INFORMATION RESOURCES MANAGEMENT (IRM) STRATEGIC PLAN: FY 2012-2016

MAY 2012

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LEADERSHIP MESSAGE

It is our pleasure to present this update of the Social Security Administration (SSA) Information Resources Management (IRM) strategic plan. Our thanks to the many people who helped assemble it.

We want to say upfront that a reader of this document will not find descriptions of the hundreds of new information technology (IT) development and routine technology implementation projects Social Security takes on each year—we articulate those in separate, internal-use plans. Rather, this IRM plan focuses more broadly on our IT governance efforts and environment, and on our primary IT infrastructure domains.

Given the size and complexity of our IT operations, a fully comprehensive IRM plan could easily comprise many volumes of information. Rather than fill this document with technical jargon, we have purposely tried to provide a lighter IRM that contains a reasonably detailed overview of our current IT state, and a good sense about our plans for change.

And we are in a constant state of change… At SSA, we release new software and make extensive adjustments to our IT environment literally every week. We face a challenging budgetary environment and increasingly difficult choices for new investments. The roles and priorities for our employees regularly shift as our business partners continually bring us new automation challenges. And, last but not least, technology itself is always changing.

What does not change is the strong culture of mission-focused service, analytical and engineering excellence, risk-awareness, critical thinking, thrift, continuous improvement, and can't-fail-pride that has been woven into the IT operations of our agency for decades. Also, the extremely secure, successful, and highly cost-effective performance of SSA IT does not change. We have reached a point where 99.9% systems availability, fast response times, timely/accurate earnings postings, efficient paperless processing and record retention, correct notices, and accurate payments and post-entitlement actions are all rightly assumed as mandatory by our customers. If we even slightly slip in IT, then so does the performance of the entire agency.

We certainly have no intention of slipping. With sufficient resources and prudent investment in our IT infrastructure and workforce, we are extremely confident in the continued success of Social Security IT.

Kelly Croft, Deputy Commissioner for Systems and CIO
Debbi Russell, Assistant Deputy Commissioner for Systems and Deputy CIO

INTRODUCTION

> **OUR MISSION**
>
> *Deliver Social Security services that meet the changing needs of the public*
>
> **OUR VISION**
>
> *Provide the highest standard of considerate and thoughtful service for generations to come*
>
> **OUR MOTTO**
>
> *Social Security Benefits America*

The Social Security program, which was born more than seven decades ago, now touches the lives of nearly every American, including many living abroad. We run one of the Nation's largest entitlement programs: the Old-Age, Survivors, and Disability Insurance (OASDI) program. We also are responsible for two of the Nation's largest Federal disability programs – the Disability Insurance (DI) program and the Supplemental Security Income (SSI) program. In FY 2011, we paid over 60 million people a total of $770 billion in Social Security benefits and SSI payments. In addition, we provide substantial support to the closely related Medicare and Medicaid programs and limited, but critical, support to several other important Federal programs.

Our workforce of more than 80,000 Federal and State employees support these programs through a nationwide network of 1,500 offices that includes our headquarters in Baltimore, Maryland, regional offices, field offices, card centers, teleservice centers, processing centers, state disability determination service (DDS) offices, hearing offices, satellite offices, National Hearing Centers, and the Appeals Council. We also have a presence in several U.S. embassies and consulates around the globe.

In support of these programs, our mainframe data stores contain approximately nine petabytes of data and our open, client-server data stores maintain 12 petabytes. In FY 2011, these data stores supported the processing of an average daily volume of nearly 152 million individual transactions. This enabled us to complete: 1.3 billion automated Social Security number verifications; 216 million earnings items; 4.8 million retirement, survivor and Medicare applications; 3.4 million initial disability claims; 2.4 million non-disability redeterminations; 1.4 million continuing disability reviews; and 16.4 million new and replacement Social Security cards. Our annual investment of $1.5 billion in IT is important to sustain the largest social insurance system in the world.

We interact with hundreds of thousands of people each day in community-based field offices, on the telephone, using online services and through the mail. We have used technology to improve these work processes, making them more efficient and enabling us to absorb huge increases in workloads. But today's technology-driven, fast-paced, instant information environment means that the public demands more sophisticated, integrated service channels to supplement our traditional structure. In response, we introduced centralized telephone interaction, automated telephone services, automated internet services, no personally identifiable information (PII) email, video interaction, and social media. In the near future, we plan to offer transactional mobile applications and web-chat. Our IT resources are integral to delivering Social Security services that meet the changing needs of the American public.

To meet our service delivery challenges, 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 network supports every step of our service delivery, from the initial claims-taking process to the issuance of Social Security benefit checks.

ABOUT OUR IRM PLAN

This *Information Resources Management (IRM) Strategic Plan: FY 2012-2016* represents the agency's direction to effectively prioritize and manage our investments in IT and information management (IM) toward the achievement of our mission and business outcomes.

Our Deputy Commissioner for Systems (DCS), who also serves as the Chief Information Officer (CIO), is responsible for the IRM strategic plan. Our IRM is a key component in our IT capital planning and investment control (CPIC) process used for the ongoing selection, control, and evaluation of investments in information resources. The DCS/CIO and our investment review board, the Strategic IT Assessment and Review (SITAR) Board (comprised of executive representatives from each of our major agency components) are responsible for governance and oversight of our IT investments. Together, they ensure that our key IT initiatives align with the Agency Strategic Plan (ASP), the administrative budget, the Annual Performance Plan (APP), and our Enterprise Architecture (EA).

Our EA provides the over-arching guide for defining, modernizing, and managing our existing and planned architectures in response to the changing needs of the agency. An integral part of our EA is our Systems Security Plan that integrates security into all major information systems, defines our security architecture, and integrates new security standards and technology into our business processes to protect IT assets from both physical and cyber security threats.

One of our most important IT assets is our Federal staff. Within this plan, we reflect our strategies for the hiring, training, and professional development of our IT resources.

We developed this plan in consultation with our stakeholders as well as nationally recognized IT research experts. It is a plan that we will periodically revisit on no less than an annual basis as we continuously adjust the balance between the changing service delivery needs of the public with rapidly advancing technology and limited fiscal resources.

This plan reflects our existing strengths and challenges, as well as some key planning assumptions:

OUR STRENGTHS

- High IT business alignment
- Decades of experience at large-scale computing
- High availability and very secure systems; diligent protection of sensitive data
- Predominantly paperless business processes
- Highly accurate software
- Career-employee-dominant workforce model
- Cost-effective IT operations realized through economies of scale, a centralized procurement model, and effective contract negotiations
- Strong internal controls/processes/standards; certified project management
- Highly rated suite of direct service applications built with user-centered design/accessibility
- Risk-conscious culture that values research, benchmarking, and critical thinking

OUR CHALLENGES

- Unpredictable funding levels
- Growth of our core and non-core workloads
- Cyber-stress caused by increased sophistication of hackers, advanced persistent threats and a constant push to mitigate risk
- Safely transitioning our data center operations to a new building
- Advancing IT across multiple service channels
- While focusing on direct services, modernizing our legacy applications
- Appropriate authentication for direct service applications
- Public expectations for richer direct service applications
- Increasing platform and operating system diversity
- Managing growth and data-safety with external verifications and exchanges
- Managing complexity and long lead times associated with Federal contracting

- Funding constraints across the agency
- Growth in computing transactions and storage
- Supporting all current service channels while expanding to transactional mobile applications
- Moderate, but steady U.S. progress with health information technology (HIT)

OUR IRM GUIDING PRINCIPLES

Our IRM plan serves as a roadmap leading from our ASP to each of our IT and IM domains where we reflect well-grounded, practical strategies that we will implement over the next two years as well as those planned on the horizon. These strategies are guided by a strong set of principles tightly aligned with our agency's goals and objectives:

PRIORITIZE INFORMATION SECURITY AND SYSTEM PERFORMANCE: In meeting our business objectives, we are stewards of sensitive personal information for nearly everyone in America and almost all of our business processes are highly dependent on technology. Without secure, reliable IT, we would be unable to accomplish our business goals. Accordingly, security and performance concerns are top priorities in the management of our IT resources. As we expand our service delivery model, we will continue to invest in our IT infrastructure to ensure that we maintain the high performance standards and the reliability that the public and our workforce expect. We will maintain the privacy and protection of our data, systems, and business processes and implement effective cyber security technologies to strengthen our information security program.

USE SOUND, VIABLE TECHNOLOGIES: We have a 70-year record of accomplishment in making successful transitions to new technologies. In 1937, we implemented our first automated processes using punch cards and electronic accounting machines and have been in the process of modernization ever since. Along the way, we have seen technologies (and technology companies) come and go. We have learned that the costs of either living with or abandoning the wrong technology can be significant. Recognizing this, we vet all new technologies before adoption. This includes monitoring technology trends and assessing:

- Alignment with our mission and our environment;
- Maturity and anticipated life expectancy of the technology in question; and
- Long-term viability of the technology vendor

We implement new technologies as they demonstrate appropriate return on investment in the context of performance and meeting business needs.

MANAGE PROJECTS TO REALIZE VALUE TIMELY: We recognize that large, complex IT projects come with significant risks. We implement our IT projects incrementally and at the simplest level that provides business value. This approach helps to ensure that we realize value timely, and allows us to update our long-term plans to adapt to changing business and technology environments.

MODERNIZE OUR INFRASTRUCTURE SYSTEMATICALLY AND OPPORTUNISTICALLY:
Modernization is a complex concept when applied to an IT enterprise of our scale, scope, and longevity. We are constantly working to evolve our IT to incorporate stable, modern technologies that align with our business needs. We do this both opportunistically, when business-selected projects and/or infrastructure refresh cycles provide the opening to update technology or system design, and systematically, by periodically reviewing our application and database portfolios and our infrastructure to identify cost-effective areas where we can update our IT. We do not simply update the existing – we innovate with new initiatives.

INVEST IN A DIVERSE, CAREER-ORIENTED WORKFORCE: Two of the many advantages of our workforce are that IT personnel at SSA have strong business and programmatic knowledge of the agency, and share key SSA organizational culture attributes including a high public service ethic. We are committed to maintaining this 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 will 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.

As required, our IRM plan addresses the Government Performance and Results Act (GPRA) of 1993, the Paperwork Reduction Act of 1995, the Clinger-Cohen Act of 1996, the E-Government Act of 2002, and the GPRA Modernization Act of 2010. It also addresses the requirements of managing Federal information resources as expressed in Office of Management and Budget (OMB) Circular A-130 and the 25-Point Implementation Plan to Reform Federal Information Technology Management.

OUR PERFORMANCE MANAGEMENT FRAMEWORK

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.

