



SOCIAL SECURITY

August 7, 2020

The Honorable Margaret Wood Hassan,
Ranking Member, Federal Spending Oversight
and Emergency Management Subcommittee
Committee on Homeland Security and
Governmental Affairs
U.S. Senate
Washington, DC 20510

Dear Senator Hassan:

Thank you for your June 3, 2020 letter requesting an update on our efforts to modernize our Information Technology (IT) systems. Over the past two years our employees have made real progress in fixing many of our core technology issues, but we still have work to do.

Under the leadership of Commissioner Saul, our agency decisions are driven by the fundamental principle to improve service. As the COVID-19 pandemic has underscored, we must give the public additional online, remote service, and self-service options. We also need to update our infrastructure to take advantage of modern technology that provides our employees the tools that help them serve the millions of Americans who expect timely and accurate help from us.

We recently released our updated IT modernization plan, which builds on the progress we have made and focuses on improving our service and is responsive to the changing needs of the agency. We will continue to review our modernization efforts to make sure they are flexible to keep up with technology changes and future business needs so we deliver on your expectations.

With regard to your specific requests, please see our enclosed response. If you have any further questions, please do not hesitate to contact us, or your staff may contact Eric Skidmore, our Deputy Commissioner for Legislation and Congressional Affairs, at (202) 358-6030.

Sincerely,

A handwritten signature in black ink, appearing to read "Michelle A. King".

Michelle King
Chief Financial Officer

A handwritten signature in black ink, appearing to read "Rajive Mathur".

Rajive Mathur
Chief Information Officer

Enclosure

1. Does your agency have a comprehensive IT modernization plan? If so, please attach it to your response.

Yes, we released a comprehensive, five-year Information Technology (IT) modernization plan in October 2017. The first two years of our IT modernization effort focused on replacing aging systems with more effective software, retiring old technology, improving our IT development processes, exploring how technology could improve customer service, and migrating applications to our modern cloud platform.

As we entered our third year, we reviewed our plan with input from our frontline employees and private sector experts. We identified economic and demographic trends that shape demand for Social Security services, and evaluated the plan in the context of changing agency needs to ensure our IT modernization program continues to align with agency efforts to improve customer service.

As a result, we updated our IT Modernization Plan in June 2020 to build on the fundamental modernization work detailed in our 2017 plan. The [Service Modernization: IT Modernization Plan, 2020 Update](#) (2020 Update) focuses on accelerating the delivery of modern software and leveraging technology to improve service and provide the public with more and enhanced self-service options now and over the long term. In addition, Commissioner Saul created the office of the Chief Business Officer to ensure improved focus on the customer service aspects of our IT modernization effort.

You may read our 2017 IT Modernization Plan and the 2020 Update at <https://www.ssa.gov/open/plans/>.

2. What are the top five modernization priorities for your agency? For each, please provide or describe:

- a. the modernization plan for the priority;
- b. the expected cost of modernization and any anticipated cost-savings as a result of modernization;
- c. the expected completion date of the modernization; and
- d. the reason(s) for any schedule delays or cost overruns to date.

The 2020 Update addresses our nine IT modernization priorities that align with our core mission functions, which includes six business domains that represent the core business systems we use to serve the public, and three technical domains that represent IT needs that cut across all of our IT systems. Each domain has a multi-year roadmap that outlines the milestones and deliverables for their modernization work. In each domain, an executive from an agency business line and an executive from IT provide oversight. In addition, we have another modernization priority on disability case processing that preceded our IT modernization plan

Our modernization plan is a program of business process improvement and IT development. We view cost-savings as our return on investment (ROI) for efficiencies gained through our IT modernization efforts. We base our ROI on efficiency estimates gained by similar entities after completion of their modernization projects, as well as on cost efficiencies achievable over time through our work with leading research firms.

