



Social Security

Information Resources Management  
Strategic Plan

Fiscal Year 2007

[www.socialsecurity.gov](http://www.socialsecurity.gov)

## *From the Office of the Chief Information Officer*

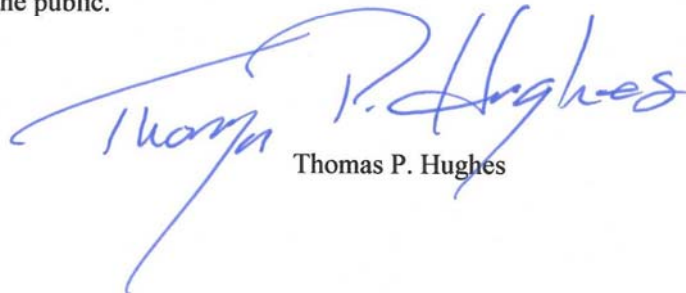
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I am pleased to present the Social Security Administration's *Information Resources Management (IRM) Strategic Plan* for fiscal years 2006 to 2012. The *FY 2007 IRM Strategic Plan* has been formulated to be a cornerstone of our investment strategy, reflecting planning decisions made in the integrated planning and budgeting process. It defines the Agency's strategic information technology (IT) vision and strategy, consistent with the Agency's mission and the Agency's goals to deliver high-quality, citizen-centered service; to protect the integrity of Social Security programs through superior stewardship; to achieve sustainable solvency and ensure Social Security programs meet the needs of current and future generations; and to strategically manage and align staff to support the mission of the Agency.

The Social Security Administration is aggressively acting on six government-wide President's Management Agenda (PMA) initiatives in the context of SSA's mission: Expanded E-Government, Strategic Management of Human Capital, Improved Financial Management, Budget and Performance Integration, Competitive Sourcing, and Eliminating Improper Payments. SSA's fifteen initiatives, which support the PMA, the Commissioner's priorities, and other technology development approaches, serve to enhance Agency productivity, program integrity, customer service, and other desirable Agency attributes.

With the implementation of these initiatives, SSA has become one of the most successful Federal agencies in providing electronic services to the public, government, and business. For example, due to the implementation of the Electronic Disability system, disability claims processing delays are steadily decreasing and inefficiencies inherent in the current process based on paper folders are slowly disappearing. The net effect of the Title II Systems Redesign initiative is a greater capability to process work at the first point of contact with the Agency, reducing the need for multiple contacts, saving time for both the claimant and the Agency. And, the use of digital recording technology will facilitate hearings records management, decrease the number of cases remanded due to lost recordings, and reduce costs.

To respond to the demands of the "baby boomers" as they become eligible for retirement, the growth of the disability beneficiary population, and a substantial number of highly capable SSA employees reaching retirement age, SSA will rely on IT investments to help us effectively and efficiently manage our work so that we may continue to provide the best possible service to the public.



Thomas P. Hughes



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# Executive Summary

The mission of the Social Security Administration (SSA) is to advance the economic security of the nation's people through compassionate and vigilant leadership in shaping and managing America's social security programs. SSA administers the most successful domestic programs in the nation's history: the Old Age Survivors Insurance (OASI), Disability Insurance (DI), (commonly referred to as Social Security), and the Supplemental Security Income (SSI) programs. At the end of fiscal year (FY) 2006, an estimated 40.4 million beneficiaries received OASI benefits, 8.5 million received DI benefits, 2.5 million received SSI and OASDI benefits, and 4.7 million received SSI-only benefits. SSA also provides substantial support to the closely related Medicare and Medicaid programs and more limited, but critical, support to several other important Federal programs.

SSA integrates activities across all its programs through a single national service delivery structure. This service structure is supported by an Agency Enterprise Architecture based on the Agency strategic goals, the objectives supporting the goals, and performance indicators to measure success. The *SSA FY 2007 Information Resources Management (IRM) Strategic Plan*, which represents Fiscal Years 2006 through 2012, documents this baseline IT architecture and the process for managing change to that architecture.

The *IRM Strategic Plan* is both a vision for the future use of IT and a description of how current and near term IRM activities help accomplish the Agency's mission while realizing SSA's strategic goals and objectives. SSA continuously adjusts the balance between the changing service delivery needs of the public with rapidly advancing technology and limited fiscal resources. The purpose of the *IRM Strategic Plan* is to:

- Describe how IRM activities help accomplish the Agency's mission and realize SSA's strategic goals and objectives,
- Ensure IRM decisions are integrated with organizational planning, budget, procurement, financial management, human resources management, and program decisions,
- Present an overview of SSA's Enterprise Architecture that describes and documents both the current and desired relationships among business and management processes and IT, and
- Serve as a key component in SSA's IT capital planning and investment control (CPIC) process, which is used for the ongoing identification, selection, control, and evaluation of investments in information resources.

The *IRM Strategic Plan* aligns with and is driven by SSA's *Agency Strategic Plan (ASP)*, the *Administrative Budget*, and the *Annual Performance Plan (APP)*; and, supports the President's *Management Agenda (PMA)*. It is a framework and a guiding principle assisting the Agency in making effective decisions regarding the delivery of technology for employees, the public, and businesses. SSA will continue to work throughout 2007 to ensure responsible stewardship of IT resources and alignment with the Agency's strategic goals and objectives and the PMA.



# Chapter 1: Introduction

The mission of the Social Security Administration (SSA) is to advance the economic security of the nation's people through compassionate and vigilant leadership in shaping and managing America's social security programs. SSA administers the most successful domestic programs in the nation's history: the Old Age Survivors Insurance (OASI), Disability Insurance (DI) (commonly referred to as Social Security), and the Supplemental Security Income (SSI) programs. At the end of fiscal year (FY) 2006, an estimated 40.4 million beneficiaries received OASI benefits, 8.5 million received DI benefits, 2.5 million received SSI and OASDI benefits, and 4.7 million received SSI-only benefits. SSA also provides substantial support to the closely related Medicare and Medicaid programs and more limited, but critical, support to several other important Federal programs.

In support of these programs, SSA's mainframe data stores contain approximately 191 Terabytes of data. Its service delivery data stores utilize approximately 132 Terabytes, representing one of the largest sets of electronic records of any civilian Federal Agency. In FY 2006, these data sets supported an average daily volume of more than 54 million individual transactions, with a peak daily transaction volume of nearly 62 million. Each year, between FY 2001 and FY 2006, SSA's average daily transaction volume increased on average by 4.9 million transactions. The daily transaction volume in FY 2006 was 6.4 million higher than in FY 2005, clearly demonstrating that, in addition to increased transaction volumes from year to year, the rate of increase is also accelerating.

SSA integrates activities across all its programs through a single national service delivery structure. This service structure is supported by an Agency Enterprise Architecture (EA) based on the Agency strategic goals, the objectives supporting the goals, and performance indicators to measure success. The SSA *FY 2007 Information Resources Management (IRM) Strategic Plan*, which represents Fiscal Years 2007 through 2012, documents this baseline IT architecture and the process for managing change to that architecture. The *IRM Strategic Plan* will remain a work in progress as SSA continuously adjusts the balance between the changing service delivery needs of the public with rapidly advancing technology and limited fiscal resources.

## SSA Organization

SSA is headed by a Commissioner and has a staff of approximately 65,000 employees. The Agency's central office is located in Baltimore, Maryland. The Office of the Commissioner (OC) provides executive leadership to SSA and exercises general supervision over its major components. It is directly responsible for all programs administered by SSA, and for State-administered programs directed by SSA.

The Office of the Chief Information Officer (OCIO) is responsible for developing the *IRM Strategic Plan* and defines the Agency's IT vision and strategy. The OCIO:

- Collaborates with Agency executives on behalf of the Commissioner and the Deputy Commissioner of Social Security to provide the governance needed to implement the plan,

- Insures that the investments SSA makes support the Agency's mission, strategic goals and objectives, and
- Shapes the application of technology in support of the Agency's Strategic Plan, the Information Technology Architecture (ITA) that outlines the long-term strategic architecture, IT plans for the Agency, and IT Capital Planning.

The Agency achieves its core business goals through a joint partnership among SSA components. These components include: Office of the Deputy Commissioner, Communications (DCCOMM); Office of the Deputy Commissioner, Disability Adjudication and Review (DCDAR); Office of the Deputy Commissioner, Disability and Income Security Programs (DCDISP); Office of the Deputy Commissioner, Budget, Finance, and Management (DCBFM); Office of the Deputy Commissioner, Human Resources (DCHR); Office of the Deputy Commissioner, Legislation and Congressional Affairs (DCLCA); Office of the Deputy Commissioner, Operations (DCO); Office of the Deputy Commissioner, Policy (DCP); Office of the Deputy Commissioner, Systems (DCS); Office of the Chief Actuary (OACT); Office of the Chief Strategic Officer (OCSO); Office of the Chief Information Officer (OCIO); Office of the General Counsel (OGC); Office of the Inspector General (OIG); and Office of Quality Performance (OQP). The field organization, which is decentralized to provide services at the local level, includes a network of Regional Offices, Field Offices, Hearing Offices, Teleservice Centers, State Disability Determination Services, and Processing Centers.

Social Security's organizational structure, as shown in Figure 1, is designed to provide timely, accurate, and responsive service to the American public. All components within SSA's Central Office provide critical support to the field office structure, including uniform policy development, procedures, IT, administrative functions, and much more. By integrating support services for all of the Agency's programs, SSA enhances efficiency, avoids duplication of effort, and increases opportunities to provide one-stop service to the public.

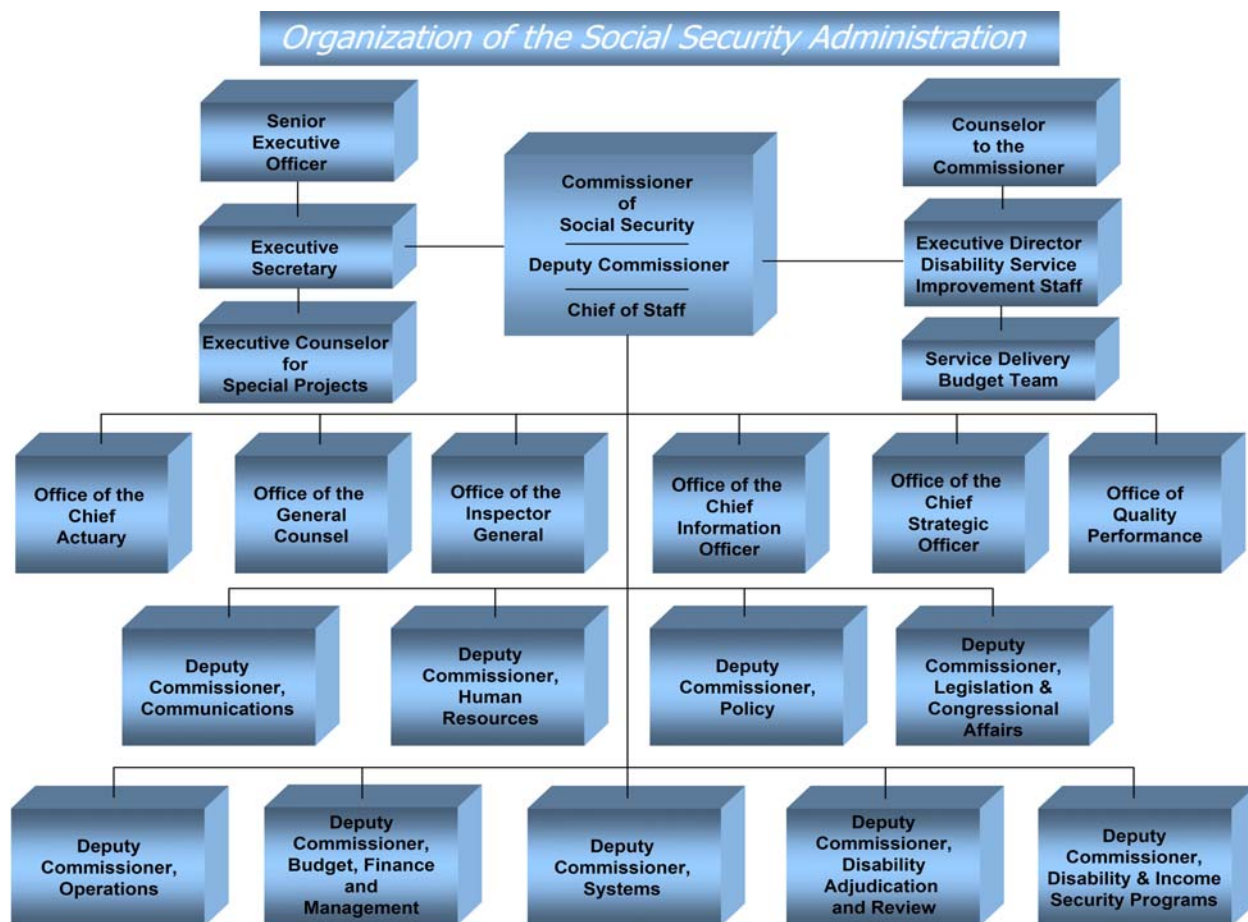


Figure 1: SSA's Organization Chart

## IRM Strategic Plan Purpose

The SSA *IRM Strategic Plan* is both a vision for the future use of IT at SSA and a description of how current and near term IRM activities help accomplish the Agency's mission and realize SSA's strategic goals and objectives. The *IRM Strategic Plan* aligns with and is driven by SSA's *Agency Strategic Plan* (ASP), the Administrative Budget, the *Annual Performance Plan* (APP), and the Enterprise Architecture (EA) Program; and, supports the President's Management Agenda (PMA).

The *IRM Strategic Plan* addresses the influence of the IT Management Reform Act of 1996 (Clinger-Cohen) on IT planning and management requirements. It also addresses the requirements of managing Federal information resources as expressed in the Office of Management and Budget (OMB) Circular A-130 and the Paperwork Reduction Act as amended in 1995.

The purpose of the *IRM Strategic Plan* is to:

- Describe how IRM activities help to accomplish the Agency's mission and realize SSA's strategic goals and objectives,
- Ensure that IRM decisions are integrated with organizational planning, budget, procurement, financial management, human resources management, and program decisions, and

- Present an overview of SSA's EA that describes and documents both the current and desired relationships among business and management processes and IT.

The *IRM Strategic Plan* is a key component in SSA's IT capital planning and investment control (CPIC) process that is used for the ongoing identification, selection, control, and evaluation of investments in information resources.

## IRM Strategic Plan Objectives

SSA's IRM Strategic Plan defines strategies for achieving a variety of objectives, as follows:

- Support the PMA,
- Support the SSA's mission, goals, and objectives,
- Deliver high quality, citizen-centered service,
- Secure data and IT resources,
- Operate and maintain IT infrastructure,
- Provide future IT infrastructure,
- Maintain and enhance existing applications,
- Build and/or acquire new applications,
- Provide operational support for IT customers,
- Support end-user development,
- Manage and nurture IT personnel, and
- Actively support inter-governmental information sharing.

The guiding principles for IT planning are as follows:

- Improved citizen-centered service and overall operational efficiency and effectiveness drive all efforts for the development, modification and redesign of systems,
- IT initiatives undertaken are driven by SSA's EA,
- Initiatives are designed to be implemented incrementally,
- SSA is refining its integrated architecture to more fully support all of its programmatic, administrative, and management information systems,
- Sound business principles are applied to all IT proposals and investments,
- Ongoing employee training provides skills to enable the workforce to perform effectively using new technologies,
- Capacity needs are satisfied through accurate forecasting and timely and orderly acquisitions related to planned objectives,
- SSA will continue to develop systems that ensure superior stewardship of SSA programs and resources,
- SSA will provide Information Systems Security for sensitive Agency data, and

- SSA will conduct privacy impact assessments for all new IT investments and online information collection systems.

## Relationship to Other Strategic Planning Documents

### President's Management Agenda

*“Government likes to begin things— to declare grand new programs and causes. But good beginnings are not the measure of success. What matters in the end is completion. Performance. Results. Not just making promises, but making good on promises. In my Administration, that will be the standard from the farthest regional office of government to the highest office in the land.”—George W. Bush*

To improve management practices and performance across the Federal government, the President issued an agenda of high priority initiatives to reflect the Administration's commitment to achieve immediate, concrete, and measurable results. The PMA includes six government-wide initiatives that mutually reinforce and reflect a coherent and coordinated plan:

- Expanded E-Government,
- Strategic Management of Human Capital,
- Improved Financial Management,
- Budget and Performance Integration,
- Competitive Sourcing, and
- Eliminating Improper Payments.

SSA is aggressively acting on these initiatives in the context of SSA's mission. These activities are integral to the ASP and are a major factor in the *IRM Strategic Plan*.

SSA was a partner in a cross-agency taskforce formed with OMB and the President's Management Council to identify E-Government projects that can deliver significant performance and productivity gains across government. SSA plays a key supporting role in many of the twenty-four projects selected for initial development. SSA is the managing partner for one of these projects, called E-Vital, which is an effort to establish common electronic processes for federal and state agencies to collect, process, analyze, verify, and share death record information. The Presidential E-Government initiatives in which SSA is participating include: E-Authentication, E-Travel, GovBenefits.gov, Integrated Acquisition Environment, USA Services, Recruitment One-Stop, E-Rulemaking, Expanding Electronic Tax Products for Businesses, E-Training, Grants.gov, E-Clearance, E-Vital, Enterprise HR Integration, Federal Asset Sales, Consolidated Health Informatics, E-Payroll, E-Records Management, Disaster Management, Business Gateway, and Geospatial.

SSA participates in seven Lines of Business: Human Resources, Financial Management, Information Systems Security, Grants Management, Budget Formulation, Geospatial, and Infrastructure. SSA is expanding electronic service delivery in ways that improve current business processes. SSA is providing increasing opportunities for the public to conduct business with the Agency and to access information



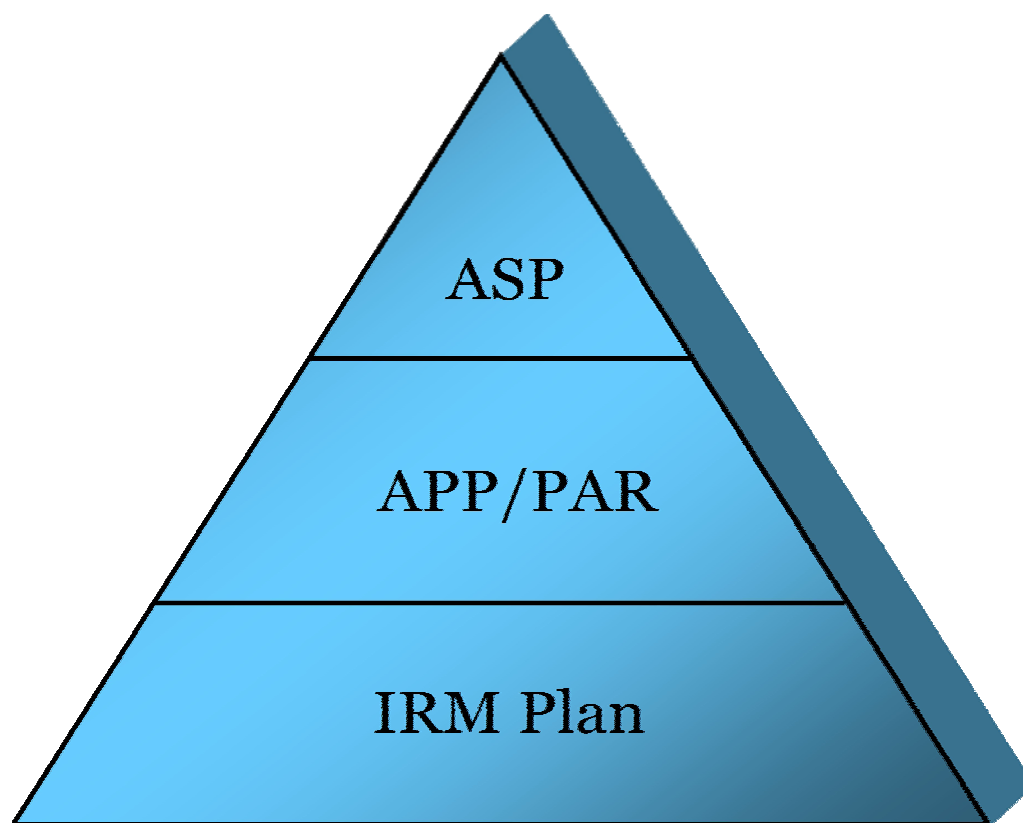
electronically in a private and secure environment. A discussion of SSA's electronic service delivery strategy can be found in Chapter 2: Information Technology Strategy.

SSA remains committed to maintaining a highly skilled and motivated workforce through continued training, staff development, and an effective work environment. Chapter 9: IT Human Resources Management describes SSA's IT Human Resources Management strategy, including a support services and outsourcing strategy that supports the corresponding items of the PMA.

SSA has undertaken major initiatives that support Improved Financial Management and Eliminating Improper Payments. These major initiatives include *Financial Accounting System Replacement* and *Access to Financial Institutions (AFI)*. The Managerial Cost Accountability System (MCAS), which is a part of the *SSA Unified Measurement System/Managerial Cost Accountability System* major initiative, provides an essential means of accomplishing the President's Initiative regarding Budget and Performance Integration. For a description of MCAS and other major initiatives, refer to Chapter 3: IT Performance/ Investments.

### **Information Planning and Management Framework**

SSA's Unified Planning System provides a comprehensive, cohesive approach to Agency planning. Under the planning system, SSA establishes linkages to ensure resources needed to support planned activities are identified and ultimately reflected in the Agency budget and acquisition plan. Figure 2: Alignment of IT Strategy/Planning Documents illustrates how IT planning and management requirements are aligned at the strategic level.



**Figure 2: Alignment of IT Strategy/Planning Documents**

At the pinnacle of the triangle, the ASP drives all lower-level planning, including the objectives, priorities, and constraints for SSA managers to adopt in constructing more detailed support plans. Prescribed by the Government Performance and Results Act (GPRA), the ASP is the blueprint for responding to the short-term and long-term challenges the Agency faces and directly impacts information resource management planning decisions and activities. The ASP is the driving force for the APP, the *IRM Strategic Plan*, and other lower-level plans. The ASP articulates the Agency's mission, values, and four strategic goals that define how the Agency will carry out its mission:

- To deliver high quality, citizen-centered service,
- To protect the integrity of Social Security programs through superior stewardship,
- To achieve sustainable solvency and ensure Social Security programs meet the needs of current and future generations, and
- To strategically manage and align staff to support the mission of the Agency.

Supporting the strategic goals are nine objectives that describe issues, means, and strategies that are key to achieving each goal. For a description of the nine objectives, refer to Chapter 3: IT Performance/Investments. The ASP can be found at <http://www.socialsecurity.gov/strategicplan.html>.

SSA's APP reiterates the Agency's goals and objectives expressed in the ASP and focuses on the performance targets and the means and strategies for achieving them. Performance targets, or output/outcome measures, are used to assess success in meeting a performance goal or initiative. The APP is integrated with the annual budget submission and provided to OMB and Congress. The APP can be found at [www.socialsecurity.gov/performance](http://www.socialsecurity.gov/performance).

The *Performance and Accountability Report (PAR)*, published shortly after the close of the FY, shows how SSA has performed in administering its programs during the past year. The PAR can be found at [www.socialsecurity.gov/finance](http://www.socialsecurity.gov/finance).

SSA's most recent *IRM Strategic Plan* was published in February 2006 for Fiscal Years 2006 through 2011. The *IRM Strategic Plan* describes strategies for delivering results by integrating performance with a multi-year service delivery plan. Strategic goals and objectives, strategies, and expected long-term outcomes associated with each strategic goal are integral to the plan.

## Governance

The governance of SSA's information resources involves all Deputy-level components, each with specific roles and responsibilities. Specific responsibilities of the Chief Information Officer (CIO) include:

- Ensuring that IT is acquired and managed in accordance with the IT Management Reform Act of 1996 (Clinger-Cohen Act), the E-Government Act of 2002, and OMB and Presidential directives,
- Setting Agency-wide systems security policies,
- Coordinating and developing an E-Government strategy for electronic services,

- Guiding the Agency in promoting investments contributing to Agency goals and objectives through the Information Technology Advisory Board (ITAB), and
- Serving as Vice-Chair of the E-Government Council (E-Gov Council), where all Deputy-level components make executive decisions on the direction of electronic services.

## **E-Government Council**

The E-Gov Council is responsible for making executive decisions on electronic services and strategy. The E-Gov Council is chaired by the Deputy Commissioner/Chief Information Officer. Membership includes functional Deputy Commissioners and Agency-level executives. The E-Gov Council holds regular meetings, receives reports, provides direction, and approves or requests further action/ information on the following:

- Trends in Internet and electronic services (eServices) usage,
- SSA participation and collaboration in E-Gov and Lines of Business Initiatives,
- SSA's E-Gov Implementation Plan,
- Governance issues related to all parts of the E-Gov Act of 2002, and
- Long-range planning activities and the E-Gov strategic plan.

