United States Office of Personnel Management

Human Resources Line of Business

Strategic Framework

April 14, 2015

a New Day for Federal Service

Table of Contents

APPENDICES

Table of Figures

1   Executive Summary

The Director of the Office of Personnel Management (OPM) tasked the Human Resources Line of Business (HR LOB) with creating this Strategic Framework to enable the development of a single, integrated government-wide human resources information technology (HRIT) environment over the next 10 years. This Framework supports the Chief Human Capital Officers Council's (CHCOC) Future State Vision for HRIT, which seeks to provide a common user experience across the federal employee lifecycle enabled by interoperable HR systems and data.

The goals of the HR LOB Strategic Framework are to achieve improved human capital (HC) outcomes, enhanced HRIT sustainability, and increased cost savings. In doing so, the Framework will improve upon the first decade of the HR LOB's success, which delivered significant government-wide savings while greatly enhancing the efficient delivery of payroll services and personnel actions through the use of Shared Service Centers.

Although the partial adoption of the shared services model has delivered significant benefits for the Federal Government, with over $1.3 billion in cost savings and cost avoidance through fiscal year 2014, additional opportunities exist to expand and improve HR service delivery from "Strategy to Separation". Critical areas for improvement include:

- Increasing data exchange capabilities at federal agencies to enable data-driven strategic HC decision-making

- Expanding existing Shared Service Providers' (SSP) offerings to cover the full federal employee lifecycle from "Strategy to Separation" to enable a common user experience

- Increasing federal HRIT spending transparency and consistency to identify and eliminate duplicative investments

- Offering alternative funding models to federal SSPs to enable the reinvestment of savings for modernization and enhancement of existing HRIT applications

- Leveraging the Federal Government's collective purchasing power through strategic sourcing and category management strategies to consolidate HRIT contracts and lower costs

- Formalizing the governance of the HR LOB to increase stakeholders' engagement, as well as fully utilizing the HR LOB's authority to enable changes proposed in the Future State

- Improving the process by which OPM evaluates the impact on SSPs of implementing policy to allow for more consistent, rapid adoption of new statutory or regulatory changes.

Consistent with the CHCOC's recommendations, this Strategic Framework proposes a government-wide HRIT environment where business processes and systems are aligned with government-wide policy, but agile enough to support future technology and
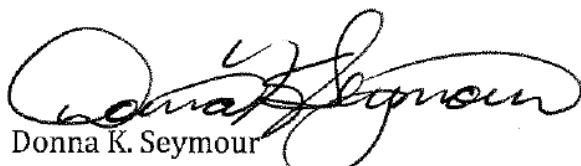
workforce changes. Furthermore, the Framework aligns with OPM's *Strategic Plan (FY 2014-2018)* and OPM *Strategic IT Plan*.

The HR LOB Strategic Framework, when fully implemented, will result in the modernization of HRIT service delivery, the improvement of HR data management and standardization, and the effective use of strategic sourcing, thus driving HRIT transformation. The HR LOB will use the CHCOC's Business Architecture (BA) as the methodology to guide modernization of HRIT.
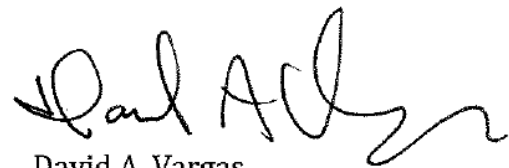
This Framework will enable government-wide savings in excess of $1 billion over the next 10 years by:

- Supporting the Federal HR CIO in the execution of an HR Data Management strategy that facilitates HRIT system interoperability, uses data to support strategic planning, and ensures HC development decisions support the organization's mission and goals

- Developing minimum business requirements for expanded service offerings by SSPs that cover the entire employee lifecycle to establish a common user experience

- Updating the HR LOB's Enterprise Architecture (EA) and Service Delivery Model (SDM) to align with the Federal Enterprise Architecture (FEA)

- Improving government-wide investment and acquisition planning by increasing the transparency of spending and developing funding mechanisms and acquisition strategies to capture the next billion dollars in cost savings and avoidance

- Working with OMB to implement its "Shared First" strategy to increase efficiency in the delivery of HC services and reduce costs

- Formalizing the HR LOB governance structure to fully engage all relevant stakeholders in a collaborative environment to implement the strategies outlined in this Framework

The development of the HR LOB's Framework has been an open and collaborative process that will require continued support from the HC community to implement. Together we will seek new authorities, improvements to the existing governance model, and enhancements to HR processes to achieve the CHCOC Future Vision. OMB, OPM, and federal agencies have already proven that, through collaboration, we can meet the needs of the federal workforce while improving service delivery and reducing costs. The HR LOB looks forward to the challenge set forth by the CHCOC to positively impact the way future HR services are delivered.

Donna K. Seymour
Federal HR Chief Information Officer

David A. Vargas
Associate Chief Information Officer
Strategy and Planning

2   Background and Approach

Executive Statement: The Human Resources Line of Business (HR LOB) developed this Strategic Framework to achieve the Future State Vision recommended by the Chief Human Capital Officers Council (CHCOC). The HR LOB engaged in a highly collaborative, cross-agency approach to develop this Strategic Framework that delineates federal HR strategy.

2.1   HR LOB Strategic Framework Background

The Office of Personnel Management (OPM), the Office of Management and Budget (OMB), and the CHCOC established an HR strategic initiative to develop a single, integrated federal Human Resources Information Technology (HRIT) environment to support the 21st century federal workforce. Supporting this effort, the CHCOC chartered the HRIT Working Group to develop the Future State Vision for federal HRIT. In July 2014, the CHCOC voted to approve the Future State Vision as well as an HR Business Architecture, and subsequently recommended its implementation to the Director of OPM.

The Future State Vision outlines the methodology for achieving a common user experience across the federal employee lifecycle. This Vision is based on the perspective of the end user, and enabled by interoperable HR systems

Background & Approach Summary
2.1 HR LOB Strategic Framework Background

• OPM Director, at the recommendation of OMB and the CHCO Council, established a strategic initiative and tasked the HR LOB to develop a 10-year HR LOB Strategic Framework[1]
 • Strategic Framework initiative builds on HR LOB's success, which is projected to save the government $1.6 billion through FY 2015
 • Three goals of the HR LOB Strategic Framework are:
  o Human Capital Impact
  o HRIT Sustainability
  o Cost Savings

2.2 Business Challenges
• Current human capital data exchange limits government-wide reporting and analytics and fully-informed strategic decision-making   • Lack of collaboration during policy development, deployment, and enforcement results in short notification times for implementation, reduced performance, costly workarounds, and inconsistency across and within agencies   • Inconsistent delivery of HR services across the Federal Government inhibits optimal management of the federal workforce and impacts employee satisfaction   • Inability to reinvest a portion of realized savings constrains the modernization and innovation of HRIT   • Proliferation of individual agency HRIT contracts prevents integration and does not leverage the government's purchasing power and its ability to benefit from economies of scale
2.3 Research Approach

• *Discovery Phase* consisted of:
  o Strategic Visioning Sessions to develop guiding principles and identify investment opportunities
  o 85 interviews with 135 subject matter experts (SMEs)
  o External analyses of reports, data from SSCs, and market analysis to concisely define the current state
  o Cost analyses to assess current spending and predict future savings
 • *Formulation Phase* consisted of creating models to guide the proposed Future Vision
 • *Validation Phase* consisted of meeting with stakeholders to collect feedback and further develop and validate the models
 • *Development Phase* consisted of consolidating findings and recommendations to produce this Strategic Framework

---

[1] The 10-year period of interest for the Strategic Framework is Fiscal Year (FY) 2016 – FY 2025.

and data from "Strategy to Separation".[2]

This Framework builds on the HR LOB's past decade of success in the consolidation of personnel action processing, benefits management, and payroll systems into HR LOB Shared Service Centers[3] (SSCs). This initiative is projected to save the government $1.6 billion between fiscal years (FY) 2005 and 2015, and an additional $194 million a year thereafter.[4]

To achieve the CHCOC's vision of integrated HRIT, the HR LOB Strategic Framework is guided by the following three goals:

1. **Human Capital Impact:** Ensure that complete, secure and timely employee lifecycle data is provided to enable data-driven policy decisions and create an enhanced user experience while proactively addressing evolving human capital needs

2. **HRIT Sustainability**: Ensure that HRIT investments support changing business needs with sufficient capital for innovation

3. **Cost Savings:** Capture the next billion dollars in reduced HRIT spending by leveraging the combined purchasing power of the Federal Government and the adoption of OMB's "Shared-First" Strategy

The CHCOC's Future State Vision and the goals of the HR LOB Strategic Framework collectively support and align with the initiatives discussed in OPM's Strategic Plan for FY 2014 – 2018[5], OPM's Strategic IT Plan[6], and the 2013 President's Management Agenda (PMA) for Government Innovation goal to "increase efficiency and save money." Figure 2-1 details areas of alignment across these strategic documents.

---

[2] "Strategy to Separation" is a term used to represent the entire employee lifecycle and is in reference to the HR LOB Business Reference Model (BRM) that outlines 10 HR sub-functions across four phases: 1) Strategize, Organize and Plan, 2) Acquire, 3) Sustain, and 4) Separate.

[3] *Shared Service Center* (*SSC*) is used throughout this report to refer to the approved HR LOB Shared Service Centers and payroll providers. *Shared Service Provider* (SSP) is used to include SSCs and any additional providers (e.g., OPM and Centers of Excellence). The shared services approach leveraged by the e-Payroll and HR LOB initiatives align with OMB's "Shared-First" Strategy.

[4] Please refer to Appendix A *Cost Analyses* for more detail.

[5] http://www.opm.gov/about-us/budget-performance/strategic-plans/2014-2018-strategic-plan.pdf

[6] http://www.opm.gov/about-us/budget-performance/strategic-plans/strategic-it-plan.pdf

HR LOB Strategic Framework Goals and Key Concepts	OPM Strategic Plan (FY 2014 - 2018)	OPM Strategic IT Plan (2014)
Goal 1: Human Capital Impact		
1. HRIT services Across Employee Lifecycle: *Support and enable HRIT services across the employee lifecycle (from "Strategy to Separation")*	Goal #2 and #4	Introduction and Business Initiatives
2. HR Data Sharing: *Enhances HR Data Sharing with accessible and interoperable* solutions *using standardized data*	Goal #3	Data Analytics and Platform Consolidation
Goal 2: HRIT Sustainability		
3. Shared Requirements and Compliance Validation: *Creating government-wide requirements for functional areas (i.e., LMS, T&A) to support standardized and validated service delivery*	Goal #4	IT Governance
4. Authority and Governance: *Building governance and authority to mandate and enforce HRIT service oversight*	Goal #3 and #4	IT Governance
5. Funding Strategies: *Creating and/or adopting funding strategies to maintain HRIT investments and promote innovation*	Goal #4	IT Leadership

HR LOB Strategic Framework Goals and Key Concepts	OPM Strategic Plan (FY 2014 - 2018)	OPM Strategic IT Plan (2014)
Goal 3: Cost Savings		
6. Shared Service Adoption: *Following and supporting the Federal "Shared First" Strategy*	Goal #4	Platform Consolidation
7. Understanding Cost Savings: *Improving cost transparency by using available data to analyze HRIT spending and estimate potential savings*	Goal #3, #4, and #5	IT Leadership
8. Acquisition Strategy: *Improving acquisition strategy and execution for HRIT functions*	Goal #2 and #4	IT Governance

Figure 2-1: Key Alignment across OPM Strategic Plans

2.2 Business Challenges

The Federal Government's HRIT systems are often redundant and siloed. These systems typically lack integration and interoperability within and among agencies and Shared Service Providers, sometimes resulting in incomplete and outdated employee lifecycle data. The government has limited access to critical HR data for transactional processing and strategic decision-making. This prevents senior leadership from optimally managing the federal workforce. Truly responsive technology and fully integrated solutions could enable government leaders and managers to improve human capital outcomes and realize additional cost savings.

During the initial phase of the HR LOB Strategic Framework initiative, stakeholders identified several critical challenges to overcome. These challenges include:

- Current human capital data exchange limits government-wide reporting and analytics and fully informed strategic decision-making

- Complex and sometimes contradictory policy requirements or interpretations of requirements often impact performance and increase costs

- Limited government-wide monitoring of HR policy changes and initiatives leads to inconsistent implementation of federal policy requirements across agencies

- Inconsistent delivery of HR services across the Federal Government inhibits optimal management of the federal workforce and impacts employee satisfaction

- Inability to reinvest a portion of realized savings constrains the modernization and innovation of HRIT

- Proliferation of individual agency HRIT contracts fails to leverage the government's purchasing power and its ability to benefit from economies of scale

The HR LOB began investigating these challenges by conducting comprehensive research into successful HR frameworks defined and executed by other organizations.

2.3   Research Approach

The HR LOB took an iterative approach to collecting, consolidating, and analyzing a wide variety of data and stakeholder perspectives to develop the findings and recommendations contained in this Strategic Framework. This research-based approach facilitated extensive collaboration among the HR LOB and cross-agency stakeholders. As shown in Figure 2-2, the four phases outlined in this approach are Discovery, Formulation, Validation, and Development. Each phase is described below.
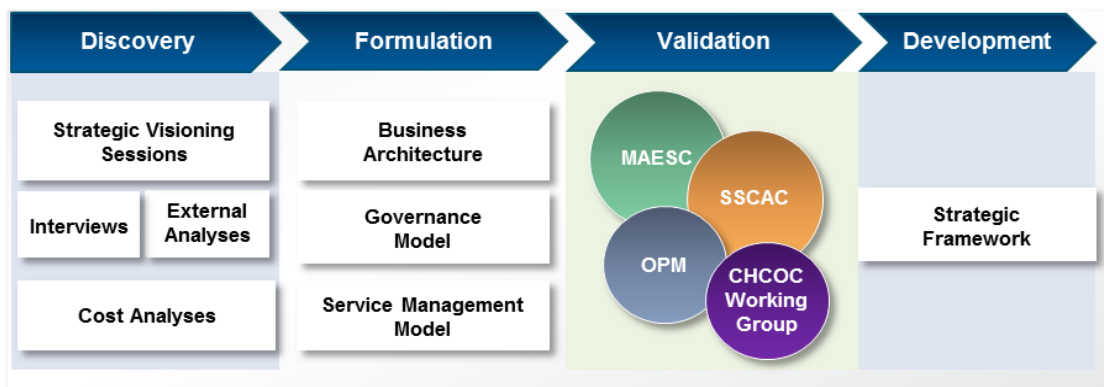
Figure 2-2: HR LOB Strategic Framework Research Approach

2.3.1   Discovery

The *Discovery Phase* consisted of Strategic Visioning Sessions, Interviews, External Analyses, and Cost Analyses. This phase was used to engage stakeholders, gather data, examine existing documentation, and set the overall strategic direction of the Framework.

Strategic Visioning Sessions

The HR LOB conducted Strategic Visioning Sessions with stakeholders from the CHCOC, CHCOC HRIT Working Group, HR LOB Multi-Agency Executive Strategy Committee (MAESC), HR LOB SSCs, and subject matter experts (SMEs). These sessions, which are detailed in *Appendix B Subject Matter Expert Outreach and Engagement,* highlighted the current landscape and the future state for HRIT in the Federal Government.

In a parallel effort, the CHCOC HRIT Working Group met to develop a Future State Vision, which promotes a common user experience for the federal employee lifecycle. That Vision is based on the role of the individual (e.g., employee, manager, supervisor, executive, retiree, candidate), and enabled by interoperable HR systems and data from "Strategy to Separation". This Future State Vision and methodology included the following guiding principles:

- Establish a technology-agnostic approach resulting in common user experience standards, HR data integration, and HR data standards

- Deliver HR data and transactions for the entire federal employee lifecycle among agencies in accordance with the Federal "Shared-First" Strategy and federal IT security requirements

- Align business processes and systems with government-wide policy to support future technological and workforce changes

As a part of the early Strategic Visioning Sessions, stakeholders identified multiple opportunities for HRIT consolidation across the government. The stakeholders helped narrow the focus of the Strategic Framework by identifying high-value opportunities for government-wide HRIT investment. The five identified opportunities were:

- Learning Management

- Time and Attendance (T&A)

- Electronic Performance Management Systems (EPMS)

- Single Sign-On (SSO)

- Retirement Application Management

These opportunities, discussed further in *Section 5: Opportunities,* build toward a foundation of an end-to-end integrated HR environment for managing the federal employee lifecycle. Its implementation could result in over $1 billion in additional cost savings over the next 10 years.

Interviews

The *Discovery Phase* continued with individual stakeholder interviews. The HR LOB conducted 85 interviews with 135 SMEs, representing 30 organizations from 19 federal agencies (see *Appendix B*), as well as 11 working group sessions with 46 SMEs representing OPM, the MAESC, and the Shared Service Center Advisory Council (SSCAC). SMEs were identified through a "referral sampling" technique, whereby the HR LOB members asked initial interviewees to identify additional people who should be interviewed.

External Analyses

The HR LOB evaluated documentation provided by interviewees. Supporting this effort, OPM and HR LOB conducted a data call with SSCs regarding their customer base, service portfolio, and investment plans. The responses increased the HR LOB's understanding of the current state of HR and payroll shared services, as well as provided insight into the future plans of the existing SSCs.

The HR LOB also gathered and reviewed documentation from a variety of other sources. Relevant government documents included Government Accountability Office (GAO) reports, policy memos, and white papers.

Cost Analyses

The HR LOB developed the cost information detailed throughout this report by reviewing data that agencies submitted to OMB during the annual federal budget formulation process. These included Exhibits 53 (Information Technology and e-Government) and 300 (Planning, Budgeting, Acquisition, and Management of Information Technology Capital Assets). The HR LOB also included SSC data call information and legacy HR LOB data. The cost analyses were further validated by data collected through the HRIT Transformation 2015 Passback data collection for T&A and Learning Management System (LMS) costs, as well as PMA benchmarking data.

During implementation of the HR LOB Strategic Framework, coordination with agencies, OMB, SSPs, and the private sector will be required to validate and fine tune cost benefit analyses for each of the five opportunities.

2.3.2   Formulation

During the *Formulation Phase*, the HR LOB created models of the Future Vision based on the variety of inputs gathered and synthesized during the *Discovery Phase.* These models helped define the Future State Vision and evaluate and prioritize the five opportunities identified in the *Discovery Phase*. These models include the Business Architecture for HRIT (created by the CHCOC), a Governance Model, and a Service Management Model. These three models are described in detail in *Section 4: Future State Vision.*

2.3.3   Validation

During the *Validation Phase,* the HR LOB validated its findings, tools, and models in a series of working sessions with stakeholders from the MAESC, SSCAC, the CHCOC HRIT Working Group, OPM, and other SMEs. These sessions provided critical feedback to advance and finalize the central elements of this report during the subsequent *Development Phase*.

2.3.4 Development

During the *Development Phase*, the findings and recommendations resulting from the HR LOB's discovery and analysis produced the Strategic Framework. The Framework outlines the HR modernization approach for the next 10 years. Additionally, as its name implies, the *Development Phase* shaped the five opportunities detailed in *Section 5: Opportunities.*

3   Current State

Executive Statement: The HR LOB has made considerable progress over the past decade in the migration of agencies' HRIT to SSCs. This consolidation saved the government over $1 billion through FY 2013. Despite the success to date, additional opportunities exist to achieve improved human capital outcomes, enhanced HRIT sustainability, and increased cost savings. Chief among these opportunities are:

- An increase in the HR functions delivered through a shared services model

- More consistency in HR data

- Greater flexibility in funding for innovation and HR investment

3.1   Service Delivery

Since 2003, the HR LOB's successful shared services strategy has produced improved human capital (HC) outcomes and quantifiable cost savings. To date, over 99 percent of agencies have migrated to a payroll provider and over 88 percent of agencies have migrated to an HR SSC. This consolidation resulted in over $1 billion in cost savings and cost avoidance through the end of FY 2013, and is anticipated to result in over $1.6 billion through FY 2015. As a result of this success, the HR LOB is widely recognized as the most successful line of business initiative.

Federal agencies currently approach HRIT in various ways. Some agencies manage their HRIT application portfolios at the enterprise level and realize the benefits that enterprise-wide HRIT affords (e.g., cost savings, efficient information sharing). Other agencies operate and maintain multiple disparate systems to support different business functions and unique requirements across various component units.