OUR AGENCY STRATEGIC PLAN

The ASP articulates our mission, values, goals, and objectives as well as key outcomes we aim to achieve. Supporting each goal are objectives that describe issues, means and strategies which are key to their achievement, as well as performance measures. We published our ASP in February 2012 (effective in FY 2013). It sets forth four strategic goals and their subordinate objectives:

STRATEGIC GOAL 1: DELIVER QUALITY DISABILITY DECISIONS AND SERVICES

1. Reduce the Wait Time for Hearing Decisions and Eliminate the Hearings Backlog
2. Improve Our Disability Policies, Procedures, and Tools
3. Expedite Cases for the Most Severely Disabled Individuals

STRATEGIC GOAL 2: PROVIDE QUALITY SERVICE TO THE PUBLIC

1. Increase the Use of Our Online Services
2. Increase Public Satisfaction with Our Telephone Services
3. Expand Use of Video Services
4. Improve the Clarity of Our Notices

STRATEGIC GOAL 3: PRESERVE THE PUBLIC'S TRUST IN OUR PROGRAMS

1. Increase Efforts to Accurately Pay Benefits
2. Recover Improper Payments
3. Maintain Accurate Earnings Records
4. Make Our Administrative Operations Even More Efficient

STRATEGIC GOAL 4: STRENGTHEN OUR WORKFORCE AND INFRASTRUCTURE

1. Strengthen Our Workforce – Recruit, Train, Develop, and Retain Superior Employees
2. Maintain Secure and Reliable Information Technology Services
3. Increase Efficiency of Our Physical Infrastructure

An important component of the ASP is leveraging technology to enable the agency to meet our goals and achieve the desired business outcomes. The chart below illustrates the key role of IT planning in the performance management framework.

Chart 1 – IT Planning Plays a Key Role in the Performance Management Framework

Agency
Strategic Plan:
Goals & Objectives

Annual Performance Plan:
Performance Measures & Strategies
Reported on in Performance &
Accountability Report (PAR)

Information Resources Management
Strategic Plan:
Aligned with ASP and APP
Describes IT domains, governance, and high-level plans
Component of CPIC

Strategic Objective Portfolios:
Aligned with strategic goals and objectives
Prioritized and resourced based on performance goals
Governed by SITAR
Follows CPIC process

Agency IT Systems Plan:
2-year tactical plan of specific projects within portfolios
Supports ASP, APP, and Application Portfolio Management
Managed through our EA governance

At the pinnacle of the triangle, the ASP drives all lower level planning, including the objectives, priorities and constraints our managers adopt in constructing more detailed support plans. It reflects our goals and their 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.

We publish an APP that shows how we will achieve our goals and objectives, focusing on performance targets and the means and strategies for achieving them. Performance targets or output/outcome measures help assess our success in meeting a performance goal or initiative.

Many of the expected business improvements or outcomes rely upon the enterprise availability of our IT services.

Shortly after the close of the fiscal year, we publish a Performance and Accountability Report (PAR). The PAR outlines our actual performance achievements during the past year and compares them with the performance goals and objectives set forth in the APP. It also includes explanations of any corrective action the agency takes for unachieved goals.

The IRM Strategic Plan (this document) describes how IRM activities help to accomplish the agency's mission and realize our strategic goals and objectives. The IRM plan is a key component in our CPIC process. We use this process for managing our investments in IT.

Our Strategic Objective Portfolios are established and managed through our CPIC process to ensure alignment with agency strategic planning, performance plan goals, and strategic IRM planning. 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 decisions. The result of this process is an Agency IT Systems Plan, which guides our OS in assigning work to our IT staff.

Chart 2 – Our Strategic Objective Portfolios Align with our Agency Strategic Plan

Our Strategic Objective Portfolios Align with our Agency Strategic Plan

Our Strategic Goals

| Deliver Quality Disability Decisions and Services | Provide Quality Service to the Public | Preserve the Public's Trust in Our Programs | Strengthen Our Workforce and Infrastructure |

Our Strategic Objective Portfolios

Disability

High Performing Workforce

Hearings

Program Integrity

SSN Process

Core Services

Crosscutting

Infrastructure
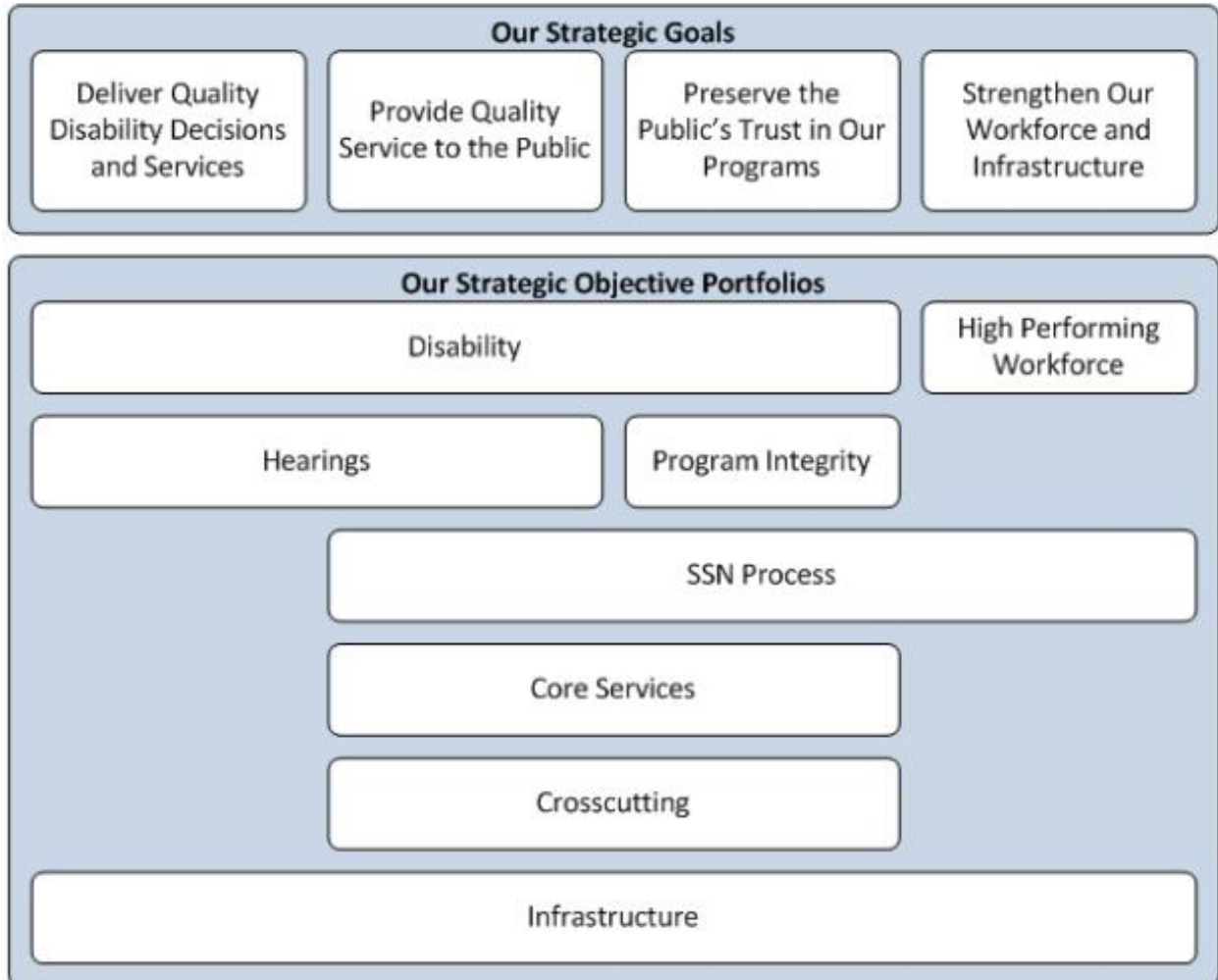
Our Strategic Objective Portfolios are:

- **Core Services portfolio** – supports the development of customer-centric automation tools that cover or support all service delivery channels and the major business processes of the agency. This portfolio includes online and automated services that allow us to transform the way we deliver service, keeping pace with the public's rapidly changing expectation of how we respond to their requests for service.

- **Disability Process portfolio** – includes automation improvements at all levels of the disability adjudicative process. These systems support timely, accurate, and consistent decisions, and provide the public with easily accessible support for all activities related to their claims and benefits under the disability programs.
- **Hearings Process portfolio** – includes IT projects that most actively advance the Commissioner's plan to eliminate the backlog and prevent its recurrence.
- **High Performing Workforce portfolio** – employs technology and innovation to increase the efficiency and quality of our human resource services for all of SSA's employees and components; provides an environment and culture that fosters employee retention, promotes performance, and encourages continual learning.
- **Program Integrity portfolio** – serves to simplify and streamline processes, and ensure the privacy and security of the personal information we maintain. We do this by increasing the use of technology to ensure timely and accurate postings of earnings records and wage reports; correcting situations that cause improper payments; automate the collection of death information, and carefully and continuously managing our finances and assets.
- **Social Security Number (SSN) Process portfolio** – addresses efforts associated with SSN assignment and card issuance as well as the maintenance of accurate SSN records.
- **Cross Cutting portfolio** – serves to address those initiatives/projects that cross multiple business areas (i.e. Authentication and Notice improvement).
- **SSA Infrastructure portfolio** – shares responsibility for supporting and achieving all agency strategic goals, including those contained in the other strategic portfolios. This portfolio assures the sustained operation of current IT systems and provides an environment to support the growth of the agency's new systems and technical infrastructure.

OUR IT INFRASTRUCTURE PERFORMANCE OBJECTIVES

Each of our strategic goals has associated performance objectives and strategies, many of which are reliant on IT for their success. In order to support those efforts and continue to enable high workforce productivity and public satisfaction in the services we offer, we need to maintain and enhance our IT infrastructure. We reflect our infrastructure as domains – each of which we explain in a subsequent section of the IRM. Within each of the domains, we reflect the strategies we have in place, and planned, to maintain secure and reliable IT services. As reflected in the APP, they include:

ENHANCING OUR INFRASTRUCTURE: We will complete infrastructure changes to restore national IT operations within one day should a disaster affect either of our two data centers. We will implement several technologies including high-speed disk replication, dynamic load

balancing with high bandwidth connectivity between data centers, increased data center capacity, and automatic failover and staging systems. We will test our critical system recovery processes on an annual basis.

PROTECTING OUR SYSTEMS AND DATA: We will deploy tools and techniques to maintain privacy and protection of our data, systems, and business processes. We will continue to strengthen our information security program to meet the standards and requirements of the 2002 Federal Information Security Management Act (FISMA) by training our employees and implementing effective cyber security technologies.

IMPROVING IT COST AND PERFORMANCE: We will use proven new technologies to lower IT cost and improve performance. As part of our CPIC processes, we evaluate the cost of IT projects in light of their return on investment. We appropriately adopt new technologies, which provide stable and high performing environments. We are implementing Service-Oriented Architecture (SOA) technology to enhance code reusability and reduce development costs.

MODERNIZING OLDER SOFTWARE APPLICATIONS: We will incrementally modernize our older software applications based on business opportunity and technical risk. We evaluate current software applications in light of how these meet strategic business goals and their conformance to our Enterprise Architecture plans. These evaluations support our decision process for identifying applications to retire, renovate, or maintain. We are progressively increasing the number of open software applications in use.

MAINTAINING SYSTEMS PERFORMANCE WHILE TRANSITIONING TO OUR NEW DATA CENTER: As we prepare for the move to our new National Support Center (NSC) in 2015, we are implementing several infrastructure enhancements to ensure continued system performance. These enhancements include isolating our pre-production and network environments from our core computing environment; reducing the number of operating systems we support; implementing additional virtualization technologies wherever technically feasible and cost-effective; and configuring tiered architectures to meet application cost and performance requirements.

HOW WE ASSESS OUR PERFORMANCE

We rely on our IT infrastructure to support virtually all of our programmatic, administrative and management information processes. As such, we need to ensure a high level of performance across all of our domains. We accomplish this with a strong governance model, robust internal controls, and a systematic approach to quality assurance. We regularly review and assess our performance at both the enterprise level and the project level.