The relationship of the E-Gov Council and its executive members to the governing process is shown in Figure 3: Web Governance.

## Governance

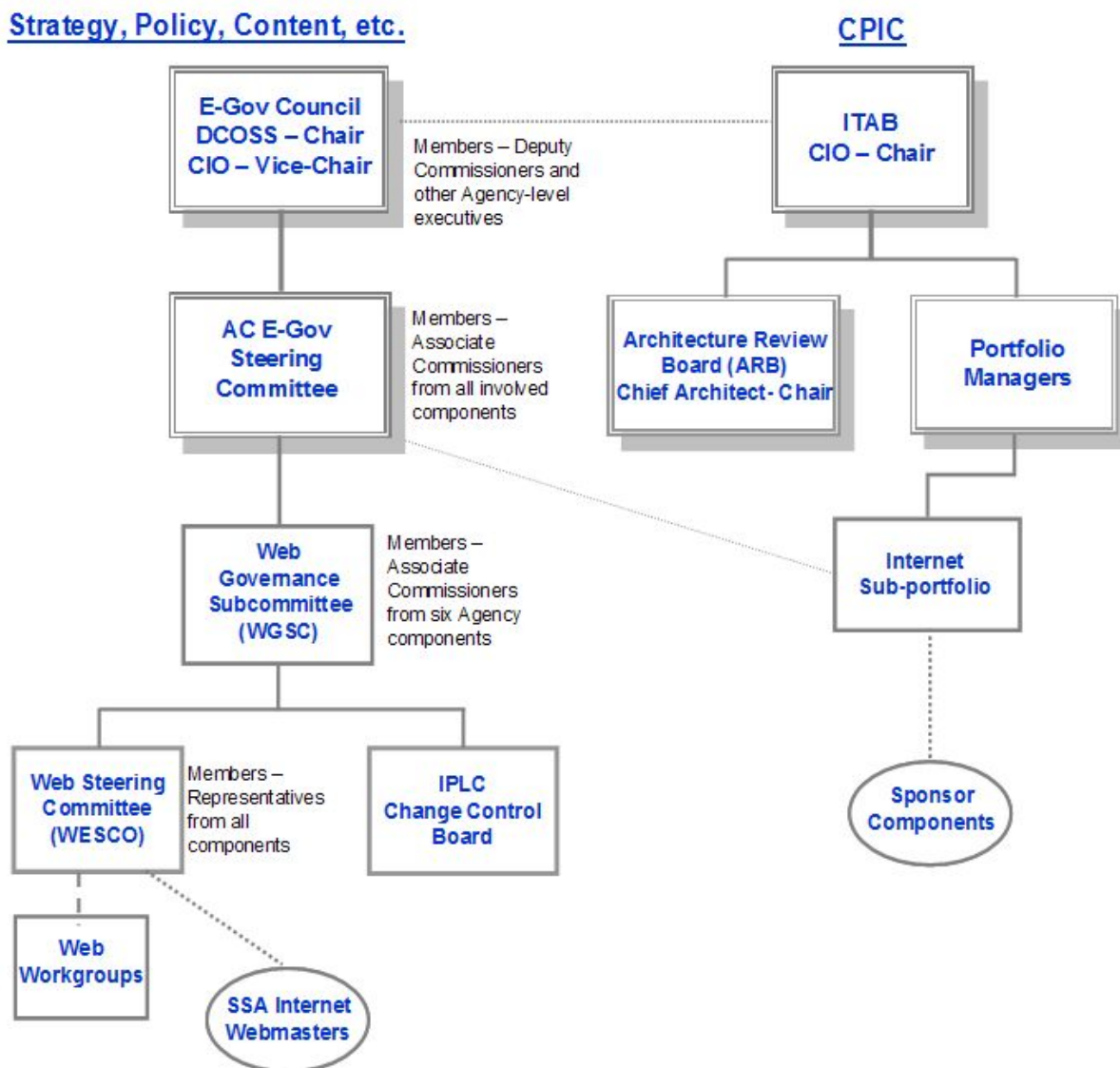


Figure 3: Web Governance

During 2005, the E-Gov Council received a consultant’s study that made recommendations for enhancing SSA’s governance processes. As a result, the E-Gov Council established the Web Governance Subcommittee (WGSC) to act on the recommendations and to facilitate outcomes. The WGSC coordinates actions, reports results to the E-Gov Council, and makes recommendations to the E-Gov Council as necessary. One of the first actions taken by the WGSC and approved by the E-Gov Council was an update to the roles and responsibilities of the Deputy-level components. A description of these roles and responsibilities may be found at

<http://eis.ba.ssa.gov/www/OfficialSSAWebGovernance.htm#management>.

The WGSC has undertaken a number of studies and reviewed expert analysis to guide its directions. It requested that the appropriate components review usability practices and how SSA was eliciting user feedback on its Web products and eServices. As a result, an Internet Usability Workgroup and the Public Insight Process Steering Committee were formed to fully address these issues. The recommendations of these workgroups were used along with other refinement studies, international benchmarking contacts, and industry best practice to refine SSA's E-Government strategy (refer to [Chapter 2](#)).

The E-Gov Council also established the [Web Steering Committee](#) (WESCO) to handle the daily administration and enforcement of Web policies, procedures, and standards, which can be found at <http://eis.ba.ssa.gov/wwg/OfficialSSAWebGovernance.htm#management>. After being chartered, WESCO managed SSA's first annual certification process of SSA Internet, which required a review of the entire site to ensure all materials are accurate and current. WESCO continues to evolve and provides training and materials to Web managers. WESCO also made contact with all workgroups that "touched" the internet process to ensure that there was no overlap or duplication of effort, and categorized the relationship of those workgroups within the Agency to WESCO.

The Internet Project Life Cycle (IPLC) Change Control Board (CCB) continues to function in its role of refining processes and life cycle methodology based upon experience with life cycle development and the need to modify to meet internal and external expectations. Many of the recommendations of the Internet Usability Workgroup impact the IPLC and have been reviewed and accepted by the CCB.

The Associate Commissioner (AC) E-Gov Steering Committee continues to meet and make decisions on a wide range of electronic service issues, referring issues and recommendations to the E-Gov Council as appropriate. The AC E-Gov Steering Committee reviews trends in the E-Gov Tracking Report to identify successes, and uses statistical data and the expert advice of stakeholders, such as privacy experts, to project acceptance of new eServices. After careful review, the AC E-Gov Steering Committee makes recommendations to the ITAB for approval.

## **Information Technology Advisory Board**

The Agency's ITAB, comprised of the Deputy Commissioner for SSA, all Deputy Commissioners for the business components, and other executive staff and chaired by the CIO, is the governing body for the Agency's CPIC. The ITAB performs enterprise-wide IT planning and prioritization using established criteria—qualitative and quantitative factors including strategic alignment, mission effectiveness, organizational impact, risk, return on investment, and the value of other benefits—to reach agreement on an integrated and prioritized enterprise-level investment portfolio. This includes approving IT projects as well as expenditures for the approved IT budget. The ITAB uses the SSA EA to carry out its function in the selection phase through a portfolio process.

SSA's IT portfolio management process links Agency strategic planning, performance plan goals, strategic IRM planning, IT project planning, budgeting, acquisition, management, and assessment via the SSA EA. SSA's integrated portfolio of IT project investments is designed to improve overall organizational performance. Portfolio investments are prioritized and directly linked to the PMA and to the Agency's strategic goals, strategic objectives, and performance targets. In addition, Infrastructure, Legislative, and Medicare portfolios have been established to encompass related IT investments that do not fall under the strategic objective portfolios. Portfolio teams develop prioritized IT project portfolios

with supporting business cases and IT budget requests to achieve the strategic objectives in their areas of responsibility. IT business cases are developed and assessed based on OMB Circulars A-11 and A-130 guidance to ensure that the Agency is pursuing the right projects in a manner that increases the probability of success.

On a quarterly basis, the ITAB reviews the progress of the investment portfolio. Major investments are assessed at key decision points to ensure they are well founded, are achieved within the approved cost and schedule, and provide expected benefits such as those presented in the Cost-Benefit Analysis. They may be redirected or terminated when necessary.



# Chapter 2: Information Technology Strategy

## E-Government

Electronic Government (E-Gov) is a cornerstone of the PMA (refer to [Chapter 1](#)). SSA is incorporating this Presidential initiative into its processes by championing citizen-centered electronic government that will result in convenient, quality service. SSA is among the most successful Federal agencies in providing eServices to the public, government, and business. But even with the successes of the last ten years, SSA continues to “freshen” its E-Gov strategy to meet new challenges. For example, SSA is facing increased workloads as “baby boomers” become eligible for retirement and as the disability beneficiary population grows. Also, as a substantial number of highly capable SSA employees approach retirement age, the Agency expects to operate under future budgetary constraints. At the same time, there will be greater demand for prompt, secure, and efficient government Internet services.

The Pew Internet and American Life Project<sup>1</sup> reports that more people are using the Internet to help them make important life decisions. Expectations are changing and SSA needs to be positioned to take advantage of evolving public preferences. Providing additional opportunities for citizens to interact with the Agency through eServices also offers the promise of increased efficiencies, doing more with the same level of resources, as more citizens can complete their transaction without the intervention of SSA personnel. Although the use of eServices has grown, there is more that can be done. Since IT cannot do it alone, marketing, public insight, usability, access, privacy, and security are also important aspects of growing eServices. Attaining the E-Gov vision of convenient, quality service that delivers maximum satisfaction and productivity and requires minimum additional involvement from front line employees will help the Agency handle increasing workloads, while providing the public with the service they expect.

### E-Gov Goals and Objectives

SSA's AC E-Gov Steering Committee, after a period of review and the completion of a refinement process, recommended to the E-Gov Council specific E-Gov goals and objectives for the Agency. The E-Gov Council accepted the recommendations. The goals are Service, Efficiency, and Trust.

#### ***Strategic Goal 1: Service***

SSA will continue to provide excellent service to all of its clients as workloads grow in volume and complexity. SSA has selected objectives that will contribute to the success of the Service goal by growing the percentage of Title II Claims, wage reports, and other transactions submitted electronically.

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<sup>1</sup> The Pew Internet & American Life Project is an organization that produces reports exploring the impact of the Internet on families, communities, work and home, daily life, education, health care, and civic and political life.



SSA is committed to a high-level of user satisfaction by achieving an American Customer Satisfaction Index (ACSI) score of 85 or above, out of 100, for specified eServices.

### **Strategic Goal 2: Efficiency**

SSA will obtain maximum value out of funds spent on eServices. To achieve the two percent, on average, annual productivity improvements that SSA has committed to, eServices will attain a successful balance between providing the public with easy to use, streamlined eServices and maximizing successful transactions that do not require frontline employee re-handling. SSA has defined several objectives of the Efficiency goal. Productivity improvements include reducing the re-contact rate for Internet retirement claims, reducing the abandonment rate on electronic transactions, and addressing the impediments to fully adjudicating retirement claims online. The plan includes a review of governance issues, programmatic policy changes, legislative solutions, changes in risk assessment practices, and authentication solutions—all of which will have an impact on efficiency.

### **Strategic Goal 3: Trust**

SSA is committed to keeping and growing America's confidence in the accuracy, security, and privacy of SSA's eServices. SSA has defined objectives that will contribute to the success of the Trust goal through:

- Maintaining at least the same level of dollar accuracy for Title II claims submitted via the Internet as experienced via other channels,
- Ensuring 100 percent compliance of security policy and practices with all relevant standards, and
- Ensuring 100 percent compliance with statutory and regulatory privacy requirements.

## **Governance, Actions, and Enablers**

Although the use of eServices has grown, there is more that SSA can achieve through effective governance by taking specific actions driven by an E-Gov strategy and efficiently using enablers. SSA's efforts are described in this section and in the following chapters, which also include information supporting E-Gov:

- Chapter 1 – E-Gov governance structure,
- Chapter 3 – IT investments and the Capital Planning and Investment Control process,
- Chapter 5 – The Agency's approach to IT security,
- Chapter 6 – The Agency's approach to privacy and safeguarding personally identifiable information, and
- Chapter 9 – IT human resources management.

### **Project Selection**

Each year, SSA uses a comprehensive budget process to select IT investments. Those projects that support E-Gov goals and objectives can be categorized as providing service to:

### **INDIVIDUALS (GOVERNMENT TO CITIZEN)**

SSA has effectively used the Web to provide information through its Homepage, [www.socialsecurity.gov](http://www.socialsecurity.gov). There were almost 49 million visits to the informational pages and over 27 million inquiries to the Frequently Asked Questions during Fiscal Year 2006.

Another Internet service—the Internet Social Security Benefit Application—permits individuals to apply for benefits online. The public satisfaction with electronic services has been excellent as evidenced by the American Customer Satisfaction Index Scorecard, which has consistently rated the Internet Social Security Benefits Application (ISBA) and the Application for Help with Medicare Prescription Drug Costs (Form i1020) at the top of all Federal offerings—each with a score of 87 out of 100.

SSA plans to expand this portfolio through a "claims suite" over the coming years. It also plans to implement a few high pay-off Interactive Voice Response initiatives for those transactions that lend themselves to telephony. SSA constantly reviews its Homepage and its link to electronic services for areas to improve and enhance.

### **BUSINESS (GOVERNMENT TO BUSINESS)**

An example of SSA's outstanding service to business is its electronic wage reporting suite of services delivered through Business Services Online (BSO). Like other previously mentioned applications, the American Customer Satisfaction Index Scorecard shows high satisfaction rating for our BSO, which placed third in the e-Commerce category with a score of 82 out of 100. SSA continues to receive and process electronic records to aid in the processing of claims, and plans to continue to offer ways to obtain and incorporated electronic records into case adjudication to further paperless processing.

### **INTERGOVERNMENTAL OPERATIONS (GOVERNMENT TO GOVERNMENT)**

SSA has over 100 data exchanges in operation. An example of a government to government service is Electronic Death Registration (EDR), which is also part of one of the E-Gov Presidential Initiatives of the PMA. EDR provides timely death reports to SSA to aid in case processing and records maintenance. SSA plans to continue to expand EDR through collaboration with the Department of Health and Human Services as part of the evolving E-Gov Presidential Initiative, [E-Vital](#).

### **SSA USERS THROUGH INTERNAL EFFICIENCY AND EFFECTIVENESS**

SSA employees and employees of the 54 State Disability Determination Services have access to a robust Intranet for sharing information. SSA plans to survey employees for additional needs and the Agency's Intranet Workgroup will use the feedback to improve the internal efficiency and effectiveness (IEE) of what is already a highly regarded and frequently used tool. At the same time, the SSA Intranet Applications Standards Workgroup is defining the standards for building applications that are used by employees, including standards that will provide a consistent look and feel enterprise-wide to all applications.

### ***Budget***

SSA has incorporated E-Gov into its IT long range plans. This includes:

- The planning for initiatives in the Agency's *Service Delivery Budget Plan* and throughout the Capital Planning and Investment Control (CPIC) Process, and

- DCS's adoption of a Systems Strategic Vision to guide decision-making in IT investments.

### ***Engaging Stakeholders***

SSA regularly engages stakeholders, both internally through employee input and externally through contact with the public, business, and other governmental bodies. Prior to launching new services, a careful review of the needs of the public and what impact new applications will have on front line employees, are considered.

### ***Usability***

SSA recognizes that the voice of the user needs to be considered early in the application process and during redesigns of SSA's Internet Homepage. SSA employs user-centered design methodologies driven by clearly specified business objectives and recognition of user needs.

### ***Public Insight***

SSA has a public insight process that assists business sponsors in understanding the voice of the public. Through surveys, analytic tools, and focus groups, the process captures important public preferences on security, privacy, authentication, accessibility, and overall expectations on services that the public desires to have online.

### ***Accessibility***

SSA continues to be a leader in meeting government and industry-wide standards. SSA is a member of the advisory committee of the United States Access Board, which is updating standards for electronic and information technologies for the Federal government.

### ***Marketing***

SSA employs a wide range of tactics to market eServices and recognizes that there is an ongoing need to reach new users as they approach retirement age. Employees on the front lines will be instrumental to future success. SSA plans to pilot several approaches, evaluate the results, and then consider expansion based upon the methods proven to be most effective.

### ***Management Information and Assessing Progress***

Measuring the results of initiatives requires a multi-faceted approach. SSA has actionable management information (MI) on current offerings and will continue to build MI into new projects. The Agency also uses Web analytics to evaluate usage, visitor preferences, and citizen segmentation to guide decision-making.

### ***E-Authentication***

Public trust in the security of information exchanged between SSA and the public, business, and other governmental bodies plays a vital role in E-Gov transformation. E-Authentication makes that trust possible by providing a method to ensure that only authorized persons conduct business in the name of the SSA customer. SSA is reviewing its strategy and processes in light of comprehensive risk assessments, privacy, business needs, impact, and a balance between security and usability.

## ***A Supporting Infrastructure***

As eServices expand and become a greater part of mission-critical work, SSA is making long-range plans to provide around the clock availability of eServices to the public. To achieve this, SSA has established back-up capabilities and contingency planning to ensure continued operations of Internet applications and informational pages.

SSA's planning process ensures appropriate capacity to support users and will continue to support any issues that arise regarding capacity and scaling of hardware resources. In the area of software development, the Agency is implementing a component-based software architecture referred to as Information Exchange Component Architecture (IECA) to facilitate the rapid delivery of eService applications through reusable software components. This architecture aligns with the Service Oriented Architecture that has been adopted by the IT industry to reduce both application development and resource usage. For additional information on a supporting infrastructure, refer to the Systems Strategic Vision section in Chapter 2.

### ***Summary***

While SSA employees continue to demonstrate their commitment to public service delivery and to the challenges of increasing workload demands, it is clear that enhancing and expanding eServices will supplement the field employees' efforts. By having an updated and robust *E-Gov Strategic Plan* and by enthusiastically promoting eServices both internally and externally, SSA remains focused on its service delivery objectives and its mission.

## **Systems Strategic Vision**

DCS has developed a Strategic Vision to ensure that SSA can continue to provide the services needed to serve the American public. DCS's mission is to provide enduring automation support for SSA. DCS's work is driven by the needs of SSA's operational workloads and the programmatic, administrative and workflow processes that are used to perform those tasks.

During a series of strategic planning sessions, DCS executives developed six goals that complement SSA's existing goals and outlined technical and business-related opportunities for investments that would yield significant benefit to SSA. These goals and opportunities focus on cross-project efficiencies and improving overall systems responsiveness and capabilities. The DCS strategic vision is a proactive approach to ensure that SSA remains fully capable of serving its customers well into the future.

### **Goals**

The six goals are as follows:

#### ***Improve Social Security's ability to deliver unassisted services***

The Agency's key long-term goal is to substantially increase the use of electronic services. Today, people can go to [www.socialsecurity.gov](http://www.socialsecurity.gov) to apply for retirement, disability, and spouse's benefits over the Internet, and use Social Security's benefits planners to help determine the benefits they and their families might receive in retirement. Current beneficiaries can access SSA's Web site to change their address, sign up for direct deposit, and get a replacement Medicare card, replacement 1099, and proof of income

letter request. Cumulatively, these and other electronic services handled over two million transactions in FY 2006.

There are a variety of well-documented cultural and demographic trends affecting the Agency, which require SSA to carefully consider all aspects of unassisted service, including a potential impact on its existing architecture. These factors range from the approaching “baby-boomer” retirement wave to the increasing demand for service delivery at the convenience of the consumer rather than the provider. All are driving SSA to fundamentally alter its service delivery model.

In many functional areas, SSA has retooled its existing service-delivery technologies to enable unassisted service delivery. The introduction of Internet technologies is one example. In addition, SSA is pursuing various Data Exchanges, to explore architectural or common designs that allow other organizations to link more efficiently to SSA’s back-end systems. Since these data exchange activities work independently of each other, SSA will focus on bringing them together with a common focus and shared vision to maximize opportunities for additional gain.

***Enter new lines of business in areas where we have unique qualifications***

To save administrative time and program costs and to improve overall customer service, SSA has established a variety of electronic online data exchanges with state and Federal agencies. Agencies with which SSA exchanges data include human services, vital records, motor vehicles, unemployment, and worker's compensation. Currently, SSA has over 100 electronic data exchanges within the 50 United States alone. In addition to sharing its online information, the Agency has led the way in developing applications that support its internal business processes.

Leveraging the expertise SSA has gained in developing robust applications, establishing external connections, and supporting the related business processes, the Agency has realized that DCS is indeed a leading Federal organization in the areas of IT and automation support.

The business of government is rapidly changing to meet new demands and mandates. Agencies that have historically been self-contained now need to outsource functions to other agencies with a demonstrated ability to perform those tasks better. Formerly single-purpose organizations such as SSA are being asked to provide services to other agencies. For example, SSA provides data processing services to the Office of Child Support Enforcement. The Service Reference Model of the Federal Enterprise Architecture (refer to [Chapter 4](#)) has formalized this movement, expressing it as a requirement against which agencies will be measured.

DCS currently provides services to a variety of external organizations through data exchanges and reimbursable agreements. These arrangements are not generally viewed as a discrete workload and are generally limited to Program-related activities. SSA needs to expand that view and consider all areas where the Agency can leverage its expertise into more fee-based services and service agreements.

***Make the programmatic process paperless***

The implementation of the National Paperless Program Service Center (PSC) Software began in June 1999. To date, all six PSCs, along with the Office of Disability Operations (ODO) and the Office of International Operations (OIO) are operating under the National Paperless Processing Center System

(PPC). Since the initial implementation, there have been several software releases to address enhancements in both functionality and performance. The Paperless PSC System represents the Enterprise Large Site Imaging Document Management architecture. It consists of a document management/imaging system built upon the client-server/Local Area Network (LAN) architectures. The Agency used a combination of commercial-off-the-shelf software and in-house programming to develop the Paperless system.

The Agency's record archives at one time consisted almost exclusively of paper source documents. Beginning in the 1990's, the capabilities of data storage technologies and techniques began to increase rapidly. It is now possible that paper records can be eliminated from the mainstream workflow of SSA processes. A "paperless" or fully electronic process brings enormous advantages in terms of workflow flexibility. Widespread access to records, reductions in inter-step processing time gaps, and continuation of operations in the event of a facility closure are but a few of the possibilities.

The Agency and DCS have already committed significant resources to the process of moving specific record categories from paper to electronically accessible media. Among these initiatives are the Document Management Architecture, Paperless PSC, Electronic Wage Reporting, Electronic Medical Evidence, and others. The Agency's Electronic Disability System (eDib) is a good example of a program that has leveraged these paperless process technologies. With 90 million records, it is the world's largest repository of electronic medical evidence. Establishing this goal is intended to provide guidance that unifies these currently disparate approaches under a more comprehensive management focus.

### ***Sustain an appropriate production environment***

The Agency's mainframe data stores contain 191 Terabytes of data and its open, client-server data stores maintain 132 Terabytes. These data stores represent one of the largest sets of electronic records of any civilian Federal agency. In FY 2006, these data sets supported approximately 54 million individual transactions every business day. With the infrastructure divided among 15 distinct areas—client/server, database management support, desktop, electronic messaging, imaging and document management, Internet, intranet, local area network, mainframe, print services, security systems, storage, telephone, video architecture, and wide area network—each constantly in transition, it is imperative that SSA constantly evaluates and improves its operating environment.

Automation is currently the foundation for all of Social Security's business processes. Without the use of automated tools and processes, SSA could not hope to keep up with its workloads or provide the services that the American public expects. SSA's ability to provide automation is very much dependent upon maintaining a production environment that meets current needs and can be adapted to meet future needs. This requires that SSA position itself to evolve along with the IT industry over the long term.

Currently, most of the work SSA does to sustain the production environment is centered on the Infrastructure Information Technology Advisory Board (ITAB) Portfolio. SSA plans to expand this focus, so that the Agency may perform particular actions based on managing the technological evolution of the production environment.

### ***Improve DCS's productivity***

The Agency has committed to achieving at least a two percent net increase in productivity. SSA met its goal in FY 2006, for the fifth straight year, with a productivity improvement of 2.49 percent on average from FY 2001. The Agency will lose a substantial number of experienced employees in the next few years. By 2010, nearly 22 percent of Agency employees are projected to retire. This retirement wave will result in a significant loss of institutional knowledge in all Agency components, including DCS.

The available pool of IT resources is essentially fixed by the number of employees authorized at any given time. However, the requests SSA receives are based on the needs of the Agency and ultimately on the demands of the clients we support. Sometimes the need does not match our ability; therefore, SSA must always look for ways to become more productive and to support an ever-expanding demand for our services.