In most instances, these disparate HR systems were developed over time to address specific needs. While they often effectively meet these needs, they were rarely designed with integration and interoperability in mind. This has led to duplicative, redundant

Current State Summary
3.1 Service Delivery
• Payroll, Personnel Action Processing, and Benefits Management are currently delivered to the majority of federal employees through HR LOB-approved SSCs
• Additional services are provided by a combination of SSCs, OPM, and individual federal agencies
3.2 HR Data Management
• The existing government-wide standards and requirements for HR data formats do not cover the full employee lifecycle and for data collected the standards are not consistently applied
• Service delivery systems often lack seamless data exchange across the federal employee lifecycle
3.3 Investment and Acquisition Planning
• There is limited visibility into HRIT expenditures across the government; what is visible is incomplete
• Current funding methods for HRIT services lack flexibility to invest in major improvements
• No "Innovation Fund" exists to provide funding for projects that could expedite achievement of this Strategic Framework's goals
• Across the various service delivery channels, there is duplication in many HRIT services and system investments
3.4 Authority
• Numerous laws, legislative, and executive initiatives provide authority to the HR LOB (e.g., E-Government Act of 2002)
3.5 Governance
• Current HR LOB governance model provides decision-making and advisory authority to main stakeholder groups, but lacks structured communication channels with sponsors, (e.g., CHCOC), other agency executives (e.g., CIOs), and policy owners

infrastructure and platforms, with a myriad of point-to-point interfaces moving data among applications.

The HR LOB is on target to achieve its original goal of transitioning Payroll and "Core HR" services[7] from a decentralized agency-hosted model to a consolidated shared services delivery platform. As a result of its success, the HR LOB has been approached by the managing partners for other lines of business including the Financial Management Line of Business, the Records Management Line of Business, and the Security, Suitability, and Credentialing Line of Business to learn more about its strategies to implement shared services.

Besides providing these services, SSCs have begun to leverage shared requirements to provide new, increasingly interoperable and high-performing HRIT offerings beyond the current core functions thus substantially improving HC services and outcomes.[8] These new HRIT services will form the backbone of the HR LOB Strategic Framework for the next decade (see *Section 4: Future Vision*).

Current Delivery Model: HRIT services in the Federal Government are currently delivered via these delivery channels:

- **Shared:** SSCs / Shared Service Providers (SSPs)

- **Centralized**: OPM

- **Localized:** Individual federal agencies

To support HRIT consolidation, the HR LOB established and approved three federal HR SSCs to provide both "Core HR" and payroll services, three additional federal HR SSCs to provide "Core HR" services only, and one additional SSC to provide payroll services only. The HR LOB also approved four private sector SSCs to provide customer agencies with "Core HR" services.[9] Some SSCs provide "Non-Core HR" services to their agency customers (e.g., T&A, Performance Management, and Onboarding). Figure 3-1 shows the timeline of the HR LOB's first decade of success, including relevant HRIT events and initiatives.

---

[7] "Core HR" services have been previously defined as Personnel Action Processing and Benefits Management.
[8] It should be noted that HC services differ from HR services, in that they include strategic HR activities such as workforce planning and talent management.
[9] The list of approved SSCs and their service offerings is available at: http://www.opm.gov/services-for-agencies/hr-line-of-business/migration-planning-guidance/service-delivery/
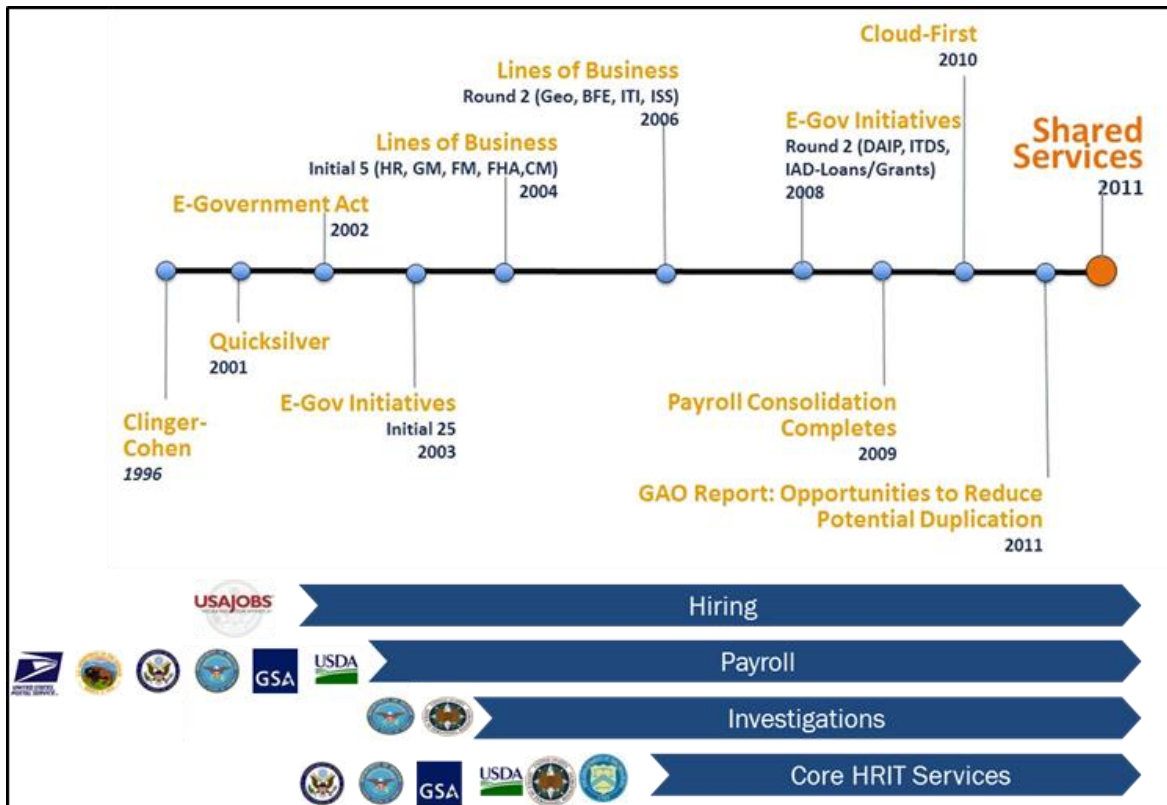
Figure 3-1: Timeline of the HR LOB's First Decade of Success

In addition to services provided by HR LOB SSCs, OPM provides government-wide HRIT services through its revolving fund and other vehicles, including hiring and staffing (e.g., USAJobs, USA Staffing), and retirement.

3.1.1   Enterprise Architecture and Service Delivery Model

The HR LOB created an HR Enterprise Architecture (EA) in alignment with the OMB Federal Enterprise Architecture (FEA) to assist SSCs and agencies in standardizing their processes and technology. The HR LOB EA provides a blueprint for transformation of the HR business function thus establishing a basis for the Federal Government to redesign its approach to HR management. This was a landmark achievement, as it was the first time the Federal Government agreed on and documented the end-to-end HR business process.

The EA contains five models and one artifact that comprise the initial Federal HR EA. As shown in Figure 3-2, the five models are the Business Reference Model (BRM), Performance Model (PM), Service Component Model (SCM), Data Model (DM), and Technical Model (TM); the artifact is the *Target Requirements for SSCs* document. These Reference Models were created as part of a collaborative, multi-agency effort, where agencies contributed resources and HR subject matter experts to EA workshops. These five models are described in the following pages.
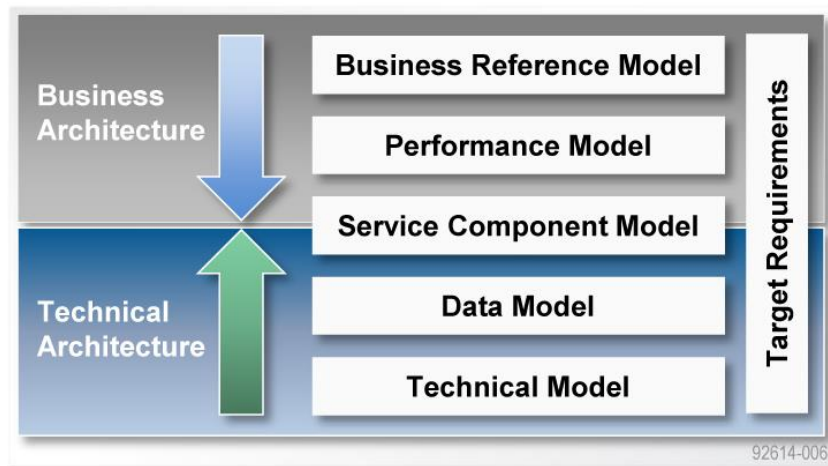
Figure 3-2: HR LOB Enterprise Architecture

Business Reference Model

The BRM provides the foundation for the Enterprise Architecture. The BRM depicts an end-to-end view of the HR business processes in the Federal Government and is the standard used by public and private entities to understand the HR processes across the Federal Government.[10]

Performance Model

The PM provides a framework for performance measurement and identifies a common set of HR performance measures to be used throughout the Federal Government. This framework measures human capital strategic outcomes and agency mission results.[11]

Service Component Model

The SCM identifies the service components supporting the HR processes depicted in the BRM. The SCM proposes the means for providing these services to customers. It provides a framework and vocabulary for guiding discussions between SSCs and customer agencies and is meant to be a catalyst for true cross-agency collaboration.[12]

---

[10] For more information on the Business Reference Model, please refer to http://www.opm.gov/services-for-agencies/hr-line-of-business/enterprise-architecture/#url=Business-Reference-Model

[11] For more information on the Performance Model, please refer to http://www.opm.gov/services-for-agencies/hr-line-of-business/enterprise-architecture/#url=Performance-Model

[12] For more information on the Service Component Model, please refer to http://www.opm.gov/services-for-agencies/hr-line-of-business/enterprise-architecture/#url=Service-Component-Model

Data Model

The DM identifies the data needed to execute the BRM processes. The DM describes the data in as much detail as possible, but does not specify how the data will be physically implemented in a database. The DM enables the Federal Government to communicate more effectively and efficiently about the structure, content, and purpose of HR data by standardizing data descriptions, data context, and data sharing.[13]

Technical Model

The TM defines the standards, specifications, and technologies of the Technical Service Areas defined in the FEA. The TM provides agencies with a foundation to understand the standards and technologies supporting the secure delivery, exchange and construction of business (or service) components and e-Government solutions specific to the HR LOB. It establishes the groundwork for re-use of technology and service components across the Federal Government through standardization.[14]

Target Requirements for SSCs

The *Target Requirements for SSCs* defines a set of detailed business, technical, and data requirements for HR services that outline the expectations for SSCs and describe their role in the HR process. These requirements provide specifications for the efficient and successful delivery of HR services and solutions. Agencies leverage the Target Requirements to identify which HR services to migrate to an SSC and which HR processes to retain.[15] The HR LOB informs selection decisions by agencies through the establishment of Target Requirements for the HC and HR services (in the SCM) and HR functions (in the BRM).[16]

Figure 3-3 depicts the high level process for developing service requirements.

---

[13] For more information on the Data Model, please refer to http://www.opm.gov/services-for-agencies/hr-line-of-business/enterprise-architecture/#url=Data-Model

[14] For more information on the Technical Model, please refer to http://www.opm.gov/services-for-agencies/hr-line-of-business/enterprise-architecture/#url=Technical-Model

[15] For more information on Target Requirements by Function, please refer to: http://www.opm.gov/services-for-agencies/hr-line-of-business/target-requirements/#url=By-Function. For more information on Target Requirements by Services, please refer to http://www.opm.gov/services-for-agencies/hr-line-of-business/target-requirements/#url=By-Service-Component

[16] For more information on the Target Requirements for services and functions, please refer to http://www.opm.gov/services-for-agencies/hr-line-of-business/target-requirements/#url=Overview
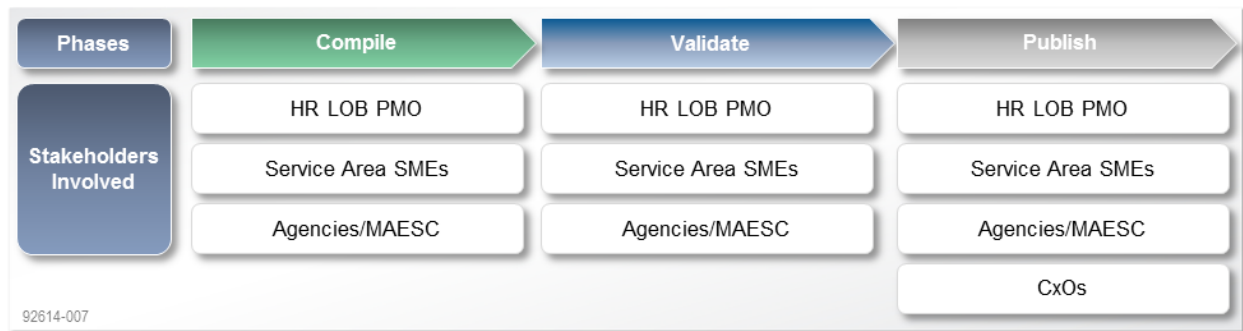
Figure 3-3: Process for Developing Target Requirements

The phases of the requirements development process include:

1. **Compile:** The HR LOB Program Management Office (PMO) compiles existing requirements documentation. Service Area SMEs and Agency/MAESC representatives identify pain points with the current service area. The HR LOB PMO reviews the pain points and identifies gaps in the current requirements.

2. **Validate:** The HR LOB PMO conducts a gap analysis and defines requirements to fill these gaps. Service Area SMEs and Agency/MAESC representatives provide feedback on draft requirements. The HR LOB PMO refines requirements and develops the draft service area Business Capability Document.

3. **Publish:** The HR LOB PMO receives and incorporates feedback on the business capability document from the Service Area SMEs and Agency/MAESC representatives. The service area CxO Council approves the Business Capability Document, and the HR LOB PMO publishes the document.

The HR LOB also created a Service Delivery Model (SDM)[17] that defined the HR function categorization of "Core HR" and "Non-Core HR" and the HRIT services that may be delivered through shared services, as well as the entities authorized to deliver them. HR LOB's EA and SDM were used to successfully consolidate government-wide Payroll and "Core HR" functions to SSCs.

To align with the HR LOB's business functions and program objectives, the SDM, shown in Figure 3-4, defines the "Core HR" and "Non-Core HR" functions and the methods through which these services may be delivered to agencies (i.e., delivered by SSCs or self-delivered by the agencies).

Federal Agencies, Core Functions, and *Non-Core Functions* comprise the HR LOB Common Solution. Activities listed in the *Federal Agencies* bubble are the "Non-Core HR" functions that can currently be provisioned by each agency for its unique needs and mission. Activities listed in the *Core Functions* bubble are the functions that are mandated to be

---

[17] The Service Delivery Model has also previously been referred to as the HR LOB Concept of Operations (CONOPS).

provided by SSCs. SSCs also have the option of providing the activities listed in the *Non-Core Functions* bubble.

The SDM incorporates the five Reference Models and the *Target Requirements for SSCs* artifact from the EA to demonstrate the service delivery standards required to achieve optimum performance.
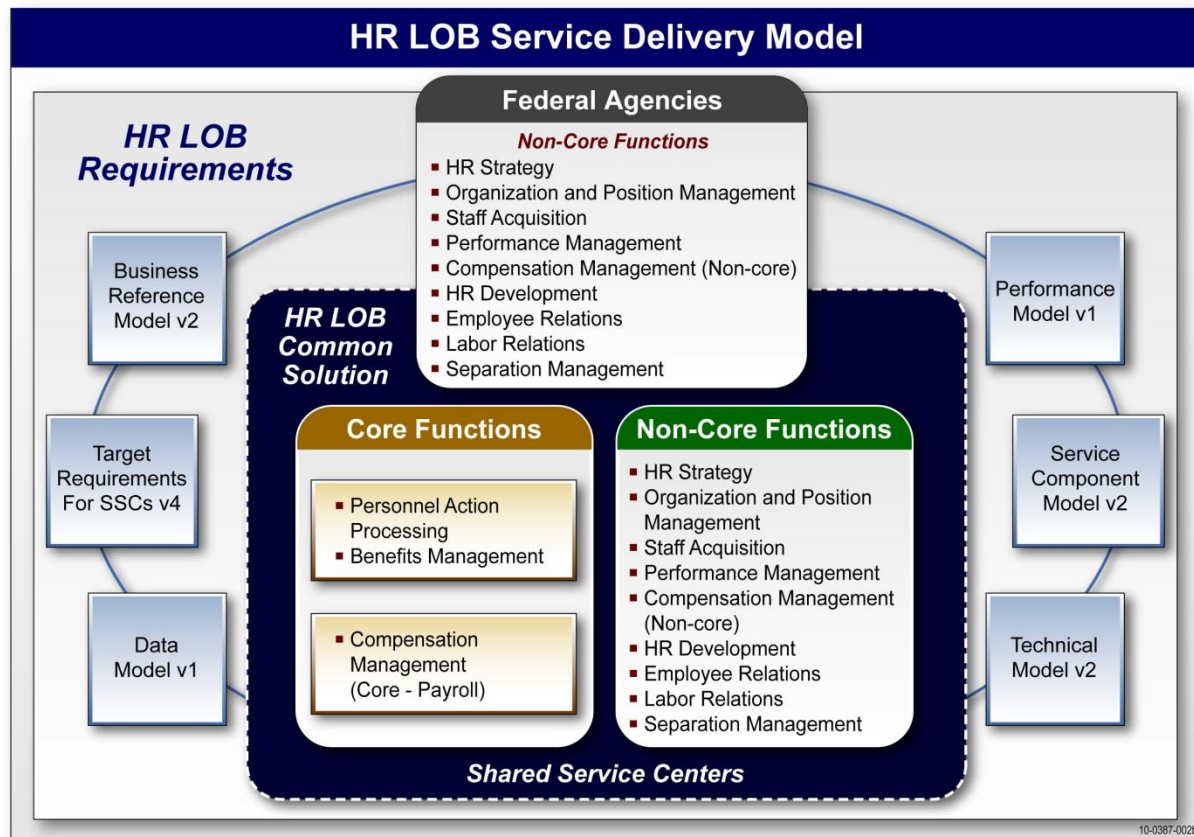
Figure 3-4: HR LOB Service Delivery Model

Benefits of EA and SDM

The development of the EA and SDM resulted in the following benefits:

- Unified the entire HR community around common business functions and services providing a framework to guide discussion between customer agencies and SSCs

- Developed a baseline set of business requirements used to improve service delivery and establish evaluation criteria for all SSCs

- Described all data elements needed to identify and execute processes across the HR lifecycle

- Defined standardized performance metrics for Payroll and "Core HR" functions

- Provided a basis for SSC system development efforts enabling HRIT innovation

Areas for Improvement

Improvement in the following areas would increase the benefits delivered by the EA and SDM:

- The SDM only mandates agencies to use an SSC for "Core HR" Functions, enabling the continued existence of potentially duplicative HRIT systems that support "Non-Core HR" functions

- The HR LOB EA and the FEA are not completely aligned, resulting in inconsistent guidelines for federal HRIT service delivery

- Incomplete government-wide HRIT standards, guidelines, and requirements limit the full potential benefit of data exchange capabilities and data-driven human capital management decision making

3.1.2 Adoption of Shared Services

In FY 2002, OMB established a federal e-Government initiative called e-Payroll to lead the standardization and consolidation of government-wide payroll activities. To support this effort, OPM created an e-Government program office, later known as the HR LOB, to establish payroll providers and to standardize payroll processing. As a result of OPM's success, OMB and OPM officially established the HR LOB in 2004 to continue leading payroll consolidation and oversee similar efforts for "Core HR" services. To facilitate this, the HR LOB developed the SDM to define the following:

- The HR function categorization of "Core HR" and "Non-core HR"

- The HRIT services that may be delivered through shared services and the entities authorized to deliver them

Benefits of the Adoption of Shared Services

By establishing the authority, governance model, and evaluation criteria for SSC selection, the HR LOB enabled the consolidation of approximately 400 federal departments, independent agencies, boards, and commissions to seven SSCs. This effort resulted in the following benefits:

- Achieved over $1 billion in cost savings and cost avoidance through the end of FY 2013, projected $1.6 billion through FY 2015

- Consolidated 99 percent of Payroll services (2.1 million federal employees) to four SSCs

- Consolidated 88 percent of "Core HR" services (1.86 million federal employees) to seven SSCs

- Established the first cross-agency satisfaction assessment of SSC performance
- Reduced agency technology investments that would have otherwise been required due to policy changes (e.g., Federal Employees Retirement System – Further Revised Annuity Employees) and unforeseen circumstances (e.g., 2013 Furlough)

Approval to become an HR LOB SSC

The HR LOB approves the business cases submitted by SSCs via a standard process to ensure that SSCs can effectively deliver services to customer agencies for Payroll and/or "Core HR" services. The HR LOB is supported in this process by technical evaluation panels comprised of agency SMEs. The analysis provided by these experts informs the approval decisions ultimately made by the OPM Director.

Migration of Federal Agencies to SSCs

The migration of federal agencies to SSCs was facilitated by a mandate to migrate to a shared payroll provider and HR SSC, when an agency's current HR system reached the end of its lifecycle. The HR LOB reviews agency Exception Business Cases (EBC), ensuring that an SSC that best meets the agency's needs is selected. The HR LOB provides oversight of agency migrations to SSCs by reviewing migration deliverables, conducting mediation/conflict resolution, and sharing best practices and lessons learned. Figure 3-5 shows a high level depiction of the process for agencies to migrate to an SSC.

