Department of Veterans Affairs

Fiscal Year 2018 - 2024

Information Resource Management

Strategic Plan
Message from the Deputy Secretary

The Department of Veterans Affairs (VA) is committed to serving our Nation’s Veterans by providing excellent healthcare and other benefits. VA’s mission is to fulfill President Lincoln’s promise to care for those “who shall have borne the battle” and for their families, caregivers, and survivors. VA’s operational focus during the next five to seven years will be guided by the Department’s five priorities: Greater Choice, Improve Timeliness, Suicide Prevention, Focus Resources and Modernize Systems. These will position VA for better outcomes and value in favor of the Veterans and American Taxpayers.¹

This FY 2018-2024 VA Information Resource Management (IRM) Strategic Plan and accompanying VA Enterprise Roadmap reflect that commitment to the Department’s priorities. VA is moving toward a more Veteran-centric environment focused on improving Veterans overall experience with VA. It reflects a distinct behavioral change leading to a new VA culture supported by modernized Information Technology (IT) capabilities and infrastructure. To accomplish this, active collaboration and commitment will be required by the Department’s Administrations and Staff Offices. The unified vision presented in this FY 2018-2024 VA IRM Strategic Plan will guide the Department’s IT environment to target improvement and exceed our Veterans, Business Partners, and stakeholders’ expectations.

Thomas G. Bowman
Deputy Secretary
U.S. Department of Veterans Affairs

Message from the Chief Information Officer

I am proud to present the FY 2018-2024 VA IRM Strategic Plan and the accompanying VA Enterprise Roadmap. This Plan meets Office of Management and Budget (OMB) requirements and aligns with the FY 2018-2024 VA Strategic Plan and associated VA priorities, strategic goals and objectives. It level-sets expectations for planning, execution and performance management to foster the reforms articulated in the 2017 VA Agency Reform Plan. As a VA strategic goal, IT modernization specifically aims to improve IT capabilities to meet Veterans’ and VA employees’ needs and achieve higher levels of customer satisfaction with enhanced service delivery. Furthermore, the FY 2018-2024 VA IRM Strategic Plan articulates the current Office of Information and Technology (OIT) strategic goals, objectives and associated critical success factors to guide IT strategic planning, governance and execution. This IRM Strategic Plan unifies multiple OIT Strategic / IT Plans and synchronizes VA portfolio information thereby providing a single vision.

As authoritative guidance, this VA IRM Strategic Plan will steer VA to achieve effective and efficient IT modernization. VA organizations will be enabled to increase integration across the enterprise and improve Veteran-centric focus by executing the goals and objectives in this Plan. By making it available to the Department, Veterans, Business Partners, and the public, it is our hope that all VA stakeholders will understand VA’s IT vision and associated goals to embrace reform, drive change, and support modernization to better serve our Veterans.

Scott R. Blackburn
Executive in Charge, Chief Information Officer, OIT
U.S. Department of Veterans Affairs

¹ FY2018-2024 VA Strategic Plan
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Executive Summary

This Fiscal Year (FY) 2018-2024 VA Information Resource Management (IRM) Strategic Plan describes how the Department of Veterans Affairs (VA) governs IT investments and aligns IT and information resources allocated to VA to deliver world-class, modernized, interoperable technology and architecture to achieve Veteran-focused integrated benefits delivery. This VA IRM Strategic Plan provides a description of how VA is maturing its processes—including strategic planning and analysis—and using Enterprise Architecture (EA) within its governance bodies to guide IT modernization and business transformation. The accompanying VA Enterprise Roadmap provides greater detail to the operational plans of each of the Administrations. Together, the VA IRM Strategic Plan and the VA Enterprise Roadmap describe activities for utilizing information and technology resources to efficiently and effectively support VA’s mission to serve Veterans and their families. Both are required by the Office of Management and Budget (OMB) and are living documents that will change and evolve as VA continues to modernize and execute its programs, measures performance and progress, takes course corrections, and matures over time.