The Agency currently uses function point analysis to estimate the productivity of DCS projects. Function point analysis is a qualitative methodology for measuring the size and complexity of a project in terms of its functionality and estimating its development costs in terms of time and effort. These results are not widely used beyond this activity at this time. Other Systems productivity initiatives have been undertaken in recent times, and have served SSA well in situational solutions.

### ***Improve the productivity of the users of DCS's products***

The Agency's strategy for programmatic applications is designed to achieve numerous long-term goals, including:

- Systematically reducing the number of programmatic transactions that are rejected or alerted for manual attention to increase the level of automation,
- Providing automated client self-help capabilities (such as use of the Internet) to enable SSA's clientele and authorized business partners to deal directly with its automated systems,
- Integrating with local support systems to help Agency operations personnel effectively control, manage, correct, and reprocess the rejected or alerted workload items, for those cases where initial input transactions are rejected, and
- Regularly maintaining and periodically improving the efficiency and maintainability of programmatic applications.

The same limitations that apply to DCS's ability to expand staffing are also in place for the users of its software products. With the approaching workload of the "baby boomers," the demand for more timely and personalized services and SSA's involvement in more varied programs, the Agency must strive to assist its employees in keeping up with workload demands. The software SSA develops is not the only answer, but based on past experience, software enhancements can have the most dramatic impact when implemented correctly.

# Chapter 3: IT Performance/ Investments

## Performance

By the very nature of its mission, SSA has a strong public focus and is dedicated to product and service quality. Table 1 provides a sample of SSA's major workloads expected to be processed in FY 2007 and FY 2008 based on projections from the FY 2008 President's budget.

**Table 1: Major SSA Workloads**

Major Workload	FY 2007	FY 2008
RSDI Claims	6,472,000	6,652,000
RSDI Post-entitlement	83,791,000	83,689,000
SSI Claims	2,518,000	2,480,000
SSI Post-eligibility	19,810,000	19,186,000
ODAR Hearings*	541,000	548,000
Social Security Statements	147,000,000	148,000,000
Annual Earnings Items	265,000,000	268,000,000

\* SSA-only hearings

## Agency Priorities

SSA's priorities are defined by the Agency's four strategic goals. Target levels of performance have been or are being established for each objective, and the systems to measure success are planned or are already in place. These measures are reflected in the APP, which can be found on SSA's Internet site at [www.socialsecurity.gov/performance](http://www.socialsecurity.gov/performance). While the target levels of performance are at the tactical level, they link very closely with SSA's longer term IT capital investments. The following have been extracted from the FY 2006 APP and illustrate this concept:

- In support of the service goal, an outcome measure has been established to support the strategic objective of Improving Service through Technology. That measure is to maximize public use of electronic services to conduct business with SSA. This tactical measure is consistent with SSA's E-Government strategy described in Chapter 2: Information Technology Strategy.



- An objective supporting SSA's stewardship goal is to maximize the accuracy of earnings records. Projections of the number of annual earnings items to be processed have been established, as well as targets for measuring how accurately they were processed. SSA is reengineering the business procedures and front-end systems used to process annual wage reports submitted electronically and on magnetic media to improve the efficiency, accuracy, and effectiveness of processing and maintaining earnings information.
- The goal to strategically manage and align staff to support SSA's mission contains a supporting objective to minimize skill and knowledge gaps in mission-critical positions. SSA is using its investment in Interactive Video Teletraining (IVT) and Video on Demand (VoD) to reach its target with this objective.

In February 2006, SSA provided Congress with the APP for FY 2007, and Revised Final Performance Plan for FY 2006, which outlined the measures used to meet the strategic goals. SSA's PAR is published shortly after the close of the fiscal year. The PAR, reflecting the performance for FY 2006, was published in November 2006.

## Capital Planning and Investment Control

### Information Technology Capital Plan

The *IT Capital Plan* is SSA's IT investment plan that is used to transmit the Agency's IT budget request to OMB to evaluate and compare progress made by federal agencies in support of the Administration's overall IT agenda. During the annual budget cycle, the *IT Capital Plan* is updated to reflect the President's decisions on the Agency's budget. The *IT Capital Plan* includes the major and significant Agency projects that are approved for implementation. All project implementations are consistent with the Agency's CPIC.

SSA's overall budget request is submitted to Congress yearly in early February. Budget negotiations take place until a final appropriation is agreed upon. Each Federal agency reports its IT Investment Portfolio annually to the Office of Management and Budget (OMB) via a document known as the "exhibit 53". By completing an exhibit 53, SSA satisfies the Clinger-Cohen Act of 1996 requirement to provide a full and accurate accounting of IT investments for the Agency and the OMB requirement as laid out in Circular A-11. OMB uses the exhibit 53s from every agency to create an overall "Federal IT Investment Portfolio" generally published as part of the President's Budget. The government-wide exhibit 53 for fiscal year 2007 is available at [http://www.whitehouse.gov/omb/budget/fy2007/sheets/itspending\\_new.xls](http://www.whitehouse.gov/omb/budget/fy2007/sheets/itspending_new.xls). More information about the exhibit 53 can be found on the OMB website in the [OMB Circular \(PDF - 211 KB\)](#).

From the Agency perspective, the exhibit 53 is SSA's overall IT investment portfolio. It summarizes the entire Agency investment in IT, including the hardware, software, and services acquired through the ITS budget and the investment in IT specialists throughout the Agency. Those underlying investments determined to be "major," are described in individual OMB Exhibit 300s, while other investments are aggregated within each section. The exhibit 300s represents individual areas of investment as they pertain to agency and overall federal government goals. These specific areas of investment are described in more detail in this chapter under "Major Investment Initiatives." The exhibit 53 is organized by the SSA

Strategic Objective that the investment addresses, with additional sections for financial management systems, grants management systems, EA, and infrastructure.

The *IT Capital Plan* supports SSA's mission performance and the goals identified in the Agency's *IRM Strategic Plan*, Performance Budget, APP, Government Paperwork Elimination Act (GPEA) Plan, EA, and business planning processes. The *IT Capital Plan* includes SSA's *Target CPIC Process Description* and the *IT Systems Security Plan*.

SSA's IT investments are funded through the Agency's IT budget. The investments address financial management systems, strategic plan mission areas, IT infrastructure and office automation, EA, and planning. The IT investments in the portfolio support SSA's mission and the goals and objectives in the ASP. Strategic and operational planning is influenced by internal and external factors including the Agency mission, goals, and objectives, the PMA, technology, human resources, court orders, and such audits and legislation as GPEA and the E-Government Act.

The *IT Capital Plan* reflects the Agency's GPEA goals to provide for the use and acceptance of electronic documents and signatures and to keep records electronically. The *IT Capital Plan* also supports the Agency's E-Government Act goals of providing additional Internet services and electronic data exchanges. Such support is reflected in the Agency's IT Investment Portfolio.

Components of the *IT Capital Plan* include:

- IT Investment Portfolio (OMB Circular No. A-11, Exhibit 53),
- IT Capital Asset Plans and Business Cases (OMB Circular A-11, Exhibit 300s) and self-evaluation of Exhibit 300s,
- Addendum to SSA's *IRM Strategic Plan*, summarizing the impact of SSA's IT Portfolio Management Process,
- Target CPIC Process Description, and
- *IT Systems Security Plan*.

## **Target Capital Planning and Investment Control Process**

The Agency's Target CPIC process for IT establishes and manages SSA's IT portfolio. The Agency CPIC process facilitates project oversight and the integration of Agency processes for making budget, financial, and program management decisions.

The Agency CPIC process involves three distinct phases, as shown in Figure 4: Target Capital Planning and Investment Control Process. The process begins with the "Select" phase, a series of rigorous Agency IT portfolio selection activities, followed by the Agency's "Control" process and finally a process to "Evaluate" the outcome of IT initiatives. The evaluation process provides essential feedback to enhance the CPIC process and improve the Agency management of IT initiatives.

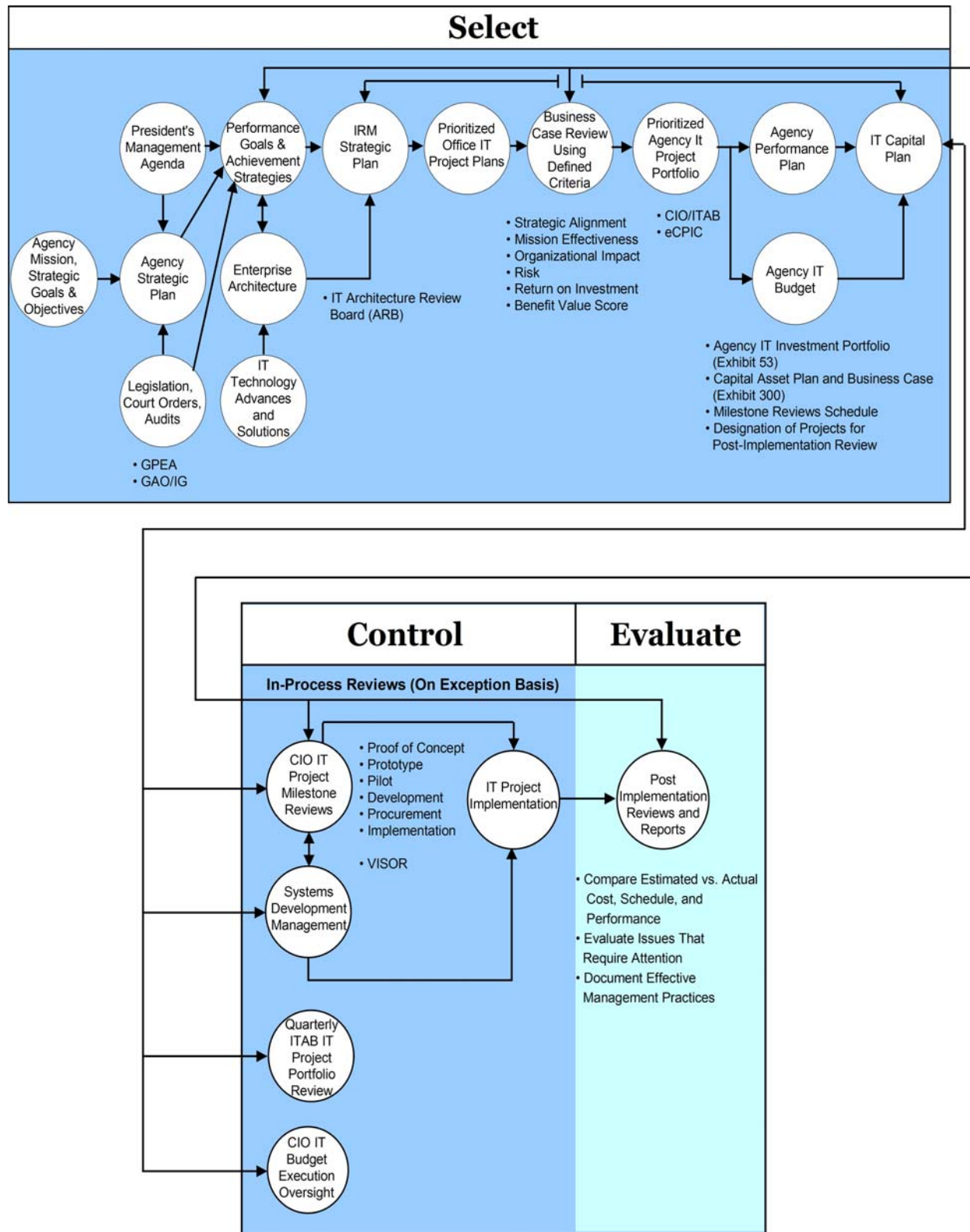


Figure 4: Target Capital Planning and Investment Control Process

## Major Investment Initiatives

Critical to goal setting, performance measurement, and reporting are the linkages to ensure that the resources needed to support planned activities are identified and reflected in the budget. The Agency will continue to make well-planned changes in pursuit of performance objective achievement. These changes must be determined to be operationally effective and economically sound before resources are committed to their implementation. The SSA Tracking Report is a planning tool for monitoring performance objectives. This system provides the information SSA needs to assess progress at key decision points and determine whether initiatives should proceed as planned or be redirected. SSA's IT Portfolio management process encourages the customer community to take an active role in deciding current and future systems workloads in support of the Agency's strategic objectives.

Table 2: Major Investment Initiatives shows the relationship among the Agency's major investment initiatives, the Agency's four goals and nine objectives, and the PMA goals. The numbered objectives in the following list correspond with the numbers shown for each Agency goal in Table 2.

- **Agency Goal –To deliver high quality, citizen-centered service.**
  - **Objectives:**
    1. Make the right decision in the disability process as early as possible,
    2. Increase employment for people with disabilities by expanding opportunities, and
    3. Improve service through technology, focusing on accuracy, security, and efficiency.
- **Agency Goal –To protect the integrity of Social Security programs through superior stewardship.**
  - **Objectives:**
    4. Detect and prevent fraudulent and improper payments and improve debt management,
    5. Ensure the accuracy of earnings records so that eligible individuals can receive the proper benefits due them,
    6. Strengthen the integrity of the SSN issuance process to help prevent misuse and fraud of the SSN and card,
    7. Manage Agency finances and assets to link resources effectively to performance outcomes.
- **Agency Goal –To achieve sustainable solvency and ensure Social Security programs meet the needs of current and future generations.**
  - **Objective:**
    8. Through education and research efforts, support reforms to ensure sustainable solvency and more responsive retirement and disability programs.
- **Agency Goal –To strategically manage and align staff to support the mission of the Agency.**
  - **Objective:**
    9. Recruit, develop, and retain a high-performing workforce.

Table 2: Major Investment Initiatives

Major Investment Initiative	Agency Goal				Exhibit 300 BY2008 Value (millions)	Meets PMA Goal of:
	Sustainable Solvency	Citizen-Centered Service	Superior Stewardship	Manage and Align Staff		
<a href="#">Financial Accounting System Replacement</a>		3	4,7		\$9,890	Improved Financial Performance
<a href="#">SUMS/MCAS</a>		3	7	9	\$24,252	Improved Financial Performance and Budget and Performance Integration
<a href="#">Medicare Modernization Act (MMA)</a>		3			\$18,542	N/A
<a href="#">Disability Service Improvements (DSI)</a>		1,2,3	4,7		\$54,168	N/A
<a href="#">Disability Determination Service (DDS) Automation</a>		1,3	4,7		\$25,869	Expanded Electronic Government
<a href="#">Digital Recording for Administrative Law Judge (ALJ) Hearings</a>		1,3	4,7		\$1,671	Expanded Electronic Government
<a href="#">Title II System Redesign (T2R)</a>		3	4		\$8,214	Expanded Electronic Government and Improved Financial Performance
<a href="#">Access to Financial Institutions (AFI)</a>		3	4,7		\$2,524	Eliminating Improper Payments
<a href="#">E-Vital</a>		3	4		\$1,190	Expanded Electronic Government
<a href="#">Interactive Video Teletraining (IVT)</a>		3		9	\$10,403	Strategic Management of Human Capital
<a href="#">Infrastructure</a>	8	1,2,3	4,5,6,7	9	\$521,823	N/A
<a href="#">IT Operations Assurance (ITOA)</a>	8	1,2,3	4,5,6,7	9	\$30,304	Expanded Electronic Government
<a href="#">Telephone Systems Replacement Project (TSRP)</a>		3	4,5,6,7		\$25,512	Expanded Electronic Government

## Earned Value Management

Earned Value Management (EVM) is a project management control tool that provides a project manager with visibility into how an IT project is doing in terms of technical performance, cost, and schedule. OMB Memo 05-23 details specific actions and due dates requiring use of EVM on IT projects across government that all agencies must comply with. Although SSA's existing project management processes were comprehensive, enhancements were necessary to meet the new OMB requirements. SSA's objective is to comply with all appropriate laws, regulations, policies and standards, while providing the Agency with a uniform and formal approach to implementing and using EVM. SSA's IT project managers are now using EVM to manage all of the Agency's OMB 300 projects. The Agency EVM policy and supporting documents are all available on the intranet at [http://co.ba.ssa.gov/pride/org\\_library/org\\_items.htm#evm](http://co.ba.ssa.gov/pride/org_library/org_items.htm#evm).

EVM provides project budget and schedule data that has uses beyond managing the project. The CIO's office is working to further integrate EVM into SSA's CPIC processes. The IT budget process is adapting to use this data and to become a more comprehensive, portfolio-based investment management process.

## Investment Initiative Descriptions

Following are high-level descriptions of SSA's major IT initiatives found in the *IT Capital Plan*. As a result of implementation, the initiatives will serve to enhance Agency productivity, program integrity, customer service, and other desirable Agency attributes.

### ***Electronic Disability System***

The Electronic Disability (eDib) System consists of a series of interdependent projects designed to move all partners in disability claims adjudication/review to an electronic business process through the use of an electronic disability folder. The implementation of eDib has contributed in whole or part to the following outcomes:

- The automated system used to collect information during the disability interview has been enhanced, facilitating the interview and capturing critical information electronically as it is collected from the claimant,
- More claimants are able to submit complete disability reports via the Internet, saving the claimant time and conserving Agency resources,
- A repository to electronically store documents, evidence and records—upon which the disability determination is based—has been created to facilitate servicing the claim thereafter,
- A case processing and management system for SSA's hearing offices in the Office of Disability Adjudication and Review (ODAR) was created, which streamlines hearing office operations and moves claimant cases more swiftly through the process, and
- The modernization of State Disability Determination Services (DDS) IT systems has been accelerated, giving the DDSs the capability to interface with the electronic folder leading to end-to-end electronic processing of most disability claims.

Due to the implementation of eDib, disability claims processing delays will steadily decrease and inefficiencies inherent in the current process based on paper folders will slowly disappear.

It also supports the Agency's GPEA obligation to provide for the electronic maintenance, submission or disclosure of information as a substitute for paper and for the use and acceptance of electronic signatures, when practicable.

In the Agency's efforts to move the claims process into a fully electronic environment, SSA has developed electronic transports for receiving medical and other documentation necessary for adjudicating disability claims. Receipt of documentation for disability decision-making is a critical and integral aspect of the disability claims process. For providers that have the capability of providing electronic records (either by scanning paper records or creating an extract of their electronic records), SSA has developed a free, easy-to-use secure website called Electronic Records Express Services that can safely upload files and directly submit uploaded documents into the electronic folder (or e-folder, SSA's electronic disability repository of data that is accessible by all components involved in the processing of disability claims). Use of the website will eliminate delays in receiving adjudicating documents, due to mailing time and/or misplaced records. There is also a fax option available. To use the fax process, the provider must fax, as the first page, the bar-coded DDS request letter along with other case records. Faxing, using the DDS toll-free fax number, can save providers' time and money (e.g., staff time to photocopy records, paper costs, postage, etc.).

### ***Title II System Redesign***

The Title II System Redesign (T2R) initiative provides a single system for processing virtually all Title II initial claims and client-related post entitlement actions in an online interactive mode. This initiative is part of SSA's strategy to increase the level of automation, enhance system security and privacy protections, provide client self-help capabilities, integrate with local support systems, support paperless processing and improve software efficiency and maintainability.

The net effect of T2R is a greater capability to process work at the customer's first point of contact with the Agency, reducing the need for multiple contacts, saving time for both the claimant and the Agency. T2R provides SSA service representatives access to more comprehensive customer information which enhances later claimant contacts when they are required. The system is also easier and less costly to maintain and modify. SSA has steadily increased the automation rate for Title II post entitlement actions and will continue to streamline automation of post entitlement processing. More efficient systems processing will reduce the need for many individuals to participate in the processing of a single claim or service request and lead to fewer calls from beneficiaries. Increasing automation will eliminate labor-intensive manual processes and free-up resources that can then be diverted to front-line customer service functions.

### ***Disability Determination Service Automation***

The Social Security Act mandates that a Disability Determination Service (DDS) in each State perform determinations of disability for residents of that State who file for disability benefits. The DDSs, though agencies of State governments, are entirely federally funded and perform services subject to regulatory authority of SSA. Maintaining and enhancing the technical viability of the DDS systems is paramount in order for the DDSs to effectively address increasing workloads. DDS automation investments include hardware and software maintenance and enhancements, integration services and other support services required to maintain the viability of these systems.

DDS Automation addresses one of SSA's highest priorities—to improve service to the public in the disability programs from the initial claim through the final administrative appeal. Enhancements to DDS automation are also necessary to ensure that adequate automation is in place to support the implementation of the Disability Service Improvements project as it moves to nationwide deployment in coming years.

### ***Electronic Wage Reporting System***

Under the Internal Revenue Service Restructuring and Reform Act of 1998, Congress set new electronic filing goals including the long-range goal that at least 80 percent of all Federal tax and information returns must be processed in electronic form by 2007. The Internal Revenue Service (IRS) has interpreted this legislation to include forms W-2/W-3, which are filed with SSA. The Electronic Wage Reporting System (EWRS) is the key SSA initiative to meet this electronic filing goal.

The EWRS enables SSA to more effectively and efficiently process wage reports submitted on various media through a variety of methods. It provides expanded services to employers by providing an acknowledgement of receipt, filing status information, complete and timely information on processing results, testing capabilities and additional user support. The EWRS supports SSA's earnings improvement effort that includes increasing the use of electronic filing by employers, providing online filing status and error information and allowing employers to verify the accuracy of employees' names and Social Security numbers online. Because the EWR investment has entered the steady state phase of its life cycle, it will be integrated into the Infrastructure Investment in the coming year.

Employers using SSA's electronic services submit wage reports that contain fewer errors than those who file using paper submissions. Employer use of these applications results in improved accuracy of employer wage reports and a resulting decline in the growth of the Earnings Suspense file. This also results in administrative savings by reducing the number of notices and telephone calls to correct errors and in improved public service with more accurate earnings statements and benefit payments.

### ***Financial Accounting System Replacement***

The Social Security Online Accounting and Reporting System (SSOARS) provides a comprehensive financial accounting system that includes administrative accounts payable, accounts receivable, general ledger, funds control, and reporting functions. Overall, SSOARS provides better control of Agency funds and provides data consistency across the Agency.

The initial release of the new system became SSA's system of record on October 1, 2003. Baseline and associated software licenses were procured in sufficient quantities to provide full financial system access and usage by an estimated SSA Headquarters population of 250 operations and functional staff with limited query access for up to 2,500 field office personnel. Subsequent releases enhanced usability by providing features including:

- Support for and replacement of the Financial Information System that is used by components to track spending against allocated fund balances for daily operations,
- System interfaces to feeder systems such as SSA's Streamlined Acquisition System (SSASy), Third Party Payment System, Credit Card System, and Travel Manager, and



- Increased automation to eliminate inefficient and time-consuming processes such as implementation of the Electronic Document Management System that will use electronic imaging and workflows to eliminate paper invoices and streamline the accounts payable process.

This initiative improves financial performance by reducing both operational delays and data and operational redundancy, and it positions the Agency to take advantage of advances in electronic commerce. In addition, implementing financial management systems that are compliant with government regulations facilitates future integration with other federal agency systems. Use of the Agency's intranet as the delivery mechanism for a variety of accounting system reports has increased, easing dissemination of important management information and reducing the cost of developing new reports.

### **SSA Unified Measurement System/Managerial Cost Accountability System**

The SSA Unified Measurement System/Managerial Cost Accountability System (SUMS/MCAS) initiative provides access to the productivity information needed to continually evaluate and define business requirements, support process reviews and comply with government standards for cost accountability. SSA is required by law to account for administrative expenses by type of work performed in order to properly charge trust funds or general funds for this work. In addition, SSA uses management information to quantify and adjust Agency workload categories and expenses.

SUMS/MCAS uses data warehousing technology, combined with a very robust off-the-shelf database program and the SSA intranet, to improve the quality, consistency, and access to information necessary for managers and analysts throughout SSA to manage work and account for resources. SUMS focuses on the detailed workload data, while MCAS details critical performance and financial information. Both of these are needed by managers to track and evaluate work data throughout SSA.

SUMS/MCAS consists of interrelated initiatives that address Workload Counts and Performance Measures to produce consistent measures of workload and process time and other performance measures from the same data sources. These interrelated initiatives are as follows:

- The Time Allocation System replaces the current labor-intensive, largely manual, work sampling processes with more automated processes that will provide the information needed to calculate work power,
- The Customer Service Records initiative provides interviewers with access to customer information from existing data sources in a concise and easily understood format while capturing more complete data on customer interactions, and
- The Managerial Accountability initiative replaces current fragmented management, cost and accountability systems with a unified, expanded and improved system, eliminating manual processing.

The SSA intranet is the delivery mechanism for the various SUMS/MCAS reports. SUMS/MCAS will provide managers with user-friendly access to expanded management information that supports their need for analysis, customer service monitoring, resource allocation and strategic decision making.

Development and implementation of SUMS/MCAS will make a significant contribution to the attainment of SSA strategic goals.