Figure 3-5: Process for Agency Migration to an SSC

The phases of the agency migration process include:

1. **Assess:** The agency envisions how it can best deliver HR services to support the mission of the agency and develops the business case for change.
2. **Define:** The agency develops detailed requirements that will be a basis for SSC selection.
3. **Select:** The agency selects a partner / SSC and negotiates the partnership, including service level expectations.

4. **Migrate:** The agency and SSC work together to move selected operations from the agency to the SSC.

5. **Operate & Improve:** Performance results are used to identify opportunities for improvement.

In support of the agency migration process, the HR LOB evaluated and oversaw eight agency migrations to SSCs in 2013, totaling over $270 million in proposed investments for migrations. Figure 3-6 shows the current alignment of federal employees to payroll and "Core HR" SSCs as a result of agency migrations.[18]
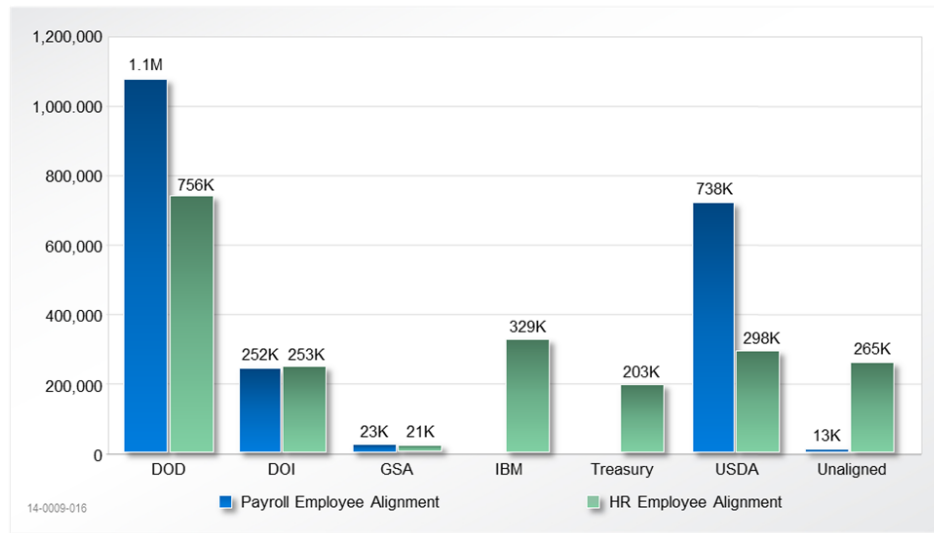
Figure 3-6: HR LOB SSC Alignment (Payroll and HR) by Parent Agency or Company

Adoption of "Non-Core HR" Shared Services by Agencies

Most SSCs offer "Non-Core HR" shared services to their customers; however, agencies have the option to either receive these services from SSCs or acquire them independently. The HR LOB defines the Target Requirements for the HR functions depicted in the BRM to assist agencies in deciding which SSC best meets their needs.

Figure 3-7 shows the current agency adoption rates of Payroll, "Core HR", and selected "Non-Core HR" services.[19]

---

[18] Alignment figures reflect migrations currently in progress. Source: HR LOB Agency Alignment.

[19] Figure 3-4 reflects the HR LOB's estimate of federal employee alignment with the Future State Vision of shared services, acquisitions aligned with the Office of Federal Procurement Policy (OFPP), and data shared across the federal employee lifecycle.
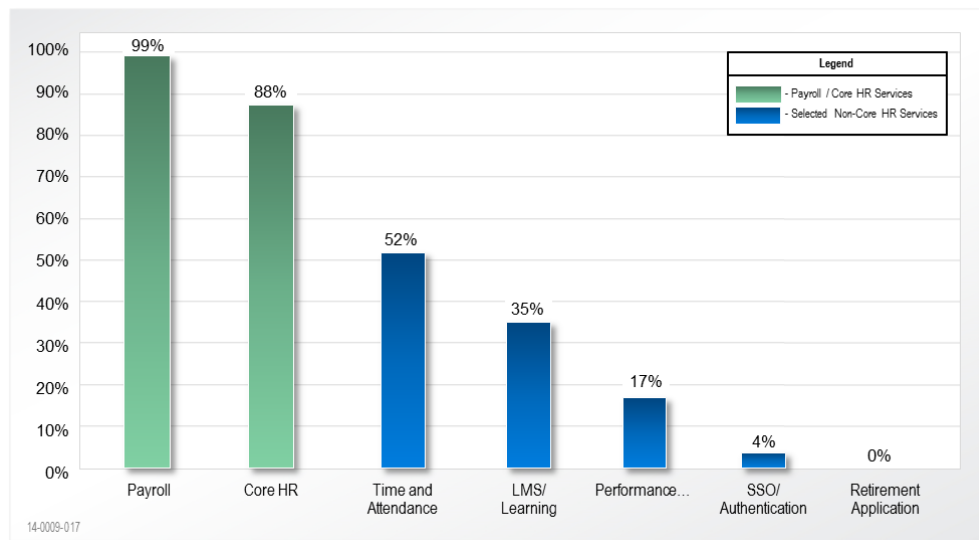
Figure 3-7: Current Alignment of Payroll, "Core HR", and selected "Non-Core HR" services

Management of SSC Performance

In addition to its oversight of agency migrations, the HR LOB monitors the continued performance of SSCs by conducting several SSC performance management initiatives. As part of these initiatives, the HR LOB conducts an annual Provider Assessment (PA), including a measurement of customer satisfaction, to evaluate SSCs on their ability to deliver services. Through the PA, the HR LOB continues to ensure the accountability and transparency of the SSCs and encourages continuous improvement. Figure 3-8 shows the high level process of conducting the PA.
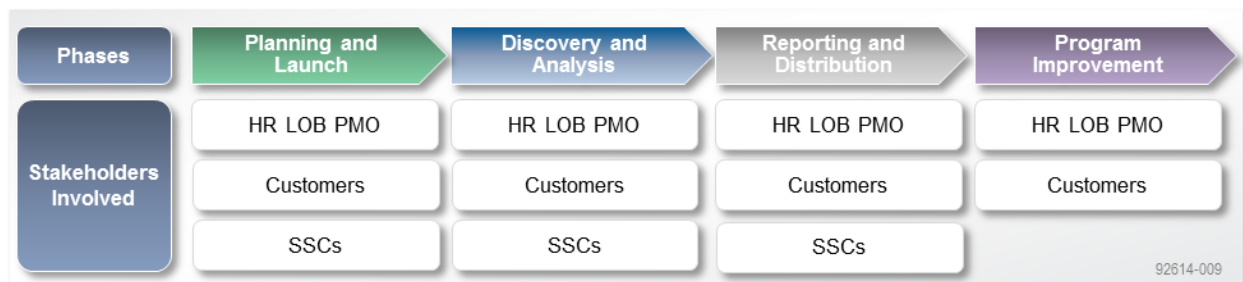
Figure 3-8: Process for HR LOB Provider Assessment

The phases of the PA include:

1. **Planning and Launch:** The HR LOB PMO develops the Provider and Customer Questionnaires, identifies SSC and customer agency points of contact, conducts a Customer Questionnaire pilot test, and distributes the assessment questionnaires to the respondent population.

2. **Discovery and Analysis:** Customers and SSCs complete and submit their respective questionnaires. The HR LOB PMO collects and analyzes the assessment data collected with the two questionnaires.

3. **Reporting and Distribution:** The HR LOB PMO creates the report content, compiles the draft assessment reports for each SSC, and finalizes and distributes the reports to stakeholders. SSCs submit a "Provider Comment" for inclusion in the final report.

4. **Program Improvement:** The HR LOB PMO hosts Customer Working Group (CWG) sessions to capture lessons learned and document improvements for future assessments.

The HR LOB also collects quarterly self-reported performance measures from the SSCs and performs benchmarking studies to assess SSC performance.

Areas for Improvement

The HR LOB identified three areas of improvement for the adoption of shared services:

- Proliferation of providers in "Non-Core HR" areas impacts OPM's ability to effectively implement government-wide policy changes and inhibits the effective exchange of HC data

- Duplicative HRIT investments waste valuable government resources and inhibit modernization and innovation

- Absence of an existing vehicle to enforce the mandate to adopt a shared services model for "Non-Core HR" services prevents the full realization of cost savings that could be generated from the model

3.2   HR Data Management

The processes and tools used in the collection and sharing of HR data in the current HRIT environment are at varying levels of maturity. Users often experience inconsistent views, navigation elements, and information when utilizing various HRIT systems. Each HR system owner (agency owner or SSC owner) has its own policies and guidelines based on their IT governance, change control processes, requirements for system availability and recovery time, and Service Level Agreements (SLAs).

Benefits of HR Data Management

Over the past decade, OPM has taken great strides to develop data standards. These standards include:

- OPM Guides to Human Resources Reporting and Data Standards

- OPM Guides to Personnel Recordkeeping and Processing Personnel Actions

- USAJOBS Staffing Integration Framework

- OPM Guides to Retirement Data Reporting, Retirement Data Validations, and Technical Compliance for Retirement Data

The Federal Government benefits from these standards by assisting in the collection of payroll, HR, training, and retirement data, among many others, for over 2.1 million federal employees through systems such as the Enterprise Human Resources Integration (EHRI) Data Warehouse and the electronic Official Personnel Folder (eOPF). The data collected has been used in multiple agency-specific and government-wide data calls and policy planning efforts.

Areas for Improvement

The HR LOB identified the following areas to improve upon the existing HR Data Management standards as part of the Strategic Framework:

- Consistency of HR data standards could be improved in order to increase enterprise-wide data usage and enable cross-agency HR data integration

- Use of manual processes may lead to data entry inconsistencies

- Unestablished ownership of standard government-wide data elements can be a cause of inconsistencies in employee records and inefficiencies in retirement processing

- Inconsistent security controls result from the lack of ownership of government-wide security policy and standards

3.3   Investment and Acquisition Planning

In the current budget environment, the government-wide theme of "Do More with Less" challenges the Federal Government's approach to IT investments. In support of this theme, the government has taken significant steps toward achieving financial transparency by implementing standardized reporting and establishing governance for IT investments. In an effort to understand HRIT spend across the Federal Government, the HR LOB conducted the *FY14 Cost Analyses of HRIT* comparing all existing data sources. This effort allowed for the evaluation of existing government-wide investment planning mechanisms, provided insight into current HRIT spend transparency, and resulted in an agency-specific breakdown of HRIT investments. The analysis can be found in *Appendix A*.

Benefits of the Cost Analyses

The Cost Analyses resulted in these benefits:

- Developed a government-wide view of average spend for 24 Chief Financial Officer (CFO) Act agencies

- Identified cost saving opportunities across multiple "Non-Core HR" services

- Created a baseline estimate of HRIT costs that helps calculate future state savings

The estimated expenditures for HR and HC-related federal IT investments range between $1.7 billion and $2.3 billion per year. The range of spending was devised from the multiple estimation techniques used, which are further explained in the analysis in *Appendix A*.

Although OMB Circular A-11 and other budget formulation guidance require all federal agencies to submit Exhibit 53s[20] for all IT investments and Exhibit 300s[21] for all major IT investments, not all agencies provide complete mappings of submissions to the appropriate BRM codes. The current Capital Planning and Investment Control (CPIC) process sometimes creates inconsistent classification of HRIT spending in other, related BRM code categories, limiting transparency.

Due to the incomplete and inconsistent Exhibit 53 data, the HRIT Inventory[22] was used as an additional data source. This approach was used to account for agencies' inconsistent reporting of HRIT spending in the Exhibit 53. The Cost Analyses were further validated by data collected through the HRIT Transformation 2015 Passback data collection for T&A and LMS costs to provide an additional, recent data point.

3.3.1 Capital Planning and Investment Control

The Clinger-Cohen Act established CPIC as a budgeting process between OMB and federal agencies to acquire, use, maintain, and dispose of IT in alignment with the agency's EA planning processes. Within this process, proposed IT investments are supported by an Exhibit 53 or 300 (e300), which determines if the investment is ultimately approved by OMB and the agency's Investment Review Board.

Benefits of the CPIC Process

The CPIC process resulted in these benefits:

- Ensured proposed IT investments are aligned with agency-wide IT strategic goals

- Developed a framework to balance potential benefits against costs and risk for IT investments

- Created an important foundation to drive transparency into federal HRIT spending

---

[20] For more information and guidance on Exhibit 53 submissions, please refer to:
http://www.whitehouse.gov//sites/default/files/omb/assets/about_omb/Information_on_tech.pdf
[21] For more information and guidance on Exhibit 300 submissions, please refer to:
http://www.whitehouse.gov/sites/default/files/omb/assets/egov_docs/fy13_guidance_for_exhibit_300_a-b_20110715.pdf
[22] The HRIT inventory was developed during the course of the FY 2011 HR LOB Cost Benefit Analysis

In 2006, OMB used the HR LOB BRM to update FEA BRM codes, which helped agencies map proposed HRIT investments. OMB updated the FEA BRM codes again in 2012, which caused the codes to no longer fully align with the HR LOB BRM. This misalignment limits the Federal Government's ability to analyze HRIT spending at the BRM sub-function level. Additionally, agencies sometimes map HRIT investments to FEA BRM codes inconsistently, because the definitions of the codes for HRIT investments are unclear.

OMB's Exhibit 53 captures HRIT spend at the aggregate level, but reporting at the BRM sub-function level is not consistent. Further, some agencies only submit total IT spend within their Exhibit 53 and fail to report spending specific to HRIT investments. This limits the Federal Government's ability to identify opportunities for HR savings through strategies such as the adoption of shared services and strategic sourcing. The limitations of the Exhibit 53 are further discussed in the *FY14 Cost Analyses of HRIT* in Appendix A.

The CPIC processes in the Federal Government vary widely, while the budget submission and justification process is mostly standardized. OPM does not have any government-wide oversight or approval responsibilities under the current submission process. Due to the limited oversight of the CPIC process, agencies often invest in duplicative HRIT systems without considering shared services.

Areas for Improvement

The benefits of the budget formulation process could be further realized if the following issues are appropriately addressed:

- Incomplete alignment between the FEA BRM and the HR LOB BRM leads to inconsistencies in HRIT spend reporting

- Inability to identify the efficacy of government-wide HRIT spend minimizes opportunities for furthering the OMB's "Shared-First" Strategy

- Development of an advisory role for HR LOB to support OMB in approving government-wide IT investments is needed to actively align federal HR strategy and agency HRIT spend

3.3.2 Shared Services HRIT Funding Models

SSC operations are generally funded through a fee-for-service approach, under the Economy Act, using a Working Capital Fund (WCF). SSCs enter into inter-agency agreements with federal entities based on their projected or actual utilization of services. Funds flowing into SSCs' WCFs, which are mostly restricted by the Economy Act, must be spent within the current year and cannot be rolled over to future years.

Based on the structure of SSCs' WCFs, all but one of the SSCs are unable to accumulate adequate reserves for investment in innovation initiatives and new technology. Additionally, the Federal Government does not have an "Innovation Fund" containing

centralized funding to finance proposed HRIT projects that are in alignment with government-wide HR and HC priorities.

As shown in Table 3-1 there are currently three major funding models that are used by SSCs to support their business models.

Funding Model	Description of How SSCs Use Type of Funding
Franchise Fund SSC using this: Treasury	SSCs receive funding through fees charged to customers for services. SSCs can accrue a "reasonable" operating reserve for acquisition of HRIT investments and improvements by retaining up to 4% of total annual income.
Appropriated Funding SSC using this: DCPAS	SSCs receive appropriated funding from Congress as part of the parent agency's budget process. This option is typically used for modernization projects when other funding alternatives are unfeasible.
Working Capital Fund (WCF) SSCs using this: DFAS, GSA, HHS, IBC, NFC	SSCs receive funding through fees charged to customers for services. SSCs may use this funding for planned technology refreshes for hardware and software in the year collected.

Table 3-1: Current use of Funding Model for SSCs

Franchise Fund

This model was authorized by OMB in 1994 through the Government Management Reform Act to six pilot agencies[23]. Franchise Funds allow SSCs to maintain in reserve a maximum of 4 percent of total annual income for acquisition of capital equipment and improvements. Collected funds obtained from customer agencies can be applied to future years. Among the current SSCs, the Treasury SSC is the only one that has successfully adopted a Franchise Fund model to collect fees from its customers.

---

[23] Government Management Reform Act (GMRA) of 1994 (Pub. L. No. 103–356, tit. IV, § 403, Oct. 13, 1994, 103 Stat. 3413) authorized the Director of OMB to establish six franchise fund pilot programs. In 1996, the Director of OMB approved applications for Franchise Funds from the Department of Commerce, the Environmental Protection Agency, the Department of Health and Human Services, the Department of the Interior, the Department of the Treasury, and the Department of Veteran Affairs.

Benefits of Franchise Funds

Treasury SSC has utilized a Franchise Fund to realize these benefits:

- Enabled revenue to be saved over time for the acquisition of new HRIT systems and improvements to existing systems
- Flexibility to operate and support federal agencies

Appropriated Funding

In this model SSCs receive appropriated funds from Congress as part of the parent agency's budget process. The availability of appropriated funds is limited and unreliable in the current fiscal climate.

Working Capital Fund

In this model, the SSC is funded through fees charged to customer agencies for services. The Economy Act requires that funds paid into a WCF during a given year be expended in the same year, requiring any surplus to be returned to customer agencies, or deficit collected prior to the end of the FY. Therefore, the SSCs can collect fees for planned technology refreshes for hardware and software, but earnings cannot be retained nor carried over to the following fiscal year. The WCF model limits the ability of SSCs to make strategic investments or execute complex, multi-year modernization upgrades.

Areas for Improvement

SSCs could improve efficiency and expand services to improve upon the existing, successful shared services model by overcoming these funding model impediments:

- Lack of flexibility in how SSCs fund their operations inhibits their ability to accumulate reserves in order to modernize their HRIT systems
- Inability of SSCs to access an alternative funding mechanism over an extended period of time creates a potentially unsustainable model and increases risk for the Federal Government
- Lack of a mechanism to fund innovations from which all SSCs and their customers can benefit leads to inefficient spending of limited government resources

3.3.3   Strategic Sourcing

According to the Director of the General Services Administration's (GSA) Federal Acquisition Service (FAS), today's federal acquisition landscape is fragmented and inefficient.[24] The Director recommends that category management be employed as the

---

[24] Sharpe (April 2014). The Future FAS: Categorically the Right Thing to do for Taxpayers. Retrieved from: http://gsablogs.gsa.gov/gsablog/2014/04/09/the-future-fas-categorically-the-right-thing-to-do-for-taxpayers

solution to help the government make better buying decisions. Category management entails shared contract information, critical analysis of contract-related data, and a unified cross-government approach. Category management customizes purchasing channels to better meet agency needs and market demands based on deep-dive market analysis.

Category management is directed from the highest levels of the Executive Branch including the White House, OMB, as well as GSA. This support includes the White House Performance.gov's 2014 Cross-Agency Priority goal[25], a series of OMB official memoranda[26], and the ongoing GSA Federal Strategic Sourcing Initiative (FSSI). Each of these sources provides added momentum to improve and modernize federal acquisition.

In the current state, GSA has not established any FSSI or category management initiatives for HRIT. However, GSA's FSSI program created strategic sourcing efforts for several commodity solutions. They include:

1. Express and Ground Domestic Delivery Services (FSSI DDS2);

2. Maintenance, Repair & Operations Supplies (FSSI MRO);

3. Office Supplies (FSSI OS2);

4. Print Management (FSSI PM);

5. Wireless (FSSI Wireless); and

6. Information Services (FSSI IS)[27].

According to the White House, the FSSI program has resulted in savings to date of $300 million over four years. There has also been additional significant cost avoidance, with certain areas demonstrating price reductions averaging 65 percent.[28]

Category management takes the current strategic sourcing initiatives one step further. GSA, in collaboration with OMB and the Strategic Sourcing Leadership Council (SSLC), is piloting category management with smarter buying and plans to launch three additional areas by October 2014.[29] According to the Director of FAS, this effort will optimize contract vehicles, manage data analysis, leverage supplier relationships, maximize customer relationships, and enhance the sharing of expertise.

---

[25] 2014 Cross-Agency Priority goal to expand strategic sourcing to improve government's buying power and reduce contract duplication. Retrieved from: http://www.performance.gov/node/3399/view?view=public#overview

[26] In this official OMB memo, the Director establishes a drive for Strategic Sourcing. Retrieved from: http://www.whitehouse.gov/sites/default/files/omb/memoranda/2013/m-13-02_0.pdf

[27] Information Services focuses on managing the acquisition of information products and services – such as subscriptions, books, maps and newspapers.

[28] President's Management Advisory Board (April 2014). Retrieved from: http://www.whitehouse.gov/sites/default/files/docs/pmab_presentation_04252014.pdf

[29] President's Management Advisory Board (April 2014). Retrieved from: http://www.whitehouse.gov/sites/default/files/docs/pmab_presentation_04252014.pdf

As of August 2014, the GSA Category Management PMO is drafting a Category Management Concept of Operations (CONOPs). In addition, a beta version of the Common Acquisition Platform (CAP) has been developed, revealing some of its future functionality as a single source for government acquisition. GSA has also recently begun meeting with Category Managers to define major government offerings and sub-category solutions; however, this process is still in its early stages of development.