ENTERPRISE-LEVEL PERFORMANCE

At the most basic level, because IT underlies all Social Security activities, we assess enterprise-level IT performance based on overall agency performance, including agency year-over-year productivity gains (which exceeded four percent in 2011). More focused on IT, the operational availability of our IT applications and infrastructure is key. Measured as "percentage of enterprise-wide systems availability," we set an APP goal of 99.5 percent availability plus fast response times, and closely monitor our performance against this goal on a weekly basis.

Other factors we consider in assessing enterprise-level performance include:

- Trends in infrastructure usage and utilization
- Cost, schedule, and functionality progress with our projects
- Trends in help desk calls and trouble tickets
- Results from extensive management controls, annual reviews, and audits
- Continual feedback from our business partners
- Public satisfaction scores with our direct service applications
- Comparisons of benchmarks, particularly with costs such as software licensing
- Our resource commitment to IT relative to the overall agency budget and peer entities
- Our technology posture relative to peer organizations in government and industry
- Security incidents
- Workforce health indicators including resignation rates
- Results from our disaster recovery exercises

PROJECT-LEVEL PERFORMANCE

We also assess our performance at the project level. These assessments include project management metrics for adherence to budget, schedule, and process, as well as higher-level investment reviews. Through our EA governance processes (discussed in more detail in *Our Enterprise Architecture (EA)* section), we assess technical aspects of individual projects. We regularly review all our projects on a monthly basis. For our major IT investments, we report cost and schedule performance via the Federal IT Dashboard.

The results of our efforts are evident in the performance of our systems, the performance of our staff, our strong security, our portfolio health, and our IT budget expenditures, as well as in our customer feedback, peer reviews, and audits.

ENTERPRISE IT OVERVIEW

OUR IT ENVIRONMENT

The Office of Systems (OS) is our primary IT organization. This office designs, engineers, operates, maintains, and secures the technology resources that support our entire organization. The OS includes the Office of the Deputy Commissioner (ODC), and eight Associate Commissioner (AC)-led offices. Staffs in the ODC provide high-level oversight; leading our IT strategic planning, investment management, and CPIC activities. Four of our AC-led offices support our infrastructure or are responsible for enterprise-wide areas including information security, EA, and IT business processes. The remaining four AC-led offices align with our programs and business processes.

Chart 3 – Organization of Our Office of Systems
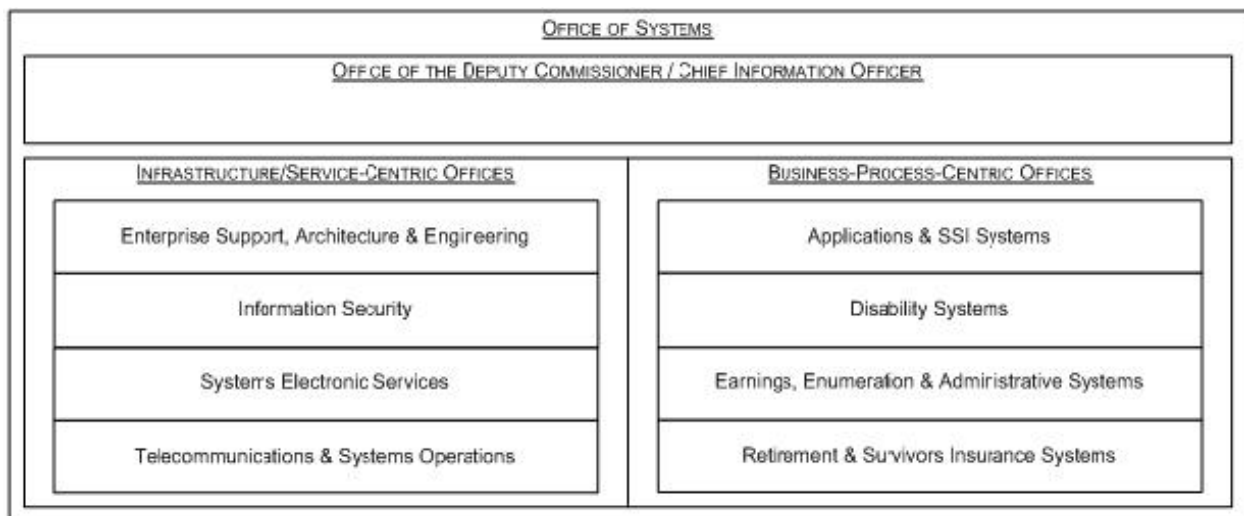
We operate with a four-tier management structure, where:

- The Deputy Commissioner and Assistant Deputy Commissioner set the overall strategic direction for the OS and provide top-level oversight of investment decisions and IT project management;
- ACs, and Deputy and Assistant ACs oversee offices with responsibility for one or more of our IT domains and actively manage their organizations based on the executive direction set by the Deputy Commissioner/CIO;
- Division Directors within each AC-led component manage multiple branches; and
- Branch Chiefs within each division are our first-line managers and provide day-to-day direction and oversight for our IT workforce.

OUR IT WORKFORCE

Our IT workforce includes about 4,000 IT specialists. This represents about six percent of our Federal workforce. The vast majority of these positions are in our OS, but about 15 percent are located in other Deputy Commissioner-level components, primarily in our ten regions.

By design, we have a career-employee-dominant workforce model. We use career staff to hands-on manage most of our technical areas and IT projects. About a third focus on IT operations and the remainder on IT development. Contractors are a similar split. Our employees average 15 years of Federal service, and have career advancement opportunities through both technical and managerial tracks.
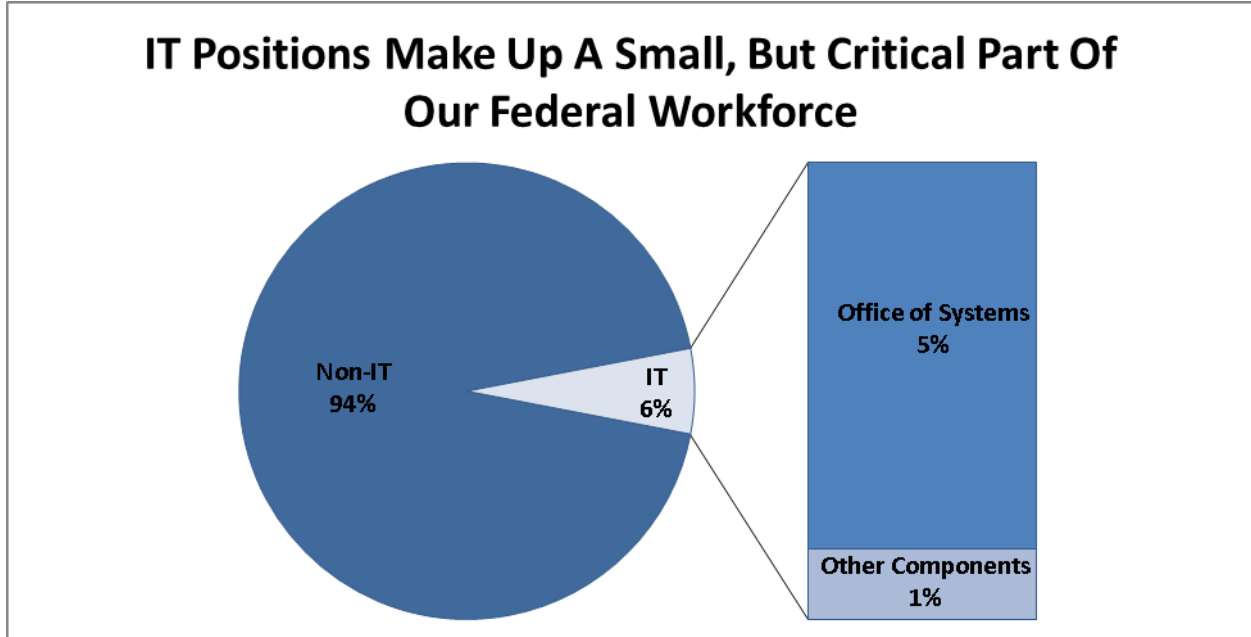
> ***How do we use IT contractors at SSA?***
>
> We supplement our Federal IT workforce with IT contractors. In FY 2011, we used about 1,100 contractor work years. Ideally, we maintain approximately 75 percent of our overall IT workforce as career Federal employees. This ratio gives us the flexibility to shift our IT personnel skill mix as our needs evolve, while maintaining a strong core of in-house expertise.

Two of the many advantages of our workforce model are that IT personnel at SSA have strong business and programmatic knowledge of the agency, and share key SSA organizational culture attributes including a high public service ethic. We experience very low non-retirement attrition in our IT workforce.

IT personnel in the OS pursue enterprise-wide IT solutions for projects selected and governed through our SITAR process. The non-OS IT resources provide high-value local component-level support. This support generally includes IT equipment, network and security troubleshooting, management information (MI) reporting, and development of local software to enable improved automation of component activities. Local components may also develop business automation prototypes to feed development of enterprise-wide solutions by the OS. These non-OS IT resources play a vital role in the smooth operation of the agency.

Chart 4 -- Our IT Workforce

IT Positions Make Up A Small, But Critical Part Of Our Federal Workforce

Non-IT 94%

IT 6%

Office of Systems 5%

Other Components 1%

We aim to maintain our highly skilled and motivated workforce through continued training, staff development, hiring and retention strategies, as well as an effective and satisfying work environment. Our infrastructure is huge and we need a broad range of IT skills to handle our workloads. A valuable tool has been our IT Skills Inventory. This extensive inventory serves to ensure that our employees have, or develop, the skills needed to support our current and target architectures. We conduct this assessment approximately every two years and use the results to refine our training and development efforts as well as target our hiring. Currently this is a management exercise, however, for even better accuracy we hope to provide the opportunity for employees to participate directly and transform it from a bi-annual effort to a data collection continuum.

This inventory provides us with critical information necessary to forecast our future skills needs and target our technical training and developmental programs effectively. We utilize it as a guide to train new technology workers and build our extensive in-house training programs. As we are a large mainframe shop running hundreds of Common Business-Oriented Language (COBOL) applications, we have one of the largest COBOL training programs of any agency to support and maintain our extensive codebase. As we modernize our systems, our future needs include more people with Java language skills. We also identified the need for analysts with SSA business-process knowledge -- a key component in the development and enhancement of our applications and systems. Therefore, we are expanding the scope of our IT Skills inventory to include an assessment of skills available and needed in our business components to effectively participate as business subject matter experts in our IT projects.

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. Through this program, our PMs can obtain professional project management certifications. The project management training curriculum includes over 50 courses available via classroom, internet, interactive video teletraining, video on demand, and university partnership program formats. Courses include all mandatory and basic certification requirements as well as tailored content specific to SSA process and tools, and a large number of additional courses that we deem important for full PM development.

> **HIGHLIGHT: PROGRAM AND PROJECT MANAGERS**
>
> [The Federal CIO Council has highlighted our Program and Project Manager Development program in a best practices case study](#).

We have engaged in other notable staff development efforts that include the Hardy-Apfel IT Fellows Program. We use this program to bring in IT talent from the top graduate schools across the nation. Through this program, we recruited Master's and Ph.D. level talent into the agency from the top fifteen computer science schools in the country.

