



Protecting America's Pensions

Information Technology Strategic Plan



FY2014-2018

Office of Information Technology

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Revision History

Version	Author	Section Changed	Summary of Changes	Date
1.0	Zacour	Initial version		12/31/2013
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A Message from the Chief Information Officer

It gives me great pleasure to present the first update to PBGC's Information Technology (IT) Strategic Plan. This is an Agency-wide plan that aligns with PBGC's strategic vision and goals and reflects the short and long-term plans of all PBGC's business units. It identifies our Mission, Vision, Goals, and Objectives for supplying the technology solutions that fulfill those initiatives and is based upon the underlying foundation of three core elements; people, processes, and technology.

This Plan achieves PBGC's strategic goals and objectives by leveraging PBGC's technology architectures and maximizing the Administration's strategy and priorities for a Digital Government. It capitalizes on a cost-effective mix of Cloud technologies, Shared/Managed Services, and internal solutions that adhere to other Government-wide standardized policies and procedures. This Plan establishes IT Security as foundational and ensures that IT Security will continue to be a top priority for the PBGC. It further identifies IT Security as being everyone's responsibility and not just an Office of Information Technology (OIT) initiative.

To develop this Plan, we interviewed key PBGC stakeholders, conducted surveys, and reviewed various supporting documents, including PBGC's Strategic Plan, the Administration's Digital Government: *Building a 21st Century Platform to Better Serve the American People*, and OMB's requirements. The results culminated in a plan that delivers on PBGC's strategic initiatives. Therefore, this is our IT Strategic Plan; it belongs to all of us at PBGC.

Although a substantial amount of high-quality work went into the development of our Plan, I wish to point out that this is a living product that must evolve as needs and priorities change. In addition, we must take the next steps to develop the tactical plans that specify the activities, milestones, deliverables, roles, and responsibilities to meet the goals and objectives that we have outlined. Our tactical plans must include all IT projects and investments, reflect prioritized-investment decisions, and align Agency resources with our decisions.

Only through working together can we develop tactical plans that are cross-cutting, holistic, and eliminate redundant technology. With information technology continuing to evolve and mature, we need to leverage those practices that are applicable to the PBGC environment. Our plans must become seamless and transparent, while continually being refreshed to include current efficiencies and cost saving measures. We can learn from other companies and agencies by asking how they developed their tactical plans, leveraging their lessons learned, and implementing industry best practices.

I am excited about the work that we have done in developing our IT Strategic Plan, and look forward to working together as we successfully accomplish the tasks ahead.



Bob Scherer
Chief Information Officer

Executive Summary

Our Information Technology (IT) Strategic Plan is an Agency-wide plan that aligns with PBGC's strategic vision and goals and reflects the short and long-term plans of all PBGC's business units. It describes how our IT goals and objectives support PBGC's strategic focus areas. Our Plan makes cost-effective use of a blend of emerging and traditional technologies to drive transformation and increase effectiveness, efficiency, and performance across the PBGC. Through its implementation, PBGC will be better positioned to meet the challenges driven by changes in economic conditions, legislation and regulation, administrative policy, and industry.

Our Vision is to be a high-performing information and technology organization recognized for strategic thinking, collaborative business partnerships, and innovative IT solutions, which support the PBGC's Mission. To attain our Vision, we established two IT goals that align directly to PBGC goals. These goals will be achieved by the effective use of IT and business best practices and by achieving success in three core areas; people, processes, and technology.

The Plan will also address a number of critical focus areas to include: Cyber/Information Security, Enterprise Architecture, Governance, Technology Platforms (Cloud Computing and Shared/Managed/In-house Services), Information/Data, Collaboration, Mobility, and our Workforce.

Cyber/Information Security is foundational. It acknowledges and promotes the overarching importance of the confidentiality, integrity, and availability of PBGC's IT assets and data. It protects PBGC's networked assets from both internal and external cyber-attacks (Cyber Security) and establishes policies, processes, standards, and controls necessary to ensure PBGC maintains a secure IT environment (Information Security).

On the technology front, PBGC will begin the judicious introduction of technologies such as Cloud Computing to enable convenient, on-demand network access to a shared pool of configurable computing resources that can be rapidly provisioned and released with minimal management or service provider interaction.¹ In addition, we will continue to leverage Shared Services and other available resources such as the Department of Homeland Security's Contiguous Diagnostics and Mitigation (CDM) Program to enhance our technology infrastructure. Where applicable we will use commercial services to execute PBGC mission functions.

Over the next few years we will work make better use of PBGC's information and data to enable the organization to make better, faster decisions and to improve overall operational efficiency across the organization. We will implement tools designed to create a more collaborative organization and reshape our applications and tools to enhance mobility options for both our internal and external stakeholders where appropriate.

¹ Federal Cloud Computing Strategy, February 8, 2011

Our Enterprise Architecture and Governance Programs ensure that we have a strategic and tactical approach to meeting business needs in a timely and cost effective manner and that we are using the relevant technologies to meet or exceed customer expectations.

Additionally, we will create a high-performing workforce, which will collectively provide capabilities that meet the current and future needs of the Corporation. We will acquire, develop, and retain a highly qualified, blended Federal and contract workforce appropriately sized to deliver secure, scalable, and consumer friendly IT products and services.

In the aggregate, the IT Strategic Plan describes our Vision for accomplishing PBGC's IT Mission, Goals, and Objectives through emerging technology trends and best practices. Our Plan provides transparency into the PBGC's IT program for oversight bodies, customers, and other internal and external interested parties.