Areas for Improvement

Strategic sourcing initiatives sponsored by the GSA FAS will have improved outcomes for HRIT if the following obstacles are addressed:

- Lack of a government-wide approach to vendor management for HRIT increases the likelihood of federal agencies purchasing multiple instances of commercial products

- Decentralized procurement across federal agencies may lead to duplicative investments and reduces the collective purchasing power of the Federal Government

- Limited transparency leads to insufficient visibility into the federal marketplace for agency decision-makers regarding:

    1. HRIT vendor products and services that individual agencies have purchased
    2. Requirements for customizations and configurations
    3. Prices and rates paid for these products and services

3.4   Authority

Pursuant to Title 5[30] of the United States Code § 1103, the OPM Director has government-wide authority for HR and is the primary owner of Title 5 policy and information. In this role, the Director has the responsibility to oversee the management and usage of all Title 5 policy and information.

The E-Government Act of 2002 provided OMB and the Federal Chief Information Officer (CIO) the authority to launch the E-Gov initiatives, and designated OPM as a Managing Partner to be administratively responsible for execution. Under E-Gov, OMB established the HR LOB in 2004 to lead the cross-agency effort to define, design, implement, and monitor government-wide HR common solutions.

In addition to the E-Gov Act, there are additional laws, legislative actions, and executive initiatives that provide authority to the HR LOB and provide the foundation for the implementation of this HR LOB Strategic Framework.

---

[30] Title 5: Government Organization and Employees at http://www.gpo.gov/fdsys/pkg/USCODE-2010-title5/pdf/USCODE-2010-title5.pdf

Benefits of Authorities

See *Appendix C* for a list of current authorities and initiatives relevant to the HR LOB. Some of the authorities resulted in the following shared services benefits:

- OMB's Competition Framework for HR LOB migrations provided guidance to agencies planning to upgrade or replace their agency's HR management systems. The Framework helped reduce system duplication by mandating agencies to migrate to an SSC at the end of their HR system lifecycle for "Core HR" services.

- OMB's Federal IT Shared Services Strategy validated the work of the HR LOB by calling on agencies to use IT Shared Services to improve government-wide returns on IT investment, close productivity gaps, and increase communications with stakeholders.

- The Government Management Reform Act established the Franchise Fund with six pilot franchises, which has allowed the Treasury Shared Service Center (TSSC) to collect up to four percent of funding to invest in modernization efforts.

Areas for Improvement

Improving upon the following issues will enhance the OPM Director's authority to fulfill the responsibilities of the HR LOB:

- Lack of authority to expand the adoption of the Franchise Fund model reduces the ability to reinvest for HRIT innovation

- Lack of policy owners for several critical HR services (e.g., Payroll, T&A) limits the government's ability to stand up cross-agency collaboration groups aimed at improving these services

- The absence of a clear mandate to adopt "Non-Core HR" services within OMB's Competition Framework limits the potential in reducing system duplication

3.5   Governance

When assigned as the HR LOB Managing Partner, OPM established the MAESC, comprised of 24 federal agencies, as the primary governing body of the HR LOB. OPM also established the SSCAC to provide advice and recommendations to the MAESC on issues that are relevant to the SSCs.

Benefits of Governance

This governance structure, shown in Figure 3-9, has resulted in these benefits:

- Established the oversight and development of the SDM to enable transformation of the Federal Government from a duplicative, dispersed HRIT environment to shared services

- Ensured that each participating federal agency had a voice in determining how the SDM was developed and implemented while enabling existing SSCs to participate in the process

- Set the direction of the HR LOB initiative through the workstream approval process, ensuring alignment to government-wide HR and HC priorities
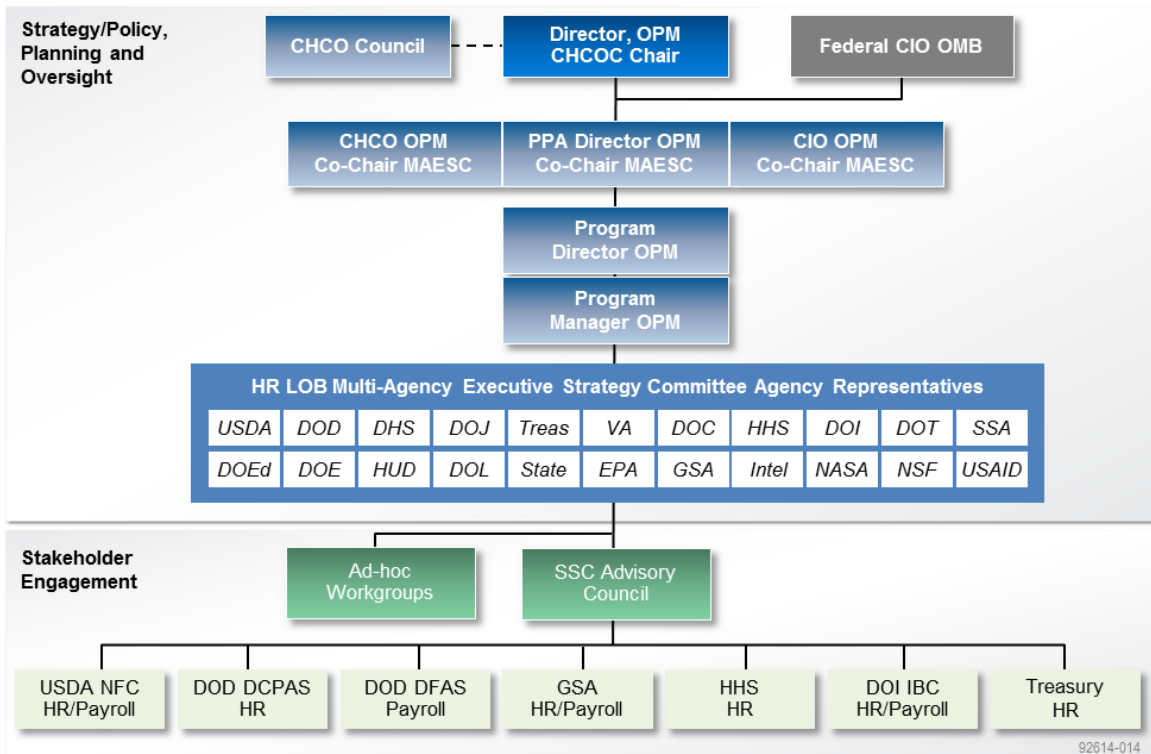
Figure 3-9: HR LOB Governance Structure

The current HR LOB governance structure has served the government well by providing adequate decision-making and advisory authority to the main stakeholder groups, including agency customers (MAESC), SSCs (SSCAC), and policy and regulatory entities (MAESC Co-Chairs).[31] The governance charters for the MAESC and the SSCAC were developed under OPM's and OMB's leadership and based on OMB's E-Government implementation guidance with participation from agencies and SSCs.

Areas for Improvement

OPM and OMB can further benefit from its stakeholder groups and governance bodies if the following adjustments to the governance model are made:

---

[31] Additional information regarding the HR LOB governance structure is located at: http://www.opm.gov/services-for-agencies/hr-line-of-business/#url=Governance

- Provide the HR LOB with sufficient visibility into cross-council decision-making to ensure consistent, government-wide priorities for HRIT investments

- Reinvigorate the business requirements group that was originally included in the governance model

4   Future State Vision

Executive Statement: The achievement of the Future State Vision described in this Strategic Framework will result in modernized HRIT service delivery, a common user experience, improved, standardized, and secure HR data management, and the effective use of strategic sourcing. These objectives will drive HRIT transformation for the Federal Government over the next 10 years. As described in the following sections, this Framework addresses these opportunities from a government-wide perspective and enables a sustainable HRIT model that meets human capital needs, reduces costs, and aligns with the Federal "Shared-First" Strategy.

This Future State Vision aligns with OPM's Strategic Plan (FY 2014-2018), the OPM CIO's Strategic IT Plan, and the CHCOC's Future State Vision.

4.1   Modernization Methodology

In July 2014, the CHCOC introduced the HRIT Future State Vision and Modernization Methodology, which outlines the modernization goals for HR technology over the next decade. This methodology will help achieve the desired end-state for federal integrated HRIT. With the goal of developing a single, efficient HRIT environment, the CHCOC's vision is to:

- Establish a technology-agnostic approach resulting in common user experience standards, HR data integration, and HR data standards

- Deliver HR data and transactions across the federal employee lifecycle and amongst agencies in accordance with the Federal "Shared-First" Strategy and federal IT security requirements

- Align business processes and systems with government-wide policy to support future technological and workforce changes

Future State Vision Summary
4.1 Modernization Methodology
• The HR Business Architecture provides the methodology to achieve an improved end-to-end transactional and strategic HC management solution structured around a common user experience
4.2 Service Delivery
• Updated Federal HR EA will focus on the government-wide common components of HRIT service delivery to guide HRIT migration and transformation
• Revised Service Delivery Model will continue to serve as the foundation to guide how HRIT services are delivered to achieve maximum benefits
• A new set of Shared Service Management Processes will be introduced to ensure the success of the next decade of HR LOB
4.3 HR Data Management
• Enable the exchange of HR data through cross-government data standards, security requirements, and interoperability across all HR systems
4.4 Investment and Acquisition Planning
• Cost savings of at least $1 billion will be achieved through reduced duplication and increased efficiency
• Fee-for-service based re-investment in HRIT will empower federal SSPs to provide self-supporting, efficient business processes and conserve resources
4.5 Authority
• Establish authority to sustain daily operating funds as well as shared innovation funds
• Policy owners will be identified for all services to provide guidance to service providers, customers, and the compliance process
4.6 Governance
• Cross-agency coordination of program direction will occur through a C-Level Officers Council
• Validation will give agencies confidence that services are aligned with priorities and meet their requirements

To enable the Future State Vision, the CHCOC established the HR Business Architecture (BA) as the methodology to guide the modernization of HRIT. To help with this effort, the HR LOB will leverage the BA to successfully implement the Strategic Framework. The BA's principles will be used by the HR LOB and other HR stakeholders to analyze and integrate all components of service delivery from HR business policies to relevant technology components.

The CHCO HR BA has five core sections, as shown in Figure 4-1, which include Agency Missions, Strategic Goals, Business Objectives, BRM HR Lifecycle Sub-Functions, and HR Customer Focus. The BA provides the foundation for analyzing and guiding proposed HRIT modernization projects at each layer of the BA. Consideration of these layers results in many benefits for federal HRIT transformation, including but not limited to, enterprise-wide interoperability, engaged workforce and talent management, and transparent end-to-end HR service delivery.

Figure 4-1: CHCO HR Business Architecture – Mission Enablement

Beyond its core sections, the BA is characterized by six distinct layers, as shown in Figure 4-2. These include Policy, Practices and Requirements, Process, Technology, Integration, and Data. The foundation of these layers, when combined, provides the tools, knowledge, and processes to further support this Strategic Framework and the

overall Future State Vision of an end-to-end integrated HR environment for managing the federal employee lifecycle.
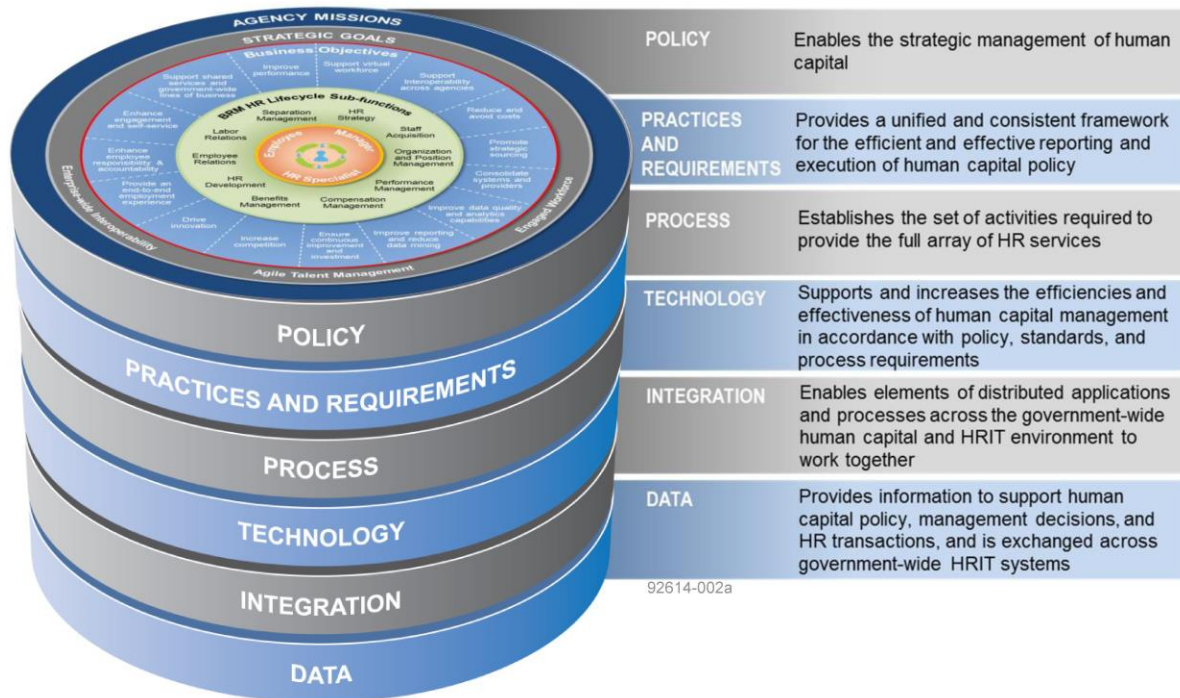
Figure 4-2: CHCO HR Business Architecture – Business Enablement

Agencies must consider each layer of the BA when planning and starting HRIT modernization projects. Using these components and core sections as a guide, ensures that HRIT modernization projects will align with government-wide HRIT and human capital priorities, as well as meet the future business needs of stakeholders.

4.2 Service Delivery

4.2.1 Enterprise Architecture and Service Delivery Model

The next generation of the Federal HR Enterprise Architecture (EA) will focus on the government-wide components of HRIT service delivery and will complement agency-specific EAs. The Federal HR EA frames the conceptual aspects of the HRIT that will be required to achieve interoperability, data-driven decision making, and other aspects of the CHCOC Future Vision. Complementing the Federal HR EA is the operationally-focused Service Delivery Model (SDM). The revamped SDM will identify the business requirements and data necessary to execute and improve HR service delivery. Since the inception of the HR LOB, the delivery model's primary focus was on agencies' migrations to SSCs (federal and private) without any provisions for new partnerships. The HR LOB's SDM will expand shared service offerings to include "Non-Core HR" services and will allow for new providers that comply with established HRIT requirements. The community of providers,

which includes existing SSCs, will be referred to as "Shared Service Providers" (SSPs) in the Future State Vision.

As HR LOB expands its service delivery, it is critical to have formalized Shared Services Management Processes (SSMPs), described below, to guide and manage future HR and HRIT service delivery. SSPs, along with the new SSMP, are essential components to the success of the SDM and will lead to enhanced HRIT sustainability in the future.

Enterprise Architecture

The revised Federal HR EA will provide guidelines on the conceptual aspects of HRIT to help transform the federal employee lifecycle and any related HR services, data and information standards, technology requirements, performance measurements, and security standards. Over the next 10 years, the EA will serve as the basis to inform agencies and SSPs on HRIT modernization and transformation efforts across the Federal Government.

The Federal HR EA will enhance government-wide strategic management of HRIT and provide interoperable and high-performing offerings beyond the current core functions. The integrated environment outlined in the EA will be more responsive to change and supportive of the delivery of the HR LOB's strategy.

The HR LOB will update its existing EA to align with the revised FEA standards, including the structure and the content of the various components. One of the missing sub-components within the existing EA is "Security," which is critical to addressing information security and privacy requirements within and across HR systems and agencies. The HR LOB will define standards and guidelines for the Security sub-component by leveraging existing materials such as the Technical Reference Model (TRM) and Identity and Authentication Reference Model (IARM).[32] Furthermore, the HR LOB will assist stakeholders including the Federal CIO, policy makers, agency SMEs, and SSPs in establishing an architecture that enables cross-cutting initiatives such as HRIT SSO, which is further described in Section 5.5.4.

Service Delivery Model (SDM)

The SDM, the operational backbone of federal HRIT delivery, will remain as the foundation for defining the functions, roles, and responsibilities for HR LOB service delivery. It will serve as the operating model to unify the entire HR community around common business functions and services, guide HR IT investment strategies, and combine "Core" and "Non-Core" HRIT services.

The updated SDM will enable modernized HR systems and reduce the duplicative HRIT investments through a shared service delivery model. It will also lead to the adoption of

---

[32] The IARM can be found online here: https://www.opm.gov/services-for-agencies/hr-line-of-business/hrit-transformation/iarm.pdf

shared services and reductions in operating costs throughout the Federal Government. The SDM is a fundamental component to achieve the CHCOC's goal of a common user experience.

The HR LOB will review and categorize HRIT services from "Non-Core" to "Core" as HRIT standards continue to evolve over the next decade. As HRIT services are re-categorized, the HR LOB will update its governance, roles and responsibilities documents (i.e., MAESC and SSCAC Charters), SSMP, Target Requirements, Migration Planning Guidance, and other artifacts to align with the outcomes and goals of the Framework.

Shared Service Management Processes (SSMPs)

The SSMPs will serve as the processes to guide and standardize the activities that promote quality of service delivery. The SSMP will consist of the following six critical processes, which ensure that SSPs deliver services to customer agencies in a consistent manner:

- Policy Implementation Process
- Compliance Validation Process
- CPIC Review Process
- Requirements Development (existing process, see Figure 3-3)
- Migration of federal Agencies to SSCs (existing process, see Figure 3-5)
- Provider Assessment (existing process, see Figure 3-8)

Policy Implementation Process:

The Policy Implementation Process is designed for OPM policy owners to receive feedback from stakeholders on draft policies to help owners understand the impact of policy changes on cost, implementation timeline, and operations. As depicted in Figure 4-3, this process highlights the stakeholders involved in each step of policy implementation.

Figure 4-3: Process for Policy Implementation

The Policy Implementation Process phases are:

1. **Develop:** The OPM Policy Owner develops draft policy based on changes to laws, regulations, strategic direction, and priorities.

2. **Collaborate:** The OPM Policy Owner collaborates with HR LOB PMO, SSPs, and agencies to identify operational considerations in the draft policy, receive feedback, and communicate the impact of policy changes on the cost, implementation timeline, and operations of HRIT services. The OPM Policy Owner considers the feedback, weighs the operational impact of the policy, and makes any necessary changes into the finalized policy.

3. **Implement:** Agencies and SSPs implement the policy changes as required.

Compliance Validation Process:

The Compliance Validation Process is designed for agencies and SSPs to receive validation that the services being delivered are compliant with the current HR requirements. This process will repeat every two years to validate any changes or upgrades to services. As depicted in Figure 4-4, this process highlights the stakeholders involved in each step of the compliance validation process.

Phases	Submit	Review	Validate
Stakeholders Involved	Agencies	HR LOB PMO	HR LOB PMO
	SSPs	OPM ESC	OPM ESC

92614-011
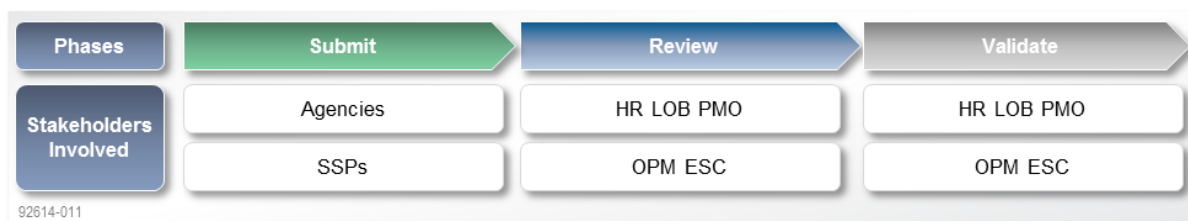
Figure 4-4: Process for Compliance Validation

The Compliance Validation Process phases are:

1. **Submit:** SSPs submit a Demonstration of Compliance (DOC) business case for existing services that need validation, or for new services being offered to their customers. Agencies that do not wish to migrate to an SSP must also develop and submit a DOC business case for the desired service that is being requested to maintain at an agency-specific level.

2. **Review:** The HR LOB PMO reviews the business case and makes a recommendation to the OPM Executive Steering Committee (ESC)[33] on whether to validate compliance. OPM ESC reviews the HR LOB PMO recommendation and makes a decision whether to validate compliance.

---

[33] OPM's ESC consists of OPM's CIO, CHCO, and Performance Improvement Officer (PIO).

3. **Validate:** If the OPM ESC validates compliance, the HR LOB PMO will issue the Compliance Validation to the agency or SSP. If the OPM ESC does not validate compliance, the HR LOB PMO will issue feedback to the agency or provider about their noncompliance and work with them to ensure future compliance.