Achieving a Veteran-Centric Environment

VA is moving toward an environment focused on improving Veteran experience and satisfaction. To realize that environment as articulated in VA strategic goals, objectives, and Agency Priority Goals (APGs), the Office of Information and Technology (OIT) is guided by the strategic goals, objectives, and targets / critical success factors presented in this IRM Strategic Plan. This plan describes the underlying information, technology and associated infrastructure VA needs to transform to an integrated, interoperable environment to fully support VA business processes for delivery of healthcare and benefits to Veterans. To accomplish this transformation, VA will need to make improvements in service delivery business processes, as well as technology and associated infrastructure, while continuing to secure Veterans data and all linked critical infrastructure, and collaborating with other federal agencies, and communities. VA is embracing valuation methodology to measure value based on performance outcomes and costs through a value realization framework and guided by critical success factors as targets during execution of its programs / projects.

Efficient and effective governance of VA’s core business and associated information and technology will be pivotal to achieve a more productive Veteran-centric environment. OIT Strategic Planning, Programming, Budgeting, and Execution (PPBE) and Reporting activities are expected to provide critical inputs to VA’s Strategic PPBE process, and support outputs reported to OMB through the PortfolioStat reporting process as part of compliance with the Federal Information Technology Acquisition Reform Act (FITARA) and VA’s Annual Performance Plan and Report (APP&R). The continuous improvement and maturation of VA’s processes, technology and associated infrastructure will inform corresponding updates to the VA IRM Strategic Plan and VA Enterprise Roadmap to reflect VA’s improved state and the evolving vision for the way ahead.

How to Use the IRM Strategic Plan

The IRM Strategic Plan is the key strategic artifact that contains valuable information for use by leadership and investment / program / project staffs at multiple levels across VA to guide planning, and to ensure strategic alignment with respect to information resource management and associated execution activities. This authoritative guidance and the accompanying Roadmap directly support IT strategic planning, execution, and performance management activities for VA investments to accomplish agency level outcomes and support reliable and accurate PortfolioStat reporting.
Introduction

The Department of Veterans Affairs (VA) mission is to fulfill President Lincoln’s promise to care for those “who shall have borne the battle” and for their families, caregivers, and survivors. VA’s core values include Integrity, Commitment, Advocacy, Respect, and Excellence (I-CARE). Department-wide priorities are established to lead and guide VA toward a path of competitiveness and success.

<table>
<thead>
<tr>
<th>DEPARTMENT-WIDE PRIORITIES</th>
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<tbody>
<tr>
<td><strong>Greater Choice:</strong> VA is committed to ensure Veterans can make decisions that work best for them and their families.</td>
</tr>
<tr>
<td><strong>Improve Timeliness:</strong> Veterans must receive the benefits, care and services they need in a timely manner, no matter where they are.</td>
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<tr>
<td><strong>Suicide Prevention:</strong> Suicide prevention is VA’s highest clinical priority. Suicide is a national health crisis; it requires all of government along with public-private partnerships to address.</td>
</tr>
<tr>
<td><strong>Focus Resources:</strong> Veterans and taxpayers deserve to know VA resources are spent on the care and services Veterans need most.</td>
</tr>
<tr>
<td><strong>Modernize Systems:</strong> Veterans and VA employees need systems and technology that enable them to deliver the high quality care and services Veterans deserve.</td>
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</table>

The Department has three Administrations—the Veterans Health Administration (VHA), the Veterans Benefits Administration (VBA), and the National Cemetery Administration (NCA). With central office components in Washington, D.C., the Board of Veterans’ Appeals (BVA) and numerous Staff Offices support facilities and operations across the United States (U.S.). Staff Offices provide a variety of support services, including budgetary and financial management; information and technology management; human resources management; planning and performance management; policy management; operations, preparedness, security, and law enforcement; legal counsel; congressional and public relations; facilities management; and acquisition and logistics support.