We also will participate in the recently launched Federal CIO Technology Fellows Program. This program minimizes the bureaucratic barriers that slow hiring and presents young people with a prestigious option when coming out of their respective graduate programs. The Technology Fellows program is part of the long-standing and highly-successful Presidential Management Fellows (PMF) program. Since 1977, the PMF program has been placing top post-graduate talent in Executive-Branch agencies.

Funding-dependent, we will consider reviving a competitive program of providing agency support to proven/talented career staff so they can obtain advance technical degrees in the field of computer science and information management.

In consideration of the services we provide to the American people and the satisfying work environment that we have created, we trust that we will continue to attract and retain a multi-generational, multi-cultural workforce with the competencies needed to achieve our agency mission. For business recovery value, and to expand our recruiting areas, we will gradually shift (via replacement hiring and voluntary choice) more of our headquarters-based positions to other geographic locations. For example, we plan to shift additional IT resources from our main campus to our Second Support Center (SSC) location in North Carolina. By stationing a representative cross-section of our IT workforce in a different location, we will better ensure our ability to maintain IT operations in the event of a disruption at our main campus. We also

anticipate that having greater flexibility in duty station locations will result in improvements in our IT workforce recruiting outcomes.

We will remain active managers of our workforce, continually watching business need, demographics, performance data, and consistent with rules and resources, optimizing the development and deployment of our staff. We will use effective knowledge management initiatives, comprehensive technology-training programs, and ongoing succession planning to mitigate any potential loss of institutional knowledge and to maintain our highly-competent IT workforce.

OUR IT BUDGET

Over the past decade, our annual IT budget of approximately $1.5 billion dollars covers all agency spending associated with computing hardware and hardware maintenance; software development and software licensing; telecommunications infrastructure and usage; contractor support; and salary cost for Federal staff. Federal personnel costs typically account for about one third of our IT budget.

Chart 5 – Our IT Budget by Type of Expense
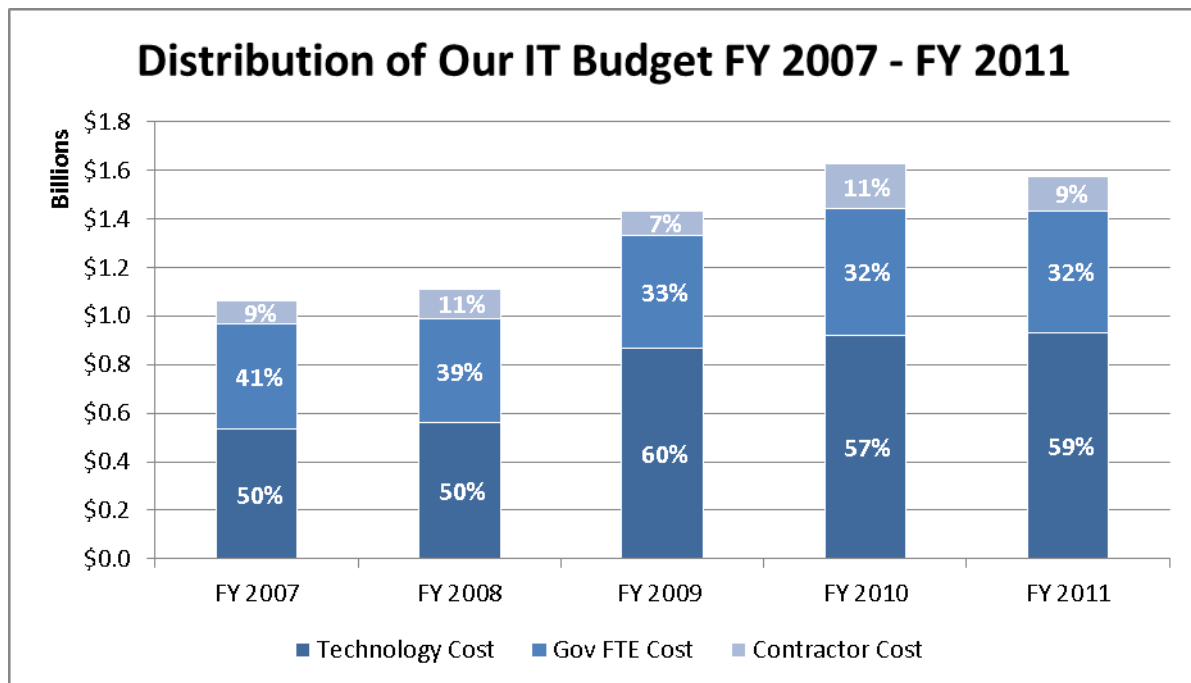
Our IT spending has not grown substantially as a proportion of our administrative costs, and by common cost benchmarks, we are extremely thrifty. However, our overall IT spending has increased in recent years because of computing demand growth, strategic forward funding, and

focused investments to reduce risks, increase overall agency productivity, and support strong service delivery.

Prime examples of significant IT budget investments in recent years include:

- A new, fully provisioned second data center, and for the first time in decades, assurance of timely service continuity to the American public in the event we lost either of our two data centers.
- Significant expansion and quality improvement of our public Internet service channel, while at the same time, still providing (and improving) a full array of IT applications and services in our frontline offices. Our internet services have enabled the agency to manage growing workloads while keeping overall administrative costs low.
- Extensive advances in disability IT systems. With minimal exceptions, we have a fully electronic claims process, and now look to the IT budget as the funding vehicle to capture, move, track, organize, store, and find hundreds of millions of records associated with disability workloads. In recent years, we have also significantly added software functionality, greatly expanded video hearings, and greatly improved notices for visually impaired people.

Aside from our Federal employee salary costs, our IT budget is comprised of over 100 distinct spending categories. Budgeting efforts simultaneously cover three-year windows of continually evolving planning and execution. For example, as of the publication of this plan, we are aggressively executing the FY 2012 budget, readjusting allocations in our spending categories for FY 2013 to reflect shifting spending scenarios, and building a comprehensive new budget request for FY 2014. Our OS manages the agency IT budget process, with close coordination with the Office of Budget, Finance and Management and participation from all SSA components.

OUR IT GOVERNANCE

Under the direction of our Deputy Commissioner/CIO and Assistant Deputy Commissioner/Deputy CIO, the Office of Systems is responsible for the day-to-day management of our IT development and maintenance projects. The OS:

- Carries out our IT budgeting and Earned Value Management (EVM) activities;
- Maintains and applies our System Development Lifecycle (SDLC); and
- Governs our EA

Our IT governance includes the management and oversight of our IT investments through both the CPIC process as well as through our EA program. A sound capital planning process defines

how an agency selects, controls, and evaluates their assets. Federal laws and guidance also direct us to develop and maintain EAs as blueprints to guide IT modernization in support of agency missions. We carry out EA as part of a Performance Improvement Lifecycle that defines how we architect, invest, and implement.

OUR CPIC PROCESS

We manage our IT investments following the "select, control, evaluate" CPIC model.

Chart 6 – Our CPIC Process
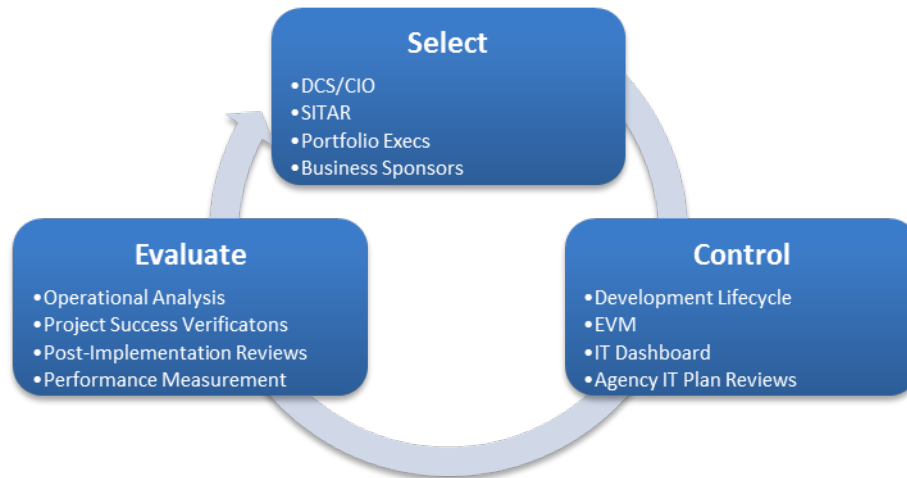
SELECT PHASE

Within the Select phase, our business components and OS submit proposed IT projects through the SITAR process. Each proposal contains a description of the project, its relationship to the ASP, including the business case, expected benefits, and an estimate of all resource costs. We group these projects into portfolios that align to our ASP. Portfolio Executives from both the business side and IT, evaluate proposed projects and develop an enterprise-wide prioritized list of proposals based on evaluation factors that include expected benefits to the agency, strategic alignment, mission effectiveness, legislative mandates, high return on investment, risk, administrative savings, maintaining systems, EA alignment, as well as organizational impact. The prioritized list becomes the Agency IT Plan that we present to the SITAR for review. The SITAR board reviews and approves the prioritization of the proposed projects using the established criteria and the DCS/CIO presents the Agency IT Plan for the Commissioner's final approval. The SITAR Board reviews and modifies the IT Plan quarterly or as required. Simultaneously, our IT budget staff evaluates non-staff IT resource needs. The result of this

process is the Agency IT plan, which guides our OS in assigning work to our IT staff and allocating IT resources.

As we execute the IT plan, we manage our IT acquisitions to optimize flexibility and value. Our IT staff works with our acquisition staff to ensure that we take advantage of the full range of acquisition options while addressing government-wide contracting priorities. Our process incorporates specific review steps to ensure that acquisitions follow our high-level technology strategies and are consistent with our approved investment plans.

CONTROL PHASE

During the Control phase, our executives and managers monitor the progress of our ongoing IT projects against projected cost, schedule, and performance (including delivered benefits). These measures provide constructive information on progress through a project's baseline performance plan. We report cost and schedule performance via the Federal IT Dashboard for our major IT investments. We update acquisition, risk, performance, and activity data. We also conduct in-depth reviews as necessary for projects with sub-optimal performance.

> **What is the IT Dashboard?**
>
> The IT Dashboard is a website Federal agencies, industry, the general public, and other stakeholders use to view details of federal information technology investments. The purpose of the Dashboard is to provide information on the effectiveness of government IT programs and to support decisions regarding the investment and management of resources. It is also used by the Administration and Congress to make budget and policy decisions.

The DCS/CIO conducts monthly project status meetings to highlight, evaluate, and resolve discrepancies between the planned and the actual delivery of project milestones. Upon completion of a project, we confirm that the project successfully delivered promised functionality before we remove the project from the list of oversight projects. In support of the SITAR, there is a quarterly collection and review of project health. Project sponsors document project issues related to design, scope, schedule, risk, functionality, and acceptance. Portfolio executives meet with the IT portfolio counterpart to review and address any health issues, and report to the SITAR Board as needed.

In the following year, we revisit the portfolios to evaluate their alignment with the next year's goals, objectives, and measures. We use these processes to make adjustments each year based upon the current set of goals, objectives, and measures. Additionally, we make quarterly updates based upon changing priorities, legislation, court decisions and evolving external mandates.