CPIC Review Process:

In the future state, the HR LOB has identified three opportunities to provide agencies and OMB with advice and support during agencies' CPIC processes and OMB's budget approval process. The opportunities include:

- Agencies' HRIT-related Exhibit 53 submissions

- Agencies' HRIT-related Exhibit 300 submissions

- HRIT-related Passback[34] language that OMB provides to agencies

Figure 4-5 highlights stakeholders involved during each step of the proposed CPIC Review Process.

Phases	Consult	Guide	Review
Stakeholders Involved	Agencies	Agencies	Agencies
	OPM	OPM	OPM
		OMB	OMB

92614-012
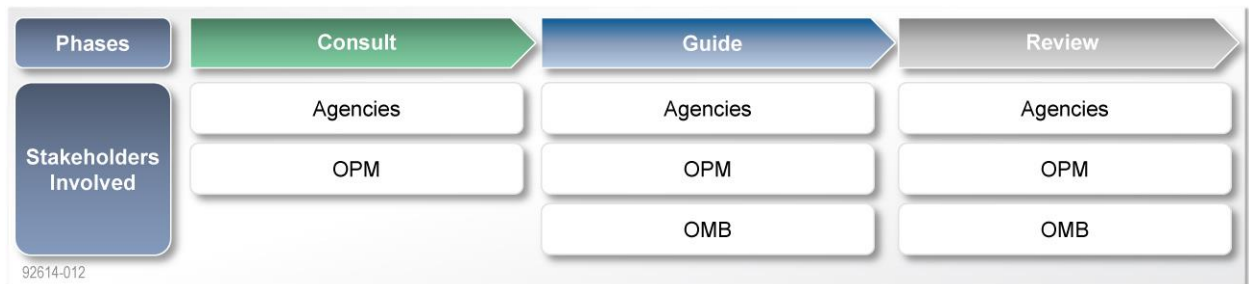
Figure 4-5: Process for CPIC Review

The CPIC Review Process phases are:

1. **Consult:** Agencies consult with OPM when implementing or upgrading new HRIT systems. Additionally, during this phase, all new HRIT investments should meet service requirements driven by OPM policy.

2. **Guide:** Agencies clearly identify all HRIT investments in their Exhibit 53 and 300 submissions by using consistent HR BRM codes, improved descriptions, and new data tags. OPM and OMB will collaboratively provide specific guidance to agencies via OMB Circular A-11 on preparing Exhibit 53 and 300 submissions for HRIT.

3. **Review:** OPM will review agencies' Exhibit 53 and 300 submissions for HRIT and recommend Passback language for OMB to deliver to agencies. OMB will

---

[34] The budgetary decisions of the OMB director are passed back to the agencies, in what is known as an OMB "Passback." - http://www.senate.gov/reference/resources/pdf/RS20152.pdf

review agency investment decisions, then grant funding or submit Passback language for agencies to review.

4.2.2   Adoption of Shared Services

The HR LOB will expand agency adoption of shared services as directed by OMB. Agencies will be able to procure "Core HR" and "Non-Core HR" services from SSPs that meet established requirements.

Shared services adoption will lead to considerable cost savings as proven by the consolidation of payroll and "Core HR" over the last decade. It will also drive operational efficiency through the standardization of processes and facilitation of HR data collection and exchanges. In addition, shared services adoption will help accelerate the implementation of a common user experience.

The HR LOB will continue to work with SSPs to develop standard and consistent "Non-Core HR" offerings. As SSPs continue the expansion of "Non-Core HR" services, HR LOB will assist agencies in the selection of and migration to SSPs.

4.3   HR Data Management

The OPM Strategic IT Plan states that federal agencies require HR data analytics to build effective business strategies, improve decision-making capabilities, and measure and improve performance.[35] In addition, during the Strategic Visioning Sessions the HR LOB stakeholders identified the standardization and exchange of data as one of the most critical elements for modernizing HRIT in the Federal Government to support future technological and workforce transformations.

As OPM strives to provide greater access and integration among HR data to inform HR-related policies and decisions[36], the HR LOB will support implementation of the government-wide HR data strategy as defined by the Federal HR CIO. This strategy will serve as a roadmap and plan to achieve consistent data standards, HR data interoperability, and to support secure data access, exchange, and management.

The implementation of the data management strategy will yield a high Return on Investment (ROI) for federal HRIT and will serve as a foundation to enable a common user experience. It will also lead to better data quality control, increased data interoperability and availability, and timely reporting of HR data across all HR systems as defined by the CHCOC.

---

[35] OPM Strategic IT Plan: http://www.opm.gov/about-us/budget-performance/strategic-plans/strategic-it-plan.pdf
[36] OPM Strategic Plan https://www.opm.gov/about-us/budget-performance/strategic-plans/2014-2018-strategic-plan.pdf

The HR LOB has identified Master Data Management (MDM) as one of the strategies that will provide a solid foundation to share federal HR data across various systems and processes in the future state. MDM has been successfully and widely adopted in the public and private sectors, and has effectively combined and indexed different types of critical employee data (e.g., Social Security Number, name), to provide a uniquely traceable identifier to a particular employee.

Following the MDM strategy, OPM will own the HR Master Data including management of data standards and definitions. This Master Data would be accessed securely by HR staff, employees, and retirees and has the potential to transform HR data into a highly effective and transparent decision-making tool for Executives, HR Management, Congress, and the public. Effective data management and use of the MDM strategy will build the foundation for the future state vision of an end-to-end integrated HR environment for the federal employee lifecycle.

Key aspects that are critical to the success of any data management initiative, as outlined in the Data Management Association's (DAMA) Data Management Body of Knowledge (DMBOK),[37] include:

- **Data Governance:** Data Governance is the most critical factor for the success of any data strategy implementation. To maximize business value through effective IT governance, the business and IT strategies and infrastructure must be fully-aligned and integrated. A data governance model would exercise optimal control over the processes and methods used by data stewards to manage HR data.

- **Data Policies:** All data management practices must adhere to applicable laws, regulations, and policies applying to HR data within the Federal Government.

- **Data Standards and Interoperability:** The ability to provide integration and interoperability of HR Master Data across the Federal Government could be achieved by enhancing and modernizing the HR LOB DM. The updated DM would employ data and metadata standards to effectively manage master data. The updated DM will be built based on the National Information Exchange Model (NIEM).

- **Data Security:** The lack of consistent implementation of government-wide data security and various architectural standards across all Federal Government systems inhibits the ability to verify the origin of data and leads to improper modification or destruction of information. As described in the OPM *Strategic IT Plan*, OPM will work with OMB and the National Institute of Standards and Technology (NIST) to implement rigorous Information Security policies based on a risk management methodology that considers all potential threats.

---

[37] DMBOK: http://www.dama.org/i4a/pages/Index.cfm?pageid=3364

- **Data Quality:** According to a Gartner research report, poor data quality is a primary reason for 40 percent of all business initiatives failing to achieve their targeted benefits.[38] To ensure better quality of HR data, it is critical to have a designated party accountable to enforce data quality standards across different HR systems within the Federal Government.

The HR LOB recognizes there are many challenges associated with establishing a comprehensive data management strategy across the Federal Government. The methodology and framework behind the Future State Vision will support the implementation of the Federal HR CIO's data strategy by assisting with the development of HR data standards and interoperability requirements. The HR LOB will collaborate with stakeholders to adopt HR data standards and data exchange security requirements, from "Strategy to Separation", as defined by the Federal HR CIO.

4.4 Investment and Acquisition Planning

The future of HRIT sustainability and innovation is highly dependent on improved government-wide investment and acquisition strategies. As the HR community moves forward, OPM, GSA, OMB, and other federal agencies will have to work together to achieve the level of financial transparency and oversight required to enable a leaner HRIT environment. In addition, more efficient funding mechanisms and acquisition strategies need to be developed to advance HRIT. This section will outline the strategies for investment and acquisition planning.

4.4.1 Cost Analysis of HRIT

The HR LOB's cost analysis estimates that current annual HRIT spending across the Federal Government ranges from $1.7 to $2.3 billion (see Table 4-1), revealing a set of opportunities for future cost savings. This effort is critical to the promotion of government-wide investment planning mechanisms and HRIT spend transparency for the future state of federal HRIT.

---

[38] *Measuring the Business Value of Data Quality.* https//www.gartner.com/doc/1819214

Overall HRIT Spending	
Data Source	Estimate of Annual HRIT Costs
HRIT Inventory	$1.7 billion
Exhibit 53	$2.3 billion

Table 4-1: Overall HRIT Spending

Table 4-2 shows estimated annual HRIT spending across six HRIT spending categories. This analysis is based primarily on two different data sources (HRIT Inventory[39] and OMB Exhibit 53 data[40]), although additional data was used within the analysis. Further details of this cost analysis can be found in Appendix A *FY 2014 HRIT Cost Analysis.*

#	Spending Category	Data Source	Estimate of Annual HRIT Costs
1	Data Exchange and Interfaces	HRIT Inventory	$19.3 million
2	Learning Management Systems	HRIT Inventory	$73.6million
		OMB Exhibit 53	$276.0million
		HRITT Passback	$94.1million
3	Time and Attendance	HRIT Inventory	$30.9million
		OMB Exhibit 53	$112.2million
		HRITT Passback	$122.9million
4	Electronic Performance Management Systems	HRIT Inventory	$34.5million
		OMB Exhibit 53	$274.9million
5	Single Sign On	Other Sources (OPM, FedScope)	$450.9million

---

[39] The HR LOB developed the HRIT Inventory as part of its FY 2011 Cost Benefit Analysis (CBA). The purpose of the HRIT Inventory was to create a comprehensive inventory of agency HR systems and related costs. See Appendix A for more detail.

[40] OMB's Exhibit 53 is the Agency Information Technology (IT) Investment Portfolio, which provides budget estimates for overall IT investments and for significant IT systems. See Appendix A for more detail.

#	Spending Category	Data Source	Estimate of Annual HRIT Costs
6	Retirement Annuity Estimators	OMB Exhibit 300	$7.4 million

Table 4-2: Current HRIT Spending

Figure 4-6 displays each agency's Exhibit 53 inputs related to current HRIT spending across agency population levels.
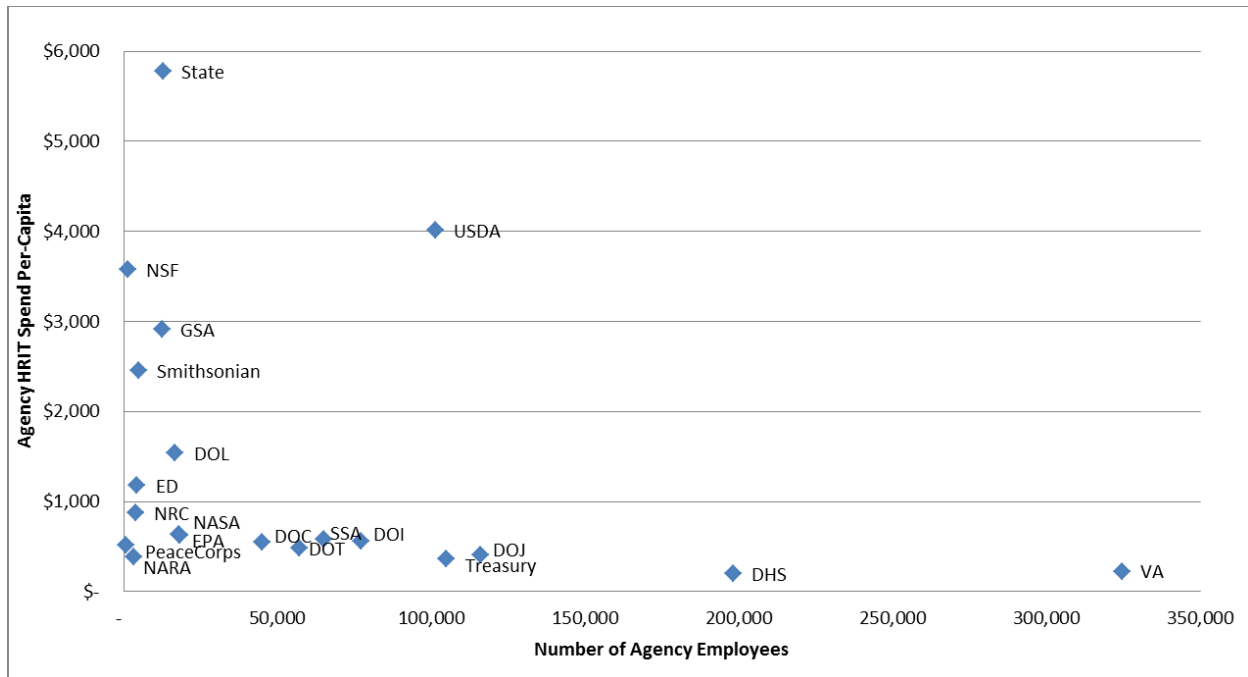

Figure 4-6: Overall HRIT Spending Scatter Plot – Exhibit 53 Data

Figure 4-7 below displays each agency's HRIT Inventory current per-capita spending across agency population levels.
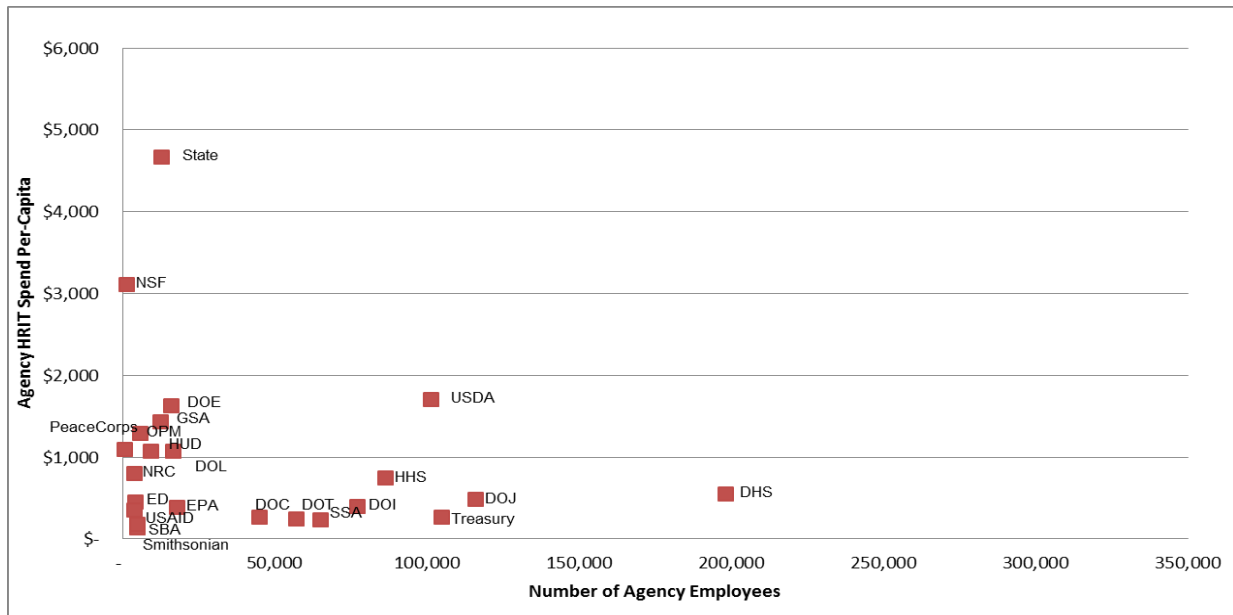
Figure 4-7: Overall HRIT Spending Scatter Plot – HRIT Inventory Data

As noted in the Cost Analysis (Appendix A), the average Exhibit 53 spending is approximately $1,094 per capita, per year, compared to an HRIT Inventory spending of $801 per capita, per year. In the future state, HRIT costs will be reduced through the elimination of duplicative system spending, migration to SSPs, and by transparency of HRIT spend from future cost analyses as described below.

Future State Cost Estimates

The HR LOB conducted an additional analysis to estimate the amount of potential savings related to specific HRIT systems and policies. As shown in Figure 4-8, the HR LOB estimates over $1 billion in savings over the next 10 years through the movement of agencies to SSPs and improvement in operational efficiencies across the Federal Government. High level information on the calculation approach for each of the future state HRIT savings opportunities can be found below.

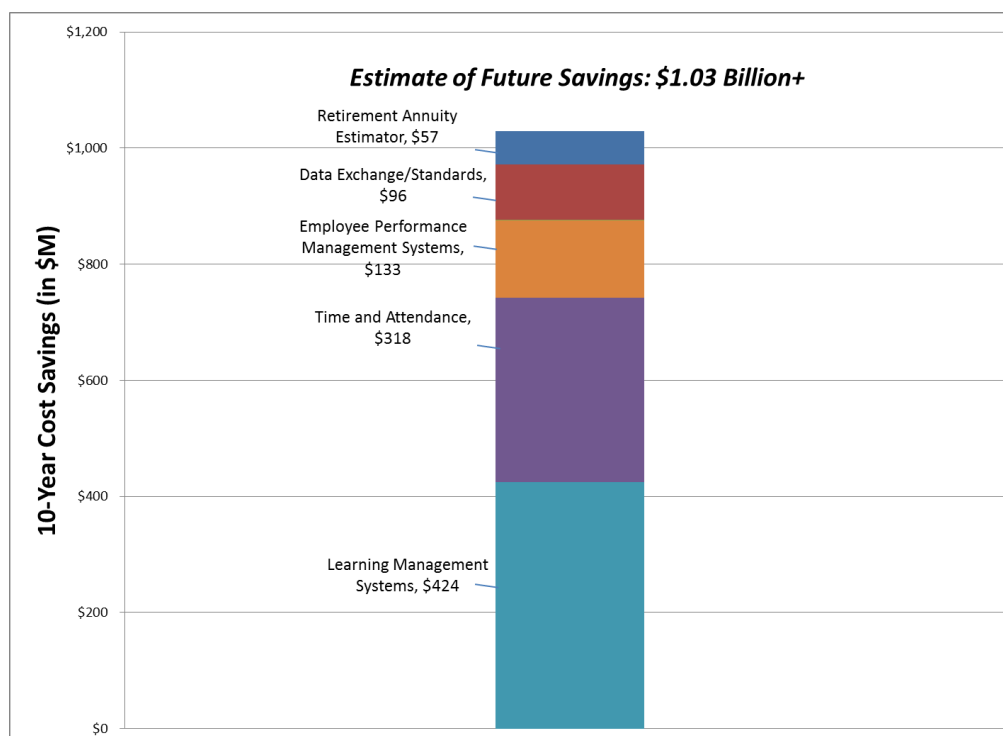**Figure 4-8: Future Savings Estimate**

Retirement Annuity Estimators: The HR LOB estimates that consolidation of retirement annuity estimators could potentially generate $57 million in cost savings over the next 10 years. The HR LOB calculated an estimate of savings based on current costs for retirement annuity estimators.

Data Exchange/Data Standards: The HR LOB estimates that the Data Exchange and Data Standard changes could potentially save $96 million over the next 10 years. The HR LOB calculated an estimate of savings based on documented industry and government data exchange details and costs (i.e., number of exchanges in an SSP, cost of maintenance of interfaces). As part of this calculation, the HR LOB assumed that improved data exchange and data standards can produce savings of approximately 50 percent of current estimated expenditures, or $9.6 million per year for each of the next 10 years.

Electronic Performance Management Systems (EPMS): The HR LOB estimates that moving agencies to an SSP for EPMS capabilities could save approximately $133 million over the next 10 years. This calculation is based on comparing costs per capita of EPMS at agencies with an SSP versus those that procure EPMS outside an SSP.[41]

---

[41] This EPMS analysis is based on data analysis of HRIT Inventory after removing all HRIT Inventory agency data that showed wide variance between HRIT Inventory and Exhibit 53 entries. Numerous entries in the HRIT inventory data for EPMS showed wide variance in the data.

Time and Attendance (T&A): The HR LOB estimates that moving to an SSP for T&A systems could potentially save $318 million in licensing and maintenance costs over the next 10 years. This calculation is based on comparing costs per capita of T&A at agencies with an SSP versus those that procure T&A outside an SSP. As more agencies adopt SSPs for T&A, more employees are added resulting in a decline in the per employee cost. To adjust for agency size, the HR LOB assumed different rates of costs for small, medium, and large agencies transitioning from an agency-owned T&A system to an SSP-owned system.

Learning Management Systems (LMS): The HR LOB estimates that moving to an SSP for LMS could potentially save $424 million over the next 10 years. To calculate the savings of LMS systems, the HR LOB compared the costs for aligned agencies to their unaligned counterparts. If the employees of unaligned agencies were to migrate to an SSP, annual expenditures would be reduced by over $42 million per year for each of the next 10 years.

4.4.2   Capital Planning and Investment Control (CPIC)

The HR LOB is seeking to improve the CPIC process to better guide, review, and provide feedback to agencies' proposed acquisitions of new HRIT systems.

The updated CPIC governance process will ensure that HRIT investments support government-wide HRIT policy and priorities. The increased visibility of federal HRIT spend will adequately inform government-wide HRIT investment decisions and will drive the migration of federal agencies to SSPs. The revised reporting details will enable cost analysis at the appropriate level and give agencies the capability to accurately measure HRIT spending.