The current Veteran population is 20.4 million. Empowered by nearly 370,000 employees to support Veterans, the VA runs a well-connected network of VA health care facilities to include 151 hospitals, 827 community-based outpatient clinics, and 300 Vet centers, delivering medical, surgical, and rehabilitative care to Veterans. VA also provides compensation and pension, education, housing, vocational rehabilitation and insurance related benefits to nearly 15.63 million Veterans and beneficiaries. These benefits are administered through 56 VA regional offices. Additionally, VA provides burial benefits and maintains 219 national and state cemeteries as national shrines.

To support this mission and associated scale of operations, the information resources (to include IT), capabilities and delivery of services to support Veterans are significant. VA’s annual IT investment of $4.1B is a substantial investment to sustain service delivery to Veterans and their beneficiaries. With such a large outlay, VA must exercise judicious stewardship to effectively plan and spend as well as fully align and integrate with VA strategic priorities. To meet VA’s healthcare and benefits delivery commitments, the Department relies upon a large and complex technology infrastructure. The Office of Information and Technology (OIT)’s oversight and stewardship of VA’s IT budget becomes even more critical to ensure that the right value is delivered or received for the monies spent.

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2 FY2018-2024 Department of Veterans Affairs Strategic Plan
3 Ibid
VA strategic planning continues to evolve from a high level, visionary *Quadrennial Strategic Plan* down to design decisions for each investment / project. VA strategic planners are guiding the Department toward an enterprise integration approach and promoting enterprise behaviors through use of strategic planning, programming, budgeting, and execution and outcome based performance management processes across VA’s Administrations and Staff Offices. In particular, improved VA investment and management processes are intentionally moving VA toward greater integration and a higher level of maturity.

Development of the *VA IRM Strategic Plan* and *VA Enterprise Roadmap* are closely tied to the development of other OMB-required strategic planning documentation such as the *VA Agency Reform Plan*, *VA Strategic Plan* and the *Annual Performance Plan and Report (APP&R)*. The relationship among these documents is illustrated in Figure 1.0. The figure depicts top down alignment of the *VA IRM Strategic Plan* and the *VA Enterprise Roadmap* to the *VA Strategic Plan*.

![Figure 1.0: Relationship among Strategic Planning Documents](image)

Subsequent content in this *IRM Strategic Plan* is organized to present the VA IRM narrative based on current OMB requirements defined in **M-13-09**, **M-17-22**, and May 2017 OMB guidance to include:

- **Purpose and Background**: introductory information on VA’s IRM posture

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5 OMB Memorandum M-13-09, Strengthening IT Portfolio Management, March 27, 2013
6 OMB Memorandum M-17-22, Comprehensive Plan for Reforming the Federal Government and Reducing the Federal Civilian Workforce, April 12, 2017
• **Strategy / Performance Framework**: details how FY 2018-2024 VA and OIT Strategy drives IT Resource Management, how IT investment execution should target expected VA outcomes, and how associated performance gets reported to OMB

• **VA’s customer, i.e., Veteran experience and integration**: includes information on VA’s mission and focus to improve Veterans’ experience with VA, promote customer service and satisfaction

• **IT Modernization**: shows how VA’s IT and associated infrastructure modernization will automate business processes, and how VA uses shared services for cost savings and efficiency

• **Cybersecurity, Privacy, and Business Continuity**: provides VA’s cybersecurity posture and critical infrastructure protection, and VA’s business continuity information

• **Workforce Development and Accessibility**: includes OIT workforce development, competency model use, and accessibility related improvements

The content section headings beginning with section 1.1.2 and onward also reference applicable OMB requirement(s) and relevant strategic alignments with respect to the FY2018-2024 VA and IRM strategic goals and objectives.