EVALUATION PHASE

Our Evaluation phase includes annual operational analysis performed on major IT investments with significant steady state activities, post-release review of all development efforts, ongoing performance measurement, and in-depth post-implementations review of some efforts. All completed projects go through the Project Success Verification (PSV) evaluation. A PSV is a review completed by the Office of Systems PM and the Business PM to confirm that the project successfully satisfied the business goals, user goals, and the requirements agreed upon in the Project Scope Agreement. We use the results of these evaluations to inform future investment decision-making, and identify opportunities for process improvement.

We enhanced our IT planning and execution policies and practices by fully implementing an Earned Value Management System (EVMS) for our major IT investments. Each Exhibit 300 ties to the agency's mission, goals and objectives, as well as our APP.

SYSTEM DEVELOPMENT LIFECYCLE (SDLC)

A primary focus of IT management is the increase in the value of products and services made possible by technology. We manage technology resources in accordance with the needs and priorities of SSA to accomplish agency goals. For instance, we ensure high quality products by providing directives, policies, processes, and procedures that IT projects must follow.

We have adopted best practices from the Capability Maturity Model 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.

OUR ENTERPRISE ARCHITECTURE (EA)

The Clinger-Cohen Act of 1996 requires Federal agencies to develop and maintain an EA program. Based on OMB guidance, Federal agencies are required to align their IT investments to the Federal Enterprise Architecture (FEA) and to their own strategic business plans.

We base our EA on the FEA framework. The FEA framework describes the broad functions and capabilities that the Federal government provides. Our EA starts from the subset of those Federal functions that SSA supports. All of our IT investments, portfolios, projects, and applications align to these functions.

We partition our EA into Strategic Objective Portfolios (SOPs), identical to "segment architectures" in the FEA and consistent with the SOPs that are established and managed through our CPIC process. Each SOP represents a major agency business area, and we assign each SOP two executive leads, one from the line of business and one from the OS. Every project that we start originates from one of our SOPs. In this way, we ensure that the work we do has business value and appropriate oversight, and that it maps back to the core Federal functions for which the agency is responsible.

In addition to ensuring that our IT projects align with our strategic objectives and the FEA, our EA program establishes technical standards for the hardware and software that we buy and build. We maintain a constantly evolving knowledge base of technical documentation that

allows us to point our project teams to reusable components and supported solutions that save them from spending excessive time in research and development.

To ensure compliance with, and to maximize the benefit of, our EA program, we rely on three governing boards: the Architecture Review Board (ARB), the Design Review Board (DRB), and the Infrastructure Review Board. As the names indicate, these three boards have different areas of focus and membership. Not every project needs to come before each review board, but among them, they address virtually every architectural issue that a project may face.

The technical knowledge base of our EA program informs the work of these review boards, as does the information maintained by our Application Portfolio Management (APM) program. APM is a disciplined approach to monitoring the health of our 700+ software applications and utilities. It too has a knowledge base, called our application inventory. The application inventory contains a wealth of important information about each application including but not limited to its criticality, dependencies, and technical characteristics.

Through our APM process, we also provide the review boards, managers and project teams with meaningful data about the condition of our applications, and we use that information to reduce overall IT costs. For example, our application inventory is the primary source of information used for an annual review in which we identify applications in need of architectural modernization and better exploitation of reusable components.

How do we bring new technologies to SSA?

Within our EA, we provide for an organized and orderly migration path for the adoption of new technologies. We evaluate emerging disciplines and technologies to determine their applicability for development and deployment as well as their capability for meeting our requirements. We evaluate suggested changes to the architecture with a multi-step process that begins with our ARB. With ARB approval, we conduct Proofs-of-Concept (POCs) to evaluate proposed changes against defined performance criteria. Successful POCs, as determined by the ARB and project sponsors, advance to development projects. Upon successful completion and evaluation of the development projects, we adopt the changes into our EA.

OUR IT/IM PLANS BY DOMAIN

DATA MANAGEMENT

CURRENT STATE

We maintain a database portfolio of nearly 800 databases. Our databases operate on a variety of database management systems (DBMS), including DB2, Integrated Data Management System (IDMS), Structured Query Language (SQL) Server, and Oracle, as well as with the Master Data Access Method (MADAM), an internally developed file management system. We store key programmatic data in four master files that are at the heart of our IT operations. The four master files are the Master Beneficiary Record (MBR), Supplemental Security Record (SSR), Enumeration Identification File (NUMIDENT), and the Master Earnings File (MEF).

Chart 7 – Our Production Database Portfolio by Database Management System
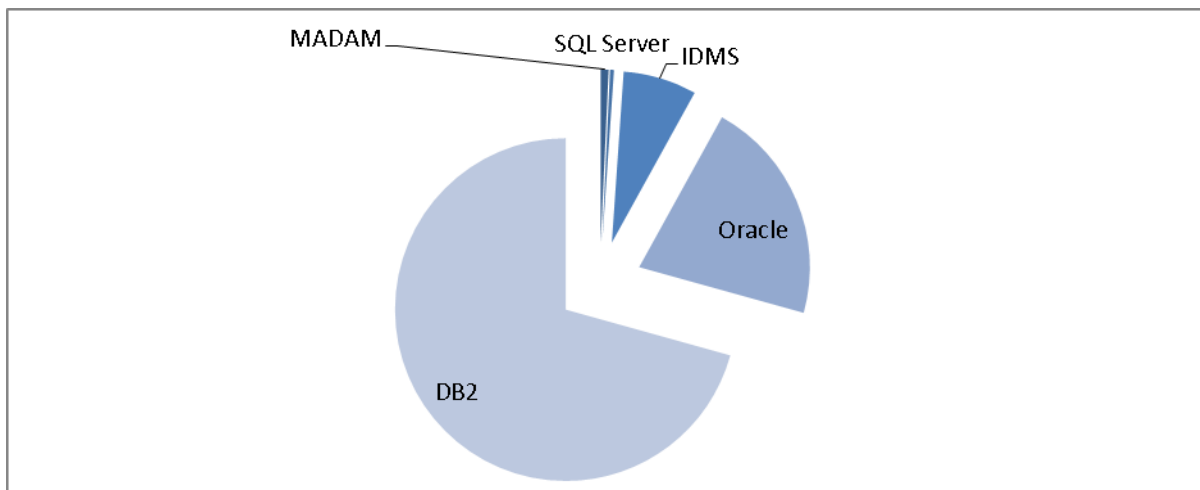
We follow an enterprise data and database strategy designed to maximize the value of our data and exploit new opportunities while avoiding known risks. These include:

- New business opportunities/responsibilities (Internet, third party collaboration, etc.)
- New technical challenges (24x7 data availability, multiple data centers, etc.)
- Tremendous growth of data volume and increasing workloads
- Shortened systems development life cycles
- Expansion of types of data collected:
  - Structured – integer, character, date
  - Semi-structured – Extended Markup Language (XML), PDF
  - Unstructured – image/voice/video

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- Ongoing migration to relational database technology (DB2, Oracle, SQL Server)
- Modernization of application development architecture
- The cost of continuing to maintain legacy solutions

At a high level, our data and database strategies are to:

PRESERVE AND PROTECT OUR NATIONAL DATA ASSETS: We are pursuing a multi-year effort to migrate the management of the agency's major master files from our internally developed MADAM software to the industry-standard DB2 database DBMS. This effort helps to mitigate the risks associated with retirement of long-service staff and the management of the agency's older database management software. To date, we have migrated two of the agency's four master files. We are also migrating databases managed by the IDMS DBMS to DB2. Over the past few years, we have migrated approximately half of our IDMS databases to DB2.

We have incorporated standard data validation procedures such as entity, attribute, referential and process integrity into the database development process in order to minimize the potential for data anomalies. We also use data profiling to analyze data to detect data quality issues.

EXPAND DATA ACCESS AND AVAILABILITY: We have implemented data access software for critical databases to deliver consistent and accurate data to users while continuing to safeguard the integrity of the data. Our data access strategy will further support expanded data access, especially access to data housed in our master files. We have expanded data access and availability in our Windows environment through the addition of SQL Server as an enterprise database management option.

IMPROVE TECHNICAL RESPONSIVENESS AND AGILITY: We are developing data-modeling standards to better support enterprise data management. Enterprise data management will enable us to meet data requirements much quicker in the project development life cycle, improve data consistency, promote data standards, promote the sharing of data, and minimize the need for redundant application and database development. To support increasing use of XML, we have developed a standard approach to storing XML data. We have a robust Business Intelligence (BI) architecture in place to handle our MI needs. Technological advances in this area may be creating the opportunities to deliver solutions faster and more efficiently.

PROMOTE STANDARDS-BASED INTEROPERABILITY: We have established an enterprise metadata repository (EMR) to support data standardization and to aid the coordination of data exchanges within our organization and with external partners. We will continue

to enhance the EMR architecture through the design and development of a user-friendly interface along with an application-programming interface to provide more efficient access to the repository. We use Global Reference Tables (GRTs) to help ensure reference data is standard and consistent across all data sources. We develop new GRTs as needed, based on business-driven development efforts.

SUSTAIN MODERNIZATION: As part of our EA governance processes, our DRB reviews application development proposals. The DRB reviews include assessments of future data usage and access requirements. We will use these assessments as a major source of input when we periodically update our data and database strategy.

HIGHLIGHT: VERIFICATION AND DATA EXCHANGE

We verify and exchange information with many Federal, state, local, and foreign government agencies and private entities. Our verification services provide our partners with the ability to verify that the names and SSNs of employees, people obtaining new or replacement driver's licenses, and others, match the information in our records. These exchanges help us obtain information we need to serve our customers, maintain up-to-date and accurate records, and support our program integrity efforts. Some partners also obtain the information they need to support their own benefit programs. In total, we maintain over 1,500 separate data exchanges.

To improve these services, we are redesigning and integrating existing processes used to exchange information. We will replace our existing verification and data exchange methods with integrated software and an architecture that is secure, flexible, and scalable. We will re-engineer legacy applications to provide parameter-driven software that is reusable, flexible, and business-centric, using contemporary programming languages and data structures (e.g., Java, DB2). By modernizing our verification and data exchange services, we will be able to process these growing workloads efficiently and effectively, and position ourselves to expand real-time services.

TWO YEAR PLANS

- Complete migration of master files from MADAM to DB2 by the end of FY 2014
- Create a robust enterprise-level SQL Server infrastructure
- Research and benchmark to keep current with data management best practices

OUT-YEAR PLANS

- Migrate the remaining IDMS database to DB2
- Expand data access to master files

SOFTWARE/APPLICATIONS

CURRENT STATE

Our OS is organized in offices that roughly correspond to major agency business functions. We do this to maximize our use of institutional and program knowledge and to sustain effective working relationships with our customers. As described in the EA section, we employ several practices to ensure that these individual offices all reflect a single approach to software development across the OS. These practices include design, architectural, and investment reviews, and several repositories of information to assist our project teams and executive leadership.

We maintain an application portfolio of over 700 software applications, including application systems, case processing systems, decision support systems, notices, queries, and back-end transaction processing systems. End-users rely on an extensive reference manual called the Modernized Systems Operations Manual for detailed descriptions of our applications.