As OMB's partner, OPM will work with OMB to serve in an advisory role for the approval of government-wide HRIT investments. Agencies will continue to submit a business case to OPM and OMB for approval that explains the agency's rationale for selecting and migrating to specific services. OPM will review agencies' Exhibit 53 and 300 submissions for HRIT and recommend Passback language for OMB to deliver to agencies. OPM will work with OMB to validate that the proposed HR solution cannot be obtained at a lower cost from existing SSPs.

To enable the agencies with the ability to clearly identify all HRIT investments in their Exhibit 53 and 300 submissions, the HR LOB will review and update the HR BRM codes to ensure its consistency in reporting. OPM and OMB will collaboratively provide specific guidance to agencies via OMB Circular A-11 on preparing Exhibit 53 and 300 submissions for HRIT.

4.4.3   Shared Services HRIT Funding

Working with the federal SSPs, the HR LOB will pursue funding and operational improvement strategies to assure the future sustainability of HRIT investments and the ability to innovate across the human capital lifecycle. These strategies will include the following:

- Sustainment: Federal SSPs' Access to Franchise Funds

- Operations and Process Improvement: Savings Opportunities

- Innovation Fund

- Flexible Funding Vehicle: Borrowing Authority

The Franchise Fund, funded through a fee-for-service model, will empower self-supporting Federal Government business efficiency and conserve resources. It will enable federal SSPs to upgrade their infrastructure and software as needed, improve services, and enhance HRIT functionalities. The savings opportunities described in Section 4.4.1 will also provide operational efficiencies and reduce costs. The new "Innovation Fund" will stimulate innovation and encourage SSPs to introduce and share new ideas, methods, and services to improve efficiency, productivity, and quality. The "Borrowing Authority" vehicle will enable significant capital investment projects for SSPs to sustain and improve HRIT.

Sustainment: Federal SSPs' Access to Franchise Funds

The HR LOB will seek authority when required and work with federal agencies to implement Franchise Funds to manage their operations and accumulate reserves to address HRIT upgrades and maintenance. The federal SSPs will be able to retain up to four percent in reserve. The required governance structure and audit practices will be established to guide SSPs on optimally utilizing the Franchise Funds.

Operations and Process Improvement: Savings Opportunities

The HR LOB will work with SSPs to identify operational improvements and cost savings opportunities that can be reinvested into operations. For example:

- Reduce paper copies and postage costs by providing certain HR and payroll documents (e.g. W-2) electronically

- Standardize and simplify HR policies and business rules to reduce HRIT system customizations costs

- Establish a Centers of Excellence (COE) model to enhance collaboration and expertise sharing across SSPs

- Simplify integrations between HR and payroll systems and the EHRI Data Warehouse to reduce system integration development timeframes and customization costs

- Apply industry operations and maintenance best practices to promote efficiency

Innovation Fund

An Innovation Fund will be used for mid- to long-term innovative solutions that can be shared broadly across multiple SSPs. The Innovation Fund will be established through direct appropriation requests and through an annual partner contribution fee charged to SSPs as a part of their service validation. New products and services developed with the Innovation Fund will be required to be shared by SSPs to provide benefits and reduce duplication across the Federal Government.

A robust governance model will be set up to provide the standards and authority to oversee the approval of innovation projects and to monitor the spending of allocated funds.

Flexible Funding Vehicle: Borrowing Authority

SSPs will have the option to leverage the Federal Government's borrowing/lending authority vehicles to be used in the short-term to fund significant capital investment projects. The HR LOB proposes working with Treasury to allow qualified federal SSPs to borrow funds to initiate major modernization efforts.

Borrowed funds will be repaid based on terms established by Treasury. The borrowed funds may include interest and processing or administrative fees, which would be recaptured through customer service fees. The annual increase in customer fees would be minimized by establishing a long repayment period for the borrowed funds.

4.4.4   Strategic Sourcing

Category management (CM) will be used by federal agencies to purchase HR and HRIT services using the Common Acquisition Platform (CAP). The CAP will be a "virtual hallway" used across the Federal Government to coordinate, analyze, and collaborate on government purchasing activities. This CAP will be the online community and virtual meeting space for all information needed for identifying, sourcing, and negotiating HR or HRIT services. In its initial iteration, the CAP will have a primarily informational role, and will provide agencies information related to contract vehicles, standards, and best practices.

GSA is the lead agency for all CM efforts. The overall result of the CAP implementation will be a streamlined and improved acquisition process. This new process will allow the government to overcome current acquisition challenges including cultural resistance to change, timely access to data, and resistance to working from an enterprise cross-government perspective.[42] Finally, using this unified approach to acquisition will result in better buying decisions, lower prices, and maximized customer relationships.

---

[42] President's Management Advisory Board presentation (April 2014).

GSA is in the preliminary stages of planning its future vision for category management. As of August 2014, GSA has initiated the process to define CM processes and roles, as well as CAP functionality.

Strategic Sourcing will be achieved through three phases of effort over four years. The **Initiate and Consolidate Phase** and the **Analyze Requirements and Market Phase** will occur in Year 1 and Year 2, and the **Execute Category Management Phase** will occur in Year 3 and 4. HR LOB will work with the Category Manager and Sub-Category Manager throughout the entire process. Details for each phase and their associated timeline are shown below:

- **Initiate and Consolidate Phase:** Initiate and build buy-in and momentum in the effort and will then leverage existing HRIT requirements to conduct analysis and consolidate contracts.
- **Analyze Requirements and Market Phase:** Leverage the HRIT requirements to understand the services, and then conduct requirements analysis to determine which vendors meet the requirements, and market analysis to build understanding of the market.
- **Execute Category Management Phase:** Support the execution of federal acquisition-specific category management activities, including bringing vendors into the CAP and sourcing and procurement strategy.

Figure 4-9 illustrates the three-phased procedure outlined above, which is adapted from the FSSI ConOps[43] and related research.[44]
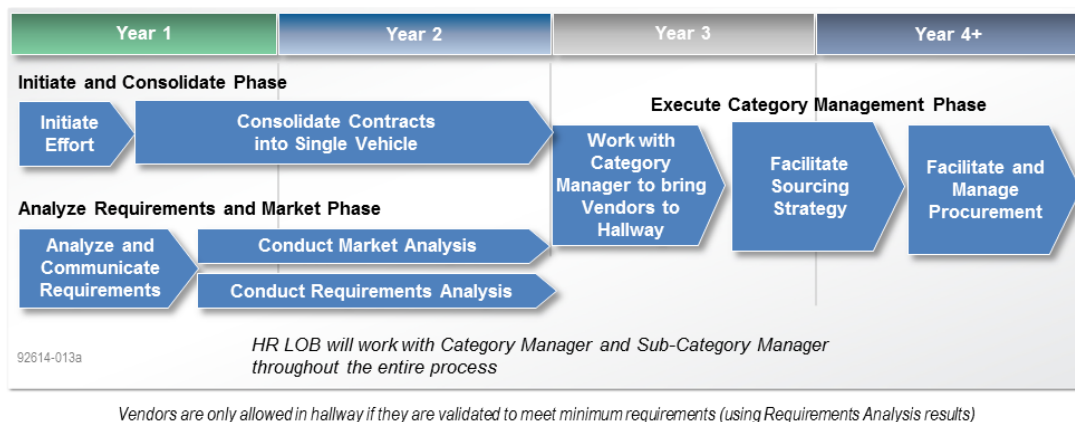

Figure 4-9: Future State Category Management Process

---

[43] FSSI ConOps retrieved from: https://strategicsourcing.gov/concept_operations

[44] The new process proposed will be updated in the future based upon the established process published in the future by GSA.

The three phases are further delineated as follows:

Initiate and Consolidate Phase:

- *Initiate Effort:* The HR LOB will initiate the effort by defining and communicating the effort, goals, and plan to relevant key stakeholders.

- *Consolidate Contracts*: The HR LOB will work with GSA, relevant agencies, and the Chief Acquisition Officers Council (CAOC) to consolidate all applicable existing HRIT contract vehicles for the same services into a single government-wide vehicle. This will reduce issues with multiple contracts for the same services that currently occur across the Federal Government. Government-wide requirements for each function will be developed in separate efforts and inform later phases.

Analyze Requirements and Market Phase:

- *Analyze and Communicate Requirements:* The HR LOB will analyze the established cross-government requirements, and then communicate the requirements of a selected function (i.e., learning management) to the functional community. This community includes relevant vendors, agencies, and CAOC among other groups.[45]

- *Conduct Requirements Analysis:* The HR LOB will facilitate and/or conduct requirements analysis to validate that HR SSPs' services meet the set of minimum requirements. The HR LOB will provide feedback to those SSPs that do not meet requirements.

- *Conduct Market Analysis:* The HR LOB will conduct and/or collect available market analysis related to the supply and demand of the selected function, including the status of vendors, current government spending, and contract vehicles. The analysis will be posted to the CAP for use by all agencies and SSPs.

Execute Category Management Phase:

- *Bring Vendors to Hallway:* The HR LOB will work with the Human Capital Category Manager and Sub-Category Manager to bring the HRIT vendors in a particular category into the CAP. Before GSA qualifies a vendor to become a HRIT vendor in the CAP, its HR services will be validated by the HR LOB as meeting minimum requirements. As the category matures, the only approved entities listed in the CAP will be SSPs for HRIT. The CAP will have all the information the agencies need, including all services offered from SSPs.

- *Facilitate Sourcing Strategy:* The HR LOB will work with the Human Capital Category Manager and Sub-Category Manager to facilitate the development of a

---

[45] Requirements for each function will be developed in a separate process beginning in FY 2015.

sourcing strategy for the selected function through stakeholder interviews and/or focus groups to elicit input and select an appropriate strategy for the function.

- ***Facilitate and Manage Procurement:*** The HR LOB will work with the Human Capital Category Manager and Sub-Category Manager to facilitate procurement through development and provision of materials to aid in conducting negotiations with suppliers. This may include analysis of past spending, negotiation and how-to guides, or a list of past customizations. The HR LOB will move all relevant information on vendors, marketplace, contracts, and contract vehicles in the market to the CAP.

Each of the phases delineated above will be repeated for each functional area the HR LOB chooses to pursue within the Human Capital category. One functional area will be established as a pilot and then serve as a model for the following functional areas.

As a result of this CM approach, the functional area will streamline and unify its approach to acquiring HRIT services, leading to decreased administrative costs and increased purchasing power for the Federal Government.

4.5   Authority

The HR LOB will coordinate with senior officials government-wide to seek the appropriate authority needed to implement the strategies outlined in this Framework. These authorities are:

- OPM seeks to increase its involvement in the Exhibit 53/300 HRIT Investment Review Process, as described in Section 4.4.2.

- The HR LOB seeks to increase adoption of HR shared services, as described in Section 4.2.2. In accordance with OMB's "Shared-First" Strategy, other "Non-Core HR" services will be included in the shared services migration mandate.

- The HR LOB will seek authority as needed and work with SSPs and their agencies' leadership to implement Franchise Funds as the mechanism to run their daily operations and accumulate reserves for reinvestment, as described in Section 4.4.3

- OPM will seek authority to establish and administer Innovation Funds, as outlined in Section 4.4.3.

- The HR LOB will pursue a flexible funding source (e.g., Borrowing /Lending Authority) for federal SSPs, as described in Section 4.4.3

- The HR LOB will work with OMB to designate policy owners for certain HRIT services (i.e., T&A and payroll), as described in Section 5

4.6 Governance

The HR LOB will improve its existing governance structure, by moving to a more formalized governance model that fully engages all relevant stakeholders. The proposed governance structure is similar to the current one; however, added stakeholders will advise and guide the HR LOB to realize the future state described in this Framework. The proposed governance structure is shown in Figure 4-10.

The proposed governance structure will significantly facilitate modernization of HRIT across the Federal Government, and increase engagement with key stakeholders resulting in services that ultimately align closer to agency needs.
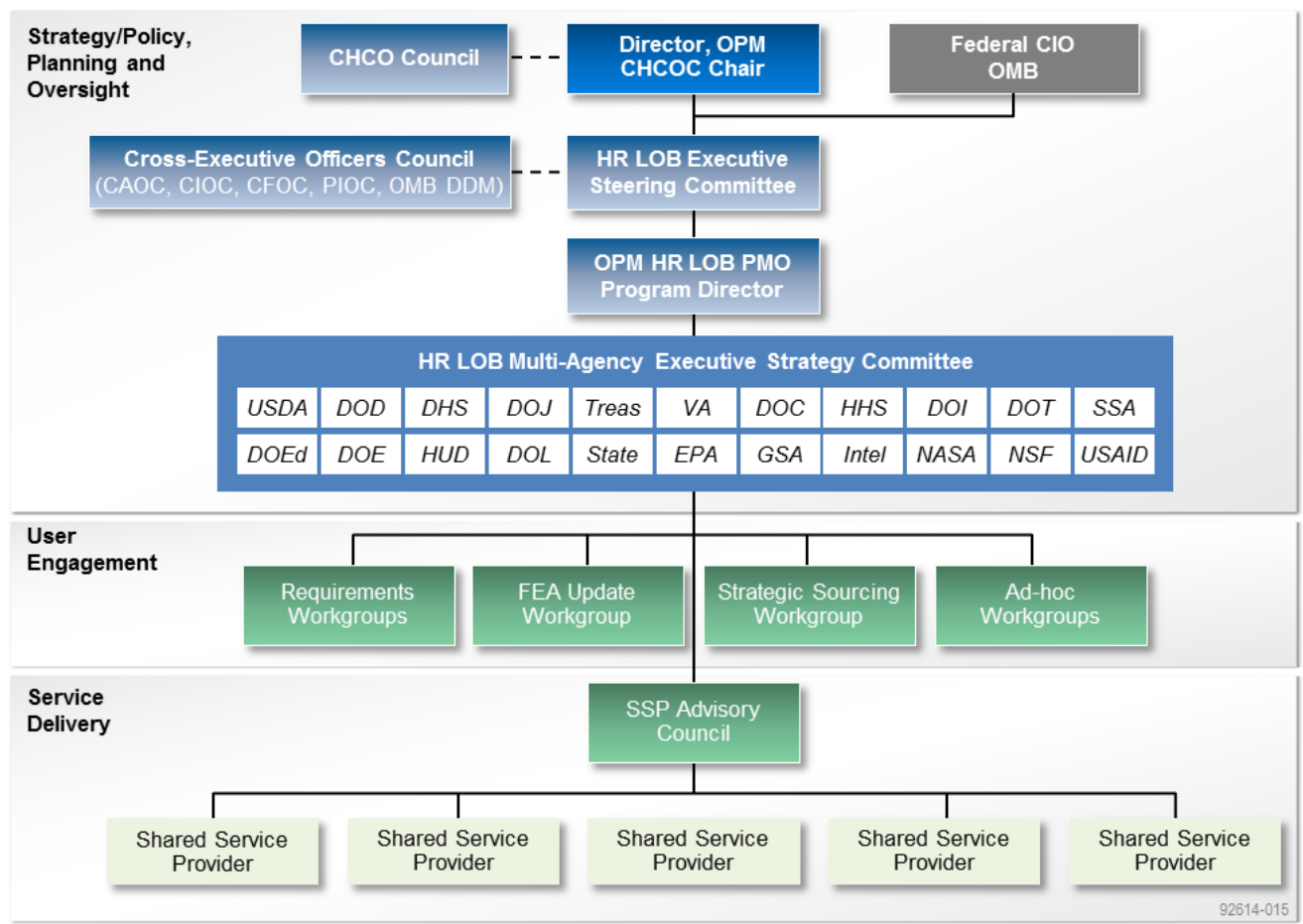
Figure 4-10: Proposed HR LOB Governance Structure

- The **Strategy / Policy, Planning & Oversight** tier will include several key changes. A Cross-Executive Officer's Council (CxOC) is proposed as the uppermost tier, and it will advise the HR LOB ESC. As the chief advisors of government-wide HR and HC strategy, the CHCOC is separately represented in the governance structure and will provide guidance to the OPM Director. OPM's Director will remain the final decision-making authority within the governance model. The OPM Director will also be

advised by a representative from the Office of E-Government and Information Technology at OMB.

- The **User Engagement** tier will include additional workgroups to support the MAESC. Specifically, user groups will be established to coordinate an update of the HR LOB EA, drive the implementation of strategic sourcing, and to develop government-wide HR requirements. Ad-hoc workgroups will also be established as needed.

- The **Service Delivery** tier will be expanded to include all approved SSPs, building upon the approved HR and Payroll SSCs represented in the current model. Approved SSPs will become members of the SSP Advisory Council, formerly known as the SSC Advisory Council (SSCAC).

5 Opportunities

5.1 Learning Management

Executive Statement: Duplicative Learning Content Management Systems (LCMS) and Learning Management Systems (LMS) across the Federal Government lead to the creation of redundant training content, higher maintenance costs for content and systems, and inconsistent student record data across agencies. The last item is a direct impediment to employee mobility across the Federal Government. Additionally, many federal LMS are not integrated with HR talent management systems, thereby limiting the Federal Government's ability to implement integrated systems and strategies to improve the recruitment, development, and retention of talent with critical skills to meet current and future needs. The HR LOB has identified an opportunity to streamline the federal learning environment into a cost-effective shared services model that enables reciprocal access to modular training content, better integration between training and talent management, and greater flexibility for employees and the government for staffing across agencies.

5.1.1 Current State

Since the e-Training initiative[47] graduated in 2010, agencies have diverged in the ways they acquire LMS leading to higher costs from duplication of systems and training content. Currently, over 1.3 million federal employees receive training via LMS that are not aligned to an SSC or e-Training provider, which means they neither benefit from economies of scale nor contract consolidation (See Figure 5-1 on the next page). There are an estimated 86 instances of LMS across the Federal

Current State
• 65% of the Federal workforce are not receiving their Learning Management System (LMS) from one of the three Service Providers[46], which means they neither benefit from economies of scale nor contract consolidation
• Estimated 86 instances of LMS across the Federal Government
• Total Contract Value (TCV) of e-Learning applications government-wide is estimated to be $76 million
• Agencies are creating or purchasing duplicate content to use across multiple platforms
• Agencies are inconsistently reporting SF-182 data to EHRI Data Warehouse
• Managers and executives have little understanding of training impact in terms of improved performance, skill acquisition, retention, and costs

Future Vision
• Support a cost-effective learning environment with reduced duplication of technology that enables access to shared learning content and integration with competency models
• Improved tracking and exchange of training and cost data to more accurately measure the effectiveness of training
• Enhance interoperability with other government systems (i.e., performance, financial) to support comprehensive talent management in the Federal Government

Benefits of Vision
• Human Capital Impact
o Greater understanding of training impact in terms of improved performance, skill acquisition, and retention
• HRIT Sustainability
o Available and accessible training data that follows employees across the human capital lifecycle and among Federal agencies
• Cost Savings
o Reduced duplication and cost of LMS instances and training content

---

[46] *Service Provider* in this context is used to include SSCs that offer LMS (currently IBC and TSSC) and any additional providers that offer LMS (OPM).

[47] e-Training was a component of the e-Government Act designed to give federal employees online access to training courses, perform skills assessment, and receive reports on progress

Government. According to GSA's Federal Strategic Sourcing Initiative (FSSI), the Total Contract Value (TCV) of e-Learning applications is estimated to be $76 million.

Currently, agencies have varied approaches to acquiring an LMS, including:

- Purchasing their own LMS

- Building one or more LMS in-house

- Receiving LMS as a service from their HR SSC or from OPM

- Leveraging contract vehicles, Memorandum of Understandings (MOUs), or Interagency Agreements (IAAs) through HR SSC or other agency through the various modes of procurement for LMS and training that exist including:

  - OPM's GoLearn
  - DOI's Interior Business Center (IBC)
  - DOC's National Technical Information Service's MOUs and IAAs for e-Training system partnerships or discounted online certification & degree programs
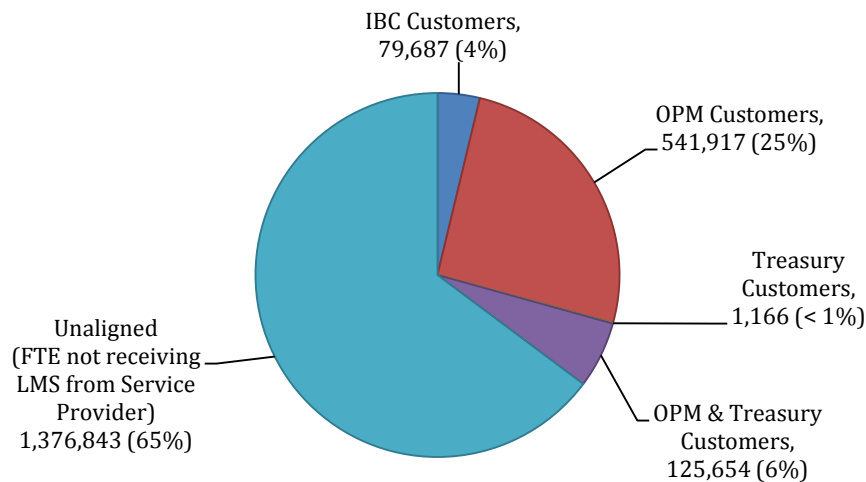

Figure 5-1: Number of FTE Receiving LMS from an SSC

Learning Management has seen a shift from traditional classroom-based instruction to distance learning including self-paced computer-based learning and virtual classroom learning modalities in order to save money and reduce logistical delivery issues. As budgets shrink across the Federal Government, agencies have an increasing need for LMS enabled distance learning to deliver job-task oriented training content.