Introduction

The Pension Benefit Guaranty Corporation (PBGC) is a Federal government corporation established under Title IV of the Employee Retirement Income Security Act of 1974 (ERISA), as amended, 29 USC § § 1301-1461 (ERISA sections 4001-4402). PBGC's mission is to encourage the continuation and maintenance of private-sector defined benefit pension plans, provide timely and uninterrupted payment of pension benefits, and keep the insurance premiums at a minimum.² Through its single-employer and multiemployer programs, PBGC protects the pensions of approximately 43 million workers and retirees in more than 25 thousand pension plans. Under section 4022(b) of ERISA, these pension plans ensure a specified monthly retirement benefit, usually based on salary or a stated dollar amount and years of service.

To address PBGC's business needs that meet both short and long-term requirements, we have developed enterprise architectures and IT business processes that deliver enterprise solutions. Working with Agency stakeholders, our enterprise architectures describe how PBGC operates today, how it intends to operate in the future, and a plan for transitioning to the target state. We also have developed repeatable IT business processes that have reduced our costs to develop, operate and maintain solutions. These processes help us to ensure the solutions we develop meet the current needs, are integrated with other solutions, and have the breadth to address future requirements.

Cyber/Information security is foundational to our IT program. Our objective is to provide information security that is consistently efficient and effective. We have completed our security architecture and it meets and supports the Federal Information Security Management Act (FISMA) and Privacy Act. We also have completed significant work towards meeting the security standards and guidelines adopted and promulgated by the National Institute of Standards and Technology (NIST). To effectively manage our Plan of Actions and Milestones, we are using the Department of Justice Cyber Security Assessment and Monitoring (CSAM) tool, which is designed specifically for that purpose. However, we still have much work to do before we become fully FISMA compliant.

We are a leader in business unit led application development. For the past several years, we have actively used specialized integrated project teams (IPT) to assist our Information Technology and Business Modernization Department (IT&BMD) staff in gathering business requirements and developing technological solutions. These teams are led by PMP certified project managers and include enterprise architects, security experts, various operational technologists and subject matter experts from our business partners. This approach is aligned with and supports our development methodology. It also fosters business-driven application development that protects PBGC's data, retains application integrity, reduces technology costs, and ensures that project solutions meet the mission and functions of PBGC.

We have established multiple oversight organizations to ensure that we are performing the right work at the right time with the appropriate technology. Oversight is provided by the PBGC Director, Executive

² ERISA Section 4002(a)(2); 29U.S.C. § 1302(a)(2)

Management Committee (EMC), Budget and Planning Integration Team (BPIT), Information Technology Portfolio Review Board (ITPRB), and Technology Review Board (TRB).

Architectures, processes, security programs, development methodologies, integrated project teams, and responsible management oversight are identified as IT best practices that we already leverage in support of PBGC’s mission. Moreover, we consistently use them in delivering information technology solutions. However, we recognize that we must make continuous improvements to keep pace with steadily increasing demands for more information technology, with the ever-faster increasing needs for answers, information, and solutions. We also recognize that our budgets are shrinking. To meet these increasing demands while our budgets are shrinking requires that we become more agile. Thus, we must continuously enhance our best practices.

Purpose

Our Information Technology (IT) Strategic Plan provides the framework to align IT resources with PBGC’s strategies. It further describes our IT goals and objectives that support PBGC’s mission. Our Plan conveys our Mission, Vision, Goals, and Objectives of the Office of Information Technology (OIT) and shares our IT Strategy with stakeholders, oversight bodies, and external parties.

IT Strategic Framework

The PBGC Strategic Plan for Fiscal Years (FY) 2014-2018 has three overarching strategic goals that provide the direction for PBGC’s programs and supporting functions. The IT Strategic Framework is based upon these three same strategic goals:

1. Preserve plans and protect pensioners,
2. Pay pension benefits on time and accurately, and
3. Maintain high standards of stewardship and accountability.

The key components and hierarchy of our IT Strategic Framework are illustrated in Figure 1. This framework is divided into two segments - **Strategic** and **Tactical**. The strategic segment describes what the IT organization does, the ultimate state to which it aspires, and the desired results intended to be achieved. Progressing down the hierarchy, the components become more actionable as they crystallize into the means by which we will achieve the strategic results.

Performance measurements, captured throughout the execution of initiatives, will help quantify the degree of success achieved for goals and objectives.

