outcomes. We have created a set of repeatable processes and guidelines that will assist our stakeholders with identifying metrics that are measurable, meaningful, repeatable, consistent, and actionable.

As part of the annual planning process, our Portfolio Managers review their portfolio needs and make any necessary adjustments to their vision statements. These vision statements describe the purpose and goals of the Portfolio. However, they were a bit weak on identifying clear, measureable business outcomes. During the annual review cycle, our EA staff began working with the Portfolio staff to identify clear, measureable business outcomes, resulting in useful and relevant metrics. These business outcomes and metrics are included in the Portfolio documentation provided in APPENDIX C: .

3.7 EA Maturity

In August 2010, the Government Accountability Office (GAO) released the Executive Guide, Organizational Transformation: A Framework for Assessing and Improving Enterprise Architecture Management version 2.0. The framework consists of seven hierarchical stages of management maturity; and 59 elements, or building blocks, of EA management that are at the core of an EA program.

Each of the seven maturity stages reflects those EA management conditions that an enterprise should meet to logically build on the capability established at the preceding stage. As such, the stages provide a road map for systematically maturing or evolving an organization's capacity to manage an EA. The stages are:

- Stage 0: Creating EA Awareness;
- Stage 1: Establishing EA Institutional Commitment and Direction;
- Stage 2: Creating the Management Foundation for EA Development and Use;
- Stage 3: Developing Initial EA Versions;
- Stage 4: Completing and Using an Initial EA Version for Targeted Results;
- Stage 5: Expanding and Evolving the EA and Its Use for Institutional Transformation;
- Stage 6: Continuously Improving the EA and Its Use to Achieve Corporate Optimization

The 59 core elements are collectively the EA practices, structures, activities, and conditions that, when properly employed based on the unique facts and circumstances of each organization and the stated purpose of its EA program, can permit that organization to progress to increasingly higher states of EA management maturity and thereby maximize its chances of realizing an EA's institutional value.

We performed an internal self-assessment of our EA program in late 2010 and again in Fall 2012. The results of these self-assessments demonstrate how much we have matured in our EA practices. During the 2010 self-assessment, we evaluated each of the 59 core elements. However, we did not tally those scores to determine our overall maturity status. In February 2013, OMB adopted a standardized template for evaluating and scoring EA program maturity, based on these core elements. The results of our self-assessment can be found in APPENDIX A: .

4.0 Current Architecture

One of the purposes of the Enterprise Roadmap is to provide an overview of the linkage between current services and resources in each area of the EA. This Roadmap is not intended to duplicate the information that is available in our EA Repository. It will provide an integrated view of the current business activities and supporting technology solutions. This section sets the stage for the next section of the Roadmap, the target architecture.

We are a centralized agency (no bureaus or departments). We have a very robust, centralized IT environment that supports the automation of major aspects of our core mission. We do not face the difficulty of coordinating and managing multiple EA programs. We only have one email system. Our major programmatic data stores have always been centralized. In addition, our enterprise software development occurs in a centralized organization.

We rely upon a large and complex technology infrastructure that includes very sensitive national databases, hundreds of software applications, large back-end computing platforms, thousands of networked computers, printers, telephones, and other devices as well as a highly motivated and highly skilled workforce.

This section begins with a description of our agency goals, objectives, and performance measures. We follow that with a diagram and discussion about the business services that we provide. These services are managed at the Portfolio and Initiative level, which are aligned to our agency goals and objectives. We have also identified areas of IT duplication that will be addressed in Section 5.0 Target Architecture.

This section also includes a discussion about the application and infrastructure configuration that support our business. Finally, we describe security and privacy, standards, and workforce requirements needed to protect and support our resources.

For a complete view of our strategic Portfolios, refer to APPENDIX C: .

4.1 Strategic Goals and Objectives

Our Agency Strategic Plan for Fiscal Years 2014 – 2018 outlines our strategic goals and objectives. We have five major goals, focused on quality service, program integrity, disability, workforce, and information technology (IT). Each major goal has a set of strategic objectives.

***Quality Services Goal*:** Deliver Innovative Quality Services
Strategic Objectives:

- Develop and Increase the Use of Self-Service Options
- Enhance the Customer Experience by completing Customer's Business at the First Point of Contact
- Align Our Physical Footprint to Incorporate Improved Service Options
- Partner with Other Agencies and Organizations to Improve Customer's Experience and Align with the Administration's One-Government Approach

Program Integrity Goal: Strengthen the Integrity of Our Programs
Strategic Objectives:

- Transform the Way We Record Earnings to Enhance Data Accuracy
- Protect the Public's Data and Provide Secure Online Services
- Increase Payment Accuracy

Disability Goal: Serve the Public through a Stronger, More Responsive Disability Program
Strategic Objectives:

- Improve the Quality, Consistency, and Timeliness of Our Disability Decisions
- Maximize Efficiencies Throughout the Disability Program
- Enhance Employment Support Programs and Create New Opportunities for Returning Beneficiaries to Work

Workforce Goal: Build a Model Workforce to Deliver High Quality Service
Strategic Objectives:

- Attract and Acquire a Talented and Diverse Workforce that Reflects the Public We Serve
- Strengthen the Competency, Agility and Performance of Our Workforce to Align with the Needs of the Public
- Foster an Inclusive Culture that Promotes Employee Well-Being, Innovation and Engagement
- Enhance Planning and Alignment of Human Resources to Address Current and Future Public Service Needs

Information Technology Goal: Ensure Reliable, Secure, and Efficient Information Technology (IT) Services
Strategic Objectives:

- Maintain System Performance and the Continuity of IT Services
- Enhance and Execute Plans to Modernize Our Systems
- Incorporate Innovative Advances in Service Delivery
- Continuously Strengthen Our Cyber Security Program

4.2 AGENCY PERFORMANCE MEASURES

We have identified key budgeted workload measures and measures specifically targeted towards the goals and objectives outlined in the ASP. The following table provides an overview of our performance and targets for those budgeted workload performance measures.

Performance Measure	FY 2013 Actual	FY 2013 Target	FY 2014 Target	FY 2015 Target
Achieve the target speed in answering National 800 Number calls	617 seconds	535 seconds	700 seconds	590 seconds
Achieve the target busy rate for National 800 Number calls	11.9%	16%	5%	5%
Complete the budgeted number of retirement, survivors, and Medicare claims	5,006,855	5,269,000	5,308,000	5,449,000
Complete the budgeted number of SSI non-disability redeterminations	2,634,183	2,622,000	2,622,000	2,622,000
Complete the budgeted number of full medical Continuing Disability Reviews (CDR)	428,568	422,000	954,000	1,292,000
Average processing time for initial disability claims	107.4 days	109 days	114 days	131 days
Average processing time for reconsiderations	N/A	New in FY2014	TBD	TBD
Average processing time for hearings decisions	396 days (September only)	~389 days (September only)	415 days	415 days
Complete the budgeted number of initial disability claims	2,987,883	2,962,000	2,874,000	2,723,000
Complete the budgeted number of reconsideration disability claims	803,194	787,000	717,000	646,000
Complete the budgeted number of hearing requests	793,580	793,000	770,000	811,000
Achieve the target number of initial disability claims pending	698,127	804,000	816,000	995,000
Achieve the target number of reconsideration disability claims pending	173,472	220,000	245,000	324,000
Achieve the budgeted goal for hearing case production per work year	109	111	111	113
Achieve the budgeted goal for DDS case production per work year	322	320	323	325

Table 6: Key Budgeted Workload Measures

The next set of tables provides an overview of our performance and targets for the agency driven performance measures. These measures are listed according to the strategic goal and objective they support. Agency Priority Goals (APG) are indicated in the tables.

Strategic Goal 1: Deliver Innovative Quality Services				
Performance Measure	**FY 2013 Actual**	**FY 2013 Target**	**FY 2014 Target**	**FY 2015 Target**
Objective 1.1: Develop and Increase Use of Self-Service Options				
Improve access to our services by increasing the number of citizens who complete their business with us online **APG**	N/A	N/A **NEW for FY 2014**	Increase the number of citizens completing business online by 10% over FY 2013	Increase the number of citizens completing business online by 10% over FY 2014
Objective 1.2: Enhance the Customer Experience by Completing Customer's Business at the First Point of Contact				
Provide the public with a more convenient hearing alternative by increasing the percentage of video hearings conducted **APG**	N/A	N/A **NEW for FY 2014**	27% of hearings conducted by video	28% of hearings conducted by video
Expand the services available under "*my* Social Security" by implementing an online Social Security Number Replacement Card application	N/A	N/A **NEW for FY 2014**	Complete planning and analysis for implementing an online Social Security Number Replacement Card	Implementation of the online Social Security Number Replacement Card
Maintain customer satisfaction with our online services	N/A	N/A **NEW for FY 2014**	Maintain an average customer satisfaction score of at least 80	Maintain an average customer satisfaction score of at least 80
Provide the public with access to personalized information by increasing the number of established "*my* Social Security" accounts **APG**	N/A	N/A **NEW for FY 2014**	We will increase the number of customers who sign up for "*my* Social Security" by 15% over FY 2013	We will increase the number of customers who sign up for "*my* Social Security" by 15% over FY 2014
Objective 1.3: Partner with Other Agencies and Organizations to Improve Customer's Experience and Align with the Administration's One-Government Approach				
Minimize the average response time to deliver medical evidence to the Department of Veteran Affairs (VA) for wounded warriors and veterans	N/A	N/A **NEW for FY 2014**	Deliver medical evidence to the VA within an average of 5 days	Deliver medical evidence to the VA within an average of 4 days
Partner with the Department of Health and Human Services (HHS) and the VA to serve the homeless population	N/A	N/A **NEW for FY 2014**	Partner with HHS and VA to draft a Federal best practices model for facilitating access to SSI and Social Security Disability Insurance benefits	Work with the United States Interagency Council on Homelessness (USICH) to determine appropriate next steps in sharing best practice model with other federal

Strategic Goal 1: Deliver Innovative Quality Services				
Performance Measure	**FY 2013 Actual**	**FY 2013 Target**	**FY 2014 Target**	**FY 2015 Target**
				agencies
Objective 1.4: Align Our Physical Footprint to Incorporate Improved Service Options				
In light of substantial staff losses and availability of many self-service options, we will reassess our physical footprint to identify opportunities for improved service delivery	N/A	N/A **NEW for FY 2014**	Evaluate potential opportunities for co-locating and consolidating our public service facilities within and outside of SSA	TBD

Table 7: Strategic Goal 1 Performance Measures

Strategic Goal 2: Strengthen the Integrity of Our Programs				
Performance Measure	**FY 2013 Actual**	**FY 2013 Target**	**FY 2014 Target**	**FY 2015 Target**
Objective 2.1: Transform the Way We Record Earnings to Enhance Data Accuracy				
Redesign our earnings system to improve the accuracy and timeliness of the earnings data used to calculate benefits	N/A	N/A **NEW for FY 2014**	Complete construction of at least 50% of the redesigned functionality to process Forms W-2 within the Annual Wage Reporting (AWR) system	Implement the redesigned functionality to process Forms W-2 within the AWR system
Objective 2.2: Protect the Public's Data and Provide Secure Online Services				
Implement a fraud and integrity unit to protect the public's data	N/A	N/A **NEW for FY 2014**	Establish the *my* Social Security Fraud Analysis and Coordination Team	Expand the Fraud Analysis and Coordination Team
Enhance our security features and business processes to prevent and detect fraud	N/A	N/A **NEW for FY 2014**	Expand the Public Facing Integrity Review (PFIR) system to more rapidly detect a greater variety of fraudulent Internet transactions	Continue to expand the PFIR system to more rapidly detect a greater variety of fraudulent Internet transactions
Objective 2.3: Increase Payment Accuracy				
Reduce the percentage of improper payments made under the SSI program	N/A	N/A **NEW for FY 2014**	No more than 6.2% of all payments made under the SSI program are	No more than 6.2% of all payments made under the SSI program are

Strategic Goal 2: Strengthen the Integrity of Our Programs				
Performance Measure	**FY 2013 Actual**	**FY 2013 Target**	**FY 2014 Target**	**FY 2015 Target**
APG			improper payments (i.e., overpayments and underpayments)	improper payments (i.e., overpayments and underpayments)
Maintain the low percentage of improper payments made under the Old-Age, Survivors, and Disability Insurance (OASDI) program	N/A	N/A **NEW for FY 2014**	No more than 0.4% of all payments made under the OASDI program are improper payments (i.e., overpayments and underpayments)	No more than 0.4% of all payments made under the OASDI program are improper payments (i.e., overpayments and underpayments)

Table 8: Strategic Goal 2 Performance Measures

Strategic Goal 3: Serve the Public Through a Stronger, More Responsive Disability Program				
Performance Measure	**FY 2013 Actual**	**FY 2013 Target**	**FY 2014 Target**	**FY 2015 Target**
Objective 3.1: Improve the Quality, Consistency, and Timeliness of Our Disability Decisions				
Expedite cases for the most severely disabled individuals by achieving the target percentage of initial disability cases identified as Quick Disability Determinations (QDD) or Compassionate Allowances (CAL)	6.6% (September only)	6% (September only)	6.5% of initial disability cases identified as QDD or CAL	6.5% of initial disability cases identified as QDD or CAL
Ensure the quality of our decisions by achieving the DDS decisional accuracy rate for initial disability decisions	Data available February 2014	97%	97% decisional accuracy	97% decisional accuracy
Ensure the quality and consistency of our hearing decisions by randomly reviewing a percentage of cases using an in-line review process	N/A	N/A **NEW for FY 2014**	Randomly review 0.10% of our hearing decisions	Randomly review 1% of our hearing decisions
Increase our ability to provide timely decisions by focusing on our oldest cases first	0.70% of pending hearing requests 700 days or older	Less than 0.5% of pending hearing requests 700 days or older	Make decisions on 99.5% of cases that start the year over 310 days old	Make decisions on 99.5% of cases that start the year over 285 days old
Increase our ability to provide timely decisions by reducing the percentage of pending Appeals Council requests for review over 365 days old	8.90% pending 365 days or older	19% or fewer pending 365 days or older	18% or less of cases pending over 365 days	17% or less of cases pending over 365 days

Strategic Goal 3: Serve the Public Through a Stronger, More Responsive Disability Program				
Performance Measure	**FY 2013 Actual**	**FY 2013 Target**	**FY 2014 Target**	**FY 2015 Target**
Objective 3.2: Maximize Efficiencies Throughout the Disability Program				
Improve the disability determination process by increasing the percentage of initial disability claims with Health Information Technology (IT) medical evidence	N/A	N/A **NEW for FY 2014**	2.5% of initial disability claims with Health IT medical evidence	4% of initial disability claims with Health IT medical evidence
Objective 3.3: Enhance Employment Support Programs and Create New Opportunities for Returning Beneficiaries to Work				
Achieve the target number of beneficiaries participating in the Ticket to Work program who earn above a certain level	N/A	N/A **NEW for FY 2014**	1300 beneficiaries	1330 beneficiaries

Table 9: Strategic Goal 3 Performance Measures

Strategic Goal 4: Build a Model Workforce to Deliver High Quality Service				
Performance Measure	**FY 2013 Actual**	**FY 2013 Target**	**FY 2014 Target**	**FY 2015 Target**
Objective 4.1: Attract and Acquire a Talented and Diverse Workforce that Reflects the Public We Serve				
Achieve the target veteran and disabled veteran new hire percentage to improve their representation in the SSA workforce	Veteran Hiring: 46.6% of total hiring Disabled Veteran Hiring: 18.10% of total hiring	18% Veterans 15% Disabled Veterans	25% Veterans 16.49% Disabled Veterans	25% Veterans 17.49% Disabled Veterans
Achieve the target on-board representation of employees with targeted disabilities	1.99%	2.00%	2.00%	2.00%
Objective 4.2: Strengthen the Competency, Agility, and Performance of Our Workforce to Align with the Needs of the Public				
Reduce skills gaps for leaders and/or potential leaders to improve leadership competencies	N/A	N/A **NEW for FY 2014**	Reduce skills gaps in Leadership Development Program participants in at least two critical competencies	Assess skills gaps for participants in the Leadership Essentials for New Supervisors initiative
Reduce skills gaps in mission-critical	N/A	N/A	Assess skills gaps for	Reduce skills gaps for

Strategic Goal 4: Build a Model Workforce to Deliver High Quality Service				
Performance Measure	**FY 2013 Actual**	**FY 2013 Target**	**FY 2014 Target**	**FY 2015 Target**
occupations to improve general and technical competencies		**NEW for FY 2014**	Human Resources (HR) specialists	HR specialists in at least two critical competencies Assess skills gaps for legal assistants in the Office of Disability Adjudication and Review
Objective 4.3: Foster an Inclusive Culture that Promotes Employee Well-Being, Innovation, and Engagement				
Maintain status as one of Top 10 Best Places to Work among large agencies in the Federal Government	Achieved a Top 10 Ranking	N/A **NEW for FY 2014**	Achieve a Top 10 Ranking	Achieve a Top 10 Ranking
Achieve the target two-year new hire retention percentage	N/A	N/A **NEW for FY 2014**	Retain 85% of newly hired employees	Retain 85% of newly hired employees
Increase workplace flexibilities by expanding telework opportunities for employees	N/A	N/A **NEW for FY 2014**	Increase the percentage of employees participating in telework by 100% over FY 2013 levels	Increase the percentage of employees participating in telework by 100% over FY 2014 levels
Objective 4.4: Enhance Planning and Alignment of Human Resources to Address Current and Future Public Service Needs				
Conduct workforce analysis and planning activities to support future workforce transition initiatives	N/A	N/A **NEW for FY 2014**	Conduct workforce staffing analysis to support workforce planning efforts	Expand workforce staffing analysis to include an analysis of workforce skills and competencies
Achieve target number of human capital metrics identified in ongoing human capital performance review sessions	N/A	N/A **NEW for FY 2014**	Achieve 75% of the human capital metrics	Achieve 80% of the human capital metrics

Table 10: Strategic Goal 4 Performance Measures

Strategic Goal 5: Ensure Reliable, Secure, and Efficient Information Technology Services				
Performance Measure	**FY 2013 Actual**	**FY 2013 Target**	**FY 2014 Target**	**FY 2015 Target**
Objective 5.1: Attract and Acquire a Talented and Diverse Workforce that Reflects the Public We Serve				
Provide uninterrupted access to our systems during scheduled times of operation	99.96%	99.5% availability	99.5% availability	99.5% availability

Strategic Goal 5: Ensure Reliable, Secure, and Efficient Information Technology Services				
Performance Measure	**FY 2013 Actual**	**FY 2013 Target**	**FY 2014 Target**	**FY 2015 Target**
Ensure the continuity of our agency's operations by transitioning Information Technology (IT) production functions to the National Support Center (NSC) by FY 2016	N/A	N/A **NEW for FY 2014**	Complete migration planning and preparations	Enable network and telecommunications capabilities, and transition the first group of enterprise workloads to the NSC
Objective 5.2: Enhance and Execute Plans to Modernize Our Systems				
Enhance systems performance and reliability by upgrading the telecommunications infrastructure in our offices	N/A	N/A **NEW for FY 2014**	Complete the infrastructure upgrade to incorporate modern technologies that support future internet and network capacity needs and new capabilities	Modernize the telecommunications infrastructure to include improved external and internal communications capabilities, such as internet chat and video
Maintain reliable IT services by continually assessing business and infrastructure applications to identify those that are high-risk, and determine strategies to renovate, replace, or retire	N/A	N/A **NEW for FY 2014**	Identify high-risk applications and appropriate mitigation strategies Submit to IT Investment selection process	Identify high-risk applications and appropriate mitigation strategies Submit to IT Investment selection process
Objective 5.3: Incorporate Innovative Advances in Service Delivery				
Enhance our IT infrastructure by implementing innovative systems accessibility and performance capabilities	N/A	N/A **NEW for FY 2014**	Implement Bandwidth on Demand, which will provide us with the ability to increase telecommunications capacity to quickly meet the changing service needs of our offices and clients	Increase hardware sharing to improve resource management including more efficient use of resources, improved capacity, reduced physical server needs, and enhanced disaster recovery
Explore the use of emerging technologies by establishing a testing lab to promote research and development of innovative technology solutions that provide more effective and flexible ways for the public to conduct business with us online and for our employees to complete their work	N/A	N/A **NEW for FY 2014**	Identify and implement new innovative tools to expand the capabilities of the testing lab to develop solutions that accommodate evolving customer	Upgrade testing lab security software and tools that enable us to safely test more innovative security and fraud detection solutions

Strategic Goal 5: Ensure Reliable, Secure, and Efficient Information Technology Services				
Performance Measure	**FY 2013 Actual**	**FY 2013 Target**	**FY 2014 Target**	**FY 2015 Target**
			preferences	
Objective 5.4: Continuously Strengthen Our Cyber Security Program				
Provide secure and effective services to the public by improving cyber security performance	N/A	N/A **NEW for FY 2014**	Meet the performance requirements of the Department of Homeland Security's (DHS) Federal Network Security Compliance and Assurance Program	Meet the performance requirements of DHS's Federal Network Security Compliance and Assurance Program and the Cyber Security Cross-Agency Priority Goals

Table 11: Strategic Goal 5 Performance Measures

4.3 Business Services & Information Flows

We are a single-mission agency – to deliver Social Security services that meet the changing needs of the public. Our core business processes (i.e., Enumeration, Earnings, Retirement/Survivors, Medicare, Supplemental Security Income, Disability, Private and Public Services, and SSA Benefits and Services Support Organizations) are tightly inter-woven. They are also highly complex in their information flow and relationships. The data and information requirements of these core business processes, and their mutual inter-dependencies, require an IT service environment that provides information and services based on common platforms, re-usable service modules, robust any-to-any network systems, and back-end IT infrastructure. Additionally, given the sensitive nature of the highly personal information and data within our systems of records, data integrity, security and the protection of individual privacy are critical IT service requirements. Figure 7 below illustrates the various benefits and services that we provide.

We maintain an Enterprise Data Model (EDM) that represents our business objects, information about those objects, and the relationships among those objects that we need in order to conduct our business. The EDM is a conceptual entity relationship diagram consisting of over 1,000 entities described by over 3,500 attributes and displayed in 45 subject areas. It is constructed without regard to application, platform, or man/machine boundaries. The EDM is the authoritative source for the description of our data at the enterprise (sharable) level. The EDM supports the principle that data is sharable and reusable throughout the enterprise.

The following figure provides a high-level view of the benefits and services we provide.

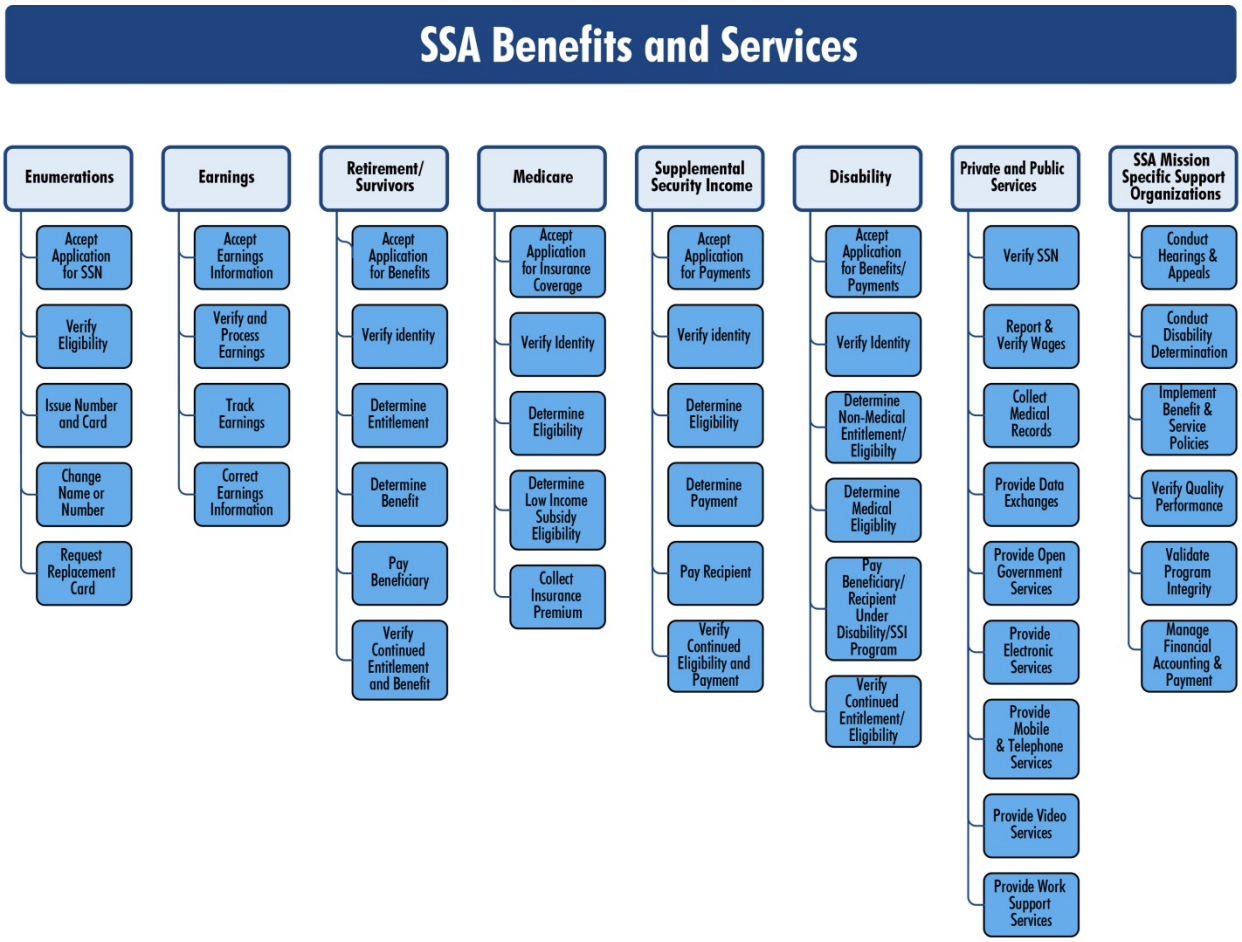

Figure 7: Business Overview

Each of the high-level areas in the diagram are described below.

Enumeration (Social Security Number)

We are responsible for assigning Social Security numbers, a process called enumeration. We issue a Social Security card to each individual assigned a Social Security number and will reissue the card if circumstances warrant (e.g. due to a name change because of marriage). Individuals may also apply for replacement cards if they lose their card, but there are statutory limits to replacement card issuance – 3 per year and 10 during a lifetime.

The majority of new numbers are issued through a process called Enumeration at Birth (EAB), which allows parents to apply for a Social Security number for their newborn child through their State's Bureau of Vital Records. Other new numbers are assigned as the result of applications made in person at our local offices or from a process known as Enumeration at Entry (EAE), which allows qualified immigrants to apply for a Social Security, number as part of their entry into the United States.

The original purpose of the Social Security card and number was to allow employers to uniquely identify, and accurately report, an individual's earnings covered under the new Social Security program in order

to administer benefits paid under the program. However, the use of the number has grown over the years, and it is now needed to get a job, obtain a driver's license, collect Social Security benefits, and receive other government services from other agencies. For example, an SSN is needed for children in order for the parents to claim them as dependents on their federal tax returns.

Earnings

In January 1976, we entered into an agreement with the Internal Revenue Service (IRS) to create a Combined Annual Wage Reporting (CAWR) business process to collect and process earnings and tax information reported to the IRS by employers on behalf of their work force every Tax Year (TY). Employers report wage/tax information to us and the IRS. We also receive income data for self-employed (SE) individuals from the IRS. The personally identifiable income, wage/tax information becomes the basis of benefits provided by us to entitlement program participants. Earnings information processed by us is also used by the IRS to determine tax liability. Therefore, the public relies on us to accurately record their earnings, determine entitlements, and benefit amounts. They also count on us to safeguard all personally identifiable information.

Our portion of the CAWR process is called the Earnings Records Maintenance System (ERMS) and it has three distinct parts. The first part of ERMS is called Wage Reporting. We continually receive employer wage reports, evaluate the content and quality of the reports, communicate with employers concerning errors, and provide methods for employers and agency authorized representatives to correct earnings wage/tax data, all according to IRS rules, guidelines and procedures. Earnings wage/tax information that successfully completes AWR processing is stored by SSN in a special earnings data store.

We are also responsible for reconciling and correcting earnings reports sent by the employer to both the IRS and us. This second part of ERMS is called Reconciliation, which is an application suite that reconciles, or ensures any earnings reported by employers are the same for us and the IRS.

Finally, we are legally required to maintain individual SSN-based wage data for many years beyond the four most recent TYs being reported under the CAWR and processed via AWR/EWR and Reconciliation. The public is able to evaluate the SSN-based wage data managed on their behalf by us at any time under the Freedom of Information Act. An individual's SSN based wage data is also included as part of the Social Security statement along with estimates for benefit eligibility and potential benefit amounts. We are obligated, as part of its service to the public, to correct any errors in earnings recorded for an individual, as proven by that individual or their authorized representative. The accuracy of the individual's earnings record is critical. As they work and pay Social Security taxes, they earn "credits" that count toward their eligibility for Social Security benefits (depending on their earnings, they can earn up to four credits each year). Most people need 10 years of work (40 credits) to qualify for benefits. Younger people need fewer credits to qualify for disability benefits or for their families to qualify for survivors benefits.

Adjustment or correction of reported earnings is the third part of our ERMS and covers over 70 years of stored earnings information for our current and future beneficiaries. A number of specialized electronic networked tools are available to our staff across the nation, in Regional and Field Offices, as they work with the public to help maintain the accuracy of earnings for any TY going back to 1937.

Social Security Benefits (Retirement, Survivors, and Disability)

Social Security payroll taxes pay for three kinds of benefits: retirement, disability and survivors.

Retirement

When enumerated individuals work and pay Social Security taxes, they earn "credits" toward their Social Security benefits. The number of credits they need to get retirement benefits depends on when they were born. If they were born in 1929 or later, they need 40 credits (10 years of work).

If they stop working before they have enough credits to qualify for benefits, the credits will remain on their Social Security record. If they return to work later on, they can add more credits so that they do qualify. We cannot pay any retirement benefits until they have the required number of credits.

The claimant's benefit payment is based on how much they earned during their working career. Higher lifetime earnings result in higher benefits. If there were some years when they did not work or if they had low earnings, their benefit amount may be lower than if they had worked steadily.

The benefit payment also is affected by the age at which they decide to retire. If they retire at age 62 (the earliest possible retirement age for Social Security) their benefit will be lower than if they wait until later to retire. A spouse who has not worked or who has low earnings can be entitled to as much as one-half of the retired worker's full benefit. The claimant may also be eligible for benefits based on their own record in addition to their spouse's.

Survivors

When you die, certain members of your family such as widows, widowers (and divorced widows and widowers), children and dependent parent, may be eligible for survivor's benefits.

As you work and pay Social Security taxes, you earn credits toward your Social Security benefits. The number of years you need to work for your family to be eligible for Social Security survivor's benefits depends on your age when you die. The younger you are, the fewer years you need to work. However, no one needs more than 10 years of work to be eligible for any Social Security benefit.

The loss of the family wage earner can be devastating, both emotionally and financially. Social Security helps by providing income for the families of workers who die. In fact, 98 of every 100 children could get benefits if a working parent dies. In addition, Social Security pays more benefits to children than any other federal program.

Medicare

Medicare is our country's health insurance program for people age 65 or older. Certain people younger than age 65 can qualify for Medicare, too, including those who have disabilities and those who have permanent kidney failure. The program helps with the cost of health care, but it does not cover all medical expenses or the cost of most long-term care.

Medicare is financed by a portion of the payroll taxes paid by workers and their employers. It also is financed in part by monthly premiums deducted from Social Security checks.

Medicare has four parts:

1. Hospital Insurance – helps pay for inpatient care in a hospital or skilled nursing facility (following a hospital stay), some home health care and hospice care (Part A).
2. Medical Insurance – helps pay for doctors' services and many other medical services and supplies that are not covered by hospital insurance (Part B).
3. Medicare Advantage – plans are available in many areas. People with Medicare Parts A and B can choose to receive all of their health care services through one of these provider organizations under (Part C).
4. Prescription Drug Coverage – helps pay for medications doctors prescribe for treatment (Part D).

Supplemental Security Income (SSI)

SSI makes monthly payments to people who have low incomes and few resources. To get SSI, the claimant must be 65 or older, blind or disabled. Children as well as adults may qualify for SSI disability payments.

The amount of SSI payments depends on the claimant's income, resources, and where they live. The federal government pays a basic benefit and some states add money to that amount. Generally, individuals who receive SSI payments will also qualify for Medicaid, food stamps and other needs based assistance programs.

A claimant does not need a work history to qualify for SSI payments, which are financed through general tax revenues, not through Social Security taxes.

Disability

The Social Security Administration administers the Social Security Disability Insurance Program (SSDI) program and the Supplemental Security Income (SSI) disability program. These programs are the largest of several Federal programs that assist people with disabilities. Only individuals who meet strict medical criteria (which is the same for both programs) may qualify for benefits under either program.

The SSDI program pays benefits to the applicant (or someone on behalf of the applicant) and certain members of their family if they are "insured," meaning that they worked long enough – and recently enough -- and paid Social Security taxes. The SSI program pays benefits based on financial need. When an individual or their representative applies for either program, we will collect medical and other information from the applicant and make a decision about whether or not they meet the Social Security Administrations definition of disability.

We want to be sure that every decision made by the agency including those about Social Security (Retirement, Survivors, and Disability Insurance) or Supplemental Security Income (Aged, Blind, or Disabled) claims are correct. We carefully consider all the information in the case before making any decisions that affect the claimant's eligibility, entitlement, or benefit amount. When we make a decision on a claim, we send the claimant a letter explaining the decision. If the claimant does not agree with our decision, they have the ability to request an appeal. When a claimant requests an appeal, we will review

the entire decision including parts that were in favor of the claimant. If the decision was incorrect, we will make the necessary changes to the claim.

Generally, there are four levels of appeals:

1. Reconsideration
2. Hearing by an administrative law judge
3. Review by the Appeals Council
4. Federal Court review

Reconsideration is a complete review of the disputed claim by someone who did not take part in the first decision. We will look at all the evidence submitted when the original decision was made, plus any new evidence. If the claimant disagrees with the reconsideration decision, they may ask for a hearing.

An administrative law judge who had no part in the original decision or the reconsideration of the case will conduct the hearing. If the claimant disagrees with the hearing decision, they may request a review by our Appeals Council.

At the hearing level, we have started to use video technology to help us balance workloads across the country, reduce travel for the public and our employees, and better serve remote areas. Our video technology reduces the need for our staff to travel between offices and to remote sites to hold hearings, which saves travel costs and frees up more time for our judges to decide cases. Video service can also provide an efficient and innovative way to provide service to segments of the public with unique service needs, such as connecting our offices to American Indian Tribal Centers or Veterans Administration hospitals for service provision in those locations.

The Appeals Council looks at all requests for review, but it may deny a request if it believes the hearing decision was correct. If the Appeals Council decides to review the case, it will either decide the case itself or return it to an administrative law judge for further review. If the claimant disagrees with the Appeals Council's decision or if the Appeals Council decides not to review the case, the claimant may appeal to a Federal District Court.

Private and Public Services

We offer many electronic services to third parties who do business with us; including those in the private and public sector. We provide multiple secure delivery channels for our services; including telephone, online, formal data exchanges, and mobile. We provide services for employers that help them determine work eligibility and report/correct earnings information.

Banks and credit companies request valid SSNs from individuals as part of their internal business processes for verifying identity and citizenship. We do not confirm identity nor provide citizenship data to businesses, but do offer SSN verification services to confirm that the information businesses collect matches the data we have on file in order to augment their evidence collection requirements. A noncitizen living in the United States may also be required to obtain an SSN. Generally, only noncitizens authorized to work in the United States by the Department of Homeland Security (DHS) can get a Social

Security number. If you are not authorized by DHS to work in the United States, you can get a Social Security number only if you can prove you need it for a valid non-work reason.

We have services targeted for many other groups of interested parties; including attorneys/appointed representatives, representative payees, financial planners, medical record providers, human resource professionals, and self-employed individuals. We also provide Government-to-Government services and electronic data exchanges to the U.S. Military, Federal, State, Local, and Foreign agencies.

We are one of seven agencies working in collaboration with the Centers for Medicare & Medicaid Services (CMS) to implement the Patient Protection and Affordable Care Act (ACA).

To streamline the application process to the healthcare insurance marketplaces and reduce the burden to the American public, we determine whether an applicant's name, social security number, date of birth, and allegation of U.S. citizenship are consistent with our records and reports such determination to the Secretary of HHS. This real time service also provides monthly or annual income, quarters of coverage, and other information that reduces the documentation required by an applicant to the healthcare insurance marketplaces.

SSA Mission Specific Support Components

In addition to the general government components common among all federal agencies, we also have several components that are specific to fulfilling our mission. Those include hearings/appeals (disability and other SSA-related appeals), the State Disability Determination Services (make medical and vocational based disability determinations), programmatic integrity (quality performance, fraud detection, and continuous improvement), and programmatic policy implementation (maintain the policy for all programmatic and agency support functions).

4.4 Strategic Portfolios and Initiatives

Our strategic Portfolios ensure alignment with agency strategic planning and performance plan goals. This alignment is a critical part of the IT Governance process and ensures that IT investments fully support our strategic direction outlined in Section 5.0 Target Architecture.

The following table illustrates the alignment of Portfolio to our strategic goals.

	Goal				
Portfolio	Goal 1: Deliver Innovative Quality Services	Goal 2: Strengthen the Integrity of Our Programs	Goal 3: Serve the Public Through a Stronger, More Responsive Disability Program	Goal 4: Build a Model Workforce to Deliver High Quality Service	Goal 5: Ensure Reliable, Secure, and Efficient IT Services
Core Services	✓	✓			✓
Disability Process	✓		✓		✓

	Goal				
Portfolio	Goal 1: Deliver Innovative Quality Services	Goal 2: Strengthen the Integrity of Our Programs	Goal 3: Serve the Public Through a Stronger, More Responsive Disability Program	Goal 4: Build a Model Workforce to Deliver High Quality Service	Goal 5: Ensure Reliable, Secure, and Efficient IT Services
Financial Services		✓			✓
Hearings Process	✓		✓		✓
High Performing Workforce				✓	✓
Program Integrity		✓			✓
SSA Infrastructure	✓	✓	✓	✓	✓
SSN Process					✓

Table 12: Strategic Goal – Portfolio Matrix

Each Portfolio includes a set of initiatives focused on specific business areas. The following table illustrates alignment between Portfolio and Initiative.

	Portfolio							
Initiative	Core Services	Disability Process	Financial Services	Hearings Process	High Perform Workforce	Program Integrity	SSA Infrastructure	SSN Process
Alien/Foreign Enumeration								✓
APM							✓	
Authentication	✓							
CARE 2020							✓	
Data Exchange	✓							
Database / Storage Architecture							✓	
DDS Case Processing		✓						

	Portfolio							
Initiative	Core Services	Disability Process	Financial Services	Hearings Process	High Perform Workforce	Program Integrity	SSA Infrastructure	SSN Process
Debt Management			✓					
Document Management Architecture							✓	
Earnings Redesign						✓		
Electronic Disability		✓						
Emergency Response System			✓					
Essential Data Center Operations							✓	
Financial & Administration Systems			✓					
Governance & Support							✓	
HR Admin Services					✓			
Human Resources					✓			
Improve Telephone Services	✓							
Interactive Video Desktop							✓	
Internet Enumeration								✓
Medicare	✓							
National Support Center							✓	

	Portfolio							
Initiative	Core Services	Disability Process	Financial Services	Hearings Process	High Perform Workforce	Program Integrity	SSA Infrastructure	SSN Process
Network Communications Architecture							✓	
Notice Architecture							✓	
Notice Improvement	✓							
Online Services	✓							
Payment Accuracy						✓		
Payments & Reporting Requirements			✓					
Platform Architectures							✓	
Process Enhancements				✓				
Quality Assurance						✓		
Rep Payee	✓							
Return to Work		✓						
Service Delivery	✓							
Service Improvement				✓				
Software Architectures							✓	
Strengthen Enumeration Process								✓
Systems Integrity						✓		

	Portfolio							
Initiative	Core Services	Disability Process	Financial Services	Hearings Process	High Perform Workforce	Program Integrity	SSA Infrastructure	SSN Process
Telephone Replacement							✓	
Title II Claims & Post Entitlement	✓							
Title XVI Claims & Post Entitlement	✓							

Table 13: Portfolio - Initiative Matrix

4.5 IT Duplication

Although we are a centralized agency, with no bureaus or departments, there are opportunities for reducing IT duplication. Areas of IT duplication exist in our databases, applications, and infrastructure. We have vast amounts of data stored in a variety of database formats and technologies. Over the past few years, we have been working to consolidate many of those databases. Later in section 5.4.2, we outline our database consolidation efforts. These efforts will not only reduce the number of databases and improve our efficiency, they will also help to reduce our server pool. Our efforts associated with improving our storage infrastructure is described in section 5.6.3. We have also identified several opportunities to consolidate our applications and services. In section 5.4.6, we discuss our application consolidation efforts such as developing a centralized Disability Case Processing System (DCPS), consolidating our Earnings systems, and developing an enterprise solution to support and manage correspondence to our customers. In section 5.6, we describe opportunities to reduce IT duplication within our infrastructure, such as consolidating operating systems of our mid-range servers, and consolidating our servers via virtualization.

4.6 Applications

We support and maintain over 700 software applications, utilities, and services. Some of that software is state of the art, with modern graphical interfaces. In addition, some of that software is older, with green screen user interfaces. These older “legacy” systems are very robust, regularly monitored and maintained, and accurately reflect the intricacies of complex Social Security and SSI statute and policy. Due to budgetary and resource limitations, we cannot update these legacy systems just for the sake of modernization. As new business requirements are identified and functional enhancements become necessary, we take the opportunity to modernize them with updated technology.

As part of our application modernization efforts, we are always looking for opportunities to develop and expand reusable services. We have recently initiated a services identification process to identify service opportunities that are either currently embedded in line-of-business application code or in proposed

new applications. We have defined a process that comprises the criteria for determining whether a reusable function is, or would be, appropriately deployed at the enterprise level using the SOA infrastructure. We are also developing standards for identifying, developing, and exposing services while leveraging existing best practices and governance.

As previously stated, most of our programmatic software has been designed and built in-house. We utilize a variety of software languages – but primarily Java and COBOL. We use the COBOL language to execute both Customer Information Control System (CICS) user interfaces and batch processing. We use the Java development language and IBM's WebSphere development/execution environment as a complement to our COBOL platform to develop our user interface and online services. Smaller numbers of our applications also use Assembler Language Code (ALC), C, ColdFusion, and Visual Basic.

4.7 INFRASTRUCTURE

Our infrastructure environment is divided into the following key overarching areas: Computing Platforms, Network Infrastructure, Storage Infrastructure, and IT Operations/Data Centers. The sections below describe the current environment and highlights important aspects of each area.

4.7.1 Computing Platforms

We define our computing services platforms as a managed configuration of IT systems components – including hardware, software, operating systems, and related user interfaces – that provide users and customers the ability to enter and manipulate data, execute tasks, or perform various electronic or digital functions. Conceptually, we view our available computing services platforms in the following groups:

- Server Platforms (mainframe, mid-range, and commodity x86 servers);
- End-User Interface Platforms (desktop and mobile);

Group	Utilizes
Mainframe Server	z/Enterprise Eight z196s
Mid-Range Server	iSeries, Oracle T & M Series, Sun Solaris Servers
Commodity x86 Server, Desktop, and Mobile	Dell Enterprise and Network Class Servers, Dell and IBM Blade Servers, Hewlett-Packard Desktops, Dell and Fujitsu Laptops, Blackberry

Table 14: Current Computing Infrastructure

We engineer these platforms to provide the security, flexibility, and agility needed to support our legacy programmatic processing requirements as well as rapidly evolving web-based and collaborative processing requirements. In addition, a broad range of technological developments and service delivery requirements are driving the evolution of our computing services platforms. Our broad goals are to:

- Improve the performance, availability, reliability, security, agility and scalability of our computing services IT infrastructure

- Improve the cost-efficiency of our computing services IT infrastructure
- Leverage the cloud-computing model to enhance our computing services capabilities
- Prepare for/facilitate the migration of our computing services infrastructure to the National Support Center (NSC)

4.7.1.1 Mainframe Architecture

Our current mainframe architecture includes eight IBM model z196 z-Series processors, four in the NCC and four in the SSC. The four processors in the SSC are targeted for upgrade to the next generation model zEC12 in June and July 2014; the associated cross-coupling facilities will be upgraded in August 2014. The NSC processors will also be zEC12's; their current target production date is September 2015. Once the logical partitions (LPARs) and workloads are successfully migrated from the NCC z196's to the NSC zEC12's, the z196's will be deactivated and removed from the environment. Refer to the NSC Mainframe and Migration Plan and Strategy v3.0 document for more detail.

Logically, the mainframe architecture includes the following environments, each serving a specific function for a particular target audience.

- The Communication Management Facility (CMF) is a cluster of LPARs at each datacenter that hosts the network functionality.
- The Document Management Facility (DMF) supports the electronic disability Document Management Architecture.
- The Document Management Facility 2 (DMF2) is a cluster of LPARs that supports Paperless and Disability Case Processing System (DCPS) applications.
- The Enterprise Software Engineering Facility (ESEF) is the development environment where we develop and test mainframe code before releasing it into production. ESEF mirrors the PPF where possible.
- The High Availability Facility (HAF) is a cluster of LPARs at the SSC that hosts SSN Verification applications
- The Management Information Service Facility (MISF) supports administrative and MI, Program Service Center, and Office of Child Support Enforcement workloads.
- The Production Processing Facility (PPF) is a cluster of LPARs that hosts production interactive processing and batch work.
- There are also various Data Center Services Facilities, which are collections of LPARs dedicated to testing functions within the mainframe architecture. Examples include Pre-production, Disaster Recovery, System Software and Network Facilities.

4.7.1.2 Open/Distributed Systems Architecture

Our open/distributed architecture includes UNIX, iSeries/AS400, and Windows environments. We divide our UNIX environment into three sectors: Socialsecurity.gov, UNIX Heavy, and UNIX Flex.

- Socialsecurity.gov refers to the UNIX servers that host our internet sites.
- UNIX Heavy refers to UNIX Web Servers that house WebSphere Application Server (WAS) software. WebSphere is our standard Java application server. The UNIX Heavy environment houses various program-level customer support systems. On the backend, UNIX Heavy applications connect to the Mainframe CICS, DB2, and FOCUS data.
- UNIX Flex is the environment that supports all web applications and content developed under COTS packages, such as the Benefits Estimate Calculator and PolicyNet. Some of these applications have back end connections to Oracle databases.

The iSeries/AS400 environment support DDS users. The Windows Development and Production Environment (WDPE) provides an integrated Windows-based environment, comparable to our mainframe and UNIX lifecycle environments, including a full range of application development capabilities. The WDPE is a stable, highly available, highly virtualized, enterprise-class hosting platform that supports a common Windows lifecycle development environment that is available to our employees and contractors nationwide. The WDPE will also provide cloud-based support to our regional field office application developers.

4.7.2 Network Infrastructure

Our network – SSANet – is comprised of Ethernet local area networks (LANs) and a Multi-Protocol Label Switching (MPLS) wide area network (WAN) supported by dual carriers with a single network image. SSANet supports IP convergence of data, voice, and video traffic; we provision all our offices with MPLS connections. MPLS provides Quality of Service, which guarantees bandwidth for an application, and Class of Service, which sets bandwidth priorities for mission-critical applications.

Our network is a critical agency asset. Our network infrastructure provides the critical foundation for all information exchanges within our very large enterprise network and between us and other agencies and business partners, including the public. As the basis of our infrastructure, our network ensures quality performance between a rapidly expanding universe of servers, clients, and applications of all shapes, sizes, and purposes to support our mission. At the core of the network, and ensuring its reliability is our MPLS implementation. Designed and maintained for stability and security, MPLS preserves business resilience while maintaining flexibility for the future, reducing system downtime and increasing system availability.

We are implementing a dual-stack Internet Protocol version 4 (IPv4)/IPv6 network architecture that has several distinct advantages, including:

- Current support for our IPv4 legacy applications while new applications can use the enhanced features of IPv6;
- Virtually unlimited agency-assigned internet protocol (IP) address range for current and future IT Infrastructure;
- Expediting the operational deployment and public use of IPv6;
- Greater ability to manage IPv6 and IPv4 traffic consistently; and

- Significantly, greater ability to protect the network against potential security vulnerabilities associated with other IPv6 transition mechanisms (especially tunneling, and tunnel broker mechanisms).

Characteristic	Metric
Routers	3,465
Switches	8,473
Weekly Traffic	500+ TB across the WAN

Table 15: Network Infrastructure

4.7.3 Storage Infrastructure

Our storage efforts over the last 18 months have laid the foundation for data replication between the National Computer Center (NCC) and Second Support Center (SSC), essential for IT Operations Assurance (ITOA) and disaster recovery efforts. We have transitioned many tape datasets to virtual tape disk resources, implemented data de-duplication to reduce backup storage requirements, started thin-provisioning, and laid the foundational elements for automated storage tiering. We have a strong, well-designed infrastructure that we intend to improve by automating manual tasks, continued technology modernization, improved cost controls, stronger business partnerships, and improved future planning.

Format	Current Capacity
Raw Physical Tape	60.44 Petabytes
Direct Access Storage Device	26.69 Petabytes
Raw Virtual Tape	19.79 Petabytes

Table 16: Storage Infrastructure

4.7.4 IT Operations/Data Centers

Operating our IT infrastructure is an all-day, every-day responsibility. Our data centers secure and maintain demographic, wage, and benefit information on nearly all American citizens, providing for prompt and accurate benefits payments. We operate two data centers, the National Computer Center (NCC), our current primary data center, opened in 1980 and in continuous operation as a data center for more than 30 years, and the Second Support Center (SSC), opened in 2009, a co-processing facility built to share our day-to-day workloads and facilitate disaster recovery efforts in the event of an NCC failure.

We perform many critical operations support functions nearly 24 hours a day, seven days a week in the NCC and the SSC. Many key functions and systems (particularly communication systems) are fully enabled in both centers. Our major focus is to modernize and improve our computing environment while maintaining the highest level of systems availability and stability.

We operate a national IT help desk that provides hardware and software support services to all of our employees, responding to over 120,000 service requests each year. Our Network Operations Center

monitors our entire network, providing connectivity to over 200,000 devices at over 1,800 sites worldwide. We also monitor critical devices in the infrastructure, as well as all site servers. Our onsite data center teams monitor and maintain our mainframe and storage environment hardware and all online and batch application software at the NCC and SSC. Our Security Operations Center monitors our IT network for security events and takes necessary steps to detect and remediate computer security threats.

We support over 10,000 changes annually supporting hardware refreshes and systems related configuration and architecture changes. In addition, we test and migrate over 1,200 online / workstation changes and 1,500 batch application changes annually.

The following table provides a summary of select infrastructure supported in our data centers.

Infrastructure Characteristic	Metric
MQ Servers	143 Queue Managers
CICS Regions	732 Regions
DB2 Environments	55 Subsystems
Oracle Databases	465 Databases
IDMS Environments	82 Subsystems

Table 17: Select Characteristics of Our IT Operations

We are creating an energy efficient new data center called the National Support Center (NSC) in Urbana, Maryland, that is scheduled to be completed in October 2014. This new facility will replace the existing computer center in Woodlawn, Maryland, constructed in 1979 and will utilize the latest energy efficient technologies. The new NSC will dramatically increase our computing power, while reducing energy consumption and power costs.

The National Support Center is designed to be Leadership in Energy and Environmental Design (LEED) Gold Certified by the U.S. Green Building Council. The LEED rating system is the global standard for rating the design, construction, operation, and maintenance of green buildings.

4.8 Security & Privacy

The Social Security administration's general approach to information security and data privacy starts with reverence for the Privacy Act of 1974, the E-Government Act of 2002, and the Federal Information Security Management Act (FISMA) of 2002. OMB Circular A-130, numerous related regulations, and National Institute of Standards and Technology (NIST) standards and guidance permeate our information security and data privacy vision and strategy. In order to achieve the best possible compliance, we strive to implement NIST's Risk Management Framework (RMF) in its purest form. We are constantly improving its Risk Management Program and seeking better integration. Our goal is to incorporate information security requirements into the enterprise architecture through an information security architecture to ensure that information systems achieve necessary trustworthiness and resilience. Our Information Security Architecture program covers all levels of the EA framework.

The Enterprise Architecture level aligns our programs to a limited number of computing platforms. This alignment allows our Information Security Architect to develop required security controls and continuous monitoring of those controls for a limited number of architectures. Those continually monitored controls are reused by many information systems.

The Segment Architecture level adds to our information security and data privacy in two ways. It allows the Information Security Architect to document reusable information security services that target required, reportable investments, examples include:

- Identity, Credential, and Access Management (ICAM) Segment Architecture,
- Common and Hybrid Controls,
- Continuous Monitoring Program, and
- Trusted Internet Connections (TIC).

It also allows the integration of information security requirements (and associated security controls) into the our EA governance process. As each architecture is approved, the RMF is applied. This process allows the Information Security Architect to document:

- the Security Plan (SP) for the segment architecture,
- the Security Assessment Report (SAR),
- Plan of Action and Milestones (POAM) to document gaps, and
- inherited continuous monitoring of selected controls

The Solution Architecture level allows the most effective bridging between the RMF and EA. This bridge is accomplished when the project team selects an approved architecture. As the project team applies the RMF to their system, they assess risks of their solution with the understanding of the baseline security controls provided by the segment architecture. The project team saves time and reduces costs; implementing an architecture that includes documentation of NIST's recommended security controls is less expensive than selecting an unapproved architecture. To avoid inhibiting innovation, unapproved architectures are directed to the EA governance process for review and consideration into an approved architecture. This governance process also assures documentation of the SP, SAR, POAM, and continuous monitoring of selected controls. This process captures the true Information security cost of the innovation proposal.

4.9 STANDARDS

We have adopted best practices from the Capability Maturity Model Integration developed by Carnegie Mellon University's Software Engineering Institute. We have included these best practices in our project lifecycle and established a repository of best practices, the Project Resource Guide (PRIDE), for software development projects to follow; ultimately laying the foundation for the Organizational Process Profile.

The DCS Organizational Process Profile is a reference model we use to guide project activity and evaluate compliance with standard processes and procedures. We developed the profile to map our SDLC processes to several associated models, standards, and regulations including:

- Capability Maturity Model Integration
- Our EA
- Executive Assurance
- Our Information Systems Security Handbook

The profile also allows us to identify any lifecycle process gaps, strengths, or weaknesses in relation to new or modified standards and regulations. The profile mappings further help us to determine the focus of internal compliance reviews which, in turn, ensure that our IT projects are following required lifecycle activities.

Our SDLC is a hybrid iterative process. We scope projects such that a typical new software release takes six months from conclusion of planning and analysis to production. Our SDLC includes independent validation testing; independent integration and environmental testing; independent usability testing; user acceptance testing; and project scope agreements with all stakeholders. Any employee can follow the progress of a software development project using a detailed Intranet tool.

We have a mature Systems Process Improvement program that describes best practices for software development, and develops standard processes and procedures for ensuring high quality products. The program integrates EA activities and reflects our governance practices throughout our SDLC. The SDLC integrates industry models and best practices used by project teams to develop standard processes and procedures that support all our software development projects. The SDLC establishes a framework for developing software, provides a common vocabulary, and describes all project activities and deliverables. Standards for development and support of our systems are enforced via the IRB, DRB, and ARB. Assessment results from these review boards ultimately results in an EA compliance rating.

Architectural compliance is a rating scheme used to describe the level of an EA component's adherence to our EA environment at a particular point in time. The rating of a component is determined by two factors: the maturity status of the comprising technologies and the expediency of using those technologies for the particular solution. The rating may be changed due to modifications to an EA component or as the result of modifications to the target EA.

Technology Maturity Status

Each technology component is given a maturity status. The specific technologies and their maturity status are maintained in our EA Repository.

Approved: Any technology officially accepted for enterprise-wide use. An approved, certified security model MUST exist.[2]

Point Solution: The technology has a clearly defined, specific use and shall not be used without prior ARB approval. An approved, certified security model MUST exist.[2]

Obsolete: Any approved technology deemed unusable for new deployment.

Retired: Any approved or obsolete technology no longer available for general or specific use.

Compliance Rating

Highly compliant: Any EA component that uses technologies with the approved maturity status. Most EA components will fall into this category of EA compliance. Risks are extremely low to moderate depending upon other APM factors.

Compliant: Any EA component that uses some candidate or obsolete technologies or uses approved technologies in a manner that has been deemed obsolete or not yet approved. Some EA components will fall into this category of EA compliance, especially during periods of extensive architectural change. Risks are moderate to high depending upon other APM factors.

Non-compliant: Any EA component that uses retired technologies or uses candidate or approved technologies in a manner that is ill suited for EA. Very few fall into this category due to our robust EA governance process. Risks are high to extremely high depending upon other APM factors.

Conditionally Compliant – Point Solution: Any EA Component that either uses technologies that are not approved for unqualified enterprise-wide usage (i.e. with maturity status "Point Solution") or utilizes approved or obsolete technologies in a manner not consistent with enterprise-approved practices or policies. The reasons for point solution components may be:

- specific implementations caused by environmental or market limitations beyond reasonable control;
- interim, specific implementations required for expeditious deployment while a more compliant solution can be procured or developed; or
- functionally redundant capabilities that were individually developed or procured

This qualification usually increases the risk associated with any particular architectural compliance rating to which it applies.

Reporting

The ARB maintains a statistics spreadsheet that summarizes the number and types of reviews performed. Projects are required to complete a questionnaire to describe their current and future business and technology architectures. Based on the responses, it may be determined that the

[2] If an approved, certified security model does NOT exist for a given technology, the user is responsible for developing and maintaining the security model. This model MUST be reviewed and approved by OIS. Please refer to SSA Information Systems Security Handbook for details.

applications affected by these projects are fully compliant within our environment and can be exempt from a formal ARB meeting. Over the past few years, we have seen an increase in the number of projects that are exempt from the ARB meeting, which illustrates how increased EA awareness has positively affected our development efforts.

In FY 2013, we have addressed 127 projects – 79 projects attended an ARB meeting, and 48 projects were exempt. Of the projects attending a meeting, some did not receive a compliance rating, as they were either informational or proof of concept. The ARB statistics have improved over last year's numbers. Almost ninety-two percent (91.7) of those projects reviewed were considered "compliant", which is up from 83% in FY 2012. A little over three percent (3.3) were "point-solution", five percent were "deferred", and there were zero "non-compliant" ratings. The "deferred" ratings are given to those projects that require additional information before making an assessment. They are scheduled for another review later in the year.

4.10 Workforce Requirements

The Office of Systems (OS) IT human capital planning approach supports our critical mission to deliver high quality, citizen-centered services. It supports the Agency Strategic Plan and aligns with the Agency Human Capital Plan. We are strategically building a future-ready workforce equipped with the modern tools and technologies needed to serve the American people effectively and efficiently. To accomplish this we implement and communicate strategies to recruit, develop, retain, and manage a fully trained and qualified IT workforce to meet current and future mission requirements.

Our IT workforce includes approximately 3,800 IT specialists, representing about 6 percent of our workforce. The vast majority of these positions are in OS, however, approximately 15 percent are located in other components. By design, we have a career-dominant workforce model. Two of the many advantages of our workforce are that our IT personnel have strong business and programmatic knowledge, and share key organizational attributes including a high public service ethic. We are committed to maintaining this highly skilled workforce model through continued training, staff development, and a positive work environment that values diversity and encourages employee innovation and input. As with other agencies, we face an acceleration of retirements as the baby boomer generation retires. We use effective knowledge management initiatives, comprehensive technology training programs, as well as recruitment and retention strategies to mitigate any potential loss of institutional knowledge and to maintain our highly competent IT workforce.

A valuable tool to asses our workforce needs is our IT Skills Inventory. The inventory is a critical piece in analyzing the IT workforce and identifying skill gaps. This extensive inventory serves to ensure that our employees have, or develop, the skills needed to support our current and future needs. We conduct this assessment biennially and use the results to inform our training and development efforts, as well as target our hiring. The inventory allows managers to track skills down to the individual level and provides us with information necessary to forecast our future skills needs to target technical training and development programs effectively. We also use it as a guide to build our extensive in-house training program.