Chart 8 – Language Distribution of Our Application Portfolio
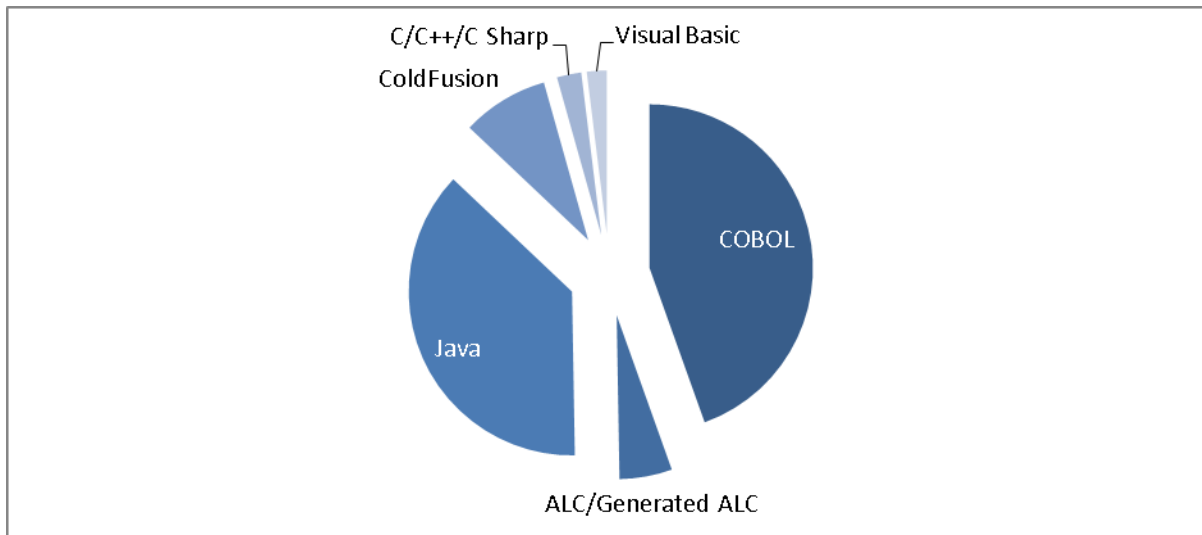
Our application mix includes commercial-off-the shelf (COTS) and government-off-the-shelf as well as products for generic business functions; however, we have designed and built all of our programmatic software in-house. We utilize a variety of software languages – but primarily COBOL and Java. We use the COBOL language to execute both Customer Information Control System (CICS) user interfaces and batch processing. COBOL has served SSA and similar large transactional processing organizations well for over 40 years; COBOL's longevity is a distinct advantage for us, given the support and stability of the product. We use the Java development

language and IBM's WebSphere development/execution environment as a second strategic platform to complement our COBOL platform. Smaller numbers of our applications also use Assembler Language Code (ALC), C, ColdFusion, and Visual Basic.

We have introduced governance processes and review boards to ensure that we use open source software appropriately and consider open source solutions where possible. Those processes also drive our project teams to use our own adaptation of an internal open source community – a framework of reusable JAVA classes that provide common application functionality. This framework allows for the creation of standardized applications and avoids duplication of development effort.

HIGHLIGHT: REUSABLE CODE

A key element enabling the success of our IT enterprise is the reuse of existing code, applications, and utilities. We integrated a reuse enforcement process into our SDLC, governed by the ARB, resulting in cost avoidance and savings that contribute to the goals of a sound IT and investment management strategy.

SOA is an IT architectural approach that makes use of reusable components or services. Our SOA and its associated processes work in conjunction with our WebSphere/CICS architectural model and the DCS Framework. Our WebSphere/CICS model supports WebSphere application design and its interface with CICS, allowing us to leverage decades of proven, optimized software while modernizing the user interfaces from outdated "green screens" to web-based designs. The DCS Framework is a set of services that supports the architectural model by providing common application functionality, avoiding duplication of effort in application development.

Between maintenance releases, cyclical workload releases (such as our massive annual benefit rate increase effort), and new development, we successfully implement hundreds of software releases each year. We build all our enterprise software in designated development environments using approved tools, and we maintain our source code and key project artifacts in enterprise repositories. We also track all known software defects in an enterprise system.

We continue to test open-source software solutions and incorporate open-source business rules engines in several production applications. In addition, we established an enterprise service bus based on open-source technology and continue to incorporate open-source solutions in our integrated development environments.

Our user-centered design (UCD) process is a key component of our SDLC. We employ UCD methodologies to ensure a high level of usability within programmatic applications and across our internet web presence. Our process includes eliciting business and user needs and follows

an iterative cycle of design and usability testing to achieve measurable goals. We implement interface design standards through a reusable library of interaction patterns to ensure consistency across all our Internet and Intranet web-based applications and static Internet pages.

We rely on user-centered design to ensure applications developed in-house are accessible and well tuned to meet the needs of our end-users. We build all of our public-use software with accessible, well-designed, graphical user interfaces (GUI). The in-house software that our employees use has a mix of CICS green screens, and accessible GUIs. We have not built green screens as part of new development projects for years, and are therefore gradually shifting more of our applications to use of graphical user interfaces.

HIGHLIGHT: DIRECT SERVICE APPLICATIONS AT SSA

Over the past decade, we have expanded our online service options (eServices) to provide improved customer service to the American public. Our development of this service channel has been a critical element supporting our ability to respond to growing workload demands.

Today, people can go to www.socialsecurity.gov to apply for retirement, disability, spouse's, and Medicare benefits over the Internet, and use our retirement estimator to help determine the benefits they and their families might receive in retirement. Current beneficiaries can access our website to check their benefits, change their address, sign up for direct deposit, get a replacement Medicare card or 1099, and request proof of income letter. Using interactive voice recognition, individuals are able to use our 800-number system to conduct many of the same activities. In 2010 and 2011, we 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.

Our eServices also are available to our business and government customers. We maintain suites of services for our business and government partners at our Business Services Online and Government Services Online websites.

Our eServices include applications that support service delivery across our core lines of business. As staff levels decrease and workloads continue to grow, we will need to expand and enhance these offerings.

TWO YEAR PLANS

- Continue to rely on agency direction, our business partner's priority needs, and our APM process to identify priority software development projects. Build all new software following our EA, and SDLC

- Continue to focus on the most effective language/execution environment combinations for our business needs
- Complete active software modernization projects, including earnings redesign, data verification, the Representative Payee System, the Critical Payment System, Title II Automated Job Streams, eForms, the SSR spread, and death processing MI
- Stay current with operating systems and software versioning throughout the enterprise
- Apply richer authentication to our public-use Internet applications
- Bring our existing public-use Internet applications under a common portal
- Use more open source software where appropriate, most notably with our largest active development project (the Disability Case Processing System)
- Modernize the Intranet tool we use to track and communicate software development project progress
- Deploy better and more uniform interface standards for the software we build for our line employees
- Build a transactional mobile application

OUT-YEAR PLANS

- Develop a more systematic schedule for refreshing the look and feel of our public use Internet applications
- Continue to reduce use of ALC code in our enterprise
- Continue to expand our SOA position
- Enhance our enterprise test data
- Launch more structured modernization of core Title II and Title XVI software
- Pursue enterprise notice processing improvements
- Pursue a new external testing environment

What is our largest software development project?

The Disability Case Processing System (DCPS) is our largest software development project. Fully operational in FY 2016, DCPS will replace 54 legacy DDS implementations with a single system that integrates the entire disability determination process from start to finish, including case processing, correspondence, fiscal processing, MI, and workload management. DCPS will be a service-oriented application comprised of a combination of customized code and commercially available products utilizing state of the art technology, running on non-mainframe hardware.

BUSINESS INTELLIGENCE

CURRENT STATE

To support quality management decision-making, we are leveraging our data, modern analytical tools, and data warehousing technologies in our Business Intelligence (BI) architecture. The foundation of this architecture is the combined SSA Unified Measurement System and Managerial Cost Accountability System (SUMS/MCAS). SUMS/MCAS consists of interrelated applications and data that we use to produce consistent measures of workload volumes and other performance measures. SUMS provides workload counts and performance measures, while MCAS addresses work power and budget support.

The BI architecture has improved the quality of, consistency of, and access to the information needed by executives, managers, and analysts throughout SSA. The BI architecture provides user-friendly access to standard reports and ad hoc query tools that support analysis, customer service monitoring, resource allocation, and strategic decision-making.

Our BI Architecture is more than an environment, but a set of processes, standards and people that ensure consistency, accuracy and integrated information across the agency. The architecture includes the following:

- DATA SOURCES AND SUBJECT AREA INTEGRATION
  This includes programmatic source systems, various workloads and administrative systems that support the agency.
- OPERATIONAL DATA STORES
  Detail data is primarily stored in DB2, supporting tactical and operational needs, specifically structured for query and reporting purposes and preserving the performance levels of our transactional systems.
- DATA WAREHOUSE
  We use Ab Initio and custom coded PL/SQL, to bring data into the data warehouse. The data warehouse is an Oracle database with over 12 terabytes of data, and supports agency strategic decision making.
- MASTER DATA MANAGEMENT
  The importance of the data and standards exists in the master data management with our BI repository, data integration tables, which ensure quality and conformance to standards, and global reference tables, which provide flexibility to change.

- PRESENTATION LAYER

  Our BI delivery has MI Central, an internally developed, intranet web application using ColdFusion and AJAX (JavaScript and Cascading Style Sheets) for reoccurring listings and reports. Oracle's Enterprise Performance Management (EPM) and Information Builder's WebFocus provides direct access to the information, dashboards, analytics and ad hoc reporting.

- COST AND BUDGET SYSTEMS

  The information that we use operationally to manage the workloads is also key to our stewardship, budget formulation, and cost accounting activities. That data flows through to those processes to handle our reporting responsibilities effectively.

Our BI initiative is a comprehensive, multi-year effort. In keeping with our general strategy of incremental development, we are retiring legacy management information systems on a workload-by-workload basis, and expanding the reach of our BI architecture and SUMS/MCAS to replace those retired systems.

HIGHLIGHT: BI STRATEGY PREPARES SSA FOR THE FUTURE

Gartner conducted a case study at SSA on Business Intelligence and cited the following: "SSA was a finalist in Gartner's North American BI Excellence Awards, held in March 2009. SSA developed its BI strategy in order to address the increasing retirement population in the U.S. and to improve the speed and quality of its disability process. SSA uses BI techniques to gather data from many sources, to analyze processes, measure workloads, and resources and improve customer satisfaction. During the next decade, the agency expects to reduce its backlog, improve service, and shift many labor intensive functions to Web-based self-service."

TWO YEAR PLANS

- Focus on moving hearings-related workload information into the BI architecture
- Improve performance measurement for our eServices
- Expand on the existing Visitor Intake Process/Customer Service Record (CSR) measurements and information critical to understanding and adjusting workloads and resources in Operations
- Redesign of the Cost Analysis System by incorporating automated interfaces to systems that supply workload and payroll data

OUT-YEAR PLANS

- Integrate disability workload information into the SUMS structure as part of DCPS

- Standardize timely information on pending overpayments across multiple components
- Redesign the analytical systems that track representative payees
- Provide a repository of current, auditable, and repeatable death related information
- Continuously evaluate emerging technology to improve our BI tools, including geographical user interfaces and enhanced self-service options

How do we evaluate and improve customer experience with Integrated Business Intelligence?

Accurate and reliable BI is essential in evaluating the efficiency and quality of our existing customer service channels, in managing and planning our field office (FO), processing centers, and teleservice center (TSC) resources, in anticipating customer service needs, and in planning new customer service initiatives.