**Purpose**
The purpose of the VA *Fiscal Year 2018-2024 IRM Strategic Plan* is to deliver a detailed VA IRM Strategy consistent with OMB’s requirements to drive agency level outcomes via defined critical success factors to provide value to VA, the Veterans, and the American Tax Payer. This *IRM Strategic Plan* and the accompanying VA *Enterprise Roadmap* documents how VA’s IRM activities will integrate and accomplish VA’s mission. This *VA IRM Strategic Plan* shows how strategic planning, organizational planning, programming, budget, program / project execution, and performance management are integrated to bolster VA mission execution through a continuum of VA modernization to support improvement over time.

**Background**
VA’s effort toward an improved IRM posture is guided by OMB circulars and PortfolioStat requirements. PortfolioStat requirements are now integrated into FITARA implementation.⁷ These requirements aid in efficient and effective use of IT to meet VA mission needs and improve business outcomes. Complying with these requirements also helps VA examine its IT portfolio as a whole and draw on the VA Enterprise Architecture to help identify and eliminate areas of duplication and waste.⁸ VA is currently adopting best practices for maturing IT resource management by:⁹

1. Fostering a strong partnership between program and mission officials within VA Administrations, Staff Offices and OIT
2. Strengthening IT portfolio governance through the use of Enterprise Architecture and value management within OIT governance to improve outcomes and the value received by Veterans and VA employees
3. Advancing service delivery through cloud computing for a more scalable and transparent way to provision IT services

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⁸ OMB Memorandum M-12-10, Implementing PortfolioStat, March 30, 2012
To improve outcomes, advance VA IT portfolio management, and continue compliance with FITARA and other relevant OMB requirements efficiently, VA has three primary channels to guide execution across the agency – the VA IRM Strategic Plan, VA Enterprise Roadmap and the Integrated Data Collection (IDC). The IDC includes targeted outcome based performance measures and associated measurement data from major IT investments submitted to OMB. All of these along with related quarterly meetings are collectively referred to as PortfolioStat. As part of the requirement to strengthen CIO authorities, agencies need to ensure that their CIOs have a significant role in IT decisions. CIOs and Chief Financial Officers (CFOs) are required to review IT investment portfolios to reduce duplication and waste, consolidate acquisition and management functions, and increase cost savings. To advance this, VA has consolidated IT functions within OIT. OIT has established IT governance to foster accountability.

To that end, this IRM Strategic Plan presents VA’s Strategy / Performance, Resource Management, IT Governance, IT Modernization, high level Cybersecurity strategy for critical infrastructure protection, and workforce development aspects. All these are expected to instill a culture of proactive planning, timely portfolio / investment / project reviews, outcome and value assessments, portfolio rationalization and streamlined investment management to prioritize development and delivery of VA IT capabilities across VA Administrations and VA Enterprise as a whole. These aspects will aid the VA CIO and CFO to eliminate redundancies, implement leaner functions, strengthen the VA IT workforce, and achieve cost savings and cost avoidance.

1 Strategy / Performance Framework
VA strategic goals and objectives are outputs of the VA strategic planning process. VA’s FY 2018-2024 Strategic Plan establishes four strategic goals that are statements of what VA wants to achieve to advance the Department’s mission, effect reform, and address challenges and opportunities. Each of VA’s four strategic goals is broken down into a set of objectives that express more specifically how VA will achieve that goal. Each objective is further defined by a set of strategies with associated performance goals that establish the level of performance to be achieved.

1.1 VA Strategic Goals, Objectives, Agency Priority Goals, and Secretary’s Initiatives
The FY 2018-2024 VA Strategic Plan articulates four strategic goals to: 1) provide greater choice for Veterans, 2) deliver timely and integrated care and support, 3) instill trust in VA to be accountable and transparent, and finally, 4) modernize IT and focus on efficient use of its resources to provide best value for Veterans and VA employees. In particular, VA strategic goal #4 specifically aims to modernize systems and focus resources more efficiently in order to be competitive and to provide “best-in-class” capabilities to Veterans and its employees (Table 1.0).