Large IT projects require good project management skills. We recognized the benefits of having certified Project Managers (PMs) and created a formalized Project Management Training Program so that our PMs can obtain professional project management certifications. The Federal CIO Council has highlighted our Program and Project Management Development program as a best practice.

We also remain active managers of our workforce, continually watching business needs and trends, demographics and performance data to optimize the development and deployment of our staff. Our managers are fully aware of, and appropriately using, all human resource flexibilities available to meet staffing challenges. In addition, we have a dynamic strategy for dealing with the potential loss of knowledge that experienced employees take with them when they leave so that we capture and retain that knowledge on a continual basis. Knowledge management and succession planning are critical given the current budget constraints, limited hiring opportunities and the increasing number of people eligible to retire.

5.0 Target Architecture

As previously stated, we manage our business via strategic Portfolios. These portfolios align with our agency goals and objectives, and outline the set of initiatives supporting each portfolio. The complete documentation is included in APPENDIX C: . In this section, we summarize the Portfolio business needs and associated IT solutions for addressing those needs.

This section also discusses the set of strategies designed to improve our business and technical architecture, strengthening our ability to fulfill our mission. In addition to our continuous process improvements, we have identified two major strategic areas: Service Delivery and Technology. The next few sections describe our focus for meeting our strategic vision. Each section includes a transition plan of specific activities and timelines for achieving that vision. The items outlined in these tables represent a major functionality view. Later in Section 6.0, an overall view of our project portfolio is presented.

5.1 Business Needs – IT Solutions

Each Portfolio has identified a set of business needs and the IT solutions planned to address those business needs. The table below summarizes that information. The full Portfolio documentation is located in APPENDIX C: , and details about the IT solutions are described throughout Sections 5.2 - 5.6.

Business Needs	IT Solution
Portfolio: Core Services	
Improve the quality and accessibility of services provided to the public	Process improvements and new features to the Social Security and Supplemental Security Insurance (SSI) systems
Offer additional service delivery channels	Implement additional services on our Internet and the National 800 Number Network (N8NN)
Increase processing efficiency and quality for Social Security and SSI programs	Architectural modifications to our Social Security and SSI legacy systems
Enhance our data exchange infrastructure to leverage current technology and meet increasing demands of verifications and data exchanges with our customers	Reengineer legacy verification and data exchanges systems into a centralized online data exchange system; Implement a verification account management system and integrate with other verification and data exchange systems; Implement centralized repository for reimbursable and non-reimbursable agreements; Modify Veterans Affairs process to accept Veterans Service Network data
Improve the overall effectiveness of our National 800 Number Network (N8NN)	Replace N8NN agent tools; implement tools that automate current process; implement customer web

Business Needs	IT Solution
	support features
Preserve the business functionality of our Representative Payee System (RPS), while improving and enhancing its functionality	Migrate RPS to web platform and DB2 database; Process improvements and new features to RPS
Improve the processing, flexibility, and efficiency of Medicare Systems	Modification of our Medicare Systems and databases
Portfolio: Disability Process	
One common disability case processing systems for the DDSs	Develop a single case processing system while maintaining the current case processing systems; Retire the current systems once the single system is fully functional.
Take advantage of technology to increase capacity, accuracy and consistency of disability determinations	Continue to expand the automated exchange of electronic medical records; Enhance disability documentation and decisional tools
Support an infrastructure that facilitates a disabled beneficiary's re-entry into the workforce	Provide the ability for claimants to report wages, and employment networks to receive timely, accurate payments
Portfolio: Financial Services	
Ensure accurate reporting of our financial systems	Migrate our financial systems to real-time, web-based service interfaces
Increase electronic remittance processing to improve the collection, recording, tracking, and reporting of fee collections	Development of an electronic remittance system
Improve internal controls and processing of third party draft payments	Migrate third party payment system to web service interface
Portfolio: Hearings Process	
Improve the quality of our hearings and appeals decisions and enhance the way we do business	Enhancements to our decisional support tool (Electronic Bench Book (eBB)); Enhancements to our appeals process;
Improve interactions with external partners to ensure timely and accurate sharing of background evidence	Continue to automate workflows; Provide alternative methods of communications (sharing background documents electronically)
Portfolio: High Performing Workforce	
Provide more consistent and easy-to-use information services to the agency's Human Resource (HR) and	Develop an LR case management system that uses current technology, including workflow

Business Needs	IT Solution
Labor Relations (LR) community and employees nationally	management, and a management information tool; Continue development of a one-stop HR portal to provide access to HR services and information nationwide
Improve targeted training through competency management and provide increased opportunities for training, knowledge transfer, and succession planning	Continue development of a skills inventory system; Evaluate necessity for upgrading or replacing our learning management system
Reduce time spent on administrative activities	Enhancements to our assignment and correspondence tracking system
Portfolio: Program Integrity	
Develop strategies to maximize the effectiveness of initiatives that prevent or more quickly identify the leading causes of incorrect payments	Expand access to financial institutions; Improve death reporting process; Develop a solution to automatically terminate continuation of benefit payments on all continuing disability reviews (T2 and T16) and Age 18 redetermination (T16) cases when an ALJ finds the claimant not disabled
Take advantage of technology to update, simplify, and streamline the processing of earnings reports to ensure efficiency, improve the flow and speed of earnings processes, and reduce improper payments and manual processes	Enhancements to our annual wage reporting system; Enhancements to the earnings case management system to support interactions with IRS
Portfolio: SSA Infrastructure	
Provide managers with meaningful data about the condition of an application and use that information to reduce overall information technology costs	Continue enhancements to our online application portfolio management system and processes
Support services for our N8NN	Continue to develop and implement additional features/enhancements to the CARE 2020 platform, including completing transition of non-national toll-free applications to the CARE 2020 platform
Provide the strategy, management, polices and standards for our database and storage management technology	Continue to modernize and re-engineer the storage infrastructure by reviewing, analyzing and implementing new technologies
Design, develop and maintain electronic document imaging systems, including storage and retrieval of electronic documents.	Continue to enhance and provide technical support of imaging hardware and software; Procure COTS software licenses along with maintenance and on-call support for infrastructure support tools

Business Needs	IT Solution
Ensure compliance with directives and record disposition regulations from the National Archives and Records Administration (NARA)	Continue to expand the use of software that establishes document retention and destruction eligibility for systems that maintain electronic claim files.
Assure that our systems are developed and maintained in a standard manner and adhere to the policies of the Office of Systems and Federal IT requirements	Establish a framework that ensures that information technology investments align with our strategic business plans; Provide standards and guidelines for uniform and architecturally compliant systems design and development; Provide framework that promotes technical information sharing among our systems developers; Provide highly specialized technical advice and development support to our development teams, planning and support staffs.
Provide a meaningful and accurate view of data used by Management and Executives to make administrative operations more efficient	Continue to provide governance and expansion of policies and procedures used in management information reporting. Expand the use of Business Intelligence Tools to standardize management information reporting.
Provide interactive communication between student and instructor using Interactive Video Training (IVT) equipment installed in the studios and classrooms located across the United States	Maintain the IVT training environment nationwide by: replacing Head-End Systems and studio cameras, refreshing Helius MediaGate Router, and refreshing classroom monitors
Provide for the migration of all current production data center operations from our National Computer Center (NCC) to the new National Support Center (NSC)	Continue the planning process to complete the migration of the IT infrastructure from the NCC to the NSC (includes detailed project schedules and runbooks); Continue deploying a configuration management database implementation to help identify and group the IT infrastructures that will be moved together, and to validate change management processes and procedures before and after they have been moved
Provide for the design, install, implementation, software, monitoring and maintenance of our Wide Area and Local Area Networks and the connectivity to these network services to end-users nationwide	Continue to support the SSANET Wide Area/Local Area Network, Wireless devices, and telephone System; Migrate all telecommunications from a legacy environment to a totally IP solution
Provide the communication medium through which our employees receive data such as voice and video;	Maintain a highly reliable data transmission infrastructure for the transmission of data to internal

Business Needs	IT Solution
Administer the General Services Administration (GSA) NETWORX services agency-wide, and the exchange of data with other Federal and State Agencies	and external agency partners; Extend high-speed data center connectivity to Service Delivery Points.
Support planning, design, development, and maintenance of our current notice processing architecture along with maintenance of our language repositories.	Continue enhancements to improve language formatting, readability, clarity and tone of our notices; Modify applications to align with changes to Systems standards; Support notice development requirements received from policy, Operations or PSC components
Provide an infrastructure that supports enterprise notice processes, multiple notice delivery channels, a single source of communication language, detail MI reporting, and language modification by users	Create a stable and scalable infrastructure, capable of supporting multiple projects, both batch and interactive, using the Thunderhead software tool; Provide development and maintenance of a system that provides: a single authoritative source of communication language; multiple notice delivery channels and enterprise notices
Provide the hardware architecture, software framework and application frames, and a technologically sound environment for all of its platforms; Provide the ability of our daily applications/operations to run on a combination of computing platforms such as the Mainframe platform, Desktop managed software platform, the Client-Server server-based multi-tiered platform	Deployment of our enterprise Linux (open source) infrastructure; Consolidate distributed UNIX Intranet infrastructure to reduce data center footprint; Upgrade enterprise Windows infrastructure to Windows Server 2012; Refresh desktop, laptop, and printer hardware
Provide hardware and software in support of electronic messaging	Provide continuous hardware and software upgrades and refreshment of our Unified Communications (Microsoft Lync) infrastructure
Develop common architectures, utilities and services to our systems developers to promote code reuse and standardization practices	Continue to implement software solutions that are composite of existing applications and new technology services; Continue to enhance, develop and maintain the existing software architectures which provide services for all enterprise platforms; Provide an infrastructure to ensure that regional application releases meet acceptable levels of quality and accurate data; Enhance Systems ability to manage the integrity and

Business Needs	IT Solution
	quality of our data while providing expanded data services to software development components and operational users of our data; Provide a robust infrastructure of reusable software code and utilities that are continually updated to handle the tremendous growth of software development throughout our network
Ensure that software releases meet acceptable levels of quality, thereby ensuring accurate and timely payments to beneficiaries and recipients	Continue to provide our development community with validation technology services
Enhance, operate and continue to refresh our telephone architecture to meet current and future needs	Continue with planning and analysis to provide recommendations to re-compete/refresh the telephone architecture by issuing a full and open procurement for all hardware, software, training, support of the system
Balance our field office (FO) telephone workload and provide employees with tools for managing those workloads	Leverage the telephone network to allow resource sharing among FO's; Provide better access to management information (MI) data
Customize and improve customer satisfaction with FO telephone service	Implement features that enhance the customer caller experience and tools to evaluate customer satisfaction with FO telephone service
Provide telephone system efficiency	Streamline FO call routing, main menu options, queue messages and automated applications
Portfolio: SSN Process	
Ensure the integrity and automation of the enumeration process	Improvements to the enumeration process; Expand enumeration at birth processing; Enhancements to enumeration interfaces with Department of Homeland Security
Reduce field office and card center traffic	Develop a secure Internet Social Security card replacement system

Table 18: Business Need and IT Solutions

5.2 Business Process Improvement

We are focused on providing superior service to both our internal and external customers. This section provides a view of the more significant business process improvements planned for the next few years.

We continually look for ways to improve our SSI wage reporting process via a variety of service delivery mechanisms, including online, telephone, and mobile. It is critical that wages be reported accurately to ensure proper distribution of benefits.

We are implementing a variety of improvements to our internal enterprise-wide management information processes. Having complete and accurate management information about all of our services and process is critical to ensuring integrity. Some of the enhancements to our MI processes include improving MI requirement gathering, improving response time, reducing screen scraping, and providing additional security and audit capabilities. We plan to develop standardized methods for business intelligence/management information data as a service. In addition, we will make use of our enterprise-wide business intelligence and geospatial architectures where possible.

Improving the efficiency of our disability process at all levels is a high priority for us. We will continue to develop a uniform case processing system for the Disability Determination Services as well as enhance our abilities to capture and share evidence electronically at all levels. Additionally, we will develop tools to enhance quality disability decision making at all adjudicative levels. We will enhance the infrastructure to comply with current standards and evaluate how to share background evidence electronically with medical and vocational experts at disability hearings. We will also enhance our processes to ensure that adjudicators at all levels produce policy compliant decisions.

We will begin implementation of Social Security Electronic Remittance System (SERS) to replace manual business processes and promote standardized business practices and fee collection procedures in the field offices, and will provide a streamlined remittance process and an automated system solution to collect fees for services. The adoption of standardized fees and the implementation of SERS will ensure our compliance with the Office of the Inspector General's audit recommendations and the requirements of OMB Circular A-25, User Charges.

One of the Commissioner's priorities is to increase debt collection. To address this we are enhancing the External Collection Operation (ECO) system to select and maintain delinquent debt on a debt level rather than record level. By modifying the way ECO selects our delinquent debts, we will be able to refer more debt to the Treasury Offset Program (TOP), Administrative Wage Garnishment, and accurately report our debts to the Credit Bureaus. These enhancements will expand our debt collection portfolio and ensure that we are referring all available debts for external collections.

There are several efforts underway to reduce the number and amount of improper payments. For purposes of determining SSI eligibility, we currently access financial institutions to verify account balances. We plan to improve our methods for discovering this financial information by enhancing our search mechanisms. We plan to improve our Title II processing by automating the identification and termination of beneficiaries age 115 and above that are in long-term suspense mode. We also plan to automate the termination of benefit payments on all continuing disability review (CDR) and Age 18 Redetermination cases when the claimant has been determined NOT disabled.

We are also making several improvements in the area of detecting and preventing fraud. We plan to make improvements to business rules for processing direct deposit changes. We are enhancing electronic access and tracking processes for our online systems. We are also looking for innovative ways

to identify potential fraudulent activity in our public facing applications. In previous years, our systems were only available to our employees, so it was sufficient for our fraud and abuse detection systems to focus only on employee system actions. With the change in our business processes to public facing applications, we now also focus on detecting unusual and potentially fraudulent activity through our public facing applications.

In the area of security, we are developing automated processes to handle many of the currently paper and manual requests for access to our mainframe and other development environments. We plan to integrate processes, and share data amongst the processes as much as possible. In addition, automating workflows will not only speed up the processing time, it will also reduce errors associated with redundantly requesting for the same or similar data.

As part of our telephone replacement efforts, we also plan to improve the customer experience by conducting a post-call customer survey. The results will provide useful information for how to improve our overall telephone services. We also plan to implement dynamic estimated wait time to the caller to help reduce the number of abandoned calls.

The following table illustrates our transition plan for achieving these target states. These activities will allow us to meet many of the business outcomes identified in just about all of the portfolios listed in APPENDIX C: .

Activity	FY 2014	FY 2015	FY 2016	FY 2017
Portfolio-Initiative: Core Services – Service Delivery				
Improve methods for delivering business intelligence & management information (use of services, BI processes, GIS data)				
Portfolio-Initiative: Disability Process – DDS Automation				
Improve disability case processing for DDS'				
Portfolio-Initiative: Disability Process – Electronic Disability				
Additional rule/decision processing to the electronic disability case analysis tool				
Portfolio-Initiative: Financial Services – Financial & Administrative Systems				
Streamlined remittance process and automate the collection of fees for service				
Portfolio-Initiative: Financial Services – Payments & Reporting Requirements				
Enhancements to external collections process to increase debt collections				
Portfolio-Initiative: Financial Services – Payment Accuracy				
Access to Financial Information – improve discovery of financial information (co-owned bank accounts, advanced searches)				
Automate termination of Title II beneficiaries age 115 and above in Long-Term Suspense				
Automate termination of continuing disability payments				

Activity	FY 2014	FY 2015	FY 2016	FY 2017
Portfolio-Initiative: Hearings Process – Process Enhancements				
Additional functionality and work flow for ODAR decisional support tool – Electronic Bench Book				
Appeals Process Review System – improve overall processing, control and disposition of cases at Appeals Council and Court levels				
Automate OGC work processes				
Portfolio-Initiative: Hearings Process – Service Improvement				
Improve electronic record sharing with medical and vocational experts				
Legal Automated Workflow System (LAWS) – integrate automated workflow from current national docket MI system				
Portfolio-Initiative: Program Integrity – Systems Integrity				
Direct Deposit Fraud Prevention – improvements to business rules				
Real Time Fraud Prevention – restricting electronic access usage, tracking activity improvements				
Public Facing Integrity Review – identify potential fraudulent activity in our public facing applications				
Portfolio-Initiative: SSA Infrastructure – Security Architecture				
Automate requests to mainframe resources and profiles - develop/implement SSA-220				
Automate requests to mainframe resources and profiles - develop/implement SSA-1121				
Portfolio-Initiative: SSA Infrastructure – Telephone Replacement				
Implement FO post call customer survey				
Dynamic Estimated Wait Time (FO calls)				

Table 19: Business Process Improvement Transition Plan

5.3 Service Delivery

As staffing levels decrease and our workload volumes increase, our service to the public has suffered. It takes longer to issue decisions and process applications. The public has faced longer lines in our field offices and increased telephone busy rates. With millions of baby boomers becoming eligible for Social Security benefits, we must transform the way we deliver services by developing a wide range of online and automated services. The following section outlines our strategy for improving our service delivery to the public.

5.3.1 Telephone Services

Improvements to our telephone services are crucial to providing the quality service that the public deserves. The national toll free number is utilized by the public to make inquiries on their social security claims and benefits. Our goal is to provide our customers with continued access to automation and

agent services on the national toll free number. Prior to FY 2012, we had two separate telecommunications contracts that were replaced with a single General Service Administration (GSA) Networx Universal contract. Not only will this improve our infrastructure to better support our telephone service delivery, but it will also help to reduce the number of government contracts by consolidating to a government-wide contract.

The Field Office Network Enterprise (FONE) used by our public facing offices (Field Offices, Card Centers and National Hearing Centers) facilitates the answering of calls by the appropriate automation or office agent services. The access to office level, area level, and regional area level Telephone Management Information by various management layers enables managers to better match telephone workloads with available answering resources. Redirecting inbound General Inquiry calls to the national toll free number occurs when a natural disaster or local workload prevents a field office from providing answering resources. The newest initiative to increase answering resources, Network Skills Based Routing, increases the number of answered General Inquiry calls to the field offices by increasing the field office answering resources within a region.

The newer technology provided by the upgrades to the infrastructure will also position us to handle call volume increases and offer the potential to improve performance goals such as average speed of answer, agency busy rate, and annual customer service satisfaction. We currently receive about 80 million calls annually to the National 800 Number Network, and about 60 million calls annually to the FONE. As the baby boomer generation ages, the number of people entering into their retirement and disability-prone years will rapidly increase, significantly affecting our toll free number service. Our solution will be an Internet Protocol (IP)-based network designed to support future service enhancements such as Click to Talk, Screen Sharing, and Instant Messaging. These initiatives will provide the public with additional channels for communicating with us.

The following table illustrates our transition plan for achieving this target state. These activities will allow us to meet many of the business outcomes identified in the Core Services portfolio, listed in APPENDIX C: .

Activity	FY 2014	FY 2015	FY 2016	FY 2017
Portfolio-Initiative: Core Services – Service Delivery				
Implement Click to Talk				
Implement Screen Sharing				
Implement Instant Messaging				
Portfolio-Initiative: Core Services – Improve Telephone Services				
National 800 Number (N8NN) Call Recording (storing/using call data)				
N8NN Customer Relationship Management (CRM) Call Routing				
N8NN back-end processing and automated services enhancements (data 'dips', call flow, automated scripts)				
N8NN Universal Routing (multimedia routing and queuing capability in our TSC)				

Table 20: Telephone Services Transition Plan

5.3.2 Online Services

Our service delivery strategy also includes enhancements to services offered via the Internet. These enhancements will offer several mission-essential benefits, including improving the efficiency and timeliness of claims processing for the 80 million baby boomers approaching retirement over a 20 year period. Our strategy will also encompass pre-claims, initial claims, and appeals, and will consist of three primary components: simplified enrollment, streamlined adjudication, and expanded online services. The simplified enrollment component involves streamlining policies across our programs, including retirement and disability. These improvements can be accomplished, for example, by streamlining the collection of information in the two-part disability application process into one seamless internet application. Streamlined adjudication improves efficiency by automating some functions in the application process.

We also continue to expand the online services we offer to citizens. In 2013, we introduced the *my* Social Security portal (MySSA) to the American public. People can now create an account and login through a secure registration and authentication process in MySSA. This online system provides users with the ability to obtain their Social Security Statement. Users who are beneficiaries can also obtain benefit verification letters, change their address, initiate or change their direct deposit information, and view their benefit information in a more streamlined fashion. We will continue to enhance services available to the public providing access to information and services they need at their convenience and without needing to visit a Social Security office.

In addition to this citizen centric workload, we expect to see continued growth in both Government-to-Government (G2G) and Business to Government (B2G). Areas of potential growth include the continued

expansion of the electronic wage reporting process, access for appointed representatives and verification services to other government agencies.

The following table illustrates our transition plan for achieving this target state. These activities will allow us to meet many of the business outcomes identified in the Core Services, Financial Services, Hearings Process, and SSN Process portfolios, listed in APPENDIX C: .

Activity	FY 2014	FY 2015	FY 2016	FY 2017
Portfolio-Initiative: Core Services – Service Delivery				
Implement Click to Communicate (Click to Talk, Screen Sharing, Instant Messaging) and ensure 508 compliance				
Portfolio-Initiative: Core Services – Authentication				
Electronic Access enhancements (foreign address & ID verification, device ID)				
Portfolio-Initiative: Core Services – Online Services				
Improvements to Internet Benefits (iBEVE)				
Implement Social Security notices online				
Implement Message Center to provide communication between us and the public into MySSA				
iClaim Enhancements – Fraud detection, Month of Election, Facebook share feature into MySSA.				
iAppeals Enhancements – Request appeal for consideration at the Appeals Council level				
Migrate Internet Medicare Replacement Card into MySSA				
Implement Online initial and replacement 1099 process				
Analysis to develop Internet SSI				
Allow SSI recipients to apply for direct deposit in MySSA				
SSI recipients to update contact information in MySSA				
Portfolio-Initiative: Financial Services – Financial & Administrative Systems				
Online service for first parties to request/receive our system of record information				
Portfolio-Initiative: Hearings Process – Service Improvement				
Electronic Records – provide online access to Medical and Vocation Experts				
Portfolio-Initiative: SSN Process – Internet Enumeration				
Implement internet SSN Replacement Card				

Table 21: Online Services Transition Plan

5.3.3 Mobile Technologies

In order to meet the demands of an increasingly technology savvy public we are expanding our options for offering mobile services. In order to support these mobile devices we will be expanding our computing services platform to securely support a broader range of end-user mobile devices. We are also exploring the feasibility of expanding wireless device support to include multiple carriers and devices protected by a mobile device management-security solution.

We will integrate responsive web design in our future services. This approach to web design will allow us to provide an optimal user experience across a wide range of devices (from desktop computer monitors to tablets and mobile phones). Our services will then render appropriately no matter what device is being used.

Recent developments demonstrate our commitment to mobile technologies. We recently announced a new mobile optimized website, specifically aimed at smartphone users across the country. People visiting our website, www.socialsecurity.gov, via smartphone (Android, Blackberry, iPhone, and Windows devices) are redirected to a new mobile-friendly site. Once there, visitors can access a mobile version of Social Security's Frequently Asked Questions, an interactive Social Security number (SSN) decision tree to help people identify documents needed for a new/replacement SSN card, and mobile publications which they can listen to in both English and Spanish right on their phone.

For people unable to complete their official business online or over the telephone, we also unveiled a new mobile field office locator. The new mobile office locator has the capability to provide turn-by-turn directions to the Social Security office that services the zip code entered by the user.

The following table illustrates our transition plan for achieving this target state. These activities will allow us to meet many of the business outcomes identified in the Core Services portfolio, listed in APPENDIX C: .

Activity	FY 2014	FY 2015	FY 2016	FY 2017
Portfolio-Initiative: Core Services – Online Services				
Device and ability/disability agnostic access to MySSA (convert portal to responsive design)				

Table 22: Mobile Technologies Transition Plan

5.3.4 Multi-Lingual Support

We are also improving and expanding our service delivery options available to Limited English Proficiency (LEP) individuals by offering automated services in other languages. We have already expanded our eService offerings to the Spanish-speaking population by offering a Spanish as well as English version of our retirement estimator, the Medicare Part D low-income subsidy application, and our Social Security benefit application. We have begun installing the Visitor Intake Process (VIP/R) with an expanded set of languages in our field offices. Approximately 135 offices presently have non-English capabilities, either spoken or presented on the intake screen.

The following table illustrates our transition plan for achieving this target state. These activities will allow us to meet many of the business outcomes identified in the Core Services portfolio, listed in APPENDIX C: .

Activity	FY 2014	FY 2015	FY 2016	FY 2017
Portfolio-Initiative: Core Services – Improve Telephone Services				
N8NN Automated Services in Spanish (Field Office Locator, Information Messages & Pamphlets, Medicare Replacement Card, SS-5 Form Request)				
N8NN Automated Services in Spanish (Change of Address, Benefit Verification, Replacement Form 1099, Claim Status)				
N8NN Automated Services in Spanish (Management Information & Reporting)				

Table 23: Multi-Lingual Support Transition Plan

5.3.5 In-Person Field Support

Regardless of any technology advancements, we must continue to provide support to those folks that choose to do business in-person. We will continue to enhance our systems and processes that support our field offices. We are implementing enhancements to our Visitor In-Take Process (VIP/R). VIP/R tracks all field office appointments, monitors visitor information, tracks employee availability, and provides a wealth of day-to-day field office workload management information. Enhancements to VIP include collecting appointment information in a consistent and efficient manner and improving our ability to collect and analyze summary customer service management information in the Customer Service Record (CSR) Data Warehouse. VIP/R improves service to the public in many ways. Multi-language kiosks are being installed in the field offices. VIP/R monitors appointment queue levels and alert managers when wait times hit an office specific threshold. These improvements will enable the manager to effectively control the office flow by adjusting resources as needed.

The following table illustrates our transition plan for achieving this target state. These activities will allow us to meet many of the business outcomes identified in the Core Services portfolio, listed in APPENDIX C: .

Activity	FY 2014	FY 2015	FY 2016	FY 2017
Portfolio-Initiative: Core Services –Service Delivery				
Visitor Intake Process (VIP/R) Enhancements				
High Risk Alert Enhancements				

Table 24: In-Person Support Transition Plan

5.3.6 Video Services

We are also using video technology to help us balance workloads across the country, reduce travel for the public and our employees, and better serve remote areas. Our video technology reduces the need

for our staff to travel between offices and to remote sites to hold hearings, which saves travel costs and frees up more time for our judges to decide cases. Video hearings are critical to providing service to the public and will help to dramatically minimize the time claimants have to wait for a hearing. Video service also provides an efficient and innovative way to provide service to segments of the public with unique service needs, such as connecting our offices to American Indian Tribal Centers or Veterans Administration hospitals for service provision in those locations.

The following table illustrates our transition plan for achieving this target state. These activities will allow us to meet many of the business outcomes identified in the Hearings Process portfolio, listed in APPENDIX C: .

Activity	FY 2014	FY 2015	FY 2016	FY 2017
Portfolio-Initiative: FUTURE				
Representative Video Project				
Security Video				
Claimant Use of Video				
Video Service Delivery (VSD)				
VSD Command Center/Video Call				

Table 25: Video Services Transition Plan

5.3.7 Electronic Data Exchange

We have over 1,500 exchange agreements with Federal, State, Local, and Foreign governmental entities as well as some private sector companies. Efficient, accurate, and timely exchanges of data promote good stewardship for all parties involved. Our Information exchanges involve both data we provide to its data exchange partners (i.e., state and Federal agencies that use the data in various programs), and data we receive from those partners in order to administer our programs.

The partners involved in data exchange use the shared information for a variety of purposes in their business processes. Data received via the exchange agreements can be broken down into three main categories: vital records, eligibility information, and income verifications. Primarily we provide Social Security number, entitlement, and income verifications. The data we receive is primarily benefit and asset verifications and eligibility information. Most of the incoming data exchanges currently in place provide income and wage information necessary to determine whether individuals' already receiving Social Security and SSI benefits are being paid accurately. The information is used to modify payments and to suspend or terminate benefits as appropriate. Through the exchange process, we are able to receive updated information in a much more timely fashion, eliminating or at least minimizing the overpayments and underpayments that cause undue anxiety for beneficiaries.

We gain efficiencies through the receipt of data directly from a primary source such as a State vital records agency and by providing data to public and private sector organizations as allowed by law. Programs and service providers (including private companies) frequently require their clients to furnish verification of entitlement to our programs and confirmation of the amount of their income. A large

number of the individuals who visit our field offices come to obtain these types of verification statements. If agency-to-agency verification can be completed through an electronic exchange, this eliminates a beneficiary's need to visit the field office or to telephone our national 800 number, thereby improving service to the individual and allowing field office managers to direct their resources to more complex tasks.

The following table illustrates our transition plan for achieving this target state. These activities will allow us to meet many of the business outcomes identified in the Core Services, Disability Process, and Financial Services portfolios, listed in APPENDIX C: .

Activity	FY 2014	FY 2015	FY 2016	FY 2017
Portfolio-Initiative: Core Services – Data Exchange				
Data Exchanges and Verification Online (DEVO) – SSN Verifications Redesign				
DEVO Benefit Data Exchange Redesign				
SSA Electronic Agreement Tracking System (SEATS) – central repository for reimbursable and non-reimbursable agreements				
Replace Veterans Affairs monthly extract with Veterans Services Network (VETSNET)				
Integrated Data Exchange Application				
Add batch data exchanges via the State Verification Exchange System into the Verification Account Management System (VAMS)				
Portfolio-Initiative: Disability Process – Electronic Disability				
Health Information Technology (HIT) – exchange medical info via eHealth Exchange				
Portfolio-Initiative: Financial Services – Payment & Reporting Requirements				
International Direct Deposit Payment Reporting				

Table 26: Electronic Data Exchange Transition Plan

5.4 Evolving Technical Foundations

We are evolving the technical foundations that support our ability to serve the public. We are adopting strategies that position us to provide better service through integrated capabilities, to save costs by eliminating duplication, and to reduce risks by retiring outdated technologies.

5.4.1 Database Modernization

Our data stores are the foundation for our public service programs. In the 1980's, we developed our proprietary Master Data Access Method (MADAM), a data storage and access facility designed to support high-performance data access for COBOL programs running on mainframe systems. In the intervening years, the IT industry universally adopted the relational data model as the standard technology underlying almost every advancement in productivity tools, application design, and programming language support. To ensure that we are able to take advantage of current and future

advances in IT, we are executing a two-part strategy designed to connect our data directly with contemporary technologies.

The first part of the strategy relocates data from legacy storage systems to a standard database platform in a way that minimizes impact to our legacy software. The goal of this program is to gradually retire legacy storage systems, while preserving our current operational capability. In addition, We have a limited number of highly skilled technicians who understand and can support our legacy data storage systems and its complex programming interface. This effort will significantly reduce the risks associated with supporting our mission-critical systems. The following figure illustrates our high-level database modernization strategy. The table later in this section describes our detailed transition plan for our database modernization efforts.

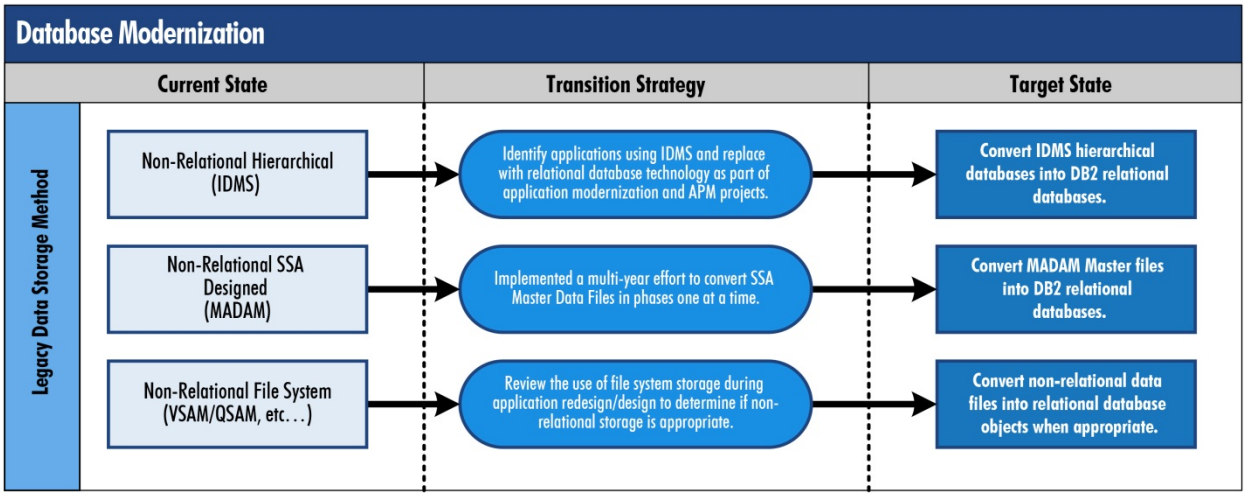

Figure 8: Database Modernization Strategy

The second part of the strategy examines the structure of our data, recognizing that its value will be maximized when it exists in the relational form most optimally utilized by contemporary application development tools and database products. Modernizing our data in this way will yield dramatic advantages in our ability to bring new capabilities online quickly and adapt to policy changes as they arise.

Since this effort affects many of our applications and processes, we have begun a comprehensive planning and analysis phase that considers all aspects of data modernization, recommends a set of architectural and design approaches, identifies risks and mitigation strategies, establishes a cost model, and creates a roadmap of projects needed to accomplish the modernization. A thoughtful technology assessment of both Integrated Development Environments (IDEs) and databases is essential to success.

The following table illustrates our transition plan for achieving this target state. These activities will allow us to meet many of the business outcomes identified in the Disability Process, Financial Services, and SSA Infrastructure portfolios, listed in APPENDIX C: .

Activity	FY 2014	FY 2015	FY 2016	FY 2017
Portfolio-Initiative: Disability Process – Electronic Disability				
Disability Control File (DCF) VSAM to DB2 conversion				
Portfolio-Initiative: Financial Services – Payments & Reporting Requirements				
External Collection Operation (ECO) Flat file to DB2 conversion (credit bureau report changes)				
Portfolio-Initiative: SSA Infrastructure – Database/Storage Architecture				
IDMS to DB2 Conversion: • Appointment Management Information • Post Entitlement Workloads (Detail & History) • Representative Payee • Recovery & Collection of Overpayments • Verizon audit data				
IDMS to DB2 Conversion: • Cost Analysis System • Disability Hearings Quality Review • Retirement Survivors Insurance Quality Assurance • SSI Quality Assurance • Wilkes-Barre Folder Control				
IDMS to DB2 Conversion: • National 800 Number Appointments • National 800 Number Leads • Title II Initial Claims				
MADAM to DB2 Conversion – Master Beneficiary Record				
MADAM to DB2 Conversion – Develop DB2 API for read and update; Validate Readers				
Initiate Parallel Update processing; Convert Readers to use DB2 database				
Portfolio-Initiative: SSA Infrastructure – Application Portfolio Management				
Develop APIs to read/write the SSI Point in Time DB2 database (SSR Decompression)				

Table 27: Database Modernization Transition Plan

5.4.2 Data Consolidation

Our strategy includes enhancing our Enterprise Data Management (EDM) and Enterprise-level database architecture, and developing an XML Database Strategy. Enhancement to our EDM includes constructing a data architecture that promotes an environment of standardized data that is managed at an enterprise-level, reusable, and shareable across applications. This environment will leverage Global Reference Tables (GRT) and Naming and Data Standards guidelines to promote the consistent

implementation and use of data. It will leverage shared enterprise data models to quickly document data requirements and eliminate redundant storage of data.

We will also enhance our enterprise-level database architecture to handle our business intelligence/management information needs as efficiently as technology allows. The architecture will look to minimize the copies of data and incorporate the Enterprise Metadata Repository (EMR) for more consistent and accurate results.

Our XML Database Strategy includes developing an enterprise approach to implementing and storing XML data structures in relational database management systems (RDBMS) when appropriate. It also includes documenting XML data structures if used within any RDBMS. These enhancements will be performed using a consistent approach to developing and documenting XML content and collecting the information into the EMR for impact analysis.

The following table illustrates our transition plan for achieving this target state. These activities will allow us to meet many of the business outcomes identified in the SSA Infrastructure portfolio, listed in APPENDIX C: .

Activity	FY 2014	FY 2015	FY 2016	FY 2017
Portfolio-Initiative: SSA Infrastructure – Database/Storage Architecture				
EMR Front-End (Metadata edit capability, implement SQL Server database info)				
EMR Support (Populate data profiling results, Integrate with BI Repository, Import SQL Server catalog metadata)				
EMR Synchronization (Modify DB2 Synch process to include deltas)				
EMR Code Scanning (Load COBOL, ALC and JCL baseline code, Load copybook details into the repository, Scan JAVA code, Provide ability to search for strings during scanning process)				
EMR Data Analysis (Identify valid relationships between elements FY14-15, Build architecture to relate profiling results to elements defined in the EMR FY15, Develop architecture to support automated scheduling of profiling jobs FY16)				
Portfolio-Initiative: SSA Infrastructure – Software Architecture				
GRT Portal development/support				
Registration data into GRT Portal				
Implement EMR alias info into GRT Portal				
Develop automation process to include distributed systems				
Develop dynamic SQL access service to GRTs				
Automate identification/storage of GRT info into EMR				
Integrate GRT support into governance lifecycle				
Identify and build new GRTs as needed				

Table 28: Data Consolidation Transition Plan

5.4.3 Application Modernization

We will advance our application development practice by enabling the use of modern programming languages, emphasizing interoperable services over single-use application development, and adopting common integration architecture for all new or modernized applications. We will evaluate several approaches for application integration, including the use of commercially available customer service and support systems. This strategy will lead to increased productivity, greater interoperability, reduced time to value, and better customer service.

To provide cohesive design, good systems integration, consistency, and a strategy for growth, we will plan modernizations for line-of-business application systems at the enterprise level, as resources permit. Systems for Earnings and Wage Reporting, Retirement and Disability Benefit Management, and Supplemental Security Income Management are a few systems being modernized using new standards. These modernized applications will integrate with our online and mobile services, allowing service representatives to have immediate access to service transactions that customers have conducted through those channels. The goal is to provide an integrated view of our lines of business, regardless of service channel, to increase accuracy and reduce workload for our service representatives.

Our application modernization efforts may be either business-driven such as providing better service to the public, or they may be technology-driven.

The following figure illustrates our business driven application modernization strategy.

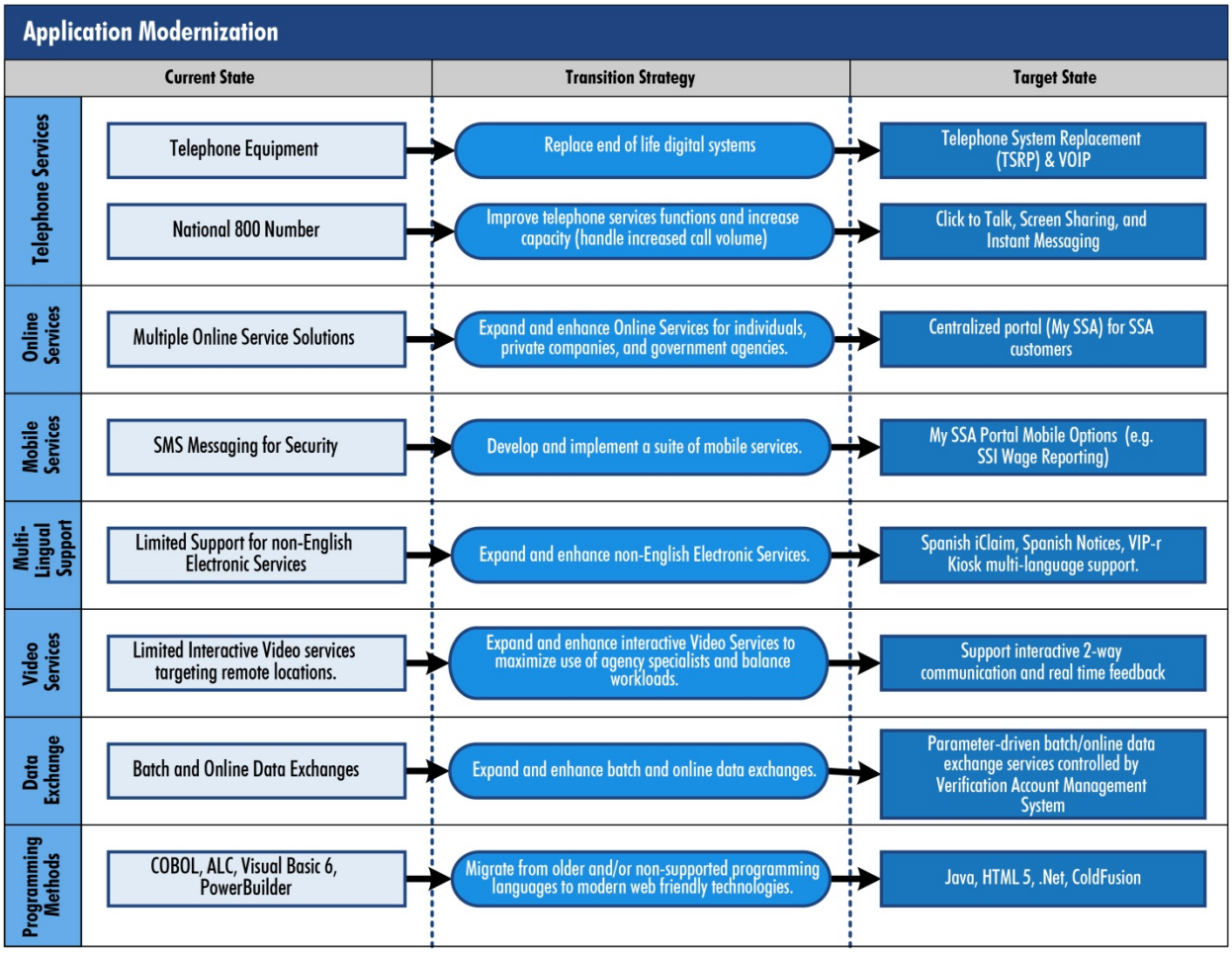

Figure 9: Business-Driven Application Modernization Strategy

In addition to the business-driven modernization efforts, our APM process helps to identify technologically at-risk applications that should be considered for modernization. Most of these applications have been functioning just fine for years. However, they may be built or rely on unsupported or outdated hardware/software and pose a technological risk. Therefore, APM takes a pro-active approach to identifying these applications for potential modernization, before they become a problem. For example, the recent APM spring review identified several applications that were developed using Visual Basic 6. Since this version of software is no longer supported, these applications will be rewritten using .Net. APM also identified a potential risk associated with commercial off-the-shelf software called FALCON. In addition to the software no longer being supported, our subject matter support staff is very limited. APM helped identify the systems that interact with FALCON and will be affected by the elimination of FALCON.

The following figure illustrates our technology driven application modernization strategy.

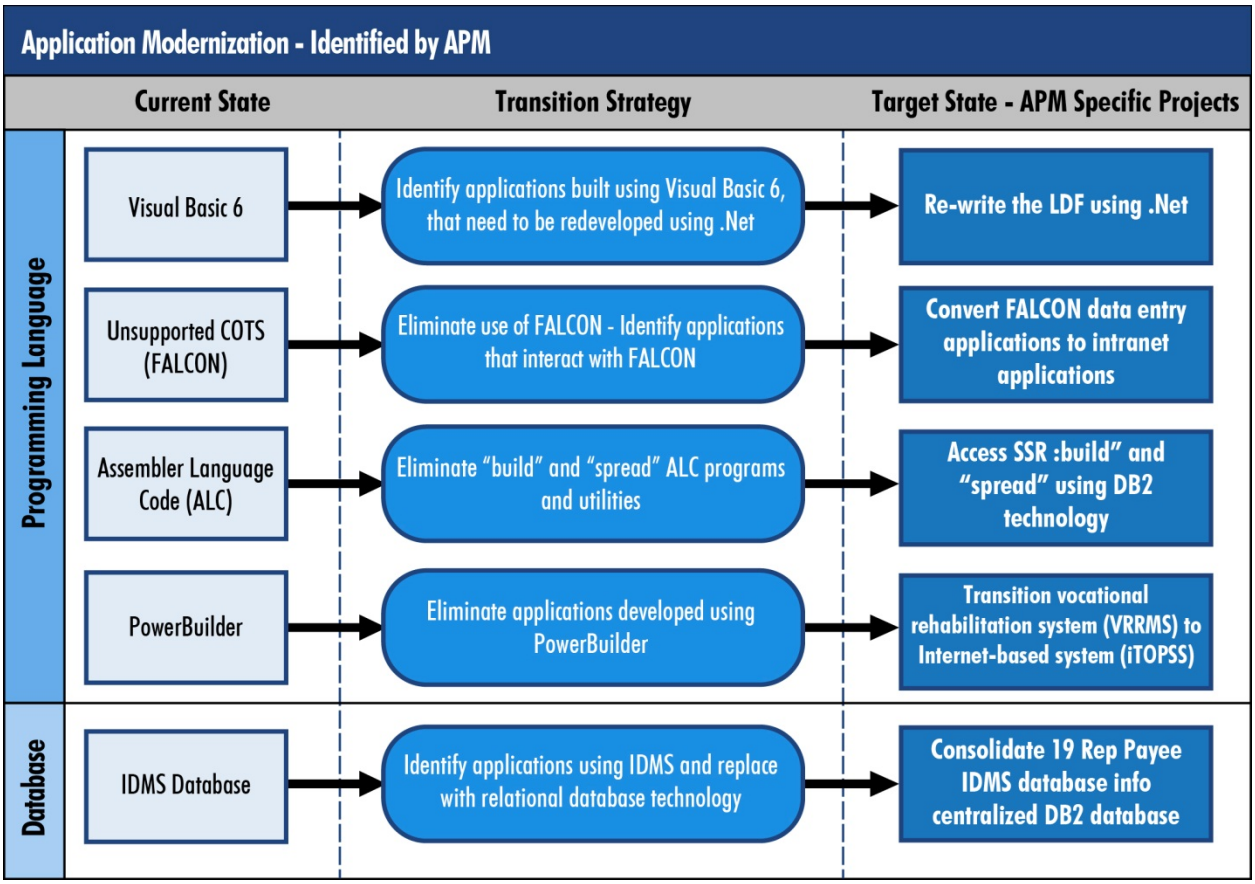

Figure 10: Technology-Driven Application Modernization (APM) Strategy

This next table illustrates our transition plan for achieving our business as well as technology driven application modernization target state. These activities will allow us to meet many of the business outcomes identified in the Core Services, Disability Process, Financial Services, and Program Integrity portfolios, listed in APPENDIX C: . We will also ensure Section 508 compliance into all of the application modernization efforts.

Activity	FY 2014	FY 2015	FY 2016	FY 2017
Portfolio-Initiative: Core Services – Improve Telephone Service				
Electronic Customer Help & Information Program (eCHIP) (web services, DCS Framework & UEF, Security)				
Portfolio-Initiative: Core Services – Online Services				
Internet Appeals Revitalization (DCS Framework & UEF)				
Internet Claims & Internet Adult Disability (i3368) (new architecture & integrate)				
Portfolio-Initiative: Core Services – Representative Payee				
Rep Payee Redesign (new architecture, CICS screens to web interface)				

Activity	FY 2014	FY 2015	FY 2016	FY 2017
Portfolio-Initiative: Core Services – Service Delivery				
Detailed Office/Organization Resource System (DOORS) Modernization (web-based front-end)				
Portfolio-Initiative: Core Services – Title II Claims and Post Entitlement				
Title II Modernization (elimination of SSACCS; develop ANYPIA service)				
Portfolio-Initiative: Core Services – Title XVI Claims and Post Entitlement				
SSI Modernization – Replace CICS screens with Intranet GUI and web mini-paths				
Transition SSI Initial Claims counts (workload process) from CICS screen scraping to web interface (SUMS MI Central)				
Portfolio-Initiative: Disability Process – Electronic Disability				
Replace client-server forms with web services, integrate with disability applications				
Portfolio-Initiative: Disability Process – Return to Work				
iTOPSS Modernization (improve data security and further automate Ticket program processing functions)				
Portfolio-Initiative: Financial Services – Financial & Administrative Systems				
Automate collection of fees for services, leveraging COTS hardware/software and integrating with SSOARS				
Third Party Payment System (TPPS) web services				
Portfolio-Initiative: Financial Services – Earnings Redesign				
Electronic Wage Reporting web service expansion				
Portfolio-Initiative: Financial Services – Systems Integrity				
Comprehensive Integrity Review process (CICS to web)				
Portfolio-Initiative: Program Integrity – Payment Accuracy				
Improved Death Reporting – Replace legacy process with web services				
Portfolio-Initiative: SSA Infrastructure – Application Portfolio Management				
Redesign the Claims System Pass of the Regular Transcript (CSPOT), replace obsolete utilities, reports, and files, and automate processes.				
Replace VB6 in infrastructure applications with a modern, robust and flexible language.				
Portfolio-Initiative: SSA Infrastructure – Security Architecture				
Develop secure web services architecture				
Expand the use of enhanced remote access authentication				
Portfolio-Initiative: SSN Process – Strengthen Enumeration				
Integrate FALCON capability into SSN Application (SSNAP)				

Table 29: Application Modernization Transition Plan

5.4.4 Intelligent Systems

We are building intelligent systems that guide our field representatives through the complicated process of determining claim eligibility, increasing the timeliness and the accuracy of decisions. We intend to use expert system and rule-based technology to support policy-compliant eligibility determinations at all levels of decision-making. Rule-based decision support systems will allow us to adapt more quickly to changes in legislation, regulation, and policy. As the intelligence built into our systems increases, we will be able to train field office representatives more quickly, and they will become more effective at serving the public.

The following table illustrates our transition plan for achieving this target state. These activities will allow us to meet many of the business outcomes identified in the Disability Process and Hearings Process portfolios, listed in APPENDIX C: .

Activity	FY 2014	FY 2015	FY 2016	FY 2017
Portfolio-Initiative: Disability Process – Electronic Disability				
Additional rule/decision processing to the electronic disability case analysis tool				
Portfolio-Initiative: Hearings Process – Process Enhancements				
Additional functionality and work flow for ODAR decisional support tool – Electronic Bench Book				

Table 30: Intelligent Systems Transition Plan

5.4.5 Enterprise Business Intelligence

We recognized the importance of Business Intelligence (BI) and the need for an Enterprise BI Architecture. Enterprise Architects worked with solutions architects and subject matter experts to document an Enterprise BI Architecture. Without a common architecture, separate organizations build their own silos of data collection and delivery. These silos may serve individual business users but it is very difficult to combine them into an enterprise view that can be used for strategic management and decision-making. As a result, individual component views of data cannot be easily integrated across business functions. The BI architecture is needed to ensure that data used across platforms and applications is consistent. A solid infrastructure provides the foundation for accurate decision-making and the flexibility needed to respond to business changes. The BI resource must be available and accessible to all components with a need to use business intelligence for decision support.

The Enterprise BI Architecture is a framework for organizing information management, data and technology components that are applied to build BI solutions for reporting and data analytics. Information management components transform raw transactions into a consistent set suitable for BI uses. Examples include data integration, cleansing, creation of business dimensions and rules. Data components include identifying data sources that decision-makers and business need to access and analyze to meet business requirements. Finally, technology components are used to present information to consumers and allow users to analyze the data. Examples include reporting, query, data mining and visualization supported by BI dashboards and other analytical processing software.

We sought an Enterprise Business Intelligence architecture that provides timely, trusted, consistent, integrated, accurate, and auditable business intelligence to our internal components, external higher monitoring authorities, Congress, and the public.

Use of the enterprise business intelligence architecture provides the following advantages:

- Improve efficiency by making use of common, repeatable processes
- Provide consistent answers to business questions; thereby avoiding extensive comparisons of differences between non-integrated MI systems
- Improve our ability to adapt to changes in business requirements
- Save money by eliminating redundancy and using standardized tools
- Deliver better BI by eliminating redundant extraction and storage processes
- Improve data quality by using standard methodologies, definitions and business rules.
- Encourage cross-component sharing of expertise as all development teams follow standard practices and learn from other project results.

The following figure illustrates the BI component model.

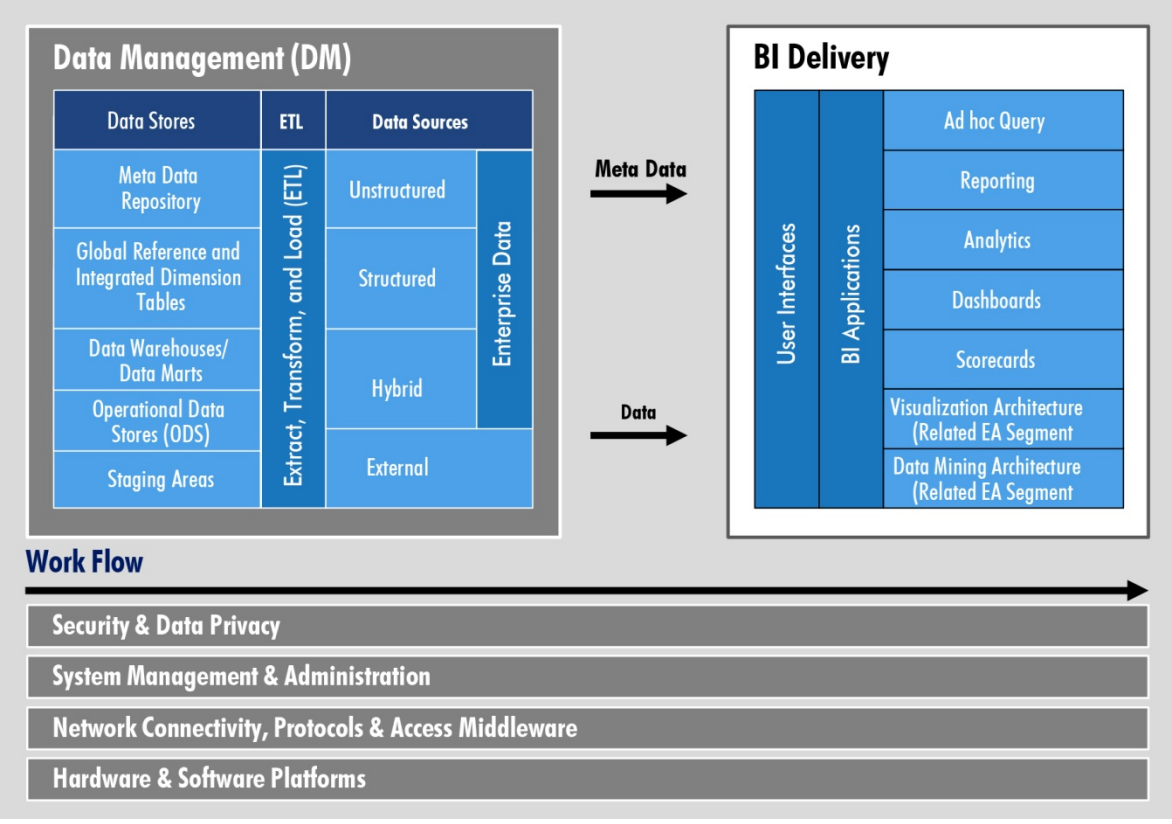

Figure 11: Business Intelligence Component Model

"Big Data"

We are implementing new target architecture for our Audit Trail System (ATS). As part of the migration to the new architecture, We have conducted a proof of concept to determine the benefits and risks associated with the incorporation of the open source Apache Hadoop framework into our existing data architecture. The first phase of the proof of concept which dealt with data capture and storage using a clustered Hadoop file system using commodity hardware, has successfully completed and is now slated for a production implementation in February 2014, pending ARB approval. The second phase will deal with the development and testing of advanced statistical analytics for the purposes of fraud, intrusion, and audit investigation analysis. By coupling "Big Data", processing techniques with advanced predictive statistical models we are seeking to revolutionize our audit and fraud detection capabilities. The following figure illustrates the ATS target architecture.

Note: This is currently a proof-of-concept, and subject to change.

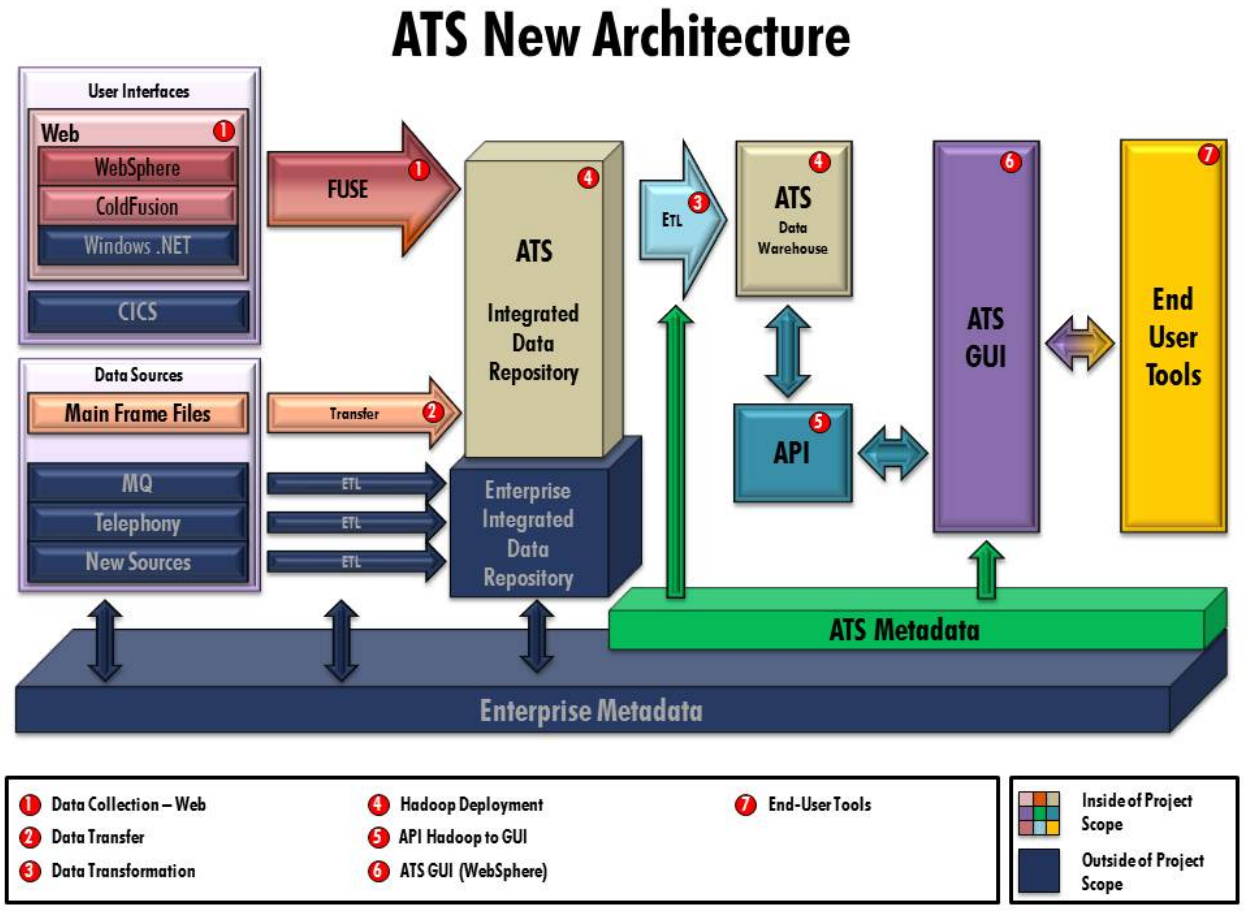

Figure 12: ATS Target Architecture

The following table illustrates our transition plan for achieving this target state. These activities will allow us to meet some of the business outcomes identified in the Program Integrity portfolio, listed in APPENDIX C: .