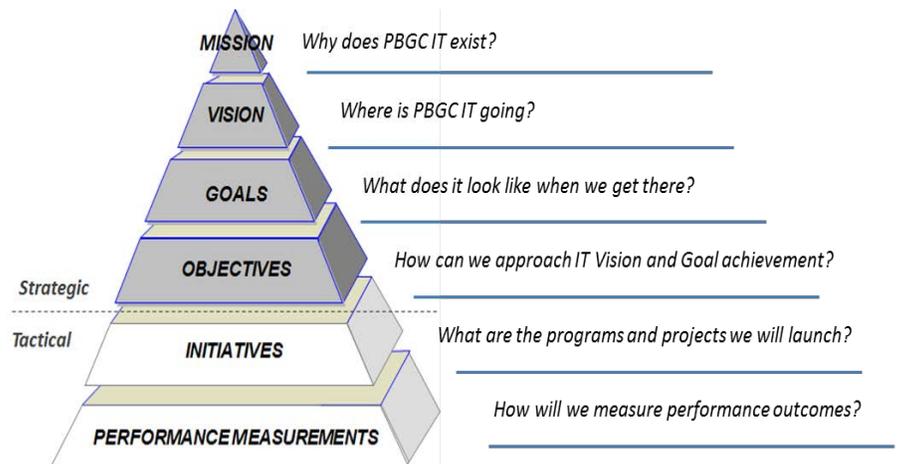


Figure 1: PBGC IT Strategic Framework

Methodology

Our IT Strategic Plan was developed and modified through a structured, three-phased approach: Discovery, Analysis, and Finalization. During the Discovery phase, our OIT strategic planning team reviewed the current state of the IT, reviewed recent applicable federal guidance, conducted interviews with executives from across the organization, and surveyed OIT's employees. We compiled the findings and recommendations for use during the Analysis phase.

The Analysis phase assimilated business directions, identified areas for improvement, and fortified recommendations with key IT trends and best practices. The results served as the basis for our IT Mission, Vision, Goals, and Objectives, which are described in the following sections.

During the Finalization phase, our Chief Information Officer (CIO) socialized our IT Strategic Plan with OIT leadership and PBGC's executive stakeholders to gain acceptance. We recognize that acceptance and Agency-wide buy-in is essential to our success.

IT Mission, Vision and Goals

Our IT Mission statement describes the operational purpose of the PBGC's IT function:

- ***Provide secure, innovative, and cost-effective IT solutions and customer service to PBGC stakeholders.***

Our IT Vision is long-term and describes what we want the PBGC's IT function to be:

- ***A high-performing information and technology operation recognized for strategic thinking, collaborative business partnerships, and innovative IT solutions, which support the PBGC Mission.***

IT Goals

Using the information from our analysis, we established two IT goals. These two IT goals directly align to PBGC's corporate goals and will be achieved via focusing on appropriate process, technology and human capital improvements. PBGC's IT Goals are:

1. Improve the efficiency and effectiveness of PBGC business processes via Information Technology, and
2. Deliver secure, highly available and accessible IT products and services to all PBGC stakeholders in a fiscally responsible manner using best practices.

Critical to achieving the IT goals and objectives will be supporting work in developing and/or maintaining core capabilities in 3 specific core areas: 1) processes, 2) technology, and 3) people.

Each of these three core areas will have specific goals, objectives, and measures that support the two overarching IT Goals. The table on the next page provides an overview of the relationship between the elements and IT Goals.

Table 1: PBGC IT Goals

IT Goal #	Focus	IT Goal & Supporting Efforts	Objective	Alignment to PBGC Goals		
				Preserve Plans & Protect Pensioners	Timely and Accurate Benefits	High Standards of Stewardship and Accountability
1	Strategic	Improve the efficiency and effectiveness of PBGC business processes via Information Technology (IT)	Mission Support	✓	✓	✓
	Technology	Modernize and innovate PBGC's IT solutions through the use of cloud computing, shared/managed services and in-house systems to enable a flexible, reliable, secure, and cost-effective environment	Support Mission Systems in a Secure and Cost-effective Manner	✓	✓	✓
	Process	Secure PBGC's IT to ensure confidentiality, availability and integrity of systems and data	Protect PBGC and Pensioner Data	✓		✓
	Technology	Standardize the management and sharing of data across the enterprise and enable enhanced analytical capabilities	Get the right information to the right people at the right time	✓	✓	✓
	Process	Mature IT governance to foster business agility	Improve the pace and effectiveness of change throughout the organization		✓	✓

IT Goal #	Focus	IT Goal & Supporting Efforts	Objective	Alignment to PBGC Goals		
				Preserve Plans & Protect Pensioners	Timely and Accurate Benefits	High Standards of Stewardship and Accountability
2	Strategic	Deliver secure, highly available and accessible IT products and services to all PBGC stakeholders in a fiscally responsible manner using best practices	High Standards of Stewardship and Accountability			✓
	Technology	Provide mobility options to support the changing needs and requirements of PBGC's customers and workforce	Support secure access to PBGC systems anytime, anywhere			✓
	Technology	Improve internal and external social collaboration and communication	Connect people seamlessly			✓
	Process	Improve IT service delivery to add business value, achieve efficiency, and increase customer satisfaction	Improve Internal Operations			✓
	People	Build and equip a highly capable IT workforce with competencies and tools to support future IT initiatives	Optimize OIT's Workforce			✓

Our Concept

Our Concept is based on the basic premise that an organization has three core elements that are responsible for its success or failure. Figure 2 illustrates our concept and the correlation of the three core elements. Within each of the core elements specific objectives and/or performance expectations will be identified.