CSR information provides our executives, managers, and analysts a wealth of information on FO visitors and TSC callers. Automated Field Office Waiting Time, Interviews by Topic and Language, Limited English Proficiency/Interpreter information and Calls by Transaction and topic are just a few of the standard reports available.

We built our integrated BI architecture on the principal of data-as-a-service. Executives, managers, and analysts now have the ability to access and analyze information using common querying tools and ad hoc methods. Prior to our BI implementation, this effort would take significant programmer support. Putting BI into the hands of the decision makers improves their ability to reassign work to other locations, identify backlog and broken processes, and move workloads that are portable to where capacity exists.

COMPUTING PLATFORMS

CURRENT STATE

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);

Table 1 – Our Computing Infrastructure

Group	Utilizes
Mainframe Server	z/Enterprise Six z196s Two z10s
Mid-Range Server	iSeries, Oracle T & M Series, UNIX
Commodity x86 Server, Desktop, and Mobile	Dell Enterprise and Network Class Servers, Sun Solaris Servers, Hewlett-Packard Desktops, Dell and Fujitsu Laptops

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)

MAINFRAME ARCHITECTURE

Our mainframe architecture includes eight IBM z-Series processors, four in each data center. Six of these processors (three in each data center) are IBM's newest z196 processors. Each data center also has one z10 processor. The eight processors are configured into multiple logical partitions (LPARs) that make up several system complexes.

Logically, the mainframe architecture includes of six distinct (logical) environments, each serving a specific function for a particular target audience.

- The Production Processing Facility (PPF) is a cluster of logical partitions (LPARs) that hosts production interactive processing and batch work.
- The Document Management Facility supports the electronic disability Document Management Architecture.
- The Management Information Service Facility supports administrative and MI, Program Service Center, and Office of Child Support Enforcement workloads.
- 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 System Software Test Facility and Network Test Facility is where we develop and test operating systems software prior to migrating into the development environments.
- The Data Center Services Facility is a collection of LPARs dedicated to single functions within the mainframe architecture. For example, it contains data extracted from production for audit purposes. The data also supports testing disaster recovery strategies.

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 development tool. The UNIX Heavy environment houses various program-level customer support systems. On the backend, UNIX Heavy applications connect to the Mainframe CICS, DB, 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.

TWO YEAR PLANS

- Upgrade our remaining Z10's
- Maintain the mainframe as a cost-effective and secure platform by optimizing our associated software costs
- Virtualize and consolidate our mid-range and commodity x86 server environments to increase utilization and cost-efficiency
- Engineer the Open/Distributed environment to support greater use of commodity devices
- Engineer the computing services platform to support open source operating systems and applications
- Isolate Pre-Production and Network functions from the Programmatic Production Facility (PPF) in preparation for the move to the NSC
- Establish consideration of public vs. private vs. hybrid cloud options as part of hosting and/or acquisition strategy decision-making processes
- Establish better policies and governance mechanisms for the selection of public cloud solutions

OUT-YEAR PLANS

- Reduce the number of operating systems we support
- Virtualize and consolidate our computing infrastructure wherever it is technically feasible and cost-effective
- Configure our computing services platforms according to a tiered architecture such that we host applications on the most cost-effective level that will securely support their performance requirements
- Manage the consumerization of information technology by increasing the flexibility of our computing services platform to securely support a broader range of end-user mobile devices
- Enhance the security, flexibility, and agility of our existing, cloud-based computing services platforms

HIGHLIGHT: CLOUD COMPUTING

For many years, we have designed our IT services environment and IT infrastructure around fundamental concepts that the technology world has recently labeled "cloud computing." From the user's perspective, our computing services platform provides automated provisioning to end users and clear views of systems performance, security, capacity, and power usage to our systems engineers.

Our shared IT environment and supporting (shared) IT infrastructure currently provide a highly-scalable pool of IT resources for our end-users. We manage physical and virtual resources (including storage, processing, memory, and network bandwidth capacity) dynamically according to end-user demand requirements. We are able to provision our IT environment to meet user and customer demand with minimal overhead.

Our computing services platform is a highly-integrated, highly-scalable, and highly resilient general-purpose computing environment with very high service level capabilities, security, and high-speed network connectivity. However, increasing workloads and end-user expectations – coupled with current budget and resource limitations – require that we explore every means at our disposal to extend and enhance the capabilities and capacity of our existing cloud-based IT environment.

One very important caveat is that we are acutely aware of our responsibility to protect the highly sensitive Federal tax information, PII, and medical information within our IT environment. Our policy is that such PII data will reside in our internal private cloud implementation, fully compliant with our stringent security controls designed to protect highly sensitive data. However, if we store or allow access to information in external clouds, we must ensure that such storage or access meets or exceeds all appropriate security controls.

NETWORK INFRASTRUCTURE

CURRENT STATE

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 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 SSA-assigned 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).

Table 2 – Our Network Infrastructure

Characteristic	Metric
Routers	3,528
Switches	8,361
Weekly Traffic	500+ TB across the WAN

> **HIGHLIGHT: CITIZEN ACCESS ROUTING ENTERPRISE THROUGH 2020 (CARE 2020)**
>
> We are replacing our National 800-Number Network with the CARE 2020 network. CARE 2020 is a cloud-based solution utilizing Voice over IP (VoIP) technology awarded under the General Services Administration (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, such as the ability to initiate web chat between the citizen and SSA.

TWO YEAR PLANS

- Improve NCC core infrastructure to 10 Gigabyte Ethernet
- Increase Service Delivery Point (SDP) bandwidth to OC3 speeds to triple network performance along critical network pathways
- Refresh application switch infrastructure, improving load balancing, and decreasing network strain
- Eliminate SNA-LLC 3270 emulation with the rollout of TN3270 to the field
- Implementation of TN3270 has several benefits. TN3270 is a full-featured mainframe 3270 terminal that uses less bandwidth then SNA-LLC 3270 emulation. This allows for improved network performance. By transitioning, we can disconnect over 50 consolidated routers, reducing network complexity
- Continue to migrate legacy telephone systems at all our field offices to a VoIP solution. Our Telephone Services Replacement Project (TSRP) has completed the migration of more than 80,000 telephones since work began in 2008. When the migration is complete (in FY 2012), we will have migrated an additional 20,000 telephones, in over 200 additional offices, to the VoIP system. TSRP, which carries telephone services across our internal data network circuits, reduces our costs for phone service and reduces the cost and complexity of maintaining the physical telecommunications infrastructure. To date, TSRP has handled more than 150 million calls from our customers
- Replace our National 800 Number Network with the CARE 2020 network
- Support the transition to the NSC by providing a multicarrier high-speed data connection between the NSC, headquarters, and interconnections among SDPs; adjusting our existing data replication architecture to include the NSC and determine potential for synchronization of information between data centers; and implementing a simulated network environment to evaluate various transition scenarios to determine their performance and scalability implications

- Explore feasibility of expanding wireless device support to include multiple carriers and devices protected by a mobile device management-security solution
- Recompete the Interactive Video Teletraining contract to include new devices and expansion options, including support for training to the desktop
- Explore the transformation of all data, voice, and video services to IPv6, including mainframe communications

OUT-YEAR PLANS

- Investigate the feasibility, costs, and benefits of implementing carrier-provided WAN Ethernet features for our network systems. Carrier Ethernet would provide bandwidth increments up to 100M or 1G into our field offices. Such network bandwidth capacity would support the convergence of our data, voice, and video traffic. While connectivity would be implemented (per office) on an incremental basis, bandwidth capacity could be increased or decreased as needed – an essential characteristic of a cloud infrastructure delivery model.

STORAGE INFRASTRUCTURE

CURRENT STATE

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.

Table 3 – Our Storage Infrastructure

Format	Current Capacity
Tape	75 Petabytes
Direct Access Storage Device	21 Petabytes
Virtual Tape	8 Petabytes

TWO YEAR PLANS

- Continue data de-duplication deployment
- Implement tiered storage and auto-tiering
- Continue thin provisioning effort in open systems and implement it in mainframe systems
- Improve capacity-forecasting process
- Expand data replication capabilities and implement disaster recovery mechanisms
- Devise a storage architecture plan for migration to the NSC
- Design and implement a storage lab
- Redesign the storage management system on mainframe
- Redesign backup and recovery processes for the data replication Infrastructure
- Research, procure, and implement storage resource management software

OUT-YEAR PLANS

- Better integrate our infrastructure planning with application development and operational plans. Eliminate unneeded or obsolete data
- Exploit evolving storage technologies

- Utilize data replication to provide business resilience
- Migrate to a "main-line disk to near-line disk" backup and recovery approach. Reduce the use of real tape
- Prepare for the next generation of storage managers by acquiring software tools to more effectively manage our evolving storage infrastructure
- Reduce energy consumption, cooling requirements, and space

IT OPERATIONS/DATA CENTERS

CURRENT STATE

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 currently operate two data centers:

- The NCC:
    - Our current primary data center, opened in 1980
    - In continuous operation as a data center for more than 30 years, and at the end of its practical lifespan
- The 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 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.

Table 4 – Select Characteristics of Our IT Operations

Infrastructure Characteristic	Metric
MQServers	143 Queue Managers
CICS Regions	732 Regions
DB2 Databases	55 Subsystems
Oracle Databases	465 Databases
IDMS Databases	120 Subsystems

HIGHLIGHT: IT OPERATIONS ASSURANCE (ITOA)

Historically, we relied on a recovery process that involved the recovery of systems and applications from backup tape media using a vendor facility. However, as our reliance on our IT infrastructure increased, we found that this process provided unacceptably long recovery times and recovery points.

To address these challenges, we pursued our ITOA program, designed to provide a recovery time of 24 hours, and recovery point of one hour. Through this program, over the past few years, we have transitioned to using our own facility to provide recovery functions and have been implementing data replication technology to reduce our reliance on tape media and reduce the time it takes to recover systems and data.

The ITOA program included the establishment of the SSC as a co-processing center and recovery site for the NCC. We are also implementing data replication technology that will allow each data center to back-up the critical data of the other data center for our production computing environments. Additionally, the ITOA program has provided many enhanced computing services through load balancing technologies, implementing automatic failover, staging failover systems and replicating data for other environments.

We continue to improve our processes to ensure business recovery by testing mission critical systems recovery processes at least annually. These tests allow us to replicate systems outages and recoveries in an isolated network environment and allow us to run tests and transactions that are similar to our production processing. We now have the systems and capacity to run mission critical workloads from either data center in the event one of the data centers is unavailable.

TWO YEAR PLANS

- Complete the ITOA initiative by finalizing procurement and installation of remaining distributed server hardware and software and additional storage to support data replication

- Work with our SSA colleagues in Facilities Management and GSA on detailed design and construction of the NSC
- Develop and refine the NCC to NSC migration plan
- Implement transitional test environments
- Continue consolidation and virtualization of existing infrastructure

HIGHLIGHT: THE NATIONAL SUPPORT CENTER

To replace the NCC, the American Recovery and Reinvestment Act (ARRA) appropriated $500 million to fund the acquisition of land and construction of a modern data center, and to partially fund our migration of current data center IT services and operations from the NCC to the new data center, the NSC. GSA is responsible for managing the construction of the facility.

While the ARRA provided funding for the construction of the NSC and some of our transition costs, it is important to note the successful migration to the NSC will require substantial additional resources in FY 2015 and FY 2016.