Activity	FY 2014	FY 2015	FY 2016	FY 2017
Portfolio-Initiative: Program Integrity – System Integrity				
Audit Trail System				
Portfolio-Initiative: SSA Infrastructure – Security Architecture				
Evaluate/implement additional ATS data sources				
Develop new ATS Service Channel delivery technology				
Complete installation of ATS data warehouse (DW) (integration, production, disaster recovery environments)				
Install parallel ATS legacy/DW source-application interfaces				
Move ATS history to production ATS DW				
Develop/Implement version 1.0 of the ATS User Interface				
Develop ATS disaster recovery strategy				
Develop/Implement/Support ATS end user tools				
Expand the scope of the Predictive Analytics Proof-of-Concepts				

Table 31: Business Intelligence Transition Plan

5.4.6 Application Consolidation

We recognize that maintaining separate application systems with overlapping functions is uneconomical. Two examples of application consolidation are the Disability Case Processing System (DCPS), and the Enterprise Communications Architecture (ECA). Our new DCPS will replace 54 different systems used to support disability claim processing in DDS offices located across the United States. We are also developing a shared enterprise capability for the automated generation of notices and other forms of public-facing communication – the Enterprise Communication Architecture. ECA will allow us to retire several legacy notice management systems, resulting in savings. We will continue to consolidate duplicative systems, whenever opportunities are found.

The following table illustrates our transition plan for achieving this target state. These activities will allow us to meet many of the business outcomes identified in the Core Services, Hearings Process, High Performing Workforce, and Program Integrity portfolios, listed in APPENDIX C: .

Activity	FY 2014	FY 2015	FY 2016	FY 2017
Portfolio-Initiative: Core Services – Data Exchange				
Integrate reimbursable and non-reimbursable agreements into one Agreement Tracking System				
Integrate Verification Account Management System (VAMS) into other				

Activity	FY 2014	FY 2015	FY 2016	FY 2017
Data Exchange processes				
Portfolio-Initiative: Core Services – Service Delivery				
Integrate Regional applications with VIP/R				
Portfolio-Initiative: Core Services – Title II Claims and Post Entitlement				
Consolidate Automated Job Scheduling (AJS1) into Title II Retirement Survivors Disability Insurance System				
Portfolio-Initiative: Hearings Process – Service Improvement				
Integrate LAWS with appeals review, records management, electronic folder, and document management				
Portfolio-Initiative: High Performing Workforce – HR Systems				
Develop HR services portal, integrating various HR services into one portal				
Portfolio-Initiative: Program Integrity – System Integrity				
Consolidate all legacy integrity review processes into Web Comprehensive Integrity Review process (CIRP)				

Table 32: Application Consolidation Transition Plan

Two major initiatives of application consolidation are the Disability Case Processing System and the Enterprise Communications Architecture.

Disability Case Processing System (DCPS)

DCPS is a multiyear effort to develop a modern, common case processing system. Once it is operational, DCPS will provide common functionality and consistent support to each DDS Component while continuing to provide accurate, current, consistent, and accessible data. DCPS will provide us with several functional and technological benefits, including full process integration, a common interface with our offices and systems, ease of sharing disability processing workloads across DDS Component sites, and a dramatic reduction in the technological complexity of system support for disability case processing. DCPS will provide a single system designed using a Service Oriented Architecture that integrates the entire claims process from start to finish, including case processing, correspondence, fiscal, management information, and workload management. DCPS will use intelligent case processing to support disability examiners in making consistent decisions based on our Disability Policy, and leverage our investment in Health Information Technology (HIT), reducing the time needed to retrieve medical evidence and thus make a disability determination investment in Intelligent Disability.

No longer maintaining multiple systems, we will have the ability to consistently and efficiently implement software enhancements and modifications required by laws, regulations, or business rules while overall costs to provide disability case processing systems support will decrease compared to the cost to continue using the legacy systems. DCPS will minimize the average wait time for initial disability claims, decrease case processing-related task time and provide increased system availability, to improve the overall quality of the disability determination process.

Figure 13 below represents the conceptual view of DCPS, which follows our SOA architecture. The next two figures illustrate the various stages of DCPS.

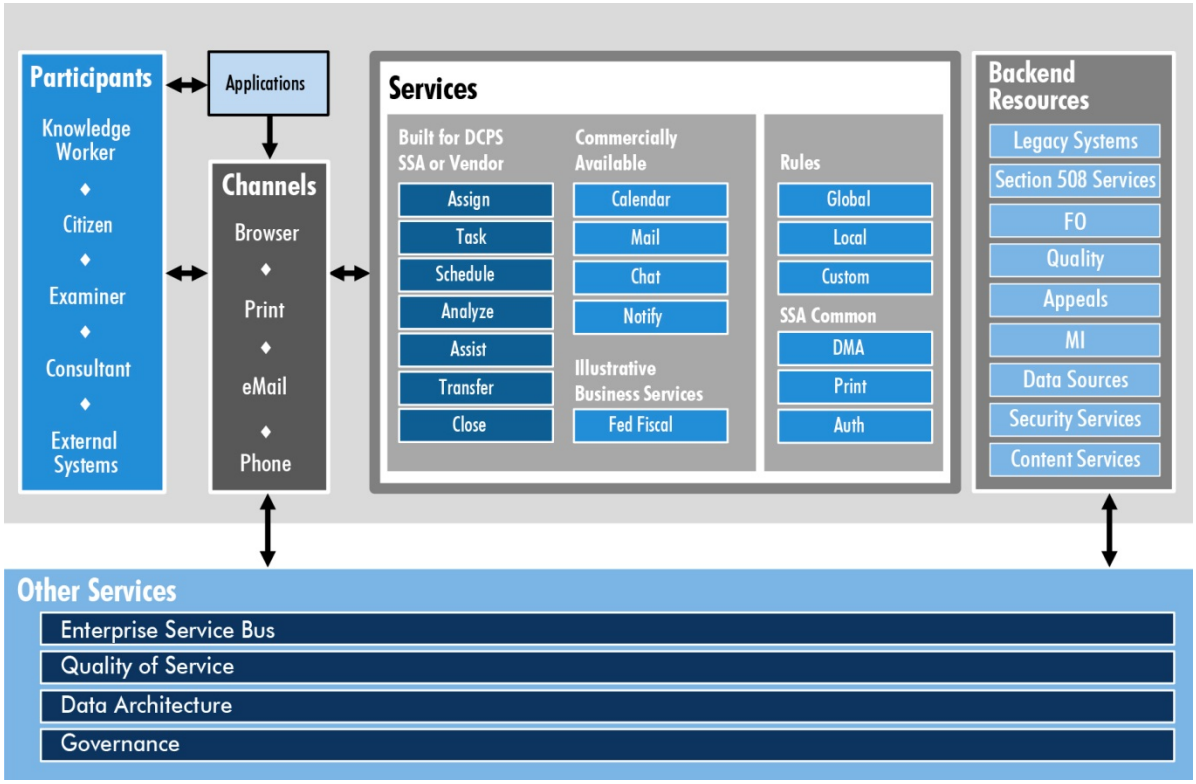

Figure 13: DCPS – Conceptual View – SOA Architecture

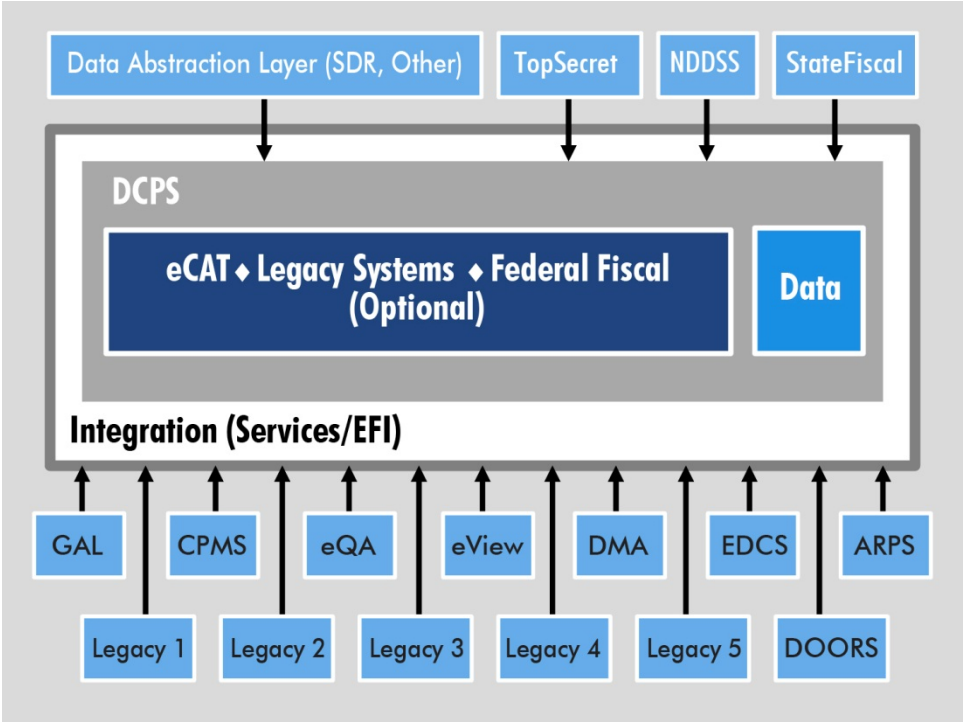

Figure 14: DCPS – System Context – Stage 1

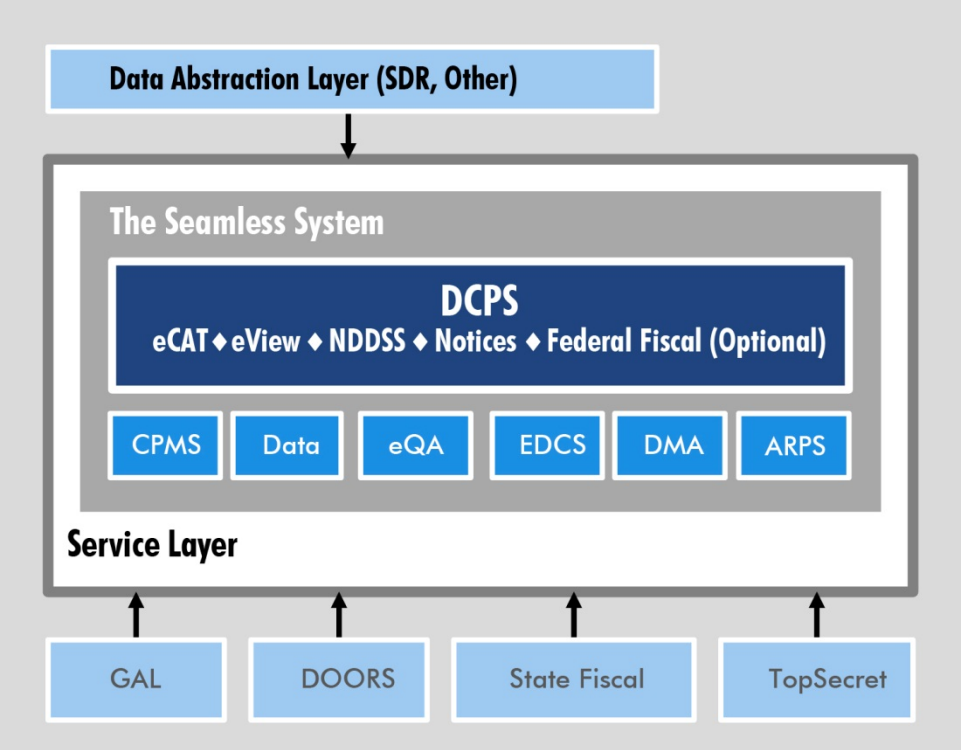

Figure 15: DCPS – System Context – Final Stage

The following table illustrates our transition plan for achieving this target state. These activities will allow us to meet some of the business outcomes identified in the SSA Infrastructure portfolio, listed in APPENDIX C: .

Activity	FY 2014	FY 2015	FY 2016	FY 2017
Portfolio-Initiative: Disability Process – DDS Automation				
DCPS Beta releases				
DCPS National Roll-Out				
Implement National Vendor File (NVF) services into DCPS				
Implement National Vendor File (NVF) services into other disability related applications (EDCS, CPMS, iAppeals, i3368/iClaim, i3820)				
Implement National Vendor File (NVF) services for use by external customers (CMS, AMA, NPI)				

Table 33: Application Consolidation – DCPS Transition Plan

Enterprise Communications Architecture (ECA)

We communicate with our clients and other interested parties in both the private and public sectors. We established a standard approach to the preparation and distribution of written communications – the Target Notice Architecture (TNA) in 1992. While TNA is widely used, a number of special-purpose notice generation systems have also evolved over time as point solutions due to unique business

process requirements or user needs. This evolution finds us today with a number of notice processing systems that play an integral part in the production of notices throughout the various agency components and lines of business.

The proliferation of notice applications and their differing architectures results in a number of challenges and inefficiencies. We have started a multi-year phased effort to evaluate and implement a new Enterprise Communication Architecture (ECA). ECA refers to the blend of technologies, strategies, methods, and tools used to design, author, compose, capture, manage, store, preserve, and deliver content and documents for all of our operational components and lines of business. ECA aims to make it easier to manage enterprise communication by standardizing content authoring, composition, formatting, service delivery, storage, retrieval, and communication related business intelligence. Once fully implemented the benefits should include improved efficiency, better workflow control, lower programmatic overhead, and reduced operational costs.

The next two figures illustrate the current and target views of ECA.

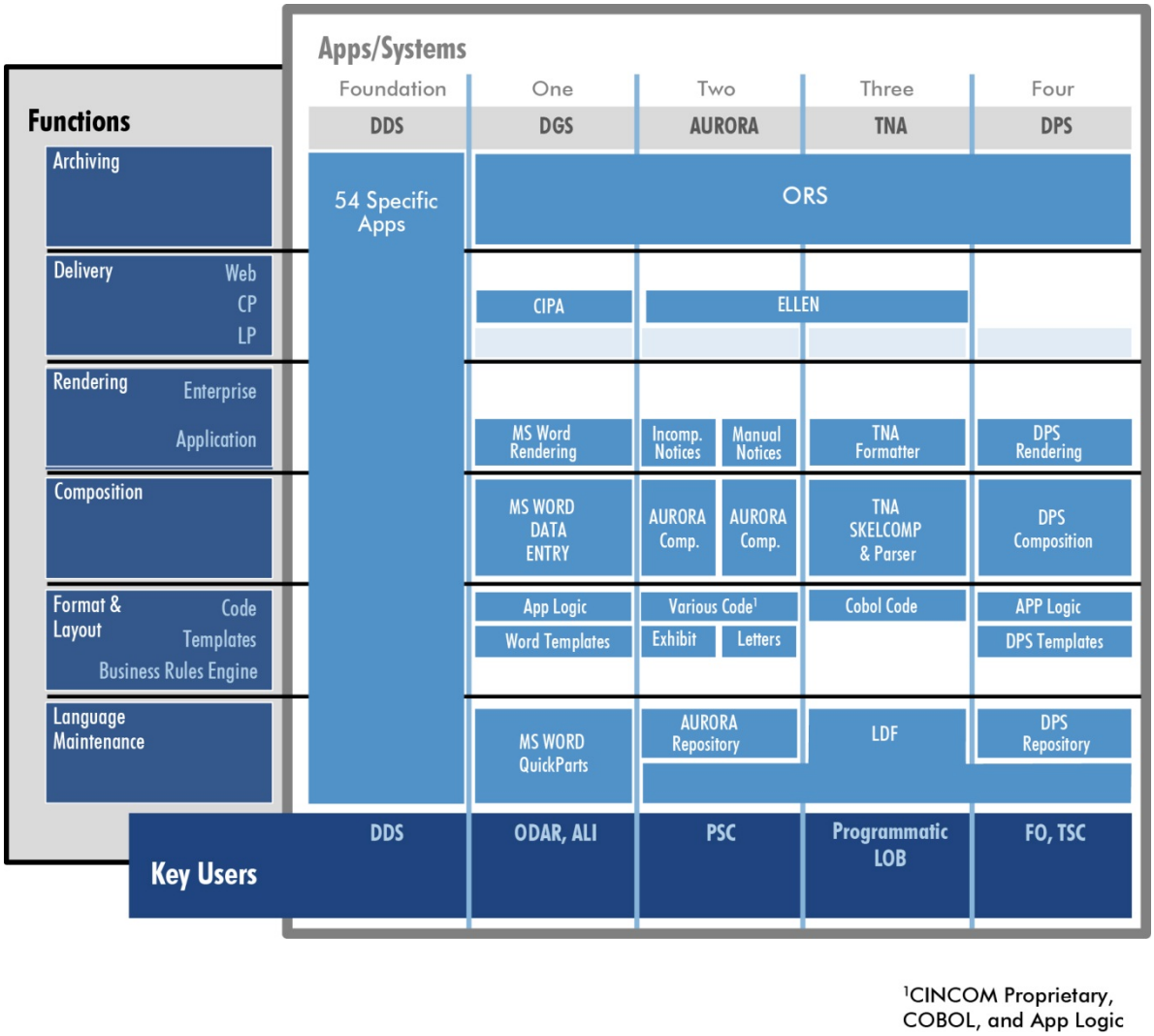

Figure 16: ECA Current State

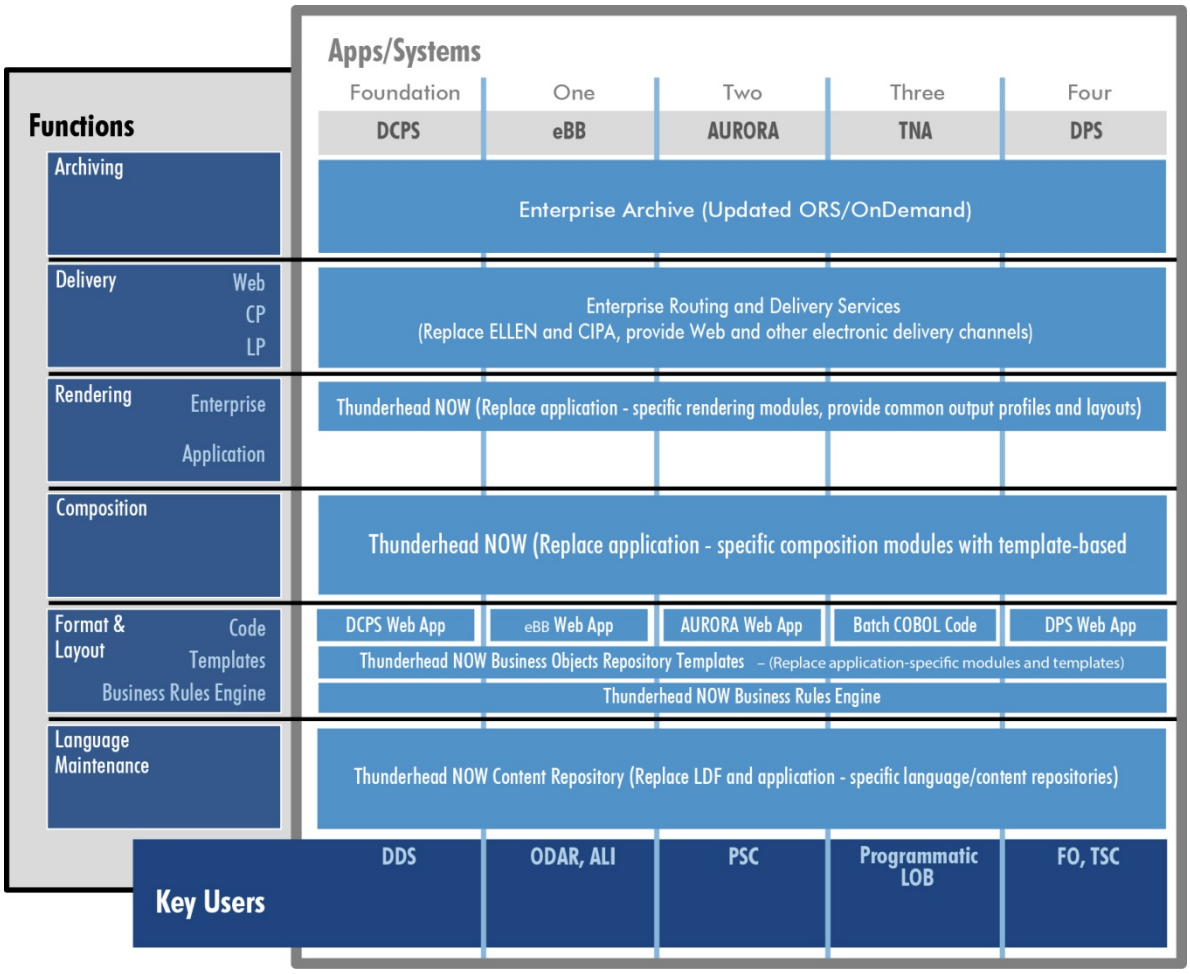

Figure 17: ECA Future State

The implementation of ECA will be accomplished in phases, expected to continue through FY 2018.

Phase 1 (FY 2014)	Phase 2 (FY 2015 – 2016)	Phase 3 (FY 2017 – 2018)
• Develop staff infrastructure support and Thunderhead (TH) Administration expertise • Develop software pieces to replace legacy infrastructure (TNA, TNA Online, TNA Parser, LDF, etc.) • Transparently transition existing TNA consumers to new architecture	• Identify and develop a language clearance process optimized for TH • Convert all legacy notice generating applications, including AURORA, DPS and local apps, to TH • Transition away from current processes (creating SKELCOMPS/embedded application logic) and fully realize the flexibility of the TH Architecture (SOA)	• Redesign business rules, services, and batch jobs in the application tier to generate notices without SKELCOMPS (Why/When) • Design corresponding TH templates and business objects with assembly rules, business logic, and variables (What) • Leverage additional, non-print service delivery output profiles (How) • Realize the agility and cost saving benefits of a decoupled, fully SOA optimized Notice Architecture

Table 34: ECA Implementation Phases

The following table illustrates a more detailed view of our transition plan for achieving this target state. These activities will allow us to meet business outcomes identified in the SSA Infrastructure portfolio, listed in APPENDIX C: .

Activity	FY 2014	FY 2015	FY 2016	FY 2017
Portfolio-Initiative: SSA Infrastructure – Notice Architecture				
ECA Infrastructure Support (admin, security, database, application, authoring environment, validation)				
Replacements for Language Development Facility (LDF), Language Search Facility (LSF), and Language Maintenance Interface (LMI); interface for POMS, PolicyNet; UTI authoring/editing/maintenance inside of TH				
Skelcomp conversion utility				
Formatting replacements for TNA Batch, TNA Online, TNA Parser				
Create enterprise output profiles for Central Print, Long term storage				
Develop output configuration to replace ELLEN				
Develop enterprise level business objects for reuse across multiple applications				
Automate capabilities for work flow management				
Provide detailed MI for business users				
Integrate Aurora Notice Processing into ECA				
AURORA Replacement (UTIs, web services, output channels, database conversion, language clearance & authoring, workflow/queue mgmt.)				

Table 35: Application Consolidation – ECA Transition Plan

5.4.7 Service-Oriented Architecture for Application Development

Our software development strategy is to build applications on a base of freestanding, shared, interoperable services that model our business information and operations – service-oriented architecture and development. We intend to move away from the development of monolithic, single-use applications, which have higher costs and lower flexibility.

Progress toward this goal began in 2008 when we formally established our SOA program. We have developed and deployed a number of services using a variety of interface styles. We have also chosen technology products to serve as our Service Registry and Enterprise Service Bus.

With these accomplishments, we have gained the institutional experience it needs to take the next steps for making service-oriented application development the prevailing practice across our development community. SOA is, in reality, an application engineering discipline – one that allows applications to interoperate with each other, and facilitates building new applications that exploit an expanding base of reusable capabilities.

To be successful, SOA must be more than a loose collection of unrelated services. It should have qualities that make developing, using, and managing service components easy for everyone involved in the process. Our strategy has the goal of making our business services:

- **Broadly Available** – Developers across the enterprise should find it easy to locate the services they need and incorporate them into their projects, with guaranteed levels of service.
- **Intrinsically Interoperable** – Information flowing across service interfaces is coordinated across our lines of business. Each business service is accessible from every programming language supported.
- **Easy to Build** – Developers should be able to build services or use them in the programming styles natural for the programming language they are using. Using a service should be as easy as calling a local method. Providing a service operation should be as easy as coding a local method.
- **Easy to Govern** – Available services should be visible and accessible to all developers while their versions and release cycles are administratively coordinated.
- **Resilient to Change** – Service providers should be deployable on any machine without requiring changes to any of its deployed clients.
- **Efficient to Run** – Invoking a service should be efficient, taking advantage of the fastest techniques when possible, using slower protocols only when necessary.
- **Robust in Operation** – Qualities of service such as secure access control and transactional recovery should be available for any client-service interaction.
- **Accessible / 508 Compliant** – Make accessible business services easy to build and broadly available to all developers.

We intend to use our upcoming application modernization efforts to define and build a major portion of our enterprise business service base. These applications encompass several lines of business that will

project a unified view of ours customer relationships. The unified view will be achieved by defining services that provide line-of-business functionality in an interoperable fashion.

We will prepare for these efforts by establishing the architectural, technological, organizational, planning, and management disciplines needed to support enterprise-scale development and utilization of business services. This software development roadmap summarizes the activities that we intend to pursue to accomplish our goals.

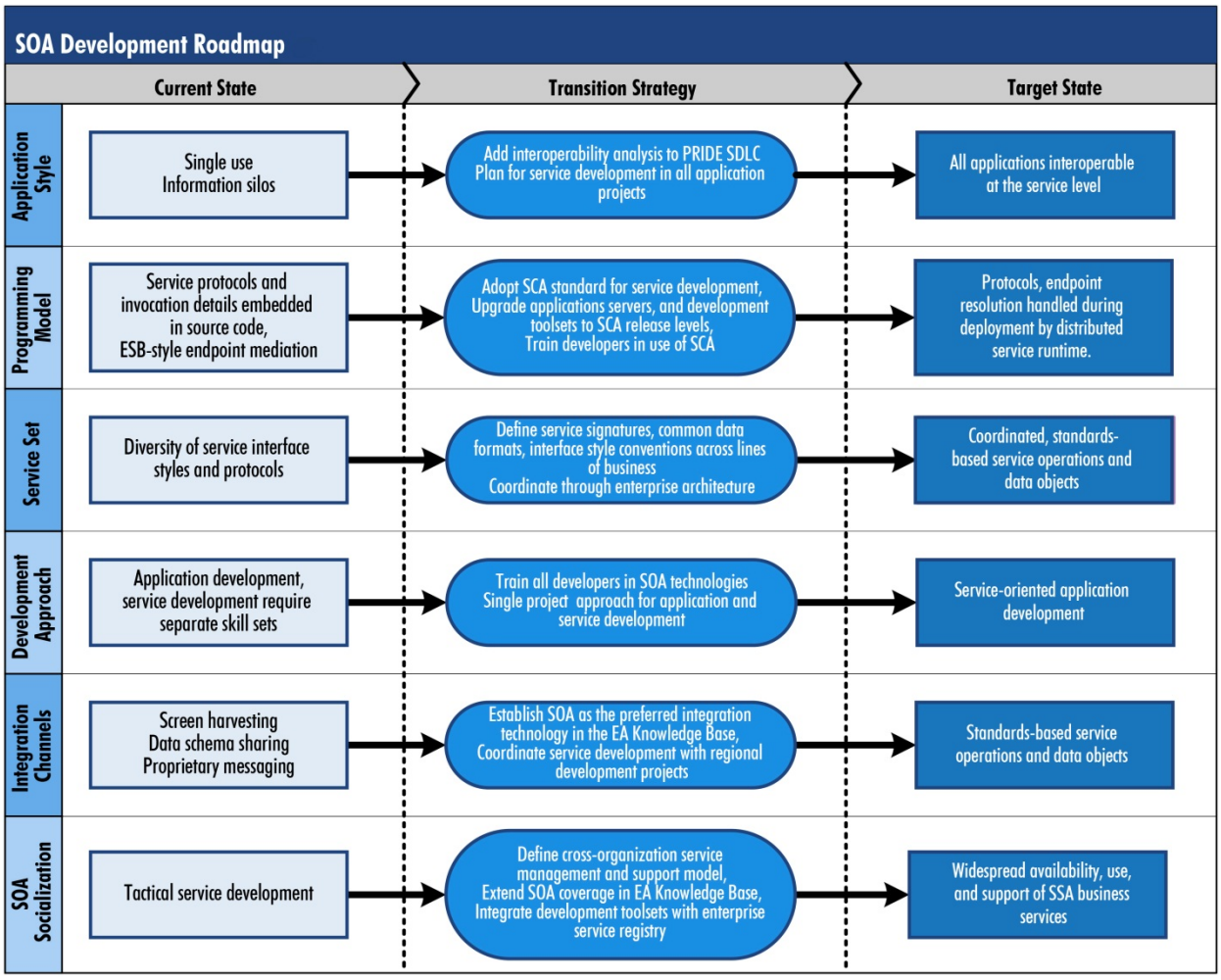

Figure 18: SOA Development Roadmap

The following table illustrates our transition plan for achieving this target state. These activities will allow us to meet many of the business outcomes identified in the SSA Infrastructure portfolio, listed in APPENDIX C: .

Activity	FY 2014	FY 2015	FY 2016	FY 2017
Portfolio-Initiative: SSA Infrastructure – Software Architectures				
Extend SOA to Regional Developers				
Provide support for Java and User Interface standards, and portal				

Activity	FY 2014	FY 2015	FY 2016	FY 2017
technologies.				
Lead the adoption of accepted user interface patterns into the implementation of new intranet modernization efforts				
Implement enterprise monitoring and reporting for SOA. Implement new version of the Enterprise Service Bus product.				
Extend the use of Service Repository and APM into SITAR				
Document the standards and guidelines for Process Orchestration of Business Rules Engine.				
Implement enhancements to reuse legacy applications. Expose Legacy Applications as services				
Assess viability of emerging SOA standards and technologies and revise design standards & guidelines.				
Revise SOA Reference Architecture Enterprise Services				

Table 36: SOA for Application Development Transition Plan

5.4.8 Product and Platform Consolidation

To simplify operations and reduce costs, we will look for opportunities to consolidate products and platforms in our IT environment. To help make informed consolidation decisions, we will expand our disciplined use of application and IT asset management tools to analyze relationships between our applications, services, products, and platforms. In the near term, we will consolidate the operating systems that power our mid-range servers. As part of this effort, we are migrating databases and selected applications to Linux-based servers. This migration will preserve database compatibility for those applications, reduce overall licensing costs, and provide a high-availability database environment. We are also consolidating the numbers of physical servers through virtualization in the data centers and Service Delivery Points (SDPs). Refer to Section 5.4.1 Infrastructure, Computing Platforms for more details.

The following table illustrates our transition plan for achieving this target state. These activities will allow us to meet many of the business outcomes identified in the SSA Infrastructure portfolio, listed in APPENDIX C: .

Activity	FY 2014	FY 2015	FY 2016	FY 2017
Portfolio-Initiative: SSA Infrastructure – Software Architectures: Mainframe				
Implement z/OS 2.1				
Implement Endevor R17, R18, R19				
Implement CICS V5.x, 6.x				
Implement DB2 data sharing as the standard for ESEF development				
Manage the removal of the Dynamic Loader				

Activity	FY 2014	FY 2015	FY 2016	FY 2017
Implement WOLA in CICS				
Implement CICS Transaction Gateway (CTG) V9				
Implement Endevor End-to-End Lifecycle				
CICS maintenance				
Implement z/OS 2.2				
Prepare ESEF mainframe environment for z/OS 2.2				
Portfolio-Initiative: SSA Infrastructure – Software Architectures: UNIX/WebSphere				
Develop and configure Linux VM environment				
Migrate applications to Linux				
Retire Solaris machines				
Install and configure WAS V8.5				
Migration to WAS V8.5 and build WAS V8.5 cells				
Complete move of Development WAS environment to SY52				
Implement Compute Grid and WOLA				
Enhance our presence of Nexus via security enhancements, failover/load balancing, and repository management between clusters				
Move Oracle Tools environment towards Oracle Linux				
Build additional WAS V8.5 – WAS V9 cells				
Portfolio-Initiative: SSA Infrastructure – Software Architectures: Windows				
Infrastructure server upgrades to Windows Server 2012				
Implement Dev/Val SharePoint 2010 environment				
Finish upgrades to SCCM 2012 and SCOM 2012				
Provide support for Windows development projects				
Install Data Domain at second site for replication				
Upgrade virtual environment to VMWare 5.1				
Upgrade virtual environment to VMWare 6.x and research future virtualization technologies to include cloud services				
Explore AD Server upgrade to Windows Server 9				
Explore elimination of backup tapes				

Table 37: Product and Platform Consolidation Transition Plan

5.4.9 Internet Protocol version 6 (IPv6)

OMB memo dated September 28, 2010 from our Federal Chief Information Officer's office stated that, "The Federal government is committed to the operational deployment and use of Internet Protocol version 6 (IPv6)". The memo also stated, " In order to facilitate timely and effective IPv6 adoption,

agencies shall: Upgrade internal client applications that communicate with public Internet servers and supporting enterprise networks to operationally use native IPv6 by the end of FY 2014".

In support of this effort, we are implementing a transition plan that includes documenting Internet facing applications and preparing our testing environment to test IPv6 client connectivity for all Internet facing applications. The testing environment will allow us to perform a final IPv6 pre-production test of existing and future internet facing applications and infrastructure components. Internet facing application owners and developers will utilize an IPv6 client to evaluate and test operability of their applications in these environments.

This transition plan also encompasses preparing our development environments to ensure all future internet-facing applications and supporting networks are designed and tested using native IPv6 from the very beginning of the software development lifecycle prior to deployment.

We have similar challenges with our Intranet applications. Identifying our internal Intranet applications and ensuring these applications are tested and validated is of great importance as well.

We are in the process of setting up environments to support the development, testing, and validation of these Intranet applications. This work is being completed in conjunction with the SSANet network infrastructure dual stack implementation.

Another requirement of the OMB mandate is to ensure our internal users have accessibility to IPv6 services outside of our agency. Our planned approach to provide an IPv6-supported infrastructure will include accessibility for internal and external services.

Application Development Support

It is important for application developers to consider how to ensure existing and new applications are not restricted by the implementation of IPv6. The best way to accomplish this is by ensuring applications avoid IP dependencies. IP dependencies should be avoided for the following reasons:

- IP addresses can change over time
- A client may reach a destination host using different IP addresses (depending upon number of device connections)
- IP address format for an IPv4 and IPv6 address contrasts
    - IPv4 is represented as a 32-bit four-byte address
    - IPv6 is represented as a 128-bit hexadecimal string

As an alternative to hard-coded IP addresses, applications should store the Fully Qualified Domain Name (FQDN) or other protocol-independent identities. If an application does include a field for an IP address, the field must support and accommodate either an IPv4 or IPv6 address format.

We are also identifying training opportunities to educate our Internet and Intranet application developers to ensure their applications are IPv6 compliant.

Table 38 represents the IPv6 Internet transition plan.

Task	Q2 FY14	Q3 FY14	Q4 FY14	FY 2015
Identify external facing applications that are accessible from SocialSecurity.gov	Ongoing			
Setup application validation environment	Completed			
Prepare applications to support IPv6				
Test/document external facing applications				
Test/document accessibility of external services				
Identify and document internal facing applications				
Test/document internal facing applications				
Educate application developers in preparing future applications to ensure they support IPv6				

Table 38: IPv6 Internet Transition Plan

5.4.10 Shared Services Strategy

On May 2, 2012, OMB released the Federal Information Technology Shared Services Strategy. The strategy provides organizations in the Executive Branch of the United States Federal Government with policy guidance on the full range and lifecycle of intra- and inter-agency information technology (IT) shared services, which enable mission, administrative, and infrastructure-related IT functions. This strategy is part of the OMB 25-Point Implementation Plan to Reform Federal IT Management[3], which seeks to increase return on investment, eliminate waste and duplication, and improve the effectiveness of IT solutions.

We will continue to pursue needed shared services. We currently provide several externally facing services such as verification services for many Federal and State agencies. In addition, we have international agreements for data exchanges with foreign governments for specific items such as the Death Master File to ensure that citizen identity is not stolen or reused.

Internally we are evolving our long-term approach to shared services by extending our existing information technology platforms to create an open systems infrastructure and aligning our application development platforms to a common services environment. We are creating common services such as the WDPE (Windows Development & Production Environment) and evaluating implementation of LINUX to facilitate virtualization and extension of our existing ORACLE RDBMS Platform.

We are a centralized agency (no bureaus or departments). We have a very robust, centralized IT environment that supports the automation of major aspects of our core mission. We do not face the difficulty of coordinating and managing multiple infrastructures. We only have one email system. Our

[3] 25 Point Implementation Plan to Reform Federal Information Technology Management, Office of Management and Budget, December 9, 2010. The shared services strategy is called for in action item #6.

major programmatic data stores have always been centralized. In addition, our enterprise software development occurs in a centralized organization. To ensure that we remain highly centralized, we have created a structured service oriented architecture environment. Our CPIC and investment review processes continually look for ways to consolidate functionality and reduce redundancy where possible. Our system development lifecycle includes steps to reduce redundant software development. In addition, we have recently implemented additional governance to specifically address service oriented design and development.

The Architecture Design Group (ADG) was formed to ensure that we continue to develop centralized, architectural solutions. One of the responsibilities of the ADG is to review IT and business proposals, looking for common business functionality that might result in the creation of shared services. The ADG has an overall, high-level view of all proposals providing them with the ability to identify opportunities for collaboration and reuse.

We have several processes in place to help us identify shared services opportunities. Our system development lifecycle (SDLC) provides guidance to our application development teams. The SDLC includes steps that help developers identify similar business functions and common technology requirements. These commonalities lead to the development of services and architectures that support our mission.

Planning and Analysis

Service oriented governance involves an enterprise-level collection of activities that aligns business and systems resources, processes, and technologies that are all leveraged to ensure value to the agency. Two critical areas addressed include a service identification process and design review board (DRB).

We work closely with project initiatives across our development community to identify service opportunities that are currently embedded either in line-of-business application code or in proposed new applications. We have defined a process that comprises the criteria for determining whether a reusable function is, or would be, appropriately deployed at the enterprise level using the SOA infrastructure. Standards have been developed for identifying, developing, and exposing services while leveraging existing best practices from our SDLC and overseeing governance via the ARB and DRB.

Design & Development

Another recent enhancement made to our governance process also supports our commitment to the development of shared services. The Design Review Board (DRB) is responsible for reviewing the designs of those projects approved for implementation by the ADG and SITAR. The DRB provides assistance to the development teams with performing a service model impact analysis early in the life of a project. The purpose of the analysis is to identify existing services that the project will take advantage of, new services that the project will provide to allow other software to interoperate with its capabilities, or extensions to existing services that the project needs. Planning for each project must account for development of new shared services or identify dependencies on other projects that include such development. We also manage an enterprise service registry that makes service definitions visible to our software development tools, allowing developers to use toolset automation to integrate service operations into their code.

Service Identification and Service Reuse

Project teams will schedule meetings with the DRB to discuss the functionality of their WebSphere application/services, CICS Services, and possibly systems level architecture. During the meetings, it may be determined that the presenting project team is developing a service that may be considered enterprise. The members of the DRB perform a Service Litmus Test (SLT) which is a decision-making framework used to make service exposure decisions about potential enterprise services, identifying which comply with SOA principles and service criteria. The SLT is composed of multiple evaluation criteria organized into categories, used to identify the proposed service as either enterprise or non-enterprise. Those services deemed to be enterprise will be supported in the SOA infrastructure. DRB members assign a classification from our official taxonomy to the enterprise services, aligning the service by function within our lines of business and/or technology. Ultimately, the DRB makes the recommendation to use an existing service or develop a new one.

Service Registration and Publication

After a service has been deemed enterprise by the DRB, a project team will attend two workshops for service registration: service evaluation and service implementation. These workshops can be performed standalone or combined into one session. The purpose of the service evaluation workshop is to collect all the project management and business related information about the service such as name, description, contact information, and deployment dates. The purpose of the implementation workshop is to analyze the technical requirements needed to support the service within the SOA infrastructure as well as collect the service artifacts required for registration.

Also registered in our services repository are non-enterprise services, CICS legacy utilities, and framework components. Project teams requesting to register these types of services are not required to attend the workshops.

Service Implementation

Following the enterprise service provider's deployment schedule, the WSRR, FUSE, and DataPower teams will configure the SOA infrastructure to support the enterprise service in their runtime environments. Once this configuration is completed, the enterprise service will be published to the enterprise service repository where project teams may search, research, and consume enterprise services.

Education and Communication

Our Chief Architect and Shared Services Representative are the main points of contact for any Shared Services guidance provided by OMB. The Chief Architect meets regularly with our Chief Information Officer (CIO) to discuss strategy and implementation of our shared services, as part of the overall EA implementation. The Chief Architect also meets regularly with other Systems and Business component executives to educate and discuss our EA program, including the recent Shared Services Strategy released by OMB. It is important for these executives to be aware of and understand these EA-related issues, as they are the same folks responsible for reviewing and approving business and IT proposals.

The following table illustrates our transition plan for achieving this target state. These activities will allow us to meet many of the business outcomes identified in the Core Services and Financial Services portfolios, listed in APPENDIX C: . Refer to Section 8.0 for additional details about the shared services implemented in 2013, and continuing into 2014.

Activity	FY 2014	FY 2015	FY 2016	FY 2017
Portfolio-Initiative: Core Services – Data Exchange				
Data Exchanges & Verifications Online (DEVO)				
Portfolio-Initiative: Financial Services – Emergency Response System				
GIS for Emergency Management				
Portfolio-Initiative: SSA Infrastructure – Software Architectures				
Enterprise Print Architecture (EPA) Pilot Implementation				
EPA Production Implementation				

Table 39: Shared Services Transition Plan

5.4.11 Extending the Cloud Model for Service Delivery

We consider Cloud Computing an effective, evolving platform for enhancing and extending the information and IT services it delivers to our end-users, business partners, and customers. Our strategy is to continue implementing a private cloud-computing model consistent with our mission and business operations models. We will leverage Cloud Computing in order to extend the service capabilities of our existing IT environment. The use of the Cloud Computing model will be accomplished within our risk management framework and security standards. Enforcement is achieved via the framework of our centrally managed enterprise architecture governance, as well as our IT service acquisition and source selection processes.

Cloud is an approach to create an environment that includes five specific characteristics (without regard to a specific technology). These characteristics include on-demand self-service; broad network access; resource pooling; rapid elasticity and measured services. As a private cloud service, our infrastructure is working to extend and satisfy the intent of this definition. We will:

- Extend virtualization and consolidate server environments to leverage technology investments
- Use virtual environment management tools to facilitate on-demand service needs while encouraging use of virtualized platforms such as the WDPE.
- Evaluate software applications that provide a toolset for developers creating application software to design and develop new applications capable of fully leveraging a virtualized environment.
- Assess how measured services could be used to optimize shared resource use both by Components and systems by metering storage use rates, bandwidth demand and other characteristics.

- Continue and extend pooling of resources across all of our platforms.
- Evaluate use of public, community and hybrid clouds to lower cost and increase efficiency.

Our cloud strategy is incorporated into our systems planning and security models through the establishment of our Cloud Computing and Cloud Security Policies. The policies work together to address investment, performance and security going forward – especially for non-SSA provided cloud services. In addition, procedures were integrated into our System Development Lifecycle (SDLC) to ensure that cloud is considered. The SDLC directs a project team considering an external or hybrid cloud implementation to a procedure, which will result in CIO approval or denial of an external, or hybrid cloud implementation for that project.

Cloud Computing is an important trend and the Office of Management and Budget (OMB) has mandated its deployment across the Federal Government. In fulfillment of OMB's mandate, We have formally identified our IT environment as a Private/Internal Cloud environment.

This CIO Policy declares that we:

- Will maintain our Private/Internal Cloud as the principal deployment model for delivering IT services – to the public at large, to external business partners, and to internal users/employees; and
- Anticipates that virtually all newly developed and implemented IT services will be provided within the scope of our private cloud.

The Cloud Computing Policy identifies our framework for computing and addresses planning and acquisition of cloud computing services.

5.4.12 Digital Government

Digital government is not a new concept for us and has been a core tenet in the our plan for continuous improvement in service delivery to the public. For over 10 years, we have made appropriate portions of our data available on-line. We provide data and services via several digital service channels including telephone, online, formal data exchanges, Web services (machine to machine), and mobile. We also offer many electronic services to third parties who do business with us, including U.S. Military, Federal, State, and Foreign agencies in addition to private service providers.

On May 23, 2012, the White House announced a Digital Government Strategy (DGS)[4] for federal government agencies to use as a roadmap in delivering 21st century services to the American people.

This vision calls for the increased use of technology to lower costs while enabling citizens to securely access high quality government information, data and services "anywhere, anytime, on any device."

The core principles of the strategy focus on:

- Using an information-centric approach to presenting information and data;

[4] Digital Government: Building a 21st Century Platform to Better Service the American People, May 23, 2012

- Collaborating on a shared platform across government agencies;
- Providing customer-centric data that allows people to shape, share and consume information; and
- Protecting privacy through a secure platform.

Our existing governance bodies and project selection practices ensure that these principals are integral to the decision making process for project initiation and growth in the digital space. We will continue to use this methodology to support the modernization of systems to leverage web APIs (DGS milestone 2.2) as well as guide the selection for the mobilization of existing applications (DGS milestone 7.2) Additionally, we will continue to expand digital services and open data across all appropriate channels with the goal of advancing customer service, supporting the our mission, meeting the our performance plan goals, and maximizing return on investment. The activities identified in Table 21: Online Services Transition Plan supports our digital strategy efforts.

One of the milestones in the DGS is to ensure all new IT systems follow the Open Data, Content and Web API policy. This mandate requires federal agencies to institutionalize and operationalize information as an asset throughout the lifecycle. We will continue to provide consistent, interoperable, open, secure and high quality information within the data architecture and lifecycle. We will develop processes, standards and lifecycle changes to make stakeholders aware of the importance of Open Data and to promote the automation and release of additional data assets in an open format as permitted by law and subject to any privacy, confidentiality, sensitivity, or other restrictions. As we continue to develop this strategy, our internal assessments, timelines, and identification of quantifiable and meaningful metrics will help monitor our success and help ensure that our stakeholders maintain the accuracy and quality of the information contained within the data architecture.

The following table illustrates our transition plan for achieving this target state.

Activity	FY 2014	FY 2015	FY 2016	FY 2017
Portfolio-Initiative: SSA Infrastructure – Database/Storage Architectures				
Expand the Enterprise Data Inventory to support public data				
Publish a public data inventory				

Table 40: Digital Government Strategy/Open Data Transition Plan

5.5 CYBER SECURITY

Our approach to cyber security is one that can be characterized as “defense in depth.” We define “defense in depth” as the layering of defenses to provide added protection to the Information Technology infrastructure we manage. Defense in depth increases security by raising the cost of an attack. This system places multiple barriers between an attacker and our business-critical information resources: The deeper an attacker ventures into our Information Systems, the more difficult it gets to execute the attack. Each of these barriers handles a different area of information technology security and complements each other. These multiple layers prevent direct attacks against systems and avert

easy reconnaissance of our networks. In addition, a defense in depth strategy provides natural areas for the implementation of intrusion-detection and prevention software as well as other security infrastructure technologies. The defense in depth measures we implement affords the organization time to detect and respond to a breach and minimize impact. Additionally we employ a strict separation of duties and platform with regard to security infrastructure. The notion behind this is that if a given security construct is taken off line or is in some way compromised, there will be other systems that would provide a measure of defense.

Information Technology security revolves around three key principles of Confidentiality, Integrity and Availability (CIA). Depending on the application and context, one of these principles may be more important than another. For example if the context is the transmission of data between us and a business partner, confidentiality would be the paramount concern.

CIA defined:

Confidentiality is concerned with preventing unauthorized disclosure of sensitive information. This disclosure could be either unintentional or intentional. An example of an intentional disclosure is one where an individual inserted some sort of technology designed to decipher encrypted messages in an encrypted data transfer. An example of an unintentional disclosure would be someone sending an email with sensitive information to the wrong recipient.

Integrity is assuring and maintaining the accuracy of an information system over the entirety of its life cycle. Integrity has three goals; 1) preventing modification of information by unauthorized users; 2) preventing the unintentional modification of information by authorized users; and 3) preserving internal and external consistency of information.

Availability is assurance that the authorized users of an IS will have timely and uninterrupted access to the IS.

This guiding principle, “defense in depth,” is a strategy characterized by the utilization of multiple defense layers that ensures the CIA of our Information Systems. Each layer has a specific purpose that complements and supports the other security layers. These security layers can be conceptualized as spheres of activities and technologies each forming a stratum of defense. Additionally, there are also redundant and discreet technologies that focus on differing areas of the security posture, ensuring resilience in the security posture.

Security within any IS infrastructure is a concept and not a technology. While technology is the key ingredient to any security posture, it is just one of the concepts. Other concepts can be any number of logical constructs, including but not limited to: Memorandums of Understanding (MOUs), standards, policy, etc. The driving ideology behind the defense in depth strategy is that no one sphere will ever sufficiently protect our systems as an independent function. Each individual sphere can potentially be overcome, but the other spheres would prevent a security failure.

The goals of the Cyber Security engineering strategy support the implementation of projects between 2013 and 2017 that will result in a desirable end-state for SSA Infrastructure. Specifically, we will:

I. **Reduce** Threats and Vulnerabilities to prevent exploitation of flaws in Information Systems by reducing the prevalence of those flaws.

II. **Ensure** Systems Availability. Security incidents can detrimentally affect systems' availability. This goal is focused on reducing security incidents.

III. **Protect** the Integrity of our data. Data is only useful if its validity is ensured. This goal is focused on the execution of processes that ensure the validity of our data.

IV. **Secure** our IT Assets. This goal is the execution of processes that will ensure the confidentiality, integrity and availability of our information systems.

These goals are informed by statutory and regulatory requirements to protect the sensitive information we gather and maintain. We are also required to establish administrative control of funds and implement controls for prevention of fraud, waste, and abuse consistent with the standards prescribed by various oversight bodies.

Complementing the four goals, are three layers that express our engineering strategy for a comprehensive security architecture and program. These strategies promote layers of protection and functionality that ensure data, applications, infrastructure, and business processes receive the level of protection needed. The security architecture applies to all aspects of our IT program and extends to all users of the system at all times. This model architecture covers both centralized and de-centralized users and resources at all levels of access and sensitivity. The three technical layers of our security program include:

1. Network Perimeter Security Controls
2. Data-In-Transit Security Controls
3. Host-Based Security Controls

Network Perimeter Security Controls

To begin planning a perimeter-oriented network-defense strategy, one has to define and understand exactly what the network perimeter is, where it lies and what technologies are involved. Simply stated, the perimeter is the boundary between our network and others. Additionally it is the point or frontier of our IT network where data flows in from (and out to) other networks, including the Internet. Perimeter defense functions like a checkpoint, allowing authorized data to enter unencumbered while blocking suspicious traffic and activity.

The perimeter technologies that we will be adding and or modernizing over the next four years are as follows:

Activity	FY 2014	FY 2015	FY 2016	FY 2017
Authentication Enhancement				
Honey Pots (detection of unauthorized use of IT assets) Implementation				

Activity	FY 2014	FY 2015	FY 2016	FY 2017
Proxy Filter Modernization				
Enhanced Fraud Prevention				
Virtual Private Network Modernization				

Table 41: Parameter Security Controls Implementation Plan

Data in Transit Security Controls

Data-in-Transit Security controls focuses on how we secure the information systems that are contained within the perimeter of our network. This infrastructure is largely designed to focus on data security, content control, access security, posture assessments and security configuration standard.

The Data in Transit Security Control Technologies that we will be adding and or modernizing over the next four years are as follows:

Activity	FY 2014	FY 2015	FY 2016	FY 2017
Identity Core Services				
Network Access Control				
Virtual Security Tool				
Active Directory Modernization				
Advanced Persistent Threat				
Governance, Risk Management and Compliance tool				
Mandatory Access Control				

Table 42: Data-In-Transit Security Controls Implementation Plan

Host-Based Security Controls

Host-Based Security Controls focuses on those security controls that are located on the end point or hosts that we employ. While securing the end point is one of the most mature areas of cyber security it is also the most important. While there is a great deal of stability regarding these technologies there is also little change associated with them and we must continue to maintain state of the art security controls in this area.

The Host Based Security Control Technologies that we will be adding and or modernizing over the next four years follows:

Activity	FY 2014	FY 2015	FY 2016	FY 2017
Desired State Devices				
Application Control				
Vulnerability Remediation				

Activity	FY 2014	FY 2015	FY 2016	FY 2017
Managed Print Architecture				

Table 43: Host-Based Security Controls Implementation Plan

Our network and telecommunications infrastructure, inclusive of its messaging and collaboration services, is a critical resource in helping us complete our mission and represents a significant investment in technology. We have been, and continue to be, a leader in the deployment of telecommunications and networking technology solutions to meet our mission and our business operations requirements. Continued investments in these projects and initiatives will ensure our position among Federal agencies and will provide the necessary foundation for meeting the increasing service demands and expectations of the public and our business partners.

Because of planned initiatives and projects, the networking and telecommunications services infrastructure will be extended to deliver new capabilities and services to meet our expanding business needs and will be optimized to accomplish that in an efficient manner – resulting in improved availability, sustainability and reliability across all support platforms.

Operational Assurance

One other critical area supporting our cyber security strategic goals is operational assurance. Much of the assurance for continued resource protection is maintained at this layer. A vast array of security controls such as Disaster Recovery (DR) and Continuity of Operations Plans (COOP) ensure the ability to recover from service interruption. In addition, we use a two-fold approach to security configuration management:

1. Security Configuration Standards– Every computer operating system permitted on our network is required to have a Security Configuration Standard that is published and reviewed at least annually, in accordance with requirements and guidelines for the federal sector and best practices.

2. Configuration Guides – Configuration Guides are targeted at selected commercial middleware (i.e. Oracle) used by applications that run on the operating system platforms.

Extensive auditing is conducted to ensure compliance and effectiveness of security controls. Penetration testing programs and intrusion detection services provide operational security of the network facilities. The combination of suitability programs and training provide due diligence prior to authorizing positions of trust to personnel within the security program. Furthermore, we have developed a standardized process for developing IT security policy, and continuously monitor and test the effectiveness of security policy, procedures, and controls.

DR is the process, policies, and procedures related to preparing for recovery or continuation of technology infrastructure critical to an organization after a disruption of normal and expected functioning. This disruption could be the result of a natural or human induced “disaster.” Examples of a disruption are weather events, toxic spills, or human error that would cause facilities not to function or be inaccessible.

We perform a Disaster Recovery Exercise (DRE) annually. The DRE begins with planning, as a variety of stakeholders throughout the enterprise meet and determine which applications will be tested in the DRE. All mainframe systems are restored during the DRE but only a subset of applications are tested. During the DR preparation phase a variety of logistical and administrative issues are addressed, such as timing, support personnel, and scheduling. The DRE is then executed during the DR execution phase. The exercise is scheduled for 14 days but typically does not last that long. Finally, an after action review is conducted to study the DRE and make improvements. Those improvements are then incorporated in the next DR planning phase.

Configuration guides are created by various components within systems that ensure that a given piece of software and/or hardware is configured according to the specifications of that office. These guides enable support, interoperability, and functionality of the software and/or hardware. Typically, the build guides are created for specific projects and consequently have a limited shelf life.

Security Configuration Standards are risk-based configuration guides. Our security configuration standards are based on the Defense Information Systems Agency Security Technical Implementation Guides (DISA STIG). We use DISA STIGs to define the baseline build for our platforms. We then monitor all IT assets attached to SSANet for compliance with our approved security configuration standards. Any device found on SSANet that is not in compliance is removed or remediated. If an IT asset's security deficiencies cannot be remediated, the applicable security standard is altered to incorporate the new setting or the IT asset is granted a risk-based exception to the security standard.

Systems' Security Configuration Standard lifecycle starts with the baseline SSA Security Standard for an IT asset. Systems staff verify compliance with the baseline security standard. Standards include, but are not limited to Active Directory (AD), proper group membership assignment, build, and Operating System (OS) level type.

Our baseline Security Configuration Standards, as stated above, are based on DISA STIGs. Systems staff then work with the IT asset or process owners to remediate any hardware or software found to be noncompliant. If the business use requires that these assets have exceptions to the security controls, then they are documented in the exception phase and, if necessary, incorporated into the standard. This monitoring process is ongoing.

All federal system security controls are outlined in NIST special publication 800-53, but it is incumbent on all agencies to define how they adhere to each of those security controls. For example, 800-53 outlines that all user sessions, such as mainframe or windows sessions, have to time out at a given time interval but does not specify the value.

In addition to the cycle outlined above, extensive auditing is conducted on the our Operating Systems to ensure compliance with and the effectiveness of our security controls. Penetration testing programs and intrusion detection services provide operational security of the network facilities. The combination of suitability programs and training provide due diligence prior to authorizing positions of trust to personnel within the security program. Further, we have developed a standardized process for developing IT security policy and continuously monitor and test the effectiveness of security policy, procedures, and controls.

The Federal Information Systems Management Act (FISMA) of 2002 requires each federal agency to develop, document, and implement an agency-wide program to provide information security for the information systems that support the operations and assets of the agency, including those provided or managed by another agency, contractor, or other source.

FISMA defines a framework for managing information security that must be followed for all information systems used or operated by a U.S. federal government agency, or by a contractor, or other organization on behalf of a federal agency. This framework is further defined by the following standards and guidelines developed by NIST:

1. Inventory of Information Systems: Develop and maintain an inventory of major information systems (including major national security systems) operated by or under the control of such agency.
2. Categorize information and information systems according to risk level: Based on the objectives of providing appropriate levels of information security according to a range of risk levels.
3. Security Controls: Federal information systems must meet the minimum-security requirements defined in the FISMA legislation, FIPS 200 “Minimum Security Requirements for Federal Information and Information Systems”.
4. Risk Assessment: Validates the security control set and determines if any additional controls are needed to protect agency operations, agency assets, individuals, other organizations, or the nation.
5. System Security Plan: Living documents that require periodic review, modification, and plans of action and milestones for implementing security controls.
6. Security Assessment & Authorization: Controls must be reviewed and certified to be functioning appropriately, resulting in the information system being accredited.
7. Continuous Monitoring: All accredited systems are required to monitor a selected set of security controls and the system documentation is updated to reflect changes and modifications to the system.

Our network and telecommunications infrastructure, inclusive of its messaging and collaboration services, is a critical resource in helping us complete our mission and represents a significant investment in technology. We have been, and continue to be, a leader in the deployment of telecommunications and networking technology solutions to meet our mission and our business operations requirements. Continued investments in these projects and initiatives will ensure our position among Federal agencies and will provide the necessary foundation for meeting the increasing service demands and expectations of the public and our business partners.

Because of planned initiatives and projects, the networking and telecommunications services infrastructure will be extended to deliver new capabilities and services to meet our expanding business needs and will be optimized to accomplish that in an efficient manner – resulting in improved availability, sustainability and reliability across all support platforms.

The following table outlines additional work effort planned to support our security efforts. These activities will allow us to meet some of the business outcomes identified in the SSA Infrastructure portfolio, listed in APPENDIX C: .

Activity	FY 2014	FY 2015	FY 2016	FY 2017
Portfolio-Initiative: SSA Infrastructure – Security Architecture				
Implement workflows into Identity Manager tool; support certification of profiles				
Mandatory HSPD-12 card authentication for FTE and Contractors				
Data Loss Prevention				
Expand Security Event Management capabilities				
Expand Fraud Detection capabilities				

Table 44: Security Transition Plan

5.6 INFRASTRUCTURE

This section focuses on the services we provide in the day-to-day operation of our data centers and customer support for our IT infrastructure. In many instances, we provide support 24/7/365 ensuring the stability and availability of the enterprise. These strategies include initiatives designed to meet expectations and improve service to the various customer segments that rely on our enterprise and data. There are several challenges we have encountered in our IT infrastructure. As our infrastructure grows, so will these challenges.

5.6.1 Computing Platforms

Our Computing Services are managed and delivered in a manner consistent with the cloud computing Platform-as-a-Service model. The Computing Services Platform represents a managed configuration of IT systems and components – including hardware, software, operating systems, and related interfaces – that provides end users, business partners and customers the ability to enter and manipulate data, execute tasks, and/or perform various electronic or digital functions.

The Computing Services Platform (the Platform) is itself comprised of four principal platform domains:

- Mainframe Systems;
- Mid-Tier Servers (proprietary);
- Commodity x86 Servers; and
- Desktop and Other Devices.