VA's OIT information resource management activities directly support VA strategic goal #4 and all IT development across VA, thereby supporting associated objectives in all other goals as well. OIT also supports the development of specific IT solutions in pursuit of VA strategic goals #1, 2, and 3, and associated objectives with relevant IT strategies.

10 Ibid
11 OMB memorandum, M-15-14, Management and Oversight of Federal Information Technology
1. Veterans choose VA for easy access, greater choices, and clear information to make informed decisions

2. Veterans receive timely and integrated care and support that emphasizes their well-being and independence throughout their life journey.

3. Veterans trust VA to be consistently accountable and transparent.

4. VA will modernize systems and focus resources more efficiently in order to be competitive and to provide “best-in-class” capabilities to Veterans and its employees.

### VA STRATEGIC OBJECTIVES

1.1: VA anticipates Veterans’ changing needs throughout their lives to enhance their choices.

1.2: Veterans are informed of, understand, and can avail themselves of the benefits, care, and services they choose.

2.1: VA has collaborative, high-performing and integrated delivery networks that enhance Veteran well-being and independence.

2.2: VA ensures at-risk and underserved Veterans receive what they need to eliminate Veteran suicide, homelessness, and poverty.

3.1: VA is always transparent in order to enhance Veterans’ choices, to maintain trust, and to be openly accountable for its actions.

3.2: VA holds its personnel and external service providers accountable for delivering excellent customer service and experiences while eliminating fraud, waste, and abuse.

4.1: (Agility) VA’s infrastructure improvements, improved decision-making protocols and its focus on streamlined services enable VA to agilely adapt to changing business environments, improve delivery, and respond to Veteran needs.

4.2: (Human Capital Management Modernization & Transformation) VA will modernize its human capital management capabilities to empower and enable a diverse, fully staffed, and highly skilled workforce that consistently delivers best-in-class services to Veterans and their families.

4.3: (VA IT/Cybersecurity) VA IT modernization will quickly deliver effective IT solutions that will enable VA to provide improved customer service and provide a secure and seamless service.

4.4: (Data driven decision making) VA will institutionalize data supported and performance focused decision making that will improve the quality of outcomes.

### Table 1.0: VA Strategic Goals and Objectives

<table>
<thead>
<tr>
<th>APG</th>
<th>Outcome Target</th>
<th>Responsible VA Organization</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Suicide Prevention: VA will proactively identify and provide interventions for at-risk Veterans, both those using Veterans Health Administration (VHA) care and those using other care systems, to</td>
<td>By September 30, 2019, the rate at which Veterans targeted through predictive modeling algorithms within the VHA system and that receive core recommended interventions will increase to 90%. By September 30, 2019,</td>
<td>VHA, Office of Mental Health and Suicide Prevention</td>
</tr>
</tbody>
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13 Source: VA Central Office, Strategic Planning Service, January 2018
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<th>APG</th>
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<tr>
<td>1.1.</td>
<td>prevent suicide and overdose death. VA will increase the use of interventions for Veterans at-risk for suicide through the use of predictive modeling and enhanced engagement strategies.</td>
<td>VA will partner with Health and Human Services (HHS)/Substance Abuse and Mental Health Services Administration (SAMHSA) and 17 cities in a “Mayor’s Challenge” to develop community plans to end Veteran suicide outside the VHA system.</td>
</tr>
<tr>
<td>2.</td>
<td>Veteran Customer Experience: VA will be the leading customer experience organization for all Veterans in the Nation, so Veterans, their families, caregivers, and survivors choose VA for health care and other benefits.</td>
<td>By September 30, 2019, Veterans’ positive responses will increase from 67% (FY17Q4) to 90% to the statement, “I trust VA to fulfill our country’s commitment to Veterans.”</td>
</tr>
<tr>
<td>3.</td>
<td>Community Care: Improve Veterans’ health outcomes and experiences by consolidating all VA-purchased care programs into one modernized community care program.</td>
<td>By September 30, 2019, the percent of Veterans who are satisfied with receiving community care will increase from 73% (FY17Q4) to 79%.</td>
</tr>
<tr>
<td>4.</td>
<td>Appeals: Improve VA’s claims and appeals process by implementing the new, streamlined framework authorized by the Veterans Appeals Improvement and Modernization Act of 2017.</td>
<td>By September 30, 2019, VA has fully implemented the Veterans Appeals Improvement and Modernization Act of 2017 and adjudicating appeals under the new appeals system and the legacy system.</td>
</tr>
</tbody>
</table>