As we modernize our IT infrastructure, including retiring legacy systems, we assume incremental efficiency gains of 10 percent in the first year benefits are realized, 15 percent in the following two years, and 20 percent thereafter. Applying these gains to the portion of our annual IT cost affected by modernization efforts results in a positive ROI of about 12 percent.¹

We expect to complete our IT modernization efforts in Fiscal Year (FY) 2022 on schedule and on budget. Below we describe the modernization plan for each priority:

IT Modernization Business and Technical Domains

Business Domains:

- **Service Delivery** – To underscore the importance of IT modernization as a foundation for improving service to the public, we added a new domain to coordinate improvements across all service delivery channels. Some of these products were already in development but outside the scope of the IT modernization investment. The Service Delivery domain, in collaboration with other domains, will focus on expanding and streamlining self-service channels for our customers while also improving tools used by our technicians.
- **Benefits, Title II and Title XVI** –The Benefits domain supports our business vision for a consolidated claims experience. It focuses on reducing operational and maintenance costs; providing additional safe, secure, and convenient online services; increasing automation; and reducing situations that require us to re-contact an applicant to obtain additional information.
- **Communications** –Through this domain, we are focused on developing a comprehensive approach to how we connect with the public, which includes developing additional communication channels, updating communication systems and infrastructure, and ensuring that our communications are clear and concise.
- **Disability** – Our existing disability systems are a collection of inter-related subsystems, each designed to facilitate a part of the disability determination process, from initial claim (in a field office, by phone, or online) through hearings and appeals. Through this domain, we are streamlining workflow and leveraging modern technology to support the full life cycle of a disability claim to expedite

¹ IT Modernization Business Case (2021), Investment Detail Question #2, page 3,
<https://itdashboard.gov/drupal/summary/016/016-000002259#>

and simplify processing, and improve service. The Disability domain is developing a modern, seamless national claims processing system to streamline processes, including improved communication with claimants via additional channels such as online notices and secure messaging tools. Automating the paper-intensive Continuing Disability Review process will allow customers to self-report using the *my Social Security* portal.

- **Earnings** – This domain focuses on more quickly processing the 274 million wage reports for workers that we receive each year, and providing additional tools for employers to report and correct those reports. We are taking advantage of new technologies to reduce maintenance costs, increase flexibility, and accelerate our development and deployment process. The Earnings domain will continue development of the Employer Wage Reporting Journey and online domain products.
- **Enumeration** – This domain focuses on improving the methods our employees use to access, and the infrastructure behind, the Numerical Identification database or “NUMIDENT,” which is our database of Social Security numbers (SSN) we have assigned. We are modernizing user interfaces, updating and automating business processes, and replacing out-of-date technologies with a more robust infrastructure. Specifically, we are continuing efforts to expand online service functions, and expedite processing of SSN cards.

Technical Domains:

- **Cybersecurity** - Our cybersecurity program aims to protect sensitive information for nearly every member of the public. Our strategy is to maintain a highly effective cybersecurity program, to protect against security threats, and comply with federal policies and regulations, including the National Institute of Standards and Technology Cybersecurity Framework. Continued growth of the program and resiliency of the network is critical to ensuring the financial stability of millions of beneficiaries, and enabling the uninterrupted availability of our network, systems, and IT resources. We must protect our computing environment and the data we hold from both fraud and inappropriate access to administer our national programs, as prescribed by legislation, in an equitable, effective, efficient, and caring manner.
- **Data Domain** - The Data domain will continue to provide access to customer-centric, integrated, enterprise-level data within a secure, standardized, and common architecture that supports daily operations and fact-based decisions. We will integrate the data in the agency’s largest programmatic data stores and leverage the benefits of modern systems and access methods to provide a single authoritative data source, a “360 degree view,” for customer-related information.
- **Infrastructure** - The objective for the Infrastructure domain is to support technology requirements for product implementations across all business

domains. This is a foundational domain to increase process automation, improve system development methodologies, and improve customer service in a digital age for our employees and for the public. Through the Agency Cloud Initiative, we continue to augment our traditional infrastructure for flexibility and cost efficiency. Our Back Office Modernization is adopting modern services and migrating self-managed infrastructure and services to a managed service for back office support (e.g., email, office productivity, and collaboration tools) so agency resources can focus on meeting our priorities. We are integrating development and operational teams to promote collaboration and innovation during the software development process for rapid software deployment to meet customer needs. In collaboration with customers and enterprise architecture, platform transition initiatives are analyzing the use of relevant technologies for optimum software, hardware and other technical efficiencies for sustainable and reliable modernized systems.