The Computing Services Platform and its underlying infrastructure are engineered and managed:

- To provide the flexibility and agility needed to support our mission-critical programmatic and administrative business process requirements;

- Within a context of rapidly evolving, web-based and increasingly mobile and collaborative computer processing technologies; and
- To ensure they continue to meet our growing service delivery requirements.

The Computing Services Platform Engineering Plan continues to be structured around the design and operation of computing services as a cloud-based Platform-as-a-Service (PaaS). The Plan itself is based on a three-part strategy that provides a contextual framework for the various initiatives and projects that will be undertaken within the current planning horizon (i.e., 2014 – 2018).

I. Continue support of our significant investment in the platform by:

- Maintaining currency with operating systems and middleware;
- Refreshing key elements of the Platform's domains (i.e., Mainframe, Mid-Tier Server, Commodity x86 Server, and Desktop/Other Devices) with new technologies; and
- Provisioning the underlying infrastructure to meet expected growth in service capacity requirements.

II. **Extend** the platform to incorporate new technologies that:

- Keep pace with industry trends and best practices; and
- Expand flexibility and functionality to meet expanding customer needs.

III. **Optimize** the platform to:

- Sustain its effectiveness in the face of shrinking fiscal and staffing resources;
- Improve its availability, reliability, security, integrity and maintainability; and
- Enhance its characteristics as a cloud-computing service delivery model (i.e., Platform-as-a-Service (PaaS)).

Optimizing the platform, as a strategy, offers the greatest opportunity for Return on Investment (ROI) to us and to the government.

Strategic Direction I: Continue Support for Existing Resources

This strategy represents a major investment of resources that must be effectively kept up-to-date. Operating systems must be updated; infrastructure components must be replaced or upgraded; and elastic capacity must be provisioned to ensure that mission-critical operations continue to meet our customer service demands. In general terms, the basic architectures of the mainframe and end-user desktop platform domains will remain fairly stable and without substantive revisions throughout this planning horizon (FY 2013 – FY 2017). While the Desktop platform domain will expand to include the use of mobile end-user devices (such as tablets and smartphones), the most significant developments and changes will be seen in the realm of the open system/distributed (server) platform.

Our continued support strategy includes four broad areas, which are described below.

1. Continue Use and Support of the zSeries Mainframe

   our Mainframe Systems will remain our premier data processing platform for very secure and scalable; very-high-volume data access, and for complex transaction processing that requires 99.999% (five 9s) availability and reliability. We will continue to manage and maintain the mainframe systems platform, infrastructure, and effective capacity planning through:

   - Provisioning capacity to meet ongoing increases in service demand;
   - Maintaining z-Series hardware with periodic technical refreshments; and
   - Maintaining the currency of the z/OS operating system, transactions systems, and database systems through deployment of regular software release upgrades.

2. Continue Use and Support of the Mid-Tier Server Platform

   Our proprietary Mid-Tier Server Platform Domain will remain an important component of the Computing Services Platform throughout this planning horizon. The proprietary servers in this platform execute variants of the UNIX Operating System which is the default OS for web applications, security, and IT management servers.

   While we will continue to manage and maintain this platform domain, virtualization technologies will enable us to reduce our size and complexity by consolidating the physical infrastructure and migrating applications to the Commodity x86 Server Platform Domain wherever possible. We will continue to:

   - Maintain currency of the mid-tier server platform infrastructure through periodic technical refreshments;
   - Maintain currency of the UNIX operating systems, web applications, security and IT management systems through the deployment of regular software version and release upgrades;
   - Reduce the number of mid-tier servers by eliminating outdated hardware and migrating applications either to other compatible platforms that have available capacity or to commodity (x86) servers where it is technically feasible.

3. Continue Use and Support of the Commodity x86 Server Platform Domain

   Commodity x86 servers will continue to be the default platform for the following services:

   - Infrastructure Management;
   - Distributed file-print; and
   - Application and Database.

   Commodity x86 servers are located across the enterprise and may be found in our data centers, service delivery points (SDPs), regional offices and field office (FO) sites. Throughout the current planning horizon:

- The Windows Server OS will continue as the default operating system (OS); and
- Support for Active Directory and Microsoft Exchange will continue

We will manage and maintain the Commodity x86 Server Platform Domain through the deployment of regularly scheduled and periodic updates. These activities include:

- x86 hardware technical refresh;
- Windows Server OS updates;
- Infrastructure Management Systems updates/upgrades, including:
    - Authentication;
    - Database Management; and
    - Applications.

Concurrently, using virtualization technologies, we will consolidate the number of commodity x86 servers in the data centers and Service Delivery Points.

4. Continue Use and Support of End-User Computing Environment

The demand for end user technologies or End-User Computing (EUC) capabilities is changing rapidly. Our workforce is professionally diverse and digitally enabled. Their demand for visualization, secure text, voice, streaming video and imagery data is mission critical. Hence, the volume, velocity and variety of data streaming through our networks to our desktops is growing exponentially. Moreover, mobility requirements for EUC is also changing and growing – most recently from a major expansion of our Telework. Hence, new device form factors, network architectures, security threats and a wider range of options to deliver applications and services to users has made conventional role-based user segmentation increasingly complicated.

To realize greater productivity, economy and enterprise security, we continue to research, test and evaluate relevant technologies associated with End-User Computing. Today EUC includes thin-client, desktop personal computers, laptop and tablet devices; in the future these may also include a variety of wearable technologies.

We believe that shaping the next generation of end-user technology should be informed by the work performed by our employees as knowledge workers. Therefore, the technologies, tools and applications that support their work must be developed by an informed, deliberate and collaborative process. This process must fashion requirements for how we operate today and also evolve EUC to how we will operate in the future.

In February 2014, we began a EUC Reset initiative to establish:

- Clear and quantifiable business and service requirements for EUC;
- EUC product options, technology bundles and acquisition objectives;
- Individual, enterprise and lifecycle cost considerations, asset tracking and management;

- Industry and other government cost and performance benchmarks;
- Property/custody management and recovery considerations;
- Security, integrity and probability factors;
- Location and other logistical considerations;
- Future EUC models for the "operational" components; and
- Possible use of demonstrations, pilots and proofs of concept.

By focusing on EUC as a business capability, we intend to link processes and functions for business success to the computing resources that enable, support and enhance them. This reset initiative will help develop a new, productive and economic EUC operating model and instill greater discipline in the enterprise around use of finite IT resources. The EUC-Reset initiative's purpose is to place business focus above technology focus and enable the mission. Our aim overall, is to develop a strategy, agency policy and supporting plans for use of EUC.

Strategic Direction II: Extend Platform Capabilities through New Technologies

Even as we continue to maintain the technological currency of the Computing Services Platform and infrastructure, we will undertake several initiatives to extend the capabilities of the platform to incorporate and support functionality and/or capabilities provided by new technologies.

Four major technology trends will contribute to extending the capabilities of our Computing Services Platform.

1. Open Source Technologies

    - Open source refers to an application program or operating system (OS) in which the source code is available to the general public for use and/or modification from its original design free of charge.
    - Open source software (OSS) code is typically created as a collaborative effort in which programmers improve upon the code and share the changes within the community. Open source permits users to study, change, and improve or customize the software.
    - Linux is a well-recognized open source operating system.
    - As we continue our exploration of open source technologies within our IT environment, we must explore the technical feasibility and cost effectiveness of extending the Computing Services Platform to support them – specifically with reference to the Linux operating system.

2. Big Data Analytics

    - Societal, economic, political and environmental pressures place increasing demands on us to make smarter decisions, deliver better results (faster) and demonstrate programmatic and administrative transparency and accountability.

- Simultaneously, we are being confronted with an unprecedented "information explosion" which facilitates – and yet complicates – our ability to achieve desirable programmatic and business operation outcomes.
- With the use of an effective support platform, we can leverage "big data" and data analytics software to make better, fact-based decisions. Data analytics goes beyond reporting and provides a mechanism to sort through this maelstrom of information and help us respond with informed decisions.
- Big data analytics tools execute transactions and queries that are very different from those that are currently supported within our production environment.

3. Private Cloud Computing

- As our IT service delivery environment evolved, it assumed a broad range of characteristics that were subsequently identified as the "Cloud Computing" service delivery model.
- At the direction of the OMB, the National Institute for Standards and Technology (NIST) developed a reference architecture and implementation roadmap for the Federal government's Cloud Computing initiatives.
- NIST's definition of Cloud Computing established a common framework for describing the characteristics, services and deployment models for Cloud Computing within the Federal sector.
- In alignment with NIST's definition and guidelines, we formally adopted a Private Cloud Computing Service Delivery Model. This model is most consistent with our service-delivery mission and business operations processes.
- Our Private Cloud Computing strategy leverages the service delivery capabilities of our existing IT investments.
- Within our Private Cloud, the Computing Services Platform provides the foundation for the delivery of common computing processor services across our organizational enterprise and supports the full range of programs we administer.
- We will continue to function as a cloud service provider/broker, as described in NIST's Cloud Computing Reference Architecture (NIST Special Publication 500-292).

4. The Consumerization of IT

- The explosive growth of media tablets and smartphones available in the marketplace clearly demonstrates the speed at which mobility is affecting the enterprise.
- The increasing sophistication of users and their devices have triggered a shift in technology design and strategy. This shift, referred to as the "consumerization and democratization of IT," represents a formidable challenge as well as a great opportunity. It offers great potential for increasing individual productivity and reducing overall information technology

costs. However, it also creates security risks, potential financial exposure, and increased operational and management challenges.

- "Consumerization" refers to the specific impact that consumer-originated technologies can have on an agency. It reflects how we will be affected by, and can take advantage of, new technologies and models that originate and develop in the consumer space, rather than in the enterprise IT sector.

These technology drivers have a pervasive impact on five specific initiatives that frame our strategy for extending the capabilities of the Computing Services Platform.

1. Extend the Mainframe Platform to Support Open Source/Linux

   We are investigating the use of the Linux on System z Mainframes as a potentially cost-effective alternative for applications and database systems. This investigation includes:

   - Identifying criteria (e.g., scalability, proximity to data, service level requirements, etc.) for evaluating how well the characteristics and requirements of platforms and applications align in order to determine the optimal platform on which to place an application;
   - Determining what it would take (technically speaking) to stand-up, operate and manage a Linux platform on System z;
   - Evaluating whether there is sufficient value (in business, economic and/or cost-effectiveness terms) to warrant deployment of a Linux platform on System z;
   - Developing a framework for conducting a Linux on System z Proof of Concept.

2. Extend the Mid-Tier and x86 Server Platform Domains to Support Open Source/Linux

   We are similarly investigating Linux and Open Source Software (OSS) for x86 commodity servers as a potentially cost-effective alternative platform for applications and database systems currently hosted on (proprietary) mid-tier platforms. To meet this goal, we will:

   - Conduct a comprehensive feasibility analysis of the Linux OS to ensure both the technical feasibility and cost-effectiveness of establishing support for Linux-based open source application software on commodity x86 servers;
   - The analysis will include evaluation of Linux and OSS on proprietary mid-tier servers;
   - Assuming technical feasibility and cost-effectiveness are demonstrated, design and deploy a Linux-based Open Source capability on either/both the x86 commodity servers and/or the proprietary mid-tier servers in order to host OSS applications;
   - Partner with other internal components to:
     - Establish an enterprise Linux OS standard; and
     - Provide for full software development lifecycle support for Linux-based OSS application deployment.

3. Provide for Big Data Analytics Platform as a Service to the Enterprise.

   We are investigating big data analytics capability requirements by evaluating the available options for extending the Computing Services Platform to include a core Big Data Analytics platform that is:

   - Sustainable within our plans for a new data center and its configuration;
   - Production grade; and
   - Enterprise-class in terms of its capabilities.

   The extension of the Computing Services Platform to provide for Big Data Analytics capabilities will be closely tied to, and integrated with, our efforts to leverage our Private Cloud Computing model to enhance the Platform as a Service characteristics of the computing services provided to the enterprise.

4. Leverage the Private Cloud Computing Model.

   Although the Computing Services Platform currently embodies significant elements of the NIST private cloud-computing model, enhancements are needed to incorporate additional features and capabilities that will deliver the full benefits of cloud computing to our agency and its end-users, partners and customers. Resources permitting, we will:

   - Improve the resource pooling and elasticity of capacity by expanding the use of virtualization technologies;
   - Enhance the dynamic scaling capabilities and processing capacity provisioning of the Platform;
   - Incorporate cloud-based technological advances and enhancements to the IT infrastructure, systems and platforms as they mature and become cost-effective to deploy;
   - Provide additional services (such as Big Data Analytics capabilities) to the enterprise.

5. Leverage the Consumerization of IT.

   We are taking an evolutionary approach to the acquisition and deployment of mobile wireless technologies in order to ensure the delivery of a secure mobile, wireless communications capability within the enterprise. These technologies represent a significant extension of our ability to effectively support a mobile workforce consistent with users' roles and responsibilities. The scope of the Desktop Platform Domain is being extended to include the use of a broader range of end-user devices – such as tablets and smartphones.

   In order to leverage rapidly evolving mobile technologies, we are working in collaboration with the Office of Systems and other internal components to develop a cost-effective strategy for their deployment within the enterprise. Specifically, we are pursuing:

   - The acquisition and deployment of an enterprise-level Mobile Device Management (MDM) platform from which mobile devices and related wireless services can be securely delivered to our workforce and effectively managed and controlled once deployed;

- Development of effective operational and security architectures for the delivery and management of mobile IT services;
- Effective testing and certification capabilities and processes for both hardware and mobile application software;
- An enterprise-level procurement vehicle to provide for centralized management of the acquisition of mobile devices and wireless services contracts.

Some organizations, including some Federal agencies, are moving toward allowing employees to provide their own, personal mobile devices (smartphones and tablets). This trend is generally referred to as Bring Your Own Device (BYOD). While such a strategy may make sense for certain enterprises, a wide range of issues and concerns – including the ability to ensure the security of our highly sensitive information and data assets – preclude us from considering BYOD as a viable option at this time.

Strategic Direction III: Optimize the Computing Services Platform

Over time, our Computing Services Platform has grown to include a substantial number of servers. In particular, Commodity x86 platform domain has traditionally been characterized by applications residing on discrete physical servers. This configuration does not fully utilize the underlying processing capacity of this domain. If left unchecked, continued growth in these devices taxes the electrical and cooling capacity of our data centers. Optimizing the Computing Services Platform will allow us to sustain and grow the Platform in the face of shrinking fiscal and staffing resources and to improve its availability, reliability, security, integrity and maintainability. Optimizing the Computing Services Platform Domains offers the greatest strategic opportunity for long-term Return on Investment (ROI) to us and to the government. Finally, we must aggressively manage preparations to migrate from the existing National Computer Center (NCC) to the new National Support Center (NSC) currently under construction.

Optimization of the Platform will result in:

- Fewer physical systems that must be moved to the new data center;
- Enhanced ability to deliver on-demand IT services;
- Improved management of the physical infrastructure supporting the Platform; and
- Improved configuration management practices to insure that critical relationships between system components are well documented.

Much of our efforts to optimize the Computing Services Platform are based on virtualization technology.

- Virtualization is a framework/ methodology of dividing the total resources of a computer/server into multiple execution environments.
- Virtualization technologies allow multiple operating systems to run on a single physical machine.
- Virtualized machines can support different operating system and/or application software versions, or even entirely different systems, which can be on hot standby.

- Virtual machines can be used to consolidate the workloads of several under-utilized servers into fewer physical machines.
- The benefits of server virtualization and consolidation include savings on hardware, software and environmental costs, as well as requiring fewer personnel resources to manage and administer the server infrastructure.
- Virtualization also improves the delivery of IT services to the end-user by reducing downtime. Virtual machines can remain operational while being temporarily relocated to alternate physical infrastructure components to allow the original physical host machine to be upgraded or replaced.

Six key initiatives are directed at optimizing the Platform and its physical infrastructure. Collectively, these initiatives provide for a more cost-effective, manageable and moveable operations capability of the Computing Services Platform.

1. Virtualize the Commodity (x86) Server Platform Domain

   Virtualization of the Commodity x86 Server Platform Domain will allow us to reduce the number of physical servers through consolidation. Coupled with the tuning of individual IT systems to deliver maximum performance, this initiative will improve the ROI of our IT infrastructure by reducing the costs associated with underutilized hardware and software licenses. This initiative:

   - Reduces the number and variety of physical x86 servers in the data centers;
   - Enables the use of commodity x86 servers rather than the more expensive and proprietary mid-tier servers;
   - Enhances our Private Cloud Computing by enabling rapid resource deployment and elastic capacity management – key characteristics of Cloud Computing;
   - Provides for greater availability and reliability by making maintenance activities and movement of virtualized workloads completely transparent to end-users;
   - Facilitates the migration to the NSC by reducing the number of physical systems that must be moved.

   To meet the goals of this initiative, we will:

   - Consolidate and virtualize our Windows environment by designing, deploying and maintaining a three-tiered virtualized architecture consisting of :
     - Windows Server Technology Architecture Refreshment & Refinement (WINSTARR) – for Windows-based file and print servers;
     - Windows Development Production Environment (WDPE) – for Windows-based application servers; and
     - Data Center Virtualized Infrastructure (DCVI) – for Windows-based infrastructure servers.

- Extend the DCVI strategy to the Windows Servers located in the SDPs.

2. Reduce our Reliance on Mid-Tier Systems

   Our Mid-Tier Server Platform Domain relies on a variety of proprietary systems. This Platform Domain originally represented the only alternative for processing workloads that exceeded the capacity of commodity x86 servers but that were not well suited to the Mainframe Platform Domain. The processing capacity of commodity x86 servers has continued to expand such that they now rival the capabilities of the proprietary mid-tier servers. Commodity x86 servers now provide an alternative to continued reliance on proprietary mid-tier servers. Virtualized commodity x86 servers will be an increasingly significant element in the profile of our server platform domains. This initiative will:

   - Reduce the number of proprietary mid-tier systems by consolidating existing workloads and available resource capacity – which provides for the elasticity of capacity and resource pooling capabilities characteristic of a fully-mature Private Cloud infrastructure;
   - Reduce reliance on proprietary mid-tier servers by identifying applications that can be migrated to commodity x86 servers without need for redevelopment of the candidate applications;
   - Facilitate the migration to the NSC by reducing the number of physical systems that must be moved.

   To meet the goals of this initiative, we will:

   - Eliminate the use of the HP-UX UNIX operating system for Oracle database servers and migrate all Oracle database systems to x86 based Linux servers;
   - Reduce the number and variety of physical UNIX servers within the Computing Services Platform by consolidating existing workloads and available resource capacity;
   - Partner with other Systems components to identify, test and migrate applications from proprietary mid-tier servers to x86 virtual Linux servers;
   - Maintain the use of proprietary mid-tier systems for only those applications that cannot be redeployed to more cost effective platforms; and
   - Investigate the feasibility of eliminating support for the iSeries platform based on architectural and implementation decision regarding DCPS.

3. Reduce the Complexity of the Programmatic Processing Facility

   As noted previously, the Mainframe Platform Domain will remain our premier data processing platform for a large segment of our workloads. However, to optimize its performance and to facilitate its migration to the NSC, we must reduce the complexity of the Programmatic Processing Facility (PPF). To do so, we will separate three individual segments from the PPF and establish each of them in its own, isolated sysplex. This initiative will:

- Increase the reliability of the PPF by creating separate environments for network support, management information and integration testing;
- Create separate PPF logical partitions (LPARs) and isolate WebSphere Application Servers from CICS Online Applications;
- Facilitate the migration of the PPF to the NSC by creating four distinct processing entities that can be moved independently.

To meet the goals of this initiative, we are undertaking or have completed three separate initiatives:

1. Separation of the Communications Management Facility (CMF) from the PPF

   The CMF provides for network management capabilities on the mainframe. We have completed the separation of the CMF from the PPF and have established it as an independent sysplex with redundant instances in both the NCC/NSC and the SSC.

2. Separation of the Pre-Production Regions from the PPF

   This initiative is separating the Integration One and the Integration Two regions, the Training region, and the Acceptance Testing Environment (ATE) from the PPF and establishing them within an isolated, pre-production sysplex (the iPPF) in order to support pre-production release testing and training requirements. In addition to reducing the complexity of the PPF, this initiative will:

   - Provide added stability for production environment;
   - Reduce the risks associated with migrating the PPF to the NSC; and
   - Provide an isolated testing region for the release of operating system and application software.

   Between now and September 2015 the following activities will occur:

   - Complete iPPF Infrastructure
   - Migrate Training Region
   - Migrate ATE and Integration Two
   - Migrate Integration One
   - Remove Systems 34, 38, and 39 from PPF
   - Migrate PPF to the NSC

3. Separation of the Management Information Services Facility (MISF) from the PPF Sysplex, from a storage perspective.

   The MISF provides a broad range of computer processing capabilities that support our management information and business intelligence requirements and services. In addition to contributing to a reduction in the size and complexity of the PPF this initiative:

- Eliminates a single point of failure for SHARED DASD between the PPF and the MISF;
- Addresses DASD replication consistency concerns;
- Resolves a known security issue with LNK * dataset;
- Target date for completion is scheduled for January 2014.

4. Evaluate the Feasibility of Eliminating the iSeries Platform

   We will conduct a feasibility analysis as part of an investigation into the advantages and limitations of eliminating support of the iSeries platform. This initiative will be fully contingent on, and undertaken in response to, architecture and implementation decisions related to the development of the Disability Claims Processing System (DCPS).

5. Deploy a Secure Virtual Desktop Infrastructure (VDI) for Special Uses

   This initiative extends the benefits of virtualization to the End-User Desktop Platform for special purpose desktops. It results in a solution to provide secure access to social networking sites and webinars for approved knowledge workers. Virtual desktop technology will also be used to design and develop a secure and scalable solution for public access devices in our field locations. This initiative:

   - Eliminates the need for special dedicated workstation images for public access devices; and
   - Provides a scalable, enterprise-class, centrally managed solution for specialized workstation requirements.

   To meet the goals of this initiative, we are:

   - Creating a VDI to support special needs requirements such as secure access to externally hosted webinars, social networks, etc. (Knowledge Worker Internet Access (VDI/KWIA).
   - Creating a VDI to meet the security requirements for public access devices located in our field offices.
   - Creating a VDI to support Section 508 compliance for externally hosted webinars, social networks, and public access devices, which may require assistive technologies to be installed in this infrastructure.

6. Utilize Public Cloud Resources Where Appropriate

   Cloud Computing represents a leveraging of technological advances to enhance the delivery of IT services to the end-user. From the perspective of the IT service provider, it also represents a sourcing strategy. We have established firm guidelines restricting the deployment of personally identifiable information (PII), mission-critical applications and databases, and architecturally unsuitable applications and services from being deployed outside the secure boundaries of our Private Cloud environment. However, we remain open to placing applications, services or systems on public or hybrid clouds as long as these restrictions are enforced and the choice of a public or hybrid cloud-computing model is cost-effective and has a clear and demonstrable Return on

Investment (ROI). Providing for the utilization of external/public cloud computing resources within these parameters:

- Improves our cloud computing profile by explicitly incorporating consideration of external/public cloud resources within IT sourcing decision frameworks and its IT acquisition strategies and plans;
- Facilitates the migration of the Computing Services Platform and infrastructure to the NSC by offering the opportunity to reduce the Computing Services Platform hosted in our data centers;
- Ensures that our IT investments are deployed through the most cost-effective and value-added sourcing mechanism.

To meet these various requirements, we will:

- Develop and publish an enterprise-level decision framework with appropriate alternative-analysis criteria for considering external/public cloud resources for project-level solutions – where it is appropriate to do so; and
- Develop and publish an enterprise-level cloud computing acquisition strategy policy and supporting procedures, where required.

In all cases, the choice of an external, public or hybrid cloud solution must be formally submitted to the Chief Information Officer (CIO) for advance approval.

We have been, and continue to be, a leader in the deployment of technology solutions to meet our service-delivery mission and business operations requirements. Investments in these initiatives will ensure our position among Federal agencies and will provide the necessary Computing Services Platform needed to meet the increasing service demands and expectations of the public and our business partners and internal end-users. Because of these planned initiatives and projects, the Computing Services Platform will be consolidated and highly virtualized – resulting in improved availability and reliability. The platforms will operate at reduced cost but improved agility and elasticity. In addition, they will provide an expanded range of options for system designers and the application development community.

The following table illustrates our transition plan for achieving this target state. These activities will allow us to meet many of the business outcomes identified in the SSA Infrastructure portfolio, listed in APPENDIX C: .

Activity	FY 2014	FY 2015	FY 2016	FY 2017
Portfolio-Initiative: SSA Infrastructure – Database/Storage Architecture				
Install/Support database tools				
Install/Support High Availability & Fault Tolerance (Real Application Servers, Clusterware)				
Install/Support Disaster Recovery tools (Recovery Manager, Data Guard,				

Activity	FY 2014	FY 2015	FY 2016	FY 2017
Redirect Restore, Recovery Lab)				
Install/Support Enterprise User Security tools				
Conversion to x86/Linux (Oracle support)				
Support Data Replication (Oracle support)				
Build Recovery & Implementation Labs (DB2 support)				
Research/Implement DB2 version 11 upgrade				
Install/Support High Availability & Fault Tolerance (MS SQL Server 2012)				
Implement "least-privileged" security solution – MS SQL Server 2008 Premium Support Services				
Install/Support Disaster Recovery – Seamless Failover – Industry standard backup encryption protocol (MS SQL Server)				
Portfolio-Initiative: SSA Infrastructure – Document Management Architecture				
DMA FECS/FAX Server upgrade/support				
Portfolio-Initiative: SSA Infrastructure – Platform Architectures				
Upgrade/Support Enterprise Windows infrastructure to Windows Server 2012				
Refresh/Support Branch Office server hardware and deploy Windows Server 2012 Virtualized Branch Office Design				
Virtualize Enterprise Windows Infrastructure				
Deploy/Support SCCM 2012				
Consolidate distributed UNIX Intranet infrastructure to reduce datacenter footprint				
Research and test Enterprise Linux (open source) infrastructure				
Acquire license, hardware, services to deploy Enterprise Linux				
Deploy Enterprise Linux				
Refresh Desktop and Laptop hardware				
Refresh/support z/OS				
Evaluate new versions of virtualization software (WDPE support)				
Evaluate new blade servers (WDPE support)				

Table 45: Computing Platforms Transition Plan

5.6.2 Network and Telecommunications Infrastructure

Our Network and Telecommunication Infrastructure represents a complex set of managed configuration of IT systems and components – including hardware, software, operating systems, firewalls, switches, routers, telephones, application switches {load balancers} and related interfaces – that provides end users, business partners and customers a variety of voice, data, and video communications services.

This section represents the strategy for maintenance and growth of this investment. It includes our commitment for continued support of telecommunications and collaboration technologies, for extending into new technology areas to support new capabilities, and the steps that we will undertake to optimize the management and support of our services. It reflects our commitment to our mission, by addressing the infrastructure pieces that are required to meet expanding workloads and accommodate evolving service delivery requirements.

The three areas of the Enterprise Network and Telecommunication engineering strategy support the implementation of projects between 2013 and 2018 that will result in a desirable end-state for SSA Infrastructure. Specifically, we will:

I. Continue to support our significant investment in networking and telecommunications technology. This strategy discusses how we will work tactically to modernize legacy aspects of the network, when it makes sense to do so. It elaborates on the migration of all telecommunications from a legacy environment to a totally IP solution.

II. Extend the network and telecommunications infrastructure to incorporate new technologies and services to keep pace with industry direction and provide expanded service options for our internal and external customers. This direction also looks at the flexibility of infrastructure to respond to new technology demands, without detriment to existing resources, services, or applications.

III. Optimize the infrastructure in ways that allow us to sustain the telecommunications and network infrastructure while balancing the needs for increasing capacity, availability, reliability and functionality with decreasing staffing and fiscal budgets, and addresses work required to complete the transition to Dual Stack (IPv4 and IPv6).

Strategic Direction I: Continue to support critical telecommunications and networking technologies

A. Maintain the Use of IP-based technologies

1. Implement CARE through 2020

   We will continue to build upon the success of Voice over Internet Protocol (VoIP), by pursuing opportunities to converge our communication channels to IP solutions. Working together with AT&T, we will replace our National 800 Number Network with the CARE through 2020 network. CARE 2020 is a cloud-based solution utilizing VoIP technology awarded under the GSA Networx contract and will yield significant reductions in usage charges over the current solution. Additionally, CARE 2020 provides a platform for enhanced manageability and expanded options for new citizen communication channels.

2. Enhance, Operate, and Maintain the Telephone Systems Replacement Project (TSRP)

   Our TSRP remains an ongoing activity, as we are always enhancing, operating and maintaining the voice enterprise. Stakeholder enhancements improve telephone service to the public and improve the management of our resources.

3. Eliminate APPC, SNA/LLC and Implement TN3270 (IP)

SNA/LLC will be eliminated on SSANet with the rollout of TN3270 to the field, which will proceed when legacy APPC applications (i.e., DGS, VIP and Paperless) complete their migration to TCP/IP. The SSA ExtraNet will eliminate SNA/LLC when remaining external business partners (i.e., Treasury, Maximus, NewsPrint and Puerto Rico) migrate to native TCP/ IP protocol (e.g., Enterprise Extender). Implementation of TN3270 within SSANet and the ExtraNet has several benefits. TN3270 is a full-featured mainframe 3270 terminal emulation protocol that, like Enterprise Extender, does not rely on the current SNA router infrastructure which is problematic and nearing obsolescence. Replacing SNA encapsulation with native IP provides improved standardization, improved performance, and, in the case of TN3270, enables support for PIV-enabled access.

4. Expand Wireless

   Agency personnel have an increasing need to stay connected and informed anytime, anywhere, for bidirectional delivery of timely and secure information, regardless of the access device used. Wireless technologies also present an opportunity for us to deploy Wireless LAN (WLAN) technology in a disaster recovery effort where cabling coordination and cost would prove to be problematic. We intend to meet those needs by expanding agency 802.11n wireless capabilities for customers requiring mobility collaboration in conference rooms and meeting areas. Wireless expansion will continue on the Baltimore campus and strategic agency-approved locations.

B. Continue to maintain the Messaging and Collaboration Infrastructure

1. Expand Established Uses for Video

   Increasingly, we rely on video technology to deliver training to our employees, to provide reasonable accommodation where practical and as a tool to facilitate the hearing process. We will put in place the necessary mechanisms to expand current uses of video technology to meet the growth in our workloads. We will maintain video technology and expand video usage in the following areas:

   - *Real Time in Sign (RtiS):* – RtiS is the current video solution that enables our Deaf and Hard of Hearing (DHOH) employees to communicate with non-DHOH employees, or the public, using American Sign Language (ASL) interpreters. Our DHOH employees may also communicate directly with each other with this capability.
   - *Interactive Video Training (IVT):* IVT is part of our training capability. Today's environment broadcasts digital training sessions via our satellite network. Employees interact with instructors using key pads in the training rooms that use our Multiprotocol Label Switching (MPLS) network. Future capabilities will incorporate videoconferencing into the classroom setting, and converge satellite and Internet Protocol (IP) technologies.
   - *Video Teleconference (VTC):* We will continue to expand the VTC platforms in support of the hearings process and other uses throughout the agency. Video provides additional flexibility to conduct hearings in offices with greater capacity.

2. Microsoft Exchange

We manage a centralized email and calendaring system using Microsoft Exchange. We will continue support the infrastructure and core services that enable electronic communication, including inbox, drafts, calendar, tasks, and contacts, sent item, deleted folder, and notes.

C. Continue improvements to enhance the robustness of the Data Center and Service Delivery Points

1. Upgrade to Application Switches

   We are replacing our load balancers with application switches in SSANet to increase application availability and performance through traffic management. Application switches prevent performance bottlenecks by allocating available server resources for optimized user performance. In doing so, we maximize server utilization, facilitate improved forecasting for infrastructure and application growth, and provide a more consistent user experience. The increased functionality available in the new application switches over the old load balancers will allow for more advanced health checks and traffic management metrics as well as allow the application switch to interact with the application at all seven layers of the network stack.

2. Implement IP Address Management

   We will automate the IP address assignment tasks that are currently tracked manually in a number of independent databases and spreadsheets. Automated IP address management and enhanced discovery and reporting features will allow the identification of misconfigured IP addresses and DHCP scopes throughout the agency. We are seeing a decrease in outages and problems resulting from IP address conflicts.

Strategic Direction II: Extend the Network to Embrace New Technologies

We understand that the demands of our applications, security, data, voice, video, and real-time transactions are pushing our network toward higher bandwidth requirements and better guarantees. Increased network performance, availability, reliability, security, agility, resiliency and scalability equate to improved productivity. As the network continues its rapid growth, our robust meshed backbone will adapt to accommodate internet routing and addressing architecture scalability, multi-homing, and inter-domain traffic engineering.

A. Extend the Use of IP-based Technology

1. Convert the HQ Phone System to VOIP

   We will also extend the use of VoIP telephone technology to our headquarters campus. This transition will replace legacy equipment, offering a simpler, cost-effective, and easier-to-manage solution throughout all of HQ.

2. Complete the Transition to Networx

   Networx will replace the expiring FTS2001 network contract. Transition to Networx will allow us to acquire a broad range of services and coverage including carrier-based support for IPv6. Without Networx in place, we will be unable to establish a fully meshed network, increase bandwidth, complete the implementation of a dual stack network, or create an environment conducive for NSC transition.

3. Provide Network Capacity for Multicasting

   IP multicasting will allow for one-to-many and many-to-many real-time streaming video over our network infrastructure. Multicast will also reduce reliance on the existing IVT satellite capabilities, and facilitate video training to the desktop over the TCP/IP network. It is a scalable technology, using network infrastructure efficiently by requiring the source to send a packet only once, even if it needs to be delivered to a large number of receivers. The nodes in the network take care of replicating the packet to reach multiple receivers such that messages are sent over each link of the network only once.

4. Extend WAN Ethernet to Field Offices

   Carrier-provided WAN Ethernet can be extended to field offices at a fraction of today's cost, while enabling a converged IP infrastructure. Ideally, these connections would be fiber optic connections where available. Carrier Ethernet would provide increased bandwidth to the field offices, delivering added capacity to transport expanding requirements voice, video, data traffic, and on demand bandwidth provisioning.

B. Extend the Messaging and Collaboration Infrastructure

1. Enhance Email Archiving and eDiscovery

   We will deliver improved archiving for email messages that provides compliance with e-discovery requirements without disrupting the end user's experience. Newly integrated features will allow for the elimination of PST files that are expensive to find, search, and archive because they reside locally on users computers. We will create a reliable repository of messages that can be searched to meet e-discovery requirements associated with litigation and suitable for meeting our records retention requirements. This technology will also deliver improved use of data storage by storing a single copy of each message regardless of the number of recipients, thus reducing the long-term cost related to E-mail discovery.

2. Implement Device-agnostic Messaging – ActiveSync

   Because devices and applications evolve rapidly, there is a strong incentive to remain device-agnostic. Alternate end-user devices embrace this; accelerating the development of a network that can support the workforce from anywhere, at anyplace, at any time, on any device. Additionally, deploying a device-agnostic strategy improves the resilience of our mobile device support because we would no longer be bound by device limitations. Improvements to internal messaging and collaboration software will enhance our communication. Messaging services will see upgrades in security, reliability, archiving, and performance. Collaboration options in existing software tools will be activated to provide integrated audio, video, and web conferencing. We will activate a mobile device management capability and will activate the capability for additional types of mobile devices to gain access to the messaging and collaboration infrastructure using ActiveSync.

3. Study the Potential for Video within Our Agency

   Studying the expanded use of video for hearings, in training, and for collaboration will allow us to adapt infrastructure as future needs necessitate. Key projects that could be considered include:

- *Representative Video Project (RVP):* RVP is an initiative that allows certified Representative Law Firms to currently connect to Administrative Law Judges via video using ISDN as a transport medium for video hearings from their office. The Representative Law Firms provide their own equipment.
- *Security Video:* In 2010, to improve our security, Operations directed that all field offices implement video security surveillance. Utilization of SSANet for physical security video surveillance and access would reduce the overall cost for physical security and would allow physical security to look at any field office at any time on reported violations. We are working to develop IP-based video standards that will allow a cost-effective CCTV solution that is secure, integrated, and interoperable with SSANet.
- *Claimant Use of Video:* provides an Information Technology (IT) architecture based on a future business process that enables routing of secure video sessions to our most appropriate agent based on the citizen's service request and agent availability, independent of the geographical location of the citizen and the servicing agent. Studying this challenge in the future may allow the citizen to connect to a video session from a variety of locations, including: our FO's; ODAR Hearing Offices (HO's); third-party public sites such as a library, a senior citizen community center or kiosk; third-party private sites such as a representative or advocate's office; or from home via an Internet connection from the SSA home page or other portal.
- *Video Service Delivery (VSD) Command Center/Video Call:* We will partner with Operations to evaluate the use of Automated Call Distributor (ACD) technology for video calls. The technology is similar to the technology used for our 800 number service where an incoming call is routed to the next available agent. The technology will allow video-enabled agents to be clustered, potentially in Telephone Support Centers (TSCs), to provide service via TCP/IP connections through our internet portal, to supplement insufficiently staffed field offices, support third party (public) and remote temporary sites.
- *Video Service Delivery (VSD):* Evaluate expansion of the existing program to place additional video teleconferencing capability in Field Offices to allow Claims Representatives located in one FO to support distant offices via video when staffing is down due to illness or vacations. This service has also been used as a training medium. VSD enables the public to access our field office service agents via video conferencing capabilities. Customers can access the service at over 400 field offices and are connected with an agent in a partnering FO. VSD is effective in providing service to remote sites and in balancing load between FO's. Philadelphia is also prototyping VSD by routing video sessions from its partnering FO's to its Teleservice Center. Denver is prototyping the use of videoconferencing to review SS-5 documentation requirements such as driver's licenses. Future capabilities consider routing video sessions to partnering DDS sites.

C. Extend the Robustness of the Data Center and Service Delivery Points (SDP)

1. Extend High-Speed Data Center Connectivity to the SDPs

As we expand the use of the SDPs to deliver computing and storage resources, expanded connectivity between the SDPs and the data centers will be necessary for data replication and business resiliency. To provide such resiliency within the network, low loss, low delay, and low jitter, high-speed connectivity is required to extend the availability of services, ultimately permitting data to be quickly realigned to meet our processing and recovery needs. This connectivity will allow the data replication infrastructure to be extended to include the SDPs.

2. Upgrade the Core to the Highest Available Bandwidth

   Information technology hardware has a useful life of approximately 5-to-7 years. Additionally, technology such as routers and switches need to be refreshed with ever-increasing demands for technology such as voice, video, data replication, etc. Upgrading SSANet's core adds to "the life" of our equipment, increases network performance, reduces network contention, and ensures support for data replication functions. Applications performance will benefit through an increase in data/ information throughput.

3. Begin NSC Transition Planning

   As construction of the NSC proceeds, we are taking timely action to ensure that the new facility will be operational upon opening. Preparatory efforts are under way now, and we are working on a migration plan to move IT Services from the NCC to the NSC. The transition period between the NCC and NSC is a critical activity. Investments in the network must leverage efficiencies, avoid redundancy, and facilitate a streamlined conversion. Planning, design, and execution for the NSC network require:

   - A multicarrier high-speed data connection between the NSC, SSC, and HQ.
   - Expansion of data replication architecture to incorporate the third data center during the transition.
   - The development of a NSC simulated network to simulate information throughput.

   A multicarrier high-speed data connection between the NSC and HQ, including interconnections among SDPs will ensure reliable communication. Expansion of data replication architecture to incorporate a third data center during the transition enables our data to seamlessly be replicated across geographical boundaries.

   Development and testing of proposed architectures in the NSC simulated network will help ensure that investments in the build-out of the NSC network infrastructure support us in a way that efficiently leverages the final network design and facilitates a streamlined transition to the new data center. Planning, design, and execution activities will be undertaken to understand the requirements of a multicarrier high-speed data connection between the NSC, SSC, and HQ. The existing data replication architecture will be revisited to include incorporation of the NSC, and determine potential for synchronization of information between data centers. Finally, to ensure a successful migration, we plan to slowly activate the applications at the NSC while deactivating them at the NCC.

Strategic Direction III: Optimize the Network Architecture

Improve the performance, availability, reliability, security, agility, resiliency and scalability of our internal and external network service IT infrastructure. Do this by carefully optimizing existing configurations, implementing new protocols, leveraging new technology, and expanding services when needed.

A. Optimize the IP Network

1. Enable Network-wide Support for Both IPv4 and IPv6

   We will enable support for both IPv4 and IPv6 for both internet and intranet communications. We have determined that maintaining the existing dual-stack IPv4/IPv6 network architecture is the most effective and secure approach to IPv6 integration for us. A dual-stack, IPv4/IPv6 network architecture has several distinct advantages, including:

   - There is no additional overhead to manage tunnels or translation boxes;
   - The ability to manage IPv6 and IPv4 traffic concurrently is greater in dual-stack architecture; and,
   - The ability to protect the network against potential security vulnerabilities is significantly greater with dual-stack network architecture than with other transition mechanisms (especially tunneling, and tunnel broker mechanisms).

   Dual IP stack network architecture also presents some challenges, including concurrent maintenance of IPv4 and IPv6 configurations on the same network, and concurrent maintenance of IPv4 and IPv6 routing tables and mechanisms. However, these challenges do not appear to override the advantages of the approach. Accordingly, we will be maintaining its dual-stack IPv4/IPv6 network architecture for the foreseeable future in order to accommodate the needs and technology limitations of our partners, clients and customers over the coming decades.

2. Implement Bandwidth on Demand using Ethernet Access Technology

   Carrier-provided Ethernet access technology provides the last mile access solution with the flexibility to upgrade bandwidth to our central and field offices sites dynamically. Initial Ethernet access connectivity could be 10Mbps, and be increased or decreased as needed for the business. This strategy will facilitate expansion of employee to employee or employee to citizen collaboration and communications.

B. Optimize the Messaging and Collaboration Infrastructure

1. Consolidate the Messaging and Collaboration Infrastructure in the Data Center and SDPs

   We will consolidate and simplify our messaging, collaboration and archiving platforms at the SDPs to improve the availability and sustainability of our infrastructure.

2. Investigate Enterprise Unified Communication Architecture (EUCA)

   In the simplest terms, implementing unified communications will enable the network to efficiently use tomorrow's technology. Once EUCA is implemented, the network can potentially accommodate activities like the expansion of video for appointed representatives, facilitating an internet click-to-chat service for the public, and improving hearing impaired translation services.

The initial step in developing the EUCA concept is to develop Session Initiation Protocol (SIP) capabilities. SIP provides direct IP communications with telecommunications providers. Using Session Border Controllers (SBC) will permit secure IP communications between internal and external customers and will be coupled with Call Admission Control (CAC) technology to validate that sufficient bandwidth and compatible technologies exist between parties.

3. Multi-carrier Wireless – Cellular

   Addressing the risk of cellular disruption is a critical concern for us. Cellular network carriers have favored a closed system approach in which they exert exclusive control over devices and applications, as well as their networks. As we become increasingly dependent on mobile devices for communication, the existing approach of a single carrier provider raises continuity and resiliency challenges.

We will investigate the use of multiple carriers to protect cellular connections. Introducing diversity through multiple links provisioned over varied carrier physical devices and cellular networks will significantly reduce the statistical likelihood of downtime. In addition, in the case of service outage with one provider, we can continue to communication effectively through others.

C. Optimize the Robustness of the Data Centers and SDPs

1. Implement Network Infrastructure to Allow Virtual Machines to move to any SDP

   The ability to move virtual machines to any SDP will transform SSANet by providing topological flexibility for our virtual machine instances. This flexibility greatly improves the resiliency and availability of the network, resulting in automatic transitions of critical application in outage periods without manual intervention. Virtual services hosted internally would enable the seamless migration of virtual machines from one physical server to another, in physically disparate locations (NCC, SSC, and NSC) with virtually zero downtime, continuous service availability, and complete transaction integrity. Another benefit is that workloads can be balanced across locations; allowing the right resources, in the right place, at the right time.

2. Implement Unified Cabling

   Within our data centers and SDPs, we will implement a unified cabling infrastructure to allow both communications and data storage to share a common cabling infrastructure and data center core. This technology will simplify and optimize the cabling infrastructure necessary to integrate networking, compute and data storage resources within our data centers and SDPs.

3. Increase Automated Monitoring and Problem Resolution

   Automated monitoring should be leveraged to measure and monitor devices, systematically detect issues or failure, and correct incipient failures of infrastructure components. This type of monitoring takes the human factor out of the equation and improves network resiliency, ensuring uptime and preventing major faults from having a significant impact on our operations.

Our network and telecommunications infrastructure, inclusive of its messaging and collaboration services, is a critical resource in helping us complete our mission and represents a significant investment in technology. We have been, and continue to be, a leader in the deployment of telecommunications

and networking technology solutions to meet our mission and business operations requirements. Continued investments in these projects and initiatives will ensure our position among Federal agencies and will provide the necessary foundation for meeting the increasing service demands and expectations of the public and our business partners.

Because of planned initiatives and projects, the networking and telecommunications services infrastructure will be extended to deliver new capabilities and services to meet expanding our business needs and will be optimized to accomplish that in an efficient manner – resulting in improved availability, sustainability and reliability.

The following table illustrates our transition plan for achieving this target state. These activities will allow us to meet many of the business outcomes identified in the SSA Infrastructure portfolio, listed in APPENDIX C: .

Activity	FY 2014	FY 2015	FY 2016	FY 2017
Portfolio-Initiative: SSA Infrastructure – Interactive Video Desktop				
Redesign interactive video training (IVT) to utilize workstations for classroom interaction (technical requirements, server/workstation configuration, testing, roll-out plan)				
Portfolio-Initiative: SSA Infrastructure – Network Communications Architecture				
Expand video communications network to support ODAR/OCO Desktop Video Unit (DVU) systems and Video room systems; refresh video teleconferencing equipment, and enhance video service delivery				
Wide-area network support: Firewall and Network Management System refreshment				
Local-area network support: services, manage growth, technology enhancements				
Upgrade existing HQ telephone system to hybrid solution to support legacy and new VOIP technologies				
Portfolio-Initiative: SSA Infrastructure – Platform Architectures				
Improve email message archiving to support e-Discovery requirements				
Implement email message repository to replace need for PST files				
Improvements to internal messaging and collaboration software to enhance security, reliability, archiving and performance, and integrate audio, video and web conferencing				
Activate mobile device management capabilities using ActiveSync				
Continuous HW/SW upgrades and refreshment of messaging infrastructure, server consolidation, and NSC migration				
Enterprise Unified Communications Architecture (EUCA) Instant Messaging, VOIP, web conferencing, live meeting.				
Portfolio-Initiative: SSA Infrastructure – Telephone Replacement				
Implement Fax over Internet Protocol to support DDS FAX capability				

Activity	FY 2014	FY 2015	FY 2016	FY 2017
Support call routing between Field Offices (FO) – Network Skills-Based Routing				

Table 46: Network & Telecommunications Infrastructure Transition Plan

5.6.3 Storage Infrastructure

We depend upon computer storage to house and safeguard our business data. The modernization efforts underway to improve the services provided to the American people require that we develop a rolling five-year strategic plan to support our customers' business needs. In addition, there are rapid changes occurring in the computer storage industry that will further enhance our ability to perform our mission.

We have identified a set of strategic goals to help with this modernization. They include:

1. Enhance the partnership with our customers providing for their storage, performance, archive, and business resilience needs.
2. Modernize our storage infrastructure.
3. Reduce the footprint, environmental impact, and cost of storage.
4. Position our storage infrastructure to migrate to the National Support Center (NSC).
5. Provide enhanced business resilience for our data.

Much of our current storage infrastructure originated in the early 1990s. This infrastructure has served us well, scaled well, and provided good service. However, new strategies and re-engineered technologies are needed to support anticipated data growth over the next five years.

Given these dynamics, we have identified a set of strategies to help guide storage managers and subject matter experts. These strategies will enable us to achieve our goals, capacity plans, and challenges. As shown in the following tables, these strategies address more than one goal.

	Goals				
Strategies	**Enhance Customer Partnerships**	**Modernize Storage Infrastructure**	**Reduce Storage Costs**	**Migrate to NSC**	**Provide Enhanced Business Resilience**
1. Expand our knowledge of our customers' data and plans.	**X**				
2. Exploit evolving storage technologies	**X**	**X**	**X**	**X**	**X**
3. Enhance our data protection mechanisms	**X**	**X**		**X**	**X**
4. Evolve to a private storage cloud	**X**	**X**			

Strategies	Goals				
	Enhance Customer Partnerships	Modernize Storage Infrastructure	Reduce Storage Costs	Migrate to NSC	Provide Enhanced Business Resilience
5. Devise a comprehensive storage architecture	X	X	X	X	X
6. Reduce energy consumption, cooling requirements, and space			X	X	
7. Utilize up to two primary storage vendors			X		
9. Prepare the next generation of storage managers		X			

Table 47: Storage Infrastructure Goals and Strategies

Strategy 1 – Expand our knowledge of our customers' data and plans and eliminate unneeded or obsolete data

Our customers are under various pressures to modernize their software portfolios. To assist in this effort while simultaneously modernizing the storage infrastructure, we must develop a deeper understanding of our customers' data and plans. This knowledge will allow the usage of the most appropriate storage technology to host the application databases and ensure the timely elimination of redundant, obsolete, or unneeded data. Tasks such as mapping business services to infrastructure components are now necessary to ensure the availability, scalability, manageability, and recoverability of the business application and data. In addition, understanding the demand for our customers' applications and databases is a necessity for us to provide the requisite storage and capabilities when needed. We must proactively identify our customers, understand their plans, assist them in developing storage requirements, and provide the necessary storage infrastructure and services to support them.

Strategy 2 – Exploit evolving storage technologies

The computer storage industry is highly focused on providing the technologies needed to meet the expanding capacity requirements of the digital universe. Gartner publishes an annual assessment of storage hardware and software (Rinnen, 2011).

Many of the technologies identified by Gartner are relevant to storage efforts we have underway in the next five years. The following table outlines the benefits we expect from deploying several of these storage technologies.

Benefit	Technologies Used to Achieve Benefit
Reduce operating expense of the hardware by reducing the footprint, electrical demand, and cooling.	• Utilize higher density storage media • Use compression and de-duplication appliances to reduce raw storage requirements
Reduce the capital cost of the storage	• Use compression and de-duplication appliances to reduce raw storage requirements

Benefit	Technologies Used to Achieve Benefit
	• Assess the value of deploying Fibre Channel over Ethernet (FcoE) in the NSC to reduce switch, cabling, and server interface cards
Improve the efficiency of personnel managing the storage infrastructure	• Use virtualization and thin provisioning software • Use advanced storage resource management software
Ensure the performance and capacity of the storage infrastructure meets customer requirements	• Use tiered storage – a mixture of high performance flash, i.e. Solid State Drives (SSDs), and high-density disks • Use auto-tiering microcode and software to position the right data on the right hardware • Utilize Networked Attached storage for open systems
Allow provisioning of storage, residing on heterogeneous arrays, across virtualized servers	• Use storage virtualization appliances.

Table 48: Benefits Derived from Using Advanced Storage Technologies

Strategy 3 – Enhance our data protection mechanisms

It is critical that our storage infrastructure is designed and implemented in a manner so that our digital data is protected. Failure states as simple as an inadvertent file deletion by a user on up through the complexities of recovering from the loss of an entire data center must be accommodated. Our business resilience and data protection is being architected using the following key elements:

1. Data replication of main-line and near-line storage subsystems.
2. Use of de-duplicated virtual tape for point in time copies.
3. Use of high-density physical tape for archive.
4. Identifying and analyzing possible failure states. Engineering or re-engineering infrastructure, software, and recovery processes to remediate the failure.

We operate out of two data centers: The National Computer Center (NCC) and the Second Support Center (SSC). A new data center, the National Support Center (NSC), will ultimately replace the NCC.

Data replication generates a "recovery" copy of a system at the secondary data center. In the event of a failure at the primary data center, the system is recoverable at the secondary data center.

The data replication infrastructure that is in place between the NCC and the SSC for mainframe sysplexes is shown in Figure 19: Storage Business Resilience Architecture – 2012-2013. Both the main-line DASD and the near-line DASD (tape datasets stored on disks known as virtual tape) are replicated between the two data centers. The data replication occurs continuously from the primary to the alternate site using an asynchronous replication protocol designed so our Recovery Point Objective (RPO) and Recovery Time Objective (RTO) service level agreement metrics are met. This data replication provides a recovery mechanism for the entire primary data center at the alternate location.

The same type of replication infrastructure is in place for major open systems applications. In addition, data replication will allow the transmission of data that is resident in the Remote Operation

Communication Centers (ROCC) and Disability Determination Services (DDS) to be transmitted to one of the principal data centers so that it is recoverable in the event of a disaster.

A crisis copy of our data is written to tape and physically moved to a 3rd party vault.

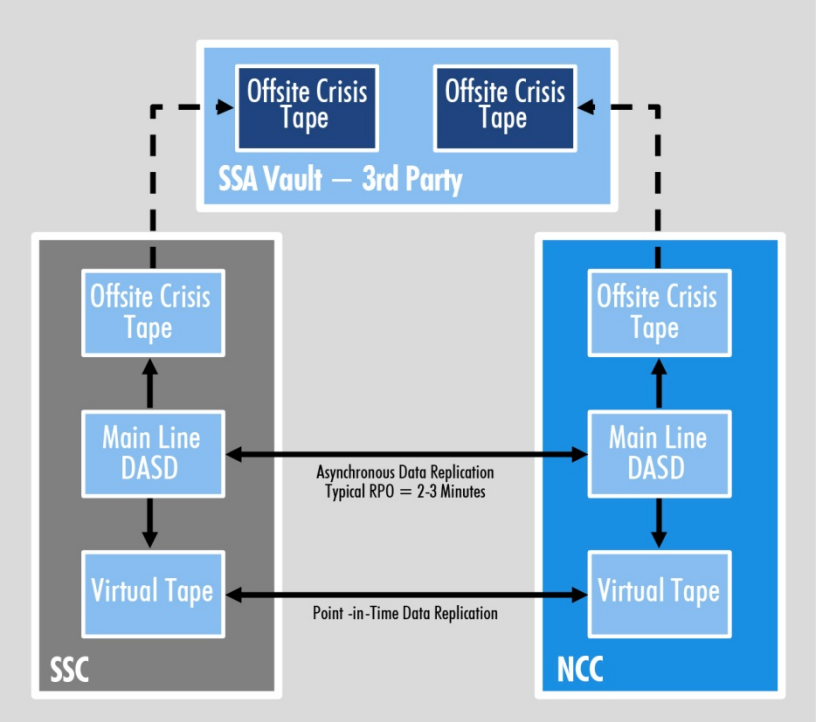

Figure 19: Storage Business Resilience Architecture – 2012-2013

Figure 20: Storage Business Resilience- 2015-2016 depicts the architectural concept wherein all our data would also reside in a private electronic vault. Data would physically reside at both data centers for normal operations. In addition, data would also be replicated to the electronic vault for business resilience purposes. The electronic vault houses the crisis copy of the agencies data in the event of both data centers being lost. However, there are recovery scenarios that involve multiple failures or rolling failures where the electronic vault ensures the business resilience.

As the diagram indicates, the main-line disks are periodically copied to near-line disks. The near-line disks are replicated to the alternate site and electronic vault. This replication provides a restoration mechanism in the event of damage to a specific main-line disk volume or data set. The near-line disk point-in-time copy replaces the main-line disk copy. The format of the data on the near-line disks can either be disk images or tape images. De-duplication appliances are used to compress the near-line data so that it occupies less space and takes less bandwidth to replicate.

A significant advantage of this approach is that tape cartridges do not need to be retrieved and transported from an offsite location to recover data. All the recovery data is electronically available. The tape copies, if required, are created for catastrophic events such as the loss of all data centers.

In addition to the asynchronous replication of the main-line disks to the alternate data center, consistent snap-shots of the data is periodically taken, which is bulk replicated to the electronic vault.

Multiple generations of data can reside on the high-density storage located in the electronic vault. These generations could be aged onto high-density tape cartridges for even greater data protection.

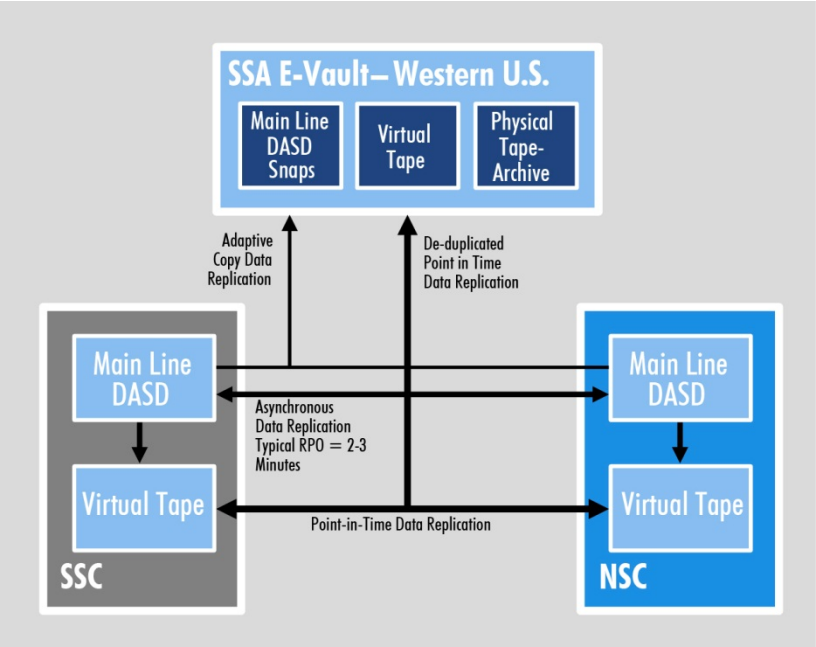

Figure 20: Storage Business Resilience- 2015-2016

Strategy 4- Evolve to a private storage cloud

We hold critical personal information about every U.S. Citizen in our databases. By its very nature, this data is sensitive and should only reside within the confines of our databases.

We need to structure the storage infrastructure so that it is accessible to our applications and data exchanges regardless of where the data resides. Appropriate accessibility implies that the data is virtualized (abstracted from the hardware subsystems), easily provisioned, and federated across the enterprise. By definition, this is a private storage cloud. The initial requirement in this evolution is to virtualize our data storage. In addition to the operational aspects, the storage cloud should also enable our business resilience. Figure 20: Storage Business Resilience- 2015-2016 is an architectural model that shows this recoverability concept.

Strategy 5 – Devise a comprehensive storage architecture

Numerous changes affect the use of storage, including:

- Our Enterprise Architecture and other Engineering strategies
- Application and database demand
  - Growth in unstructured data
  - Service Oriented Architecture (SOA)
  - High-availability applications
- Disaster Recovery (DR) requirements

- Technology improvements
  - Reduced cost
  - Capacities and operational characteristics
  - Management efficiencies
- Industry trends
  - Cloud computing
  - Unified computing (AKA fabric computing)

To manage each of these considerations, a storage architecture is essential. A storage architecture provides the blueprint that articulates the storage policies, principles, guidelines, standards, strategies, and processes; and includes a mapping of how various technologies support or diverge from the blueprint.

We will devise a forward-looking architecture designed to direct our storage activities over a strategic planning horizon of five years. This document is the initial stage of this strategy.

Strategy 6 – Reduce energy consumption, cooling requirements, and space.

Our data centers have limited space and power footprints. Storage accounts for a significant portion of the floor space in the data centers. We have spent much of 2011 and 2012 migrating to denser storage media and deploying de-duplication appliances to handle future growth while using a smaller, greener footprint. The intent is to continue this trend.

Strategy 7 – Utilize no more than two primary storage vendors.

To ensure price competitiveness, we compete storage procurements on a three to five year cycle. Gartner (Zaffos, 2011) makes the case for utilizing two primary storage vendor's technologies:

> Although Gartner is an advocate of maintaining relationships with more than one storage vendor, to keep them cost competitive on price and service, there are multiple downsides, especially when a customer's vendor list spans three or more vendors. Aggregate spending with any can be diluted to the point that you are no longer as important to the vendor, nor can you command steep discounts. There can also be a price to pay in deploying and learning multiple vendor management tools, because none of them delivers a single pane of management glass across multiple vendor arrays. Moreover, the challenges of learning and managing tools for multiple storage arrays can engender enough inefficiencies to actually reduce the amount of data manageable by a single administrator versus an administrator working with just one or two arrays.