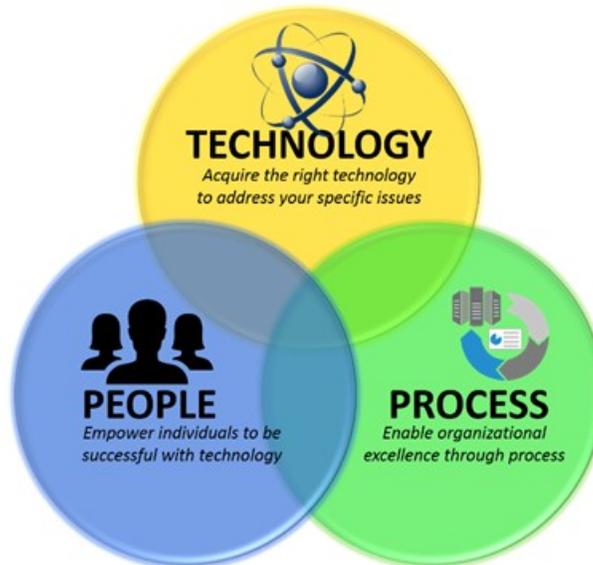


Figure 2: IT Core Elements Diagram

Process

Cyber/Information Security

Our foundational process component is **Cyber/Information Security**. It covers two main concepts:

- **Cyber Security** defines PBGC's ability to protect its networked assets from cyber-attacks.
- **Information Security** defines the PBGC policies, processes, standards, and controls necessary to ensure a secure internal IT environment.

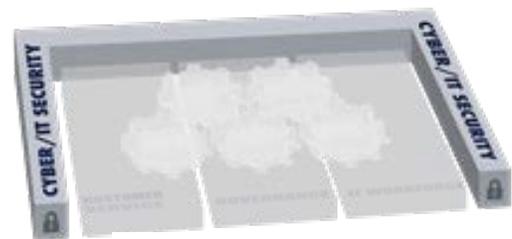


Figure 3: PBGC IT Security

The plan and participant assets for which we are custodians are vulnerable to an increasingly wide-range of known and unknown threats. Our Cyber/Information Security program has been, and will continue to be, PBGC's highest priority with the entire Agency supporting security improvements.

Cyber/Information Security is a shared responsibility. Everyone working at PBGC has a role in making our data and systems safer, more secure, and resilient. Defending against ongoing, increasingly sophisticated cyber-attacks that continue to threaten the confidentiality, integrity and availability of our

data and information systems requires that we work together and work smarter. We must move beyond existing compliance-oriented government controls to a more vigorous, risk-based approach that will yield more robust protection from increasingly dynamic cyber threats.

Using an enterprise-oriented risk mitigation program, combined with continuous monitoring and measurements, we will develop and implement an IT security program across the following key areas:

Security Governance

As good stewards of data, we must ensure our safeguards prevent the improper collection, retention, use or disclosure of sensitive data such as personally identifiable information. Our IT Security Governance must ensure that the security program contains clear principles to aid in the prioritization, planning, and execution of security functions; that these priorities and requirements are communicated throughout the Agency; and that cybersecurity roles and responsibilities are defined and embraced by our stakeholders, customers, and employees. Only through a well-defined program in which everyone is effectively participating can we move from ad hoc IT security activities to mature, repeatable processes that correct our long-standing security weaknesses and protect the assets for which we are responsible.

Security Management

We will implement enhanced security management capabilities through improved risk management, continuous monitoring, and IT security awareness and role-based training. It is critical that we understand and document business requirements for confidentiality, availability, and integrity in order to evaluate their respective security levels. We will also develop procedures for monitoring these requirements in accordance with the Federal Information Security Management Act (FISMA). We will leverage the security programs developed in the Federal Risk Authorization Management Program (FedRAMP). Our security-awareness programs will be tailored for the range of roles and responsibilities within PBGC, and deliver messages regularly and in a form that can be consumed by each of the target audiences. Our management program will verify compliance with the required behaviors in addition to managing risk. We will review and update our safeguards as technology use, capability, and architectures advance so they do not unnecessarily stifle our ability to architect for openness and engage with the public.

Identity, Credential, and Access Management (ICAM)

The ICAM domain will provide technical and procedural mechanisms and controls that collect, retain, protect, and allow appropriate use of logical and physical access to resources. We will improve identity management processes and improve authentication mechanisms by implementing Personal Identity Verification (PIV) logical access control, fully enabling Simplified Single Sign-On, and maturing ICAM capabilities. Access to systems and data will be based upon least-privilege access.

Assurance

The assurance domain provides the mechanisms and controls to protect the confidentiality, integrity, and availability of information and resources. We will better protect information in the production, test, and development environments; enhance PBGC's capability to manage structured and unstructured data; improve the patching process for application software; improve threat detection capabilities; and implement enhanced data protection tools for end-users.

Security Monitoring

The security-monitoring domain focuses on the objectives required to support the reporting, alerting, and response to events, incidents, and expected/unexpected activities. We will expand the security monitoring function in the Target Security Architecture, implement centralized log aggregation and improve auditing capabilities, develop and implement a standardized approach with the requisite tools for continuous monitoring, and improve security incident response capacity and capability.

Process Goal 1: Secure PBGC's IT to ensure confidentiality, availability, and integrity of systems and data

Process Goal 1 Measure: The Annual FISMA Report score will be used to measure PBGC's progress in this strategic process area

Specific Process Goal 1 Objectives:

- Improve IT security governance and oversight via annual assessment(s) (continuous)
- Meet or exceed 75% of annual FISMA CAP goals (continuous)
- Implement corporation-wide information security risk management framework (FY15)
- Implement modernized Identity, Credential, and Access Management (ICAM) capabilities (FY15 – FY18)
- Implement access controls and configuration management techniques that protect information and resources (FY15-FY17)
- Improve PBGC's ability to continuously monitor the IT environment (FY16-FY17)
- Network Access via HSPD-12/PIV Card 90% of the time (Q4 FY16 and beyond)
- Implement Department of Justice's Cyber Security Assessment and Management (CSAM) tool as a standard mechanism to track POA&Ms (FY15)
- Improve POA&M on-time milestone completion rate to 90% (FY18)

Governance

PBGC has a number of mature **Governance** processes that support the Office of Information Technology and the Corporation as a whole. Collectively, the Enterprise Architecture, IT Capital Planning and Portfolio Management, Program and Project Management, Solution Life Cycle Methodologies, and IT Service Delivery processes ensure that we deliver the right products and the right time and the right cost.