OUT-YEAR PLANS

- Actual migration of the NCC to NSC
- Expand staff/skill base at the SSC to support improved business continuity

INFORMATION SECURITY

CURRENT STATE

We employ a risk-conscious, defense-in-depth approach to information security using many layers to protect our data and systems. In addition, the Federal Information Security Management Act (FISMA) provides an important framework for implementing an effective information security program, and we regularly assess our major IT systems and report results in an annual FISMA report to OMB and Congress. This security authorization process includes performing risk-based reviews of our systems, developing/updating System Security Plans, and assessing and testing our security controls.

We maintain a dual location, 24/7 Security Operations Center and have a strong continuous monitoring posture. We also strive for full compliance with key defensive strategies such as the Federal Trusted Internet Connection program.

We have an agency-wide Information Systems Security Handbook that articulates security policy and guidelines applicable to all employees and contractors. We enforce the policy through an extensive array of management controls. We also have an annual IT security awareness and training program that is branching out from traditional learning approaches to use of new techniques such as gamification software.

We regularly stand for in-depth external review and testing of our information security program and react and adapt to all recommendations for improvement. We also invest in continual research on emerging threats and technology advances in defense and risk mitigation and optimize our security program accordingly.

TWO YEAR PLANS
- Ensure adequate resources are invested in IT security
- Implement a data-loss prevention system to deter PII loss
- Mature our continuous monitoring strategy
- Strengthen our management of security profiles through the development of new policies, procedures, and software to automate the process of reviewing profile access privileges
- Continue implementation of Homeland Security Presidential Directive (HSPD)-12 for logical access
- Improve malware analysis, incident response support and emerging threat identification and prevention

- Develop enhanced role-based security training for SSA employees and contractors with specialized security responsibilities.
- Ensure that any cloud choices implemented at SSA strongly consider security controls and standards.

OUT-YEAR PLANS

- Formalize our IT security risk-assessment approach.
- Enhance SSA's audit trail and integrity review processes to ensure they evolve to meet our changing business processes and data storage needs.
- Improve our oversight of State and Federal organizations and partners requesting or currently receiving information from SSA.
- Continue to support mobile computing and prepare for further consumerization of technology and security.

RECORDS MANAGEMENT, INFORMATION COLLECTION, & PAPERWORK REDUCTION

CURRENT STATE

Through our adherence to National Archives and Records Administration (NARA) guidance, we demonstrate our commitment to effective records management. Our goals are to ensure we keep records long enough to protect rights, have direct lines of accountability for our records, make records available for future use, and provide transparency of government operations. NARA recently approved our Records Schedules (SF-115) submittals for our MEF, MBR, SSR, and our Internet/Intranet websites. NARA approval for our Enumeration System submittal is pending.

Our Office of Regulations and Reports Clearance (ORRC) administers the regulatory and procedural requirements governing SSA's collection of information from the public stemming from the Paperwork Reduction Act of 1995. In that capacity, ORRC acts as the regulatory and reports clearance liaison between SSA and OMB. ORRC works with our policy and business organizations and the OS to coordinate timely OMB clearances for our information collection tools (forms, online applications, mail and telephone surveys, demonstration projects, etc).

Our OMB clearance process is a mandatory procedure within our SDLC. We delineate the process in our Administrative Instruction System and in our systems development Project Resource Guide.

TWO YEAR PLANS

- Test and deploy a much more robust email archiving/Records Management/eDiscovery capability

OUT-YEAR PLANS

- Develop requirements to manage records stored in our intranet Records Holding Area

INFORMATION DISSEMINATION, PRIVACY, & DISCLOSURE

CURRENT STATE

We distribute publications using the following Federal Citizen Information Center resources:

- Consumer Information Catalog;
- Spanish Bulk Distribution Project;
- Asian Bulk Distribution Project; and
- Financial Literacy & Education Commission—My Money Toolkit

We also release information and data in support of the transparency expectations of the Open Government Directive and according to the framework in our Open Government Plan (both the original 2010 plan and the refreshed plan released in April 2012). We published a data inventory document in September 2010 that identified the agency's high value information and provided a schedule for its release. Following that schedule, we released over 30 datasets to Data.gov and will continue to release additional information during the next several years. Moreover, we foster the use of our information by reaching out to advocates, the academic and research community, and others to publicize the information publicly available and to learn what additional information they may want us to release.

To comply with Section 207(f) (2) of the E-Government Act of 2002 (E-Gov Act), we make our Web Content Inventory available online for public review and comment. We also employ other communication systems for evaluation such as feedback from callers to our 800-number, visitors to field offices, letters to the Office of Public Inquiries, and emails from the public. We utilize GovDelivery to deliver new website information through email.

Because we are stewards of extraordinarily large amounts of PII, and must maintain the trust of the American public in our delivery of Social Security programs, we have an extremely high cultural awareness of privacy. We have developed a Privacy Threshold Analysis (PTA) template to guide the assessment of privacy risks in new or revised systems and to determine when we need to complete a Privacy Impact Assessment or publish a System of Records Notice. The PTA helps us ensure that we consider privacy issues early in system development.

We focus our privacy and disclosure programs towards maintaining a consistently high level of administrative, technical, and physical safeguards to insure the protection and confidentiality of our data. This challenge has become even more important as state and Federal agencies increasingly request access to data in our possession, and we share more of our data electronically.

As part of our disclosure program, we provide our employees in-depth training on the interface between the Privacy Act and Freedom of Information Act (FOIA). Our key privacy experts also regularly attend professional conferences to stay current in the field.

Internal information dissemination is important as well. We are partnering with the National Technical Information Service with the Department of Commerce to provide us with a cloud-based collaboration environment as part of our Shared Services strategy. This collaboration environment will allow us to consolidate a variety of solutions that have been developed and deployed in the agency and allow for a single integrated environment for select subject matter experts to collaborate and share knowledge and ideas.

TWO YEAR PLANS

- Continue to explore innovative ways to increase utilization of our online services and disseminate agency information
- Update the disclosure policy section of our Program Operations Manual
- Deploy a more robust system to manage FOIA requests
- Incorporate data transparency considerations into the SDLC so we can release data in standard formats in a more efficient and automated way

OUT-YEAR PLANS

- Deploy an enterprise-wide privacy compliance tool that will examine the agency's internet and intranet web pages for privacy compliance

RELATED DOCUMENTS

Our IRM Strategic Plan does not stand alone. Our IRM Plan supports and is supported by a number of other documents and resources, including the following:

AGENCY STRATEGIC PLAN (ASP)

Our ASP describes out strategic goals and objectives on a four-to-five-year horizon. These goals and objectives form the basis for our IRM planning. [We update the ASP periodically – the current version is available online](#).

HUMAN CAPITAL PLAN

Our Human Capital Plan demonstrates how we will use human capital to meet our mission and goals. Our Human Capital Plan informs and supports our IT workforce planning.

PROJECT RESOURCE GUIDE (PRIDE)

Our Project Resource Guide describes our SDLC and includes the resources our project managers need to manage our IT projects.

ENTERPRISE ARCHITECTURE (EA) PROGRAM PLAN AND TRANSITION STRATEGY

Our EA Program Plan describes our EA program and our EA, and relates our EA to our ASP and to FEA reference models. Our EA Transition Strategy is a multi-year strategy that identifies and describes different stages and aspects of the transition from our baseline to our target EA. We update our EA Program Plan and our EA Transition Strategy periodically.

CAPITAL PLANNING AND INVESTMENT CONTROL (CPIC) GUIDE

Our CPIC Guide describes our CPIC process in detail. We update the CPIC guide on an as-needed basis.

LARGE IT INVESTMENTS (EXHIBIT 300S)

Our Exhibit 300s describe our large IT investments. We produce these annually as part of our budget process. [An assessment of the performance of these investments is available on ITDashboard.gov](#).

AGENCY IT PROJECT PLAN

Our Agency IT Project Plan is a two-year tactical plan that lays out the projects we will pursue in support of our ASP and IRM goals. We review and update this plan quarterly or as needed, based on available resources, SITAR decisions, and evolving goals and objectives.

LIST OF ACRONYMS

Acronym	Refers to
AC	Associate Commissioner
ALC	Assembler Language Code
APM	Application Portfolio Management
APP	Annual Performance Plan
ARB	Architecture Review Board
ARRA	American Recovery and Reinvestment Act
ASP	Agency Strategic Plan
BI	Business Intelligence
CARE 2020	Citizen Access Routing Enterprise Through 2020
CICS	Customer Information Control System
CIO	Chief Information Officer
COBOL	Common Business-Oriented Language
COTS	Commercial-Off-The-Shelf
CPIC	Capital Planning and Investment Control
CSR	Customer Service Record
DBMS	Database Management System
DCPS	Disability Case Processing System
DCS	Deputy Commissioner for Systems
DDS	Disability Determination Service
DHS	Department of Homeland Security
DI	Disability Insurance
DRB	Design Review Board
EA	Enterprise Architecture
EMR	Enterprise Metadata Repository
ESEF	Enterprise Software Engineering Facility
EVM	Earned Value Management
EVMS	Earned Value Management System
FEA	Federal Enterprise Architecture
FISMA	Federal Information Security Management Act of 2002
FO	Field Office
FOIA	Freedom of Information Act
FY	Fiscal Year
GPRA	Government Performance and Results Act
GRT	Global Reference Table
GSA	General Services Administration
GUI	Graphical User Interface
HIT	Healthcare Information Technology
HSPD	Homeland Security Presidential Directive
IDMS	Integrated Database Management System
IM	Information Management
IP	Internet Protocol

Acronym	Refers to
IRM	Information Resources Management
IT	Information Technology
ITOA	IT Operations Assurance
LAN	Local Area Network
LPAR	Logical Partition
MADAM	Master Data Access Method
MBR	Master Beneficiary Record
MCAS	Managerial Cost Accountability System
MEF	Master Earnings File
MI	Management Information
MPLS	Multi-Protocol Label Switching
NARA	National Archives and Records Administration
NCC	National Computer Center
NIST	National Institute of Standards and Technology
NSC	National Support Center
NUMIDENT	Enumeration Identification File
OASDI	Old-Age, Survivors, and Disability Insurance
ODCS	Office of the Deputy Commissioner for Systems
OGC	Office of General Counsel
OMB	Office of Management and Budget
OOG	Office of Open Government
ORRC	Office of Regulations and Reports Clearance
OS	Office of Systems
PAR	Performance and Accountability Report
PII	Personally-Identifiable Information
PM	Project Manager
PMF	Presidential Management Fellow
PPF	Production Processing Facility
PRIDE	Project Resource Guide
PSV	Project Success Verification
PTA	Privacy Threshold Analysis
SDLC	System Development Lifecycle
SDP	Service Delivery Point
SITAR	Strategic IT Assessment and Review
SOA	Service-Oriented Architecture
SOP	Strategic Objective Portfolio
SQL	Structured Query Language
SSA	Social Security Administration
SSC	Second Support Center
SSI	Supplemental Security Income
SSN	Social Security Number
SSR	Supplemental Security Record
SUMS	SSA Unified Measurement System

Acronym	Refers to
TSC	Teleservice Center
TSRP	Telephone Services Replacement Project
UCD	User-Centered Design
VOIP	Voice over IP
WAN	Wide Area Network
WDPE	Windows Development and Production Environment
XML	Extensible Markup Language