Table 2.0: VA Agency Priority Goals and Performance Targets

1.1.2 VA CIO Roles, Responsibilities and Organization

The Agency CIO authorities are defined in accordance with the United States Code (U.S.C.) § 38, 40, & 44, and the Clinger-Cohen Act. These are assigned to and exercised by the Assistant Secretary for Information and Technology (AS/IT). The Assistant Secretary for Information and Technology and Chief Information Officer (AS/CIO) leads the Office of Information and Technology (OIT) and serves as the principal advisor to the Secretary on all matters related to IT and Information Management.

The VA CIO as AS/IT: 14

- Oversees information protection policies, planning, and activities in order to improve how VA and its partners safeguard sensitive data
- Approves the Enterprise Architecture and IRM IT Strategic Plan objectives and performance measures necessary to support VA business lines
- Sets the precedent for customer service excellence through customized IT services that will identify and define innovative solutions that meet OIT business partners’ needs while building trusted relationships with stakeholders

• Oversees the direction of financial management, human capital management, IT asset management and procurement activities for OIT
• Provides the necessary guidance for IT support of all operational and maintenance activities throughout the VA

The VA CIO provides a single vision for all enterprise application development activities pertaining to planning, developing (or acquiring), and testing applications. In addition to all the above, the VA CIO establishes the management framework and processes to support FITARA strategy to include associated planning and implementation in accordance with OMB memorandum M-15-14.  

1.1.3 Office of Information and Technology (OIT)
The AS/IT exercises assigned authorities through OIT. OIT partners with VA Administrations and Staff Offices and serves as a Veteran-centric provider of secure and cost-effective technology services. OIT organizations support the VA CIO to directly accomplish information resource management and portfolio management. Details of OIT organizations and their mission are included in the 2017 VA Functional Organization Manual.
<table>
<thead>
<tr>
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<td>2. Eliminate material weaknesses</td>
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<tr>
<td>1.1: Improve enterprise agility, responsiveness, and product quality through continuous customer engagement, capacity planning, and the use of flexible platforms that meet varying customer demands.</td>
<td>2.1: Provide world-class service to our internal business partners by operating in an environment that is responsive, proactive and transparent.</td>
<td>3.1: Achieve optimized, veteran-focused investments through effective sourcing strategies and execution, which includes speed-to-market of approved products and service outcomes.</td>
</tr>
<tr>
<td>1.2: Fully leverage all data collected on behalf of Veterans to establish interoperability across all agencies and institutions, enabling data-driven innovations in products and services that empower Veterans.</td>
<td>2.2: Build industry leading cybersecurity skills and capabilities to secure IT assets and safeguard Veteran and business partner data.</td>
<td>3.2: Be recognized as an industry leader in employee engagement and organizational health.</td>
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<tr>
<td>- Proactively plan, manage and refresh IT capabilities before they become security risks or mission liabilities.</td>
<td>- Complete data center consolidation to reduce the VA infrastructure footprint while reducing the cost of transaction processing and business intelligence activities.</td>
<td>- Leverage VA scale of operations to drive down costs of commodity IT, software, and services.</td>
</tr>
<tr>
<td>- Share data the Agency already has with other offices and organizations to help them become more effective and efficient in executing their processes.</td>
<td>- Improve data management practices to improve the quality, availability, accessibility, and security of information used to support Veteran services.</td>
<td>- Re-host the IT infrastructure in the “cloud” to make it more virtual, scalable, efficient, and secure.</td>
</tr>
<tr>
<td>- Retire ineffective, high-risk, costly to maintain technology solutions, and platforms</td>
<td>- Enforce standardization of data, applications, solutions, interfaces, and infrastructure by migrating to the best engineered designs and most secure services.</td>
<td>- Track actual business and technology outcomes of invested resources to ensure desired results are delivered.</td>
</tr>
</tbody>
</table>
The VA strategic goals and objectives outlined in the *VA Strategic Plan for Fiscal Years 2018-2024* formed the basis for the development of the OIT strategic goals, objectives, associated critical success factors and key results indicators. Specifically, they align directly to goal #4 that states “VA will modernize systems and focus resources more efficiently in order to be competitive and to provide “best-in-class” capabilities to Veterans and its employees.” Each of these goals has aligning strategic objectives and critical success factors that will inform the Department’s *Annual Performance Plan and Report (APP&R)*.