Keeping pace with ever-changing business requirements necessitates that we continuously incorporate more agility and flexibility into our governance boards and governance processes. As we reach greater levels of maturity, we will improve and streamline governance functions and boards. We also will incorporate processes to re-calibrate priorities continually throughout the fiscal year.

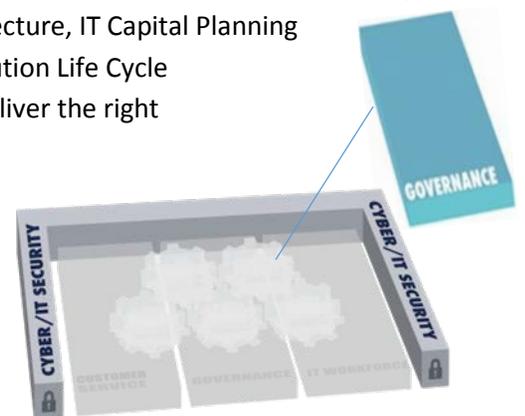


Figure 4: Governance

Through the continuous improvement of our Information Technology Solutions Life Cycle Methodology (ITSLCM) and governance boards (TRB, ITPRB, CAB, GCB), we will streamline and optimize the Governance functions. We will continuously evaluate the effectiveness of the ITSLCM, TRB, ITPRB, and CAB policies and directives, standards and guidelines, and eliminate non-value processes/activities. These actions enable more agility in developing and implementing technology.

Enterprise Architecture

Enterprise Architecture (EA) is essential to developing new business capabilities and evolving information systems that optimize the PBGC mission. EA establishes the Agency-wide roadmap to achieve PBGC's mission through optimal performance of its core business processes within an efficient IT environment. Simply stated, enterprise architectures are "blueprints" for systematically and completely defining an organizations current (baseline) and desired (target) environment.

Program Management

We will institutionalize additional program management capabilities. We will identify and appoint formal IT and Business program managers to manage a collection of inter-related projects. We will establish a Program Management Office (PMO) to facilitate more rigorous program management across all IT programs, while supporting the concept of agility.

Iterative Application Development

We will leverage the modernized IT Solutions Life Cycle Management (ITSLCM) framework which allows for the use of iterative approaches (incremental, agile, prototyping) for modular development and delivery. With the business requiring expedited IT solutions to meet business challenges, we must consider more agile, dynamic application development methodologies. We will work with the business to obtain time/resource commitments of business operations expertise and an organizational change manager to drive Business Process Improvements and adoption of new technology solutions.

Mature IT Portfolio Management

The ITPRB will continuously mature IT Portfolio management by implementing control and evaluate functions to ensure PBGC has the best mix of IT programs in the IT Portfolio. The ITPRB will employ total cost of ownership (TCO) principles, assess project alignment with corporate and IT Strategic goals, and evaluate business and technology benefits throughout the IT program life cycle. ITPRB recommendations will be provided to the Budget Planning and Integration Team (BPIT) to help with budget decisions.

Corporate Prioritization

Competing priorities continually arise during the course of the fiscal year. To address effectively the prioritization issues, we must enhance our governance structure to re-evaluate current priorities against new and upcoming priorities, and then re-calibrate project prioritizations and re-allocate resources.

Closely monitoring capacity versus program needs will enable business and IT to refreshed priorities and synchronized resources throughout the year.

Process Goal 2: Mature IT governance to foster business agility

Process Goal 2 Measures: Performance to plan, schedule, and budget, and the adoption appropriate delivery methods

Specific Process Goal 2 Objectives:

- Continue to mature and improve all facets of the IT Governance Program and its integration with overall PBGC governance efforts (continuous)
- Use the IT Governance Program to drive sound investment and business decisions (continuous)
- Implement modernized solution delivery methods that enable faster delivery of functionality to business units (continuous)
- Deliver IT projects on schedule and on cost 95% of the time (continuous)

Customer Service

Our relationship with our business partners must be complementary and unified. For this relationship to be successful, we must view the business units as customers as well as partners. As both our customers and our partners, the business units bear the responsibility to articulate clearly their needs and goals. We, in the partnership role, are IT business advisors. We will provide consultative services, thought leadership, and technology resources to achieve the business goals. This relationship will enable a flexible, dynamic, and cohesive partnership to achieve both IT and the Corporation's missions.

As PBGC's business changes, we will develop our workforce to ensure their familiarity with the new business' processes and systems, as well strengthen their industry and IT domain expertise.

Our IT Service Desk serves as the initial point of contact for PBGC's internal customers and handles inquiries via email, phone, walk-ins, and self-service channels. We will expand Information Technology Infrastructure Library (ITIL) service management best practices and service level driven performance management to modernize customer service across the following key areas:

IT Service Management

Based on prioritization of service needs solicited from the business, we will develop a roadmap that implements additional ITIL best practices. We will explore opportunities to improve our first call resolution by leveraging standard service desk technologies such as Integrated Voice Response (IVR) and Automated Call Distribution (ACD) and fostering a deeper understanding of PBGC business applications and business processes.