### ***Digital Recording for Administrative Law Judge Hearings***

The Digital Recording for Administrative Law Judge (ALJ) Hearings initiative has replaced unsupported and obsolete analog recording technology with digital recording technology in support of administrative hearings by ALJs in SSA's Office of Disability Adjudication and Review (ODAR). The new digital technology uses a PC-based digital recording system that enables recorded hearings to be stored online in a shared repository. The use of digital recording technology will facilitate hearings records management, decrease the number of cases remanded due to lost recordings, and reduce costs. Processing is further enhanced by the ability to fit a full recorded hearing on one compact disk (CD) to provide hard media.

The Digital Recording for ALJ Hearings initiative supports the Agency's eDib program objectives, as digital recordings are a requirement for a fully electronic disability claims folder.

### ***Access to Financial Institutions***

The Access to Financial Institutions (AFI) initiative involves providing electronic access to the records of financial institutions to obtain timely financial information for SSI applicants/recipients. To be eligible for SSI benefits, applicants/recipients must meet specific income and resource criteria. To determine the initial and continuing entitlement to benefits, SSA is required to verify both the income and resources of applicants/recipients, including resources held in financial institutions. AFI provides the capability for SSA representatives to request financial records pertaining to applicants/recipients from financial institutions likely to have relevant information.

SSA has enhanced its automated system to collect permanent authorization to access the financial institution information of SSI applicants/recipients. Also, SSA conducted a limited Proof of Concept (POC) study of the electronic verification process using the authority granted by Section 213 of the Foster Care Independence Act of 1999. The study has demonstrated the value of timely bank account verifications to help ensure the accuracy of the SSI benefit program by reducing overpayments and avoiding benefit payments to ineligible applicants/recipients. Considering the budget constraints facing the Agency in the near term, SSA believes that use of the AFI web-based system should be expanded to additional Field Offices as resources permit. Eventually, a system that integrates the web-based system with the Modernized Supplemental Security Income Claims System (MSSICS) can be built to handle verifications in a more efficient and less labor intensive manner, but that system is likely many years away. SSA intends to conduct an extended test in another geographic location on a portion of the SSI workload. This extended test would need to be designed to be achievable within expected budgetary levels.

The Government Accountability Office's decision to remove the SSI program from its high-risk list was based, in part, on SSA's development of an electronic account verification process. It also supports the GPEA obligation to provide the option of electronic maintenance, submission or disclosure of information, when practicable, as a substitute for paper.

### ***E-Vital***

The E-Vital initiative is a Presidential E-Government Initiative designated by the President's E-Government Task Force. The ongoing initiative, known as the Electronic Death Registration (EDR) project, automates the death registration process by permitting electronic document delivery for signature and registration. EDR will reduce the payment of benefits to deceased people by significantly reducing the time required for SSA to receive and verify death reports.

EDR will improve the accuracy of the Death Master File that SSA is required by law to share with other Federal agencies. It will also facilitate automated cross matching of birth and death records that will deter the fraudulent use of the Social Security number to establish identity.

### ***Infrastructure***

The SSA Infrastructure investment is a series of interdependent projects designed to support the administration of the benefit payments programs for which SSA is responsible. Maintenance for SSA's IT infrastructure hardware and software is funded in this item as are support services, technology refreshment and enhancement. These automation investments are essential to process claims for beneficiaries in an effective, efficient, economical and secure manner. Mainframe computing investments include mainframe computer hardware and software, system monitoring and management tools as well as related support services. Storage investments address direct access storage, automated tape library systems, storage area networks and capacity management. Investments for Web services include the Agency's data exchange architecture, enterprise servers, client/server software, Web hardware and software, Internet applications and ongoing Website enhancements. Enterprise security investments provide ongoing support and enhancement for the Agency's IT security infrastructure.

Investments in telecommunications address telephone service (including SSA's National 800 Number Network), SSA's wide area network and video teleconferencing systems. Monthly recurring charges for the services, connectivity and bandwidth that support SSA's data, voice and video communications are included in this item, as is funding for technology refreshment, maintenance, new installations, service enhancements and contractor support that are required for ongoing mission performance.

In accordance with industry best practices, SSA has established a technology refreshment cycle for its office automation infrastructure to ensure that it remains technologically current and supportive of state-of-the-art information processing techniques. Investments in this area address the desktop/laptop computer and local area network infrastructure (including support for employees with disabilities), the electronic messaging infrastructure and related engineering, systems operations, user assistance and product support services. Funding is also included for SSA's software change management and distribution solution that support the Agency's end-user community nationwide. The maintenance of SSA's office automation infrastructure is critical for the delivery of services to the public.

### ***Disability Service Improvements***

Disability case processing time continues to be a major issue affecting SSA's service. While eliminating backlogs is essential to improving processing times, it is recognized that improving workload management and the process itself are also required to achieve the goal of providing timely and accurate service:

- Create a quick decision for people who are obviously disabled,
- Reinforce accountability at all steps in the process,
- Reduce overall disability claims processing time by approximately 25 percent,
- Improve consistency and accuracy of decisions, and
- Remove barriers faced by those who can and wish to return to work.

The first phase of Disability Service Improvement (DSI) was implemented in the Boston Region on August 1, 2006. DSI will continue its development in the Boston Region for approximately one year before its use is expanded to other regions. Functionality will be incrementally added based on timeframes when cases are expected to reach the various appeal levels.

### ***Medicare Modernization Act***

The investment in the Modernized Medicare Information System project was initiated in response to the Medicare Prescription Drug Improvement and Modernization Act of 2003. The legislation amended Title XVIII of the Social Security Act to provide for a voluntary program for prescription drug coverage under the Medicare Program. Those individuals who enroll and have incomes below an established threshold may be entitled to a Prescription Drug Benefit subsidy to help pay for annual deductibles, premiums and co-payments.

SSA is responsible for:

- Producing an outreach notice and sending it to a target audience,
- Interfacing with other Federal agencies for data exchange, and
- Determining eligibility for the subsidy and withholding the premium when prescription drug coverage has been elected.

Enhancements to the Medicare system were initiated in 2006 to support the implementation of Section 1839(i) of the Social Security Act, which creates an income-related reduction in Part B premium subsidies. The premium subsidy reduction will result in an addition to the Medicare Part B premium which is known as the Income-Related Monthly Adjustment Amount. Medicare systems enhancements will continue through 2007. SSA's investment in the Prescription Drug Benefit and Part B Income Related Monthly Adjustment Amount system involves development and ongoing support of the infrastructure for processes impacted by the legislation. Existing hardware capacity continues to be upgraded to handle the increased workload and to ensure that current service levels are not degraded. The investment also includes support of an electronic records management capability to manage Medicare-related records.

### ***IT Operations Assurance***

The IT Operations Assurance (ITOA) initiative provides for the protection of the critical assets of the SSA National Computer Center. The requirement to protect critical Federal infrastructure assets, including hardware, software, telecommunications, building and physical plant, as well as personnel is required under Homeland Security Presidential Declaration 7, Critical Infrastructure Identification, Prioritization and Protection, dated December 17, 2003.

The ITOA project will mitigate the internally identified risks associated with single points of failure at the National Computer Center. A phased approach is being followed toward the ultimate objective of establishing a second, fully functional, co-processing data center. Each SSA computer center will process a portion of SSA's data processing workloads and will remotely backup the data assets of the other center. The centers will be designed so that in the event of a disaster, the critical workloads from the impacted center will be rapidly subsumed by the other center to minimize potential operational impacts to critical business processes. Non-critical workloads will be deferred until the impacted center is restored to full operations or the capacity of the unaffected center can be appropriately expanded.

### ***Telephone Systems Replacement Project***

The Telephone Systems Replacement Project (TSRP) initiative will replace all telephone systems throughout the Agency with the exception of Baltimore Headquarters and the Washington, DC Commissioner offices. Field office legacy telephone systems, which are no longer supported by the manufacturer, will be updated with new technology. Telephone systems will also be replaced at large sites including the Program Service Centers, the Wilkes-Barre Data Operations Center, the OHA Headquarters and the Regional Offices.

An Enterprise Voice over Internet Protocol (VoIP) solution has been piloted using two vendors. The first network carrier vendor, MCI, was teamed with Nortel and the second, AT&T, was teamed with Cisco Systems for these efforts. A competitive acquisition for national implementation has been initiated for an FY 2007 award.

### ***Interactive Video Teletraining***

The Interactive Video Teletraining (IVT) initiative provides the Agency with the tools and resources to develop and enhance employee skills through an interactive, distance-learning tool that brings the traditional classroom to distance learning classes using video, audio and data. IVT allows SSA to deliver timely, consistent and job-specific training to its employees located in remote sites throughout the 48 contiguous States, Hawaii, Puerto Rico and the United States Virgin Islands

The IVT network was installed in phases starting in 1998 and key components of the network infrastructure will reach the end of their systems life on a continuing basis. This requires SSA to invest in equipment replacement and IVT network infrastructure upgrades as they are required. Network upgrade activities include upgrading hardware, software, satellite bandwidth, studio equipment, IVT classroom equipment, satellite uplink equipment and downlink equipment at each IVT location. Funding is required each fiscal year for equipment maintenance, service support contracts and satellite usage. The Agency has also made available a new training to the desktop service named Video on Demand (VoD). VoD utilizes and repackages the IVT broadcast content so that it can be viewed on the Agency's desktop computers when it is convenient to the individual employees.

The Agency plans to convert the analog IVT network to Digital Video Broadcasting (DVB) technology beginning in FY 2007. The IVT network will be converted to DVB in three phases:

- Phase I requires installation of the infrastructure for transporting content over the network,
- Phase II will convert all studios from analog to digital, and

- Phase III will convert IVT classroom equipment in approximately 1,626 field offices to digital.



# Chapter 4: SSA Enterprise Architecture

SSA's EA establishes the framework to ensure that IT investments align with SSA's strategic business plans. The EA framework remains a work-in-progress as the process and artifacts mature in conjunction with the OMB Federal Enterprise Architecture (FEA). The initial version of the framework was refined to incorporate the lessons SSA learned by documenting the current IT infrastructure and the development of the target EA. The framework continues to serve as a guidepost in SSA's current efforts to restructure the SSA system development life cycle and related information resource management procedures. As the EA Framework continues to be used in day-to-day operations, it will undoubtedly require some degree of further refinement. This description will be updated periodically to accurately reflect the architectural products that are being used to help manage SSA's information resource management assets.

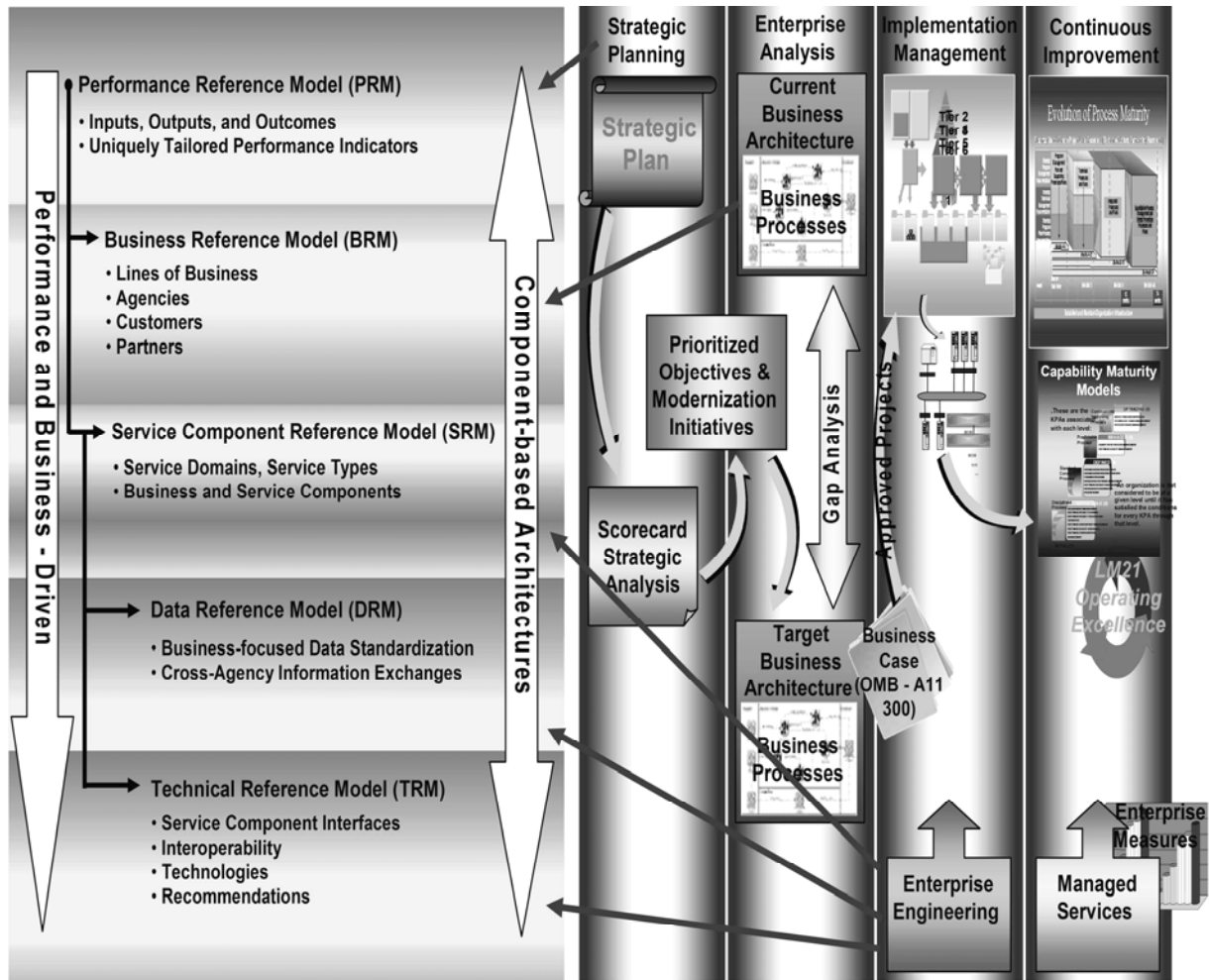
SSA created its own versions of the FEA reference models based on the Business Reference Model (BRM), Performance Reference Model (PRM), Service Component Reference Model (SRM), and Technical Reference Model (TRM), published by OMB. SSA will be developing its own version of the Data Reference Model (DRM) as well as SSA's linkages to the Federal Transition Framework (FTF) when those Extensible Markup Language (XML) schema files are available from OMB.

## Enterprise Architecture Framework

Figure 5: SSA Approach Supports the Goals of the FEA, illustrates how the SSA approach supports the goals of the FEA via its relationship to FEA reference models. The reference models provide a function-driven framework for describing the business of the Federal Government and communicate the organization of architecture components. The objective for using the FEA is to improve business processes and manage investments. SSA's approach supports the goals of the FEA through planning strategically based on performance measures; analyzing SSA's enterprise; managing the implementation of software, hardware, and data; and, establishing enterprise architecture in order to continuously improve processes.

SSA is focused on value management, using business cases to attain and maintain strategic alignment. Measures of effectiveness are set up in the APP. SSA's modernization roadmap includes evaluating mission contribution and developing a prioritization; looking at Technology Infusion products; and staging architecture. Enterprise engineering is accomplished through projects associated with each portfolio that relate to software, hardware, and data components.





**Models:**  
A Common Vocabulary of  
"What"

- Function Driven Framework** for describing the business of the Federal Government
- Models and definitions** for communicating the organization of architecture components
- Driver of:**
  - Business process improvement
  - Investment management
  - Technical decisions

**Methodology:**  
A Common Approach to  
"How"

- Focus on Value Management**
  - Strategic Alignment/ Business Case Based
  - Measures of Effectiveness
- Modernization Roadmap**
  - Portfolio Rationalization
  - Mission Contribution & Prioritization
  - Technology Infusion
  - Architecture Staging
- Enterprise Engineering**
  - TRM, SRM, and DRM Implementation
  - Reuse

**Figure 5: SSA Approach Supports the Goals of the FEA**

Based on OMB Circular A-11, Federal agencies are required to map major IT investments to the BRM, SRM, TRM, and PRM when preparing their IT budget submissions. In doing so, OMB can assess the health of the individual investments, the agency's overall capital planning and investment control process, investment and program performance, and how the agency's IT portfolio is aligned with Federal programs evaluated using OMB's Program Assessment Rating Tool.

SSA currently uses Metis Client Tools (MCT), a product of Trous Technologies, where EA artifacts are housed in a Metis-based framework. By utilizing MCT and the associated processes, SSA is able to organize its IT and business infrastructures, align its EA framework with government standards such as the Federal Enterprise Architecture Framework (FEAF) and FEA, and also identify gaps, redundancies and incompatibilities in the EA. The use of MCT also provides support for producing OMB Exhibit 300 documents, delivers EA and business data for government-mandated maturity assessments, and reduces change impact by enabling a full understanding of the business and IT relationships.

Accomplishments to date with SSA's current implementation of Metis Client Tools are as follows:

- Imported existing infrastructure data from the Enterprise Information Technology Architecture (EITA) Web site into the Metis model, providing additional functionality such as date range and sorting capabilities and improved model drill-down capability,
- Updated FY06 accomplishments,
- Developed EA interim target architectures for FY07 and BY08 to be implemented via Vital Signs and Observations Report (VISOR) projects,
- Developed EA target architectures through BY12, and
- Implemented EA segment architectures as defined by SSA's Strategic Objective Portfolios (SOPs).

Figure 6: Metis Business Pyramid – FY 07 through BY12, illustrates the complexity of EA throughout SSA. The ASP, as described in Chapter 1: Introduction drives all lower-level planning, including objectives, priorities, and constraints for SSA managers to adopt in constructing more detailed support plans.



**Figure 6: Metis Business Pyramid – FY 07 through BY12**

SSA's Mission Statement, provides the foundation of SSA's response to the major challenges the Agency faces now and in the years ahead. It also provides the foundation for delivering results for the American people through four strategic goals: service, stewardship, solvency, and staff, as described in Chapter 1: Introduction.

SSA's four strategic goals link directly to SSA's total resource needs and provide employees direction in all major areas of their work. The nine supporting strategic objectives, as described in Chapter 1: Introduction, focus on key areas of strategic importance or those needing improvement.

The SOPs outlining IT initiatives are reviewed and approved by the ITAB in conjunction with adherence to the SSA EA prior to the beginning of each fiscal year. These SOPs become the blueprint and transition plan for the developmental and maintenance activity within DCS with adjustments for the next FY and the succeeding budget year (BY). This detailed transition plan establishes the target architecture for the end of that succeeding BY.

SSA's APP reiterates the Agency's goals and objectives expressed in the ASP and focuses on the performance targets and the means and strategies for achieving them. Performance targets, or output/outcome measures, are used to assess success in meeting a performance goal or initiative. The APP is integrated with the annual budget submission and provided to OMB and Congress. The PAR,

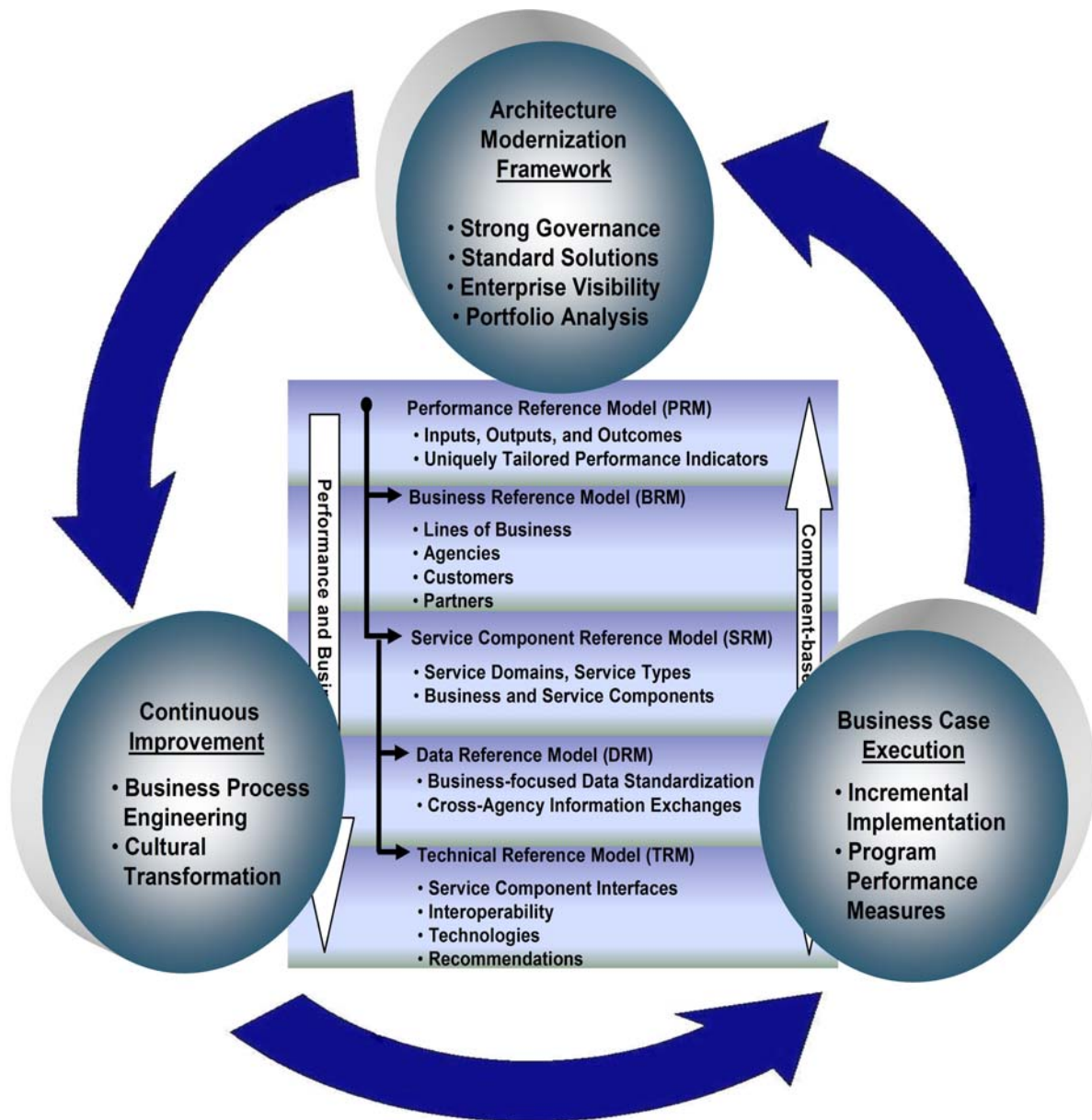
published shortly after the close of the FY, shows how SSA has performed in administering its programs during the past year.

The Exhibit 300 process is the primary mechanism for integrating SSA's IT planning with the FEA. The Exhibit 300 process maps Agency goals and objectives to the corresponding performance measures. In developing the 300s, project managers certify that their projects align with SSA's PRM, BRM, SRM, DRM, and TRM; and, the FTF when appropriate. These are maintained by the EA staff and align directly with the Federal models. Each project is required to have performance metrics that align with the PRM. These metrics, in turn, measure how well the project is meeting the goals and objectives set forth in the ASP. While the ASP reflects a rolling five year horizon, the 300s are prepared with the budget cycle that is two years out from the current fiscal year. Therefore, the 300s provide SSA with a target EA that is two years into the future with a very high level transition plan based upon the content of those approved 300s.

VISOR provides DCS management with a "quick glance" of the general "health" of a project within several key areas for approved projects. The key areas include scope, schedule, resources and risks. Additionally, other information, such as links to Customer Satisfaction Indicators, Project Scope Agreements, and to each project schedule Gantt chart, is also provided. To facilitate quick identification, key areas for each project are color-coded to show the specific health level of specific projects.

### **The Enterprise Architecture Life Cycle**

The EA Life Cycle, as shown in Figure 7, illustrates how planning, business case execution, and continuous improvement are iterative within the life cycle. An architecture modernization framework of standard solutions, enterprise visibility, portfolio analysis, and a strong governance infrastructure involving key stakeholders sets the framework for incrementally implementing business cases and identifying program performance measures. Through the efforts of business process engineering and cultural transformation, continuous improvement exists within the life cycle.



**Planning, Execution, and Continuous Improvement are Iterative**

**Figure 7: Enterprise Architecture Life Cycle**

The Architecture Review Board (ARB) is the guiding and governance body that ensures the effectiveness of SSA's EA. In this role, the ARB:

- Reviews, approves, and provides guidance to SSA IT projects and plans to ensure their alignment with the EA,
- Reviews and approves additions, modifications and deletions to the SSA EA that consists of principles, policies, terminology and definitions, standards and practices,
- Ensures ongoing SSA EA alignment with the FEA reference models, and
- Defines, reviews, recommends, and/or communicates proposed standards related to the EA to DCS and with the DCS concurrence, to the CIO for approval.

The ARB is empowered to perform its roles and responsibilities under the authority of the SSA CIO. The DCS annually nominates the ARB chairperson for confirmation by the CIO. The chairperson acts as the liaison between DCS and the Office of the CIO.