Strategy 8 – Prepare the next generation of storage managers.

Our computing environment is a multi-architecture ecosystem, including mainframe, UNIX, and Windows architectures and technologies. From a storage perspective, there are really two ecosystems: mainframe and open systems. Much of the innovation in the storage industry is being driven in the open

systems arena. Further, many of the mainframe subject matter experts will retire within the next five to ten years. Because of these two factors, we must transition to web-based storage management clients to manage the storage arrays, regardless of the server. This approach will enable the next generation of storage managers to more easily adapt to managing mainframe servers because they are already familiar with web-based applications. Having the same "look and feel" to the command and control software will facilitate learning and efficiency.

The following table illustrates our transition plan for achieving this target state. These activities will allow us to meet many of the business outcomes identified in the SSA Infrastructure portfolio, listed in APPENDIX C: .

Activity	FY 2014	FY 2015	FY 2016	FY 2017
Portfolio-Initiative: SSA Infrastructure – Database/Storage Architecture				
Eliminate Open System Tape from remote sites				
Mainframe SMS Re-design				
Mainframe Data De-Duplication				
Mainframe Data Replication				
Mainframe Thin Provisioning				
Mainframe Virtual Tape				
Migration to NSC				
Open System Auto-Tiering				
Open System Virtualized Storage				
Research/Implement Electronic Vault				
Storage Performance Management				
Storage Resource Management (market research)				

Table 49: Storage Infrastructure Transition Plan

6.0 Transition Plan

In the previous section, we identified our plans for transitioning from our current to target sate. Those plans were presented from a functional perspective, targeting specific strategic areas. This section describes our transition plan from a few additional viewpoints. First, we have identified specific milestones as they relate to our major IT investments, as reported in the Exhibit 300s. That is followed by a portfolio – initiative – project view of implementing the functionality described in section 5.

6.1 Major Investments Milestones

We have an annual IT budget of $1.5 billion. Our major investments, those reported annually to OMB in the Exhibit 300, fund the majority of the work effort managed at the Portfolio level. The following tables provide a brief description and milestones associated with those major investments. The milestones listed below correspond to specific work efforts included in the mini-transition plans in section 5 above, where the mini-transition plans contain more detail.

	FY 2014	FY 2015	FY 2016	FY 2017
Citizen Access Routing Enterprise through 2020 (CARE 2020) provides mission critical telecom services for the Social Security Administration's National 800 Number and the answering sites that service over 85 million callers annually.				
Develop new MI solution to collect call-level data for callers who use the automated system, allowing us to track the calls from cradle to grave including the disposition of the call				
Implement Click to Talk, Screen Sharing, and Instant Messaging				
Disability Determination Services (DDS) Automation provides funding to maintain, and in limited cases improve upon, functional and technical aspects of DDS hardware and legacy systems to support disability determination operations until our single system replaces the current legacy systems.				
Support the Legacy Systems' hardware and software until DCPS is fully implemented				
Legacy System Shutdown				
We worked directly with the end-user community to determine the feasibility of creating a new, modernized **Disability Case Processing System (DCPS)** that will provide common functionality and consistency to support the business processes of all DDS				
Beta releases to build functionality and incorporate user feedback, as beta sites will begin to ramp up users				
Complete requirements, development and systems integration activities for Workload Management & Case Processing, Fiscal, Management Information and Correspondence				
Planning and Analysis for post-rollout enhancements, and procurement, installation, and maintenance of hardware and software to support DCPS architecture				

	FY 2014	FY 2015	FY 2016	FY 2017
Earnings Redesign will streamline and modernize the current systems in order to ensure that records of earnings are timely and accurate.				
Implement targeted Reconciliation/Correction workloads into ECMS with enhanced MI reporting capabilities				
Streamline or automate specific manual operational processes to eliminate paper and manual workloads				
Continue to maintain legacy systems while new functionality is introduced in order to meet Inter-Agency Agreement requirements with the IRS				
Implement more user-friendly Internet wage data entry, enhance employer electronic reporting, and expand Internet wage reporting capabilities to U.S. Territories				
Implement a redesign of paper earnings processing and a new technical architecture to allow for more efficient multi-stream earnings processing				
Electronic Services will expand online access for the public through various delivery channels and continue to develop and enhance our E-Government and Electronic Services architecture over the next several years.				
Develop and enhance our E-Government and Electronic Services architecture to support online access for the public through multiple delivery channels				
Enhance and strengthen authentication, identity proofing and other features to deter fraudulent use of MySSA portal				
Implement online services for Medicare replacement card, Replacement 1099/1042S, SSI Wage Reporting, Message Center, and Online Notices				
Add responsive design capability to the MySSA portal, allowing customers to access the services through a variety of devices such as tablets, phones etc.				
Financial Accounting System (FACTS) provides a state-of-the-art commercial off-the-shelf comprehensive financial accounting system that complies with all existing Federal Financial Systems requirements.				
Maintain current operational efficiencies through Oracle maintenance and support, which includes production, software upgrade and enhancement, and Application Database Administration support				
Complete the implementation of GTAS (reporting agency trial balance data to Treasury)				
Upgrade SSOARS software; implement single sign-on; implement validation and asynchronous web services, and replace EINs with Data Universal Numbering System (DUNS)				
Infrastructure – Data Center provides the IT Infrastructure for our computer network and facilities. It maintains our mainframe, client-server desktop, and intranet/internet infrastructures, which support the transfer of information between end users and us.				

	FY 2014	FY 2015	FY 2016	FY 2017
Infrastructure Efforts:				
Isolate Network LPARs into separate Sysplexes; Replace Remaining z10s with z196s; Eliminate CICS Single Points of Failure; Provide MQ Shared Message Queues; Provide System Outage Resilience				
Upgrades to: WebSphere MQ v7.1, CTG v8.1, WebSphere v8.5, Control M Scheduler v7.0.2, Top Secret v16, and Qreplication v10				
Research/Development Efforts:				
Isolate Pre-Production Environments from Production (IPPF); Pilot zVM, zLinux; Remove affinities, enabling fault tolerance, automating failovers; Implement Control M in Datacenters and Sysplexes				
Refresh eight (8) IBM Z196 mainframe systems with eight (8) EC12 (formerly zNext) Mainframe systems				
Replace eight (8) z196 Coupling Facilities with eight (8) Coupling Facilities using EC12 hardware				
Infrastructure – Office Automation supports Information Technology (IT) resources that we require to meet our workload demands.				
Provide the hardware and software maintenance renewals, as well as the Internet component, software engineering, and validation architecture				
Continue to implement the MySSA application infrastructure to provide secure access for individuals to their Social Security information				
Continually self-educate and negotiate with vendors for optimal results at minimal costs				
Continue support of hardware maintenance to expand workload capacity to meet our workload demands				
Re-compete the Pitney Bowes StreamWeaver and Finalist Mainframe Software				
Infrastructure – Telecommunication address telephone service (National 800# Network), wide area network and video teleconferencing systems, monthly recurring charges for services, connectivity and bandwidth support data, voice & video & maintenance.				
Provide the SSANet Wide Area Network (WAN)				
Provide wireless devices and services, such as cellular phones and BlackBerrys to our mission vital employees				
Provide telephone system maintenance and ongoing support services for VoIP systems; conduct managed services, customer moves, additions and changes, and oversee site relocations due to building renovations and leasing requirements				
Support telecommunications services of the NCC until it is decommissioned				

	FY 2014	FY 2015	FY 2016	FY 2017
(replaced by NSC)				
Intelligent Disability focuses on 3 main IT efforts; provide linkage between Electronic Disability Folder, modernized systems and strategic goals, assist in reducing hearing office backlogs, and improve speed and quality of the disability process.				
Implement UniForms in various disability applications, replacing antiquated eForms software (including 508 compliance)				
Expand the number of CAL conditions covered and continue to enhance the QDD scoring process				
Interactive Video Teletraining (IVT) provides critical program training to employees nationwide, using broadcast studios to deliver training content to classrooms via satellite transmission.				
Replace Head-End systems and studio cameras				
Refresh Helius MediaGate Router				
POC, pilot (limited classrooms), and national roll-out of the IVT Modernization				
Refresh classroom monitors				
National Support Center (NSC) provides the funding to migrate all current production data center operations from the National Computer Center (NCC) to the National Support Center (NSC).				
Migration of data center operations to the NSC				
Continue to redesign the mainframe systems to reduce risk during migration, providing a new mobile set of stable production workloads				
Continue to virtualize our distributed servers, reducing the number of physical servers by one third				
Build out of network and storage capacity to allow for data replication from the NCC and SSC				
Install mainframes and servers, begin testing systems, migrate workload to new data center.				
Finalize the migration of data center operations from the NCC.				
De-commission the NCC and re-purpose/remove excess IT equipment				
Online Claims provides online services to the public that encompasses pre-claims, initial claims, and appeals. We expect an increase in online filing rates providing significant cost savings and improved customer service and satisfaction.				
Fully integrate iClaim with the Internet Adult Disability Report (i3368)				
Enhance the iAppeals user experience by streamlining data entry while maintaining the same look and feel of our newer online applications				
Streamline internal processing for third-party disability applications				

	FY 2014	FY 2015	FY 2016	FY 2017
Continue to develop and enhance our E-Government and Electronic Services architecture, including usability and 508 compliance requirements				
SSI Modernization will incrementally migrate the claim data collection process to the web browser platform and make improvements to the software infrastructure and data access methods.				
Incremental migration of the SSI Claim collection and update processes to a web-based interface				
Implement the remaining SSI Resources portion of the SSI data collection, complete development, and implement the SSI Income portion of the SSI data collection				
Continue SSR Decompression efforts				
Title II will reduce Operational and Maintenance costs for TII initial claims and post entitlement business. Modernizing will reduce code redundancy, add flexibility, and take advantage of technologies to improve customer service.				
Implement the first phase of the AJS1 project in order to improve the automation rate and reduce manual workloads for the Processing Service Centers (PSCs)				
Implement software to utilize the Global Reference Tables (GRTs) to reduce maintenance cost and risk while adjusting data for cyclical workloads				
Implement the second phase of incremental improvements to the TII Notices and elimination of SSACCS				
Modernize an MBR data print extract service (CSPOTRUN)				
Implement subsequent phases of AJS1 and retire AJS1				
Develop one common Summary Business service, and incorporate common services into the Interactive Computation Facility (ICF)				

Table 50: Major Investments Milestones

6.2 Portfolio – Initiative Project View

As with all of our IT work efforts, the transition from our current state to our target state is managed at the Portfolio level. Each portfolio has a set of initiatives that consists of individual projects. These projects emphasize our modernization efforts, and include functional enhancements that support our strategic direction. The timelines presented in Section 5.0 provided our transition efforts from a functional level at the individual strategic domain area. The timeline below represents our overall transition efforts from a project level. However, this is not an all-inclusive project view. It does not include any of our maintenance, cyclical, support, or administrative activities.

The timeline on the next few pages illustrates our transition plan for the next few fiscal years. The color-coding in the chart represents the strategic domain area (see Section 5.0 above) being addressed by that project. It is highly likely that a project may support more than one strategic domain area. For those

cases, the project will be categorized where the bulk of the work effort is concentrated. For example, a project that has functional enhancements as well as being an application modernization effort will be categorized as application modernization.

The following table includes definitions for the types of projects represented in the transition plan.

Color Coding	Category	Description
Blue	Functional	A project whose main goal is to add new functionality to a business or support application
Green	Modernization	A project whose main goal is to bring increased efficiency and effectiveness to a functionally-stable application
Orange	Database	A project whose major impact is on change or modernization of the integral database process
Purple	Platform	A project whose main goal is to support integration or implementation of a new operating system or hardware platform
Red	Externally Driven	A project primarily driven by new legislation, legislative change, court decision, policy change, audit, or other external driver

Table 51: Transition Plan – Project Definitions

FY14 Agency Development Priorities/Projects

Portfolio	Agency Priority/Initiative	Project Title	FY14	FY15	FY16	Beyond
Core Services	Authentication	Electronic Access 2.0 EDS Contract Re-compete				
		Local MI for Electronic Access 2.0				
	Data Exchange	DEVO - Release 2 (NOVU into DEVO)				
		Medicare Nonutilization				
		Modify VA Process to Accept Expanded VETSNET File				
		SSA Electronic Agreement Tracking Systems into AWT				
		VAMS Release 3 - SVES into VAMS				
	Impove Telephone Services	800# Appointment Calendar Expansion Release 2				
		N8NN Call Recording				
		eCHIP 1.0				
	Rep Payee	APM-Rep Payee System Redesign				
	Online Services	iAppeals Revitalization				
		iBEVE Improvements				
		iClaims Enhancements				
		MySSA Message Center				
		Online Social Security Notices				
		Responsive Design Conversion:MySSA Portal				
		SSI Wage Reporting - GK Release				
	Service Delivery	Customer Web Support Technologies				
		APM Doors Rewrite				
		Enterprise Management Information Delivery Improvements				
		High Risk Alert				
		iClaim/i3368 Marriage				
		Visitor Intake Process rewrite				
	Notice Improvement	High Volume UTIs Phase 3				
		SNO 3.0 Forms 1099/1042				
		SNO 4.0 SSA-Produced Medicare Notices				
		Standardizing Aurora Language				
		T2 Mod-T2 Notice Improvements Phase2				
		SSI Restructured Notices - R3.1				
	T16	APM - SSI Strategic Modernization				
		Automation of Underpayments on Terminated Records				
		MSSICS Systems Enhancements FY12 Rel 2				
	T2	Appt Rep - ARDB Migration				
		APM - Elimination of AJS1 and FDOPS				
		Ensuring Release of Withheld Benefits				
		CPS Modernization				
		Paperless Release 1.3				
		T2 Modernization - Elimination of SSACCS				
		T2 Mod-Improve PE Search Transaction Prior				
		T2 Mod-incorporate ANYPIA				
		T2 Post Entitlement Accuracy Enhancements				
		T2 Mod-T2 Notice Improvements Phase1				
		Title II 6 month to 60-day Closeout				
		Workload Support Unit - iClaim Assignment Expansion				
		MIDAS Enhancements				
		Nebraska DDS Productivity and Quality Ongoing				

Legend: Blue = Functional / Green = App Modernization / Red = Externally Driven / Orange = Database / Purple = OS - Platform

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FY14 Agency Development Priorities/Projects

Portfolio	Agency Priority/Initiative	Project Title	FY14	FY15	FY16	Beyond
Disability Process	DDS Automation	Disability Case Processing System Rel 1				
		NVF				
		NY DDS Productivity and Quality Ongoing				
		MIDAS Enhancements for Rel 25 and 26				
	Electronic Disability	APM - UniForms Integrated Services and Standalone				
		Disability Control File Enhancements Rel 2.0				
		Disability Quality Reviews FY14 & FY15				
		eCAT FY14				
		ERE Enhancements FY13 - FY14				
		Fast Track (CAL/QDD) Updates				
		Health Information Technology FY 14 Enhancements				
		Preventing Effectuation of Quality Review Cases				
	Return To Work	iTOPSS				
Financial Services	Emergency Response System	Geographic Information System				
	Financial & Admin Systems	APM-TPPS 5.3				
		SSA Electronic Remittance System (SERS)				
		SSOARS FY2014				
		TPPS 5.2 Third Party Payment System				
		First Party Request Centralization				
	Payment & Reporting Requirements	Credit Bureau Reporting regulatory Changes (5.1)				
		Title II Treasury Report on Receivable				
Hearings Process	Process Enhancements	ARPS FY14				
		Automate OGC work processes				
		Electronic Bench Book Rel 3				
		ODAR Quality Review System FY 14				
	Service Improvement	Contractor Access to eFolders				
		LAWS Legal Automated Workflow System				
		Systems Updates to Support Contract Requirements DRAP				
High Performing Workforce	HR Admin Systems	Electronic Management of Assignments and Correspondence				
	Human Resources	Agency Skills Inventory				
		Human Resources Services Portal				
		LR-ER/WMS				
		Support for Learning Management System (LMS) Upgrade				
		OUTTS Multi-Union Expansion				
Program Integrity	Earnings Redesign	AWR Redesign - TY13 Rel 1.7				
		AWR Redesign - TY14 Rel 2.0				
		AWR Redesign - TY15 Rel 3.0				
		Earnings Case Mgmt System Release 2.2-IRS/SSA Reconciliation				
		Legislative New Money Fields TY13				
		EWR -W2Online / W2COnline Changes				
		EWR - Webservice Expansion Implementation				
	Payment Accuracy	Access to Financial Institutions (AFI) Enhancements FY13				
		CDR and Age 18 Payment Termination				
		Improve Death Process-Death Processing Redesign				
		Terminate T2 Beneficiaries Age 115 in Long Term Suspense				
		Audit Trail System				
		CIRP T2 Web Release 6.1				

Legend: Blue = Functional / Green = App Modernization / Red = Externally Driven / Orange = Database / Purple = OS - Platform

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FY14 Agency Development Priorities/Projects

Portfolio	Agency Priority/Initiative	Project Title	FY14	FY15	FY16	Beyond
	Systems Integrity	Direct Deposit Fraud Prevention initiative Phase 2				
		Public Facing Integrity Review				
		Real Time Fraud Prevention				
		Records Management System for Media Neutral Claims 2				
SSA Infrastructure	APM	APM - CSPOTRUN Redesign				
		APM - VB6 Elimination				
		APM - SSR Decompression FY14				
	Compute	WDPE Architecture				
		ATS New Architecture Phase II				
		Service Oriented Architecture				
		Enterprise Communication Architecture				
		PolicyNet-Domino Platform Migration				
		Support for Regional Application Development Testing				
	IT Operations / Data Centers	National Support Center (aka NCC)				
	Network	Care Through 2020				
		E-Mail Retention and eDiscovery Management				
		Telephone Services Replacement Project (TSRP) Dev				
	Storage	Database Administration Architecture				
		Enterprise Data Architecture MBR -> DB2 re. 4.0				
	Security	Identity, Credential & Access Management (ICAM) Architecture				
		HSPD-12 Internet Physical Access Management System				
		Oracle Security Solution				
		Automated Resoure Access System (ARAS)				
SSN Process	Alien/Foreign Enumeration	SAVE -SSNAP FY 14				
	Internet Enumeration	Internet SSN Replacement Cards (iSSNRC)				
	Strengthen Enumeration System	APM - Falcon Enumeration to SSNAP				
		Expansion of Enumeration at Birth(EEAB) - U.S. Territories				
		Special Indicator for Retiring Multiple Social Ssecurity Num				

Legend: Blue = Functional / Green = App Modernization / Red = Externally Driven / Orange = Database / Purple = OS - Platform

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Figure 21: FY 2014 Transition Plan

6.3 Risks & Challenges

Section 5 of this document describes our strategic visions and directions for IT. Movement and advancement is never made without assuming risk and facing challenges along the way. This section lists some of the identified significant risks and challenges to many of these strategic visions and directions and gives some insight into the impact, and more importantly, some mitigation possibilities for each. The Section 5.x.x sub-section number is identified for each area described, where applicable.

General

Risk or Challenge	Potential Impact	Mitigation
Lack of documentation of business process, software and hardware or people with this knowledge.	Under estimating the size of the work to maintain the current system. Under estimate any redesign efforts not realizing that the business process is not documented. Under estimate the size of the project because not understanding the impact on other areas. Problems after implementation due to unexpected outcomes. Hard to completely test when you do not understand the full impact of the changes.	Attempt to redesign or document before people retire. Spend time with the users documenting the existing business process with and without regard to the software. Walk through numerous scenarios. Do extensive large scale testing and include parallel testing.
Competing workloads, broad changes that take years to effectuate, unexpected workloads and changes in technology.	Large scale redesigning takes years to effectuate but planning is done for short periods of time and does not include legislation and court mandated changes. Impact to users for constantly relearning jobs.	Large scale changes are phased.
Current resources redirected to work on unforeseen Congressional workloads that are deemed as a higher priority. The retirement of SMEs would further affect the ability to perform such conversions in a timely manner.	Delays or the inability of continue conversion efforts.	Develop and document strategic plans that include prioritized project schedules and provision for adequate resource involvement.

Table 52: General Risks and Challenges

Telephone Services (section 5.3.1)

As technology advances and the needs of the public for more flexible ways to conduct business with us increases, telephone services as they exist today, may need to be reassessed.

Risk or Challenge	Potential Impact	Mitigation
As more and more consumers move away from having landline telephones and rely on cellular phones as their main communications vehicle, the complex menu navigation may no longer be a popular way to do business with us.	Lower call volumes; potential increases in foot traffic in the field offices.	Increase marketing of online and mobile enabled services to the public.

Table 53: Telephone Services Risks and Challenges

Online Services (section 5.3.2)

Our service delivery strategy includes enhancements to our services offered via the Internet. Moving to this model of service delivery introduces the following potential risk:

Risk or Challenge	Potential Impact	Mitigation
Strengthening security and authentication mechanisms within Internet applications to reduce or eliminate fraud.	If we continue to approach development of eServices from a tight authenticated perspective, we will be limiting the use of people able to get into the applications and therefore usage of each of the applications may not be as robust as we would like as we continue to expand our eServices.	We should continue to create services that allow users to block those services that may affect or include PII. In addition, authentication processes should be updated to allow for additional security that does not present a burden the user.

Table 54: Online Services Risks and Challenges

Mobile Technologies (section 5.3.3)

The technical capabilities, cost and security risks and challenges inherent in a successful deployment of mobile technologies to meet our mission-critical service delivery requirements are identified and discussed in the table below.

Risk or Challenge	Potential Impact	Mitigation
Solutions and ongoing changes in the rapidly changing mobility marketplace, may hinder our ability to develop secure and effective mobile service delivery capabilities that fit its mission-critical service delivery requirements.	Potential commitment of resources to mobile technology solutions that may rapidly become obsolete. Potential for vendor lock-in, on the one hand, or reliance on a vendor which may disappear from the mobile marketplace through failure or acquisition.	We are working to carefully and accurately define the technical, operational, and management requirements necessary to establish and support a secure and effective mobile services deployment.
Costs – the risk that the costs to acquire, operate, and maintain mobile technologies and sustain mobile service delivery platforms are outweighed by the benefits projected to be realized from the technology.	Potential commitment of scarce funding resources to a group of technologies or solutions whose benefits are outweighed by the potential costs.	We will undertake appropriately robust analysis of the costs and projected benefits (quantifiable and otherwise) associated with the deployment of mobile services, technologies, devices, data plans, applications, and supporting infrastructures
Security – the risks associated with the challenges of configuring mobile devices to meet security requirements across multiple platforms and operating systems. The lack of consistent configuration guidance for mobile devices and their rapid refresh cycle make it difficult to develop operating system hardened configurations for mobile devices.	Exposure of our sensitive information assets and resources to unauthorized access and/or disclosure.	We will adhere to the most current security standards and guidelines associated with the deployment of mobile device technologies. In particular, we will ensure that the provisions of NIST's Guidelines for Managing the Security of Mobile Devices in the Enterprise (NIST Special Publication 800-124, Revision 1, June 2013) form the basis for the Security Configuration Standards and security provisions of its mobile technology architecture and management controls.
Dynamic mobile environment	The need to continually update and test our mobile services on constantly evolving mobile	Develop applications according to W3C Internet and mobile

Risk or Challenge	Potential Impact	Mitigation
	technology, devices, and screen sizes can become expensive.	standards.
Testing procedures are immature for testing mobile delivery confidently.	While our testing procedures in place for traditional Internet services are robust, they are concentrated on desktop browser implementations. Testing for Internet mobile delivery may require a varying amount of further testing. The exact amount of testing required to gain full confidence in the rendering on many possible devices is unknown.	Use Responsive Web Design approach to develop applications with a single code base
Overcomplicating the service delivery in response to the vast options available	Using complex items just because they exist can easily confuse users and drive them to the field offices or the 800 number.	Avoid targeting specific operating systems or devices and develop to W3C standards. Limit the number of applications in proprietary app stores to an absolute minimum.
Approaching mobile technologies as a standalone service instead of simply another view or perspective for our Internet applications.	Inconsistent branding and messaging. Potential third party mobile applications providing incorrect information. Higher cost in developing and maintaining two versions of one application.	Focus on Internet delivery as a whole, not mobile specifically, and making sure we can accommodate the three general size screens (small, medium, and large) along with touch input. Use the Responsive Web Design approach to build one application which can be viewed across multiple platforms. Revisit Responsive Web Design periodically to ensure that it is the best technology to support our goals.
Being tethered to antiquated systems architecture, infrastructure, processes, and user interaction.	Keeping user interaction and functionality stagnant under the guise of users' inability to adapt to change cripples our ability to provide better alternatives with technology that is several	Allow for adaptation of newer technological delivery mechanisms and user interactions. Reevaluate trends in service delivery, user experience, and technological options every few

Risk or Challenge	Potential Impact	Mitigation
	generations newer than what was used for older systems.	years
Allocating sufficient time to fully conduct the user-centered design process for mobile applications. Designing for mobile requires additional efforts to accommodate multiple display sizes (i.e. phones, tablets) and interactions (i.e. touch).	Insufficient time may prevent teams from adequately designing and testing the user experience (UX) for all device categories. The UX and customer satisfaction may suffer.	For mobile application efforts, we must appropriately extend timelines typically associated with designing and testing user interfaces and an extended learning curve for design and development teams.

Table 55: Mobile Technologies Risks and Challenges

Multi-lingual Support (section 5.3.4)

The business, technological, architectural, and cultural risks and challenges inherent in a successful multilingual implementation of our public-facing Internet services are identified and discussed in the table below.

Risk or Challenge	Potential Impact	Mitigation
Return on Investment	Minimal usage of the existing multilingual applications has shown that the investment outweighs the cost savings.	Perform a new cost-benefit analysis based on intangible benefits.
Overcomplicating multilingual delivery by combining with other changes.	When an application is chosen to be multilingual, it is generally overhauled in other ways at the same time. This overhaul tends to skew the cost figures associated with multilingual and make it appear as a more expensive/complex task than it is.	Identify an approach that is used to only apply multilingual changes to Internet services and disallows any other changes.
Legacy applications cannot support other languages.	While the architecture is in place to provide multilingual support for our public-facing Internet services, downstream legacy applications are not capable of handling various characters that other languages use.	Convert all of our systems and databases to use UTF-8/Unicode encoding.
Translation procedures are weak or not defined.	The ability to easily translate from an English-based set of Internet pages to another language for development purposes does not exist, which leads to long, costly	Define and implement a multi-component translation process. Provide more multilingual applications as the driver for defining the translation

Risk or Challenge	Potential Impact	Mitigation
	translation time.	processes. If only a small number of services are going to be available in multiple languages, the costs associated with defining processes are not offset by the benefits.

Table 56: Multi-lingual Support Risks and Challenges

Electronic Data Exchange (section 5.3.7)

Traditional data exchange services have historically included cost considerations of establishing secure, reliable communication channels with our customers, which are often dedicated VPNs requiring the Cyber Fusion or Connect:Direct client application. Such scenarios also incur an additional cost of technical support to provide resources and procedures to facilitate the exchange of the data on an ongoing basis, and, at times, results in a requirement of per transaction reimbursement and accounting. Recent requests have also included consideration of proprietary data encryption systems in use at customers' sites (for example, Pretty Good Privacy (PGP)), which represents additional challenges in providing cost-effective service solutions in an era of increasingly restrictive budgets.

Risk or Challenge	Potential Impact	Mitigation
Lack of sponsorship	The need to modernize some of the current data exchanges beyond what is currently in place requires sponsorship and SITAR.	Identify executive level data exchange sponsor.

Table 57: Electronic Data Exchange Risks and Challenges

Database Modernization (section 5.4.1)

The business, technological, architectural, and cultural risks and challenges inherent in a successful Database Modernization initiative within our business and technological environment are identified and discussed in the table below.

Risk or Challenge	Potential Impact	Mitigation
Database modernization advantages cannot be fully realized without major, ongoing, investments in both database API upgrades, and, application modernization strategies.	Part one of our Master File database conversion efforts to relational data stores was performed based on the principle of minimal change to existing legacy application processes. Without part two, fully relational, re-designed processing, the benefits of relational technology will not be appreciated. However,	Work with components to identify which processes would benefit from redesign, prioritize those efforts as APM initiatives, and develop the necessary API enhancements to complete each renovation in a suitable time frame.

Risk or Challenge	Potential Impact	Mitigation
	these efforts must compete with already scheduled, major application projects and time frames.	
The major database conversion efforts are being driven by the application using legacy concepts.	Poorly designed databases that fail to leverage relational capabilities.	Design physical database to leverage relational capabilities and best practices while encompassing business and performance requirements; Reengineer and implement application processes to do the same.
Lack of skilled staff needed to maintain an aging data and data access infrastructure and to facilitate the transition off that infrastructure.	There are limited resources to complete efforts. If conversion efforts are not able to occur, we could be stuck supporting databases with minimal knowledge by our staff.	Prioritize workloads to make sure that conversion projects are given priority.
Strategy is dependent upon relational DBMS. New technologies are emerging that may provide a better alternative.	We find ourselves, once again, with outdated architecture.	Continue to pay close attention to industry developments and trends focusing on how they can be applied to our application and data storage needs.
Changes required to the MADAM MBR that are outside DCS control would impact moving the MBR to DB2 (i.e. Legislative actions).	Mandated projects that require changes to the MBR during the multi-year span of the MBR to DB2 project would have a negative impact on the target completion of the MBR to DB2 modernization effort.	Attempt to have any mandated MBR changes addressed after the MBR is converted to DB2. If this cannot be done, the risk will come to light and may impact the target completion of the MBR to DB2 modernization effort.

Table 58: Database Modernization Risks and Challenges

Application Modernization (section 5.4.3)

As our existing systems continue to age, we are facing many concerns of ongoing maintenance with limited staff and contractor resources and balancing workloads between new system development and existing maintenance infrastructure. Without continued care and feeding of our systems, existing systems will not continue to operate in a robust application ecosystem supporting our mission critical workloads.

Risk or Challenge	Potential Impact	Mitigation
Aging Legacy Systems based on COBOL Batch and COBOL CICS technologies	Inability to modernize antiquated systems with diminishing COBOL skillsets in aging COBOL developer workforce	Develop as much new systems development and major systems enhancements targeted at java based solutions for traditional COBOL workloads
Retiring staff with knowledge of legacy systems based in COBOL	Risks of errors and project delays from loss of our business knowledge	Proactively modernize and document legacy systems to new technologies with clear supporting documentation
Competing resources for system refactoring and modernization from new functionality	Systems in need of refactoring not modernized risking long term support issues with non-modernized systems	Mitigate and attempt to migrate systems concerns with existing workloads for maintenance of projects where applicable
Loss of application subject matter experts prior to completion of modernization efforts.	If subject matter experts leave the agency prior to completion of application modernization, those applications would have no support and would execute older unsupported software.	Attempt to schedule application modernization projects prior to losing the subject matter experts. In addition, use knowledge transfer of the application to staff onboard. If application modernization is targeted for the near term, staff onboard could be supplemented with contracting resources.
Rapid decrease in Systems knowledge required to understand what business rules legacy systems are fulfilling – exactly what input to each legacy system is processed using what logic to create what output. Subject Matter Experts (SMEs) are retiring without transmitting their knowledge to younger staff.	It is extremely risky to replace an old system with a new one without knowing what processing is going on in the existing system. It is impossible to know whether routines are obsolete without understanding what they are intended to accomplish.	Assign Understudies to the dwindling population of SMEs before they retire. Make this a priority, in line with more glitzy development. Use the SMEs' skills to convert legacy systems to more modern designs while they are still in the building.
The volume of verifications and data accessed and returned in the verifications processes is growing both in size and complexity.	Internal architectures and data access methods may affect the overall ability to respond to requests in a timely manner.	Simplify the access paths to our master file data to reduce overhead in satisfying verification requests. Migrate to more robust

Risk or Challenge	Potential Impact	Mitigation
		versions of middleware (WebSphere) that accommodate high volume features.
Legacy enhanced verification processes substantially increase internal processing volumes. Additionally, results returned from our systems may be an implied match as opposed to a direct match.	Legacy enhanced verification processes could affect the overall ability to respond to requests in a timely manner. Legacy enhanced verification processes could result in the misuse of data exchanges and verifications as returned implied matches.	A thorough review of our verification policy for external customers should be undertaken. Policy should identify the rules governing successful and unsuccessful matches. Review agreements with verification partners to determine specific needs for implied versus direct matches.
Miss legacy functionality that should be migrated, or, duplicate legacy functionality that is unnecessary or inappropriate. Introduce Performance issues.	Modernized applications may not produce the desired results. Changes in execution platforms which accommodate newer languages (i.e. JAVA as opposed to COBOL), may not allow for capacity needs.	Ensure that a Business Process Description is present before any application modernization effort begins. Allow for review to confirm that our current policy is being administered. When considering new languages/platforms, allow for proof of concepts to determine technical feasibility when possible.

Table 59: Application Modernization Risks and Challenges

Intelligent Systems (section 5.4.4)

The risks and challenges associated with the complexity, technological immaturity, time and cost effectiveness, and potential inaccuracy of Intelligent System development and deployment are identified and discussed in the table below.

Risk or Challenge	Potential Impact	Mitigation
Complexity – The inherent complexity of claims eligibility determinations, whose parameters are established by statute and regulation, raises immediate challenges to the successful development deployment of	The inherent complexity of claims eligibility determinations may frustrate or prevent the successful development and deployment of accurate intelligent systems to support policy-compliant eligibility determinations at all levels of	Based on initial experience with the development and deployment of rule-based intelligent systems to support the determination process, we will take a carefully measured, incremental approach to the

Risk or Challenge	Potential Impact	Mitigation
intelligent systems. Engineering the knowledge base to support such systems must provide for inclusion and accurate assessment of interrelated facts and issues which compound the fundamental complexity issue. Factual uncertainty may also arise when there are disputed versions of factual representations that must be input as part of the determination process.	decision-making.	development of such systems. This approach allows knowledge engineers to strictly circumscribe the parameters and rules associated with particular determinations in well-defined circumstances. In this way, the inherent complexity of eligibility determinations can be effectively partitioned into manageable segments which can be reliably and accurately addressed by intelligent systems.
Technological Limitations – the technological limitations of most current intelligent systems and their associated problem solving techniques may inhibit the success of developing such an intelligent system. Expert systems typically rely on deductive reasoning models that have difficulty managing the variable weight factors that may be required to drive an accurate eligibility determination in an immediate case or context.	The technological limitations of existing intelligent system solutions may frustrate or prevent their successful development and deployment to support agency-specific, policy-compliant eligibility determinations at all levels of decision-making.	Working with industry experts, our subject matter and policy experts will take a carefully measured, incremental approach to the development of such systems. This approach allows knowledge engineers to strictly circumscribe the parameters and rules associated with particular determinations in well-defined circumstances. The development of systems to support more complex determinations may therefore be deferred until the technology has sufficiently matured to support them.
Time and Cost Effectiveness – Creating a functioning intelligent system requires significant investments in software, subject matter expertise and knowledge engineering.	The total costs of successfully developing and deploying an effective and accurate intelligent system to support a sufficiently broad range of eligibility determinations may substantially outweigh the projected benefits.	As previously noted, we will take a carefully measured, incremental approach to the development of such a system – enabling us to monitor and control the costs associated with its development. Our long-established

Risk or Challenge	Potential Impact	Mitigation
		sequential evaluation processes, coupled with our management information data stores, will enable our executive decision makers and technical engineers to identify those eligibility determination scenarios which can be most cost-effectively supported by the development and deployment of intelligent systems solutions.
Incorrect or Inaccurate Determinations – the deployment of intelligent systems may lead users to incorrect or inaccurate results and determinations. This problem could be compounded by users relying too heavily on the correctness or trustworthiness of results or determinations generated by an intelligent system.	A significant decrease in the quality, accuracy, consistency and/or reliability of our claim eligibility determinations.	Our incremental approach to the development and deployment of intelligent systems to support claim eligibility determinations will be coupled with expanded oversight and quality assurance review designed to ensure the accuracy, consistency, reliability and policy compliance of determinations being generated by deployed intelligent systems.

Table 60: Intelligent Systems Risks and Challenges

Enterprise Business Intelligence (section 5.4.5)

The business and technological challenges inherent in enhancing the Enterprise Business Intelligence for managing significant components of an IT environment within our business and technological environment are identified and discussed in the table below.

Risk or Challenge	Potential Impact	Mitigation
Business and technological challenge: Multiple, discrete processes and numerous redundant data repositories (databases, spreadsheets, institutional knowledge) to control, secure and manage significant components of	Inability to generate a firm IT inventory, ensure license compliance, and enforce standard compliance (gold standard) measurement as well as provide lifecycle segregation and complete infrastructure configuration visibility to assist in security, incident,	Implement an Enterprise Configuration Management System, which is a central data repository of information providing the following: (1) Processes can be streamlined and thus improve efficiency. (2) Auto-discovery

Risk or Challenge	Potential Impact	Mitigation
an IT environment.	change, and release management.	will generate a firm inventory and ensure license compliance. (3) Enable security to compare configurations and enforce standard compliance within the IT environment. (4) Documents lifecycle segregation and provides infrastructure configuration visibility. (5) Enhanced infrastructure governance, oversight, and security are achieved by tracking incident, change, and release information in a central location.
Organizational & Change Management: Defining and instilling new values, attitudes, norms and behaviors within an organization that support new ways of doing work and overcome resistance to change.	Planning, testing and implementing all aspects of the transition from one organizational structure or business process to another will not be successful.	To help manage the change and transition process, user acceptance criteria and transition plans will be developed for each project (where appropriate), and guidance and approval at the Deputy Commissioner level will be obtained to assure a smooth transition to Enterprise Business Intelligence. A multi-component workgroup will guide decisions to be made during the transition process.
Business Scope: Desired business goals and user goals of the program are not met.	An investment will fail to achieve the expectations of the project's owners and customers.	Each individual project will clearly define the scope and develop user acceptance criteria to ensure that expectations will be met. The project managers assume the primary role in making sure that business needs are identified and acceptance criteria are established.
Technology and Skills gap: Newer	Problems associated with the use of	Enterprise Business Intelligence

Risk or Challenge	Potential Impact	Mitigation
technologies require training for business users and the development teams	technologies new to us, new software releases or hardware new to the market.	uses commercial software provided by industry leaders. Projects using new technologies must go through ARB review. Business owners and DCS must identify required skills and provide necessary training.

Table 61: Enterprise Business Intelligence Risks and Challenges

Enterprise Communications Architecture (ECA) (section 5.4.6)

The business, technological, architectural, and cultural risks and challenges inherent in a successful ECA implementation within our business and technological environment are identified and discussed in the table below.

Risk or Challenge	Potential Impact	Mitigation
Multiple notice solutions have evolved from specific functional needs and associated system implementations that ECA may not be able to meet.	ECA may not be able to convert all notice applications, leaving some independent notice solutions	ECA will work in a phased approach to gather requirements from applications in iterations. Build a flexible system that will accommodate future needs.
Complex embedded business rules in the code may be difficult to convert when we move to later phases.	This complexity could risk the current performance and quality standards and possible proliferation of current high maintenance costs of applications. It could also lead to limited functional/process improvements in the new architecture.	ECA will work with the various notice areas to be a part of their early planning stages for modernization efforts. We will strive to create a system that is flexible to changes and can react to business rules.

Table 62: Enterprise Communications Architecture Risks and Challenges

SOA Application Development (section 5.4.7)

The business, technological, architectural, and cultural risks and challenges inherent in a successful SOA implementation within our business and technological environment are identified and discussed in the table below.

While not insurmountable, “cultural” impediments to success are often more difficult to overcome than purely technical ones. Discomfort with change and a reticence to embrace new technological principles will require a thoughtful and inclusive approach to manage. The end result however, can transform the IT development and acquisition results within the agency in a most positive manner. IT, in concert with

Human Resources, needs to develop a recruitment and retention strategy for employees with the updated skills and experience to implement in a SOA environment.

Risk or Challenge	Potential Impact	Mitigation
Cultural challenges – The "we've always done it this way" culture naturally resists change and new design approaches.	Management decisions when assigning scarce resources may favor "old style", easier development, thus resisting SOA support.	Develop an Executive and management-level presentation with Top-level support to identify principles and benefits of SOA implementation.
Skills gap – The legacy program development and maintenance skills do not lend themselves well to innovative implementation of SOA design principles in systems modernization efforts.	Legacy programmers and developers may lack the modern skills and understanding to fully take advantage of the principles that SOA implementation brings to the table.	HR, in collaboration with DCS and Business owners must identify a required skill set and plan a recruiting campaign to attract and acquire these individuals.
Lack of a Service Model Plan – Our Enterprise Architecture framework is relatively new in its full Systems and business-wide implementation. Additionally, it needs to include a Service Model Plan to describe the business areas for which specific services will be built.	While currently being updated and made broadly available, our EA program is not yet fully mature and fully accepted throughout the business and technology environments. This framework is critical to the successful implementation of a SOA-oriented solution.	The current EA Program Communications Plan must be expanded to better educate our decision makers and developers by impressing the benefits of a fully implemented EA Program. The Program needs to continue along the path of inclusiveness and maturity.

Table 63: SOA Application Development Risks and Challenges

Shared Services (section 5.4.10)

The challenges inherent in supporting and managing a shared services environment are identified and discussed in the table below.

Risk or Challenge	Potential Impact	Mitigation
Ownership of Shared Services – As components within DCS build services, they must have resource owners and work year (WY) allocations to maintain them.	Enhancements and support for shared services may tax already scarce resources, impacting both the service owner's component and the customer using the services.	As shared services are developed, there needs to be clearly identified owners of the service and WYs allocated for support.

Table 64: Shared Services Risks and Challenges

Cloud for Service Delivery (section 5.4.11)

The funding and staff resourcing challenges associated with extending our Private Cloud Computing model to enhance its service delivery capabilities are identified and discussed in the table below.

Risk or Challenge	Potential Impact	Mitigation
Funding Challenges – the risk that there will be insufficient funds to support our plans to enhance the maturity of its existing Private Cloud IT environment.	The evolutionary maturation of our Private Cloud may be significantly limited or curtailed.	We are adopting an evolutionary capability maturity model for extending and enhancing the core characteristics of our existing Private Cloud which will continue to be the default deployment model for our core mission-related and programmatic IT services and systems. This strategy will enable our executive decision makers and technical engineers to focus scarce funding resources on the most important foundational requirements, and the technical proficiency and operational readiness capabilities required to move our Private Cloud environment to an optimized, fully cloud-enabled status. As a result of this basic strategy, the impact of further reductions in available funding can be mitigated by: • Progressively narrowing the scope of planned development efforts; and • Progressively deferring or cancelling plans associated with higher cloud maturity features and characteristics.
Availability of Staff Resources – the risk that ongoing restrictions on hiring will reduce the available pool of technically knowledgeable staff.	The evolutionary maturation of our Private Cloud may be significantly limited or curtailed.	Addressing the risks associated with the availability of technically knowledgeable staff resources can be undertaken using the same mitigation strategies described for Funding Challenges noted above.

Table 65: Cloud for Service Delivery Risks and Challenges

Digital Government (section 5.4.12)

The Technical Capabilities, Cost and Security risks and challenges inherent in a successful deployment of a robust Digital Government capability to meet our mission-critical service delivery requirements are identified and discussed in the table below.

Risk or Challenge	Potential Impact	Mitigation
Rapidly evolving technologies and marketplace – the group of risks associated with the rapidly changing technical characteristics of mobile devices and management – including Mobile Device Management (MDM) – solutions and ongoing changes in the mobility marketplace, may hinder our ability to develop a secure and effective mobile service delivery capabilities that fit its mission-critical service delivery requirements.	Potential commitment of our resources to technology solutions that may rapidly become obsolete. Potential for vendor lock-in, on the one hand, or reliance on a vendor which may disappear from the marketplace through failure or acquisition.	We are working to carefully and accurately define the technical, operational, and management requirements necessary to establish and support a secure and effective mobile services deployment. These requirements definitions and descriptions, structured around mission-related use cases and service delivery priorities, will address our need to evaluate its potential options before making significant investments or committing to specific technologies, platforms or solutions.
Costs – the risk that the costs to acquire, operate, and maintain mobile technologies and sustain mobile service delivery platforms are outweighed by the benefits projected to be realized from the technology.	Potential commitment of scarce funding resources to a group of technologies or solutions whose benefits – in terms of enhancing our service delivery capabilities and/or the productivity of its employees – are outweighed by the potential costs.	We will undertake appropriately robust analysis of the costs and projected benefits (quantifiable and otherwise) associated with the deployment of mobile services, technologies, devices, data plans, applications, and supporting infrastructures. This analysis will be geared toward identifying how the deployment of these technologies will improve customer satisfaction, employee productivity and the ability to achieve our mission-critical service delivery requirements.

Risk or Challenge	Potential Impact	Mitigation
		We recognize the difficulty of performing such analysis in the face of a rapidly changing mobile marketplace and the relative immaturity of support infrastructure products which may drive up costs as we must support an increasing number of devices and products.
Cultural challenges – The "we've always done it this way" culture naturally resists change. We must re-evaluate our business models, processes, and regulations to take the greatest advantage of digital delivery and to fully integrate customer self-service and online service delivery.	Failure to develop a well formed and consolidated digital government vision may limit our effectiveness in the digital government space. Simply placing forms online will not unlock the potential that digital government has to offer.	Develop an Executive and management-level business plan that provides a concrete vision for performing our business in the digital government age. The plan must clearly demonstrate the synergies achieved through improving business processes to take advantage of our strength both operationally and electronically.
Infrastructure Stagnation – Failure to invest in ongoing systems and process modernization.	Infrastructure stagnation will limit the ability to expand and improve services for digital delivery.	Continue the commitment to infrastructure enhancements and systems modernizations as outlined in our EA roadmap and IRM.

Table 66: Digital Government Risks and Challenges

Cyber Security (section 5.5)

The operational, technological, and human capital risks and challenges inherent in a successful cyber security program within our business environment are identified and discussed in the table below.

Risk or Challenge	Potential Impact	Mitigation
HSPD-12 requires the use of a PIV smart card by Federal employees and contractors to gain logical access to Federally controlled information systems; and the FY 14 Cyber Security Cross Agency Priority (CAP) goal (Strong	We may not meet the FY 2014 CAP goal for strong authentication.	We are working with the remaining states to obtain cooperation to credential their employees who work in the Disability Determination Services (DDS).

Risk or Challenge	Potential Impact	Mitigation
Authentication) requires that 95% of users use the PIV for logical access. This directive includes state employees who access our systems to provide medical determinations in support of our disability program. Only a few states have volunteered to have their staff submit to the Federal PIV process.		
OMB 11-11 requires all new systems under development must be enabled to use PIV credentials, in accordance with NIST guidelines, prior to being made operational.	We have some applications that are not PIV compliant which rely on password tokens and needs to make changes in order to be compliant with OMB 11-11.	We are engineering applications in a manner that support users that have switched to PIV card authentication and users that must remain password users due to business exceptions. We are targeting June 2014 as the date for all internally developed applications to be PIV compliant.
We have a large distributed network with many devices hosting numerous applications. Keeping all of these systems up to date in order to protect our network and data from emerging cyber threats is an immense task.	Unapproved and poorly configured devices can contain vulnerabilities that present windows of opportunity to hackers and other cyber criminals who will use this weakness to harm our network or steal data.	We have implemented automated processes that continuously monitor the devices connected to our network, identify potential vulnerabilities, and take rapid correction actions.
Like many organizations, we rely heavily upon our human capital resources for providing services and we need to ensure that all of our employees and contractors are aware of the risks of social engineering and understand how to prevent successful attacks.	Breaches and loss of public trust can result from trusted users making unauthorized disclosures of information or unknowingly disclosing personal information including their system credentials because of social engineering attacks.	We provide ongoing security awareness education to our employees and contractors. We also implement safeguards to prevent and detect unauthorized disclosure of our systems and data.

Table 67: Cyber Security Risks and Challenges

Computing Platforms (section 5.6.1)

The funding and staff resourcing challenges associated with continuing/maintaining the reliability and effectiveness of our Computing Services Platforms, extending their capabilities and optimizing their characteristics and functionality are identified and discussed in the table below.

Risk or Challenge	Potential Impact	Mitigation
Funding Challenges – the risk that there will be insufficient funds to support our engineering plans for the Computing Services Platforms.	The evolutionary development of our computing services platforms, and their enhanced maturity in terms of cloud computing characteristics may be significantly limited or curtailed.	Our technical engineering plans for the Computing Services Platforms are based on a COE strategy: • Continued maintenance of existing capabilities; • Extending capabilities through incorporation of new technologies; • Optimizing the platforms in terms of operational effectiveness, reliability, availability and security. Because of this structure, the impact of reductions in available funding can be mitigated by: • Progressively narrowing the scope of planned development efforts; and • Progressively deferring or cancelling plans associated with Optimizing and Extending platform capabilities and features.
Availability of Staff Resources – the risk that ongoing restrictions on hiring will reduce the pool of technically knowledgeable staff available to maintain, extend and optimize the Computing Services Platforms.	As with funding challenges, the evolutionary development of our computing services platforms, and their enhanced maturity in terms of cloud computing characteristics may be significantly limited or curtailed.	Addressing the risks associated with the availability of technically knowledgeable staff resources can be undertaken using the same mitigation strategies described for Funding Challenges noted above.

Table 68: Computing Platforms Risks and Challenges

Storage Infrastructure (section 5.6.3)

The business, technological, architectural, and cultural risks and challenges inherent in enhancing the storage infrastructure within our business and technological environment are identified and discussed in the table below.

Risk or Challenge	Potential Impact	Mitigation
Architectural challenge – The potential for an increase in un-managed storage environments.	A potential for an increase in un-managed storage environments. Different strategies, architectures, and operational environments result from this approach. The ability to maintain availability of the services, ensure the proper technologies are employed, obtain efficiencies in procurement and infrastructure management, and ensure a comprehensive, agency-wide business resilience posture may be compromised.	Enforce a stronger adherence to the System Development Life Cycle (SDLC), ARB reviews, and other EA principles and tools to ensure that these environments are identified early for inclusion in the enterprise storage solution.
Architectural, business, and technological challenge – Deployment of applications and databases without a prescribed data life cycle.	We currently have deployed applications and databases such as DMA, Paperless, and others that do not have a data life cycle, which implies that their storage footprint will continue to grow. The costs to store this data also continues to grow unabated. Further, the physical amount of this data limits our ability to protect it using contemporary business resilience technologies.	Implement data life cycles for rapidly expanding databases. Prune obsolete or expired data and reorganize the databases to reclaim the space. Deployment of virtual tape, de-duplication appliances, and advanced data replication technologies is essential to managing the agencies growing data stores.
Architectural, business, and technological challenge – Deployment of applications which exploit “big data” repositories. There is a rapidly emerging class of business applications, such as data analytics, which utilize very large data repositories.	The utilization of these emerging technologies will have a very positive impact on us. However, the technologies must be deployed in an architected manner to ensure the proper operational and business resilience capabilities are in place. Many of these technologies are emerging or may lack the infrastructure maturity to manage petabytes to exabytes of data.	Our infrastructure and operations support component (i.e. OTSO) should devise an infrastructure and management capability upon which to build these valuable applications and data stores. New storage technologies such as object storage and storage cloud technologies such as data in motion should be investigated and utilized as

Risk or Challenge	Potential Impact	Mitigation
		appropriate.
Business and technological challenge – There are failure scenarios where the loss of one or more of our data centers could negatively impact our operations and the resilience of our data repositories.	Potential loss of agency data. Potential inability to achieve our Recovery Point Objective or Recovery Time Objectives.	We will be replacing the physical tape storage vaults located on the East Coast near the two data centers with an electronic vault located west of the Mississippi. Our data would be replicated in real time to the electronic vault similar to the interchange between the data centers.
Business and technological challenge – Loss of critical skills.	DSSM FTE's are being used for business management activities such as COTR, budgeting, etc. Contractors are doing the technical management of the storage infrastructure. The technical skills to design and deploy new storage architectures and technologies are declining. The contractors are also ensuring the protection of our data via backups, data replication, and virtual tape. DSSM has lost 15 FTE since 2010 – a 42% reduction. These positions were backfilled primarily by contractors from the NSC program. These contractors will leave in 2016. Today contractors make up 60% of the DSSM headcount. In addition, many of the mainframe trained engineers are within five years of retirement.	Devise a program that allows the existing contractors who have been positively vetted as valuable storage engineers to be brought onboard as FTEs so they are not lost to other organizations. At the same time, deploy a college hire program that brings new engineers into the agency that can be mentored for 4 to 5 years by the existing skilled individuals.

Table 69: Storage Infrastructure Risks and Challenges

7.0 IT Asset Inventory

Our IT asset inventory is available in a variety of contexts, all originating from our EA Repository. We maintain an inventory of almost 800 software applications and utilities. Updates to the application inventory occur through our Application Portfolio Management (APM) efforts, which is part of our system development lifecycle. Our inventory includes application details such as business functions supported, development languages, data stores, and other technology related characteristics.

The Federal Information Security Management Act (FISMA) requires an inventory of an agency's General Support Systems (GSS), Major Applications (MA), and their respective minor applications (also known as subsystems). Application owners work with our Security Assessment Managers to align our application inventory to the FISMA inventory.

Our IT Asset Inventory (aka Application Inventory) report includes general application information such as the name, id, acronym, owner and lifecycle stage. Our application inventory is a living document, subject to change on a daily basis and is not published in a final format. Our Application Inventory report is available upon request.

As recommended by OMB, we have begun using the IT Asset Inventory template to report how our application inventory aligns with our IT investments. The template brings together information reported on the Exhibit 53 and Exhibit 300, and shows alignment to the FEA reference models described in the next section. This template in no way represents our full application inventory. We have hundreds of applications, utilities, and services that support multiple investments and cannot be directly tied to a major investment. The IT Asset Inventory is also attached in APPENDIX D: .

7.1 Federal Enterprise Architecture Reference Models

We also align our application inventory to the Federal Enterprise Architecture reference models. The FEA reference models were recently updated and officially released in February 2013. The references models are essentially taxonomies used to classify and inventory identified aspects of any organization. These classifications and inventories are then used in the planning and design of various organizational aspects. The aggregation of data using these taxonomies enables enterprise architects to establish *lines of sight* between business and technology as well as identify gaps, redundancies and opportunities for organizational design and performance improvement. The new FEA Reference Model structure is:

- Performance Reference Model (PRM)
- Business Reference Model (BRM)
- Data Reference Model (DRM)
- Application Reference Model (ARM)
- Infrastructure Reference Model (IRM)
- Security Reference Model (SRM)

Our agency performance measures are aligned to the Performance Reference Model (PRM). Our business functions are aligned to the Business Reference Model (BRM). In previous years, our reusable services were aligned to the Service Component Reference Model (SRM) and the Technology Reference Model (TRM), both of which no longer exist. However, with the anticipated revision of the FEA Reference Models, and recent enhancements to our APM data collection process, we have decided to terminate the SRM and TRM alignments temporarily. Recent improvements to our APM process have resulted in the collection of more comprehensive technology information about our internally-developed applications and services. Now that the FEAF version 2 reference models have been released, we are in the process of evaluating how those changes will affect our EA.

In order to support the new PRM, the EA staff will work with our performance management team to identify the alignment of our performance measures the FEA PRM measurement areas. As we identify additional performance metrics, whether they are agency, tactical or portfolio related, we will ensure alignment with the FEA PRM measurement areas.

The structure and underlying purpose of the BRM has not changed, and as such will require minimal amount of effort to implement. When we originally implemented the BRM, we adopted the approach to align our internal business functions to the BRM business functions. As part of our APM process, application owners are required to identify the internal business function associated with each application and service developed. This approach provides a layer of isolation between our application inventory and the BRM. In addition, because of this approach, we will not have to re-align the almost 800 applications in our inventory. We merely have to modify the alignment of about 30 internal business functions to the BRM.

The implementation of the DRM is in the planning stages. We intend to use a similar approach to those described for the PRM and BRM. We manage our data elements by subject areas, and can associate applications to these subject areas. We will be reviewing the domains and subject areas of the DRM to align with our data subject areas. This approach will provide a layer of isolation between our application inventory and the DRM. As additional DRM modifications are made, it is anticipated that the impact on our application inventory will be minimal.

The ARM is a new reference model, and will require additional analysis to determine our implementation approach. There are a few possibilities. We could use the same approach used for the PRM and BRM – isolating the ARM categories from the applications. Alternatively, we could align applications directly to the ARM. We will be evaluating the pros and cons of each method before moving forward.

Although the Infrastructure Reference Model is a new reference model, it is very similar to the previous TRM. We believe that the same isolation approach used by the PRM and BRM can be applied to the IRM. Our current APM process captures technology characteristics of each application in our inventory. In the coming months, we will be evaluating how these technology characteristics align with the IRM.

The SRM is also a new reference model, to assist with the development of a security architecture based on information security and privacy standards. We are in the early stages of determining the best approach for implementing the SRM into our current security architecture practices.

7.2 Application – Business Alignment

We aligns our business services, as described in Section 4.3, to the FEA BRM, which provides benefit from an internal agency perspective as well as from an overall Federal perspective. Internally, we can use this alignment to identify applications that support a particular business service such as Title II or Title XVI. From an overall Federal Government perspective, OMB may be interested in the various applications developed across the Federal Government that support a particular business service such as Financial Management or Human Resource Management. The following table illustrates our Business Service to FEA BRM sub-function alignment, based on the updated FEA BRM.

Business Service	FEA BRM Sub-Function
Acquisitions	Goods and Services Acquisition
	Inventory Control
Appeals	Judicial Hearing
	Legal Investigation
Asset Management	Facilities, Fleet and Equipment Management
	Inventory Control
	Key Asset and Critical Infrastructure Protection
	Logistics Management
Audit	Inspection and Auditing
Black Lung	Social Security Benefits
Civil Action	Legislation Relations
Data & Statistics	General Purpose Data and Statistics
Data Exchange	Data Exchange
Debt Management	Debt Collection
Disability	Social Security Benefits
Earnings	Social Security Benefits
Enumeration	Social Security Benefits
Financial Resource Management	Accounting
	Budget Execution
	Budget Formulation
	Collections and Receivables
	Federal Funds to States and Local Governments
	Payments
	Reporting and Information
Human Resource Management	Employee Benefits and Compensation
	Employee Development and Training
	Employee Performance Management
	Employee Relations
	Staffing and Recruiting
	Workforce Planning
Informing the Public	Customer Service
	Public Comment Tracking
IT Management	Continuity of Operations

Business Service	FEA BRM Sub-Function
	Enterprise Architecture
	IT Infrastructure Maintenance
	IT System Development / Integration Support
IT Operations Assurance	Continuity of Operations
	IT Infrastructure Maintenance
Legislative	Legislative Relations
	Public Comment Tracking
Policy	Regulatory Compliance
Program Management	Budget and Performance Integration
Quality Assurance	Performance Management
Records Management	Management of Government Records
Rep Payee	External Partner Relationship Management
Research & Development	IT Strategy and Innovation
Security Management	Data Integrity and Privacy Management
	Key Asset and Critical Infrastructure Protection
	Security Management
Strategic Planning	Enterprise Architecture
	IT Strategy and Innovation
	Portfolio Management
	Strategic Planning
Title II – RSI	Case Management
	Social Security Benefits
	Survivor Compensation
Title IV – AFDC	Case Management
	Social Security Benefits
Title VIII – WWII Veterans	Case Management
	Social Security Benefits
Title XVI – SSI	Case Management
	Social Security Benefits
Title XVIII – Medicare	Case Management
	Health Care Administration
Workload Measurement	General Purpose Data and Statistics

Table 70: Business Service – FEA BRM Alignment

8.0 Shared Services Implementation Plan

We have identified two shared services implemented in FY 2013 and extending through FY 2017.

8.1 Data Exchanges and Verifications Online (DEVO)

Challenge

We have a mission critical need to meet the demands of the verification and data exchange workload to ensure the operation of sharing timely, accurate data with customers such as federal agencies, state government agencies, local government agencies, foreign government agencies, court systems, the medical community, and employers. Our verification and data exchange software, as is typical of large organizations, was developed more than 20 to 30 years ago. Modifications to the systems have been added incrementally to meet specific requests. These modifications have resulted in a series of tightly coupled and inflexible software operations that are now outdated and difficult to maintain. They were designed and constructed in a way that does not readily lend to reuse. Any variation to an existing request requires significant modification to or a complete re-write of the application related to that request, which leads to high maintenance costs and the inability to meet customer needs.