Figure 5: Customer Service

SLAs and OLAs

We will increase the use of formal Service Level Agreements (SLAs) for contractors and vendors involved in IT operations. We will establish Organization Level Agreements (OLAs) as performance management mechanisms to improve response time of Tier 3 capabilities. Comprehensive SLAs and OLAs, coupled with continual feedback mechanisms, will be used to continuously monitor, manage, and improve standards for service delivery and collaboration.

Process Goal 3: Improve IT service delivery to add business value, achieve efficiency, and increase customer satisfaction Mature IT governance to foster business agility

Process Goal 3 Measures: Service Desk response times and customer surveys

Specific Process Goal 3 Objectives:

- Standardize existing IT service processes and operations through IT service management best practices (continuous)
- Improve the IT service desk's ability to support business applications (continuous)
- Ensure end-to-end IT services are provided in a cost-effective, transparent, and efficient manner (continuous)
- Customers rate their overall experience with the IT Service Desk and Incident Management as Good or Excellent at least 85% of the time (annual)

Technology

This section of the IT Strategic Plan will outline the approach, technologies and tools that PBGC will use to meet existing and emerging requirements of both external and internal stakeholders. It will focus on five areas; Cloud Computing, Shared/Managed Services, Information/Data, Social Collaboration and Mobility. Let us begin by briefly defining these five areas:

- **Cloud Computing** enables convenient, on-demand network access to a shared pool of configurable computing resources that can be rapidly provisioned and released with minimal management or service provider interaction³

³ Federal Cloud Computing Strategy, February 8, 2011

- **Shared Services** is an information technology function that is provided for consumption by multiple organizations within or between federal agencies⁴
- **Information/Data** encompasses PBGC’s structured and unstructured digital information, decouples information from its presentation and provides the management of its accuracy, availability, and security⁵
- **Social Collaboration** refers to the processes and technologies that help multiple people interact and share information to achieve a common goal
- **Mobility** fosters the use of mobile technologies to improve services to plan administrators and participants, engage internal and external customers in government, and increase employee productivity



Figure 6: Strategic Focus Areas

Cloud Computing and Shared Services

We will make appropriate use of Cloud Computing technologies and Shared/Managed Services for line-of-business applications and to optimize our internal infrastructure. We will work, both within and with other agencies, to reduce costs, streamline development, apply consistent standards, and ensure consistency in how we create and deliver information.⁶ To determine the right implementation model, we will review federal government references⁷, interview Cloud trailblazers, and consult with industry experts to gain an understanding of best practices and lessons learned.

Software-as-a-Service

We will shift from a model of building custom solutions to adopting Cloud and Shared/Managed Services technologies where appropriate. Corporate priorities such as the Benefit Administration and Payment Department’s modernization, financial and mixed systems integration, and corporate finance and restructuring initiatives are business areas where we will assess the viability of leveraging as-a-service technologies for business applications and office automation. Shifting to an as-a-service model will decrease our overall technology footprint, as well as reduce and/or avoid future licensing, operations, and maintenance costs.

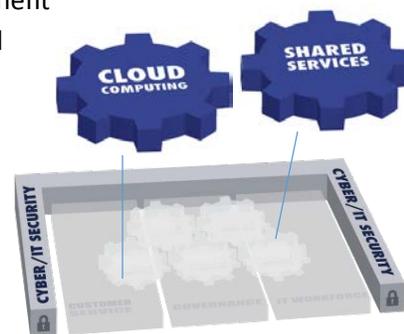


Figure 7: Cloud Computing and Shared/Managed Services

Infrastructure- and Platform-as-a-Service

Utilizing Infrastructure- and Platform-as-a-Service cloud technologies will enable us to manage more efficiently the demand across our infrastructure assets

⁴ Federal Information Technology Shared Services Strategy, May 2, 2012

⁵ Digital Government: Building a 21st Century Platform to Better Serve the American People, May 23, 2012

⁶ Digital Government: Building a 21st Century Platform to better serve the American People

⁷ Federal Shared Services Implementation Guide, April 16, 2013

(internal and external). We will assess our current IT portfolio, evaluate government-approved cloud providers, examine case studies, and develop a plan for migrating commodity IT and business applications' infrastructure to Cloud or Shared/Managed Services solutions. Our Plan provides safeguards for successful infrastructure implementation in the cloud through proper service levels defined, established, and managed through documented and approved governance processes.

Communications-as-a-Service

We will transition our email to a cloud-based, externally hosted Communications-as-a-Service. This transition provides additional out-of-the-box functionality for instant messaging, texting, and integration with other social collaboration tools and records management, while simultaneously reducing our costs for infrastructure footprint (data center, hardware, software, and licensing).