LMS are also used to report on training completion and maintain student records. Because no data standards exist for student record and course completion data, there is virtually no interoperability across government agencies. Instead, when federal employees transfer to a

new agency, they must either rely on their SF-182[48] records stored by OPM or re-take courses they have previously completed; neither option is a best practice in efficiency and causes an unnecessary burden on the employee.

Managers and executives are also impacted by the current LMS landscape, since many of the existing systems do not provide consistent measures of training impact in terms of improved performance, skill acquisition, and retention. Agencies do not often measure the impact of training events on employee learners, making it difficult to justify the effectiveness and continuation of learning. The federal Chief Learning Officers Council (CLOC) has indicated a strong preference to try and achieve learning evaluation at Level 3 on the Kirkpatrick Model of Training Evaluation[49] (i.e. what was learned in training has been demonstrated in employee behavior on the job). A summary of the Kirkpatrick Model of Training Evaluation can be found in Figure 5-2.

Figure 5-2: The Kirkpatrick Model of Training Evaluation

Another major cost in the federal learning environment is attributable to a lack of shared training content (e.g., federally mandated training), which results in increased content development and maintenance costs. Many agencies leverage an LMS, but not an LCMS, which limits their ability to create modular, re-usable content that can be shared within and across agencies.

Modular content reduces the cost of training content development over the entire content lifecycle by allowing updates to a single section or module of content without impacting entire courses. Additionally, an LCMS development tool can lower overall software

---

[48] SF-182 reporting is mandated in 5 CFR 410.601. There are 27 training data elements that must be reported at least monthly to OPM.

[49] The Kirkpatrick Model of Training Evaluation is an independent best practice used across industries. More information can be found at http://www.kirkpatrickpartners.com/OurPhilosophy/TheKirkpatrickModel/tabid/302/Default.aspx

licensing costs for an agency by reducing the number of redundant, independent content authoring tools in their IT architecture.

Areas for Improvement:

- Multiple, redundant systems and content create obstacles to data sharing across the government and create unnecessary system maintenance and software licensing costs

- Lack of interoperability of student record data limits managers and executives in standardizing their view of employee performance across the Federal Government and prohibits standard interfaces with potential Government-wide talent management system and financial systems

- Increase distance learning modalities (i.e., live virtual classroom) to make training more engaging for employees so that more content is retained and applied

- Improve the quality of training evaluation to better measure if learned content is being transferred to the job, which, over time, will result in higher return on investment in training

5.1.2   Future State

HR LOB envisions a cost-effective learning environment with reduced duplication of technology that enables access to shared learning content while tracking and exchanging training and cost data. In this environment, employee training will be linked to performance management, thereby allowing managers and executives to obtain a holistic view of training needs, employee achievement, and standards for particular occupational series and competency areas, as well as financial costs of training. This vision expands the manager's role beyond approval of training to greater monitoring of development needs and workforce planning.

Shared, federally mandated training content will have lower maintenance costs. Additionally, the Federal Government may choose to invest more in making federally mandated training content more engaging to increase employee retention, yet still maintain a positive ROI since a greater number of employees will be using the content. Standardized software licenses and LMS and LCMS services contracts will also lower operational costs of training development, delivery and monitoring.

To capture near-term and long-term benefits, this opportunity has been divided into three phases. The first phase builds the foundation needed to promote standardization. The second and third phases address developing the future of learning. In the second and third phases the HR LOB and SSPs will support Chief Learning Officers in implementing the future vision of learning.

Phase I (1-3 Years): Consolidate Standardize, and Govern

- Consolidate LMS and LCMS contract vehicles and enforce stronger adherence to OMB's "Shared First" Strategy

- Support the review and possible modification of the 27 data fields collected in the SF-182 to better support government-wide business requirements

- Create an inventory of government-wide requirements that is published to current LMS solution providers and encourage pro-active behaviors for SSCs to meet these requirements in advance of Phase II

- Establish a distinct policy owner to guide government-wide learning solution requirements, policy and standards

Phase II (3-7 Years): Innovate, Interface, Share, and Evaluate

- Explore new, more interactive distance learning modalities to increase employee engagement, enhance understanding of the training content and its application on the job, and further reduce the need expensive in-person training

- Create interoperable data standards (see Master Data Management vision in Section 4.3) and open interfaces so that training data can be exchanged with other government systems (e.g., EHRI, performance, financial) and made available for government-wide reporting and analytics

- Share federally mandated content, and other non-agency specific development courses, across agencies so that it can be centrally maintained, achieve higher quality and reduce the burden on individual agencies to create non-mission specific courseware

- Work with federal unions and other stakeholders to develop improved evaluation tools to measure employee application on training skills on the job (Kirkpatrick level 3). Mandate training evaluation follow up six months after major coursework to monitor if new behaviors/knowledge are still being used. Provide feedback to course designers to improve content based on data-driven evaluations

- Leverage existing publicly available content and open learning forums, such as Massive Open Online Courses (MOOCs), rather than developing duplicate content (e.g., IT Security Mandated training, Equal Employment Opportunity training) to save the costs of content development and maintenance

Phase III (7-10 Years): Emerging Technology

- Implement requirements for Lifetime Learning Records that will allow employees to track all learning (including research, private classes, employer training) throughout their lifetime to better track overall attainment of skills both inside and outside of the workplace

- Enable employees to apply metadata tags to training content so that other employees can more easily locate relevant course materials and classes

5.2 Time and Attendance

Executive Statement: Visibility into how the federal workforce is being utilized, and its relationship to the cost of running federal operations, has been identified as a major challenge faced by agencies. Consistent and reliable stewardship of government programs, through the use of robust T&A reporting, brings credibility with Congressional appropriators and fulfills the government's fiduciary responsibility to the American taxpayer.

5.2.1 Current State

OPM issues pay, leave, telework, and other policies for the Federal Government that can impact T&A systems, but there is no government-wide policy owner specifically for T&A. Currently, agencies and SSCs determine much of T&A policy and sometimes share this responsibility internally between their HR and Finance departments. The HR LOB developed Target Business Requirements for T&A to set expectations for providers delivering T&A services. However, these Target Requirements, last updated in 2010, only set agency expectations for T&A systems.

Agencies transmit T&A data to SSCs at varied levels of granularity, providing limited access to rich workforce data that could better enable government-wide analytics. T&A systems have no standardized data architecture or required data components. OPM currently does not receive data needed to implement critical policies (e.g. Telework Enhancement Act of 2010 and the Employer Shared Responsibilities under the Affordable Care Act).

Current State
• No government-wide policy owner for T&A
• Systems not fully optimized to meet new policies on workforce reporting and transparency
• T&A data is not accessible for government-wide reporting and analytics
• At least 108 instances of T&A systems in Federal Government
• Not all agencies fully leveraging cost savings through Service Provider alignment or contract consolidation
o Estimated 52% of agencies procure T&A systems from Shared Service Centers (SSCs)

Future Vision
• Consolidate duplicate contracts for T&A systems across the Federal Government
• Preserve system adaptability to accommodate agency-specific requirements and project tracking
• Promote interoperability with other systems (e.g., financial reporting, workforce planning)
• Ensure government-wide and agency-specific reporting capabilities

Benefits of Vision
• Human Capital Impact
o Greater use and availability of T&A data for improved human capital management and analytics
• HRIT Sustainability
o Flexible, efficient T&A solutions that fully support and are compliant with the integrated, standardized HRIT environment
• Cost Savings
o Reduced prices paid for T&A systems

Many agencies currently purchase their services through an SSC. However, agency T&A systems vary across the government and within individual SSCs. Agencies typically do one of the following:

- Purchase their own T&A system

- Build one or more T&A system(s) in-house

- Receive T&A system as a service from their payroll provider or HR SSC

- Leverage a contract vehicle through their payroll provider or HR SSC

- Maintain a manual system or paper process

Additionally, some SSCs allow their customers to leverage the SSCs' T&A system contract vehicles for software and licenses, while others require their customers to purchase the licenses directly from the T&A system vendor.

Figure 5-3 shows the number of system instances sending T&A data into each payroll provider's system. The payroll systems then supply payroll data to OPM EHRI.
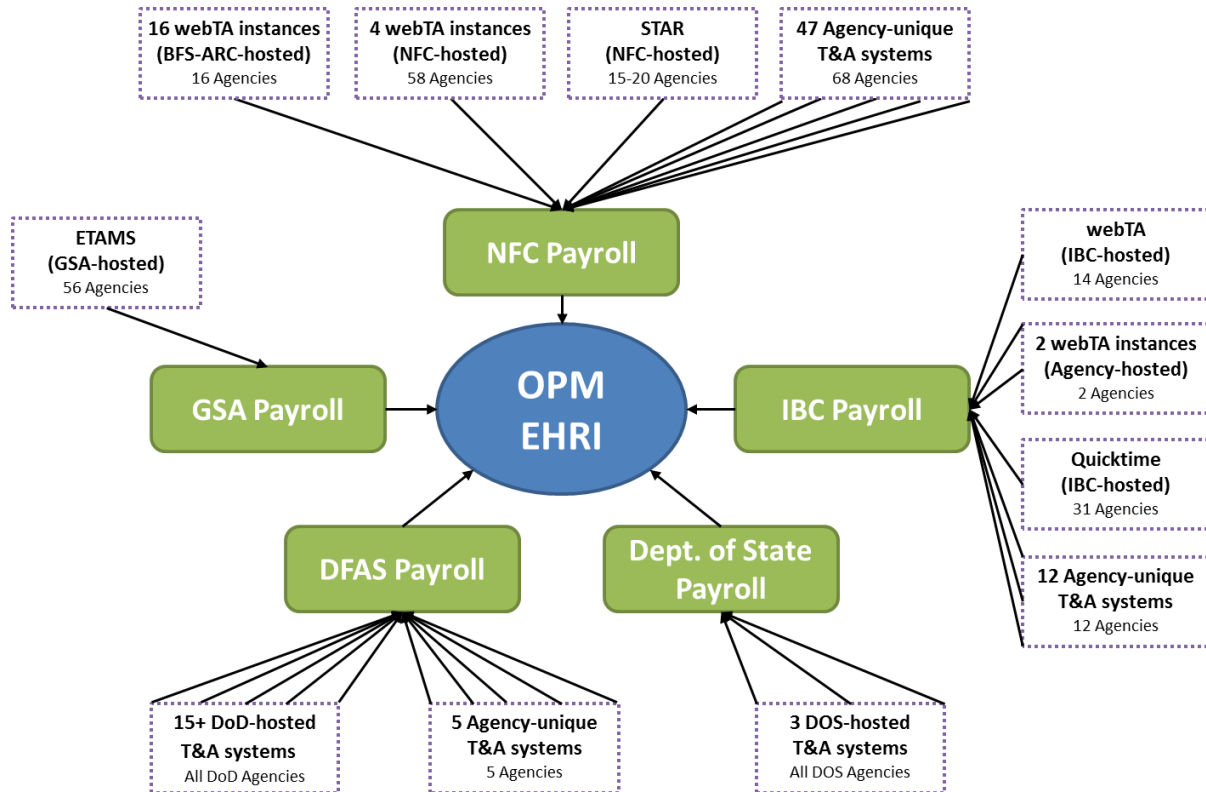

Figure 5-3: Data Flow from T&A Systems to OPM EHRI

Areas for Improvement

- Lack of government-wide policy owner for T&A results in the absence of consolidated, consistently enforced guidance and strategic direction

- Lack of T&A data standards and system interoperability hinders the government's ability to effectively manage human capital and perform analytics needed for data-driven policy decisions

- At least 108 instances of T&A systems in the Federal Government results in excessive costs of software and hardware infrastructure

- Federal agencies are not fully leveraging cost savings through contract consolidation and shared services adoption

5.2.2   Future State

In order to capture near-term and long-term benefits, this opportunity has been divided into two phases. The first phase builds the foundation needed to define standards, identify ownership, and enforce compliance. The second phase addresses government-wide shared services adoption.

Phase I (1-3 Years): Ownership, Standards, Compliance

- (Ownership) Identify a policy owner for T&A

- (Standards) Develop government-wide business, functional, technical, and acquisition requirements for T&A

- (Standards) Expand existing HR data standards to include government-wide T&A standards

- (Compliance) Develop a T&A specific strategic sourcing strategy that will leverage GSA's Category Management Initiative. Agencies will benefit from the combined purchasing power of the Federal Government through competitively negotiated rates within the GSA HR Category "Hallway". [50]

- (Compliance) Establish compliance processes to enforce government-wide T&A requirements

Phase II (3-7 Years): Data Interoperability and Shared Services Adoption

- The Federal HR CIO will work with the CIOC and SSPs to develop and implement T&A systems and data exchange mechanisms that comply with government-wide standards and requirements

- Migrate agencies that have duplicative, end-of-life, or cost-inefficient T&A systems to SSPs

---

[50] See Section 4 for more information about Category Management

5.3 Electronic Performance Management Systems

Executive Statement: Currently, the majority of the federal workforce does not use an IT system to conduct performance management, leading to inefficient processes, redundant data entry, and a lack of accessible data to be leveraged across the employee lifecycle. In the future, the agencies will use automated and integrated Electronic Performance Management Systems (EPMS) to promote a performance-based culture in the federal workforce to achieve organizational effectiveness.

5.3.1 Current State

Many agencies conduct performance management annual evaluation cycles using paper processes. Some Shared Service Providers[51] offer automated and integrated EPMS as a service, while some agencies have their own home-grown system. Some agencies that have recently migrated to an HR LOB SSC for HR services have noted that an automated and integrated EPMS was an important reason for selecting the SSC.

Figure 5-4 below shows the number of federal employees currently receiving EPMS from an SSC.[52]

Current State

- 75% of federal workforce does not use an IT system (or their system is unknown) to conduct performance management
- Issues with manual performance management:
  - Time consuming for management with limited ability to view status of actions
  - Redundant data entry which increases error rates and time to complete performance management process
  - Data is not easily shared, limiting robust reporting and a full view of federal workforce across employee lifecycle
- Only 18% of federal workforce receives automated Electronic Performance Management Systems (EPMS) services from a Service Provider, indicating there is opportunity for cost avoidance through economies of scale

Future Vision

- Support use of an automated EPMS to promote a performance-based culture in the federal workforce to achieve organizational effectiveness
- In the future, EPMSs will also be interoperable with Learning Management Systems and competency models to support comprehensive talent management in the Federal Government

Benefits of Vision

- Human Capital Impact
  - Greater transparency and accountability to improve federal employee viewpoints on performance culture
  - Greater error reduction and improved efficiency
  - Improved monitoring and decision-making through graphical reporting and dashboards
- HRIT Sustainability
  - Longevity of information
  - Shared data through interfaces with talent management and financial systems
- Cost Savings
  - Strategic sourcing of vendor contracts

---

[51] *Shared Service Center* (*SSC*) is used throughout this report to refer to the approved HR LOB shared service centers and payroll providers. *Shared Service Provider* is used to include SSCs and any additional providers that could result from this plan (e.g., OPM, Centers of Excellence).

[52] Population data is December 2012 FedScope Employee Data, FY 2011 HRIT Inventory Submissions, and SSC Catalog Submissions. FTE population includes all MAESC agencies except for DOD, DOE, ODNI, and OMB.
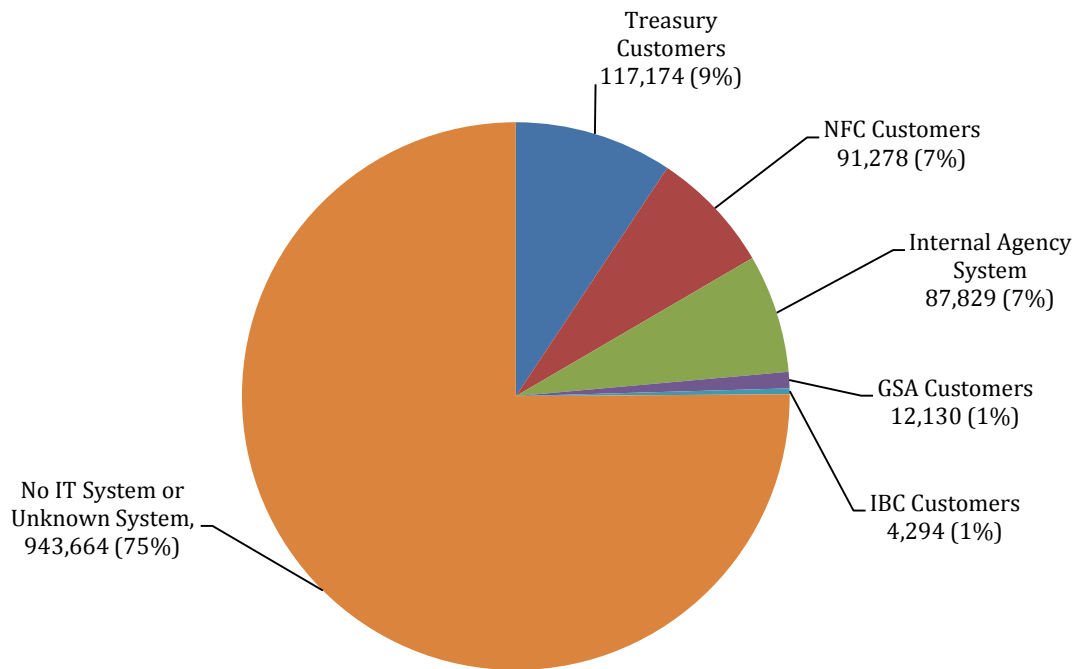
Figure 5-4: Number of FTE Receiving EPMS from an SSC

The main policy that governs agency performance management programs is 5 CFR 430. This policy also establishes the Senior Executive Service (SES) performance appraisal process. The OPM SES performance management process, however, does not specify that agencies should use an electronic system to manage performance data.

There is not currently a policy that governs whether agencies should use an automated or electronic system to manage employee performance. OPM Performance Management, the policy owner within Employee Services, plans to develop such a mandate.

Areas for Improvement

- Manual performance management processes are time consuming for management and limit manager ability to view status of actions

- Redundant data entry which increases error rates and time to complete performance management process

- Data is not easily shared, limiting robust reporting and a full view of federal workforce across employee lifecycle

5.3.2   Future State

To capture near-term and long-term benefits, this opportunity has been divided into two phases. The first phase builds the foundation needed to define standards and enforce compliance. The second phase addresses government-wide shared services adoption.

Phase I (1-3 Years): Standards and Compliance

- (Standards) Develop government-wide business, functional, technical, and acquisition requirements for EPMS

- (Standards) Expand existing HR data standards to include government-wide EPMS standards

- (Compliance) Develop an EPMS specific strategic sourcing strategy that will leverage GSA's Category Management Initiative. Agencies will benefit from the combined purchasing power of the Federal Government through competitively negotiated rates within the GSA HR Category "Hallway". [53]

- (Compliance) Establish compliance processes to enforce government-wide EPMS requirements

Phase II (3-7 Years): Data Interoperability and Shared Services Adoption

- The Federal HR CIO will work with the CIOC and SSPs to develop and implement EPMS systems and data exchange mechanisms that comply with government-wide standards and requirements

- Migrate agencies that wish to acquire EPMS systems to SSPs

---

[53] See Section 4 for more information about Category Management

5.4   Single Sign-On (SSO)

Executive Statement: Adoption of authentication and Single Sign-On (SSO) across the federal HRIT domain is currently inconsistent and unstandardized. To provide a better common user experience, improved system interoperability, and increased security control, the HR LOB will support all stakeholders in establishing an environment that enables HRIT SSO across agencies.

5.4.1   Current State

The Federal Government is committed to fostering effective Identity, Credential, and Access Management and to aligning federal agencies around common identity and access management practices. The National Strategy for Trusted Identities in Cyberspace (NSTIC) charts a course for the public and private sectors to collaborate to raise the level of trust associated with the identities of individuals, organizations, networks, services, and devices involved in online transactions.[55] The concept of an enterprise identity stipulates that individuals will have a single digital representation of themselves that can be leveraged across departments and agencies for multiple purposes, including access control.