This solution, Data Exchanges and Verifications Online (DEVO), is modernizing our legacy Verification and Data Exchange systems into a new centralized application. The DEVO application will replace the many disparate verification and data exchange methods to provide flexible, modern and efficient software that can effectively support our current Verification and Exchange workload.

Business Opportunity

The DEVO application complies with various mandates and external drivers to provide flexible, modern and efficient software that can effectively support our current Verification and Exchange workload. DEVO uses modern technology for parameter driven processing of both batch and real time requests that provides the capability for us to accurately and rapidly respond to customized requests, legislative mandates, and court orders. DEVO will also enhance data exchange and verification Management Information (MI) records to support data driven decisions and compliance enforcement.

Description

DEVO is the back-end application for processing parameter driven SSN verifications and data exchanges. DEVO uses new software and system architecture that uses contemporary programming languages and design structures. The system architecture supports standalone modules, which can process both batch and real time data requests. Legacy verification and data exchange applications will be methodically reengineered into DEVO, which will make use of reusable, flexible software.

Benefits

- Centralized application for processing all varieties of SSN verification and data exchange requests
- Ensure efficient processing and data generation for an increased volume

- Quickly and accurately respond to customized requests and legislative mandates
- Enhance stability and portability
- Reduce maintenance activity
- Enhance MI capabilities
- Leverage new technology while maintaining existing customer requirements
- Provide flexible, modern and reusable software to effectively support our current Verification and Exchange workload

Costs

The Fiscal Year cost savings will appear after DEVO is built and used as the centralized application for processing Verifications and Data Exchanges. The savings will take into account costs associated with no longer maintaining and developing legacy verification and data exchange systems.

Implementation Plan

Task	FY 2014	FY 2015	FY 2016	FY 2017
Replace SSN Verifications with DEVO				
Replace Benefit Data Exchanges with DEVO				

Table 71: DEVO Shared Service Implementation Plan

8.2 Enterprise Print Architecture (EPA)

Challenge

Our printing environment is highly complex and serves a multitude of users within all the different offices across the country. It is comprised of a vast number of system elements hosted on the mainframe and the distributed platforms, and spans multiple network protocols, operating systems, application architectures, and types of printers.

The printing environment has never undergone a critical architectural analysis. The output-printing environment has grown one piece at a time on the mainframe and distributed platforms to satisfy the needs of the users. The current printing architecture is not standardized and is based, in part, on the Systems software developer's application design for print routing and delivery. Our software developers must repeatedly design custom printing capabilities into each new or modified software application due to a lack of standard print services architecture. By continuing the current printing design process by application developers, other print delivery problems will surface requiring ongoing remedial action. Users experience problems with regard to usability, and this often results in re-work and lost productivity. Additionally, the current print routing scheme does not provide easy access from an application to a wide variety of network addressable printers.

Scalability, availability, and reliability are key issues challenging the Office of Systems with regard to printing. High maintenance is required on certain components to minimize the impact on the users

from outages. Logging and tracing mechanisms in the fault isolation process are not well defined and may negatively influence repair intervals. By defining the logging and tracing mechanisms through implementation of the EPA, systems administrators will be able to retrieve and analyze data to determine the expected systems life of printing devices, which could result in the reduction of premature device replacement. New Systems-developed mainframe & WEB applications are challenging the existing print delivery architecture. The need to design a standard print delivery system that is flexible and capable of meeting future demands from planned mainframe and Internet applications became important as a Systems strategic initiative. The printing architecture requires updating to address the existing weaknesses and risks, to leverage existing strengths, take advantage of opportunities to enhance the user experience, change the way printing affects our business and provide new capabilities for Systems to effectively and efficiently secure, operate, maintain and scale various components.

Business Opportunity

Agency-wide implementation of EPA will provide standardized interfaces and architecture for all our printing requirements. It will also enable development of new applications and enhanced functionality in existing applications by specifying a comprehensive set of consistent, universal, service functions. EPA will create standardization of capabilities, interfaces and application behavior that will utilize industry best practices leading to flexibility as it relates to change as technology evolves.

Description

Together, with contractor technical support, we assessed the current printing architecture to define the functional requirements to update the printing architecture. The team then performed an industry analysis to determine the capabilities of the marketplace in meeting the updated requirements. Favorable results from the industry analysis led us to proceed with developing the architectural design and implementation plan for an updated printing services architecture.

We awarded a 6-year negotiated firm-fixed-price delivery order to initiate an Enterprise Print Architecture Proof of Concept (POC), followed by a regional pilot (performed in the Office of Central Operations (OCO)) and to eventually end with an Enterprise Wide Implementation of the Enterprise Print Architecture (EPA) Distributed Output Management (DOM) Service Solution.

We awarded a delivery order that will supply software, maintenance, support services, and training for the National Computer Center (NCC) in Baltimore, Maryland and all regions within the allowed 72 months of the contract.

Benefits

Operational:

- Control who can print/preview what
- Pro-actively receive notifications of printer problems
- Know the status of printers and print jobs

- Report who printed what, when and where
- Track metrics and data (capacity, errors, trends, volumes, SLAs etc.)
- Detailed logs for root cause analysis
- Offload print processing from the Mainframe

End – User:

- Preview print data and selectively print
- Reliably print data from any platform directly to network printers
- Easily manage preferences such as default printers, preview preference etc.
- Know where output printed and when
- Route jobs to appropriate devices – and reroute when needed

Application Development:

- Cost reduction – due to decreased system development lifecycle
- Well defined interfaces
- Access logs to assist in debugging/trouble shooting
- Reduce dependence of critical print functions on limited staffing
- Utilize industry standard COTS for print related services

Costs

The EPA project is currently preparing to execute the regional pilot phase that will initially encompass low rate of initial production (LRIP) ramping up to the full production pilot presenting full functionality to a group of predefined participants. Once the production pilot is complete, ROI, system performance and user acceptance feedback will be compiled and presented. At that time, cost savings and benefits can be determined prior to securing additional funding to perform the full production implementation.

During FY 2008, controlled correspondence was issued to Systems developers in order to determine the level of effort required to provide printing capabilities into new and existing software applications. The results of the survey revealed that on a fiscal year basis, Systems developers devote approximately 12.5 work years to repeated cost of designing, developing and implementing custom print capabilities into the existing infrastructure at a cost of approximately $1.66M per fiscal year.

There are other areas of cost savings including the electronic delivery of print that could eliminate the need for printed hardcopy altogether. Cost savings associated with hardware wear and tear along with paper usage is also possible. There is also a vast amount of information that will be available through device statistics and usage that will assist with assessment of device refreshment and maintenance.

Cost Savings	Estimated Work Years	Annual Cost Avoidance
Cost to custom develop print capabilities	12.5	$1.66M

Table 72: EPA Shared Service Costs

Implementation Plan:

Task	FY 2014	FY 2015	FY 2016	FY 2017
EPA Pilot Implementation				
Production Implementation				

Table 73: EPA Shared Service Implementation Plan

9.0 Conclusion

The SSA Enterprise Roadmap provides an overview of our business and IT architectures, both current and future. This Roadmap indicates a very positive direction toward providing our public client base and our fellow partner agencies with innovative uses of IT for achieving our mission goals and improving communication capabilities. Our primary internal directive is to provide better service to our public, and this Roadmap provides the supporting details showing how that will occur.

The document provides detailed information defining our strategic plans and directions moving from our current state toward our target IT architecture and services state. The plans discussed throughout the Roadmap will guide our progress for getting to that future state.

Many initiatives are described in detail with linkages to our governance process of using Portfolio Management to ensure optimal use of limited resources. We also include performance metrics to guarantee accountability and ensure effectiveness for these initiatives and our overall strategic direction. All of this has been described in this document.

As our EA program matures, we will continue to improve on our governance processes and methodologies to ensure effective and efficient management of Federal Government resources. The Roadmap is a living document that will be used to assist with planning and prioritization of future efforts to continue to support our strategic business plans as they mature.

APPENDIX A: EA Maturity Assessment

The EA Maturity Assessment is a spreadsheet listing each of the 59 core elements of the EAMMF and the preferred evidence, identified by GAO, to satisfy that element. We evaluated our EA program against each core element, indicating whether we satisfied that element, and providing supporting evidence where applicable.

Results:

Stage	Minimum Points Needed	Our Points
Stage 1	18	23
Stage 2	23	28
Stage 3	32	38
Stage 4	25	27
Stage 5	20	25
Stage 6	16	17
Maturity Stage Achieved – Stage 6		

Stage / Core Element	Core Element Title	Enter Agency's score: (Based on the descriptions for values 0 -3)	Prior Score	Current Score	Shared Score	Evidence	Notes on Evidence	GAO Reference Information
1	Written and approved organization policy exists for EA development, maintenance, and use.	0- No policy, 1- Draft policy, 2- Reviewed policy, 3- Approved policy.	1	3		Approved EA Policy is published and posted.	Approved comprehensive policy.	An organization should have a documented policy, approved by the organization head, to institutionalize the architecture's importance, role, and relationship to other corporate management disciplines. Among other things, the policy should define the EA as consisting of the current ("as-is") and target ("to-be") architecture, as well as the transition plan for migrating from the current to the target architecture, and it should provide for EA development, maintenance, and use. The policy should also identify the major players associated with EA development, maintenance, and use, including the chief architect, program office(s), executive committee, investment review board(s), and CIO. It should provide for developing a performance and accountability framework that identifies each player's roles, responsibilities, and relationships and describes the results and outcomes for which each player is responsible and accountable. The policy should also acknowledge the interdependencies and relationships among the EA program and other related institutional management disciplines, such as strategic planning, human capital management, information security management, privacy, records management, and capital planning and investment control.
2	Executive committee representing the enterprise exists and is responsible and accountable for EA.	0- No committee, 1- Chartered Committee, 2- Committee Convenes, 3- Committee makes Decisions.	1	3		The Agency Chief Architect, ADG and EA staff within OESAE plus the Portfolio Executives make up the Executive Committee and EA PMO.	A charter that includes executive level assignment to the committee.	An organization should assign responsibility and accountability for directing, overseeing, and approving the architecture not to just one individual, but to a formally chartered executive committee with active representation from across the enterprise. Establishing enterprisewide responsibility and accountability is important for demonstrating the organization's institutional commitment to EA and for obtaining buy-in from across the organization. Accordingly, this committee should be composed of executive-level representatives from each line of business, and these representatives should have the authority to commit resources and enforce decisions within their respective organizational units. If the EA extends beyond traditional organizational boundaries (e.g., across multiple departments or agencies), this executive committee should also include executive representation from other related organizations. This committee, which is typically chartered by the head of the organization (e.g., the department or agency head), should be responsible for establishing the EA's purpose, goals, strategy, and performance and accountability framework, and for ensuring that EA plans, management processes, products, and results are achieved. To augment the executive committee, subordinate committees may also exist for federation, segment, and extended enterprise members. Such subcommittees should also define their respective roles, responsibility, authority, accountability, and relationship to other executive bodies.

Stage	Core Element	Core Element Title	Enter Agency's score: (Based on the descriptions for values 0 -3)	Prior Score	Current Score	Shared Score	Evidence	Notes on Evidence	GAO Reference Information
	3	Executive committee is taking proactive steps to address EA cultural barriers.	0-No committee exists, 1- Exec Committee is intent on furthering EA acceptance, 2- Exec Committee work is integral to EA acceptance, 3- Exec Committee actions have enabled EA to be effective enterprisewide.	1	2		The Committee is currently developing a Communications Plan for the EA Program.	Meeting Minutes, declaration or other demonstration.	Parochialism and cultural resistance to change are significant barriers to organizations having a mature EA. Accordingly, we have previously reported on the need for sustained executive leadership to overcome these and other barriers. Among other things, this can include proactive steps by the executive committee and its members to promote and reward EA-related collaboration across organizational boundaries, commit component organization resources to EA activities, and encourage the disclosure and adoption of EA shared services. Similarly, subordinate committees and their members should also take proactive steps to address cultural barriers.
	4	Executive committee members are trained in EA principles and concepts.	0-No Training 1- Executive Training Plan/Materials, 2- Complete EAB training for Enterprise Architecture, 3- Complete EAB training for Segment Architecture.	1	3		The Executive Committee membership is fluent and experienced in all aspects of EA principles, concepts, and methodologies.	Formal record of training.	Executive committee members need to understand basic EA principles, structures, and concepts in order to effectively execute the committee's roles and responsibilities. Therefore, each committee member should complete sufficient training to provide the member with a basic understanding of the fundamentals of EA management, development, maintenance, and use. If applicable, such training should also provide committee members with a basic understanding of the organization's approach to identifying and developing subordinate architectures. If training is acquired commercially, steps should be taken to ensure that the training is appropriately tailored to the needs of organizational executives. Similarly, subordinate committee members should also receive targeted EA-related training.

Stage	Core Element	Core Element Title	Enter Agency's score: (Based on the descriptions for values 0 -3)	Prior Score	Current Score	Shared Score	Evidence	Notes on Evidence	GAO Reference Information
Stage 3	5	Chief architect exists.	0– No Chief architect, 1- Position identified, 2- Acting/Detailed Chief Architect, 3- FTE Chief Architect hired.	3	3		The Agency CIO has appointed a Chief Architect.	Position has been identified, documented and funded.	A successful EA program should be led by an individual who is well versed and knowledgeable about all aspects of architecture development, maintenance, and use and who can serve as the interface between the organization's business and IT communities. Accordingly, an organization should have a chief architect who leads the corporate EA program office and who is responsible for EA development and maintenance and accountable to the executive committee. The chief architect is typically an organization executive whose background and qualifications span both the business and technology sides of the organization. Because the chief architect also typically serves as the EA program manager, this person should be knowledgeable about program management as well as capital planning and investment control, systems engineering, and organization and data modeling. The chief architect (in collaboration with the CIO, executive committee, and the organization head) is instrumental in obtaining organizational buy-in for the EA (including support from the business units) and in securing resources to support architecture management functions, such as risk management, configuration management, and quality assurance. As such, the chief architect acts as the corporate spokesperson and advocate for EA adoption. When federation and segmentation approaches are used, lead architects should also be designated for these component efforts and, like the chief architect, these lead architects should similarly be knowledgeable about and skilled in EA promotion, development, and use.

Stage	Core Element	Core Element Title	Enter Agency's score: (Based on the descriptions for values 0 -3)	Prior Score	Current Score	Shared Score	Evidence	Notes on Evidence	GAO Reference Information
	6	EA purpose is clearly stated.	0- No purpose statement, 1- Draft Statement 2- Approved Statement, 3- Published Statement.	2	3		SSA's EA Program purpose can be found in the EA Policy, EA Program Plan, and the EA website documentation.	A document exists that has been published and/or shared which describes EA for the entity.	The purpose of the organization's EA drives virtually all aspects of how the EA program will be planned and executed, including the EA framework, methodology, plans, products, and tools. The purpose of an EA can range from consolidating the organization's IT infrastructure, to normalizing and integrating its data and promoting information sharing, to reengineering core business/mission functions and processes, to modernizing applications and sharing services, to modernizing the entire IT environment, and to transforming how the organization operates. Regardless of the purpose, which will in turn drive the expected value to be realized from the EA's implementation (e.g., reduced operating costs, enhanced ability to quickly and less expensively change to meet shifting external environment and new business demands/opportunities, improved alignment between operations and strategic goals and operations, etc.), it needs to be clearly defined by the executive committee and be communicated to and understood by all stakeholders and corporate and subordinate architecture staff. In addition, the purpose needs to be aligned with and supportive of the organization's overall strategic plan's goals, objectives, and outcomes, and it needs to be used to help establish the purpose of each subordinate architecture.
	7	EA framework(s) is adopted.	0- No Framework, 1- Framework selected, 2- Framework adopted, 3- Framework implemented.	2	3		This is documented in the EA Program Plan and the EA Governance Plan.	A document exists that describes the specific framework adopted.	To effectively and efficiently develop an EA, an organization should use an architecture framework, which can be viewed as an EA content taxonomy, to define the specification of the suite of EA products and artifacts to be developed, used, and maintained, and the relationships among them. As such, the framework is instrumental in promoting consistent and collaborative representations of architectural information across the organization. Our prior work has shown that organizations have experienced various levels of satisfaction in using a range of frameworks. Consequently, organizations need to carefully evaluate framework options to ensure that they effectively support achievement of the EA's stated purpose.

Stage	Core Element	Core Element Title	Enter Agency's score: (Based on the descriptions for values 0 -3)	Prior Score	Current Score	Shared Score	Evidence	Notes on Evidence	GAO Reference Information
	8	EA performance and accountability framework is established.	0- No Framework, 1- Draft Framework, 2- Framework Implemented, 3- Framework aligned to GPRA measures.	2	3		The DCS, ADG and Chief Architect ensure an accountability framework.	Documented framework for performance and accountability exists.	Successfully managing any program, including an EA program, depends in part on establishing clear commitments and putting in place the means by which to determine progress against these commitments and hold responsible parties accountable for the results. Because the EA is a corporate asset, and its development and use are corporate endeavors involving a host of organizational players, a corporate approach for measuring EA progress, management capacity, quality, use, and results should be established that extends to all levels of the organization involved in the EA. In particular, it should recognize the critical roles and responsibilities of key stakeholders, including the executive committee, the CIO, the chief architect, investment review board(s), and all subordinate committees and architects, and it should provide the metrics and means for ensuring that these roles and responsibilities are fulfilled and any deviations from expectations are documented and disclosed.
	9	EA budgetary needs are justified and funded.	0- No budget, 1- Enterprise Standard Defined, 2- Funded at Nominal Level, 3- Resourced at least to Standard.	2	3		The EA Program is funded from SSA's IT budget as reflected in the OMB Exhibit 53.	EA budgetary needs are justified and funded.	An organization should have sufficient resources to establish and execute its EA program. Accordingly, program plans and activities should be appropriately justified and adequately funded. Among other things, funding requests should be based on reliable program cost estimates and justified based on expected EA program benefits, such as improvements to organization efficiency, better product and/or service delivery, and reduced investment and/or operating costs. In so doing, the organization should recognize that its EA is an investment in its future, and thus the EA should be viewed as a capital asset whose cost is not solely a current period expense. By funding EA as a capital investment, an organization's leadership demonstrates its long-term commitment to having and using an EA to inform investment decision making and optimize mission-facing and mission-supporting operations.

Stage	Core Element	Core Element Title	Enter Agency's score: (Based on the descriptions for values 0 -3)	Prior Score	Current Score	Shared Score	Evidence	Notes on Evidence	GAO Reference Information
	10	EA program office(s) exists.	0- Does not exist, 1- Draft charter, 2- Approved charter, 3- Organizational chart/Staffing Matrix.	2	3		The Agency Chief Architect, ADG and EA staff within OESAE make up the Executive Committee and EA PMO.	EA program office(s) exists.	EA development and maintenance should be managed as a formal program. Accordingly, a corporate EA program management office should be chartered. While the program office is typically within the Office of the CIO, another organizational option is to place it under the purview of the organization's chief operating officer or chief management officer, and to align it closely with the organization's strategic planning or continuous process improvement functions. Regardless, the program office should be responsible to the EA executive committee for ensuring that those core elements that are within its span of authority and control, as discussed throughout this framework, are met. Among other things, this includes EA program planning and performance monitoring, EA development and maintenance using supporting tools, and EA quality assurance, configuration management, and risk management. The corporate program office can be augmented by subordinate architecture program offices or core teams responsible for their respective subordinate architecture programs, processes, and products.
	11	Key program office leadership positions are filled.	0- Does not exist, 1- 25% staff on-board, 2- 50%, 3- 75%.	2	3		CIO, Chief Architect, Enterprise Architects, and Solutions Architects are all members of the EA Program team.	Key program office leadership positions are filled.	The chief architect designated in Stage 1 typically serves as the EA program office manager, and should be supported by a range of program office leadership positions (reference table 7, page 53. GAO-10-846G). In filling these positions, the chief architect should leverage the program office's human capital management capabilities discussed in the next core element. Consistent with the corporate EA program office, subordinate architecture program offices or core teams should be led by their respective lead architects, all of whom should also ensure that their key leadership positions are filled.

Stage	Core Element	Core Element Title	Enter Agency's score: (Based on the descriptions for values 0 -3)	Prior Score	Current Score	Shared Score	Evidence	Notes on Evidence	GAO Reference Information
Stage 2	12	Program office human capital plans exist.	0- No plan, 1- Reference plan, 2- Customized plan, 3- Approved plan.	2	3		EA human capital planning is coordinated through the DCS Human Capital Plan with links to the IT Skills Inventory.	Program office human capital plans exist.	Having sufficient human capital to successfully develop and maintain the corporate EA is the responsibility of the chief architect, and it begins with identifying human capital needs and developing a plan for acquiring, developing, and retaining qualified staff with the requisite knowledge, skills, and abilities. The process of identifying program office human capital needs and developing a plan to address them should be governed by human capital management best practices, as defined in relevant guidance, such as GAO's Model of Strategic Human Capital Management and the Office of Personnel Management's (OPM) Human Capital Assessment Accountability Framework. This guidance can be applied to individual programs such as an EA program. In short, it provides for assessing existing human capital capabilities, defining needed capabilities, and performing a gap analysis to identify the positions that need to be filled and their required qualifications. The EA human capital plan is the vehicle for addressing identified gaps by, for example, training existing staff, hiring new staff, and using contract staff, and should also address staff retention, development, and recognition and reward. For organizations that have adopted, for example, a federated architecture approach, human capital planning for each subordinate architecture should also be performed. While the formality of these planning efforts will vary depending on the size, scope, and complexity of the respective architecture efforts, it is important that this planning reflect the basic tenets of effective human capital management provided in GAO and OPM guidance.
	13	EA development and maintenance methodology exists.	0- No Methodology, 1- Development Defined, 2- Development Implemented or Maintenance Defined, 3- Development & Maintenance implemented.	3	3		Delineated in the EA Program Plan and the EA Governance Plan.	EA development and maintenance methodology exists.	An EA methodology defines the steps to be followed to generate and sustain the desired set of architecture artifacts, as identified in the EA framework(s). As such, the methodology or methodologies that corporate and subordinate program offices select and employ should address how the architecture products provided for in the selected EA content framework will be developed and maintained to ensure that they are, among other things, consistent, complete, aligned, integrated, and usable. Because of its pivotal role, the methodology should be documented, understood, and consistently applied, and should provide the standards, tasks, tools, techniques, and measures to be followed in developing and maintaining the architecture products. One example of an architecture methodology is the Collaborative Planning Methodology. According to OMB and the CIO Council, this methodology provides steps for developing a core mission area segment architecture and includes guidance for tailoring the approach to develop business service and enterprise service segment adaptations.

Stage	Core Element	Core Element Title	Enter Agency's score: (Based on the descriptions for values 0 -3)	Prior Score	Current Score	Shared Score	Evidence	Notes on Evidence	GAO Reference Information
St	14	Automated EA tools exist.	0- No tools, 1- Offline tools, 2- Online tools, 3- Agency-wide access to tools e.g. Data Center.	3	3		As defined in the EA Governance documentation, SSA's EA Program uses automated tools to house and make available EA artifacts and guidance.	Automated EA tools exist.	Information about how the enterprise operates is captured and maintained in a variety of sources, such as the business vision statement, business strategy, performance and accountability plans and reports, policies, procedures, and guidance. Assimilating this information to support organizational transformation by creating a holistic view of the current and future state of the enterprise can be a challenging endeavor. Automated tools support this endeavor by assisting in the process of extracting, assimilating, relating, and presenting this organizational information. Automated EA tools can be used to graphically and textually capture information described by the framework, such as information or activity models, and can assist in developing, communicating, storing, structuring, relating, accessing, and maintaining the architecture products described in the EA framework and methodology (e.g., business process models and data models). Our prior work has shown that federal agencies have experienced various levels of satisfaction in using a variety of EA tools. As a result, organizations should carefully consider their options when selecting EA modeling and/or repository tools. (Reference Table 8, page 56, GAO-10-846G for a lists of factors to consider in selecting tools.)
	15	EA program management plan exists and reflects relationships with other management disciplines.	0- No Plan, 1- Draft EA program Plan, 2- Plan relationships established, 3- Approved Plan.	2	3		EA Program Plan and EA Governance Plan define these relationships.	EA program management plan exists and reflects relationships with other management disciplines.	An EA program management plan should describe the means by which the corporate EA program will be managed. As such, this plan defines the range of management structures, controls, disciplines, roles, and accountability mechanisms discussed throughout the EAMMF. Moreover, the plan should describe, at least notionally, the major EA releases or increments to be developed, and in doing so, should be aligned with the EA frameworks and methodologies to be employed. In addition, the plan should be approved by the chief architect and the executive committee, and it should address how EA program management will be performed in concert with other institutional management disciplines, such as organizational strategic planning, strategic human capital management, performance management, information security management, and capital planning and investment control. While the program management plan can be self-contained, it can also be supported by subordinate plans that more specifically address key EA management areas, such as an organization communication plan, a human capital management plan, a configuration management plan, a risk management plan, and a quality assurance plan.

Stage / Core Element	Core Element Title	Enter Agency's score: (Based on the descriptions for values 0 -3)	Prior Score	Current Score	Shared Score	Evidence	Notes on Evidence	GAO Reference Information
16	Work breakdown structure and schedule to develop EA exist.	0- No WBS, 1- Draft WBS, 2- Approved WBS, 3- WBS/IMS is used by program.	2	2		The development and finalization of the EA Work Breakdown Structure is currently underway.	Work breakdown structure and schedule to develop EA exist.	Each program management plan should be supplemented by a work breakdown structure that decomposes the specific tasks, activities, and events needed to execute the program, as well as a reliable schedule that defines the timing, sequencing, and duration of the tasks, activities, and events. Among other things, the selected EA framework and methodologies as well as the program management plan should help to inform the work breakdown structure and schedule. Because the EA program is a major organizational undertaking, both in terms of significance and of resources, the work breakdown structure and schedule should be derived in accordance with best practices, as provided in GAO's Cost Estimating and Assessment Guide. According to this guidance, the work breakdown structure is to provide a clear picture of what needs to be accomplished to develop a program and provide a basis for identifying resources and tasks for developing a cost estimate. In addition, the success of any program depends in part on having a reliable schedule that defines, among other things, when work activities will occur, how long they will take, and how they are related to one another. As such, the schedule not only provides a road map for the systematic execution of a program, but also provides the means by which to gauge progress, identify and address potential problems, and promote accountability.
17	EA segments, federation members, and/or extended members have been identified and prioritized.	0- No segments identified, 1- Segment Identified, 2- Segments Prioritized, 3- Priorities communicated	2	3		At SSA, EA Segments are defined as Strategic Portfolios and are managed and prioritized by their respective business owners.	EA segments and/or federation and external members have been identified	Organizations that adopt segmented or federated architecture approaches should identify and prioritize their subordinate or member architecture components. The initial identification and prioritization of components should be performed by the corporate EA program office and approved by the executive committee. Factors that should be considered in identifying, prioritizing, and approving segments and federation members include strategic improvement opportunities, needs and performance gaps, organizational structures and boundaries, relevant legislation and executive orders, and key component organizational and program dependencies. Consistent with the EA communication plan, organizations should ensure that these priorities are communicated throughout the organization.
18	Program office readiness is measured and reported.	0- No metrics, 1- Draft readiness metrics, 2- Measurements collected, 3- Metrics reported.	2	2		PMO oriented performance measures are being identified and expanded.	Program office readiness is measured and reported.	The capacity of the corporate and subordinate EA program offices to manage their respective EA programs will largely be determined by the organization's satisfaction of the Stage 2 core elements. Thus, it is important to measure and understand the extent to which the framework's people, processes, and tools enablers have been put in place and to share this readiness information with the executive committee, chief architect, and subordinate architects.

Stage / Core Element	Core Element Title	Enter Agency's score: (Based on the descriptions for values 0 -3)	Prior Score	Current Score	Shared Score	Evidence	Notes on Evidence	GAO Reference Information
19	Organization business owner and CXO representatives are actively engaged in architecture development.	0- No external stakeholders are engaged, 1- One or more external business/program leaders are actively engaged in EA development, 2- EA development is important to several external stakeholders and business leaders, 3- The majority of organizational owners are actively engaged in furthering the development of EA as it contributes to the organization's business decisions	2	2		Portfolio executives take an active role in developing their projects in accordance with EA principles while the Agency CXO level executives are being made aware of EA benefits.	Organization business owner and CXO representatives are actively engaged in architecture development.	Because the scope of the EA is organizationwide, its stakeholders include all business owners and chief "X" officers (CXO). While many of these senior executives will be engaged in the EA program as members of the executive committee, it is equally important that their representatives, as subject matter experts, be actively engaged with EA program staff in developing the corporate and subordinate architecture products, particularly those products that capture information that is best known and understood by the subject matter experts. As such, these representatives should be assigned to the appropriate corporate and subordinate program offices and should work with the architecture staff in developing EA products. For an organization whose EA scope extends to other external organizations, the chief architect should work with his or her counterpart in these other organizations to ensure interorganizational EA alignment.
20	EA human capital plans are being implemented.	0- No Plan, 1- Human Capital/HR Plan is documented, 2- Planned requirements not yet fulfilled, 3- HR requirements fully met.	1	2		EA human capital planning is coordinated through the DCS Human Capital Plan with links to the IT Skills Inventory.	EA human capital plans are being implemented.	Corporate and subordinate EA program offices should be staffed with employees with the knowledge, skills, and abilities needed to manage the EA program, including the means by which to oversee and manage contractors that are tasked with delivering EA product content or supporting EA management functions. To accomplish this, the program office(s) should have begun to implement the human capital plans developed in Stage 2, to include hiring and training staff in a manner consistent with the approved plan.

Stage / Core Element	Core Element Title	Enter Agency's score: (Based on the descriptions for values 0 -3)	Prior Score	Current Score	Shared Score	Evidence	Notes on Evidence	GAO Reference Information
21	Program office contract support needs are being met.	0- No Plan, 1- EA Program contractor requirements documented, 2- Contractor requirements not yet fulfilled, 3- Contractor requirements fully met and accurately tracked.	1	3		EA Program Management Office tasking is currently divided between permanent staff and qualified contractor support as needed.	Program office contractor support needs are being met.	Contractor support is an integral component of program office human capital capacity. For example, all federal departments and agencies included in our 2006 EA management survey reported developing their EAs using contractor support, which accounted for the majority of the agencies' EA development costs. Accordingly, the corporate and subordinate program offices need to ensure that the human capital plan's provisions for contractor support are implemented so that the appropriate degrees of contractor expertise, skills, and competencies are acquired and assimilated into the program office. As we have previously reported, agencies should use performance-based contracting to the maximum extent practicable when acquiring EA contract support. Further, agencies should follow relevant acquisition management guidance pertaining to contractor tracking and oversight, to include, among other things, • establishing a written policy for contract tracking and oversight, • designating responsibility for contract tracking and oversight activities, • establishing a group that is responsible for managing contract tracking and oversight activities, and • using approved contractor planning documents as a basis for tracking and overseeing the contractor.
22	Program office staff are trained in EA framework, methodology, and tools.	0-No staff trained, 1- 49% or fewer trained in EA concepts and methods, 2- 50% or greater trained in EA frameworks, tools, methods; 3- Nearly all EA staff fully trained in their respective EA specialties.	2	3		All EA PMO staff are up to date and fully conversant in EA methodologies	Program office staff are trained in EA framework, methodology, and tools.	Corporate and subordinate program office staff, including support contractor staff, should understand the framework, methodology, and automated tools that are to be used to develop and maintain the EA products. Consequently, consistent with the program's human capital management plan, steps should be taken to define and deliver training to meet these needs. Such training, whether provided by program office staff, a contractor, or both, should be customized to the program's selected EA framework, methodology, and tools, and should include a means for ensuring that sufficient staff understanding has been achieved. Further, the training should be tailored to specific staff roles and responsibilities.

Stage	Core Element	Core Element Title	Enter Agency's score: (Based on the descriptions for values 0 -3)	Prior Score	Current Score	Shared Score	Evidence	Notes on Evidence	GAO Reference Information
	23	Methodologies and tools exist to determine investment compliance with corporate and subordinate architectures.	0- No tools assess investments and EA compliance, 1- Analysis of EA compliance is done randomly, 2- Tools exist and are used periodically to assess EA investment compliance, 3- Enterprise-wide online tools and methods exist and regularly used to assess EA compliance.		3	3	Within the CPIC process, Exhibit 53 and 300 investments are reviewed and must align with EA requirements.	Methodologies and tools exist to determine investment compliance with corporate and subordinate architectures.	An organization's investments should be aligned with and comply with the applicable components (e.g., business, information/data, technical) of the current version of the corporate and subordinate architectures and should not be selected and approved under the organization's capital planning and investment control (i.e., investment management) approach unless such compliance is documented by the investment sponsor, substantiated by the architecture assessment team, and approved by the investment review board(s). Accordingly, organizations should document and consistently apply a methodology and supporting tools for assessing investments' architectural compliance. Among other things, the methodology should focus on the relevant architecture artifacts in the current versions of both the corporate and subordinate EAs, as applicable. Further, architectural compliance should be integrated with and reflected in the investment management and system life cycle management processes. As we have previously reported, investment compliance with the EA is not a onetime event, but rather is a key decision consideration at each major investment milestone, and the EA artifacts that apply will vary as the investment proceeds through its life cycle. In addition, the methodology and tool should not treat alignment as a binary—yes or no—determination, but rather should treat areas of noncompliance and misalignment as individual areas of risk, which collectively form a composite architecture compliance risk that should be disclosed to investment decision makers and proactively managed. The methodology should allow exceptions to architecture compliance only on the basis of compelling analytical justification and should state that such exceptions are captured in documented EA waivers that are in turn used to update the EA.

Stage	Core Element	Core Element Title	Enter Agency's score: (Based on the descriptions for values 0 -3)	Prior Score	Current Score	Shared Score	Evidence	Notes on Evidence	GAO Reference Information
Stage 3	24	Methodologies and tools exist to determine subordinate architecture alignment with the corporate EA.	0- No tools exist to assess alignment, 1- Analysis of subordinate EA alignment is done randomly, 2- Tools exist and are used periodically to assess EA alignment with subordinate architectures, 3- Tools and methods exist and are used regularly to assess EA alignment with subordinate architectures (including business, information/data, technical).	2	3		A mature implementation of SSA's EA methodology and related tools is ensured through the governance of the ARB, SEPG, and associated processes. Knowledge Base artifacts satisfy this requirement.	Methodologies and tools exist to determine subordinate architecture alignment with the corporate EA.	An organization's subordinate architectures should be aligned with the corresponding components (e.g., business, information/data, technical) of the current version of its corporate EA. Such alignment will help in identifying the linkages between the subordinate architectures and the corporate EA, provide for sharing common applications and systems across the organization, and promote interoperability and data sharing among related programs. Accordingly, organizations should document and consistently apply a methodology and supporting tools to assess subordinate architecture alignment with the corporate EA. As is the case with investment compliance with the EA, the methodology and tools should recognize that alignment among architectures is a continuous risk-based determination that needs to be mitigated and disclosed to, among others, the executive committee.
	25	EA-related risks are proactively identified, reported, and mitigated.	0- No risk tracking, 1- Risks are identified, 2- Risks are routinely identified and reported upon, 3- Risks to EA implementation are proactively identified, regularly reported upon and mitigation steps are documented.	2	2		EA Program Plan is being updated to include risk mitigation.	EA-related risks are proactively identified, reported, and mitigated.	Like any program that involves the development and maintenance of an enterprise asset, an EA program is intended to deliver specific capabilities and expected mission benefits for an estimated cost according to a defined schedule. Accordingly, an EA program will face a myriad of risks that might affect the accomplishment of these commitments and thus should be proactively managed. These risks should be formally managed in accordance with relevant risk management guidance. To the extent that any of the core elements in this framework are not being satisfied, a risk to the program will exist, although the severity of the risk may vary depending on the specific core element. For example, an organization that has developed an EA compliance methodology and associated tools, but lacks important information, data, or technology content in its EA, risks developing systems that are not defined and designed in a manner that promotes interoperability.

Stage	Core Element	Core Element Title	Enter Agency's score: (Based on the descriptions for values 0 -3)	Prior Score	Current Score	Shared Score	Evidence	Notes on Evidence	GAO Reference Information
	26	Initial versions of corporate "as-is" and "to-be" EA and sequencing plan are being developed.	0- No documented as is or to be targets, 1- EA as is documented, 2- EA as is and to be targets documented, 3- Approved EA as is and to be targets.	3	3		This is identified in the Enterprise Roadmap.		As we have previously reported, EA development typically occurs in an incremental fashion, whereby an initial version is developed as the foundation upon which to evolve and build increasingly more comprehensive, detailed, and complete versions. To create this initial version, the corporate EA program office should leverage the range of people, process, and tool enablers discussed in the Stage 2 and 3 core elements (e.g., human capital frameworks, methodologies, modeling tools, repositories), and it should do so in accordance with the management plans, budgets, and schedules also discussed as part of these Stage 2 and 3 core elements. Further, it is imperative that the initial version of the corporate EA be enterprisewide in scope, and that it describe both the current ("as-is") environment and the future ("to-be") environment, as well as a plan for moving from the current to the target environment. (See later core elements for further details on the content of these descriptions and this plan.)
	27	Initial version of corporate EA describing the enterprise in terms of performance, business, data, services, technology, and security is being developed.	0- No Corporate EA Performance Plan, 1- Drafted EA including 2 or more aspects referenced, 2- EA drafted referencing security, business, and technology, 3- Approved complete EA.	3	3		This is identified in the Enterprise Roadmap.		In Stage 3, development of the initial version of the corporate EA should begin in earnest and should include the full range of conceptual models that are provided for in the selected EA content framework(s). At a minimum, this content should address the following key aspects of the enterprise: corporate performance, operations, information/data, applications/services, technology, and security. As a general rule, the corporate EA need only contain that thin layer of corporate outcomes, policies, rules, standards, and protocols that all component parts or slices will be expected to adopt and reflect.
	28	One or more segment and/or federation member architectures is being developed.	0- No segments identified or defined, 1- One or more segments identified and under development, 2- Two or more segments fully documented, 3- All segments identified, aligned with EA, and integral to development of the target architecture.	3	3		All Portfolio architectures are aligned with Agency objectives and EA principles.	One or more segment and/or federation member architectures is being developed.	As we have previously reported, successful EA development for large, complex federal agencies does not involve an "all-or-nothing," monolithic approach. Rather, EA development typically follows a "divide and conquer" strategy in which the level of architectural detail needed to guide and constrain individual investments is created for distinct organizational components or functional slices of the enterprise (i.e., "children") and in a way that ensures that the distinct parts or slices are architecturally aligned with the organization's corporate (i.e., "parent") EA. In general, these children can be viewed as either enterprise segments or federated members. In taking one or both of these approaches, the EA is developed incrementally through segmented and/or federated architectures that are consistent and aligned with an overall corporate EA and developed according to the priorities defined in Stage 2. In so doing, the level of architectural content that needs to be defined to sufficiently inform high-priority, near-term system investments can be established relatively quickly, thus allowing the benefits of the EA to be realized sooner rather than later.

Stage / Core Element	Core Element Title	Enter Agency's score: (Based on the descriptions for values 0 -3)	Prior Score	Current Score	Shared Score	Evidence	Notes on Evidence	GAO Reference Information
29	Architecture products are being developed according to the EA content framework.	0- No EA Products traceable to a framework, 1- Plan exists for producing EA artifacts according to a selected framework, 2- 1 or more EA products reflected in documented framework, 3- Complete alignment of EA products and documented selected framework.	2	3		The EA Knowledge Base contains models and artifacts developed and aligned with the Agency EA principles.	Architecture products are being developed according to the EA content framework.	To varying degrees, EA content frameworks identify the collection of architecture artifacts that are to be developed as well as the relationships and dependencies that exist among these artifacts. For example, a framework may include an artifact that describes information exchanges among operational activities, and the information being exchanged in this artifact may link to data elements described in a conceptual data model artifact. Accordingly, the initial version of the corporate and subordinate EAs developed during this stage should consist of the set of products that are provided for in the selected content framework(s) being used. By doing so, architecture content across the organization can be transparent to and understood by those responsible for using it, thereby increasing the chances that the products will meet key quality attributes (i.e., consistency, usability, etc.).
30	Architecture products are being developed according to a defined EA methodology.	0- No products from an EA methodology 1- Plan exists for producing EA artifacts according to a methodology, 2- 1 or more EA products reflected in documented methodology, 3- Complete set of EA products traceable to a selected and documented EA methodology.	2	3		The EA Knowledge Base contains models and artifacts developed and aligned with the Agency EA principles.	Architecture products are being developed according to a defined EA methodology.	The purpose of the EA methodology is to provide architecture players and stakeholders with a shared understanding of the architecture development approach, including defined steps, tasks, standards, tools, techniques, and measures that are to be used to create the specified EA products. Through such an understanding, a repeatable and consistent process to product development can result. To accomplish this, the initial versions of the corporate and subordinate EAs being developed during this stage should be developed in accordance with the selected methodology or methodologies.

Stage	Core Element	Core Element Title	Enter Agency's score: (Based on the descriptions for values 0 -3)	Prior Score	Current Score	Shared Score	Evidence	Notes on Evidence	GAO Reference Information
	31	Architecture products are being developed using EA tools.	0- No tools exist to aid EA development, 1- A plan exists for using available EA development tools, 2- EA development tools are used to define and capture information according to a documented methodology, 3- Complete set of EA products are developed and traceable to documented EA methodology (including automated modeling and data repository tools).	3	3		The EA Knowledge Base contains models and artifacts developed and aligned with the Agency EA principles.	Architecture products are being developed using EA tools.	Developing the corporate and subordinate EA products specified in the selected content framework and executing the methodology for developing these products is a complex and resource-intensive undertaking. To assist in meeting this challenge, EA development tools should be effectively leveraged to help capture and relate defined corporate and subordinate architecture product content and to help ensure the content's completeness, accuracy, usability, and consistency. A range of automated modeling and repository tools, as discussed earlier, exists to perform these functions. Steps should be taken to ensure the full and necessary utilization of these tools.
	32	Architecture development progress is measured and reported.	0- EA development is not measured or reported upon, 1- EA development is reported upon, but not routinely assessed, 2- EA development is periodically measured against schedule, cost, etc. and reported upon, 3- A strong program of measurement and reporting aids EA development (including WBS, costs and external program commitments).	2	2		EA performance metrics are currently being identified and enforced.	Architecture development progress is measured and reported.	A key aspect of managing the range of activities under way during this stage is to track and disclose the progress being made in completing them. To accomplish this, execution and completion of corporate and subordinate architecture tasks defined in the EA program plan, work breakdown structure, and schedule, as well as their associated costs, should be measured relative to existing commitments, and this progress should be reported through the chief architect to the executive committee. Through such progress measurement and reporting, deviations from expectations can be identified, corrective action to address the root cause of any deviations can be taken, and responsible persons can be held accountable for achieving approved commitments.

Stage / Core Element	Core Element Title	Enter Agency's score: (Based on the descriptions for values 0 -3)	Prior Score	Current Score	Shared Score	Evidence	Notes on Evidence	GAO Reference Information
33	Executive committee has approved the initial version of corporate EA.	0-Exec Committee does not approve EA, 1- Exec Committee has authority to approve EA products (such as initial versions), 2- Exec Committee is actively working to further EA and gain approval, 3- Exec Committee has formally approved initial versions of EA (including "as is" & target environments).	3	3		The CIO and Chief Architect have approved SSA's implementation of the Federal EA and has documented the same in the EA Roadmap.	Formal evidence of committee approval of EA.	As we have previously reported, a corporate EA represents the thin layer of policies, capabilities, and standards that apply across an organization and need to be adopted by and reflected in all subordinate architectures. As the entity ultimately accountable for EA development and maintenance, the executive committee should review and approve the initial release of the corporate EA and all subsequent major releases. Such approval demonstrates institutional buy-in and commitment to the architecture, and thus facilitates organizationwide acceptance and use of the EA.
34	Key stakeholders have approved the current version of subordinate architectures.	0-Stakeholders do not approve subordinate architectures, 1- Stakeholders do have authority to approve subordinate architectures, 2- Key stakeholders actively engaged in reviewing EA and subordinate architectures, 3- Key stakeholders have approved current version of EA and subordinate architectures (demonstrating organizational buy-in).	3	3		All Portfolio Managers and Executives have approved the approaches.	Documented approval.	As the entities who will be ultimately accountable for implementing solutions associated with the subordinate architectures, each subordinate architecture's core team and key stakeholders, such as the affected business owners and/or executive sponsors, should review and approve the initial release of the subordinate architecture and all subsequent major releases. Such approval denotes buy-in of affected organizational entities, and thus facilitates acceptance and use of the subordinate architectures.

Stage / Core Element	Core Element Title	Enter Agency's score: (Based on the descriptions for values 0 -3)	Prior Score	Current Score	Shared Score	Evidence	Notes on Evidence	GAO Reference Information
35	EA is integral to the execution of other institutional management disciplines.	0-EA is generally not regarded as useful, 1- EA products are used at various levels of program and project management, 2- EA products and program activities benefit a range of organizational decision-making, 3- EA products consistently inform and influence execution of other management disciplines through processes such as, acquisition selection, investment management, administration of the project/portfolio lifecycle, etc.	1	2		The ASP and APP are the basis for SSA's EA Program while the APM process includes EA principles.	Documented plans and/or processes that identify EA input into other management disciplines.	EA is one of several interrelated institutional management disciplines that collectively provide the means for an organization to be successful in meeting its mission goals and target outcomes. Among others, these disciplines include strategic planning, human capital management, capital planning and investment control, system development and acquisition management, enterprise risk management, and performance management. EA is a contributor to many of these disciplines. In particular, it provides the bridge between strategic planning and program implementation, it informs human capital strategic planning and capital planning and investment control decision making, and it provides a critical underpinning to institutional performance management. As a result, the EA should be an integral input into the execution of each of these management disciplines.
36	Program office human capital needs are met.	0- No documented HR plan for EA, 1- EA Program HR needs are documented, 2- EA Program is staffed below its documented requirements, 3- EA Program HR requirements are fully met (including the knowledge, skills, abilities to execute EA functions and roles).	1	2		While all members of the PMO function are fully capable in all aspects of EA development and implementation, additional support staff and skills are still needed to complete the EA PMO staffing requirements	Status report reflecting progress against human capital plan.	Having filled its key leadership positions and developed and implemented its human capital plans, the corporate and subordinate EA program offices have now acquired, either through training, direct hiring, organizational transfer, or contracting, the people that they need to execute the organization's EA program plans and schedules. Collectively, these people should possess the knowledge, skills, and abilities required to execute the functions and associated roles and responsibilities that formed the basis for the capability gap analysis in the human capital strategic plan developed during Stage 2.

Stage	Core Element	Core Element Title	Enter Agency's score: (Based on the descriptions for values 0 -3)	Prior Score	Current Score	Shared Score	Evidence	Notes on Evidence	GAO Reference Information
	37	Initial versions of corporate “as-is” and “to-be” EA and sequencing plan exist.	0- No corporate "as-is" and "to-be" initial versions exist, 1- Corporate "as-is" and/or "to-be" draft versions exist, 2- Corporate "as-is" and "to-be" initial versions exist and are under review, 3- Corporate "as-is", sequencing plan and "to-be" initial versions exist (including EA principles, goals, measures, standards & policies).	2	3		Prior to 2012 this was accomplished by the EA Transition Plans while the EA Roadmap currently fulfills this purpose.	EA has been drafted.	As noted earlier, EA development typically occurs on an incremental basis. Consequently, a commonly practiced approach to developing and using an EA is to produce progressively more content-rich EA versions. The initial version of the EA is perhaps the most difficult and important step in this progression because it is in developing this version that the range of EA development enablers (people, processes, and tools) are first utilized, and it is this initial version that forms the basis for both developing the subordinate architectures of the EA and initial implementation of modernization and transformation solutions. As a result, it is extremely important that this initial version either be enterprisewide in scope and contain sufficient detail surrounding the principles, goals, measures, policies, rules, standards, protocols, etc. that will apply across the enterprise, or that it clearly disclose what scope and details are missing and in which subsequent version this content is expected to be added. As such, the initial version should not be viewed as a finished product but rather it should be viewed as a foundation upon which to architecturally build and evolve while also guiding and directing targeted initial subordinate EAs and solution development. The initial version, as with most long-term plans, will evolve and change over time (mature) as more is learned about near-term investments and initiatives, and as priorities funding availability change. An organization should complete the initial version of its corporate EA products according to defined plans and schedules and using acquired people, processes, and tools. These products should, at a minimum, include artifacts applicable to both the “as-is” and the “to-be” environments of the enterprise, as well an initial version of a sequencing plan that provides a high-level investment road map for migrating between the two environments. While this sequencing plan should also not be viewed as a finished product, it should nevertheless provide a solid basis upon which to build and should reflect, among other things, governmentwide and agency-specific priorities (e.g., open and transparent government), notional dependencies among investments, conceptual expectations about investment costs and benefits, and emerging and available technological opportunities (e.g., cloud computing).

Stage		Core Element Title	Enter Agency's score: (Based on the descriptions for values 0 -3)	Prior Score	Current Score	Shared Score	Evidence	Notes on Evidence	GAO Reference Information
Stage 4	38	Initial version of corporate EA captures performance, business, data, services, technology, and security views.	0- No initial version of EA exists, 1- Initial EA versions do not include multiple views (business, data, services, security, etc.), 2- Current EA versions do capture performance, business, data, and other views, 3- Current EA version uses EA models to capture full range of views, artifacts and subordinate architectures.	3	3		EA Repository collects and reports this data.	EA models or artifacts demonstrate interrelated characteristics	While the initial version of the corporate EA is not expected to be fully defined at this juncture, it nevertheless should capture and disclose EA information within the context of models and associated narrative. While the specific models will vary depending on the EA content framework being used, these models should nevertheless provide one or more interrelated representations and varying levels of abstraction of the enterprise's business operations, performance measurement approach, information and data needs and definitions, application and service delivery vehicles, technology profiles and standards, and security characteristics. Among other things, these models or architectural artifacts will establish the authoritative frames of reference that are not only interrelated with one another, but also aligned with and consistent with the subordinate architectures.
	39	One or more segment and/or federation member architectures exists and is being implemented.	0- No segment or federation members identified, 1- Segments and federation members identified and prioritized, 2- Several segments and federation members drafted, 3- All segments and federation members sequenced and under development (to guide investment solutions towards a target architecture).	3	3		EA Repository collects and reports this data.	Segment and/or federation member architecture has been drafted.	As discussed in the preceding elements, an organization's corporate EA captures key information about the current and future state of the enterprise as a whole and should provide the basis for informing the enterprise's subordinate architectures and related solution implementations. These subordinate architectures, such as segment architectures or federated member architectures, should, in turn, capture architectural information that is relevant to that specific segment or organizational components, such as a business mission or function (e.g., financial management) or a subagency or bureau that is needed to guide and constrain investment solutions that apply to that specific mission area or organizational component. Accordingly, in Stage 4, the organization should have developed and begun implementing one or more segment and/or federation member architectures on a targeted and prioritized basis in order to begin achieving its modernization and transformation goals and outcomes.

Stage / Core Element	Core Element Title	Enter Agency's score: (Based on the descriptions for values 0 -3)	Prior Score	Current Score	Shared Score	Evidence	Notes on Evidence	GAO Reference Information
40	EA product quality is measured and reported.	0- EA product quality is not measured or reported on, 1- EA product quality is reported upon, but not routinely assessed, 2- EA product quality is periodically assessed for completeness and accuracy and reported on, 3- A strong program of EA product quality assessment for useability and consistency exists that permits corrective action and continuous improvement.	2	2		EA Value Measurement Plan is currently under review and expansion.	Documented process for measuring EA product quality; reports on product quality.	Realizing an EA's value depends in large part on the quality of the products or artifacts that compose it. As a result, an organization should ensure that corporate and subordinate architecture content is measured against the quality standards (i.e., metrics) that should be defined in the EA development and maintenance methodology. Generally, these quality standards should address, at a minimum, product completeness, usability, consistency, and accuracy. Moreover, the results of EA product quality measurement activities should be disclosed to the appropriate officials to inform decision making and permit timely corrective action. For example, these metrics should be shared with the executive committee when it is being asked to approve the initial version of the EA or a subsequent update.
41	EA results and outcomes are measured and reported.	0- EA results/outcomes are not measured or reported on, 1- EA results/outcomes are reported upon, but not measured, 2- EA results/outcomes are irregularly measured, 3- A strong program to measure EA results/outcomes is used and routinely reported upon.	2	2		EA Value Measurement Plan is currently under review and expansion.	Reports on EA results and outcomes.	The EA is a strategic asset that represents an investment in the organization's future. Restated, an EA is a corporate investment that is to produce strategic mission value (results and outcomes). As a result, measuring the extent to which this expected value is actually being realized is important to identifying what, if any, EA program changes are warranted. Moreover, examples of positive results and outcomes can be used to economically justify expanded EA development and use. As a result, corporate and subordinate EA results and outcomes should be periodically measured and reported to, among others, the executive committee. Examples of results and outcomes to be measured include costs avoided through eliminating duplicative investments or by reusing common services and applications and improved mission performance through reengineered business processes and modernized supporting systems.

Stage	Core Element	Core Element Title	Enter Agency's score: (Based on the descriptions for values 0 -3)	Prior Score	Current Score	Shared Score	Evidence	Notes on Evidence	GAO Reference Information
	42	Investment compliance with corporate and subordinate architectures is measured and reported.	0- EA investment compliance not measured, 1- Investment compliance with EA and subordinate architectures is a planned process, 2- Investment compliance with EA and subordinate architectures is irregularly measured, 3- A strong program is used to measure EA investment compliance with EA and subordinate architectures (waiver statistics, alignment to standards, etc.).	2	2		EA Value Measurement Plan is currently under review and expansion.	Investment alignment reports.	Realization of an EA's strategic value depends on its use. This use is achieved by, among other things, requiring that investments comply with EA products or that they receive an explicit waiver from such compliance. Given the importance of EA investment compliance, organizations should develop metrics for measuring the extent to which this occurs and periodically report these metrics to, among others, the executive committee and the organization's investment review board(s). Examples of such metrics for a given reporting period include the number of new and ongoing investments that have been assessed for architecture compliance, the results of these assessments, and the number of compliance waivers requested versus the number granted. By measuring and reporting investment compliance, an organization can be positioned to identify relevant trends and anomalies and take corrective action, if warranted.

Stage	Core Element	Core Element Title	Enter Agency's score: (Based on the descriptions for values 0 -3)	Prior Score	Current Score	Shared Score	Evidence	Notes on Evidence	GAO Reference Information
	43	Subordinate architecture alignment with the corporate EA is measured and reported.	0- Subordinate architectures show no alignment with corporate EA, 1- Subordinate architectures are being developed to align with corporate EA, 2- More than 1 subordinate architectures show intentional alignment with corporate EA, 3- The alignment of subordinate architectures with corporate EA is regularly measured and consistently reported upon.	2	2		EA Value Measurement Plan is currently under review and expansion.	Subordinate architecture alignment reports.	Successful EA development typically follows an approach in which the level of architectural detail needed to guide and constrain individual investments is created for distinct parts of the organization (i.e., children) and in a way that ensures that the distinct organizational parts are architecturally aligned with the organization's corporate (i.e., parent) EA. These children can be viewed as the earlier discussed subordinate architectures, which include the enterprise segments or federation members. Consequently, subordinate architecture alignment with the corporate EA is key to ensuring that architecture benefits, such as improving interoperability and reducing overlaps and gaps, are achieved across the enterprise. To ensure that this is accomplished, subordinate (child) architecture alignment with the corporate (parent) EA should be periodically measured and reported to, among others, the executive committee and the organization's investment review boards. Examples of metrics that can be used for determining subordinate architecture alignment include the percentage of relevant entities (e.g., operational activities, mission or business functions, data elements) in a subordinate architecture that are aligned with strategic missions and goals described in the corporate EA and the status of efforts to develop those subordinate architectures that have been identified as high priority in the corporate EA. As a byproduct of implementing segmented or federated architectures and steps taken to ensure alignment, an organization may also identify areas at the subordinate level that are different from the corporate architecture and may require a waiver. Thus, situations may arise where those responsible for the corporate architecture need to be petitioned for changes to the content of the corporate EA.
	44	Organization head has approved current version of the corporate EA.	0-Organization Head has not seen current EA description(s), 1- Organization Head is aware of EA content and descriptions, 2- Organization Head is reviewing current version of EA, 3- Head of Organization has formally approved and distributed key aspects of the corporate EA.	2	3		The CIO has approved the EA implementation at SSA.	Signed version of Corporate EA.	The current version of the corporate EA should ultimately be approved by the head of the organization. Among other things, this approval should be based on a recommendation from the executive committee that is grounded in evidence that EA quality measures have been met. Such approval recognizes and endorses the corporate architecture for what it is intended to be—an institutional tool for managing both business and technological change and transformation.

Stage	Core Element	Core Element Title	Enter Agency's score: (Based on the descriptions for values 0 -3)	Prior Score	Current Score	Shared Score	Evidence	Notes on Evidence	GAO Reference Information
	45	Organization component heads or segment owners have approved current version of their respective subordinate architectures.	0- Segment owners are not aware of segment architecture development, 1- Segment architecture owners are engaged with development progress, 2- Component Head is aware of subordinate architectures being developed, 3- Component Head has formally approved and supports their respective architectures.	3	3		Portfolios have undergone Executive review and approval.	Signed version of subordinate architectures.	For the same reasons that the corporate EA should be approved by the organization head, the latest version of each subordinate architecture should be approved by its corresponding organization head or segment owner. The evidentiary basis for such approvals should also be grounded in quality measures that are provided to the approving executive, along with a recommendation for approval by any designated subordinate architecture governance bodies and/or accountable officials (e.g., component organization CIO).
	46	Integrated repository tools and common EA framework and methodology are used across the enterprise.	0- Federated EA efforts do not share resources, 1- A plan exists to share EA information and resources across architecture initiatives, 2- EA strategies, information and resources are irregularly shared among federated EA programs, 3- Well-integrated EA repository tools and EA framework are used across the enterprise to extend the EA.	3	3		The EA Program Plan describes the EA methodology and implementation.	Document describing a homogeneous approach to tools, framework and methodology for the enterprise.	To the extent that the family of corporate and subordinate architectures is developed, maintained, and managed using either a common set of repositories, frameworks, and tools or, at a minimum, a set that is integrated and compatible, then the utility and usefulness of the collective family of architectural products will be enhanced, and the efficiencies in doing so will be increased. While early stages of this framework provide for the use of tools, frameworks, and methodologies by all organizational entities, their selection as part of these earlier stages was left to the discretion of their respective users. As an organization matures in its development and maintenance of an EA, it should adopt a more homogeneous approach to frameworks, tools, and methodologies.

Stage	Core Element	Core Element Title	Enter Agency's score: (Based on the descriptions for values 0 -3)	Prior Score	Current Score	Shared Score	Evidence	Notes on Evidence	GAO Reference Information
Stage 5	47	Corporate and subordinate architecture program offices operate as a single virtual office that shares resources enterprisewide.	0- No information sharing is evident, 1- EA corporate office shares data and favored practices with subordinate architecture offices, 2- Effective planning and resource sharing is evident among EA program offices, 3-Corporate and subordinate architecture program offices have instituted practices to share resources ongoingly.	0	3		Inclusion and integration between the EA PMO functions and the Portfolio Executives ensure resource sharing as appropriate.	Plans, minutes.	Consistent with efforts described in the previous element to moving toward greater homogeneity in the tools, frameworks, and methodologies used to develop and maintain corporate and subordinate architectures, a maturing EA organization should also evolve to the point that its corporate EA and subordinate architecture program offices operate closely and seamlessly, and in a manner in which EA management resources are shared. While these program offices may be physically and organizationally separate and distinct and include a variety of reporting relationships, they should operate as a single virtual office. As such, these offices should follow common policies and procedures, and they should share limited resources, such as EA repository and analysis tools, contractor support, and people with critical EA knowledge, skills, abilities, and tools.
	48	Corporate EA and sequencing plan are enterprisewide in scope.	0- No corporate EA or sequencing plan exists, 1- The EA is enterprisewide and/or sequencing plan is drafted or under review, 2- An enterprise EA in in place and sequencing plan is in place, 3- An enterprise EA is formally approved and sequencing plan is being executed.	2	3		The SITAR process is enterprise-wide in scope and includes the transition strategies.	Corporate EA and sequencing plan.	As discussed earlier, development of the corporate EA typically occurs incrementally. However, the ultimate goal is to have a version that fully reflects both the “as-is” and “to-be” environments of an organization on an enterprisewide basis. Thus, while initial versions of the corporate EA and sequencing plan need not yet extend to all parts of the parent enterprise or organization, the scope of a fully mature EA should ultimately do so. Relatedly, a fully mature corporate sequencing plan should document how the entire organization or enterprise intends to achieve the proposed “to-be” operational and technological state. In large part, achieving this core element is a byproduct of having employed the EA people-, process-, and tool-related core elements discussed earlier in this framework.