Technology Goal 1: Modernize and innovate PBGC's IT solutions through the use of cloud computing, shared/managed services and in-house systems to enable a flexible, reliable, secure, and cost-effective environment

Technology Goal 1 Measure: Balanced portfolio of technical platforms

Specific Technology Goal 1 Objectives:

- Define Cloud based and Shared/Managed Service solutions, inventory existing applications by category and develop appropriate policies, procedures and practices to effectively use cloud and shared/managed service solutions (FY15-FY16)
- Create a cost-effective three tiered approach of Cloud Computing, Shared/Managed Services and in-house systems to support PBGC business and administrative functions (continuous)
- Optimize the use of technology in support of business function (continuous)
- Migrate unstructured data from legacy platforms, e.g. Exchange; Lync; file shares and Plumtree Portal to PBGC Connect, a SaaS solution based on Microsoft Office 365 9 FY15-FY17)

Information/Data

Data is one of PBGC's most valuable assets. To effectively and efficiently conduct advanced analytics, identify early warning signs in pension plans, calculate benefit determinations, provide timely benefit payments, and measure results requires that we become information centric. This strategy requires that we move from managing documents to managing discrete pieces of data and content, which can be tagged, shared, secured, mashed-up, and presented in the way that is most useful for the customer of the information.⁸

Data Management

We will strengthen our enterprise Data Management Framework (DMF) and improve data life cycle management processes and controls to provide consistent, accurate and timely access to data. We will

⁸ Digital Government: Building a 21st Century Platform to better serve the American People

secure the data by establishing formal roles, responsibilities, and an accountability structure between business and IT. We will consolidate, retire, or modernize data and data-related applications based on prioritizations jointly set by the business and IT. We will also expand the scope of existing data management processes to include unstructured data and other enterprise content to support the maturation of PBGC's enterprise records management function.



Figure 8: Information and Data Management

Enterprise Data

We will establish a common business data taxonomy and vocabulary that describes our data in business terminology. We will build shared information environments to obtain the benefits of real-time analytics. We will develop and publish a plan to ensure our data is open, make existing high-value data and content available through web APIs (application programming interface), and apply metadata tags consistent with federal guidelines. We will partner with the business to identify opportunities to integrate and transform enterprise data into information using data warehouses and/or Operational Data Stores (ODS), etc. We will build and implement the mechanisms and tools necessary to manage enterprise data as a corporate asset.

Big Data and Business Analytics

Big Data and Business Analytics provide a cost-effective method for improving decision-making in areas where large amounts of the same data types can be aggregated, shared, and transformed into information that provides enhanced insight. We will develop a Big Data/Analytics strategy that looks beyond maturing our internal data capabilities to take advantage of sharing PBGC data. We will leverage capabilities provided by the General Services Administration (GSA) and other government agencies for data warehouses, data marts, analytics, and business intelligence tools to achieve cost-effective results.

Technology Goal 2: Standardize the management and sharing of data across the enterprise and enable enhanced analytical capabilities

Technology Goal 2 Measures: Acquire/implement an enterprise-wide data analytics tool and share appropriate PBGC data

Specific Technology Goal 2 Objectives:

- Understand and effectively use enterprise and operational data to enable sound business decisions (continuous)
- Identify, acquire, and implement an enterprise-level business analytics tool (FY15 – FY17)
- Provide secure, centralized access to current and historical data and enable robust data analytics (continuous)
- Share PBGC data via opendata.gov (continuous)

Social Collaboration

Social collaboration comprises the processes and technologies that help multiple people interact and share information. PBGC will be among the organizations that embrace collaboration tools. Our customers and employees will no longer view social collaboration as an innovation initiative, but as a critical component of existing communications, customer services, human resources, and business strategies. Enriching our channels of communication and collaboration to adopt and implement this transformation requires that we enhance the following key areas:

Enterprise Collaboration

We will implement improved, integrated tools with our business applications to enable online document sharing, instant messaging, collaboration, video conferencing, and web-based meetings with screen sharing abilities. We will develop and provide training in the use of these technologies to promote widespread adoption and use.

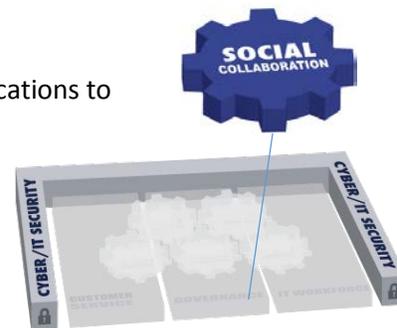


Figure 9: Social Collaboration

Social Media

We will expand and optimize the use of existing social media channels (e.g., Facebook, Twitter, LinkedIn, etc.) for organizational functions such as using Facebook for COOP emergencies and more prolific recruiting venues. We will augment our knowledge sharing program platforms with blogs, wikis, etc.

Strategic Communications

We will take a deliberate, structured approach to communicate more effectively with the business. This includes activities such as conducting forums and focus groups to increase awareness of IT products, services, and capabilities (including social collaboration) and launching other IT-specific communication endeavors. We will collaborate with cross-agency subject matter experts to assess the effectiveness of our technology strategies in meeting business requirements. We will communicate IT priorities and provide transparency into IT projects conducted across the organization.

Technology Goal 3: Improve internal and external social collaboration and communication

Technology Goal 3 Measures: Implement and measure use of collaboration tools

Specific Technology Goal 3 Objectives:

- Implement and promote the use of platforms and technologies for enterprise collaboration with all stakeholders (FY15-FY16)
- Engage internal and external customers and use customer feedback on social collaboration tools to implement data-driven changes to improve customer satisfaction (continuous)
- Measure collaboration tool use and adjust promotion and tool sets accordingly (continuous)

Mobility

Mobility is more than embracing the newest technology; it reflects a fundamental change in how, when, and where our customers and employees work and interact.

Mobile Device Management

Successfully mobilizing the PBGC workforce while controlling cost and risk requires that we will develop an enterprise mobility strategy based upon people, processes, and technologies. The strategy will define the controls, technologies, and standards that support PBGC's mobility vision and ultimately determines PBGC's Mobile Device Management (MDM) construct. The MDM includes the MDM software tools, authentication tools, and application delivery methods.