Achieving these strategic goals and objectives is OIT’s primary responsibility. Increasing modernization investment also means that OIT must decrease the cost of IT operations and maintenance. OIT will need to continuously improve VA IT capabilities and lower sustainment costs by being more disciplined in how it manages its legacy environment, modernizing its infrastructure, and considering sustainability of new products in development.

### 1.2 IT Resource Management Framework

VA centrally manages its annual IT appropriation using the Planning, Programming, Budgeting, and Execution (PPBE) framework. The IT PPBE process is a disciplined resource management process under the CIO. The IT PPBE process entails translating the VA and OIT strategic goals and objectives into resourcing for all aligning IT investments, specific programs and projects, thereby effectively prioritizing their execution based on targeted outcomes.

**Planning** – As the first phase of the IT PPBE process, planning provides strategic direction to decision-makers in the programming and budgeting phases to prioritize and allocate IT resources to deliver intended critical business outcomes consistent with the Agency’s long term mission, vision, and priorities. VA will need to reduce IT sustainment costs and eliminate inefficient designs, non-standard solutions, and unsupportable platforms. VA will also need to ensure that IT investments are estimated in quantitative terms, delivering the outcomes needed and producing actual results. All IT investments must include meaningful outcome performance measures that justify cost and contribution of IT to the VA business mission. A VA effort is currently underway to identify systems that can be decommissioned due to obsolescence, availability of similar capabilities in current systems or lack of business need.

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20 VA Planning Guidance, FY2016-2020
Programming – This process identifies and allocates IT resources to the programs that provide the capabilities required to achieve VA strategic priorities. This phase enables identification and analysis of alternative strategies, and the application of technology and economic assessments.

OIT Multi Year Planning (MYP) – MYP is a highly collaborative stakeholder engagement process across the Department to establish priorities, construct alternative budget scenarios, and discuss resource needs for VA programs over a five-year horizon. The outputs of the MYP are numerous OIT Programming and Budget documents.  

Budgeting – This process yields VA’s IT component of the President’s Budget and operating plans along with justification for the approved programs, projects, and technology solutions.

OIT Budget Operating Plan (BOP) – Is a detailed financial spend plan that identifies funding needs, plans, approvals, and changes at the lowest multi-factor level of program or project requirement, obligation, and financial category. The BOP and related processes and automated systems provide structure, discipline, and tools for planning, approving, managing, analyzing, reporting on, and determining performance of the annual budget execution program. The BOP is baselined for performance measure tracking but is flexible, thereby allowing OIT to respond to changing Agency priorities and program requirements.

Execution – Entails developing and delivering the required technology solutions to support and establish mission capabilities needed to achieve Agency and OIT strategic goals, objectives, and associated strategies.

Reporting – Involves performance reporting and program management reviews to ensure that execution / performance is in accordance with the Department’s established outcomes, policies and guidance regarding program execution. Below are the VA performance reporting mechanisms.