Stage	Core Element	Core Element Title	Enter Agency's score: (Based on the descriptions for values 0 -3)	Prior Score	Current Score	Shared Score	Evidence	Notes on Evidence	GAO Reference Information
	49	Corporate EA and sequencing plan are aligned with subordinate architectures.	0- No EA and/or sequencing plan exists, 1- The EA is enterprisewide and draft includes subordinate architectures, 2- An enterprise EA is in place and includes subordinate architectures, 3- An enterprise EA is formally approved and subordinate architectures are fully aligned to create a complete "to be" environment.	2	3		Portfolio Vision Plans ensure alignment and sequencing.	Corporate EA and sequencing plan exists and incorporates subordinate architectures.	A mature EA program should ensure that each federated member and segment architecture is aligned with the corporate EA and sequencing plan. Establishing such alignment is essential to achieving the goals of the EA program, including optimized and rationalized enterprise operations and supporting technology solutions that are appropriately integrated and compatible. In large part, achieving this core element is a byproduct of having met many of the previously discussed core elements related to, for example, adopting one or more EA approaches (e.g., federation, segmentation, etc.) and employing EA management rigor and discipline.
	50	All segment and/or federated architectures exist and are horizontally and vertically integrated.	0- Segment and federated architectures not integrated, 1- Segment and federated architectures are horizontally aligned, 2- Segment and federated architectures have plans for full integration, 3- All segments and federated architectures are fully aligned, forming a coherent family of architectures integrated vertically and horizontally.	2	3		This is included in the EA Knowledge Base artifacts as well as EA repository.	Alignment process includes both horizontal and vertical integration.	While development of subordinate architectures, as discussed earlier, typically occurs incrementally based on institutional needs and priorities, the ultimate goal remains to develop each of the subordinate architectures and to ensure that they collectively form a coherent “family of parent and child” architectures that are integrated both horizontally and vertically. In large part, achieving this core element is a byproduct of having met many of the previously discussed core elements related to, for example, adopting one or more EA approaches (e.g., federation, segmentation, etc.) and employing EA development, maintenance, and management rigor and discipline.

Stage / Core Element	Core Element Title	Enter Agency's score: (Based on the descriptions for values 0 -3)	Prior Score	Current Score	Shared Score	Evidence	Notes on Evidence	GAO Reference Information
51	Corporate and subordinate architectures are extended to align with external partner architectures.	0- Corporate and subordinate architectures not aligned, 1- Corporate and subordinate architectures are aligned, 2- Corporate and subordinate architectures have documented relationships to external partners, 3- Corporate EA and subordinate architectures are fully aligned with external partners to optimize organization's performance.	2	3		Data Exchange Agreements and Interagency Agreements all include architecture compliance requirements.	Alignment process includes external partner architectures.	For organizations that support or depend on external organizations to accomplish their respective missions, such as many federal agencies, it is important to be architecturally connected to and aligned with their mission partners through an extended EA. In the case of some federal agencies, like the Department of Homeland Security, the number of these external organizations can be extensive and can span all levels of government. Thus, defining, understanding, and rationalizing these relationships through the kind of rigorous and disciplined EA management practices discussed in this framework can increase these organizations' potential for optimizing interorganizational performance. Accordingly, it is important that the corporate and subordinate architectures be extended and aligned with those of key external mission partners. Such alignment can assist organizations in leveraging external systems and services and promote information sharing to the benefit of all stakeholder organizations.
52	EA products and management processes are subject to independent assessment.	0- No means to enable independent EA program assessment, 1- Corporate means are in place to conduct independent EA program assessments, 2- At least 1 independent EA program assessment has been conducted and reported on, 3- A mature process is in place to consistently conduct independent EA program assessments and report findings.	1	1		The last independent assessment was performed by Forrester a few years ago.	IV&V contract; IV&V reports.	An organization should take steps to ensure the quality of its corporate and subordinate architectures. One such step is to provide for subjecting its EA products, and the processes used to develop these products, to some type of independent assessment. To be independent, the assessment should be performed by a party that is outside the EA program office and is not otherwise accountable for meeting EA program commitments, such as the organization's internal audit function or a contractor not responsible for any architecture development, maintenance, or management activities. This third party should be accountable to, and thus report directly to, the executive committee. Consequently, the results of any assessments should be reported to the executive committee either before or at the same time as they are shared with the applicable parent and/or subordinate EA program office.

Stage	Core Element	Core Element Title	Enter Agency's score: (Based on the descriptions for values 0 -3)	Prior Score	Current Score	Shared Score	Evidence	Notes on Evidence	GAO Reference Information
	53	EA is used by executive leadership to inform organization strategic planning and policy formulation.	0- EA is not used by organization leadership, 1- EA products are used at times to inform strategic and tactical planning, 2- EA products are used for decision-making in organizational units external to the EA program, 3- EA products and personnel are regularly involved to inform strategic planning decisions and organization policy formulation.	1	2		This concept is not yet fully integrated into the IT governance process.	Meeting Minutes ; EA inputs to strategic plans and/or policies.	As noted earlier, the EA provides the information needed to bridge the gap between an organization's strategic plans and the programs it implements. As such, the EA has traditionally been informed and constrained by these plans and the institutional policies that govern the plans' implementation. As an EA program fully matures, however, a bidirectional relationship should exist whereby the EA helps to inform the same strategic plans and institutional policies to which it is integral to implementing. In particular, the EA can identify the organizational business process-, performance-, information-, service-, technology-, and security-related strengths, weaknesses, and opportunity gaps that should be considered for inclusion in strategic plans and institutional policies. For example, emerging technologies that are reflected in the EA's "to-be" view can serve as the catalyst for introducing new, or modifying existing, strategic goals and objectives, and/or the timelines for achieving them.
	54	EA human capital capabilities are continuously improved.	0- No documented HR plan for EA, 1- EA staff capabilities have been assessed and recorded, 2- EA Program has unmet documented capabilities, 3- EA HR capabilities are fully met and continuously re-evaluated for needed enhancements.	1	3		EA human capital planning is coordinated through the DCS Human Capital Plan with links to the IT Skills Inventory.	Updated Human Capital Plan.	An organization should periodically reevaluate its existing corporate and subordinate EA human capital capabilities relative to its future needs so that it continues to update its understanding of gaps that need to be filled. Using such a gap analysis, those responsible for the EA program can take proactive steps to fill any knowledge and skill gaps through training, hiring, and contracting. As an organization engages in such continuous improvement, care should be taken to do so in coordination with other EA-related program improvement efforts, and in a manner that reflects established continuous improvement guidance.

Stage	Core Element	Core Element Title	Enter Agency's score: (Based on the descriptions for values 0 -3)	Prior Score	Current Score	Shared Score	Evidence	Notes on Evidence	GAO Reference Information
Stage 6	55	EA methodologies and tools are continuously improved.	0- No tools exist to aid EA development, 1- A plan exists for improving EA methodology and tools use, 2- EA methodology and tools use are evaluated on a regular basis, 3- Corporate EA methodologies and tools are continuously improved based upon evaluation and alternative analyses.	2	3		The EA PMO function ensures that this is continuously performed	Updated methodologies and tools.	An organization should periodically reevaluate its corporate and subordinate EA methodologies and tools to ensure that they continue to support its needs. Among other things, this reevaluation should consider user satisfaction with the currently employed methodologies and tools (e.g., usability, supportability, etc.), the commercial availability of alternative products, and the costs associated with transitioning to alternative methods and tools, including licensing, training, and conversion costs. As an organization engages in these continuous improvement efforts, care should be taken to do so in coordination with other EA program improvement efforts and in a manner that reflects established continuous improvement guidance.
	56	EA management processes are continuously improved and reflect the results of external assessments.	0- EA program has no written management processes, 1- A plan exists to document EA program management processes, 2- Several EA program management processes are documented and reviewed regularly, 3- EA management processes are routinely assessed using a known continuous improvement process, such as ITIL, Lean Six Sigma, or other framework and include inputs from external assessments.	2	2		The EA PMO is currently developing an EA Communications Plan to enable this.	Continuous improvement efforts for EA management processes are described, coherent and in use; Updated EA management processes.	An organization should periodically reevaluate its corporate and subordinate EA management processes to ensure that they are effective. Among other things, the reevaluation should compare existing processes with relevant benchmarks and guidance, such as this framework, and identify any gaps that need to be addressed. As an organization engages in this continuous improvement activity, care should be taken to do so in coordination with other EA program improvement efforts, and in a manner that reflects established continuous improvement guidance.

Stage / Core Element	Core Element Title	Enter Agency's score: (Based on the descriptions for values 0 -3)	Prior Score	Current Score	Shared Score	Evidence	Notes on Evidence	GAO Reference Information
57	EA products are continuously improved and updated.	0- EA product quality is not measured or reported on, 1- EA product quality is assessed infrequently, 2- EA product quality is controlled and periodically assessed, 3- A strong regimen of continuous improvement using an externally recognized framework (ITIL, Lean Six Sigma, etc) to assess EA and manage product configuration.	2	3		The EA PMO is constantly updating and improving the EA Knowledge Base artifacts.	Updated versions of EA.	An EA needs to be continuously maintained to reflect, among other things, shifts in legal requirements, emerging threats and opportunities, shifting priorities, emerging technologies, and governmentwide priorities. Such maintenance also involves introducing changes that are aimed at increasing the EA product quality (i.e., currency, consistency, understandability, usability, accuracy, and completeness). As individual changes are made that collectively represent a significant modification to the products, these changes should be packaged as part of a new version of the corporate and subordinate architecture products. Such continuous improvement to the content of the EA and its products should be formally controlled using a formal configuration management process, as discussed earlier.
58	EA quality and results measurement methods are continuously improved.	0- EA quality and results are not measured, 1- EA quality and results are infrequently assessed or reported on, 2- EA quality and results are periodically assessed, 3- A strong regimen of continuous improvement based on a known framework (ITIL, Lean Six Sigma, etc) with EA quality and results (including consistency, completeness and accuracy) are measured and regularly reported upon.	1	2		EA quality and effectiveness is included in the Agency Performance Plan and is constantly being improved.	Continuous improvement efforts for measuring EA quality and results are described, coherent and in use; Updated EA quality and results measurements.	An organization should periodically reevaluate its methods for assessing corporate and subordinate architecture quality and program results. If opportunities for improvement exist, actions should be identified and undertaken to exploit these opportunities. Among other things, this reevaluation should address the extent to which program measures and metrics are sufficiently measurable, meaningful, repeatable, consistent, and actionable and aligned with the EA program's strategic goals and the EA's intended purpose. When planning, implementing, tracking, and reporting on improvements to EA quality and results measurement methods, care should be taken to do so in coordination with other EA program continuous improvement efforts, and in a manner that reflects established continuous improvement guidance.

Stage	Core Element	Core Element Title	Enter Agency's score: (Based on the descriptions for values 0 -3)	Prior Score	Current Score	Shared Score	Evidence	Notes on Evidence	GAO Reference Information
	59	EA continuous improvement efforts reflect the results of external assessments.	0- EA program has no continuous improvement goals, 1- EA program has a plan for continuously improving, 2- EA program has implemented a process for continuous improvement based on metrics gathering and assessments, 3- EA program continuous improvement efforts reflect the results of external assessments.	2	2		This will be coordinated in the future through the EA PMO function.	Documented process for performing process improvement and incorporating results of external assessments.	All efforts to continuously improve the EA program capabilities and products should leverage the results of external assessments performed by organizations external to the program, including assessments periodically performed by GAO, OMB, and others. Our work in following up with agencies to determine the status of recommendations that we have made to address EA limitations and weaknesses shows that, over time, agency actions have increased the quality of EA products and management processes and resulted in measurable accomplishments.

18	**points needed to achieve Stage 1**	**Stage 1 raw score**	23	
23	**points needed to achieve Stage 2**	**Stage 2 raw score**	28	
32	**points needed to achieve Stage 3**	**Stage 3 raw score**	38	
25	**points needed to achieve Stage 4**	**Stage 4 raw score**	27	
20	**points needed to achieve Stage 5**	**Stage 5 raw score**	25	
16	**points needed to achieve Stage 6**	**Stage 6 raw score**	17	
	Maturity Stage		6	

APPENDIX B: EA Outcomes and Measurements

OMB has identified a core set of outcomes and measurements, common across all Federal Agencies. Those measures focus on the following areas: Spending, Systems, Services, and Security. We have adopted those metrics into our EA program.

In FY 2012, we evaluated all 26 measures and were able to report actual results for 19 of them. In FY 2013, we are reporting on those same 19 measures. One of our priorities for FY 2014 is to assess the remaining seven measures and identify an approach for monitoring them on an on-going basis.

Social Security Administration (SSA)

Enterprise Architecture Outcomes and Measurements

Perspectives	Inventory & Outcome	Area of Measurement	Specific Measurement Indicator	FY 2012 Measurement Method & Targets (Timeline)	FY 2013 Measurement Method & Targets (Timeline)	Comments & Artifacts
Spending "Ensure effective IT spending through informed decision making"	Inventories	Completeness	% of IT investments going through the IRB that have been reviewed by the EA Team	100%	100%	All IT investments are funded and approved through the SITAR / ARB.
			% of our IT spend represented in the Enterprise Roadmap	100%	100%	Roadmap includes all Portfolios plus Infrastructure costs.
		Accuracy	% of IT investments approved by the IRB aligned to the Target Architecture	100%	100%	All major IT investments are reviewed by SITAR and ARB for alignment.
		Ratio	O&M to DME Spending	1.667:1 (O&M:DME) (FY13)	1.332:1 (O&M:DME)	Reduced budgets increase the O&M to DME ratio
	Outcomes	Cost Savings/Avoidance	# of dollars saved or how the EA Program contributes in cost savings or avoidance	$43M (FY13)	$8.988M (FY14)	Use of BPA purchases, and software support and maintenance strategic sourcing
		Reduction of Duplication	# of duplicate investments EA helped identify	FUTURE	FUTURE	
		Efficiency	% of IT governance processes that EA participates in	100%	100%	The SITAR, ARB, and CPIC processes are all integral to the SSA EA Program.
			% of acquisitions aligned to the standards product list	N/A	N/A	Since SSA uses the highly advantageous process of BPAs and vendor relationships to secure cost advantages, this is N/A.
Systems "Ensure IT supports the Mission" "Derive Cost Savings through system	Inventories	Completeness	% of our systems identified in the Technical and Application Architectures i.e. IRM and ARM	100%	100%	SITAR, ARB, APM, and Portfolio Management processes validate and document all of our Systems. Alignment to IRM and ARM in progress.
	Outcomes	Cost Savings/Avoidance	# of dollars saved or how the EA Program contributes in cost savings through system consolidation	$43M (FY13)	$8.988M (FY14)	Includes Mainframe hardware BPAs, and software support and maintenance strategic sourcing

Perspectives	Inventory & Outcome	Area of Measurement	Specific Measurement Indicator	FY 2012 Measurement Method & Targets (Timeline)	FY 2013 Measurement Method & Targets (Timeline)	Comments & Artifacts
consolidation ”		Reduction of Duplication	# of duplicate systems EA helped identify	FUTURE	FUTURE	
		Efficiency	% of cycle time reduced or how the EA Program contributes to reduction in cycle time	N/A	N/A	Not applicable with growing processing requirements and increasing IT workloads.
			# of FTEs reduced or how the EA Program contributes to alignment of FTEs to Agency’s missions	All IT FTEs are aligned to our mission goals and objectives	All IT FTEs are aligned to our mission goals and objectives	All of our Portfolios are mapped to our Goals & Objectives and they contain all IT resources.
		IT Enablement	EA contribution to new IT adoption, using Technical and/or Application Architecture	The EA Knowledge Base repository and ADG involvement encourage innovation	The EA Knowledge Base repository and ADG involvement encourage innovation	A common source of innovation architectures encourages project identification and usage.
Services “Identify services for adoption or expansion throughout the Agency”	Inventories	Completeness	% of our services defined in Business Architecture i.e. PRM and BRM	100%	100%	All Portfolios represented, including alignment to updated versions of PRM and BRM.
		Accuracy	% of ourservices that are up to date and accurate	Need better definition		
	Outcomes	Cost Savings/Avoidance	Cost savings/ avoidance gained from consolidating and sharing services	Cost avoidance - $1,930,088	Cost savings – $1,660,000	Implementation of Shared Services in 2012 included: Social Media pilot - $219,795; Geospatial Architecture - $1,710,293. FY14 savings from Enterprise Print Architecture.
		Reduction of Duplication	# of duplicate services EA helped identify	FUTURE	FUTURE	
		Efficiency	% of survey participants rating EA services satisfaction high	36%	TBD	Results of 2012 survey prior to our implementation of extended EA program services. FY2013 survey results not available at this time.
			# of new shared services implemented every two years	2	2	FY12: Enterprise Social Media Pilot, Geospatial Architecture FY13: Data Exchanges & Verifications Online, Enterprise Print Architecture

Perspectives	Inventory & Outcome	Area of Measurement	Specific Measurement Indicator	FY 2012 Measurement Method & Targets (Timeline)	FY 2013 Measurement Method & Targets (Timeline)	Comments & Artifacts
Security "Increased IT Security"	Inventories	Completeness	% of investments mapped to the SRM	100%	100%	CDM, SITAR, ARB, SRM, and Portfolio management processes validate and document all Security Architecture.
		Accuracy	% of Security Architecture that is accurate and up to date	100% Target end of FY14	100%	Documentation prioritization will be based on particular architectures requirement to integrate with other systems.
	Outcomes	Cost Savings/Avoidance	# of dollars saved or how the EA Program contributes in security cost savings	FUTURE	Elimination of direct investment costs through adoption of our enterprise deployment strategy.	Centralized enterprise deployment of security controls avoids redundant spending. Security engineering strategy identifies gaps and prioritizes spending.
		Reduction of Duplication	# of duplicate security implementations EA helped identify	FUTURE	Equal to 100% of new APM projects.	Zero redundancy at the system level due to enterprise deployment model.
		Efficiency	# of FTEs reduced or how the EA Program contributes to alignment of FTEs to our missions	All Security FTEs are aligned to our mission, goals, and objectives	All Security FTEs are aligned to our mission, goals, and objectives	All Portfolios are mapped to our Goals & Objectives and they contain all Security resources.
		IT Enablement	How EA contributes in improving security architecture for new IT adoption	FUTURE	Security standards are included in the EA review of every project and application.	Consolidation of IT inventories enables a clean mapping of security controls for new IT.
Others	Outcome	Cost Savings/Avoidance (Procurement)	EA effectiveness at SSA through the procurement process	Cost avoidance of over $19M in infrastructure through consolidation	Cost savings totaling $8.998M associated with BPA and Strategic Sourcing	BPAs and bundled requirements.
	Outcome	Compliance (Architectural Due Diligence)	% EA due diligence rates	83%	91.7%	Fully EA compliant ARB project presentations
	Inventory	Efficiency (Architectural Due Diligence)	% EA due diligence rates - Reuse	70%	71%	Percent of apps that use at least one existing software service

Perspectives	Inventory & Outcome	Area of Measurement	Specific Measurement Indicator	FY 2012 Measurement Method & Targets (Timeline)	FY 2013 Measurement Method & Targets (Timeline)	Comments & Artifacts
	Inventory	Improvement (Architectural Due Diligence)	% EA due diligence rates - Applications improving compliance ratings	20%	15.5%	This number is expected to decrease over time as first-time rated applications will tend to start out at the compliant rating
	Inventory	Efficiency (Architectural Due Diligence)	# EA due diligence rates - Compliant applications not requiring ARB review	28	48	Exemption projects not requiring formal ARB meeting
	Inventory	Reuse (Reusable Services Usage)	% Applications using reusable core services	11.3%	8.0%	Reusable Services Usage
	Inventory	Reuse (Reusable Services Usage)	# services registered in WebSphere Services Registry & Repository (WSRR)		Enterprise – 36 Non-Enterprise – 28	Newly tracked in FY2013
	Inventory	Integration (Reusable Services Usage)	% Applications using standardized DCS framework	60%	62%	DCS WebSphere standard
	Inventory	Architectural Knowledge Base	# Documented Architectures	6	7	FY2012 target was 4, attained 6 Target not established for FY2013
	Inventory	Architectural Knowledge Base	# Completed & Approved Architectures	1	7	Architectural Knowledge Base
	Inventory	Architectural Knowledge Base	# Record of Decision		3	New for FY2013: Number of new architectures/products reviewed by senior management and accepted intoour environment
	Outcome	Efficiency (Service Availability)	% Enterprise Infrastructure availability	99.9488	99.9600%	Exceeds service level objective of 99.5%
	Outcome	Customer Satisfaction - Customer Survey	% Respondents familiar with EA Program plan	100%	100%	No change from previous year
	Outcome	Customer Satisfaction - Customer Survey	% Respondents aware of EA Repository	80%	100%	Increase attributed to better communication and education provided in FY 2013
	Outcome	Customer Satisfaction - Customer Survey	% Respondents using repository for decision making	7%	24%	Increase attributed to better communication and education provided in FY 2013
	Outcome	Customer Satisfaction - Customer Survey	% Respondents familiar with APM process	75%	67%	Decrease attributed to changes in Portfolio management staff in latter part of FY 2013
	Outcome	Customer Satisfaction - Customer Survey	% Respondents satisfied with APM Spring Review Results	36%	66%	Increase attributed to better communication and education provided in FY 2013

APPENDIX C: Strategic Portfolio Documentation

We manage our IT via Strategic Portfolios. The portfolio documentation is reviewed annually as part of our IT planning process. Each portfolio executive reviews the Vision statement to ensure alignment with the Agency Strategic Plan, and current business objectives. This documentation also includes alignment to our IT investments, both major and non-major, and our core business processes.

Each portfolio includes a set of initiatives for moving the portfolio to its desired target state. The work effort to get to that desired "to-be" state spans one to three years out. The roadmaps for how these initiatives support our strategy are discussed in Section 5.0 Target Architecture. The Portfolio documentation includes an initiative description, and specific business outcomes and metrics associated to each initiative.

We manage our IT via Strategic Portfolios. The purpose of each of these portfolios is described below, along with a listing of the associated Agency strategic goals and objectives (as described in the ASP), business processes, investments, and initiative outcomes and measures.

Each portfolio includes a set of initiatives for moving the portfolio to its desired target state. The work effort to get to that desired "to-be" state spans one to three years out. The roadmaps for how these initiatives support our strategic direction are discussed in Section 5.0 of the Roadmap, Target Architecture.

1. Core Services

Goal: Deliver Innovative Quality Services

- Develop and Increase the Use of Self-Service Options
- Enhance the Customer Experience by completing Customer's Business at the First Point of Contact
- Align our Physical Footprint to Incorporate Improved Service Options
- Partner with Other Agencies and Organizations to Improve Customer's Experience and Align with the Administration's One-Government Approach

Goal: Strengthen the Integrity of Our Programs

- Protect the Public's Data and Provide Secure Online Services

Goal: Ensure Reliable, Secure, and Efficient Information Technology (IT) Services

- Maintain System Performance and the Continuity of IT Services
- Enhance and Execute Plans to Modernize Our Systems
- Incorporate Innovative Advances in Service Delivery

Portfolio Vision

The Core Services Portfolio strives to provide quality service to the public and preserve the public's trust in the agency's Social Security and Supplement Security Insurance programs, by making advancements in technologies that have positive implications on our online services, various service channels, telephone services, notices and supportive role to Medicare programs. As staffing levels decrease, workload volumes increase and millions of the public become eligible for social security benefits, we must transform the way we deliver service to the public by developing a wide-range of online and automated services. Core Services Portfolio investments develop seamless, integrated, customer-centric automation tools that support all service delivery channels and several major business processes of the agency.

Investments *(* indicates Exhibit 300)*

- ***Electronic Services**
- Medicare Support Activities
- Non-Major Core: Affordable Care Act
- Non-Major Core: Improved Telephone Service
- Non-Major Core: Integrated Customer Services
- Non-Major Core: Online Customer Services
- Non-Major Core: Reimbursable Services
- Non-Major Core: Systems Integrity
- Non-Major Core: Title II Claims & Post-Entitlement
- Non-Major Core: Title XVI Claims & Post-Entitlement

1. Core Services	
• Non-Major Core: Maintenance & Cyclical • Non-Major Core: Data Exchange • Non-Major Core: Online Claims	• *** SSI Modernization** • ***Title II**
Business Process	
• Data Exchange • Informing the Public • Representative Payee	• Title II • Title XVI • Title XVIII
Initiatives	
• Authentication • Data Exchange • Improve Telephone Service • Medicare • Notice Improvement	• Online Services • Representative Payee • Service Delivery • Title II Claims & Post Entitlement • Title XVI Claims & Post Entitlement

Initiatives: Business Outcomes - Measurements

Authentication - The purpose of this initiative is to improve, monitor and expand the registration and authentication process that enables the public to securely access new online services. This initiative will eventually support all online services and ensure the privacy and security of personal information.

Business Outcome	Measurement
Provide the public with access to personalized information and increase the number of established *my* Social Security accounts and services	Measure the number of customers who sign up for *my* Social Security
Improve local management information (MI) to monitor registration activity by Field Office	Measure the number of authentication transactions, initiated by the Field

Data Exchange - The purpose of this initiative is to migrate from an aged data exchange infrastructure to one that leverages current technology to meet increasing demands of verifications and data exchanges with customers such as federal, state and foreign agencies. This effort will result in efficient, accurate, consistent and timelier results that ensure that we provide and receive the correct data according to legal statutes governing disclosure and data access.

Business Outcome	Measurement
Develop a centralized system for efficient processing of all varieties of SSN verification	Increase the number of data exchanges available to make eligibility and entitlement decisions

1. Core Services	
and data exchange requests	Reduced maintenance costs Increase the amount and enhance the capability of Management Information (MI) available for the agency's data exchanges Enhance Management Information (MI) capabilities
Ensure efficient processing and data generation to meet increasing demands of verifications and data exchanges	Increase the number of data exchanges available to make eligibility and entitlement decisions Reduced maintenance costs Increase the amount and enhance the capability of Management Information (MI) available for our data exchanges
Ensure quick and accurate response to customized requests and legislative mandates	Increase the number of data exchanges available to make eligibility and entitlement decisions

Improve Telephone Services - The purpose of this initiative is to improve telephone services in our field offices (FO) and National 800 Number Network (N8NN) call answering sites. The initiative seeks to 1) balance our telephone workloads nationwide, 2) provide telephone system efficiency, 3) improve telephone services that are offered to the public, and 4) provide ideal resources to our employees that will enable them to give quality service to the public. These goals will be accomplished by leveraging the use of technology to manage and route calls, expand the use of telephone management information (MI) and reporting, offer better assistance to the public, and implement tools to consistently monitor and evaluate the public's satisfaction. Overall, improvements to telephone services enhance our caller experience by providing service that is seamless, effective and efficient.

Business Outcome	Measurement
Balance our FO and N8NN telephone workloads	Increase the access to features that allow FO and N8NN to share telephone resources Increase the availability of management information (MI) reporting and tools Increase the number of FO calls transferred to other local FOs and/or Tele-service Centers (TSCs)
Increase telephone system efficiency	Streamline call routing to decrease the amount of time customers spend in the main menu options, queue messages and automated applications Integrate MI across multiple service channels Increase number of successfully completed N8NN automated applications
Improve telephone services offered to the public	Decrease average busy rate (ABR) Decrease average speed of answer (ASA) Increase customer satisfaction scores Increase agent availability in multi- channel

1. Core Services	
	environment Increase number of Internet-related calls handled by N8NN agents
Provide employees with ideal resources for assisting our callers	Refresh N8NN agent tools with newer, more user-friendly technology Improve the efficiency of the Customer Help and Information Program (CHIP) applications to reduce unproductive time within the application and improve agent handling time (AHT)

Medicare - The purpose of this initiative is to improve the processing, flexibility and efficiency of Medicare Systems. This initiative looks to structure the Medicare databases to enhance internal and external processing of cases. These changes will aid our frontline employees by reducing redundancies and allowing for more data propagation between systems.

Business Outcome	Measurement
Improve processing times	Streamline application process
Reduce the number of exceptions/System Limitations	More timely determinations
Improve readability of Medicare Queries	Redesign Medicare Queries to be more user-friendly

Notice Improvement - The purpose of this initiative is to improve service to the public by providing individuals with accurate, clear, up-to-date information. Our objective is to improve the readability, clarity, and tone of the agency's correspondence to the public by continuing to enhance our notice standards and clear writing guidelines. These improvements will increase clarity and reduce the number of inquiries to field offices and the 800 Number. This initiative is responsible for increasing public service by making notices available online and for saving money on print and mail costs by allowing individuals to opt out of paper notices. In addition, this initiative will be responsible for the implementation of a new communications architecture, which will simplify and speed the implementation of new or revised notice language and will support multiple service delivery channels and user-defined communication preferences.

Business Outcome	Measurement
Improve service to the public	Provide individuals with accurate, clear, up-to-date information on notices
Improve the readability, clarity, and tone of our notices	Improve problematic language in notices by reducing reading grade level to 6^{th} to 8^{th} grade
Reduce walk in traffic in field offices and reduce the number of calls to our 800 number	Increase clarity in notices by reducing reading grade level to 6^{th} to 8^{th} grade
Make notices available online	Plan and develop online notice application for MySSA. *Notices will be made available online incrementally.*

1. Core Services	
Implement an efficient and effective enterprise communications architecture	Support multiple service delivery channels and user-defined communication preferences

Online Services - This initiative focuses on enhancements to our services offered to citizens on the Internet, and directly supports Strategic Goal 2, Provide Quality Service to the Public. The scope of the Online Services initiative encompasses pre-claims, initial claims, appeals, and post entitlement. It includes improvements to the claims process, improved post entitlement services, and technology improvements such as the expansion of mobile services.

Business Outcome	Measurement
Improve Claims process	Increase the percentage of Online Claims
Increase Online Services Usage	Measure the number of customers completing business online

Representative Payee - The purpose of this initiative is to ensure that we have the necessary infrastructure and automation to help front line staff select the most suitable payee and monitor their use of benefits.

Business Outcome	Measurement
Preserve the business functionality of the current system	Transfer the current system to a web platform to increase user functionality and increase efficiency
Improve and enhance SSA's payee selection capability	Help reduce representative payee misuse

Service Delivery - The purpose of this initiative focuses on enhancements to the variety of channels we offer to serve the public. The scope of the Service Delivery initiative encompasses projects to improve the public's access to key services, which would include areas like, field office direct service channels such as Video Service Delivery and Visitor Intake Process enhancements, self-service channels such as Self-Help PC and kiosk technologies, and telephone service channel support enhancements. The initiative also includes projects that improve informational tools available for providing service to the public.

Business Outcome	Measurement
Improve access through direct service channels	Streamline visitor intake processing Reduce visitor wait time Streamline appointment and contact management process Increase non-English intake and interview options including ASL/CDI remote interpreting availability via video Increase initial claims taking and post-entitlement efficiencies through workload balancing Increase accuracy of field office transactions

1. Core Services	
Improve access through self-service channels	Reduce visitor wait time Reduce field office visitor counts via external self-service partnerships Increase access to online services
Improve service through telephone service channels	Reduce call completion times Reduce N8NN busy rates Increase accuracy of telephone transactions

Title II Claims & Post Entitlement - The purpose of this initiative is to increase systems processing efficiency, eliminate labor intensive manual processing and improve the accuracy and timeliness of T2 payments. The initiative seeks to accomplish its objectives by eliminating older, outdated systems, and replacing them with more robust and modern systems. It also seeks to eliminate or reduce redundancy in data inputs for our front line employees by allowing data sharing by the various applications.

Business Outcome	Measurement
Improve the accuracy and timeliness of T2 Payments	Reduce over/underpayments Reduce the time it takes to release back pay
Reduce the number of standalone/stove pipe systems	Retire legacy systems that are costly to maintain Reduce redundancy in data entry

Title XVI Claims & Post Entitlement - The purpose of this initiative focuses on improving programmatic systems for processing initial claims and post-entitlement actions by reducing payment errors, manual processing and aligning system functions to business process policies. In addition to improving programmatic systems, this initiative also seeks to retire outdated systems by replacing them with modernized systems or incorporating like-functionalities in existing systems. To further improve data sharing amongst our internal applications and external agencies, this initiative will also include efforts to eliminate redundancy of work and stovepipe systems.

Business Outcome	Measurement
Reduce improper payments	Update systems to enforce compliance of business process/policies
Reduce manual inputs	Retire/replace legacy systems

2. Disability Process
Goal: Deliver Innovative Quality Services

- Develop and Increase the Use of Self-Service Options
- Enhance the Customer Experience by completing Customer's Business at the First Point of Contact
- Align our Physical Footprint to Incorporate Improved Service Options

2. Disability Process

- Partner with Other Agencies and Organizations to Improve Customer's Experience and Align with the Administration's One-Government Approach

Goal: Serve the Public Through a Stronger, More Responsive Disability Program

- Improve the Quality, Consistency, and Timeliness of Our Disability Decisions
- Maximize Efficiencies Throughout the Disability Program
- Enhance Employment Support Programs and Create New Opportunities for Returning Beneficiaries to Work

Goal: Ensure Reliable, Secure, and Efficient Information Technology (IT) Services

- Maintain System Performance and the Continuity of IT Services
- Enhance and Execute Plans to Modernize Our Systems
- Incorporate Innovative Advances in Service Delivery

Portfolio Vision

The Disability Process portfolio promotes efficient and effective IT systems that increase the quality, timeliness and consistency of disability decisions and services. These systems will facilitate the accurate collection, processing, and flow, of data and information that will allow our employees to provide quality service to disabled applicants and beneficiaries. The portfolio will help ensure we make the correct disability decision at the correct time, and apply disability policy and procedures consistently across all adjudicative levels.

Investments *(* indicates Exhibit 300)*

- ***Disability Case Processing System**
- ***Disability Determination Services (DDS) Automation**
- ***Intelligent Disability**
- Non-Major Disability Process: Maintenance & Cyclical
- Non-Major Disability Process: Electronic Folder (eFolder)
- Non-Major Disability Process: Return to Work

Business Process

- Disability
- Title II
- Title XVI
- Title XVIII

Initiatives

- DDS Automation
- Electronic Disability
- Return to Work

Initiatives: Business Outcomes - Measurements

DDS Automation - This initiative provides the necessary functionality and systems support for the administration of the disability programs of the Social Security Administration. These systems help us

2. Disability Process	
manage and process Disability workloads; provide timely, accurate and consistent determinations; and provide the public with easily accessible support for all activities related to their claims and benefits under the disability programs. To ensure continued efficiency, the five DDS legacy systems interfacing with our electronic disability systems need to be sustained and changed as required for them to remain functional and synchronized. These systems will retire once the Disability Case Processing System (DCPS) is fully operational in those states.	
Business Outcome	**Measurement**
Have one system for the DDS' (DCPS)	Number of States utilizing DCPS Percentage of workload processed via DCPS Number of legacy systems retired
Efficient case processing systems	Disability case processing times
Electronic Disability - This Initiative uses technology to automate many aspects of the disability determination process, including case processing, quality review, and collection of medical evidence. Initiative projects will: Provide the capability to process additional disability cases electronically at all adjudicative levels; Enhance the opportunities for obtaining claims, medical evidence, and supporting documentation over the Internet in a secured environment; Enhance applications that support electronic case processing for maximum efficiency; Provide tools across all adjudicative levels that will create well-documented, consistent disability decisions; Ensure that electronic processes support disability policies and procedures; and Use automation at all adjudicative levels of the disability claim process. This automation will: Improve productivity and increase cost efficiency; Reduce claim processing time; Eliminate backlogs; Reduce reliance on the paper folder; Increase decisional and documentation accuracy; and Increase decisional consistency.	
Business Outcome	**Measurement**
Quicker disability decisions with automated decision support	Disability case processing times – PPWY Accuracy rate for initial disability determinations
Elimination of paper processes	Percentage of cases with electronic 827s Disability case processing times
Consistent policy compliant determinations	Accuracy rate for initial disability determinations
Efficient case processing systems	Disability case processing times Accuracy rate for disability determinations
Return to Work - This initiative creates and maintains electronic information technology systems that efficiently support services that provide disabled beneficiaries with access to a self-directed employment support structure. This structure will provide choices, quality services, ongoing supports for employment retention and career advancement, and ensure timely and accurate payments to employment networks and vocational rehabilitation agencies. It will also capture beneficiary wage reporting with support from myssa.gov.	
Business Outcome	**Measurement**

2. Disability Process	
Increase amount of disability beneficiaries who return to work and leave the roles permanently	The number of disability beneficiaries who return to work and are not receiving federal cash benefits.
Increase the amount of beneficiaries who report earnings.	Track amount of beneficiaries reporting earnings.
Decrease the number and amount of overpayment that a beneficiary incurs.	Track amount and number of beneficiary overpayments.

3. Financial Services

Goal: Strengthen the Integrity of Our Programs

- Protect the Public's Data and Provide Secure Online Services
- Increase Payment Accuracy

Goal: Ensure Reliable, Secure, and Efficient Information Technology (IT) Services

- Maintain System Performance and the Continuity of IT Services
- Enhance and Execute Plans to Modernize Our Systems
- Incorporate Innovative Advances in Service Delivery

Portfolio Vision

The Financial Services portfolio seeks to improve the quality of agency-wide financial, administrative, and emergency response systems, thereby ensuring the agency is able to conduct its mission to the public in the most efficient manner possible. By employing technology and innovation, the portfolio ensures the agency pays benefits accurately and timely and minimizes improper payments to beneficiaries.

Investments *(* indicates Exhibit 300)*

- ***Financial Accounting System (FACTS)**
- Non-Major Financial Mgmt. Projects
- Non-Major Social Security Unified Measurement System / Managerial Cost Accountability System (SUMS/MCAS)

Business Process

- Financial Resource Management

Portfolio Initiatives

- Emergency Response Systems
- Financial & Administrative Systems
- Payment & Reporting Requirements

Initiatives: Business Outcomes - Measurements

3. Financial Services

Emergency Response System – This initiative utilizes Geospatial Information System (GIS) technology to support us in disaster preparedness, emergency management, and security oversight. The initiative provides real-time incident command facilitating to enable agency executives to make informed decisions during local and national emergencies, thereby ensuring Continuity of Operations (COOP) and the safety and security of our personnel nationwide**.**

Business Outcome	Measurement
Enhance support for the Continuity of Operations program (COOP)	Enhance the GIS application to support COOP through the Federal Emergency Management Agency's National Incident Management System, utilizing our Mass Events Notification System
Develop a nationwide map, integrating occupant information, building floor plans, and latitude/longitude information	By 2014, 50% of building floor plans will be published on our intranet through the GIS application
Integrate real-time alerts and messaging from authoritative sources for weather and seismic events	Integrate real-time alerts and messaging for National Weather Service severe weather, U.S. Geological Survey earthquakes, and wildfires through GIS real-time Really Simple Syndication data feeds
Synchronize the GIS platform and Office of Security and Emergency Preparedness (OSEP) work environment, resulting in enhanced coordination and response for OSEP staff	Establish benchmarks for emergency responders to evaluate and integrate GIS exercise support for emergency response functions to reduce disaster planning response times for OSEP staff by 30%

Financial & Administrative Systems – This initiative supports our goal to preserve the public's trust in our programs. We maintain financial management systems that integrate with related administrative processes. We regularly update these systems to stay abreast of current technology and ensure the accuracy of electronic payments made to employees and beneficiaries. The goal of the initiative is to service the public more efficiently, effectively, and electronically in daily operations and in the event of a national emergency.

Business Outcome	Measurement
Increase electronic remittance processing in the field offices	Increase electronic remittance processing in the field offices by 100%
Increase certified automation	All new interfaces with Social Security Online Accounting and Reporting System will use our standard Gateway web service
Reduce the need for subsidiary systems	Eliminate subsidiary systems without losing functionality by FY2016
Eliminate data input redundancy	Modernize Third Party Payment System with state-of-the-art technology by establishing a web-based system in FY 2016

Payment & Reporting Requirements – This initiative will utilize technology to improve efficiencies and

3. Financial Services

implement legislative mandates in the benefit payment and reporting operations. The initiative will improve the accuracy and timeliness of benefit payments and subsequent reporting to internal and external stakeholders by streamlining processes, implementing newly required legislative mandates, and implementing strong internal controls.

Business Outcome	Measurement
Increase debt collection	Increase our debt referrals to the Treasury Offset Program (TOP)
Improve transparency of reporting	Meet all mandated reporting requirements

4. Hearings Process

Goal: Serve the Public Through a Stronger, More Responsive Disability Program

- Improve the Quality, Consistency, and Timeliness of Our Disability Decisions
- Maximize Efficiencies Throughout the Disability Program

Goal: Ensure Reliable, Secure, and Efficient Information Technology (IT) Services

- Maintain System Performance and the Continuity of IT Services
- Enhance and Execute Plans to Modernize Our Systems
- Incorporate Innovative Advances in Service Delivery

Portfolio Vision

The Hearings Process Portfolio promotes and manages IT projects that reduce the average wait time for a hearing decision. It encompasses all appellate levels and addresses the challenges of processing large backlogs of hearings requests, increasing receipts and workloads at the hearing office and the Appeals Council levels. Our projects support an integrated agency-wide electronic business process, promote eServices, and support systems for our employees.

Investments

- Non-Major Hearings: Improve Service
- Non-Major Hearings: Maintenance & Cyclical
- Non-Major Hearings: Prevent Backlogs

Business Process

- Appeals (Adjudication)
- Disability
- Title II
- Title XVI
- Title XVIII

4. Hearings Process

Portfolio Initiatives

- Process Enhancements
- Service Improvement

Initiatives: Business Outcomes - Measurements

Process Enhancements – This initiative contains projects that enhance our existing case processing and management systems, including those used by hearing offices, the Appeals Council, and the Office of the General Counsel (OGC). This initiative helps employees to move and process cases quickly through all stages of the hearings and appeals process. This initiative supports new process changes and the collection of management information (data) to identify trends, and improve the quality of our decision-making, products, and services.

Business Outcome	Measurement
Reduce manual business & systems processes and administrative costs	Complete the budgeted number of hearing requests
Provide a consistent process that supports the electronic environment	

Service Improvement – This Initiative contains projects that improve service delivery to the public and employees. These projects will streamline and improve the timeliness and quality of the hearings and appeals process.

Business Outcome	Measurement
Consistent policy-compliant decisions in a timely manner	Complete the budgeted number of hearing requests

5. High Performing Workforce

Goal: Build a Model Workforce to Deliver High Quality Service

- Attract and Acquire a Talented and Diverse Workforce that Reflects the Public We Serve
- Strengthen the Competency, Agility and Performance of Our Workforce to Align with the Needs of the Public
- Foster an Inclusive Culture that Promotes Employee Well-Being, Innovation and Engagement
- Enhance Planning and Alignment of Human Resources to Address Current and Future Public Service Needs

Goal: Ensure Reliable, Secure, and Efficient Information Technology (IT) Services

- Maintain System Performance and the Continuity of IT Services
- Enhance and Execute Plans to Modernize Our Systems
- Incorporate Innovative Advances in Service Delivery

5. High Performing Workforce

Portfolio Vision

The Office of Human Resources (OHR) employs technology and innovation to increase our efficiency and improve the quality of our HR services for all of our employees and components.

Investments

- Non-Major Workforce: Human Resources
- Non-Major Workforce: HR Administrative Services
- Non-Major Workforce: Maintenance & Cyclical

Business Process

- Human Resource Management

Portfolio Initiatives

- Human Resources (HR) Systems
- HR Administrative Services

Initiatives: Business Outcomes - Measurements

Human Resources (HR) Systems – This Initiative is composed of projects that focus on improving the effectiveness of Human Resources systems.

Business Outcome	Measurement
Develop a comprehensive Learning Management System (LMS).	By end of FY 2017, interface the Learning Management System with the Agency Skills Inventory (ASI) system. By end of FY 2017, route payment for outside training through the LMS and retire the Training Online Nomination System (TONS).
Develop a nationwide HR Services Portal to provide one-stop access to HR data and services for all employees, managers, supervisors, and HR/LR specialists.	By end of FY 2014, add the Minority Serving Institutes Report System and current HR links to the portal. By end of year 2015, add Management Information and Employee Emergency Contacts to the portal. By end of year 2016, add remaining regional functionality and ePACSs to the portal.
Develop and implement the Labor Relations-Employee Relations /Workflow Management System.	In FY 2014, begin imprinting routing using the Electronic Management of Assignments and Correspondence System (EMACS) framework. By end of FY 2015, complete routing and process mapping, and add the capability for management information reports.

HR Administrative Systems – This Initiative is composed of projects that do not focus on improving the

5. High Performing Workforce

effectiveness of Human Resources systems, but have been determined to best fit under our High Performing Workforce Portfolio.

Business Outcome	Measurement
Replace our Assignment and Control (ACT) system.	By end of FY 2014, 100% of our ACT workload will be moved to the EMACS. By the end of FY 2014, 100% of our audit tracking activity will be moved to EMACS.

6. Program Integrity

Goal: Strengthen the Integrity of Our Programs

- Transform the Way We Record Earnings to Enhance Data Accuracy
- Protect the Public's Data and Provide Secure Online Services
- Increase Payment Accuracy

Goal: Ensure Reliable, Secure, and Efficient Information Technology (IT) Services

- Maintain System Performance and the Continuity of IT Services
- Enhance and Execute Plans to Modernize Our Systems
- Incorporate Innovative Advances in Service Delivery

Portfolio Vision

Program Integrity IT investments support our goal to preserve the public's trust in our programs. The American public must be confident that we manage their tax dollars wisely. Likewise, those receiving Social Security or Supplemental Security Income (SSI) must be sure that we pay their benefits both timely and accurately. Therefore, the Program Integrity portfolio seeks to increase efforts to accurately pay benefits, minimize and recover improper payments, maintain accurate earnings records, and make our administrative operations even more efficient.

Investments *(* indicates Exhibit 300)*

- *Earnings Redesign
- Non-Major Program Integrity: A123 reporting
- Non-Major Program Integrity: Access to Financial Institutions (AFI)
- Non-Major Program Integrity: Debt Management
- Non-Major Program Integrity Direct
- Non-Major Program Integrity: Improper Payments
- Non-Major Program Integrity: Improved Death Reporting
- Non-Major Program Integrity: Maintenance &Cyclical
- Non-Major Program Integrity: Quality Assurance
- Non-Major Program Integrity: Third Party

6. Program Integrity	
Deposit Fraud Prevention	Payment System
Business Process	
• Appeals (Adjudication)	• Quality Assurance
• Earnings	
Portfolio Initiatives	
• Debt Management	• Quality Assurance
• Earnings Redesign	• Systems Integrity
• Payment Accuracy	

Initiatives: Business Outcomes - Measurements

Debt Management – This supports the Office of Management and Budget's (OMB) directive to recover improper payments under the Improper Payments Elimination and Recovery Act of 2010. It also supports the current OMB focus to decrease delinquent debt and establish agency debt collection goals. It ensures that we continue to maximize our debt collection potential by implementing new debt collection tools as well as enhancing our current tools to recover overpayments from our current and former beneficiaries, representative payees, and other non-entitled debtors, such as attorneys. This initiative ensures our compliance with current and future debt collection provisions authorized by The Debt Collection Improvement Act of 1996, the Foster Care Independence Act of 1999 and the Social Security Protection Act of 2004.

Business Outcome	Measurement
Implement new tools for debt collection	In accordance with the Agency Strategic Plan, recover Improper Payments by: • Sending 180,000 (or maximum remaining to send) OASDI and SSI External Collections Operations (ECO) notices to debtors with debts 10 years or more delinquent, informing them of our ability to refer these debts to the Department of the Treasury for offset via the Treasury Offset Program.
Maximize our use of proven debt collection tools and techniques	

Earnings Redesign – This Initiative will update, simplify, and streamline the processing of earnings reports, taking advantage of modern technology, ensuring efficiency and consistency in service, improving the flow and speed of earnings processes, and reducing manual processes. Earnings information processed by us is used by the IRS to determine tax liability and by the Centers for Medicare and Medicaid Services (CMS) to determine eligibility and calculate premiums. In addition, management information will be enhanced to track earnings reports at all levels. This will ensure the accuracy of the earnings records, the accuracy of paying benefits, and reduce improper payments.

Business Outcome	Measurement
Redesign our antiquated earnings systems into a uniform, consolidated, scalable, and reliable	Maintain Accurate Earnings Records by:

6. Program Integrity	
system that can expeditiously accept and accurately post wages and process workloads in a fully automated environment.	• Reducing the percentage of paper form W2s completed to 12%; • Achieving the target percentage (99%) for correctly assigning original Social Security Numbers; • Increasing SSI wage reporting via telephone and the mobile application by 5 to 8 percent from the September 2013 volumes to increase the number of wage reports from SSI recipients and reduce improper payments due to wages. Continue to Modernize our Earnings Systems by; TBD Work with the IRS to Improve Wage Reporting by: TBD
Move paper filers to electronic filing	
Improve communication with external users, such as employers and other government agencies	
Provide additional electronic services to businesses and the public.	
Improve the accuracy and quality of earnings records.	
Automation of the paper-laden IRS/SSA Reconciliation (Recon) process	
Effectively respond to wage reporting reforms	

Payment Accuracy – The purpose of this initiative is to detect, prevent, and correct payments resulting from our mistake in computing the payment, our failure to obtain or act on available information affecting the payment, the beneficiary's failure to report an event, or a beneficiary's incorrect report. We also plan to recover overpayments that result from incorrect payments and increase the accuracy of our internal payment processes.

Our annual stewardship efforts measure and identify areas where our efforts to increase payment accuracy will have the greatest impact in reaching our accuracy goals. We have a number of strategies in place to protect the public's tax dollars and ensure a more efficient and effective government.

Business Outcome	Measurement
Integrate with Business Partners to increase data exchange	Increase the number of Totalization Data Exchange Continue work on Veteran's Referral Project
Increase effectiveness of Program Integrity workloads	Improve Death Process Redesign by: • Increasing the number of states participating in Electronic Death Registration; • Increasing the number of death matches from the Numident to MBR/SSR; • Redesigning the death processing system Decrease the number of T2 Beneficiaries Age 115 in Long-term suspense
Develop strategies to maximize the effectiveness of initiatives that prevent or more quickly identify the leading causes of incorrect payments	Expand Access to Financial Institutions by: • Increasing bank searches by (TBD) to detect undisclosed accounts.

6. Program Integrity	
	Enhance the SSI Wage Reporting Process by: • Completing the budgeted number of SSI non-disability redeterminations; • Reducing the percentage of improper payments made under the SSI program to no more than 6.2% of all payments made under the SSI program (i.e., overpayments and underpayments); • Increasing SSI wage reporting via telephone and the mobile application by 5 to 8 percent from the September 2013 volumes to increase the number of wage reports from SSI recipients and reduce improper payments due to wages. Identify Non-Home Real Property • Complete analysis of the non-home real property initial claims study to verify the value of unreported property owned by SSI applicants and recipients; • Conduct a non-home real property study on redeterminations to determine the feasibility of creating a post entitlement process to identify unreported non-home real property owned by SSI recipients or their deemors.
Automate internal business processes to make it easier for our employees to make changes quickly and accurately	Increase the percentage of disability cases evaluated using Health Information Technology (HIT) to 200% above FY 2013 performance.
Enhance debt collection policy and practices	Direct Deposit Fraud Prevention Impose Administrative Sanctions Increase overpayment detection and timeliness of overpayment collections by: • Completing the budgeted number of SSI non-disability redeterminations; • Reducing the percentage of improper payments made under the SSI program to no more than 6.2% of all payments made under the SSI program (i.e., overpayments and underpayments)

Quality Assurance – This initiative consists of Data Quality and Quality Review projects.

Data Quality: Our mission, goals, and legal mandates require us to ensure that its data is accurate, consistent, complete, and timely. Historically, our data and data needs have grown in a stove piped manner to fit unique needs of an application or program. Each program had its own set of data standards and decentralized controls to manage program data and interpretations of data. Solutions to fix data incongruities are often from a specific system or program viewpoint.

Therefore, the Office of Quality Improvement (OQI) began an extended long-term strategy to improve its

6. Program Integrity

support of our business initiatives by taking a holistic, enterprise view of how to identify data quality issues and propose enterprise solutions to correct them. OQI has developed a methodology to do baseline quality assessments of data and continued monitoring of data.

OQI has collaborated with the Office of Systems to automate the continuous monitoring and collection of data quality metrics on some of the published data in an effort to quantitatively measure and assure the quality. OQI has worked with DCS to develop an automated publication system to produce report artifacts. These consistent report artifacts are then published both internally and externally - on our websites and public websites such as Data.gov.

OQI is looking to introduce critical operational data under the data quality umbrella with an aim to assure the quality of data from point of entry through various transformations until consumption and foster data quality improvements. OQI will be working with the Office of Systems to explore options to incorporate data quality continuous monitoring scripts to augment system development life cycle processes.

Electronic Quality Assurance (eQA): eQA is a web enabled intranet application used by the Office of Quality Review to conduct quality performance studies and reviews. The studies and reviews evaluate the accuracy of adjudicative decisions made on behalf of our beneficiaries. eQA enables authorized users to create everything needed to support a quality review (studies, sampling criteria, case distribution, business processes, review forms, document templates, support materials, and data sources). Quality Reviewers then review the sampled cases and enter findings and supporting documentation into the system. The application aids in identifying error-prone & problematic workloads.

Business Outcome	Measurement
Automated data extraction and formatting of 3 additional datasets that are currently being manually produced for publication to data.gov	Comply with Presidents Open Government Directive; Raise awareness of the importance of transparency in government; Reaffirm the commitment of the agency to share information with the public, and improve the public's understanding of the work we do by: • Maintaining the percent of people rating our services as "excellent", "very good", or "good" at 83.5%.
Complete, Consistent and Accurate Death Information	Reduced Improper Payments; Reliable Data Exchange – sharing of data by: • Increasing the number of states participating in Electronic Death Registration.
Complete, Consistent and Accurate Medical Impairment Codes	Update the medical Listing of Impairments by developing and submitting at least five rules for public comment, five final rules, and three Social security Rulings.
Increase the effectiveness of the Quality Review process	Reduced Improper Payments

Systems Integrity – This initiative will develop and propose innovative ways to protect us from fraud and abuse. The mission of this initiative is to ensure that our fraud and abuse detection and prevention

6. Program Integrity

programs are robust and flexible. The Systems Integrity initiative is working toward one of our key strategic goals, to preserve the public's trust in our programs and protect our programs from waste, fraud, and abuse.

Business Outcome	Measurement
Identify vulnerabilities in our public facing applications	Detect fraud in our public facing applications
Conduct analysis of recent fraud cases	Implement new criteria to detect this fraudulent activity
Enhanced functionality for CIRP users	Improved timeliness of Integrity Reviews
Improve the ATS user experience	Reduce querying time

7. SSA Infrastructure

Goal: Deliver Innovative Quality Services

- Enhance the Customer Experience by completing Customer's Business at the First Point of Contact
- Align our Physical Footprint to Incorporate Improved Service Options
- Partner with Other Agencies and Organizations to Improve Customer's Experience and Align with the Administration's One-Government Approach

Goal: Strengthen the Integrity of Our Programs

- Protect the Public's Data and Provide Secure Online Services

Goal: Serve the Public Through a Stronger, More Responsive Disability Program

- Maximize Efficiencies Throughout the Disability Program

Goal: Build a Model Workforce to Deliver High Quality Service

- Attract and Acquire a Talented and Diverse Workforce that Reflects the Public We Serve
- Strengthen the Competency, Agility and Performance of Our Workforce to Align with the Needs of the Public
- Foster an Inclusive Culture that Promotes Employee Well-Being, Innovation and Engagement
- Enhance Planning and Alignment of Human Resources to Address Current and Future Public Service Needs

Goal: Ensure Reliable, Secure, and Efficient Information Technology (IT) Services

- Maintain System Performance and the Continuity of IT Services
- Enhance and Execute Plans to Modernize Our Systems

7. SSA Infrastructure

- Incorporate Innovative Advances in Service Delivery
- Continuously Strengthen Our Cyber Security Program

Portfolio Vision

The Infrastructure Portfolio provides us with the information technology stability and flexibility that we need in order to meet and sustain current operational requirements, adapt to changes in business operations, and plan for future growth and demand in our workloads.

Our reliance on information technology and electronic data continues to increase with each new workload and each new service delivery channel. The portfolio seeks to address the rising demands on our infrastructure by not only continuing to deliver high levels of end-to-end availability, stability, security and performance but also by instituting new and/or enhanced technologies to remain current with industry standards. Through anticipation of the technology demands of our strategic objectives and investments, the portfolio strives to ensure a ready environment with each application delivery as well as improvements and enhancements to application portfolios.

Investments *(* indicates Exhibit 300)*

- *Citizen Access Routing Enterprise (CARE) through 2020
- *Infrastructure - Data Center
- *Infrastructure - Office Automation
- *Infrastructure – Telecommunications
- *Interactive Video Tele-training (IVT)
- *National Support Center
- Non-Major Infrastructure: Application Portfolio Management
- Non-Major Infrastructure: Infrastructure Data Center (IDC) Database Storage
- Non-Major Infrastructure: IDC Document Management Architecture
- Non-Major Infrastructure: Infrastructure Office Automation (IOA) Software Architecture
- Non-Major Infrastructure: Special Projects
- Non-Major IT: Architecture Projects
- Non-Major IT: Security Architectures
- Non-Major IT: Security Governance and Support
- *Telephone Systems Replacement Project (TSRP)

Business Process

- IT Management
- Security Management

Portfolio Initiatives

- Application Portfolio Management (APM)
- Citizen Access Routing Enterprise through 2020 (CARE 2020)
- Network Communication Architecture
- Notice Architecture

7. SSA Infrastructure

- Database Architecture
- Document Management Architecture
- Essential Data Center Operations
- Governance and Support
- Interactive Video Desktop
- National Support Center
- Platform Architectures
- Security Architectures
- Software Architectures
- Storage Architecture
- Telephone System Replacement

Initiatives: Business Outcomes - Measurements

Application Portfolio Management (APM) – This initiative covers a disciplined approach for determining the health of software applications by examining existing application software processes and associated technology to analyze and quantify application portfolios, align them with strategic business goals and help decide which applications are eligible to retire, renovate or maintain while taking into account the risk factors involved. The health of a particular application is based upon meta-data derived from the APM methodology

Business Outcome	Measurement
Provide managers with meaningful data about the condition of an application and ultimately use that information to reduce overall information technology costs.	Examine existing application software processes and associated technology to help decide which applications are eligible to retire, renovate or maintain while taking into account the risk factors involved. Generation of Annual Spring Review Report

Citizen Access Routing Enterprise through 2020 (CARE 2020) – This initiative replaces the contract that provides us with National 800 Number Network (N8NN) call center services with a vendor hosted Voice over Internet Protocol (VoIP) solution and establishes an infrastructure that can enable new service delivery channels. It involves issuing procurements for all hardware, software, training, support, management information, installs, and maintenance of the systems. It also includes the re-acquisition of the toll free usage and Interactive Voice Response (IVR) applications currently purchased from the GSA FTS2001 contract and slated for transition to the new GSA Networks Universal contract. This initiative will also provide, but is not limited to, Automatic Call Distribution (ACD) functions, ACD telephones, and enterprise management information (MI) to our 44 answering sites. Along with the National 800 Number Network (N8NN), there are six additional 800 numbers planned for initial transition. They include the two Office of Central Operations (OCO) Employer 800 Numbers, the Office of the Inspector General (OIG) Fraud Hotline, Spanish Fraud Hotline, Spanish TDD Hotline, and the SSI Monthly Wage Reporting 800 Number.