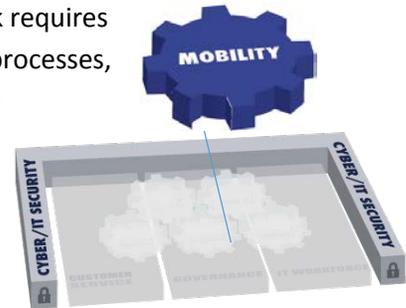


Figure 10: Mobility

Mobile Workforce

PBGC's workforce will have the ability to access data anytime, anywhere.

We will document workforce mobile requirements, establish our mobility business case, and evaluate the level to which mobility improves responsiveness, productivity, or customer satisfaction. These business cases provide guidance and best practices on how to meet best the mobility needs of the organization.

Mobile Applications

PBGC's future business applications will be characterized by employees and customers easily, yet securely accessing information and applications from a mobile device to conduct common transactions. As part of our mobility strategy, we will identify the internal and customer-facing applications that will be mobile-enabled.

Technology Goal 4: Provide mobility options to support the changing needs and requirement of PBGC's customers and workforce

Technology Goal 4 Measures: Ability for stakeholders to access and use PBGC public facing systems anytime/anywhere on any device and ability for PBGC to support a mobile workforce

Specific Technology Goal 4 Objectives:

- Mobile device enable applicable PBGC application functions (FY18)
- Improve business processes, agility, and efficiencies through the use of mobile technologies (continuous)
- Enable mobile workforce practices, including policies and procedures around teleworking, and the use of mobile applications (by FY18)

People

A well-trained, experienced workforce is vital to providing quality IT products and services. Our IT workforce implements and supports PBGC's initiatives through successful partnerships with the business areas. In order to build and sustain a skilled IT workforce in the increasingly competitive market, we must continuously re-evaluate the effectiveness of our IT workforce strategies, renew recruiting and development practices, and pay special attention to the engagement and retention of our key IT talent and top performers.

High-performing IT workforce

IT workforce strategies are an integral part of our IT strategic and tactical planning processes. We will plan for both the short- and long-term, minimizing the use of more expensive supplemental resources to fulfill the demand for new skills. We will continually refresh our IT human capital plan to ensure the proper balance between federal and contract staff and train our existing IT workforce on existing and emerging federal regulations, mandates, and technologies (e.g., FedRAMP, Section 508, Digital Government Strategy, Big Data, etc.). Having the appropriate balance of federal and contract staff, combined with up-to-date skills in current technologies and historical knowledge of PBGC's operations will strengthen and deepen our expertise, enabling us to be a more proficient, high-performing IT workforce.



Figure 11: IT Workforce

Recruitment and Retention

To foster retention while attracting and retaining the best and brightest candidates, we must create and sustain an environment that fosters high morale. Creating that environment requires that we solicit and understand employees' needs and wants, and identify incentives that will encourage them to perform at their best while achieving personal success. We will also employ various initiatives centered on training and marketing. In addition, we will capitalize on existing social media channels to attract the top talent and high performers.

Human Capital Planning

We will be guided by PBGC's Human Capital Plan and OPM's Workforce Planning Model in carrying out our human capital activities. Through structured, thoughtful analysis we will recruit, select, develop and retain a diverse, cohesive blended workforce capable of meeting current and future IT needs.



Figure 12: OPM's Workforce Planning Model⁹

People Goal 1: Build and equip a highly capable IT workforce with competencies and tools to support future IT initiatives

People Goal 1 Measures: Employee Satisfaction, Reduction in Skill Gaps, and Employee Retention

Specific People Goal 1 Objectives:

- Identify and create an appropriate blended IT workforce to support PBGC business and technology needs (continuous)
- Recruit, select, develop and retain a diverse IT workforce capable of supporting current and planned IT systems and services (continuous)
- Expand employee understanding of emerging and existing federal regulations, mandates, and technologies (continuous)
- Identify and close skill gaps – technical and non-technical (continuous)
- Improve Federal Employee Viewpoint Survey Results (FY15 as baseline)

⁹ OPM's Workforce Planning Model - <https://www.opm.gov/policy-data-oversight/human-capital-management/reference-materials/strategic-alignment/workforceplanning.pdf>

Conclusion

We are committed to maintaining a secure, reliable, and cost-effective IT environment. We also are committed business advisors to and partners with the business areas. Through these commitments, we will implement our IT Strategic Plan. Through our Plan, we achieve PBGC's strategic goals.

We will continue to execute the IT security modernization roadmap, addressing the deficiencies needed to close the IT security material weaknesses. We will evaluate and implement appropriate Cloud Computing and Shared/Managed Services solutions to reduce further the IT footprint at PBGC, gain cost efficiencies, and enable innovative business initiatives. We will mature our enterprise data management, analytics, and Big Data practices and embrace the use of Collaboration and Mobility to enable better methods for interacting and sharing information within and outside of PBGC.

We will continue engaging our customers to understand their needs, enhancing our programs to meet their requirements while emphasizing excellent IT customer service. We will make continuous improvements to our Governance programs to ensure increasing agility of our IT, verify that we are doing the right work at the right time, and confirm the PBGC is receiving the best value for its investment dollars. We will create a high-performing workforce by providing requisite training to our staff and empowering them with the appropriate authority to carry out their responsibilities.