The ARB is comprised of representatives from Offices of the Deputy Commissioners for Systems, Operations, Human Resources, Disability and Income Security Programs, OCIO, and Budget, Finance, and Management. Members represent infrastructure, application, and data architecture subject area components as well as other SSA programmatic and business/strategy subject area components that sponsor, lead, or participate in IT projects.

The CIO has also chartered an EA Governance Committee to manage the maintenance and configuration of the SSA EA framework. This body meets on a monthly basis and calls ad hoc meetings when required. Annual OMB changes to the FEA framework, periodic updates to components, and new releases of reference models are managed by this committee.

Additionally, the OCIO prepares and submits an annual EA Maturity Assessment to OMB. This assessment measures the maturity of SSA's EA across three areas: Completion, Use, and Results.

## Strategic Objective Portfolios

As part of the CPIC environment, SOPs outlining DCS IT initiatives are reviewed and approved by the ITAB, prior to the beginning of the fiscal year. These SOPs become the blueprint and detailed transition plan for the developmental and maintenance activity within DCS for any given fiscal year.

On a quarterly basis, the ITAB reviews the progress of each SOP and the agreed upon capital investments. Major investments are assessed at key decision points to ensure they are well founded, are achieved within the approved cost and schedule, and provide expected benefits. They may be redirected or terminated when necessary. These are key activities to SSA's capital investment and control process.

SOPs are comprised of two documents:

- The Vision Statement document provides the vision statement containing the strategic and tactical goals and outlines the projects that support each of the goals.
- The Portfolio Submissions document provides the ITAB approved projects, their rational summary of the Cost Benefit Analysis (CBA)/Return on Investment (ROI)/Benefit Value

Score (BVS) and intangible criteria used to support the need for the project, the sponsoring component and the approved DCS resources needed for that particular fiscal year.

For example, Table 3 describes the purpose of the “Make the Right DIB Decision SOP”, the associated Agency strategic goal (as described in the ASP), initiatives, BRM Line of Business, and performance measures.

**Table 3: Make the Right DIB Decision**

<b>Agency Strategic Goal</b>	To deliver high-quality, citizen-centered service	
<b>Purpose</b>	<p>The purpose of the “Make the Right DIB Decision” portfolio is to use automation at all adjudicative levels of the disability claim process to:</p> <ul style="list-style-type: none"> <li>➤ Improve productivity and increase cost efficiency,</li> <li>➤ Reduce claim processing time,</li> <li>➤ Eliminate backlogs,</li> <li>➤ Reduce reliance on the paper folder,</li> </ul>	<ul style="list-style-type: none"> <li>➤ Increase decisional and documentation accuracy,</li> <li>➤ Increase decisional consistency,</li> <li>➤ Increase adjudicative accountability,</li> <li>➤ Support “Increase employment for people with disabilities” by reducing barriers to work which may be inherent in the adjudicative process, and</li> <li>➤ Support process and policy changes with these same goals.</li> </ul>
<b>Initiative (E-300)</b>	<ul style="list-style-type: none"> <li>• eDib</li> <li>• DDS Automation</li> </ul>	<ul style="list-style-type: none"> <li>• Digital Recording for ALJ Hearings</li> <li>• Disability Process Improvement</li> <li>• Infrastructure</li> </ul>
<b>Business Reference Model (BRM) Line of Business</b>	<p>Services for Citizens:</p> <ul style="list-style-type: none"> <li>➤ Disaster Management</li> <li>➤ Education</li> <li>➤ Health</li> <li>➤ Income Security</li> <li>➤ Litigation and Judicial Activities</li> <li>➤ Workforce Management</li> </ul> <p>Mode of Delivery:</p> <ul style="list-style-type: none"> <li>➤ Direct Services for Citizens</li> <li>➤ Federal Financial Assistance</li> <li>➤ Transfers to State and Local Governments</li> </ul>	<p>Management of Government Resources:</p> <ul style="list-style-type: none"> <li>➤ Administrative Management</li> <li>➤ Information and Technology Management</li> <li>➤ Supply Chain Management</li> </ul> <p>Support Delivery of Services:</p> <ul style="list-style-type: none"> <li>➤ Controls and Oversight</li> <li>➤ Internal Risk Management and Mitigation</li> <li>➤ Legislative Relations</li> <li>➤ Planning and Resource Allocation</li> <li>➤ Public Affairs</li> <li>➤ Regulatory Development</li> </ul>
<b>Performance Measures</b>	<ul style="list-style-type: none"> <li>• Agency decisional accuracy rate (ADAR)</li> <li>• Average processing time for initial disability claims</li> <li>• Average processing time for hearings</li> <li>• DDS net accuracy rate (allowances and denials combined)</li> <li>• Disability hearings accuracy rate</li> <li>• Maintain the number of initial disability claims pending in the DDS (at or below the FY 2005/2006 goal)</li> </ul>	<ul style="list-style-type: none"> <li>• Maintain the number of SSA hearings pending (at or below the FY 2005/2006 goal)</li> <li>• Number of initial disability claims processed by the Disability Determination Services (DDS)</li> <li>• Number of SSA hearings processed</li> <li>• Reduce the average number of days needed to process hearings appeals</li> </ul>

## Transition to Internet Protocol Version 6 (IPv6)

### Background

All Federal government agencies have been directed by the Office of Management and Budget to make their network backbones Internet Protocol Version 6-enabled (operational) by June 30, 2008. The Internet Protocol (IP) is the logical mechanism for sending data from one computer to another across the Internet. Most networks combine IP with the higher-level Transmission Control Protocol (TCP), which establishes a virtual connection between source and destination. The current standard for IP is version 4 (IPv4) which was developed in the 1970s. It has proven remarkably robust, and interoperable with a wide range of protocols and applications. However, the explosive growth of the Internet and Internet-based services has exposed deficiencies in IPv4. Perhaps the most urgent of these is the depletion of available IPv4 address space which has long been anticipated by the Internet Engineering Task Force (IETF). The IETF began developing a successor to IPv4 in the early 1990s. A proposed standard was first submitted in 1994, and the core set of IPv6 protocols became a standard in August, 1998 with the publication of RFC 2460 – Internet Protocol Version 6 (IPv6) Specification.

IPv6, with its 128-bit address space, was designed to support continued Internet growth, both in terms of the number of users and available functionality. It is expected to overcome other IPv4 limitations through features such as end-to-end IP Security (IPSec) support, mobile communications, Quality of Service (QoS), and other features that are designed to ease system and network management burdens.

The main advances from IPv4 to IPv6 are:

- Expanded addressing capability,
- Simplification and standardization of the packet header format,
- Auto-configuration mechanisms that allow for plug-and-play capability,
- Improved support for extensions and options,
- Security extensions for authentication and privacy; and
- Flow labeling capability.

Additionally, IPv6 includes transition and interoperability mechanisms that allow users to deploy IPv6 incrementally.

### IPv6 at the Social Security Administration

Over the course of several years, SSA has evolved its network architecture, its business processes and its organizational structures in ways that position it well to integrate IPv6. SSA delivers services, conducts business operations, and executes data exchanges with its partners over a shared IT environment. The Agency's private network (SSANet) has been migrated to a flat (i.e., non-hierarchical), Multi-Protocol Label Switching (MPLS) architecture that supports direct point-to-point communications and effective Quality of Service (QoS) and Class of Service (CoS) traffic management. SSA's organizational components and lines of business do not operate in discrete silos but rather share centrally managed IT platforms, networks, and application support services.



Most of the features and functionality that are built into IPv6 have been provided as extensions or enhancements to SSA's IPv4-based networks. However, it is recognized that IPv6 offers a number of key design improvements that may provide long-term strategic benefit to the Agency, including:

- Improved efficiency in routing and packet handling,
- Support for auto-configuration and plug-and-play capabilities,
- Support for embedded IP Security,
- Elimination of the need for Network Address Translation (NAT),
- Support for widely deployed routing protocols, and
- Network efficiency and bandwidth conservation.

SSA has long recognized that IPv6 was the emerging standard for IP. Through participation in the North American IPv6 Task Force (Nav6TF) and the MoonV6 project, SSA determined that it would be best to incorporate IPv6 into SSANet as part of the Agency's ongoing technology refresh cycles. SSA also determined that IPv6 integration should be accomplished in defined phases, beginning with the network core and, through technology refreshment, extend to the Extranet, and then throughout the rest of the network infrastructure.

The transition to IPv6 will affect a broad spectrum of SSA's IT and network infrastructure, including network routers, switches and other network infrastructure components, but also network services such as Domain Name Servers, network security and information assurance devices (e.g., firewalls). It will affect operating systems, directory services administration, and many applications and related IT services. However, the introduction of IPv6 capability will not significantly change the basic architecture of SSA's existing network (SSANet). Integrating IPv6 functionality and capability while continuing to support the Agency's legacy IPv4 infrastructure (including IPv4-based applications) will be a significant challenge.

## **IPv6 Transition Plan**

Deployment of IPv6 capable devices on the network will be undertaken not to provide for immediate, enterprise-wide use of IPv6, but rather to prepare the existing network infrastructures to support IPv6-capable nodes. Even if IPv6 is not being used, dual protocol nodes will exist, allowing network managers and engineers to transition to IPv6 traffic when required.

SSA has evaluated several transition mechanisms and found that deployment of a dual-stack IPv4/IPv6 network architecture represents several distinct advantages that cannot clearly be demonstrated by other transition mechanisms. A dual-stack network architecture is one in which network hosts, e.g., routers, switches, etc., support separate and distinct layers—one for IPv4 traffic and another for IPv6 traffic. The advantages of a dual stack architecture include:

- There is no additional overhead to manage tunnels or translation boxes,
- The ability to manage IPv6 and IPv4 traffic consistently,
- The ability to protect against potential security vulnerabilities associated with other transition mechanisms (especially tunneling, and tunnel broker mechanisms), and
- The ability to support the public, business partners, and other Government agencies utilizing either native IPv4 or native IPv6 according to their individual needs and requirements.

Establishing and maintaining a dual IP stack IPv4/IPv6 network architecture presents some technical challenges that do not override the substantial advantages of the dual-stack network architecture.

SSA's IPv6 transition strategy will integrate IPv6 capability with the Agency's existing IPv4-based networks in a structured and staged manner. Utilizing SSA's existing technology refresh plans, IPv4-based routers and switches (and their associated subnets) will be made dual-stack capable; i.e., able to support either IPv4 or IPv6 communications. Alternate transition mechanisms will not be deployed. SSA has no plans to establish a pure or "native" IPv6 network for the foreseeable future, but will establish and maintain a dual-stack IPv4/IPv6 capability throughout its network system.



# Chapter 5: IT Security Strategy

## Overview

SSA has a comprehensive integrated information systems security program which has been in effect for many years. It is far-reaching and based on sound management principals and security governance directives and guidelines. The program focuses upon security safeguards and policies and controls that are continuously evaluated and modified to effectively manage and protect the security of SSA data and IT resources. The IT security program is an integral part of the Agency's system development life cycle from initiation stage through development, testing and validation, and post-implementation testing.

SSA systems include sensitive but unclassified data comprising some of the largest electronic files in the Federal government. SSA's security program includes comprehensive measures to protect the confidentiality, integrity, and availability of Personally Identifiable Information (PII) and systems. To protect all of the Agency's data and IT assets that are critical to performing SSA's mission and to ensure compliance with Federal laws and regulations, SSA's security policies, controls and safeguards are implemented at an Agency-wide level. The Agency IT Systems Security Program includes the following elements:

- Integrating a security architecture framework with the Agency's EA and embracing the OMB Federal EA,
- Integrating security into all IT investments, and
- Evaluating and integrating new IT security standards and technology into SSA's business processes to protect data, software, and hardware from both physical and cyber security threats and vulnerabilities.

The IT Systems Security Program serves as a framework for adding new capabilities and enhancing or replacing existing capabilities.

### Security Functions and Responsibilities

SSA has implemented an extensive and comprehensive security governance infrastructure to fulfill its security responsibilities. SSA's Chief Information Security Officer (CISO) reports directly to the CIO and is responsible for establishing Agency-wide security policies and managing the reporting and monitoring processes to ensure compliance. SSA's CISO coordinates and manages SSA's information systems security programs, accomplished through a network of security professionals in various organizational components throughout the Agency. Among these components are:

- The Office of Systems Security Operations Management (OSSOM) in the Office of Financial Policy and Operations (OFPO) under the direction of the DCBFM,
- The Office of Public Service and Operations Support (OPSOS) under the direction of DCO, and

- The Office of Telecommunications and Systems Operations (OTSO), Division of Telecommunications and Security Standards (DTSS) and the Office of Enterprise Support, Architecture and Engineering (OESAE), under the direction of DCS.

Every major Agency component has individuals or staffs designated with responsibility for security. At Headquarters these individuals are known as Component Security Officers (CSOs); in the Regional Offices they are known as Center Directors for Security and Integrity. The CSOs are usually assisted by one or more access control administrators and regional staffs, and have additional security personnel responsible for other security functions such as reviewing field office compliance. The security personnel work together with management through a coordinated means to ensure that preventative, detective, and corrective controls are in place to safeguard SSA's assets Agency-wide.

## **Compliance with Security Statutory Requirements**

The Agency complies with all security related statutory requirements and directives, as follows:

- Privacy Act of 1974
- Office of Management and Budget (OMB) Circulars A-123, A-127 and A-130
- OMB Memoranda
  - OMB Memoranda M-06-15, Safeguarding Personally Identifiable Information
  - OMB Memoranda M-06-16, Protection of Sensitive Agency Information
  - OMB Memoranda M-06-19, Reporting Incidents Involving Personally Identifiable Information Incorporating the Cost for Security in Agency Information Technology Investments
  - OMB Memoranda M-06-20, FY 2006 Reporting Instructions for the Federal Information Security Management Act and Agency Privacy Management
- Clinger-Cohen Act
- E-Government Act of 2002 Title III, Federal Information Security Management Act (FISMA).
- Presidential Decision Directives (PDD)
  - PDD-67, "Enduring Constitutional Government and Continuity of Government Operations"
- Homeland Security Presidential Directives (HSPD)
  - HSPD-7, Critical Infrastructure Identification, Prioritization, and Protection
  - HSPD-12, Policy for a Common Identification Standard for Federal Employees and Contractors (Federal Information Processing Standard (FIPS) 201, "Personal Identity Verification of Federal Employees and Contractors")
- National Institute of Standards and Technology (NIST)
  - Special Publications and Federal Processing Standards

## Strategy for Current and Strategic Planning Efforts

SSA's comprehensive information systems security program that undergoes continuous evaluation and modification to ensure effective protection of SSA data and other IT resources. The following IT security strategies are part of those measures designed to protect SSA assets.

### System Development Life Cycle

SSA's System Development Life Cycle (SDLC) process applies to all applications and incorporates systems security into the software design and redesign of all major SSA systems. Security involvement begins at the initiation of an application and continues through post-implementation. Additionally, a risk assessment is required for all applications at the origination of the process and also before release to production. This is an inherent part of the SDLC.

The SDLC process ensures that security safeguards are addressed at every stage of the life cycle process. Security personnel from all SSA components involved with developing a specific system are consulted at each stage of systems development. They are offered an opportunity to provide input to incorporate security improvements before development proceeds to the next stage of the life cycle. This process ensures security functions are developed and tested along with all other system functionality. When validation testing is complete, the appropriate management completes a system release certification (SRC). The software then moves to an integration testing stage where an additional release certification is completed. Finally, it moves to a training stage, if needed, and then to production implementation.

### Secure Communications and Authentication

SSA's first line of defense in mitigating vulnerabilities and security risks to SSA networks uses access management technology including Access controls, Firewalls, encryption, VPN, SSL, and PKI which strengthens the security of SSA's systems environment.

Single sign-on and supplemental authentication devices such as Smart Cards as mandated by HSPD-12 will be integrated into SSA's business processes. This is critical because of the inter-Governmental exchange of sensitive information and data. Agency objectives include interoperability with computing platforms, possible elimination of user maintained passwords, improvements in user account management, improved authentication controls, and strengthened security for mobile users.

#### SmartCards

SSA has replaced the first generation remote access technology, Remote LAN Node, with Smart Card based VPN technology. The VPN allows remote users to securely connect to a private network via the Internet or an Internet Protocol (IP) backbone, while providing optimum security to the SSA Network. The combined technology of a digital certificate on the card and a Personal Identification Number (PIN)/Password allows authentication of the individual requesting access. SSA requires all remote access clients to use Smart Cards.

### **Personal Identification Verification**

The Agency has awarded a contract to Probaris Technologies Inc. for its enterprise Web platform to assist SSA in implementing HSPD-12. Under HSPD-12 phase II, agencies must establish a single, interoperable identity credential that individuals use for physical and logical access to government facilities. Some of the features of the new Social Security identification badge include the employee's name, photograph, organization, and expiration date. Other key elements of the new personal identification verification (PIV) cards are biometric data such as a fingerprint, digital certificates, and a cardholder verification password.

### **Certification and Accreditation Program and Systems Security Plans**

To comply with the provisions of the E-Gov Act of 2002 Title III, FISMA of 2002, the Agency has established Systems Security Plans (SSPs) for all of its Major IT systems meeting the definition of a Major Application (MA) or General Support System (GSS) and their subsystems. The systems managers are responsible for developing and maintaining their plans and ensuring they comply with the specific guidance in the National Institute of Standards and Technology (NIST) Special Publication (SP) 800-18, *"Guide for Developing Security Plans for Information Technology Systems."* The Agency requires that these SSPs be updated yearly. The SSPs provide an overview of the security requirements of the system.

SSA systems security policy includes a certification and accreditation (C&A) process based upon applicable Federal laws, policies, regulations and standards. SSA has formalized its C&A of IT major systems processes to comply with FISMA and NIST requirements as specified in SP 800-37 guidelines, *"Guide for the Security Certification and Accreditation of Federal Information Systems"*. A Risk Assessment is conducted as required every three years and the testing of the system's controls is performed as are also required under SSA's C&A process.

SSA systems developed and maintained by contractors also adhere to strict security regulations as specified by OAG. Office of System's managers are responsible for ensuring that on-site security reviews of contractor facilities are conducted.

### **SSA Systems Inventory**

FISMA (section 305(c)) amends the Paperwork Reduction Act of 1995 and requires the head of each agency to develop and maintain an inventory of major information systems operated by or under the control of the Agency. SSA maintains and updates the system inventory continuously to enhance the Agency's identification and mitigation of risk to critical operations. Agency management recognizes that without an assessment of the Agency's GSSs, MAs, and supporting minor application subsystems, it is difficult to ensure that automated information systems are operating with appropriate levels of protection.

SSA's core business processes are supported by a complex IT infrastructure that includes GSSs, MAs, and related minor application subsystems that are essential to ensuring that SSA's business processes are able to operate. SSA has installed and implemented many safeguards to protect the confidentiality, integrity, and availability of the Agency's systems and data that are critical to its mission. The systems inventory is one of the Agency's many safeguards.

## Access Controls

Computer security at SSA involves multiple processing platforms. Computer Associates TOP SECRET software controls access to all of SSA's critical and sensitive mainframe computer applications. All users accessing SSA's computing platform are subject to SSA's access control rules for users and managers of SSA's automated information resources. Each system user is required to have a personal identification number (PIN) and password for systems access. These actions are routinely audited. Individual user access is controlled further by the use of profiles and other audited methods. Most profiles are developed for a specific job position (positional profile) and contain a unique mix of transactions needed by that position for data entry and processing purposes. Systems users are granted access based on the principle of "least privilege" only after they have had their requests for access reviewed and approved by both their management and the appropriate security personnel. These access control rules and requirements provide the first line of defense to prevent unauthorized access to SSA systems and/or data by employees or outsiders.

## Audit Trail System

SSA has an audit trail for all SSA applications that process sensitive data. The use of audit trail provides a means of assurance that SSA is protecting information and processes that are critical to all Americans. The Audit Trail System (ATS) is one of the tools that staff in the regional Centers for Security and Integrity, who are the primary users of ATS, can use to monitor SSA field office data entry activities and to ensure that the integrity of SSA systems is maintained. Only authorized users are allowed access to ATS, which provides the information necessary to detect, investigate, and support prosecution of individuals suspected of fraud, waste, or abuse. The ATS is approved for use to obtain the following:

- Systems related activities of an employee suspected of systems abuse or fraud,
- Systems actions taken on a specific Social Security number,
- Systems actions taken by an office or module in support of security or integrity reviews, and
- Analysis of systems activities to identify or verify suspect systems use patterns.

## Critical Infrastructure Protection

Contingency planning and disaster recovery are processes used to minimize the impact of situations affecting the availability and reliability of computer services. These processes are consistent with PDD 67 "Enduring Constitutional Government and Continuity of Government Operations," and HSPD-7 "Critical Infrastructure Identification, Prioritization, and Protection."

SSA has developed a CIP Plan (CIPP) outlining a comprehensive Agency approach to address physical security, continuity of operations and information systems security. The CIPP outlines the milestones and time line to identify critical assets and address vulnerabilities; detect attacks and unauthorized intrusions; develop law enforcement liaisons; share attacks and warnings; create capabilities for response and recovery; train, recruit, and provide employee security awareness; and secure appropriations in support of the programs.

PDD 67 requires a continuity of operations plan (COOP), which SSA has developed to ensure that critical functions are maintained. SSA has plans in effect for systems operations critical to meeting the Agency's mission, e.g., plans exist to keep critical system functions in operation during an emergency



occurring at the National Computer Center (NCC), lasting for several hours to several days, and plans for long-term solutions. All SSA Field Offices, Teleservice Centers, and Regional Offices have individual COOP plans.

HSPD-7 establishes a national policy for Federal departments and agencies to identify and prioritize United States critical infrastructure and key resources and to protect them from terrorist attacks. This national initiative is supported by a Department of Homeland Security Critical Infrastructure Protection Coordination Committee, while the SSA effort is supported by the Agency-wide CIP Committee.

### **Intrusion Protection Measures**

The Agency's Intrusion Protection Measures consist of a combination of contracted penetration testing specialists and Agency employees whose mission is to assist in the protection of SSA's enterprise architecture by anticipating and responding to potential systems threats and vulnerabilities, and acting in an assessment and advisory capacity.

In addition to the standard Intrusion Protection Team (IPT) activities, SSA uses IBM Managed Security Services which provides SSA with real-time external Intrusion Detection Services (IDS). The IDS uses IBM's in-house National Security Administration scanning/reporting product to detect and protect SSA systems against external intrusions. Additionally, SSA contracts annually with an independent auditor to conduct penetration testing to ensure that deployed IDS controls remain effective. Additional off-the-shelf products are used to detect and protect SSANet against internal attempts to gain unauthorized access to network resources.

### **Security Monitoring and Reporting**

SSA's 24/7 security monitoring processes monitors and deals with threats to its electronic systems, assists employees with handling security incidents, and shares information concerning common vulnerabilities and threats with external entities like the Homeland Security's United States Computer Emergency Readiness Team (US-CERT). The reports are provided to the Executive Staff and provide documentation of the Agency's incident response procedures.

### **Comprehensive Integrity Review Process**

An integrity review is an end-of-line review used to detect and deter fraud by targeting fraud-prone transactions. The goal of the Comprehensive Integrity Review Process (CIRP) is to consolidate all integrity review (IR) functions from the various SSA programmatic applications into a single facility that provides one source for the users to obtain IR cases. Only authorized users such as designated field office managers, Centers for Security and Integrity personnel and designated component security officers are allowed access to CIRP. CIRP currently contains the following:

- Monthly listings of sensitive queries,
- Enumeration, SSI, and Title II transactions that meet predefined selection criteria that indicate potential fraud or abuse, including both cross-time and cross-application criteria, and criteria for both employee and beneficiary fraud,
- Listings of SSI and Title II transactions, and
- Management information on pending and completed cases.

### ***Modernized Earnings Integrity Review System***

An integrity review is an end-of-line review used to detect and deter fraud by targeting fraud-prone transactions. The Modernized Earnings Integrity Review System (MEIRS) provides oversight personnel, primarily in the field offices, program service centers, teleservice centers and the Office of Earnings Operations, with a means of ensuring the security and integrity of item correction processes. The MEIRS system interrogates the Item Correction systems for earnings transactions that contain data indicative of possible fraudulent activity. MEIRS is a function within the Earnings Item Correction application.



# Chapter 6: Privacy and Safeguarding Personally Identifiable Information

Since the enactment of the Social Security Act in 1935, one of SSA's priorities continues to be the protection of the privacy of personally identifiable information (PII) in Agency records. SSA considered privacy protection so important that the first regulation issued by the Agency was Regulation No. 1 (promulgated at 20 CFR Part 401) in 1936. The regulation details SSA's privacy policy and the permissible disclosures of PII for various purposes, and reflects SSA's commitment to maintaining the confidentiality and integrity of PII in the Agency's records. SSA's automated data processing systems contain and maintain PII on millions of persons, making the protection and management of that information a major focus of the Agency.