Disability Determination Services Legacy Systems

State Disability Determination Services (DDS) determine whether an individual meets the definition of disability in the Social Security Act. The DDS Legacy Systems provide the foundation of the DDS case-processing efforts, supporting all disability case adjudication functions. The Disability Case Processing Systems (DCPS) investment will replace the DDS Legacy systems in parallel and in coordination with the IT Modernization program. DDS Legacy software replacement is not within scope of IT Modernization’s Disability Domain because the DCPS investment was already underway when we started our modernization program.

The DCPS investment is one of the agency’s major IT investments, and in response to prior Government Accountability Office (GAO) reviews, we previously identified legacy disability case processing systems as one of our IT systems most in need of modernization. Once fully operational, DCPS will deliver common functionality and consistent support to each Disability Determination (DD) Component site, while providing accurate, current, consistent, and accessible data. DCPS will benefit our disability process functionally and technologically by providing full process integration, ease of sharing disability-processing workload across DD Component sites, a common interface with other SSA offices and systems, and a dramatic reduction in the technological complexity of system support.

3. What is the status of the modernization of the legacy system identified by GAO and described in this letter?

The scope of our IT modernization Benefits domain includes retirement and replacement of our Title XVI system which GAO identified for inclusion in our modernization plan. We continue to modernize the Title XVI system using an agile approach and multi-year roadmap of software development activities and milestones. As necessary, we update the roadmap to respond to shifts in business needs and technology.

We have completed modernization of the initial claim and post-eligibility process to collect data claimants provide, which allows collection in a web-based application and reduces the need for technicians to switch between web and legacy systems to complete transactions.

In FY 2020, we plan to complete several claims development business functions and modernize the display of Title XVI data for employees. We expect claims intake, development, and adjudication business functions to be available in FY 2021 with additional post eligibility capabilities to follow in FY 2022 and later. As we increase automation and modernize, we will continue to retire our legacy systems.

4. Please describe your efforts to phase out the use of legacy systems that are physically outdated and do not support current software capabilities, are no longer supported by the vendor or manufacturer, or require specialized employees or contractors to operate and maintain. For example, have you conducted a survey of your IT systems based on use and determined which systems can be eliminated to reduce waste?

We have multiple efforts underway to evaluate the use of legacy systems and identify opportunities to phase out as necessary.

- We are working to drive our IT modernization and digital transformation through an Application Programming Interface (API)-first approach, platform-first strategy, and robust IT governance. Our enterprise architects has conducted extensive analysis of legacy code in our source code repository to help prioritize our roadmap with multi-year deliverables. Many of our legacy applications were built to support a single workload, which has led to multiple applications with similar functionality running in production. Building and deploying modern APIs will reduce this application redundancy by replacing legacy code with APIs that support multiple business processes.
- Our Chief Architect has identified the future business and IT architecture necessary to meet our goals and objectives, known as target state customer-centric IT architecture. The target state will focus on making it easier for the public to do business with us through digital services with the goal to provide a detailed blueprint on how we will:
 - Implement a standard flexible IT architecture;
 - Remove limitations and dependencies of legacy technology;
 - Eliminate domain silos;
 - Accelerate future IT delivery; and
 - Improve interfaces to our programs and services to our technicians and to the public.
- To modernize business functions and focus efforts to improve customer service, Commissioner Saul appointed a Chief Business Officer to work in partnership with the Deputy Chief Information Officer (CIO) for IT modernization to ensure

our IT initiatives deliver improvements for effective customer service to the public. Maintaining and strengthening a collaborative partnership between IT and business is at the core of our customer-focused modernization update.

- We received input from our Chief Business Officer to help prioritize the work that will best help improve service to the public. As we make progress, we continue to reprioritize our backlog to ensure that we address the impact to the public and the immediate needs as identified by frontline employees.
- We will continue using the nine domain structure and focus on product management. Our domain/product structure allows for a team approach, with both IT and business subject matter experts working together. Product managers develop the business value and strategy, and project managers execute with both agile and waterfall software development methodologies to deliver required business capabilities. The domain structure allows a portfolio of products to work together and solve complex business challenges.