Business Outcome	Measurement
Replace the National 800 Network Call Center to ensure that over 85 million of our customers are served properly and more efficiently.	Complete the transition of 100% sites, Interactive Voice Response (IVR) services and Tele-Service (TSC) deployments. (*Activity Complete - October 2013 [Q1 FY14]*)

7. SSA Infrastructure

Database Architecture – This initiative provides the strategy, management, policies and standards for our database and storage management technology. It provides the designs of our databases, storage of enterprise data, and backup and recovery infrastructure, which ensure that our data is available and accessed when needed. The projects in this initiative involve collecting, documenting, monitoring and researching Database and Storage requirements for our enterprise data and allocating and managing disk storage to meet our customer's needs for all aspects of storage media management such as providing for the efficient use of over nine terabytes of Mainframe DASD Storage our legacy systems and master data base files. Additionally, these projects provide services to other development project teams in developing application software and databases, along with new hardware and procurement for technology refreshments.

Business Outcome	Measurement
Reduce the cost of our storage environment.	Anticipating a data growth rate of 10% over the next 11 months, reduce the cost of storage through: • Maintaining a Data De-duplication ratio for open systems that results in a 20 to 1 reduction • Deploy Thin Provisioning on 40 of 49 subsystems by end of FY14 • The Electronic Vault initiative - create and electronic vault to replace the physical vaults. By end of FY14 this should be up, running and hold all 5.4 PB of the tape data.
Position our storage infrastructure for migration to the National Support Center (NSC).	Complete storage installation in the NSC. Complete the hardware refresh at the Second Support Center (SSC).
Improve business resilience.	Complete data replication enhancements and virtual tape deployment. By end of FY14, we will have refreshed 6 data replication target subsystems at the SSC for all the NCC resident sysplexes (PPF, MISF, iPPF, DEV1). The Electronic Vault initiative - create and electronic vault to replace the physical vaults. By end of FY14 this should be up, running and hold all 5.4 PB of the tape data.
Improve the manageability of our storage infrastructure.	Implement Storage Resource Management and Storage Performance Management tools will be in place by August 2014 for the mainframe systems. These include BMC Mainview, CA Vantage, Intellimagic Vision, EMC Unisphere, and EMC SPA.
Improve operations and performance of our business applications.	Complete Storage Performance Management, Mainframe Auto-Tiering initiatives on 25 of 49 subsystems by end of FY14.
Preserve and protect enterprise data.	Plan for the migration to the NSC. By the end of FY14, the data replication enhancements and two topologies necessary to migrate to the NSC have been tested, deployed, and documented. They will

7. SSA Infrastructure	
	be utilized to thin provision each of the mainframe DASD subsystems. By end of FY14, we will have 5.4 PB of tape data on virtual tape, which will be replicated between the data centers.
Document Management Architecture – This initiative includes the design, development and maintenance of systems related to electronic document imaging, including storage and retrieval of these electronic documents. This initiative has major hardware and software components. Another part of this initiative includes Electronic Records Management (ERM) and destruction to meet directives and regulations from the National Archives and Records Administration (NARA). New recent activities for this initiative include Email Retention and e-Discovery Management.	
Business Outcome	**Measurement**
Ensure the architecture is in place to manage the retention and destruction of our electronic records (programmatic, administrative and email).	Maintain 99.5% availability for our online scanning, imaging and document management applications. Continue Document Management System (DMS) Front End Capture System (FECS)/Fax Server upgrades to Windows 2008.
Manage the retention and destruction of our claims related electronic artifacts	Maintain a 99%+ artifact association with the Claims File Records Management System (CFRMS)
Essential Data Center Operations – This initiative supports our Information Technology (IT) infrastructure such as the cabling, hardware, software, help desk services, desktop tools, prints jobs, and provides and maintains the connections among end-user desktops, central computers, and other information resources. The projects in this initiative keep the Data Centers running, generate and print major print jobs such as the Social Security Number Cards and provides varies levels of support to our users and storage of SSA's data.	
Business Outcome	**Measurement**
Provide necessary capacity, functionality and availability in our support centers in order to meet our needs and the needs of our business partners. Provide necessary capacity management and planning guidance for mainframe CPU utilization levels. Conduct capacity forecasts for our Data Centers, ensuring timely budgeting activities are completed and future capacity and performance needs can be fulfilled.	Maintain an enterprise availability level of 99.5 % for data exchange. External Business Service (EBS) level is determined by the successful transmission of data to/from us and our internal and external partners. Maintain mainframe CPU utilization levels under 90% for General Purpose CPU and under 80% for (zAAP or zIIP) Specialty Engine CPU. These targets are used for capacity planning purposes and are based on hourly average calculations. Note that CPU utilization can be very volatile and that these targets will often be exceeded during short periods of time. Maintain a 45% network capacity threshold to support redundancy of two-carrier sites at our Data Centers. Maintain a 70% network capacity threshold for single-carrier sites. Capacity forecasts determined

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	by in-house statistical analysis of current and historical WAN Data Center router/NetFlow data.
Provide detailed Systems Help Desk interaction and incident documentation for real-time voice and virtual reported problems.	Answer a minimum of 95% of all customer calls by human response within 90 seconds and maintain a call abandonment rate not to exceed 10% of the total calls offered for each month. Resolve at least 65% of all interactions and incidents based on a monthly average, excluding direct transfer.
Provide proactive monitoring 24 hours a day, 7 days a week for the Agency's critical voice and data networks, mainframe and telecommunications infrastructure devices.	Responds to customer reports of network performance problems and effects the resolution of all WAN performance problems directly by involving 3rd level support components or through vendor maintenance contracts.
Plan, coordinate, test, schedule and process our batch environment production workloads.	Assure batch processing and data exchanges essential to critical distribution of payments to our beneficiaries are always delivered by the targeted pay date.
Provide Social Security card and notice print and mail services to the public.	Maintain an on time schedule of two days after the computer processing date (for both printing and mailing cards and notices)
Provide support in the application project life cycle for planning and analysis, development, post-implementation and maintenance phases.	Ensure all application, configuration and system changes across all platforms are documented, tested and coordinated resulting in a complete integration in the production environment.
Provide support for all National Computer Center facility requests such as furniture repair/replacement, employee moves, room renovations, power installation, excessing IT equipment and cable installs or removals.	Ensure all required forms are completed and approved prior to facility related actions.
Governance and Support – This initiative covers a wide range of systems development activities related to standards and regulation, systems management, life cycle support, user groups, performance and availability and new technologies. The major driving force to this initiative is to assure that our systems are developed and maintained in a standard manner that adhere to the policies of the Office of Systems and Federal IT requirements. This initiative also includes projects that foster technical information sharing among our systems developers.	
Business Outcome	**Measurement**
Provide standards and guidelines for uniform and architecturally compliant systems design and development.	Conduct weekly OTSO Infrastructure Review Board (IRB) sessions to address physical infrastructure and support (or process) issues that SSA Infrastructure is responsible for in any stage of the project lifecycle. The OTSO IRB will:

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	• Understand Project requirements that might call for an addition or change to the physical infrastructure. • Assess Technical support and/or research that might demand resources not committed or previously identified for the project. • Identify Issues or concerns that can be identified early relating to capacity, performance, or platform constraints related to the project. • Ascertain any other issues that a Systems Project Manager (SPM) feels would be helpful in obtaining opinions and advice from OTSO senior management. • Consider new products and approaches that should be vetted by OTSO including Proof of Concept or Pilot proposals that require OTSO support. • Address projects that may require a non-standard security architecture
Establish a framework that ensures that information technology investments align with our strategic business plans.	Develop OTSO 18 Month Update (Execution Plan) for Infrastructure updates Develop Long-term outlook for Infrastructure (5-year) OTSO Engineering Strategy Identify models and other documentation required to fully define our existing and target information technology architectures. (OESAE)
Interactive Video Desktop (IVT) – This initiative provides interactive communication between student and instructor using IVT equipment installed in classrooms located across the United States. The satellite network provides the video infrastructure, while the IVT equipment provides for the interactive communication between the classroom and the instructor. ***(Deferred in FY14 due to budget/sequestration)***	
Business Outcome	**Measurement**
Expand established uses for video	Provide a proof-of-concept and pilot for an IVT redesign. ***(Deferred in FY14 due to budget/sequestration)***
Enable us to strategically manage and align staff to support our mission	Complete a national rollout of IVT redesign – rolling out workstations for classroom interaction. ***(Deferred in FY14 due to budget/sequestration)***
Provide the tools necessary to develop a high-performing workforce	Maintain an IVT response time for outages of 2 working days UP time
National Support Center (NSC) – This initiative provides for the migration of all current production data	

7. SSA Infrastructure

center operations from the Social Security Administration's (SSA) National Computer Center (NCC) to the new NSC. Once construction of the new facility is complete, we will move IT Services from the NCC to the NSC over a twenty-two month period, from October 2014 to August 2016. Preparatory efforts are under way now to virtualize and consolidate significant portions of our IT equipment, perform application and asset inventory planning and to formulate a concise migration plan so that we can meet this goal.

Business Outcome	Measurement
Mitigate risk to our information technology infrastructure.	Provide a new Tier III data center (the National Support Center). Execute the National Support Center (NSC) Migration Schedule Management Plan (SMP) that contains the NSC Migration schedule configuration, schedule baseline change management process, roles and responsibilities, schedule management approach and schedule work breakdown structure.
Provide an Enterprise Configuration Management System (eCMS) for the NSC.	Complete functionality for in-house applications
Provide a physical assessment platform for our pre-migration systems. This facility will remain in use until the end of the program in August 2016, at which time the decision will be made to decommission it or repurpose the physical assessment platform configuration, integration, and performance testing.	Finalize a decision to decommission or repurpose the physical assessment platform at the NCC.
Complete a What Stays Behind effort that will validate special IT Operations requirements that must be maintained on the Woodlawn Campus to facilitate a smooth transition to and continuous operations after the NSC has been established.	Complete final recommendations regarding facilities and other IT support requirements that must remain at the Woodlawn Campus.
Provide Network and Telecommunications connectivity at the NSC to support the WAN and Local Area Network (LAN) architecture that supports SSANet.	Complete Wide Area Network (WAN – connectivity via third-party vendors, Level 3, Verizon Business, and Century Link). Complete Local Area Network (LAN – connectivity within the data center) will be fully operational. Enterprise Availability: 99.5% eDIB SLA: 99.500%

Network/Communication Architectures – This initiative provides for the design, installs, implementation, software, monitoring and maintenance of our Wide Area and Local Area Networks and the connectivity to these network services to end-users nationwide. It also provides the communication medium through which our employees receive data such as voice and video, administers the General Services Administration (GSA) NETWORX services SSA-wide, and the exchange of data with other Federal and State Agencies. The projects in this initiative involve the National 800# Call Center, Satellite and Wireless

7. SSA Infrastructure

Communications Solutions, Video Teleconferencing, Fax, Voice over IP, Electronic Messaging, and the procurements of system hardware and software services.

Business Outcome	Measurement
Ensure a highly reliable data transmission infrastructure for the transmission of data to internal and external partners.	Maintain data transmission infrastructure availability of 99.5%
Provide robust network architectures that can be used for data/voice/video networks resulting in efficient and effective design, development and implementation of evolving network hardware and software.	By the end of September 30, 2014, 90% of all SSA sites transitioned to Networx. (Based on approximately 1782 sites). Provide state-of-the-art security for SSA data exchange network with outside agencies. Maintain Enterprise Availability of 99.5%
Extend High-Speed Data Center Connectivity to Service Delivery Points (SDPs).	Maintain Enterprise Availability of 99.5%

Notice Architectures – This initiative includes the planning, design, development, and maintenance of our current notice processing architecture along with maintenance of our language repositories. This initiative also includes the development of a new Enterprise Communication Architecture (ECA). The ECA process includes planning, analysis and development efforts necessary to provide an infrastructure that supports enterprise notice processes, multiple notice delivery channels, a single source of communication language, detail MI reporting, and language modification by users.

Business Outcome	Measurement
Provide a standard approach to the preparation and distribution of written correspondence to the public in both private and public sectors.	The Target Notice Architecture (TNA) batch will be replaced with ECA by 9/30/2014

Platform Architectures – This initiative provides the ability of our daily applications/operations to run on a combination of computing platforms such as the Mainframe platform, Desktop managed software platform, the Client-Server server-based multi-tiered platform, etc. Projects included in this initiative provide the hardware architecture, software framework and application frames and a technologically sound environment for all of its platforms. These projects provide services for the research, procurement of hardware and operating software, design, configuration, implementation and monitoring of these various platforms. This initiative also includes the design and implementation of hardware and software in support of electronic messaging, Internet and Intranet web-based applications and web-servers and Window development and production environment.

Business Outcome	Measurement
Ensures that the Mainframe Architecture software is up-to-date and consistently improve the application performance and availability of the System.	Maintaining enterprise availability of 99.5%

7. SSA Infrastructure	
Provide robust hardware and maintain software currency to ensure a technological sound client server platform.	For x86-64 platforms, to facilitate physical size limitations of the NSC and facilitate growth, reduce the number of physical servers to under 1000 by implementing a blade architecture utilizing virtualization. Refresh desktop and laptop hardware. ▪ Deploy 1000 laptops to support agency telework activities. ▪ Execute 0-dollar BPA for desktop refreshment. (Acquisition of replacement workstations falling off warranty in FY14 contingent on the availability of funding/resources) Upgrade enterprise Windows infrastructure to Windows Server 2012. Maintain enterprise availability 99.5%
Deployment of our enterprise Linux (open source) infrastructure.	Migrate ACU/TAM: Months 1 –6 ▪ Executive support ▪ Value proposition ▪ Education ▪ Sizing's ▪ Scope Definition ▪ Infrastructure planning ▪ Project planning ▪ Contracting ▪ Education & Training ▪ Detailed requirements gathered Months 6 –12 ▪ Hardware installation ▪ Software installation & configuration ▪ Execute test plans ▪ Track and manage problems ▪ Escalate problems as required ▪ Evaluate results vs. success criteria ▪ Prepare final report ▪ Purchase or return loaners
Consolidate Distributed UNIX Intranet Infrastructure to reduce Data Center footprint.	Use refresh cycle to build and test equipment in Simulated NSC, and prepare equipment for shipping to NSC for installation.
Provide continuous hardware and software upgrades and refreshment of our Unified Communications (Microsoft Lync)	Maintain enterprise availability of 99.5% Lync 2013 expansion to Kansas City and San Francisco

7. SSA Infrastructure	
infrastructure.	SDP (including enhanced Live Meeting) Upgrade Lync 2013 (for applications) for Online Meeting (Live Meeting), Communicator 2007 (Instant Messaging), and Presence
Provide electronic messaging support.	Support for 4 Service Delivery Points: ▪ Exchange Server 2007 Enterprise SP3 ▪ 100 Exchange 2007 Servers ▪ ~90,000 user mailboxes ▪ ~14,000 resource mailboxes 34,000 Outlook Web Access (OWA) enabled users 4,500 Blackberry users 100% High Availability 60% site resiliency

Security Architectures – This initiative implements security policies and controls within our information technology (IT) environment. It also protects IT data resources from both internal and external user threats such as unauthorized access, misuse, damage, or loss and forms a subset of the larger Enterprise Architecture that describes the internal IT Governance process. It applies to all aspects of the IT program and extends to all users of the system at all times.

Business Outcome	Measurement
Provide compliance with federal directives and regulations related to security and oversight including such programs as HSPD-12, FISMA, Executive Assurance and the Trusted Internet Connection Initiative (CCV),	Maintain a threat agency compliance score of at least 90% on the Cyber Security Compliance Validations (CCV).
Establish contingency plans and disaster recovery procedures for mission critical functions and systems according to Federal directives, laws, and standards (FCD-1, NIST 800-34, NIST 800-53, and FISMA).	Conduct an annual disaster recovery exercises that satisfy the Federal requirements. Test recovery infrastructure as part of DRP/COOP exercise to validate 24 hour Recovery Time Objective, and 1 hour Recovery Point Objective.
Implement a scalable Enterprise security solution for the Oracle Database Platform.	Complete Phase 1 and Phase 2 requirements and development. ▪ Develop connector piece (OESAE) ▪ Test Functionality by August FY14(OESAE, DOSDO, DISSAO) ▪ Deploy by EOY FY14

Software Architectures – This initiative includes all common developed architectures, utilities and services that are used by systems developers throughout the Office of Systems. By utilizing these, software is developed in a consistent manner and takes advantage of code reuse and standardization. Some of the specific architecture areas in this initiative include output/print, business intelligence, notices and validation. Examples of utilities covered by this initiative include Global Reference Tables (GRTs),

7. SSA Infrastructure

Core Services, and Detailed Office/Organization Resource System (DOORS). This initiative also covers the incorporation of global industry standards and concepts such as Software Engineering and Service Oriented Architecture (SOA) into our systems development environment.

Business Outcome	Measurement
Increase our "agility" with respect to our capability to respond to business needs more quickly.	Provide increased alignment between business and technology through the alignment of system functions (service oriented architecture services) with business functions to position business partners to more fully understand system capabilities. Implement software solutions that are a composite of new and existing services. Provide efficient integration of existing applications by identifying common functions across previously stove-piped applications that can be implemented as common services. Expose existing data assets more efficiently as services to be consumed by a broader set of consumers.
Complete planning and analysis for the Enterprise Print Architecture (EPA).	Develop technical and operational strategies to deploy EPA services enterprise-wide.

Telephone System Replacement (TSRP) – TSRP is the Enterprise Voice over Internet Protocol (VOIP) telephone architecture primarily used for the telephone service channel at our field offices. The purpose of this initiative involves enhancing, operating and continual refreshment of the telephone architecture to meet our current and future needs. It also involves planning and analysis to provide recommendations to re-compete or refresh TRSP and issuing a full and open procurement for all hardware, software, training, support of the system. The initiative seeks to achieve its objectives through support services, moves, additions, and changes (MACs) efforts and address shared technology requests submitted by stakeholders (Operations).

Business Outcome	Measurement
Upgrade existing Headquarters telephone system to hybrid solution	Upgrade/install desktop telephones Number of desktop phones: FY14 – 10,000 FY15 – 8,000 FY16 – 5,000
(Not FY14 Funded) Develop continuing operations and maintenance for years 2018 and beyond.	Complete alternative analysis and cost benefit analysis to provide recommendations to re-compete or refresh the telephone infrastructure.
Continuing operations and maintenance for FY2014-FY2018	Complete most move/add/changes within 30 days of the vendor receiving a funded task order. Maintain a TSRP Help Desk customer satisfaction

7. SSA Infrastructure	
	rating of 90%.
Reduce the number of outages that occur in field offices during network-impacted events.	Maintain a 99.59% availability rate for telephone service availability for enterprise offices and for telephone service availability of premise-based large offices.
Improve telephone service to the public by exploiting call routing and management information functionality within the TSRP architecture. Four initiatives: 1. Deploy the Network Skill-Based Routing (NSBR) configuration to all field offices to allow calls to be answered by geographically related field offices if there is an answering resource issue at the first office called. 2. (Not FY14 funded) Deploy the MI Access for Level 1 field office managers to provide access and control for district office managers over the district offices assigned to them. 3. (Not FY14 funded) Implement a Field Office Customer Survey to offer callers the chance to provide real-time feedback on the telephone service. 4. (Not FY14 funded) Provide an estimated waiting time that is dynamically based on the resources at that specific time—in order to offer callers the change to better manage their time while waiting for an available resource.	1. Deploy OCONUS 2Q 2014 Deploy CONUS 3Q-4Q 2014 2. Deploy OCONUS TBD Deploy CONUS TBD 3. Deploy pilot, deploy nationally 4. Deploy pilot on Richmond SDP, deploy nationally

8. SSN Process

Goal: Ensure Reliable, Secure, and Efficient Information Technology (IT) Services

- Maintain System Performance and the Continuity of IT Services
- Enhance and Execute Plans to Modernize Our Systems
- Incorporate Innovative Advances in Service Delivery

Portfolio Vision

Each year we process approximately 6 million requests for original and 12 million replacement Social Security cards. We also process more than one billion requests a year for Social Security Number verification using a variety of electronic exchanges with public and private organizations. Assigning Social Security numbers and issuing Social Security cards is a highly sensitive and often complex workload. The SSN Process portfolio will develop efficient ways to handle our enumeration workload electronically,

8. SSN Process

through three business-focused initiatives. These three initiatives will help to create significant work year savings and improve service to the public.

Investments

- Non-Major SSN Process: Alien Enumeration
- Non-Major SSN Process: Maintenance & Cyclical
- Non-Major SSN Process: Strengthen Enumeration System

Business Process

- Enumeration

Portfolio Initiatives

- Alien/Foreign Enumeration
- Internet Enumeration
- Strengthening Enumeration System

Initiatives: Business Outcomes - Measurements

Alien/Foreign Enumeration – We work with the Department of State and the Department of Homeland Security to electronically issue Social Security cards to immigrants and to verify the immigration status of Social Security card applicants. This initiative will expand automated enumeration to additional classes of aliens, improve the security and integrity of the enumeration process and reduce workloads in field offices. In addition, these projects will reduce the opportunity for fraud, reduce Social Security number misuse, and reduce the number of alien enumeration problem cases.

Business Outcome	Measurement
SAVE system is up-to-date and compatible with DHS changes	More transactions verified at the first stage Fewer manual transactions

Internet Enumeration: This initiative will create a process to apply for a replacement Social Security card online. For those who are not able to apply online, it will provide information to help applicants know what documents to bring with them and the location of the nearest Social Security office/card center (e.g., through a link to the Field Office Locator application (FOLO)).

Business Outcome	Measurement
Implement an online replacement Social Security card application	Reduce Field Office and Card Center traffic

Strengthen the Enumeration Systems: This initiative will make iterative improvements to the system to ensure the integrity and automation of the enumeration process.

Business Outcome	Measurement
Reduce fraud associated with multiple SSNs	Reduce payment errors associated with multiple SSNs

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	Eliminate SSN printouts for retired numbers
SSN transactions more compliant with policy	Lower SSN processing error rate
FALCON operates on a stable platform	Fewer outages and disruptions in service

APPENDIX D: SSA IT Asset Inventory

The SSA IT asset inventory is a work in process. The first version of this inventory only included the systems and applications associated with our major IT investments. The current FY budget, and alignment to the FEA PRM and BRM were obtained from information reported in the Exhibit 53 and 300 reports. In addition, the systems are aligned to the BRM and the DRM. It is important to note that this is not an all-inclusive list of our IT assets. This inventory will continue to mature over time.

The second version of this inventory (attached) is still focused on the major investments. However, as some of the systems and applications work effort completed, the work effort has transitioned to some of our non-major investments in FY 2014 and beyond. Therefore, a few of our non-major investments are included in this report. Again, we want to reiterate that this is not an all-inclusive list of systems and applications, especially for these non-major investments. In fact, a large majority of our systems and applications supported by our non-major investments are NOT included in this report. As such, we have not included the budget dollars for these non-major investments. As the report matures, and more closely represents our non-major work effort, we will then include the budget allocated to these non-major investments.

Agency: Social Security Administration	IT Asset Inventory																				Template Updated: 10/22/12
IT Investment and System Information (from Ex 300/53's)					PRM Information		BRM Information									DRM Information		SRM Information			Other
UII #	**Asset Item Name**	**Description**	**Investment Current Fiscal Year Budget**	**Investment 7-Year Budget** (PY-2 to FY+4)	**Agency Strategic Goal(s) Supported**	**Agency Priority Goal(s) Supported**	**Mission Sector**	**Primary Business Function Code**	Secondary Business Function Code #1	Secondary Business Function Code #2	**Primary Service Code**	Secondary Service Code #1	Secondary Service Code #2	Secondary Service Code #3	Secondary Service Code #4	**Data Domain Type**	**Data Subject Type**	**System Sensitivity Level - Confidentially**	**System Sensitivity Level - Integrity**	**System Sensitivity Level - Availability**	**Comments**
Number	Text	Text	Dollars (Thousands)	Dollars (Thousands)	Name	Name	Name/2-Digit Code	3-Digit Code	3-Digit Code	3-Digit Code	3-Digit Code	3-Digit Code	3-Digit Code	3-Digit Code	3-Digit Code	2-Digit Code	3-Digit Code	Low, Moderate, High			Text
016-000002125	**DDS Automation**	Provides funding to maintain, and in limited cases improve upon, functional and technical aspects of DDS hardware and legacy systems to support disability determination operations until SSA s single system replaces the current legacy systems.	**$15,858**		**P42-016-044**		**Health and Well-Being (07)**	**651**			**303**										
	Iron Data Legacy Updates	**Provides necessary updates to the Iron Data Legacy Systems to maintain compatability with Intelligent Disability's changes to Electronic Case Analysis Tool (eCAT), Health Information Technology (HIT), Compassionate Allowance (CAL), and Electronic Records Express (ERE).**						651			303					01	005				
	Iron Data St. Louis	Supports disability case processing in all 30 Disability Determination Services.																			
	Iron Data Toronto	Supports disability case processing in 17 Disability Determination Services.																			
	Electronic Folder Interface (Java and CICS)	Checks sampling data from NDDSS (DX54) and allows components on different platforms to interface with the Electronic Folder.																			
	FY13 MIDAS Legacy Updates	**Provides necessary MIDAS Legacy System updates to maintain compatability with Intelligent Disability's changes to Electronic Case Analysis Tool (eCAT), Health Information Technology (HIT), Compassionate Allowance (CAL), and Electronic Records Express (ERE).**						651			303					01	005				

Agency: Social Security Administration	IT Asset Inventory																					Template Updated: 10/22/12
IT Investment and System Information (from Ex 300/53's)					PRM Information		BRM Information									DRM Information		SRM Information				Other
UII #	**Asset Item Name**	**Description**	**Investment Current Fiscal Year Budget**	**Investment 7-Year Budget** (PY-2 to FY+4)	**Agency Strategic Goal(s) Supported**	**Agency Priority Goal(s) Supported**	**Mission Sector**	**Primary Business Function Code**	Secondary Business Function Code #1	Secondary Business Function Code #2	**Primary Service Code**	Secondary Service Code #1	Secondary Service Code #2	Secondary Service Code #3	Secondary Service Code #4	**Data Domain Type**	**Data Subject Type**	**System Sensitivity Level - Confidentially**	**System Sensitivity Level - Integrity**	**System Sensitivity Level - Availability**	**Comments**
Number	Text	Text	Dollars (Thousands)	Dollars (Thousands)	Name	Name	Name/2-Digit Code	3-Digit Code	3-Digit Code	3-Digit Code	3-Digit Code	3-Digit Code	3-Digit Code	3-Digit Code	3-Digit Code	2-Digit Code	3-Digit Code	Low, Moderate, High			Text
	Modernized Integrated Disability Adjudicative System (MIDAS)	Supports disability case processing in Disability Determination Services offices (Alaska, California, Delaware, Guam, Missouri and Virgin Islands),Western Payment Service Center, Dallas DPU, North East PSC, Mid Atlantic PSC, South East PSC, OCO FDU, OIO, Great Lakes PSC, and Mid America PSC.																			
016-000002141	**Disability Case Processing System-DCPS**	SSA worked directly with the end-user community to determine the feasibility of creating a new, modernized Disability Case Processing System (DCPS) that will provide common functionality and consistency to support the business processes of all DDS.	**$67,533**		**P40-016-044**		**Health and Well-Being (07)**	**651**			**303**										
	DCPS Production/Development	**Production and development work critical towards DCPS rollout includes; requirements, development, validation and systems integration activites for Workload Management & Case Processing, Fiscal, Management Information and Correspondence - Production**						651			303					01	005			
	Disability Case Processing System	Used by disability determination components to process disability claims																			
016-000002145	**Earnings Redesign**	This initiative will streamline and modernize the current systems in order to ensure that records of earnings are timely and accurate.	**$24,871**		**P40-016-046**	**P43-016-046**	**Health and Well-Being (07)**	**651**			**303**										

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	Annual / Electronic Wage Reporting	**Software development projects to enhance the receipt of annual wage reports from employers and from the IRS and improve the electronic wage reporting process)**						651			303					01	001				
	AccuW2c	AccuW2C is used for electronic filing of corrected wage and tax statement (EFW2C). The software is downloaded from the SSA Web site by a submitter and used to check the format of a wage report submission file. This software is used only for testing files and does not update or modify the original file. Once errors are encountered, the original file must be accessed for corrections. The submitter should make the changes indicated on the error report generated by the AccuW2c software prior to sending the wage report submission to SSA.																			
	AccuWage	AccuWage is used for Electronic Filing of Wage and Tax Statement (EFW2). The software is downloaded from the SSA Web site by a submitter and used to check the format of a wage report submission file. This software is used only for testing files and does not update or modify the original file. Once errors are encountered, the original file must be accessed for corrections. The submitter should make the changes indicated on the error report generated by the AccuWage software prior to sending the wage report submission to SSA.																			

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	Electronic Wage Reporting Suite	Allows employers to submit and correct wage reports via screen edit, file upload, check submission status, view errors, view resubmission requests, and request a one-time extension for a resubmission request.																			
	MEF Earnings Update System	Update and maintain earnings database for use by other systems and provide earnings totals to actuary.																			
	Electronic Wage Reporting Web Service	Wage reporting web service that allows consolidator companies to programmatically submit wage files for their end user customers without any manual intervention. Part of the EWR suite of services.																			
	Reconciliation & Corrections	**Software development projects to enhance the reconciliation and correction processes. The reconciliation process compares earnings reported to the Social Security Administration against earnings reported to the Internal Revenue Service. The Corrections process involves processing corrections to erroneously reported wage reports submitted by employers.**						651			303					01	003				
	Earnings Case Management System	This is a case management system which will track many different earnings workloads.																			
	Earnings Suspense System	Add/Delete records to/from the suspense DB2 tables.																			
	Employer Balancing	Employer balancing processes employer wage reports.																			

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	Employer Balancing Intranet Processing System	EBIPS is an Intranet application developed to replace the AWR CICS screens and Client/Server middleware, such as the Internet W-2 Pre-processing (IW2PS) in the AWR system. EBIPS is used to view, control and update AWR submission level data on the PERSUB and POWRS databases.																			
	Employer Report Reconciliation	RECON is the system that compares FICA wages, Tips, and Medicare money processed by SSA's Annual Wage Reporting (AWR) system against money processed by IRS																			
	Electronic Wage Reporting Suite	Allows employers to submit and correct wage reports via																			
	Item Correction	Item Correction is the earnings system that enables the users of the system to correct earnings details on an individual number holder's (NH) Master Earnings File (MEF) record. Usually the NH will bring a mistake or misstatement to the attention of SSA.																			
	Suspense Reinstate Daily Batch Adjust Reinstates	SRDBAR processes suspense reinstates and MEF adjustments. It creates daily output to update the MEF.																			
016-000002236	**Electronic Services**	Will expand online access for the public through various delivery channels and continue to develop and enhance the agency's E-Government and Electronic Services architecture over the next several years.	**$13,913**		**P40-016-045**		**Health and Well-Being (07)**	**651**			**303**										

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	MySSA	**This project enables self-service for the public and contributes to improved accuracy, saved work years in a more convenient, integrated and personalized electronic method for our customers to interact with the agency. The project will develop a citizen based account allowing access to new and existing eServices.**						651			303					01	001				
	Internet Benefit Application	Allows the public to complete retirement, spouse and disability applications on the Internet. Provides status of claims field via the Internet and MCS claims where the claimant has requested a confirmation number.																			
	Internet Medicare Replacement Card	Allows the beneficiary to request a replacement Medicare card over the Internet.																			

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	My Social Security Application	Provide a personalized Internet portal that will be a viable self-service alternative to our telephone and in-person service. Services via the MySocialSecurity portal will be available to the entire SSA customer base that have registered and authenticated via Registration of Most Everyone (eAuthentication). The portal will encourage self-service by providing an easy to use, dynamic environment that encompasses the full spectrum of agency services. MySocialSecurity will also serve as a platform to inform the public about changes, new online services, new regulations and mandates that affect them. In addition, the portal will offer full immediate online customer support to encourage users to remain online, including video tutorials, FAQs, and two-way communications like click to chat and secure email.																		
	My SSA Tab Service	A web service that will be invoked by the My SSA application to determine which tabs to display to ROME registered / authenticated customers based upon user roles. Roles are the tab display codes from the application and are used in determining which tabs will need to be displayed.																		
	My1099/1042S	Allows T2 beneficiarys to request a replacement SSA-1099/1042S tax form.																		

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	MySSA Benefit Verification	The iBEVE application allows beneficiaries/recipients to view, print, save, and/or mail the Proof of Income (POI)/Benefit Verification letter. The application is part of the MySSA umbrella.																			
	mySSA Change of Address	Public Change of Address request; this application is part of the "My Social Security" suite of client applications.																			
	mySSA Check Your Benefit	Public Check Your Benefit; this application is part of the "My Social Security" suite of client applications.																			
	mySSA Direct Deposit	Public Change of Direct Deposit request; this application is part of the "My Social Security" suite of client applications.																			
	MySSA Medicare Replacement Card	This application allows the user to request a replacement Medicare card.																			
016-000002146	**Online Claims**	Provides online services to the public that encompasses pre-claims, initial claims, and appeals. SSA expects an increase in online filing rates providing significant cost savings for the agency and improved customer service and satisfaction.	**$13,012**		**P40-016-045**		**Health and Well-Being (07)**	**651**			**303**										
	iClaim	**Provide the public with the ability to apply for Social Security Benefits via the Internet.**						651			303					01	002				
	Internet Application Status	Allows the public to check the status of their retirment claim on the Internet via Web or Telephone.																			

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	Internet Benefit Application	Allows the public to complete retirement, spouse and disability applications on the Internet. Provides status of claims field via the Internet and MCS claims where the claimant has requested a confirmation number.																			
	Internet 3368	Provides public and third-party users with the ability to complete the Adult Disability Report (SSA-3368) online.																			
	Title II Common Data Collection System (EE Common Screens)	This system contains the screen processor and transaction supervisors of screens which collect and update common data associated with the client or a Title 2 person.																			
	Title II Workload MI	Read the MCS IDMS database, create and store records in DB2 database. Generate all Title II Management Information.																			
	iAppeals	**Online application for filing an appeal and beginning the appeal's process.**						651			303					01	003				
	Internet Appeals	Provides the public with the ability to complete their Appeal(501/561) and Disability Report-Appeal (SSA-3441) online.																			
016-000002015	**Financial Accounting System-FACTS**	Provides a state-of-the-art commercial off-the-shelf comprehensive financial accounting system that complies with all existing Federal Financial Systems requirements.	**$13,286**		**P44-016-046**		**General Government (10)**	**803**			**124**										
	Oracle *(Financial Accounting System Enhancements)*	**Ongoing maintenance support projects**						803			124					04	002				

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	Social Security Online Accounting and Reporting System (SSOARS)	SSA accounting system																			
016-000002140	**Intelligent Disability**	Intelligent Disability focuses on 3 main IT efforts; provide linkage between Electronic Disability Folder and SSA modernized systems and strategic goals, assist in reducing hearing office backlogs, and improve speed and quality of the disability process.	**$39,417**		**P40-016-044 / P40-016-045**		**Health and Well-Being (07)**	**651**			**303**										
	Electronic Authorization	**This project provides an electronic authorization process to replace the current paper process that requires a wet signature---builds functionality to create and display an electronic signature on the SSA-827 and automatically upload it into the EF**						651			303					03	001				
	Electronic Authorization (Web Service)	Electronic Authorization project involves the elimination of a ¿wet signature¿ on the SSA-827 and replacing it with an electronic signature on an electronic form.																			
	Ensuring Quality Review of Disability Cases	**The transition from DICARS to DQR will allow OQP to perform review of the T2 and T16 disability programs in a seamless processing environment**						651			303					03	004				

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	Disability Quality Review	DQR is a JAVA web based application that will replace the legacy Disability Case Adjudication and Review System (DICARS) application. The purpose of DICARS/DQR is to provide a system for performing in-line quality reviews of cases/claims adjucated by the Disability Determination Services. Data is exchanged with the electronic folder (EFI) application using our Quality Assurance Systems Message Router (QASMR) application/service.																			
	Electronic Case Processing	**Electronic Case Processing provides Development and implementation of ODAR Decisional Integration Tool Electronic Bench Book (eBB) and the Disability Determination tool, Electronic Case Analysis Tool (eCAT). This project aims to provide a disability determination as early as possible**						651			303					01	005				
	Disability Case Processing System (DCPS)	Disability Case Processing System. Used by disability determination components to process disability claims.																			
	Electronic Claims Analysis Tool	Web based application that guides Disablity Examiners and Medical Consultants through the sequential evaluation.																			
	Compassionate Allowances / Quick Disability Determination (CAL/QDD)	**Provide for additional CAL conditons as well as QDD Predictive Model changes and MI enhancements**						651			303					01	005				

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	Compassionate Allowance / Quick Disability Determination	Provides Management Information (MI) by reporting various measures on Compassionate Allowance (CAL) and Quick Disability Determination (QDD)cases via weekly, static reports																			
	Electronic Folder Interface (Java and CICS)	This project checks sampling data from NDDSS (DX54) and allows components on different platforms to interface with the Electronic Folder.																			
	Health IT (HIT)	**Health IT is the ability to request and receive structured and unstructured medical information electronically through the Nationwide Health Information Network. Results in more complete medical records gathered quickly and accurately, improves the speed and quality of our disability process, results in lower disability backlog**						651			303					01	005				
	Health Information Technology	Health Information Technology																			
	National Vendor File (NVF)	**NVF will be a searchable repository of providers accessible by all disability related systems. NVF will roll out the searchable repository of evidence sources and medical providers to 2 DDSs.**						651			303					04	007				
	Disability Case Processing System (DCPS)	Disability Case Processing System. Used by disability determination components to process disability claims.																			

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	National Vendor File Web Services	An intranet based application which consists of a consolidation of all disability vendor data repositories. The Client will search for providers of medical information via a robust search appliance that displays the results of relevance, and presents data in a logical, well¿organized, and easy¿to¿read format																			
	UniForms	**UniForms will be the agency's way of accessing the electronic versions of its forms. The main goal of this project is to be a user-friendly, all-inclusive application that gives forms the capability to be saved, sent, fillable, printable, integratable wi**						651			303					02	001				
	Disability Case Processing System (DCPS)	Disability Case Processing System. Used by disability determination components to process disability claims.																			
	UniForms	UniForms (formerly Enterprise Solution eForms) will be the agency's way of accessing electronic versions of forms. This will be a user friendly application with access to forms capable of being saved, sent, fillable, signable, uploadable to the EF, and available to other applications.																			
	Disability Control File (DCF)	**A restructuring of the DCF database and a redesign of the DCF system is needed. Enhancement requests are to provide functionality**						651			303					01	002				

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	Disability Control File System	This application group supports the batch interfaces between multiple SSA systems and the DCF and the updates from the IDMS CICS screens to the DCF in support of CDRs, Earnings, Demo and ticket to work activities.																			
	Electronic Folder Interface (Java and CICS)	This project checks sampling data from NDDSS (DX54) and allows components on different platforms to interface with the Electronic Folder.																			
	eView Enhancements	**Enhancements required for OQP and ODAR - additional access functions and automated upload of an additional querie. Also supports PDF capability into the DMA viewer**						651			303					01	003				
	eView	This application displays information from EDCS and is the viewer of the Electronic Folder.																			
016-000002307	**SSI Modernization**	The SSI Modernization program will incrementally migrate the claim data collection process to the web browser platform and make improvements to the software infrastructure and data access methods.	**$6,177**		**P40-016-046**	**P30-016-038**	**Health and Well-Being (07)**	**651**			**303**										
	SSI Strategic	**Migrate SSI claims taking process to a web-based data collection process.**						651			303					01	003				
	Modernized Supplemental Security Income Claims System (MSSICS)	SSI Claims-Taking and Update Process																			

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	Access to Financial Institutions - Inbound Web Service	The AFI Inbound Web Service is new for AFI Release 2. The purpose of this service is to accept incoming Financial Institution "Response" data and invoice information from the Vendor. This application will perform standard external facing web service security and schema validation. It will then take the message payload and place onto WebSphere MessageQueue for retrieval by the AFI application.																			
	Electronic Quality Assurance	Provides quality assurance study definition, sampling, form creation, reviews, reporting, and business process management for QA reviews conducted by OQP.																			
	SSI ePath	SSI ePath is a web-based intranet system developed for a specific MSSICS path for non-Title XVI employee specialists. It streamlines the work processes and invests in valued employees by providing them with the specialized tools needed to work with the SSI public, to complete tasks timely to determine eligibility of benefits. It also improves public service by reducing customer re-contacts. The ability to make immediate input and updates at the first point of contact improves SSI program integrity by ultimately reducing overpayments and increasing SSI payment accuracy.																			
	SSR Decompression	**Develop the necessary steps for both internal and external operations to move away from the use of a compressed record**						651			303					01	003				

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	Modernized Supplemental Security Income Claims System (MSSICS)	SSI Claims-Taking and Update Process																			
016-000002045	**Title II**	The Title II investment was initiated to provide a single system for processing all initial claims and post entitlement actions in an online interactive mode.	**$16,837**		**P41-016-046**		**Health and Well-Being (07)**	**651**			**303**										
	Title II Modernization	**Conduct FY13 modernization activities as agreed with Operations and Systems (PE search transaction improvements, notice improvements, incorporate ANYPIA)**						651			303					01	002				
	Title II Redesign Infrastructure	Post-Entitlement action processing for Title 2 claimants.																			
	Title II Redesign Notices	Produces notices for T2R actions																			
	Post Entitlement Online System	Handles Title II event changes following entitlement to benefits.																			
	APM Eliminate AJS1 & FDOPS	**This project will fold the AJS1 Functionality into Title 2 Retirement Survivor Disability Insurance System**						651			303					01	002				
	Automated Job Stream - AJS 1	The Automated Job Streams 1 and 3 (AJS1 and AJS 3) Operations computes benefit changes based on recent AERO, Enforcement and Earnings work information. AJS 1 receives 2 types of daily inputs from POS, recomputations (BIR's) resulting from additional earnings posted to the MEF. In addition AJS 1 produces Notice Files for printing. Additionally, the AERO selection process sends transactions on the last Friday in March and October.																		

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	FDOPS/AJS1	Folder Documentation Sys / AJS1 AERO																			
	APM FALCON	**This project will modernize ORSIS FALCON applications.**						651			303					01	002				
	FALCON	FALCON consists of mainframe batch data entry regions for the 6 PSCs and ODIO and end of day batch processes to output the data for processing.																			
016-000002218	**Non-Major Core-Improved Telephone Services**	This initiative supports Core Telephone Services.					**Health and Well-Being (07)**	**651**			**303**										
	800 Number Appointment Services	**Automated Applications for SSA National 800 Number**						813			108					03	005				
	800# Appointment System	800# appointment system establishes leads, appointments and a protective filing date for individuals who contact SSA.																			
	iAppointment	The Online Appointment Scheduler (iAppointment) is an application that will provide public users of the Social Security Administration?s (SSA) Internet services an avenue of																			
	Management Information Reporting	**Reporting system providing cradle to grave information for reviewing and improving performance**						813			108					01	001				
	Appointment System Management Information	Provides Management Information on the 800 appointments system and appointments scheduled via the IAppointment System																			
016-000002228	**Non-Major Core-Online Services**	This initiative supports the online customer services.					**Health and Well-Being (07)**	**651**			**303**										

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	SSI Wage Reporting	**This project enables self-service for the public and contributes to improved accuracy, saved work years and multi-platform consistency in a more convenient, integrated and personalized electronic method to allow our customers to interact with the agency.**						651			303					01	001				
	Mobile Technologies for SSI Wage Reporting	MKWR is a hybrid application (leverages the functionality of the smartphone's native web browser inside a downloadable application as the target application platform for transactional eServices applications) that allows SSI recipients, deemors, and representative payees of SSI recipients to report gross monthly wage amounts that a wage earner was paid in the previous month, using a mobile device.																			
	Telephone Knowledge Based Wage Reporting	Telephone application that uses knoweldge based authentication. User is connected to SSA over the phone via Verizon. User input is received via the phone and no user interface is involved.																			
016-000002220	**Non-Major Core-M&C**	This initiative supports Core Maintenance and Cyclical.					**Health and Well-Being (07)**	**651**			**303**										
	Title II Modernization	**Non-major Title II Modernization efforts**						651			303					01	002				
	Interactive Computation Facility	The Interactive Computation Facility (ICF) is comprised of the original online Title II ICF process that provides automated computational support to the Payment Centers. With T2R the online Workers Compensation (WC) portion of ICF was added. ICF/WC is an																			

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	Modernized Claim System - Data Collection	MCS DC is a set of data collection screens which collect all the information needed from a claimant to process the claim to pay. Some of the information collected is marriage and child data, recent earnings, military or railroad service, Medicare enrollme																			
	SSA Claims Control System	SSA Claims Control System was developed to track status of claims taken and also began to be utilized as a means to provide data used as a basis for Mgmt Information about those claims. Currently still in use on a limited basis for MCS and MADCAP claims d																			
	Whole File Certification Cycle 1	**WFC will change how the T2 3rd of the month payment file is delivered to Treasury.**						651			303					04	002				
	TREASURY OPERATIONS	These Operations send data to TREASURY via Connect Direct in order to MAKE or WITHHOLD Payments of SSA BENEFITS.																			
016-000002703	**Non-Major Hearings M&C**	Supports Non Major Hearings Process Maintenance & Cyclical Activities.					**Law and Justice (08)**	**752**			**324**										
	Case Processing Management System (CPMS) Enhancements	**ODAR Hearing Offices use CPMS to manage and track workloads, assign temporary work, and correct a closed CPMS record. ODAR wants to update the system to reflect any regulation and policy changes (such as pending reg on prisoner cases & on video hearing, etc.) and to enable improved HO workload mgmt.**						651			303					04	002				

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	Case Processing Management System (CPMS)	Supports the case processing of hearing office workloads. WebSphere z/OS Java front-end, COBOL/DB2/CICS backend. Also includes COBOL batch (for communicating with MI, PCACS, others), and Java Batch (for implementation of Automated Noticing and CD Burnin																			
	CPMS Call Interface w/SSOARS Enhancements	**This project will allow CPMS and ARPS to pass obligation and invoicing information from Call Orders to SSOARS.**						651			303					04	002				
	Appeals Review Processing System	Supports the case processing of appeals council workloads.																			
	Case Processing Management System (CPMS)	Supports the case processing of hearing office workloads.																			
	The Digital Recording Acquisition Project (DRAP) Enhancements	**The Digital Recording System (DR) allows ODAR to record, index, archive, and play back digital audio recordings of hearings. Each recording becomes part of the official agency claim file and is reviewed at multiple points in the adjudication and appeals process. At the conclusion of the recorded hearing, the audio file is burned to a CD**						651			303					04	004				
	Digital Recording	This project provides equipment and software to support the recording of hearings in ODAR.																			

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	Auto Scheduling (ASA)	**Allows hearing offices to schedule hearings electronically with business partners including claimant representatives and experts. Provides a registration process for a company (MEs, VEs, VHRs) that allows the company to affiliate credentialed individuals with their company and then approves that individual to perform services with SSA**						651			303					03	005				
	Automated Scheduling Application (Internet)	The Internet ASA is the user interface that allows external users to enter information about their availability to attend hearings. This information is stored by ASA databases so that it can be considered by the Intranet ASA during processing. The Internet application uses ODS created Stored Procedures to obtain data to display to the user such as their name, address, and hearings schedule.																			
016-000002701	**Non-Major Hearings Prevent Future Backlogs**	This initiative supports the Agency's ability to increase our capacity to hear and decide cases and improve our workload management practices throughout the hearings process.					**Law and Justice (08)**	**752**			**324**										
	Electronic Case Processing	**Electronic Case Processing provides Development and implementation of ODAR Decisional Integration Tool Electronic Bench Book (eBB) in an effort to provide a disability determination as early as possible**						752			324					01	005				

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	Electronic Bench Book (EBB)	This will be a web-based application used by decision makers (Administrative Law Judges and Senior Attorney adjudicators) in the Hearing offices to aid in documenting, analyzing, and adjudicating the disability case in accordance with SSA regulations.																			
016-000002702	**Non-Major Hearings Prevent Todays Backlogs**	This initiative supports the Agency's ability to increase our capacity to hear and decide cases and improve our workload management practices throughout the hearings process.					**Law and Justice (08)**	**752**			**324**										
	Contractor Registration	**This project will allow for registration of ODAR contractors, and access to the Internet Automated Scheduling Application. Project includes implementation of CTR Registration and completion of Post Release Review.**						651			303					03	001				
	Automated Scheduling Application (Internet)	The Internet ASA is the user interface that allows external users to enter information about their availability to attend hearings. This information is stored by ASA databases so that it can be considered by the Intranet ASA during processing. The Internet application uses ODS created Stored Procedures to obtain data to display to the user such as their name, address, and hearings schedule.																			

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	Appointed Representative Office of Appellate Operations (OAO) Reporting	**This project will enable representatives to have access to their clients appeals council status via the Electronic Records Express secured website (through ARS). This is necessary to continue reducing the hearings backlog.**						651			303					04	002				
	Appointed Rep - Status Reports	Appointed Representative with eFolder access will be allowed to view and download a status listing of all of their cases pending at the Hearing level. Previously ODAR would mail this information to the appointed representatives on a regular basis.																			
016-000002306	**Non-Major Disability Process M&C**	Supports Non Major Disability Process Maintenance & Cyclical Activities.					**Health and Well-Being (07)**	**651**			**303**										
	Electronic Records Express (ERE)	**This project enables medical evidence suppliers the ability to electronically submit evidence in support of a Disability claim. This project will enhance on that functionality.**						651			303					01	001				

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	Electronic Records Express	The Electronic Records Express Web site allows evidence to be collected electronically and prepared for transmission to the electronic Disability (eDib) system. Medical providers, advocates, schools, and other sources have the ability to submit evidence needed for the Disability Determination Services (DDS) and the Office of Disability Adjudication and Review (ODAR) to adjudicate claims and conduct hearings in an efficient and expeditious fashion. The website also allows Appointed Reps to access and download the documents and digital recordings in their claimant's electronic disability folders (eFolders)																			
	Electronic Records Express Web Services	ERE Web Services is a secure electronic service delivery channel provided by SSA to facilitate high volume submissions of electronic evidence.																			

Definitions

Information System: A discrete set of IT, data, and related resources, such as personnel, hardware, software, and associated information technology services organized for the collection, processing, maintenance, use, sharing, dissemination or disposition of information in accordance with defined procedures, whether automated or manual. (Source: OMB Circular A-130)

Application: A specific software program that performs one or more discrete functions through a computer information system.

APPENDIX E: Acronym List

Acronym	Refers to
ACA	Affordable Care Act
ACD	Automated Call Distribution
ADG	Architecture Design Group
AFDC	Aid to Families with Dependent Children
AKA	Also Known As
ALC	Assembler Language Code
ALJ	Administrative Law Judge
AMA	American Medical Association
ANYPIA	Any Primary Insurance Amount
APG	Agency Priority Goal
API	Application Program Interface
APM	Application Portfolio Management
APP	Annual Performance Plan
APPC	Advanced Program-to-Program Communication
APR	Annual Performance Report
ARB	Architecture Review Board
ARM	Application Reference Model
ASL	American Sign Language
ASP	Agency Strategic Plan
ATE	Acceptance Testing Environment
ATO	Authority to Operate
ATS	Audit Trail System
AURORA	Agency-developed Notices application
AWR	Annual Wage Reporting
BI	Business Intelligence
BPA	Blanket Procurement Authority
BRM	Business Reference Model
BYOD	Bring Your Own Device
CAC	Call Admission Control
CAL	Compassionate Allowance

Acronym	Refers to
CAP	Cross Agency Priority
CARE 2020	Citizen Access Routing Enterprise Through 2020
CAWR	Combined Annual Wage Reporting
CCTV	Closed Circuit Television
CDM	Continuous Diagnostics and Mitigation
CDR	Continuing Disability Review
CIA	Confidentiality, Integrity and Availability
CICS	Customer Information Control System
CIO	Chief Information Officer
CIRP	Comprehensive Integrity Review Process
CISO	Chief Information Security Officer
CMF	Communication Management Facility
CMMI	Capability Maturity Model Integration
CMS	Centers for Medicare and Medicaid Services
COBOL	Common Business-Oriented Language
COE	Center of Excellence
COOP	Continuity of Operations Plan
COTR	Contracting Officer Technical Representative
COTS	Commercial-Off-The-Shelf
CPIC	Capital Planning and Investment Control
CPMS	Case Processing Management System
CSPOT	Claims System Pass of the Regular Transcript
CSPOTRUN	Claims System Pass of the Regular Transcript Report Upload Process
CSR	Customer Service Record
CTG	CICS Transaction Gateway
CY	Calendar Year
DASD	Direct Access Storage Device
DCF	Disability Control File
DCPS	Disability Case Processing System
DCS	Deputy Commissioner for Systems
DCVI	Data Center Virtualized Infrastructure
DDS	Disability Determination Service

Acronym	Refers to
DEVO	Data Exchanges and Verifications Online
DGS	Digital Government Strategy
DHCP	Dynamic Host Configuration Protocol
DHOH	Deaf and Hard of Hearing
DHS	Department of Homeland Security
DISA	Defense Information Systems Agency
DMA	Document Management Architecture
DME	Development Modernization and Enhancement
DMF	Document Management Facility
DOM	Distributed Output Management
DOORS	Detailed Office/Organization Resource System
DPS	Document Processing System
DRB	Design Review Board
DRE	Disaster Recovery Exercise
DRM	Data Reference Model
DSSM	Division of Systems Storage Management
DUNS	Data Universal Numbering System
DW	Data Warehouse
EA	Enterprise Architecture
EAB	Enumeration at Birth
EAE	Enumeration at Entry
EAMMF	Enterprise Architecture Management Maturity Framework
ECA	Enterprise Communications Architecture
ECMS	Earnings Case Management System
ECO	External Collection Operation
EDCS	Electronic Disability Collect System
EDM	Enterprise Data Management
ELLEN	Encapsulated Logic for Line-AFP Encoded Notices
EMR	Enterprise Metadata Repository
EPA	Enterprise Print Architecture
ERMS	Earnings Records Maintenance System
ESEF	Enterprise Software Engineering Facility

Acronym	Refers to
ESET	Enterprise Software Engineering Tools
EUC	End-User Computing
EUCA	Enterprise Unified Communication Architecture
EWR	Electronic Wage Reporting
FACTS	Financial Accounting System
FAX	Facsimile
FEA	Federal Enterprise Architecture
FEAF	Federal Enterprise Architecture Framework
FECS	Front-End Capture System
FIPS	Federal Information Processing Standards
FISMA	Federal Information Security Management Act of 2002
FO	Field Office
FONE	Field Office Network Enterprise
FQDN	Fully Qualified Domain Name
FTE	Full Time Equivalent
FY	Fiscal Year
GAO	Government Accountability Office
GIS	Geospatial Information System
GRT	Global Reference Table
GSA	General Services Administration
GSS	General Support System
GTAS	Government-wide Treasury Account Symbol Adjusted Trial Balance System
GUI	Graphical User Interface
HAF	High Availability Facility
HHS	Department of Health and Human Services
HIT	Health Information Technology
HP	Hewlett-Packard
HQ	Headquarters
HR	Human Resources
HSPD	Homeland Security Presidential Directive
HW	Hardware
iTOPSS	Internet Ticket Operations Provider Support System

Acronym	Refers to
IBM	International Business Machines
ICAM	Identity, Credential, and Access Management
ICF	Interactive Computation Facility
IDMS	Integrated Database Management System
IP	Internet Protocol
IPPF	Integration Programmatic Processing Facility
IRB	Investment Review Board
IRM	Information Resources Management
IRM	Infrastructure Reference Model
IRS	Internal Revenue Service
ISDN	Integrated Services Digital Network
IT	Information Technology
ITOA	IT Operations Assurance
IV&V	Independent Verification and Validation
IVT	Interactive Video Tele-training
JCL	Job Control Language
KWIA	Knowledge Worker Internet Access
LAN	Local Area Network
LAWS	Legal Automated Workflow System
LDF	Language Development Facility
LEED	Leadership in Energy and Environmental Design
LEP	Limited English Proficiency
LMI	Language Maintenance Interface
LNK	Link
LR	Labor Relations
LRIP	Low Rate of Initial Production
LSF	Language Search Facility
MADAM	Master Data Access Method
MBR	Master Beneficiary Record
MD	Maryland
MDM	Mobile Device Management
MISF	Management Information Service Facility

Acronym	Refers to
MPLS	Multi-Protocol Label Switching
NARA	National Archives and Records Administration
NCC	National Computer Center
NVF	National Vendor File
NIST	National Institute of Standards and Technology
NPI	National Provider Identifier
NSC	National Support Center
NUMIDENT	Numerical Identification File
O&M	Operation and Maintenance
OASDI	Old-Age, Survivors, and Disability Insurance
OCO	Office of Central Operations
ODAR/OCO	Office of Disability Adjudication Review / Office of Central Operations
OESAE	Office of Enterprise Support Architecture and Engineering
OMB	Office of Management and Budget
OPM	Office of Personnel Management
OS	Office of Systems
OSS	Open source software
OTSO	Office of Telecommunications and Systems Operations
PFIR	Public Facing Integrity Review
PGP	Pretty Good Privacy
PII	Personally Identifiable Information
PIV	Personal Identity Verification
PMO	Program Management Office
POAM	Plan of Action and Milestones
POC	Proof of Concept
POMS	Program Operations Manual System
PPF	Production Processing Facility
PRIDE	Project Resource Guide
PRM	Performance Reference Model
PSC	Program Service Center
PST	Personal File Extension
QDD	Quick Disability Determinations

Acronym	Refers to
RDBMS	Relational Database Management Systems
RMF	Risk Management Framework
ROCC	Remote Operation Communication Centers
ROI	Return On Investment
RPO	Recovery Point Objective
RPS	Rep Payee System
RSI	Retirement Survivors Disability Insurance
RTO	Recovery Time Objective
RVP	Representative Video Project
SAR	Security Assessment Report
SBC	Session Border Controllers
SCCM	System Center Configuration Manager
SCOM	System Center Operations Manager
SDLC	System Development Lifecycle
SDP	Service Delivery Point
SEATS	SSA Electronic Agreement Tracking System
SEPG	Software Engineering Process Group
SERS	Service Delivery Point
SIP	Session Initiation Protocol
SITAR	Strategic IT Assessment and Review
SKELCOMPS	Skeleton composition
SLT	Service Litmus Test
SMS	System Managed Storage
SNA	Systems Network Architecture
SOA	Service-Oriented Architecture
SQL	Structured Query Language
SRM	Security Reference Model
SSA	Social Security Administration
SSACCS	Social Security Administration Claims Control system
SSANET	SSA Network
SSC	Second Support Center
SSDI	Social Security Disability Insurance

Acronym	Refers to
SSI	Supplemental Security Income
SSN	Social Security Number
SSNAP	Social Security Number Application Process
SSOARS	Social Security Online Accounting and Reporting System
SSR	Supplemental Security Record
STIG	Security Technical Implementation Guide
SUMS	SSA Unified Measurement System
SW	Software
TCP	Telecommunications Protocol
TH	Thunderhead
TIC	Trusted Internet Connections
TNA	Target Notice Architecture
TOP	Treasury Offset Program
TPPS	Third Party Payment System
TRM	Technology Reference Model
TSRP	Telephone Services Replacement Project
TY	Tax Year
UEF	User Experience Framework
USA	United States of America
UTF-8	Universal Character Set (UCS) Transformation Format – 8 bit
UTI	Universal Text Identifier
VA	Veterans Administration
VAMS	Verification Account Management System
VDI	Virtual Desktop Infrastructure
VETSNET	Veterans Services Network
VIP	Visitor In-Take Process
VM	Virtual Machine
VOIP	Voice over Internet Protocol
VSAM	Virtual Sequential Access Methodology
VSD	Video Service Delivery
VTC	Video Teleconference
WAN	Wide Area Network

Acronym	Refers to
WAS	WebSphere Application Server
WBS	Work Breakdown Structure
WDPE	Windows Development and Production Environment
WINSTARR	Windows Server Technology Architecture Refreshment & Refinement
WLAN	Wireless LAN
WOLA	WebSphere Optimized Local Adapters
WSRR	WebSphere Services Registry & Repository
WWII	World War II
XML	Extensible Markup Language