The Office of Public Disclosure (OPD) in the Office of the General Counsel, headed by the General Counsel, whose deputy is also the Senior Agency Official for Privacy, works with all Agency components to ensure privacy is considered in all situations involving access to, and disclosure of, PII and that necessary privacy protections are built into the infrastructure of new systems and processes developed to deliver more efficient service to Agency customers.

SSA has an ongoing program to review policies and processes, and take corrective action as appropriate to ensure there are adequate safeguards to prevent intentional or negligent misuse of, or unauthorized access to, PII. SSA has also established procedures for reporting the loss or potential loss of PII and issued instructions clarifying expectations and responsibility concerning the security of PII, including:

- Privacy/Disclosure Training,
- Disclosure Operating Instructions,
- SSA Policy on Limited Personal Use of Government Office Equipment Including Information Technology,
- Rules of Behavior for Users and Managers of SSA's Automated Resources,
- Annual Personnel Reminders,
- Awareness Document on Sanctions for Unauthorized Systems Access Violations,
- Frequently Asked Questions (FAQs) on SSA's Intranet Page,
- Safeguards to Control PII, and
- Agency Employee Reminder.

## Privacy/Disclosure Training

SSA provides job specific privacy training to its employees. Examples include:

- SSA privacy management and staff experts attend various conferences, to present training concerning SSA's disclosure and confidentiality rules.
- SSA's Office of Training offers a privacy training course to all employees via its online Intranet Web page.
- OPD hosts a biennial conference, most recently in 2006, for regional Privacy Act Coordinators and other officials with significant involvement in privacy policy implementation. The conference focuses on privacy and confidentiality policy subjects and issues.
- SSA has provided guidance to contractors on the definition of PII and of their obligation to safeguard PII. The rules have been provided to all SSA contractors and are incorporated into all Agency contracts.

## Disclosure Operating Instructions

OPD has prepared and issued comprehensive disclosure policy instructions that are published in SSA's Program Operations Manual System (POMS). The POMS is available to all employees Agency-wide. The instructions are designed to ensure that employees are aware of the purposes for which they are authorized to access and disclose PII.

## Limited Personal Use of Government Office Equipment

SSA has published a document, available to employees on SSA's Intranet and as a paper document, that includes Definitions, Specific Provisions on Use of Equipment and Services, Inappropriate Personal Uses, Proper Representation, Access Management, Privacy Expectations, and Sanctions for Misuse. Under inappropriate uses, the document states that employees may not acquire, use, reproduce, transmit, or distribute any controlled information including computer software and data, and information protected under the Privacy Act.

## Rules of Behavior

SSA has developed and published *Rules of Behavior for Users and Managers of SSA's Automated Resources*, informing users what is expected of them and how to conduct themselves while using SSA's automated systems.

## Annual Personnel Reminders

Each year, SSA issues to all employees a document entitled [\*Annual Personnel Reminders\*](#), reminding them of the rules that apply to their circulating records; retaining and disposing of records; using or accessing SSA records or data bases; penalties for unauthorized systems access violations; using records

subject to the *Privacy Act*; penalties for *Privacy Act violations*; damaging, destroying or removing records; using *official information*; and using/accessing *SSA online services*.

## Awareness Documents on Sanctions

SSA has published personnel policies that describe sanctions for unauthorized systems access violations and non compliance. Annually, employees are required to sign a document that advises them of the administrative sanctions for systems security violations.

## Frequently Asked Questions

SSA has posted FAQs on safeguarding PII that are easily available at all times to all employees when logging on to the Agency's Intranet. The FAQs provide employees with detailed information on safeguarding PII, such as what to do if they believe such information has been lost or stolen, and what can happen if they fail to keep the information safe.

## Safeguards to Control PII

SSA employs administrative, technical, and physical measures to control PII. The following measures have been determined adequate to prevent intentional or negligent misuse of or unauthorized access to PII:

- SSA has provided guidance on the definition of PII and developed the rules that apply to the removal of PII from SSA premises or control. The rules have been provided to all SSA employees via FAQs posted on SSA's Intranet Web page.
- SSA has established and distributed Agency-wide policy and procedures for employees and managers for reporting the loss or suspected loss of PII.
- SSA has a required system development lifecycle that tests security and privacy controls throughout the system lifecycle for systems maintaining PII.
- SSA has Systems Controls that include access control administration using a commercial off-the-shelf tool that restricts access to information covered by stated privacy policies and practices.
- SSA has a targeted review process that continuously monitors SSA employees' access to and use of PII within specific SSA systems.
- SSA uses audit trail logs to track and evaluate access and data entry activities to sensitive applications that contain PII. The logs provide expanded forensic capabilities to safeguard PII.
- SSA employs ongoing On-site Control and Audit Reviews that address other management controls outside of technical system-based management controls.
- SSA and independent auditors employed by the Agency perform annual security and financial audits and assessments that determine SSA's level of compliance with existing laws, regulations, and policy.

- SSA conducts Annual Security Self-Assessments as required by FISMA.

## **Agency Employee Reminder**

As required by M-06-15, an employee message has been released Agency-wide to remind employees of their specific responsibilities for safeguarding PII, the rules for acquiring and using such information, and the penalties for violating those rules.

# Chapter 7: Process Management

## Systems Development Management

Advancing technology solutions require that multiple systems management disciplines for developing application software be available to SSA practitioners. In response to a need for improvement in the systems development process, SSA is putting a strategy in place that will update some of the disciplines already in practice, and introduce new disciplines.

### Software Process Improvement Using the Capability Maturity Model

Systems process improvement using the Capability Maturity Model (CMM) is a good example. SSA's SPI program is following the approach recommended by the Software Engineering Institute (SEI) at Carnegie Mellon University, the developers of the Capability Maturity Model for Software. This effort is establishing a repository of best practices for all software development projects to follow. The processes include measurements to improve the ability to predict time frames and staffing needs on projects.

An evaluation of selected high priority projects conducted in 2001 by the SEI resulted in the achievement of maturity level 2 of the software CMM. This achievement positioned the organization to move toward the goal of reaching the quantifiable benefits of higher maturity levels.

As SSA began the move toward the Internet as a new and important service delivery channel for the public, DCS realized they needed to develop and employ the most disciplined methods in this area of new technology. This need became the focus of the push to Maturity Level 3. A Software Capability Evaluation (SCE) of DCS organizational processes was conducted by the SEI from January 24, 2005 through February 4, 2005. The findings of the SCE rated the organization at Level 3 of CMM. A CMM Level 3 rating is rare in civilian Federal agencies. There are a number of other ongoing activities that embrace innovative methods and guidelines for developing, testing and managing software development projects.

### Earned Value Management

For a description of EVM, refer to [Chapter 3: IT Performance/ Investments](#).

### Process Assets Library

The Project Resource Guide (PRIDE) is a Web-based resource that is intended to be a virtual Project Office. It provides the capability of housing the organization's process assets in a library and delivering specific instruction, guidance and data to SSA management. This information is available to document, plan, monitor, and manage an organization's processes and software development projects.

### Project and Integration Management

Policies, standards, and procedures are used to insure efficient management, control and integration of SSA's IT projects. The primary objectives of these procedures are to:



- Provide management information for oversight and decision making,
- Maximize the efficient use of scarce resources, and
- Ensure the use of uniform, proven practices to achieve project objectives.

## **Quality Control and Quality Assurance**

Quality control (QC) and quality assurance (QA) are essential elements of SSA's comprehensive systems engineering environment. Product developers and line management use QC practices, including Peer Reviews and structured walk-throughs, to ensure that products are reliable, maintainable, efficient, and meet user needs. The SPI Team has developed a QA process to ensure that the development process is subject to continuous improvement. The process includes procedures for planning QA activities, conducting them and tracking non-compliance items to resolution. QA activities are incorporated into the project's Software Development Plan and related Microsoft Project schedule. The QA process has been implemented as part of the process rollout on software development projects.

## **Systems Validation and Verification**

### ***Systems Validation***

Systems-level functional and acceptance testing activities of core programmatic, related management information and administrative software releases are performed using the Interactive Validation Environment (IVEN) which is housed in the Enterprise Software Engineering Facility (ESEF). The environment is comprised of various automated processes that facilitate data selection for the development of test cases and the management and execution of test runs of target software releases. The environment enables SSA to satisfy application development and change control critical elements as defined by Government Accountability Office (GAO) and the Software CMM and uses the Institute of Electrical and Electronics Engineers' Technical Independence Model for Testing Activity IV and V. SW-CMM requirements for test coverage are satisfied by the institutionalization of automated test coverage tools and practices. The environment provides for independent preparation of test data and independent test procedures as required by external monitoring authorities and the Capability Maturity Model. The environment supports systems testing for mainframe batch, Customer Interface Control System (CICS), client/server, and browser-based applications. An integrated validation database provides a test bed of master and transaction files and a collection of specialized test data generation and test data alteration tools. The environment also provides capabilities to conduct usability testing.

The validation environment provides many capabilities including those to:

- Evaluate and enable compliance with accessibility standards for CICS screens,
- Streamline disaster recovery testing of CICS applications,
- Share test data across the life cycle,
- Routinely share test data with SSA's CICS training environment, and
- Create test data for SSA's exchange partners including the state DDSs acceptance testing of the eDib rollout and the Treasury Department.

## **Systems Verification**

Checkpoints in the project life cycle have been established to ensure that software development items managed under change control are produced. A Systems Release Certification process verifies that all required project activities have been completed at appropriate project life cycle stages before any software change can be implemented. Software test life cycle products undergo verification using accepted IT industry methods including inspections and walkthroughs.

## **Web Testing and Validation**

The testing and validation of Web applications are complex and challenging tasks because SSA's Web-based applications operate in dynamic environments. Unit testing of Web-based applications is conducted to ensure that basic components of the application (Java Server Pages, classes, servlets, etc.) operate as designed and are error free. Automated tools are employed to assist with the unit testing of object-oriented components that are both independent and integrated. Validation for Web-based applications is the testing done to ensure that the application performs as defined in the system requirements. The dynamism of the Web environment introduces variables into the validation such as a myriad of browsers and browser settings that increases the level of effort required to conduct a thorough validation. Risk-based test planning techniques and the use of automated test tools are used to conduct efficient, effective validations. Risk-based test planning provides a focus on the most critical of tests and provides a plan for executing all required tests. Test management and test automation tools complement the manual testing process and result in an increase in test coverage because they facilitate the productivity of the test engineers/validators. Test management tools are used to integrate requirements management with test planning, test scheduling, test execution, defect tracking and test analysis. Test automation tools expedite the test execution process and provide a more thorough regression test of the application components that are not being changed.

SSA Web testing and validation strategies are reflective of industry best-practices that are continuously evolving as the technology evolves and they also incorporate GAO and CMM requirements for Testing Activity IV & V.

## **Systems Life Cycle Management**

The management of the systems life cycle at SSA is currently being embodied through three life cycle models:

- The IPLC was developed and documented through the efforts of a technical work group composed of representatives from Systems, customer and policy components. The Agency adopted a policy directing that the IPLC be followed by all Internet projects.
- A flexible Standard Project Life Cycle is geared toward non-Internet efforts of longer duration and more complicated functionality. One of the techniques that this life cycle uses is an iterative systems development approach. In this case, there is a much closer relationship between the requirements definition and analysis and the design; the iterative process can help to streamline the life cycle.
- The Collaboration Life Cycle was also developed and documented through the efforts of an inter-component technical workgroup. Although all of the life cycles advocate collaboration

during business analysis and requirements development, this life cycle expands that concept throughout the development and testing activities on projects in which DCS and non-DCS of Systems personnel are jointly developing code to be included with a release of an application. The Collaboration life cycle is intended to focus on communication required between development teams. It is also designed to reduce the project management activities that are required by non-DCS developers, while ensuring that proper policies and procedures are followed and the project is properly tracked and managed.

These three methodologies constitute somewhat of a departure from the way SSA has designed and developed systems in the past, but build on the best practices of a highly qualified Systems staff. They embrace an interactive team approach to systems development using small integrated teams of people to develop requirements and code. All three are published and available through PRIDE.

SSA continues to gain experience with its software development efforts and refines its processes and life cycle methodology accordingly. The effort being conducted by the SPI Team will result in new or revised processes that are in sync with the guidelines established by the SEI.

## **Data Administration**

SSA's current data administration processes and procedures are geared to support systems development and maintenance in a central file environment. The scope of Data Administration encompasses both the service delivery and the administrative systems for the Agency. Disciplines include data modeling, information modeling, entity relationship attribute modeling, and repository-style databases.

### ***Data Administration Functions***

The DRM, one of five FEA reference models, will play a significant role in SSA's Data Administration (DA) processes by providing guidance for implementing repeatable processes for creating, describing, storing, managing, and using data towards the goal of data sharing.

SSA's DA processes employ consistent approaches to provide better visibility and accessibility to data and data artifacts, to encourage better information sharing, to facilitate the use of common data entities when there is a shared business need within and across projects, and to increase the relevance and reuse of data and data artifacts using standardized categorization.

As mentioned previously, DA processes provide support for both the service delivery and administrative systems of SSA. There are currently two environments in which this is done. The first environment supports the maintenance of legacy systems and the transformation of logical data attributes into implemented data elements. It is characterized by multiple systems that use and modify data. Data structure definition is managed by standard file descriptions, standard specifications that explain the data elements found in the files, and standard data names. The second environment is a global environment created to foster data structures as the source of database design, which in turn is the basis for software systems design. This environment includes:

- Developing an SSA Enterprise Model (EM), which is a logical entity-relationship diagram based solely on SSA's business needs,
- Defining each attribute within each entity of the EM, and

- Using the EM as the source for each DA Project Model (DAPM) created, where each DAPM is a sub-view of the EM.

The Data Administrator manages data on an enterprise-wide level through the above mentioned EM. This is a model of the information required to support SSA's business functions without regard to application, platform, or man/machine boundary. SSA's EM reflects the agency's business objects, information about those objects, and relationships among those objects that SSA needs in order to conduct its business. The Data Administrator also establishes standards for naming entities, attributes, and relationships; the definition of data integrity rules; the development of users' views of the EM; and the support of the database administrators and application analysts.

### **Data Stewardship**

Data Stewardship is an integral part of DA processes and supplements data architecture efforts by ensuring data quality maintenance, thereby providing optimal support for critical business processes. Non-systems components are the owners of the values taken by the data attributes, but data stewardship actions require the values meet established standards. The DA creates and describes the data based on the independent analysis of the non-systems component's needs and by interviewing those with the need for the data. The DA works with these components to identify data quality issues, determine approaches to resolve these issues, and implement the measures required to ensure that data integrity is not compromised. While the business owners are stewards of the data within the files and databases, the DA is steward of the metadata that governs the allowable content.

### **Architecture Review Board**

The ARB is the guiding and governance body that ensures the effectiveness of SSA's EA. Refer to [Chapter 4: SSA Enterprise Architecture](#) for a description of the ARB's roles and responsibilities within the EA lifecycle.

### **Usability**

SSA's Usability Center (UC) provides user-centered design and evaluation support service to project teams throughout the Agency. These services include, but are not limited to, documenting user requirements, testing usability and evaluating interface standards. SSA Internet standards have been developed jointly by SSA components and approved for use. UC personnel work with the Agency's software development teams to ensure that a user interface is easy to use, intuitive, and enhances productivity.

### **Section 508 Compliance**

Section 508 of the Rehabilitation Act of 1973, as Amended in 1998, requires that when Federal agencies develop, procure, maintain, or use electronic and information technology, they must ensure that it is accessible to individuals with disabilities, unless it would pose an undue burden. Federal employees and members of the public who have disabilities must have access to and use of information and services that is comparable to the access and use available to non-disabled Federal employees and members of the public.

The Section 508 staff in DCS works with all components in the agency to assist in the development of procurement requirements for purchasing EIT that is accessible to individuals with disabilities. They manage an intranet-based Procurement Wizard to track all EIT procurements, and assist in determining if the EIT is Section 508 compliant or meets an exception that is allowable by law. The staff also tests, evaluates and documents products being considered for procurement for compliance with Section 508. The staff also manages an intranet-based Testing Wizard to track testing and evaluations of all of the applications that are developed in-house by DCS. The staff works along with project teams and developers to provide consultation, support, and assistance in developing Section 508 compliant and accessible applications.

## **Configuration Management**

Once a life cycle product is developed, reviewed, and approved it is subject to configuration management control. In order to emphasize the importance of management oversight of systems change, three levels of Configuration Control Boards (CCB) exist. The higher-level board is chaired by DCS, with the ACs serving as members. This board is referred to as the Management Steering Committee with oversight and decision authority over all DCS improvement efforts and disputes between components. Subordinate CCBs exist in each of the principal Systems components. These CCBs are chaired by the AC of the component, with high-level managers serving as members. CCBs also exist at the project level with the authority to approve changes of a minor nature that do not affect commitments to the customers. Efforts are underway to ensure that the CM processes are compliant with the CMM by developing CM standards based on industry best practices.

## **Data and Application Renovation**

SSA periodically assesses the viability of its legacy data and application software environments. Renovation is becoming a part of a systematic routine. Vulnerability assessments are conducted as needed, identifying and inventorying key areas of investigation that result in the development of renovation plans and activities.

## **Technology Innovation**

Historically, SSA has taken a pragmatic and conservative approach to technology innovation. The Agency has relied on mainstream market offerings that typically are also used in other government or commercial sectors, rather than undertaking solutions considered to be leading edge or early market offerings. However, due to advancements in technology and the positive impact on the public, SSA has become a visionary to meet future challenges. SSA continuously drives the mainstream marketplace to expand its product sets. Demographic trends, such as growing workloads, the retirement wave, and a changing workforce, drive a commitment to new levels of technology and early market adoption, in appropriate cases. The expansion of SSA's visionary and early adoption strategy will be closely managed in light of SSA's longstanding resolve to deliver reliable, secure, and scaleable IT services.

The Technology Infusion Board was renamed the Technology Innovation Board (TIB) in FY 2005. The new name more accurately defines SSA's intent to focus on innovation activities. The TIB continues to develop and enhance the implementation of the Technology Infusion Process. The TIB, representing SSA's business, OCIO and Systems organizations, determines priorities of research and applied

technology initiatives, presents these to the ITAB, and manages the execution of the recommended areas of focus. The TIB also disseminates information regarding technology efforts underway at SSA or the results from completed projects. The TIB makes recommendation regarding the next steps for innovation initiatives, identifying prototype expansion as well as additional research development. The TIB works closely with the ARB and the ITAB to adopt and implement successful initiatives beyond the prototype stage.

## Information Dissemination

Since its inception in 1994, Social Security Online was intended to provide all the information the public wants and needs on the Web. To this end, SSA works collaboratively on the scheduling and publication of new content on the Web (e.g. if a Social Security component has content of interest to the public, but does not have the technical resources to develop the content, other components can provide the necessary resources). As a result, SSA has developed Web content, which includes over 20,000 documents, along with the richest collection of historical documents in the Government.

Depending on the universality and urgency of the information to be provided, the OCOMM informs the public via the Internet, but also through other means, such as Press Releases, paper publications, Public Service Announcements, newspaper articles, and face-to-face meetings, briefings and seminars with employers, organizations, local citizens, and so forth.

SSA applies formal information models to give citizens consistent access to data and information being exchanged between systems. SSA's model includes definitions of the "entities" (concepts and facts) defined in or managed by the system, and relationships or mappings between those entities and the operations/business rules applicable to those entities. Tools utilized in the information model include taxonomies for content, conceptual and logical data models, metadata element sets, XML schemas, and topic maps to cost-effectively enhance information dissemination.

In FY 2003, OCOMM acquired a new and robust search engine that can be utilized across agencies. SSA now provides the public with meaningful results in less than one-tenth (0.1) of a second. As a result, the public's level of satisfaction with search on *Social Security Online* has improved measurably.

OCOMM has also developed a Web Content Inventory, which describes the priorities attached to and publication schedules for all the information on the Web site. All other non-Internet vehicles are published on established timetables.

OCOMM ensures semi-annual updates to organizational databases to provide timely and accurate information to update message products, which include talking points, radio scripts, publications for third party advocates, publications for the general public, CD/DVD, PowerPoint® and transparencies, flyers, letters for third parties, Internet and intranet sites, and other displays used for nationwide marketing.

Publications are distributed using the following Federal Citizen Information Center (FCIC) resources:

- Consumer Information Catalog,
- Spanish Bulk Distribution Project,
- Asian Bulk Distribution Project, and

- Financial Literacy & Education Commission—My Money Toolkit.

Products developed as avenues for dissemination of information to the public and internal employees include: OASIS articles, News Bytes, Main Street videos, global e-mail, printed materials, Web page summary, and/or other communications venues as determined.

Before publication, all information on SSA's Web site is reviewed for accessibility to people with disabilities. SSA's goal is that the presentation of all information on the Web site will be tested for usability by the general public. To ensure that the Web content is current and accurate, the Social Security E-Gov Council directed a workgroup to develop policies and procedures governing Web content.

To maximize the quality, objectivity, utility, and integrity of disseminated information to the public, OCOMM has established procedures so the public can review the Web Content Inventory and comment at any time. SSA also employs other communication systems for evaluation such as: feedback from callers to the 800#, visitors to Field Offices, letters to the Office of Public Inquiries, and e-mails from the public to the Webmaster mailbox.

Based on a review of the information provided, the Agency:

- Determines if a correction is warranted, and, if so, what action to take. The nature, influence, and time lines of the information involved, the significance of the correction on the use of the information, and the magnitude of the correction will determine the level of review and any corrective action.
- Responds to the commenter by letter, e-mail, or fax, to explain the findings of the review and the actions SSA will take.
- Responds to the request for correction of information within sixty calendar days of receipt.

SSA also utilizes metrics to evaluate the effectiveness of its information dissemination program. For several years, the Agency has used the following mechanisms and feedback channels:

- The American Customer Satisfaction Index (ACSI) Web Site Survey,
- Quality Assurance Surveys conducted by its Office of Quality Performance (OQP),
- Focus groups and online chats,
- Comments from our Regional Communications Directors and local Public Affairs Specialists,
- Census Data,
- Internet Usability Work Group,
- Public Insight Process Workgroup, and
- New tracking reports created for electronic services.

Other tools used for program specific evaluation of information dissemination:

- Reports showing influx of scannable Applications,
- Reports showing usage of Internet Applications, and
- The number of requests for printed publications from the supply warehouse and increased number of hits on the Internet publications page.

SSA also periodically surveys organizational contacts regarding the information they receive from us, as to its time lines, relevance and importance to their organizational mission.

## Records Management

SSA was among the first government agencies to formally address the retention of electronic records. The Agency's first media neutral schedule was published and implemented in 2003. This schedule provided for the retention and destruction of claims file records regardless of media (paper, electronic, tapes, etc.) in accordance with SSA's commitment and goal to move towards paperless processes. This schedule and the Medicare schedule were revised in 2005 to incorporate additional records management criteria necessary for SSA's mission of safeguarding all official records.

SSA formally entered the electronic-only records environment with the inception of eDib and signature proxy that presented a host of challenges, including handling the hybrid claims folder. A hybrid claims file recognizes and defines a claims folder that exists in both paper and electronic format. The destruction of both parts must be coordinated to prevent the untimely destruction of electronic artifacts.

SSA is developing the Claims File Records Management System (CFRMS) to access and manage electronic files and to control the deletion of both paper and electronic claims files. CFRMS will provide the user a means of accessing all artifacts or documents contained in the electronic folder, regardless of which repository contains the artifact.

While CFRMS will manage the deletion of electronic claims created after June 2004 and their paper counterparts, one of SSA's most compelling records management challenges will be the programming necessary to ensure that all existing systems are National Archives and Records Administration (NARA) compliant. SSA must also ensure that as new systems are created, the development necessary to perform records management in accordance with NARA regulations is addressed in the initial planning stages to meet NARA's established compliance time line of one year following the release of a new system.

In December 2005, NARA mandated that all Federal agencies must have NARA-approved records schedules for all records in existing electronic information systems by September 30, 2009. Existing electronic information systems are those that are in steady-state operation or mixed life-cycle stage as of December 17, 2005, and electronic records in legacy systems that were not scheduled before decommissioning of the system. OMB Circular A-11 defines both steady state (operational) and mixed life-cycle stage.

In an effort to meet this mandate, the Records Management Team has been conducting training sessions for headquarter components so they may begin identifying and scheduling any unscheduled electronic records. In collaboration with Systems, training sessions have been conducted for Systems personnel consisting of Records Management information in conjunction with information about the Claims File Records Management System (CFRMS). Additionally, a workgroup made up of representatives from each of the major stakeholders has been formed to determine a strategy as to how SSA can best meet this goal.