SSO is "a mechanism by which a single act of user authentication and log on enables access to multiple independent resources", as defined by *Federal Identity, Credential, and Access Management (FICAM) Roadmap and Implementation Guidance.*[56] This mechanism offers users secure access to all appropriate applications without having to log in many times. Multiple credentials create a burden to users. This practice

Current State
- There are multiple existing policies and mandates to implement the common identification standards
- There is no government-wide coordination across HRIT applications, thereby preventing interoperability across agencies
- The implementation of HSPD-12 requirements has varied at the agency level, resulting in inconsistent rollouts, overlapping investments, and security risks
- Too many credentials increase risk of unauthorized access, lack of a single view of the users, and labor-intensive activities in system account provisioning

Future Vision
- The HR LOB will work with policy makers, Federal CIO, agencies, and other key stakeholders in support of developing, selecting, and implementing a Government-wide SSO solution for HRIT
- The HRIT SSO mechanism will fully support the use of PIV credentials for all employees, contractors, non-federal affiliates[54], and future retirees
- The authentication will enable secure cross-agency system access and meet federal security requirements

Benefits of Vision
- Human Capital Impact
  - Better common user experience that increases workforce satisfaction and productivity
  - Increased security, which correlates directly to reduction in identity theft, data breaches, and trust violations.
- HRIT Sustainability
  - Better management of system access through a single digital representation of a user that complies with federal security requirements and authentication mandates.
- Cost Savings
  - Cost and resource savings through elimination of redundancy, asset reuse, and reduced manual provisioning processes.

---

[54]Non-federal affiliates: Non-Executive branch government organizations, including domestic and foreign organizations
[55] http://www.nist.gov/nstic/
[56] FICAM Roadmap and Implementation Guidance, Version 2.0 December 2011.
http://www.idmanagement.gov/sites/default/files/documents/FICAM_Roadmap_and_Implementation_Guidance_v2%20 0_20111202_0.pdf

encourages behavior such as the reuse of passwords that puts users at a higher risk of online fraud and identity theft and puts the government at risk of federal systems security breach. SSO will be a keystone to enable identity management and facilitate better privacy and security control.

In order to implement the required identification standards and SSO, agencies will need to adhere to several policies and mandates, which include:

- FICAM Roadmap and Implementation Guidance: This is to provide a common segment architecture and implementation guidance for Federal Government on their investment in ICAM programs[57]

- FIPS PUB 201-1: National Institute of Standards and Technology (NIST) Federal Information Processing Standards Publication Personal Identity Verification (PIV) of Federal Employees and Contractors[58]

- HSPD-12: Homeland Security Presidential Directive 12: Policy for a Common Identification Standard for Federal Employees and Contractors[59]

- M-04-04: E-Authentication Guidance for Federal Agencies

- M-05-24: Implementation of HSPD-12 – Policy for a Common Identification Standard for Federal Employees and Contractors

- M-11-11: Continued Implementation of HSPD-12 – Policy for a Common Identification Standard for Federal Employees and Contractors

- National Strategy for Trusted Identities in Cyberspace (NSTIC): This strategy is intended to create an "Identity Ecosystem", where individuals and organizations can complete online transactions with confidence, trusting the identities of each other and the identities of the infrastructure on which the transaction runs.[60]

NSTIC is devoted to developing identify verification and authentication solutions that enhance privacy and that are secure, interoperable, cost-effective, and easy to use. NSTIC has selected several private and public organizations to pilot and test their identity solutions since 2012. Below are a few pilot programs:

- The state of Pennsylvania piloted, in 2013, a centralized service to validate a person's identity. "Once the identity has been validated, the user will be able to use

---

[57] FICAM Roadmap and Implementation Guidance, Version 2.0 December 2011.
http://www.idmanagement.gov/sites/default/files/documents/FICAM_Roadmap_and_Implementation_Guidance_v2%200_20111202_0.pdf
[58] http://csrc.nist.gov/publications/fips/fips201-1/FIPS-201-1-chng1.pdf
[59] http://www.dhs.gov/homeland-security-presidential-directive-12
[60] http://www.whitehouse.gov/sites/default/files/rss_viewer/NSTICstrategy_041511.pdf

that identity with all participating agencies," said Erik Avakian, Pennsylvania's chief information security officer. [61]

- The ID.me Incorporated's Troop ID program piloted a trusted identity solution that allowed military families to access sensitive information online from government agencies, financial institutions and health care organizations in a more privacy-enhancing, secure and efficient manner. ID.me was able to verify a participant's identity based on their unique credential. The participants were not required to share additional information about themselves other than their credential when they were on a third-party website. [62]

There has been some success with the NSTIC's pilot programs but their identity solutions have not been fully published nor implemented across the Federal Government.

Some agencies have successfully implemented authentication and SSO across their agency enterprise applications based on the FICAM guidelines. The implementation has resulted in these benefits: [63]

- Reduced number of duplicative credentials

- Increased workforce satisfaction and productivity

- Substantially reduced Help Desk calls related to password resets

- Improved assurance of background investigations

- Improved identity management through the use of a unique credential; This enables HR systems to use capabilities such as Active Directory to correlate user information

Despite the efforts being made through FICAM and SSO, the majority of federal agencies still manage their HR application authentications at the application level rather than across applications. Many agencies do not support SSO for their HR applications. This limitation has caused users to maintain multiple logon IDs and passwords, as shown in Figure 5-5. Some examples of the current authentication and SSO environment include:

- Certain service providers offer SSO as an optional service for an extra cost. For example, Treasury Shared Service Center (TSSC) delivers SSO on some of its offerings to agencies that have requested this capability, but not all HRIT services provided by TSSC are SSO enabled

---

[61] http://smlrgroup.com/nstic-states-test-new-credentialing-approaches/

[62] http://nstic.blogs.govdelivery.com/2014/09/03/shout-it-out-loud-enhancing-privacy-can-increase-profits-2/

[63] GSA Federal ICAM Day, April 2014.
http://www.idmanagement.gov/sites/default/files/documents/ICAM%20Day_Realizing%20the%20Benefits%20of%20ICAM_Panel%20Discussion.pdf

- Accessibility to federal information systems for access management purposes through the use of the electronic capabilities of PIV cards have made limited progress[64]

- Only three Agencies are utilizing Agency specific credentials when authenticating with OPM's eOPF[65]

- There is an overabundance of logons to access agency systems. For example, one OPM Senior Executive indicated that he had over 11 unique logons for accessing systems.
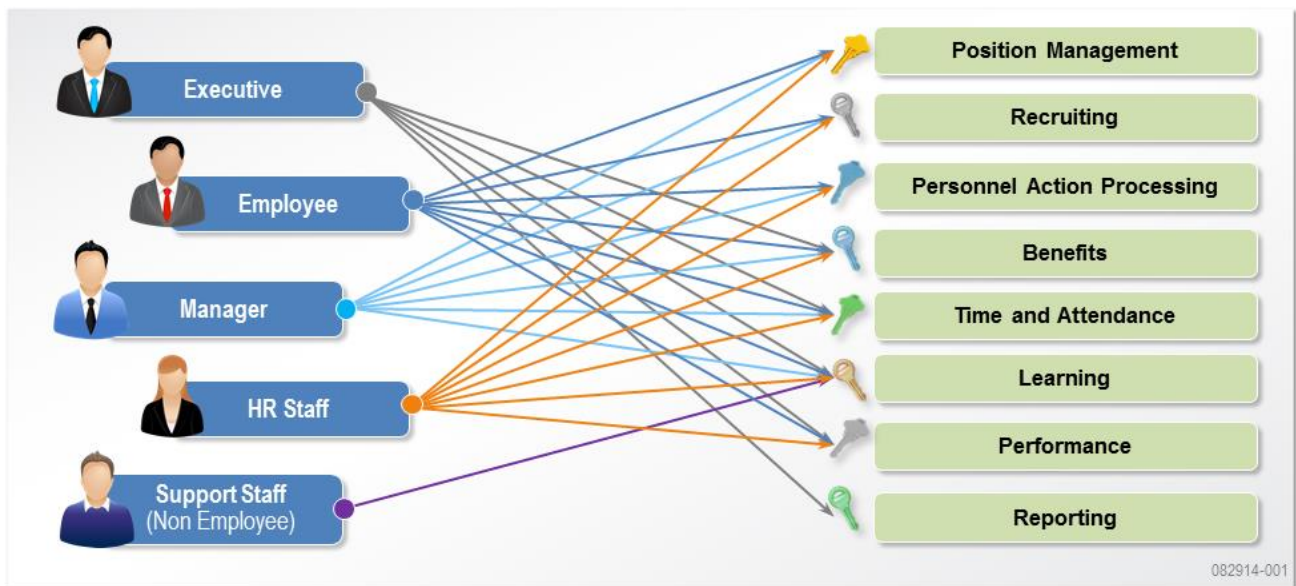

Figure 5-5: Current State of HRIT Systems Authentication

Areas for Improvement

- Too many credentials increase the risk of unauthorized access, result in the lack of a single view of the users, and create an administrative burden for credential and access management

- Some agencies provide SSO but only for their own users; interoperability with other federal agencies is limited

- Many customer agencies do not require their Service Providers to incorporate their SSO mechanism as part of the HRIT system implementation

---

[64] U.S. Government Accountability Office report GAO-11-751, September 2011, http://www.gao.gov/new.items/d11751.pdf
[65] Based on information provided by eOPF staff member in September 2014

- SSO is not offered as a standard capability, which results in duplicative agency investments in SSO solutions

5.4.2   Future State

SSO is one of the key elements in achieving CHCOC's Future State Vision in "a common user experience across system components", "all HR systems are integrated [and] accessible using a common integration framework", and "all HR systems and data will follow common security standards".[66]

The ultimate objective for this opportunity is to establish a federated identity management, utilizing SSO and PIV for all HR applications across the Federal Government for internal and external users, as shown in Figure 5-6. This will establish an environment for users to maintain the same credential regardless of the specific agency with which the users are employed or engaged in at the time. The authentication will use the PIV credentials and a standardized token identification scheme called the Card Holder Unique Identifier (CHUID) to provide the basis for interoperable identification of employees, contractors, non-federal affiliates, and future retirees. The HRIT authentication and SSO will be built to go beyond agency boundaries regardless of where those applications reside (i.e., OPM, federal service provider, and private sector provider).
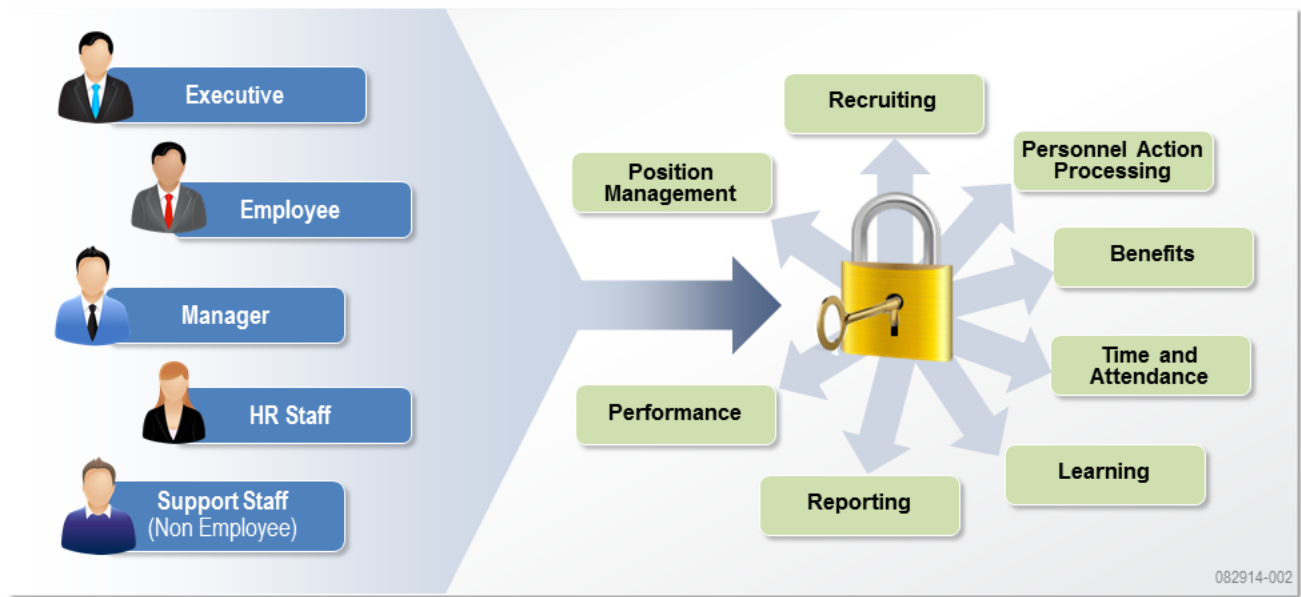
---

[66] CHCOC Future State Vision

Figure 5-6: Conceptual Future Vision of HRIT Systems Authentication

The HR LOB recognizes there are many challenges associated in this opportunity and will support all stakeholders in developing policies, strategies, and implementation plans to achieve the ultimate goal. The HR LOB will:

- Work with policy makers to draft the policy for HRIT SSO to enable a unique federal credential to be used in all HR systems across agencies

- Support the Federal CIO and CIO Council in implementing authentication through the use of PIV credentials for all HR systems

- Support the Federal CIO and CIO Council in devising a strategy to include future retirees as one of the user groups

- Support the Federal CIO and CIO Council in selecting a government-wide federated SSO mechanism for HRIT, consolidating multiple credentials, and applying proper security control for all agencies

- Consult with NIST on its NSTIC solutions and other key stakeholders on industry best practice

- Support the agency executives (HR and IT) to develop a strategy in implementing HRIT SSO

- Expand existing *Target Requirements for SSCs document*[67] to include government-wide HRIT SSO requirements for service providers

---

[67] http://www.opm.gov/services-for-agencies/hr-line-of-business/target-requirements/

5.5 Retirement

Executive Statement: OPM Retirement Services (RS) has implemented strategies to improve the claims adjudication process through automation and successfully reduced the retirement claims processing backlog from a peak of more than 60,000 cases in FY 2013 to an inventory of 12,000 in FY 2014.[68] OPM's 2014-2018 Strategic Plan calls for RS to deliver a timely and accurate retirement claims process and to prepare the federal workforce for retirement beginning from employees' entry-on-duty dates and continuing across every stage of the employee lifecycle. The HR LOB, through its relationships with SSPs and CHCOs, is well-positioned to support RS efforts to create a more efficient retirement application process enabled by accurate, compliant, and reliable retirement electronic data.

5.5.1 Current State

The average time to process a new requirement claim under the Civil Service Retirement System (CSRS) or the Federal Employees Retirement System (FERS) was 156 days in FY 2011.[69] The backlog of retirement claims peaked at 60,000 in FY 2013. To combat these issues, RS created a Strategic Plan to eliminate the backlog and adjudicate 90 percent of claims within 60 days.[70] By FY 2014, RS reduced the backlog to fewer than 12,000 claims and the average time to process a new claim to 61 days.

Current State
• RS has developed strategies and initiatives to improve the claims adjudication process
• A labor intensive retirement application process jeopardizes the quality of the data transmitted to RS adjudication and annuity calculation systems
• Employee retirement-ready data is not always available and employees are not able to manage their data

Future Vision
• Facilitate compliance with RS policy implementation for electronic data submission
• Support RS requirements gathering sessions for the on-line retirement application and the retirement annuity estimator
• Support RS and other stakeholders in developing data standards
• Enable a Federal HR data environment that allows employees to manage retirement data throughout their career

Benefits of Vision
• Human Capital Impact
o Increased customer satisfaction with streamlined retirement application submission
o Better employee engagement by empowering employees to actively prepare for retirement
• HRIT Sustainability
o Standardized electronic data exchange that promotes data quality, accuracy, and timeliness for retirement claims processing
• Cost Savings
o Automated retirement application process will reduce manual processes and labor costs

OPM RS is committed to developing a 21st century customer-focused retirement processing system ensuring federal retirees receive timely, appropriate, transparent,

---

[68] OPM Strategic Plan, FY 2014-2018, https://www.opm.gov/about-us/budget-performance/strategic-plans/2014-2018-strategic-plan.pdf

[69] RS is responsible for serving 2.5 million Federal retirees, survivors, and family members who receive monthly annuity payments and processes approximately 190,000 claims each year, based on data from RS in January 2014.

[70] Strategic Plan for Retirement Services, January 17, 2012

seamless, and accurate retirement benefits.[71] To meet this strategic goal, RS developed a four-pillar approach to improve the claims adjudication process. The four pillars are: 1) people; 2) productivity and process improvement; 3) partnering with agencies; and 4) partial progressive Information Technology (IT) improvements (e.g., calculators, database, and support systems).[72] The HR LOB is well-positioned to support these RS initiatives, leveraging its past success in working with agencies, payroll providers, and other HR stakeholders. The current high-level process for completing a retirement application[73] is described below:

1. **Application Preparation:** Employees prepare the application materials and submit the application to their agency's HR department for review and validation. At this step, prospective retirees and HR identify and remedy data errors or gaps related to service credit, redeposit, court-ordered benefits, or any other data inaccuracies that may have accrued throughout a retiree's career.

2. **Application Shipped to Payroll Provider:** The agency submits the application materials to its payroll provider, who appends and validates payroll information in the package, certifies this data for the Individual Retirement Record (IRR), completes final quality assurance (QA) reviews, submits the paper application to RS, and then transmits the Data Exchange Gateway (DEG) file to RS.[74]

3. **Adjudication:** OPM RS receives the completed applications from the payroll provider and initiates interim pay for eligible annuitants, reviews the file, and follows up with agencies and retirees as necessary to develop the application and complete the adjudication process.

The information required to process employees' retirement claims accumulates throughout their careers. This information is typically stored in inconsistent formats, either on paper forms or digitally in payroll records. Retirement-related documentation for employees who transfer or separate prior to retirement eligibility is submitted to OPM either via hardcopy or through a limited electronic data feed.[75] Employees typically do not have access to manage or correct this data.

The retirement application process is labor intensive. The current process fosters inconsistent, incomplete, or conflicting retirement data being transmitted to RS. Many of the mandated forms require HR personnel and prospective retirees to complete redundant manual entry of basic information, such as name and address. Further, agency HR

---

[71] OPM Strategic Plan, FY2014-2018, https://www.opm.gov/about-us/budget-performance/strategic-plans/2014-2018-strategic-plan.pdf

[72] Strategic Plan for Retirement Services, January 17, 2012, https://www.opm.gov/about-us/budget-performance/strategic-plans/retirement-strategic-plan.pdf

[73] Retirement applications referenced in this document include pending retirement claims only, not survivor claims or post-retirement change requests.

[74] Some agencies such as Navy and USPS follow somewhat different processes

[75] IT Strategic Plan for Retirement Services, September 2012

personnel and prospective retirees mail numerous forms and supplementary information (e.g., marriage certificates, divorce decrees) to RS. In addition, the HR or payroll systems that store employees' information are not fully integrated with RS' systems. As a result, data required for retirement processing is not always transmitted to RS electronically.

As a first step toward full electronic submissions and to reduce data reentry, the Enterprise Human Resources Integration (EHRI) Data Warehouse (DW) established a pilot program with the Department of the Interior's Interior Business Center (IBC) to receive ERRs electronically in FY 2014.

Areas for Improvement

- Labor intensive retirement application process jeopardizes the quality of the data transmitted to RS adjudication and annuity calculation systems

- Employee data is not consistently stored and managed in a retirement-ready format at agencies

- Employees are not able to manage their retirement-relevant data before retiring

- Comprehensive annuity estimators are not consistently available to federal employees

- Despite continued efforts, application error rates remain high[76]

5.5.2   Future State

OPM's strategic vision for RS aims to ensure data availability and accuracy across the employee lifecycle for faster retirement processing, increased accuracy of annuity calculations, and a reduced inventory of retirement cases.[77] The HR LOB will leverage its access and relationships with agency and Shared Service Provider (SSP) stakeholders to support RS efforts in the following areas:

- Facilitate compliance with RS policy implementation for electronic retirement data

- Support RS requirements gathering sessions for the on-line retirement application and the retirement annuity estimator

- Support RS and other stakeholders in developing standards (e.g., data standards, data exchange security requirements, data quality standards) for integration of applicant, HR, and payroll data transmitted to OPM

---

[76] Application error rate reduced from 20% during 3rd Q FY 2012 to 9.1% during 2nd Q FY 2013, based on information provided by RS, January 2014
[77] OPM Strategic IT Plan, February 2014, http://www.opm.gov/about-us/budget-performance/strategic-plans/strategic-it-plan.pdf

- Enable a federal HR data environment that allows employees to manage relevant retirement data throughout their career

HR LOB's support, fully aligned with RS' strategic vision and plans, will help RS realize benefits in the following initiatives:

- Initiative 1: Maintain existing calculators, databases, and support systems;

- Initiative 2: Develop and publish data standards in OPM's Guide to Retirement Data Reporting (GRDR) including related schema, for all applicant sourced, HR and payroll provider information that will flow between agencies and OPM;

- Initiative 3: Issue requirements for OPM validation of commercial or agency-developed software and retirement data processing systems to ensure compliance with data format and collection requirements and ultimately, adherence to GRDR data standards;

- Initiative 7: Develop protocols and procedures to accept and incorporate electronic retirement applications into OPM's retirement processing systems.[78]

---

[78] IT Strategic Plan for Retirement Services, September, 2012