5. Please describe the coordination between the Office of the Chief Information Officer and the Office of the Chief Financial Officer on IT acquisitions.

- a. In particular, how has the implementation of FITARA changed the way your agency acquires, maintains, and organizes its IT investments?**

We have leveraged the Federal Information Technology Acquisition Reform Act (FITARA) to improve how we acquire, manage, and organize our IT investments.

We have continued our centralized approach to procurement, which resides under the Chief Financial Officer's (CFO) organization, but have implemented several new processes and policies to improve oversight since the implementation of FITARA.

- The CIO now approves written acquisition plans developed by the contracting officers for large acquisitions. We have documented this requirement in our Social Security Acquisition Handbook.
- We established procedures for all IT-related procurement in direct support of FITARA. This process mandates that the Office of the CIO must review and approve all acquisitions containing any kind of IT. We developed a new “Information Technology Definition Checklist” to help guide agency employees through this new process. As part of this checklist, the CIO’s Office must review every requisition both above and below the micro-purchase threshold.
- Our Administrative Instructions Manual System and Social Security Acquisition Handbook require that any Request for Information (RFI) anticipated to use IT funding must receive CIO approval before initiating the procurement process.

With regard to CIO/CFO coordination, we have implemented a robust IT investment management process in support of FITARA, and have improved coordination between the CIO and CFO regarding progress on modernization.

- IT investments are reviewed by an executive Information Technology Investment Review Board (IT IRB) composed of the CIO, CFO, and other Deputy Commissioners as part of our existing investment selection and oversight mechanism. Within the IT Investment Process (ITIP), the IT IRB helps to ensure transparency, strategic alignment, and executive oversight.
- On a semi-annual basis, the IT IRB reviews the IT Modernization Plan and the status of its implementation to advise on updates to agency priorities, ensure compliance with investment analysis requirements, and ensure progress toward realizing investment outcomes. The IT IRB assesses progress by reviewing product delivery schedules, meeting with product teams, and monitoring whether we are on target to realize the documented objectives and key results for a product. As an operational investment, where software is deployed to our production environment, the IT IRB will engage more frequently with the product teams working on modernization.
- In addition to the IT IRB coordination, the CIO briefs the CFO on a monthly basis regarding progress on modernization, and the CFO ensures on an annual basis that CIO signs off on all IT expenditures.
- The Deputy CIO for IT Modernization and the Chief Business Officer jointly provide recurring briefings to agency senior leadership to report on progress, identify future milestones, and ensure IT projects remain in alignment with agency priorities to improve service to the public.

b. How can your offices' coordination under FITARA be improved to better address IT modernization across the agency, especially for legacy systems?

In accordance with FITARA, we have made an effort to improve our coordination on IT Modernization throughout the agency.

As mentioned above, maintaining and strengthening a collaborative partnership between IT and business is at the core of our customer-focused modernization update. In addition, our Chief Architect is helping us make best use of emerging commercial technologies for IT modernization and has conducted extensive analysis of legacy code to help prioritize our roadmap with multi-year deliverables. We will continue identifying opportunities for improved coordination within our agency governance processes under FITARA.

6. Finally, how can Congress better facilitate or oversee the modernization of government IT systems to achieve greater system reliability, security, and fiscal efficiency?

We are grateful to Congress for its continued support to help Federal Government modernize its IT systems and serve the public more efficiently and effectively. Since FY 2017, we have received \$370 million in dedicated funding from Congress to execute our IT Modernization Plan. We are using the funding to update our major legacy systems using modern architectures, modernized product investment techniques (e.g., agile software engineering methods), cloud provisioning, and shared services.

In the area of human capital, we believe that the SSA may benefit from statutory hiring flexibilities that other agencies have to hire individuals in positions that require expertise of an extremely high level. For example, the IRS has a statutory authority known as “Streamlined Critical Pay” that provides a significant amount of flexibility. Such hiring flexibilities may provide us with access to key skills and talents to support our IT modernization and digital transformation efforts.