Another Agency initiative underway is the Assignment and Correspondence Tracking (ACT) system, which replaced the Commissioner's Correspondence Control System. ACT is an administrative work process control and management information system, which is being implemented Agency-wide. It will track not only incoming correspondence and other Agency critical assignments from the Commissioner and the Executive Staff but will also be used within the various SSA components to assign, process, and monitor other internal SSA administrative workloads and to respond to work requests generated externally by other governmental entities. ACT controls, tracks, and maintains a data base and document repository of these administrative work requests. The ACT system will contain software that meets NARA specifications for electronic record keeping and will facilitate both electronic and paper documents that may be scanned and stored in electronic format. ACT will effectively control, track, and delete these records while adhering to NARA regulations.

Historically, NARA has accepted electronic records in primarily three formats: magnetic tape, compact disk, and CD-ROM. NARA is now working on Electronic Records Management (ERM), and Expanded Electronic Government initiative. This initiative is intended to promote effective management and easy access to Federal agency information. This project will provide Federal agencies uniform guidance in managing their electronic records and enable agencies to transfer electronic records to NARA.

NARA's definition of ERM is "using automated techniques to manage records regardless of format." For this initiative, ERM is defined to include functionality supporting record collection, organization, categorization, storage, metadata capture, physical record tracking, retrieval, use, and disposition.

SSA supports ERM as a means of planning for and transitioning to the future that will include the transmission of electronic media to NARA for storage. Guidance will be more critical than ever since this will be a new process and SSA will not be able to rely on past performance and/or knowledge. Structural support to ensure universal uniformity will be beneficial to not only SSA, but to all government agencies and should result in significant savings.

With the expansion of and total reliance on electronic records, it is critical that SSA effectively create, manage and legally dispose of and/or permanently retain electronic records. In sustaining the public trust inherent to the programs SSA administers, SSA is committed to managing its electronic records in a manner that preserves the integrity of the record and facilitates electronic access to the record now and in the future.

# Chapter 8: Data Center Management

## National Computer Center

SSA's NCC is one of the largest computer facilities among civilian Federal agencies. The NCC provides the multiplatform systems operations support for the Agency's IT hardware, applications and networks (including telecommunications). The NCC staff ensures that new services are implemented, operated, maintained and supported. Within the NCC, SSA maintains six mainframes, four processing architectures (Internet, intranet, Client-Server and Mainframe), and multiple servers across five different major operating systems. Mainframe data storage capacity is approximately 191 terabytes, with an additional 132 terabytes to support client/server processing. In addition, the NCC supports and maintains the Agency's telecommunications system supporting the toll-free, national 800 number, direct access, internal access and public networks.

NCC staff provide on-site 24/7 production support for the Agency's IT systems, including nightly "batch" maintenance of files, report generation and distribution, backup of critical data, and first-level help desk support, and monitoring and diagnostic evaluation of the Agency's mainframe and network systems.

The NCC's data center environments are constantly evolving as new technology is introduced and as new solutions are implemented. From legacy systems to Internet, intranet and managed applications, the NCC provides SSA a scaleable and secure IT environment. SSA structures the management of its data center operations around four key concepts: Availability, Stability, Changeability, and Securability.

### Availability

Availability means access and performance. Access must be provided to both the SSA community (including the state Disability Determination Services) and the public. SSA employee users must have access to the Agency's IT infrastructure services while office and telephone access is provided.

Non-employee access (e.g. data exchange partners and the public) is required at times approaching 24 hours per day, seven days per week.

Performance is the system's ability to process workloads on a timely basis. SSA utilizes Service Level Agreements, with frequent end user transaction response time as part of its Information Technology Service Management (ITSM) strategy. Measurements of infrastructure utilization (e.g. CPU utilization and network traffic volumes) are also key indicators of how the automated systems are performing. These performance measurements are monitored around the clock and reported on a daily basis. Trends and abnormalities are analyzed to support proactive planning and so that action can be taken to maintain expected levels of systems performance. (Refer to [Performance and Service Level Management](#))

### Stability

Stability is the high availability of SSA's systems overall, without patterns of even brief periods of outage. An outage may be a loss of access or a decrease in performance that renders the service virtually

unusable from the user perspective. Any interruption causes losses in productivity time much greater than the duration of the outage. When a member of the public is affected (e.g. prolonged interview, incomplete 800 number contact), opinions of SSA services are negatively influenced.

## Changeability

Changeability represents the degree to which the Agency's IT infrastructure can be maintained and refreshed. Changeability reflects the proactive management of the Agency's IT infrastructure to preserve its availability and enhance its stability.

IT Hardware must be replaced on a regular basis and software must be updated consistently in order for the Agency to conduct its business efficiently and effectively. SSA's capacity management activities ensure that current and future IT capacity and performance aspects of SSA's business requirements are provided cost effectively. (Refer to [Capacity Management](#)) Concurrently, SSA's applications management activities manage the complex processes of implementing software applications from the initial identification of business needs, through the development life cycle, to testing, validation, implementation, maintenance, and retirement.

## Securability

Securability is that aspect of IT management that focuses on protecting the Agency's data, information, and IT and telecommunications systems. To protect data and information, IT managers must ensure that least privilege access policies are applied and enforced and that a balance is maintained between the Agency's business process needs and its mandate to preserve the integrity and privacy of the data and information it holds.

## Performance and Service Level Management

During the later stages of application development, application performance analysis load tests are conducted to determine the capacity of the application system to sustain the stress of production workloads. The *Risk Assessment Report* is updated based on the results of the load tests.

Periodically, performance analysts conduct analysis of planned enhancements to the Agency's production architecture. These tests typically require the development of lab configurations that resemble the planned changes to the architecture and the development of tests which will allow for the analysis of impacts to current and future workloads. These tests are also helpful in determining the impact on overall processing which may result from the implementation of new operating systems or how operating systems are implemented.

Well-performing automated systems are required to accomplish timely processing of SSA's programmatic and administrative workloads. SSA's Performance and Service Level Management processes objectively monitor the critical infrastructure and workload performance of these automated systems, including SSA's server and desktop infrastructure, the local area networks (LANs), the telecommunications network which links all SSA sites and connects SSA to the public, and the mainframe infrastructure hosting SSA's mission critical applications and resources. Performance management processes have been established for the Electronic Messaging Infrastructure and the Internet infrastructure supporting the Agency's public website (<http://www.socialsecurity.gov>).

Availability and stability are priority elements of Performance and Service Level Management:

- SSA's **Performance Management System** provides management and technical staff with the reports, tools and techniques needed to determine if performance objectives are being met. The objectives are based on current operational objectives, applicable contract provisions, established service level agreements, and current industry standards for system performance.
- **Service Level Agreements** exist for the Agency's major workloads and are established for significant new system workloads. In addition, a generic Service Level Agreement of common services exists for all major workloads. Development of these agreements begins during the operations planning stage and is well underway prior to the implementation of the new system. They are finalized after production implementation. This permits actual user behavior, application tuning and *in situ* factors to be better reflected in the Service Level Agreements.

Routinely using information produced by systems operations, analysts assess the extent to which the agreements are met. When departures from the standards occur, management notifies the program component and acts to restore the service level. In the future, management will emphasize developing more highly automated and integrated monitoring and reporting mechanisms.

The Performance and Service Level Management System is being expanded to provide for online exception reporting to monitor and evaluate availability and performance of applications against Service Level Objective thresholds. It will provide identification and resolution of problems through the use of early warning exception reporting and through automated interfaces with the existing change management and problem management systems.

Service Levels are developed using the following methodology. For an application, key business functions and volumes are extracted from such application documents as the Business Process Plan and the Cost Benefit Analysis. Computer systems architecture designs and computer systems process flow diagrams provide information to the initial workload estimates in a "paper model," or Load Intensity Table (LIT). LITs provide input to network and application simulation models, and the models project estimated response times. LITs also provide input to application performance test designs and application load/stress tests.

Network and application models provide estimates of application response times. Application software must be developed before application performance tests and application load/stress tests can be conducted. Results from application performance tests and load tests provide tuning and design recommendations for the application while it is still in development. When the application software is deployed in pilots and production, the computer resources are monitored and response time measurements are made.

Production availability monitoring occurs during pilot and production deployments. Service Level Metrics are a combination of estimated and measured response times from the above sources and Initial Service Level Objectives.

Service Level Objectives are updated from Service Level Metrics at each project phase. Service Level Objectives provide initial and semi-annual updates to Service Level Agreements.

## Capacity Management

Capacity planning and management is an integral part of the overall IT planning process. It allows the Agency to identify the point at which existing IT resources can no longer support its workload requirements, and when they need to be replaced, refreshed, supplemented or upgraded. Capacity management is concerned with the monitoring of Agency IT resources to insure that the Office of System's operational computer systems and network capacity is utilized effectively and efficiently, and that performance objectives are being met. All critical components are regularly monitored and application systems are routinely evaluated to ensure their performance is within expectations and service objectives are met.

The Agency uses sophisticated analytical techniques (including usage analysis of computing capacity, main memory, auxiliary storage devices, network capacity, and printing) to collect and analyze IT resource utilization data for individual workloads. Each workload is reviewed periodically to determine its future requirement.

Changes in requirements are based on changes in the functionality of the software, changes in the number of users of the software, and on actuarial data regarding the frequency of the software use. New workloads and workloads under development are estimated based on a comparison of relative functionality to existing workloads, and the rate at which the workloads can be processed by the new technology.

Capacity management for server platforms focuses on the measuring server utilization wherever located within the Agency IT infrastructure. Individual requirements are established for each server based on the function that server performs and the volume of transactions which pass through that server. Production utilization data is combined with future workload growth projections in performance modeling software for mainframe, Windows, UNIX, and iSeries AS/400 operating systems applications to predict hardware capacity upgrade requirements.

## Network Customer Service Center

The Network Customer Service Center (NCSC) is a centralized, consolidated call center located in the NCC. NCSC staff provides problem reporting and resolution services to a wide variety of SSA network customers for numerous LAN/Wide Area Network (WAN) devices, system platforms, Commercial Off-The-Shelf software, SSA specialized applications, and Assistive Technologies for Employees with Disabilities (EWD). The responsibilities of the NCSC staff are:

- Accept all types of initial trouble reports,
- Diagnose and resolve LAN/WAN problems on the initial call (as necessary, help desk engineers consult with more experienced staff in an effort to resolve problems on the initial call),
- Record, report, and document problem calls,

- Provide close management of the Call/Problem handling and support process, and
- Perform both real-time voice and electronic emergency notifications.

## National Network Service Center

The National Network Service Center (NNSC), also located in the NCC, serves as the SSA network monitoring and network operations component. The NNSC houses a variety of automated and manual monitoring systems providing proactive surveillance and exception alerts on SSA enterprise-wide systems, including Microsoft Windows infrastructure servers, inter/intranet servers, critical application servers, and wide area network communications equipment. The NNSC is a 24/7 operation that serves as a backup to the NCSC and is capable of performing many NCSC functions.

Other services provided by the NCSC are:

- Monitoring support for the mainframe production environment,
- Providing specialized monitoring support for projects and pilot applications,
- Providing second level support to SSA network customers for mainframe applications and issues involving CICS transactions, mainframe print traffic, and 3270 session connectivity,
- Problem report intake, documentation, resolution, and escalation,
- Disseminating widespread outage and national scope, production degradation notifications,
- Maintaining critical equipment at the Remote Operation Communications Centers (ROCCs) such as core router and switch equipment for backbone communications to the ROCCs,
- Maintaining SSANET communications circuits that service end-sites,
- Maintaining end-site WAN communication devices and LAN equipment,
- Performing first and second level LAN/WAN problem determination and resolution steps, and
- Interacting with the onsite Verizon and AT&T Network Operations Center to identify, report, diagnose, and resolve network communication issues.

## Business Recovery

### Business Continuity and Contingency

An Agency workgroup conducted a business impact analysis, which involved the review and confirmation of critical workloads and priorities. The business impact analysis included a review of the current *Agency Contingency (Disaster Recovery) Plan*, and the ASP, the *Information Technology Architecture Plan* and the *Government-wide Study on Infrastructure*. This last item is included to ensure the Agency has considered and included Government-wide considerations in its plans.

### Information Technology Operations Assurance

The Agency's Information Technology Operations Assurance (ITOA) activities ensure SSA is able to quickly restore the NCC computing environment in the event of a natural or man-made disaster. This project supports SSA's mission by providing the computing resources needed to continue issuing checks,

taking claims and supporting all the other services SSA provides no matter what may befall SSA's computing environment. SSA continually reviews, updates and improves its backup and recovery procedures.

- SSA maintains and updates the Disaster Recovery Plan for Computer Operations at the National Computer Center, which provides a high-level overview of the Agency's Disaster Recovery Plan for the Agency. This document does not contain sensitive information and is available for public distribution.
- SSA maintains an updated version of Technical Procedures for the Off-site Restoration of SSA's Computer Operations. This document contains sensitive information and its distribution is limited. Copies of this document are also stored at the Off-site Secure Storage Facility and the commercial off-site recovery facility.
- Offices of Systems' components regularly review and update the Technical Procedures to meet current operating requirements.
- SSA maintains and updates the Emergency Response Plan for the National Computer Center. This document details procedures for the invocation of the Agency's emergency response. It contains sensitive information and is distributed on a limited basis.
- SSA maintains an Inter-Agency Agreement (IAA) with the General Services Administration (GSA) for Disaster Recovery facilities and services. This IAA provides sufficient computing resources to allow for the ultimate restoration of all SSA services should any type of event prevent the SSA from using the NCC.
- SSA identified critical workloads for immediate restoration in the event of a recovery event. SSA identified secondary, or deferred, workloads for phase two restoration.
- SSA continues to identify and provide new hardware to support restoration of SSA's continually evolving computing infrastructure.
- SSA conducts annual recovery exercises at commercial off-site recovery facilities to insure the Agency's ability to restore its critical systems and improve the Agency's technical procedures for restoration.
- SSA conducts annual exercises with the DDS's to ensure the Agency's ability to restore the DDS's critical systems, and so forth.
- Equipment and facilities are in place to provide telecommunications between SSA offices and the recovery facilities.
- An internal Disaster Recovery test facility at the NCC is operational. This facility allows SSA to insure all data required to support off-site restoration is backed up and stored off-site. In addition, this facility provides an initial testing vehicle for technical recovery procedures, prior to the off-site exercise.
- SSA continues to explore options to speed the backup, recovery and restoration of computer operations.
- Recognizing that the size and complexity of its data center are rapidly outpacing the capacity of any known existing or planned hot-site facility, SSA is developing plans to provide for

additional IT operations assurance through deployment of a remote, fully secure co-processing site.





# Chapter 9: IT Human Resources Management

## IT Human Resource Strategy

SSA is comprised of highly committed, capable, and creative employees who provide a high level of service to the American public. The ASP addresses the importance of SSA's staff through the goal to "Strategically manage and align staff to support the mission of the Agency." This is carried out through the Agency-wide *Human Capital Plan*, first issued in January 2004 and updated annually thereafter. In the *Human Capital Plan*, SSA has identified IT Specialists as one of the Agency's 15 mission-critical occupations.

Multiple internal and external factors drive SSA's human capital planning. These include, but are not limited to, the PMA, the Office of Personnel Management's (OPM) Strategic and Operational Plan and Human Capital Assessment and Accountability Framework (HCAAF), and SSA's Strategic Leadership Succession Plan, which is based in part on the annual Retirement Wave analysis. Additional factors encompass proposed changes in immigration laws, congressional and public interest, trust fund solvency, increasing workloads, the use of technology, a commitment to public-centered service, and SSA's future workforce.

Not only has SSA identified IT specialists as mission-critical, this segment of the workforce has been identified as critical government-wide. In support of this broad focus, the Federal CIO Council's (CIO Council) IT Workforce Committee, in conjunction with OPM, conducted two government-wide IT workforce surveys, in 2004 and 2006. The most recent *CIO Council IT Workforce Capability Assessment Survey* was conducted from September through November 2006. SSA IT employees participated in the voluntary survey for collecting data on the competencies and skills of the IT workforce. The results of the 2006 survey will become available in 2007 and will be used along with other information within the Agency to formulate Human Capital and IT decisions.

The prior survey, conducted in 2004, showed that SSA had minimal skill gaps in the areas of government-wide concern (Security, Project Management, Enterprise Architecture, and Solutions Architecture). Nevertheless, SSA has continued to focus on these areas and reports to OPM and to OMB on the steps taken to continue to minimize any potential skill gaps. SSA reports quarterly on hiring and training in these four areas. In addition, SSA reported to OPM on its efforts to reduce skill gaps in Problem Solving, Oral and Written Communication, Project Management and Planning for FY 2005, and General Analytic Skills and Team Building for FY 2006. This additional activity is based on SSA's internal skills assessment.

At the time of the government-wide 2006 survey, there were about 3,800 IT Specialists across SSA, with just under 84 percent organizationally located in DCS at SSA Headquarters. The remaining IT Specialists

are located in other Deputy Commissioner level components, and include employees in the ten regions. DCS has a *Human Capital Plan*, which is tied to the Agency *Human Capital Plan*.

## Commitments to SSA Employees

Beginning in the early 1980s, the Agency deliberately has invested considerable resources in building an IT staff that has the necessary knowledge, skills, and abilities to build, manage and modernize SSA's information systems. The Agency's success over time has shown that this has been a wise investment. SSA is committed to providing employees with a workplace of choice. Through management planning, continued training, staff development, and an effective work environment, employees are provided with opportunities for personal and professional development, including training, career, and skill development at all grade and occupational levels. SSA is also committed to maintaining a diverse and accessible work environment that includes accommodations for employees with disabilities.

## Current Staffing

DCS workforce includes technical employees who are skilled in a wide variety of computer-related specialties. These skills range from operating a personal computer, to managing highly complex IT projects, to having an in-depth knowledge of SSA's mainframe operating system. The workforce's supervisor to employee ratio is 1:12.

In FY 2006, and continuing into FY 2007, SSA was delegated a critical-need direct-hire authority from the Office of Personnel Management (OPM) to fill vacancies needed to implement provisions of the Medicare Prescription Drug, Improvement and Modernization Act (MMA). As a result of this legislation and the corresponding shifts in workloads, the hiring efforts were continuous throughout the fiscal year. The largest numbers of new hires came onboard in the first, third and fourth quarters of FY 2006.

In FY 2006, the Full-Time Permanent (FTP) attrition rate was approximately 7 percent, or 221 losses. Forty-one percent of these losses were due to regular retirements. Another 12 percent were due to early-out retirements. While more employees in the workforce have begun to reach eligibility for Federal retirement or have accepted the Agency's early-out retirement option, data shows that the number leaving because they were seeking IT positions elsewhere or in the private sector has decreased considerably.

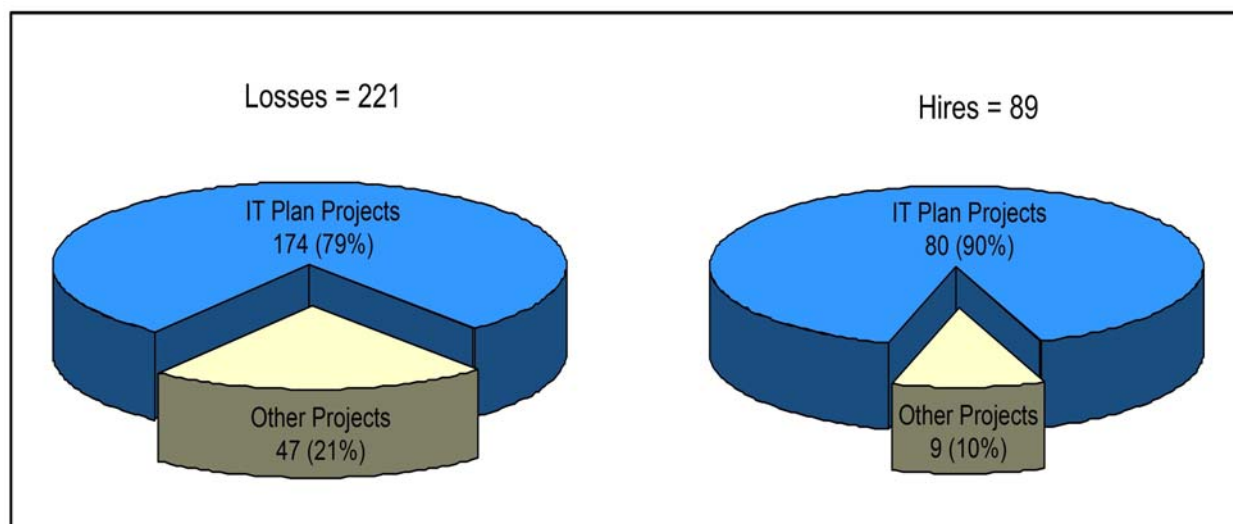
## Staffing Needs

DCS has been able to offset these losses by targeting most of the replacement hiring authority towards recruiting highly skilled technicians from private companies (including many SSA contractors) and recent computer science college graduates. DCS also continues to use nationwide recruitment efforts to improve workforce diversity.

For planning purposes, DCS is forecasting that the number of employees accepting regular retirement will remain between 3 and 5 percent of the organization annually through 2010. These projections indicate a potential loss of over 700 FTPs over this five-year period, with the resulting loss of their experience, knowledge, and technical skills.

The *Office of Systems Human Capital Plan* recognizes that losses of this magnitude over such a short period of time cannot be offset by recruitment alone. The *Office of Systems Human Capital Plan* looks to recruitment as one tool among others, including identification of current workforce skill gaps and training needs, planning for succession, establishing best practices, and improving the rate of retention to meet this challenge.

Figure 8 highlights the placement of DCS hiring by workload in FY 2006. The majority of the FTP hires (80 of 89) in FY 2006 were assigned to the Agency's highest priority initiatives.



**Figure 8: FY 2006 Losses and Hires**

DCS workforce distribution in FY 2006 is depicted in Figure 9: FY 2006 Actual Full-Time Equivalents (FTEs)). These resources were used to provide ongoing systems and network maintenance support and to carry out the Agency's critical *IT Systems Plan* and reengineering initiatives. The FY 2006 resource actuals were adjusted to reflect the impact of legislative changes, including the Medicare Modernization Act. In addition to DCS's in-house resources, DCS employs approximately 1,000 contractor workyears. While contractor personnel support some workload functions, the need to recruit and maintain a well trained in-house technical staff will continue.

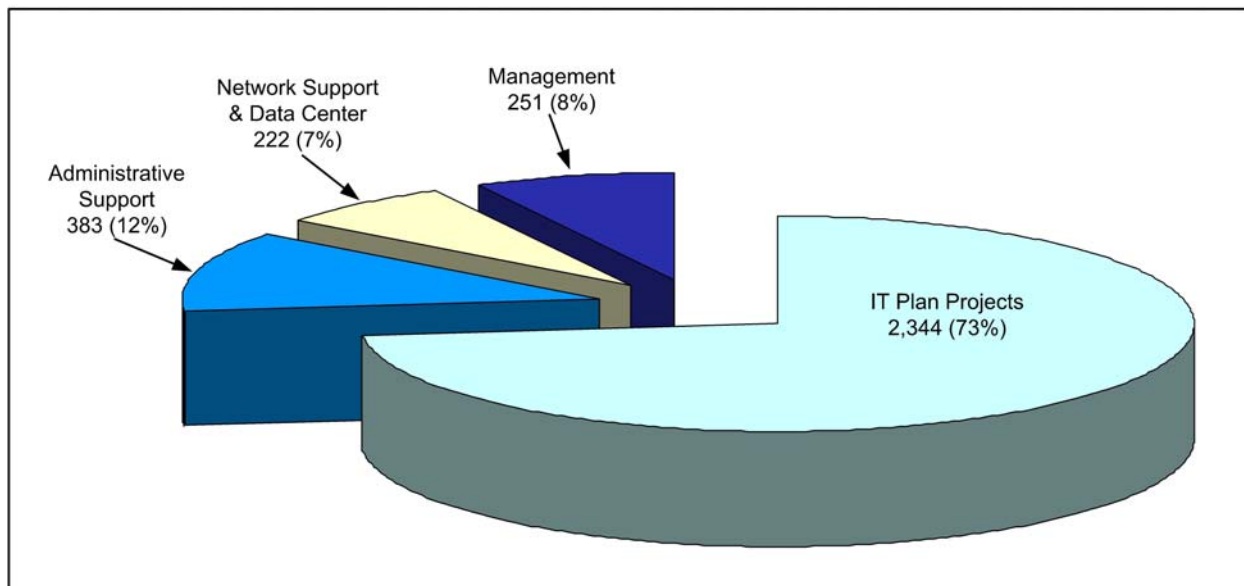


Figure 9: FY 2006 Actual Full-Time Equivalents (FTEs)

## Future Skill Needs

SSA's vision of the future anticipates that technological changes will continue to occur at a dramatic rate. The introduction of even more advanced technology requires innovative thinking, a new way of viewing processes, and proficiency in using new products. Predictions are that there will be too few people trained in information systems to satisfy growing needs in both the public and private sectors. The rate of college students entering the Computer Science field has been decreasing for the last few years. Furthermore, the gap between the demand and the supply of skilled professionals is growing. These factors force SSA into competition with private industry for retaining skilled systems personnel and challenge SSA to develop current employees to their full potential. SSA's plan for meeting these challenges is to continue to execute its workforce strategy, to conduct recurring skills inventories, and take timely steps to address identified needs using the tools the Agency has assembled.

### IT Skills Inventory

The *IT Skills Inventory*, coupled with environmental forecasts and the planned implementation of SSA's target architectures, is the key to forecasting the future skills needed by SSA's IT workforce. Continuing attention to the following will ensure that skills needed to support the target architecture are maintained:

- Skills and skill levels needed,
- Training,
- Career paths,
- Employee development,
- Mentoring and coaching,
- Rotational development, and
- Retention and recruitment.

The use of an *IT Skills Inventory* allows continuous identification of the skills needed and to then use training programs to ensure that DCS employees have the necessary training to be effective and proficient.

## **Individual Development Plans**

Career development for these new hires is critical to the organization's success. Most entry-level hires are placed in career ladder positions with individually-tailored training outlined in *Individual Development Plans* that focus on developing technical skills related to a specific job assignment. Entry-level hires attend group training in a set of core courses covering soft skills: Customer Service, Intergenerational Mix, SSA's business processes, and Security Awareness.

## **Systems Technical Training Program**

The Systems Technical Training Program (STTP) provides a flexible approach for maintaining high skill levels for both technical staff and managers. Carried out in a client-focused manner, the program enables employees to be more responsible for their training and development. Using a variety of delivery approaches, the STTP provides the necessary technical training on an ongoing basis.

The STTP defines a set of core courses for all DCS employees. These core courses present a conceptual picture of the working environment while technical staff receives an additional set of core courses that provide a technical introduction to the environment. Each course is associated with a particular technical skill category or area of competency.

DCS encourages and supports employees in obtaining industry certifications, such as the Microsoft Certified Systems Engineer credentials or Project Manager (PM) Professional. DCS is focusing on such emerging skill areas as Internet/intranet application development and Web page design. In the future, DCS will focus on multimedia development tools and media design concepts, VoIP, and wireless networks. Because SSA's infrastructure is becoming more mature and requires increasingly sophisticated skills and tools to build and manage it, employees will need new skills in distributed systems network design to enable SSA to make a smooth transition to using the full potential of the network environment. DCS employees can stay abreast of the latest hardware and software technology developments through various technical research services.

## **SSA GoLearn Online Training**

The SSA GoLearn online training offers all employees access to over 2,000 online courses in the areas of Information Technology Skills, Business Skills and Desktop Computer Skills. As part of the PMA, SSA has consolidated the Systems SkillPort e-Learning interface and the Office of Training Online University onto one SSA specific e-Learning delivery platform, to improve the experience of on-line learning for all SSA employees. Systems employees also have access to Books 24x7 Reference-ware, Certification courses, Test Prep exams and On-line Mentoring services.

Students can receive certificates for completed e-Learning courses and can now receive credit on their official personnel file for successfully completed courses. The SSA GoLearn site is available to students at home via the Internet and at work with supervisory approval. There is no limit to the number of courses for which students may register and no time limit for completion.

## Project Management Skills

Project Management has long been an area where the Agency has provided training. With the new emphasis from OMB on better project management, SSA has stepped up efforts in this area. SSA has improved its curriculum for training managers on project management skills and techniques, and EVM. This approach not only supports the proven techniques from the *Project Management Book of Knowledge*, it supports certification of project managers for major projects that require a Capital Assets Plan and Business Case. The courses cover basic and advanced project management skills along with team building, estimating techniques, risk management, and project tracking. This training ensures that software development project managers in DCS are skilled in industry best practices.

### Curriculum

Project Management training courses are part of a three-prong strategy, implemented in FY 2006, to develop IT project managers. The strategy consists of education, e.g., five or six core courses; mentoring for new project managers; and networking, to give new project managers an opportunity to meet with their peers and attend meetings and conferences to discuss best practices, problem resolution, and so forth. When project managers complete the project management curriculum and mentoring, they receive an internal project management certification. Several e-Learning courses enhance this training area and are required as prerequisites to the classroom training.

Several new curriculums were developed that augment Project Management training. In early 2006, an EVM curriculum was implemented to help Project Managers integrate changes mandated by OMB. There are four courses (2 Labs) that are offered. In the fall of 2006, two new courses were offered to provide skills and system-specific knowledge to help employees manage tasks associated with assisting Project Managers. The two courses—Introduction to Microsoft Project for Windows 2002 and Using Microsoft Project 2002 in a Systems Environment—were geared towards “entry-level” project managers or persons assisting project managers in doing their job.

## Management Skills

SSA's future success requires strong leadership and management skills. Most of DCS managers, who have strong technical backgrounds, have been promoted through the ranks of the Systems organization or from technical jobs in the private sector. Some have strong technical backgrounds; others have backgrounds in SSA's program areas. DCS managers need to stay current with technology and be aware of new and emerging technology in order to better lead their technical personnel.

While technical skills are critical for managers, functional skills such as planning, staffing, organizing, delegating, and communicating are critical. DCS's Management Leadership Curriculum for middle and senior managers has been in place for over two years. The curriculum includes skill areas necessary for effective management and leadership such as planning, problem solving, communicating, presenting, and motivating management teams. New skill development for managers is focused on improving leadership, project management, and interpersonal communication skills.

Since the summer of 2005, DCS's Management Leadership Curriculum was expanded to include skills in core competencies related to IT management as required by the Clinger-Cohen act. The Agency has a

pilot “Leadership Symposium” that will be expanded to all DCS managers, if funding allows. DCS has developed a matrix of training courses, tied to the training strategy devised by the Office of Training in SSA’s Office of Human Resources. A Web site provides a training matrix directed to advertising required training for managers. This training helps ensure that managers have the tools and job knowledge to perform effectively. The mandatory training for all Systems' managers is delivered over a three-year period. Managers are encouraged to complete the training before FY 2009.

DCS requires its Team Leaders to complete the Leadership Curriculum, including Personnel Management Workshops and Performance Management training.

## Recruitment

### Recruitment Strategy

DCS uses recruitment as a strategic approach to obtaining needed technical skills and competencies in human capital resources. The strategy is predicated on planning assumptions that include a dramatic increase in program workloads coupled with a rapid pace of technological advances and the loss of a potentially high percentage of SSA’s own employees due to retirement or other reasons.

DCS’s Recruitment Staff uses the results of the *Skills Inventory Survey* to determine future needs. The recruitment strategy is multi-faceted and includes several initiatives to optimize recruitment and enhance current successful retention efforts, including:

- Forecasting future IT human capital resources and recruitment needs,
- Developing hiring goals,
- Utilizing a comprehensive college recruiting and entry-level recruitment plan, and
- Designing specific approaches for obtaining the hard-to-find technical skills.

The recruitment staff uses the Internet for almost all communication with candidates and schools. Today’s college students are savvy with and prefer the use of school-provided e-mail accounts to communicate with SSA. E-mail communication, while more labor intensive because of the number and frequency of messages, best meets “new millennium generation” candidates needs for staying in touch, and personal and quick responses. In fact, the staff communicates with colleges, delivers recruitment materials including job announcements, and receives most candidate resumes and transcripts over the Internet. The anticipated shortage of new graduates with diverse cultural backgrounds in computer science and related IT fields makes college recruitment programs an integral part of DCS’s hiring strategy.

As DCS faces a substantial retirement wave in the next few years, DCS gives conservative but focused priority to its recruitment of entry-level candidates to meet future needs. DCS uses various hiring authorities to recruit entry-level employees including the:

- Administrative Careers with America postings,
- Federal Career Intern Program,
- Veterans’ Recruitment Authority Appointments, and
- Schedule A appointments for persons with disabilities.



The challenging pace of technological change and specialized technical skills has led to increased recruitment of entry-level candidates who have information systems or computer science degrees. These individuals are recruited with a commitment to their continued training and personal development and are more valuable to the organization because of the specialized skills they already possess. This enables us to focus training and development dollars on their advanced technical training needs directly related to their positions and/or to fill future skill gaps. SSA strives to be the “Employer of Choice” for graduating students in the IT field.

## Compensation

Attracting new personnel with the technical skills required by the rapidly changing IT environment has been consistently challenging. The recruitment challenges that SSA presently faces will remain an issue for the foreseeable future because of a highly competitive labor market. In FY 2006, SSA experienced high competition from both private industry and other Federal Agencies for both the entry-level and professional-level IT employees.

SSA monitors IT compensation in the Agency Headquarters geographical area by survey data and by personal survey at job fairs. The Agency has used flexible incentives such as recruitment bonuses, retention bonuses and above minimum salary offerings to attract new personnel. In FY 2005, the Agency limited offering above minimum salaries for entry-level candidates to only those with prior IT work experience. Because this focus reduced the number of overall applicants, Systems recruiters closely evaluate job fair attendance for high quality potential and have created a consistent campus presence at approximately fifteen universities and colleges. Additionally, the Recruitment Staff has increased DCS recruitment efforts for entry-level candidates at the GS-9 level.

## Workplace Incentives

SSA has numerous workplace incentives that are highlighted extensively in the marketing of DCS employment opportunities. One of the most valued by today’s job seeker is work tour flexibility. Flextime and choices between two alternative work schedules (Alternative Work Schedule 5-4-9 and Alternative Work Schedule 4/10) are marketed as opportunities to vary a work schedule to adjust a person’s work tour to his/her lifestyle and the contemporary workforce. Other valued benefits include paid overtime or compensatory time, and a retirement plan that includes a five percent matching feature in the Thrift Savings Plan. SSA Headquarters employees have access to an onsite fitness center, credit union, employee association, post office, and onsite day care centers. These services augment the benefits for SSA’s current workforce and provide incentive to prospective employees.

## Retention

Retention is monitored in most organizations as one measure of employee job satisfaction. In the IT industry, retention is historically somewhat higher than in other industries. Additionally, it is recognized that people stay in their jobs not just because of salary, but because of many other considerations. SSA believes that emphasis on retention initiatives will be of paramount importance in retaining its newer employees. While DCS’s retention rate over the last several years has been consistently good—especially

for the IT industry—SSA is always trying to improve. SSA recognizes that future generations of employees will have changing expectations.

DCS has developed a Retention Plan that includes five initiatives that it expects to have a positive influence upon *all Office of Systems' employees*:

- Communication,
- Awards,
- Training,
- Retention Allowances, and
- A DCS Career Development Program.

DCS's Retention Plan includes four initiatives that it expects to have a positive influence upon all DCS' *entry-level employees*:

- Interview process improvements,
- New employee follow-up,
- New hire briefings,
- Entry-level group follow-up meetings.

## **All Employees**

### ***Communication***

DCS has implemented a component-wide initiative to improve communications, which it believes will have a positive impact on retention of our employees. When employees understand policies, future plans, organizational priorities, and share our success stories, they are more likely to feel part of the team. DCS has stressed an open-door policy that provides an opportunity to ask questions and make comments with component decision-makers. Its Web site and Systems-wide e-mails also conveniently provide this opportunity.

Another example of an important communication initiative is the New Employee Orientation Expo. The Expo is an opportunity for all new DCS employees to meet the executive staff and to learn about the organization and the challenging work projects and functions DCS performs for SSA. The first part of the expo is structured in a presentation format and is followed by a job fair/expo format. The Expo atmosphere allows new employees to network with other DCS employees and learn about the various resources within DCS at their own pace and interest level. Booths representing each DCS component and their major functions and/or projects are located throughout the Expo, and information is provided to new employees by knowledgeable AC component employees.

When employees feel part of a team that share initiatives and projects, it not only improves the chances of success for those projects but also makes people realize the importance of their job in the “big picture.”

### ***Awards***

DCS believes rewarding and recognizing its employees' outstanding performance is essential to their retention. While awards alone probably have little influence on retention, the absence of adequate recognition of outstanding performance can have a truly negative effect. To that end, Systems encourages all types of positive management recognition from verbal feedback to monetary awards. This feedback is demonstrated in e-mail communications to all DCS employees highlighting its successes and accolades, and several forms of monetary and non-monetary awards.

### ***Training***

Training is a key retention factor in the IT industry, which DCS's competition uses as an effective recruitment tool. To maintain a technical edge, SSA must provide training that not only meets its current skill requirements but also envisions the future needs of the organization. As technology changes, it is essential that DCS provides its employees with training to maintain state-of-the-art competencies.

### ***Retention Allowances***

DCS has made limited, but judicious use of, retention allowances to retain its skilled technical employees that have unique qualifications. DCS plans to continue to utilize this pay flexibility to retain employees where it is determined that the unusually high or unique qualifications or special need of the Agency for the employee's services makes it essential to retain them, and the employee would likely leave the Federal Government in the absence of a retention allowance.

### ***Systems' Career Development Program***

To provide DCS employees with ample opportunities to enhance their careers and provide developmental assignments throughout the organization, DCS is committed to offering this competitive selection program every three to four years.

### ***Entry-Level Employees***

To enhance DCS's entry-level retention goal, the Recruitment Staff has taken several steps to modify the existing processes involved in the selection of new employees.

### ***Improvements to Interview Process***

Modifications were made to improve communication between candidates and hiring managers to ensure a "good fit" and thus the likelihood of retention. Success required four improvements to our interview process:

- Required components to define position requirements and specific duties so that candidate resumes could be more successfully screened to select candidates for potential interviews,
- Added more explanation of the specific component responsibilities and actual work responsibilities to the interview process,
- Asked candidates to elaborate on IT interests and skills, and
- Added a brief personal telephone call between the candidate and the manager with the job opening to provide a clear description of the job and actual job duties.

### ***New Employee Follow Up***

The Recruitment Staff is responsible for following up with new entry-level employees to ensure that their concerns and needs are being met. The staff offers new employees an additional resource for help, beyond their supervisor or mentor. They provide DCS perspective and assistance in such issues as training, special equipment, spousal referrals, and relocation issues. Both short-term and long-term follow-up contacts are made over the first several years.

### ***New-Hire Briefings***

In 2002, Systems added a New-Hire Briefing to the follow-up process. Often supervisors and mentors were unaware of Systems' policies and practices for entry-level hires. Multiple offerings of the briefing provided detailed information to new entry-level candidates, their supervisors, and mentors on:

- Systems Goals and Priorities shared by the Deputy Commissioner,
- Training requirements and funding,
- Systems Training Branch entry-level course offerings,
- Outside vendor training offerings,
- Online University and eLearning Internet training options,
- Importance and requirements of the Individual Development Plan,
- Personal development options, and
- Helpful Web sites.

### ***Follow-Up Meetings With Entry-Level Groups***

The Recruitment Staff meets with each entry-level class at least once a year. They have scheduled "The Brown Bag Connection" to offer lunchtime meetings to present topics of interest to our new employees. In addition, the meetings provide another opportunity for the classes to network and offer support to each other.

## **Implementation of IDP Requirement**

The Individual Development Plan (IDP) emphasizes the new employee's long and short-range career goals. Planning for career development is extremely important to new employees—a formal plan provides some control for their future and demonstrates a management commitment to their development. Studies show that, where career development or planning is not included in candidate orientation, new hires lose interest and retention is jeopardized.

## Mentors

To ensure that each new entry-level employee has the greatest opportunity for success, Systems provides a mentor for their first year. Mentors serve three purposes:

- To explain Systems' organizational culture and how to "really get things done",
- To advise the employee about work projects, from a different perspective than the supervisor. When possible, mentors are selected from the same work area as the employee so that they are more familiar with the employee's projects,
- To suggest technical training and developmental opportunities.

## Support Services and Competitive Sourcing

SSA will have a continuing need to contract for IT support services. SSA serves as the systems integrator for most Agency developmental projects and operational functions; however, skilled contractor resources are often needed to supplement SSA's staff, due to a critical shortage of experienced, technically qualified personnel to meet the Agency's needs for new programmatic and administration/management information software applications while simultaneously maintaining current systems. Even with the stated goal of recruiting, developing, and retaining a high-performing workforce, maintaining appropriate skill levels will require supplementing SSA personnel with contractor resources.

Many of SSA's employees are eligible to retire in the next five to ten years. Loss of key systems personnel will impact our ability to develop and maintain our programmatic and administrative/management information systems. SSA is in competition with other Federal agencies and private industry to hire and retain employees skilled in these new technologies. Contractor support will help SSA meet these challenges.

The PMA has established Competitive Sourcing as one of five management initiatives. A number of IT functions are considered commercial in nature. Over the next few years, SSA expects to conduct competitive sourcing studies under procedures of the newly revised OMB Circular A-76, which establishes Federal policy for the competition of commercial activities. The results of these studies may change the percentage of work contracted. That percentage may increase or decrease depending on the results of the competitive sourcing studies.

SSA continues to be focused on results that create more efficient functions within the Agency, generate cost savings and improve performance. Through the FY 2006, the Agency completed 20 studies. Some of these studies included IT related functions such as software validation and electronic forms development. SSA continues to conduct post-award accountability monitoring for studies already completed, and to benchmark with other Federal Agencies to validate SSA's current competitive sourcing practices and to identify competitive sourcing practices used by others. Specific benchmarking areas included processes used for post-award monitoring, performance work statement development, and the FAIR Act Inventory development. In addition, the Agency has made considerable progress over the past 3 years in building a solid competitive sourcing infrastructure by creating a centralized organization to direct the Agency's competitive sourcing program. Activities in this area included development of

technical expertise, benchmarking with public/private organizations, expanding employee communications, and developing A-76 guidance for internal use.

The Agency also developed a multi-year plan to provide a road map for guiding competitive sourcing activities and achieving “green” status. The Agency’s Green Plan identifies:

- Functions coded “commercially suitable for study” that SSA will consider for competition through 2013,
- Evaluation factors for selecting functions for competition, and
- Ways competitive sourcing is incorporated into the Human Capital Plan (which is aligned with the Agency’s Strategic Plan) to provide high-quality, citizen-centered service.

The Green Plan also describes several significant constraints the Agency faces in conducting its competitive sourcing program, i.e., increased workloads, budgetary concerns, a large proportion of employees with disabilities, and a large, geographically dispersed organization.”



# Glossary

## #

24/7                      24 hours per day, 7 days per week

## A

AC                      Associate Commissioner  
ACSI                    American Customer Satisfaction Index  
ACTS                    Assignment and Control Tracking System  
ADAR                    Agency Decisional Accuracy Rate  
AeDib                    Accelerated eDib  
AFI                      Access to Financial Institutions  
ALJ                      Administrative Law Judge  
APP                      Annual Performance Plan  
ARB                      Architecture Review Board  
ASP                      Agency Strategic Plan  
ATS                      Audit Trail System

## B

BRM                    Business Reference Model  
BVS                    Benefit Value Score  
BSO                    Business Services Online  
BY                      Budget Year

## C

C&A                    Certification and Accreditation  
CBA                    Cost Benefit Analysis  
CCB                    Change Control Board  
                            Configuration Control Board  
CD                      Compact Disc  
CFRMS                    Claims File Records Management System  
CICS                    Customer Interface Control System



CIO	Chief Information Officer
CIP	Critical Infrastructure Protection
CIPP	CIP Plan
CIRP	Comprehensive Integrity Review Process
CISO	Chief Information Security Officer
CMM	Capability Maturity Model
CMS	Centers for Medicare and Medicaid Services
COOP	Continuity of Operations Plan
CoS	Class of Service
CPIC	Capital Planning and Investment Control
CSO	Component Security Officer

## D

DA	Data Administration
DAPM	DA Project Model
DCBFM	Deputy Commissioner Budget, Finance, and Management
DCS	Deputy Commissioner for Systems
DDS	Disability Determination Services
DI	Disability Insurance
DRM	Data Reference Model
DSI	Disability Service Improvement
DTSS	Division of Telecommunications and Security Standards
DVB	Digital Video Broadcasting

## E

EA	Enterprise Architecture
eDib	Electronic Disability System
EDR	Electronic Death Registration
E-Gov	Electronic Government
EITA	Enterprise Information Technology Architecture
EM	Enterprise Model
ERM	Electronic Records Management
ESEF	Enterprise Software Engineering Facility
EVM	Earned Value Management
EWD	Employees with Disabilities

EWRS                      Electronic Wage Reporting System

## F

FAQ                      Frequently Asked Questions  
FCIC                      Federal Citizen Information Center  
FEA                      Federal Enterprise Architecture  
FEAF                      Federal Enterprise Architecture Framework  
FIPS                      Federal Information Processing System  
FISMA                      Federal Information Security Management Act  
FTE                      Full-Time Equivalent  
FTF                      Federal Transition Framework  
FTP                      Full-Time Permanent  
FY                      Fiscal Year

## G

GAO                      Government Accountability Office  
GPEA                      Government Paperwork Elimination Act  
GPRA                      Government Performance and Results Act  
GSA                      General Services Administration  
GSS                      General Support System

## H

HSPD                      Homeland Security Presidential Directive

## I

IAA                      Inter-Agency Agreement  
IDS                      Intrusion Detection Services  
IECA                      Information Exchange Component Architecture  
IEE                      Internal Efficiency and Effectiveness  
IETF                      Internet Engineering Task Force  
IP                      Internet Protocol  
                                 Immediate Payments  
IPLC                      Internet Project Life Cycle  
IPSec                      IP Security  
IPT                      Intrusion Protection Team

IPv4	IP version 4
IPv6	IP version 6
IRM	Information Resources Management
IRS	Internal Revenue Service
IS	Information Systems
ISBA	Internet Social Security Benefits Application
IT	Information Technology
ITA	Information Technology Architecture
ITAB	IT Advisory Board
ITOA	IT Operations Assurance
ITSM	Information Technology Service Management
IVEN	Interactive Validation Environment
IVT	Interactive Video Teletraining

## J

## K

## L

LAN	Local Area Network
LIT	Load Intensity Table

## M

MA	Major Application
MCAS	Managerial Cost Accounting System
MCT	Metis Client Tools
MEIRS	Modernized Earnings Integrity Review System
MI	Management Information
MMA	Medicare Modernization Act
MPLS	Multiple-Protocol Label Switching

## N

NARA	National Archives and Records Administration
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NAT	Network Address Translation
NAV6TF	North American IPv6 Task Force
NCC	National Computer Center
NCSC	Network Customer Service Center
NIST	National Institute of Standards and Technology
NNSC	National Network Service Center

## O

OASI	Old Age and Survivors Insurance
OC	Office of the Commissioner
OCIO	Office of the Chief Information Officer
ODAR	Office of Disability Adjudication and Review
ODO	Office of Disability Operations
OESAE	Office of Enterprise Support Architecture and Engineering
OHA	Office of Hearings and Appeals
OIO	Office of International Operations
OMB	Office of Management and Budget
ONRS	Online Notice Retrieval System
OPD	Office of Public Disclosure
OPM	Office of Personnel Management
OPSOS	Office of Public Service and Operations Support
OQP	Office of Quality Performance
OSSOM	Office of Systems Security Operations Management
OTSO	Office of Telecommunications and Systems Operations

## P

PAR	Performance and Accountability Report
PDD	Presidential Decision Directives
PII	Personally Identifiable Information
PIN	Personal Identification Number
PIV	Personal Identification Verification
PM	Project Manager
PMA	President's Management Agenda
POC	Proof of Concept
POMS	Program Operations Manual System

PPC	Paperless Processing Center
PRIDE	Project Resource GuIDE
PRM	Performance Reference Model
PSC	Paperless Program Service Center

## Q

QA	Quality Assurance
QC	Quality Control
QoS	Quality of Service

## R

ROCC	Regional Operational Communications Center
ROI	Return on Investment

## S

SCE	Software Capability Evaluation
SDLC	System Development Life Cycle
SEI	Software Engineering Institute
SOP	Strategic Objective Portfolio
SP	Special Publication
SPI	Software Process Improvement
SRC	System Release Certification
SRM	Service Reference Model
SSA	Social Security Administration
SSANet	SSA Communications Network
SSASy	SSA's Streamlined Acquisition System
SSI	Supplemental Security Income
SSOARS	Social Security Online Accounting and Reporting System
SSP	Systems Security Plan
STTP	Systems Technical Training Program
SUMS	Social Security Unified Measurement System

## T

T2R	Title II Redesign
TCP	Transmission Control Protocol

TIB	Technology Innovation Board
TRM	Technical Reference Model
TSRP	Telephone Systems Replacement Plan

## U

UC	Usability Center
US-CERT	United States Computer Emergency Readiness Team

## V

VISOR	Vital Signs and Observations Report
VoIP	Voice over Internet Protocol

## W

WAN	Wide Area Network
WESCO	Web Steering Committee
WGSC	Web Governance Subcommittee

## X

XML	eXtensible Markup Language
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## Z



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