VA Performance Accountability Report (PAR) – Required annual reporting on VA’s accomplishments toward improving the timeliness, accessibility, and quality of health care and benefits service delivery.

- **VA Annual Performance Plan and Report (APP&R)** – Government Performance Results Act (GPRA) Modernization Act requires CFO Executive-level agencies to set long-term goals and objectives as well as specific, near-term performance goals each fiscal year. VA’s APP&R presents the Department’s annual accomplishments and challenges in providing health care and benefits to Veterans and their eligible dependents in accordance with VA’s mission. Topic areas include: Government Accountability Office (GAO) High Risks, Major Management Challenges, APGs, and Strategic Objective Annual Reviews. With full coordination initiated by VA’s Office of Performance Management within the Office of Enterprise Integration, VA Administrations and Staff Offices report annual performance to comply with OMB Circular A-11 guidance.

- **PortfolioStat Reporting** – VA provides three outputs to OMB through the PortfolioStat reporting process: the VA IRM Strategic Plan (primary cycle consistent with the VA Strategic Plan; annual updates to be consistent with President’s Budget submission each fiscal year), the VA Enterprise Roadmap (primary cycle consistent with the VA Strategic Plan; annual updates consistent with

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21 Department of Veterans Affairs Information Technology Multi-Year Programming Guidance, FY 2016-2020

22 OMB Circular A-136 (revised), Financial Reporting Requirements
President’s Budget submission each fiscal year), and Integrated Data Collection data from program execution (quarterly).\textsuperscript{23}

- **VA Integrated Data Collection (IDC)** is a channel to report progress in meeting IT strategic goals, objectives and metrics, as well as cost savings and avoidances resulting from IT management actions. IDC draws on information reported under PortfolioStat, the Federal Data Center Consolidation Initiative, the Federal Digital Government Strategy, quarterly Federal Information Security Management Act metrics, the Federal IT Dashboard, and selected human resource, financial management, and procurement information requested by OMB.\textsuperscript{24}

### 1.3 IT Governance

\textit{M-13-09 | FITARA | VA Strategic Goal #3, Objectives # 3.1, #3.2 | OIT Strategic Goals #1, #3, Objectives #1.2, #3.1, #3.3}

The IT Governance Boards are established to provide accountability and foster sound IT investment management practices. OIT governance provides critical support for the enterprise-level IT governance that enables efficient investment / portfolio management, material solutions, and technical capabilities necessary for transformation and continuous process improvement across VA.

The OIT Governance Oversight Board (GOB) serves as an overarching governance body to the Program & Acquisition Review Board (PARB), Standards & Architecture Board (SAB), and Organization & Workforce Board (OWB). Figure 2.0 illustrates the Board and the Committee structures to provide IT governance and decision-making. It also shows senior level leadership participation in the Boards and associated committees to drive continuous improvement.

\textsuperscript{23} OMB Memo M-13-09, Fiscal Year 2013 PortfolioStat Guidance: Strengthening Federal IT Portfolio Management, March 27, 2013

\textsuperscript{24} Ibid
Through compliance with FITARA and utilizing the FY 2018 Governance Framework, OIT will provide extensive decision support to foster enterprise business transformation. This includes incorporating IDC, TechStat and PortfolioStat performance measures to enable data-driven decision-making regarding the value of IT investments. The OIT Governance Oversight Board will provide guidance and oversight to all of OIT’s Governance Boards and Committees. TechStat accountability sessions will be employed as a face-to-face, evidence based accountability review of IT investments. TechStat sessions are triggered when VA determines that projects / investments are failing or underperforming. The CIO and other relevant executives will review briefings that highlight the management of failing projects/investments and consider opportunities for corrective action.

The OIT Governance Framework will bring together representatives specific to IT, procurement, finance, and human resources to the right governance bodies, with the right information, at the right time to make the best decisions to provide value, and efficiently and effectively deliver IT programs in support of the Veterans. Governance Boards will aid development and implementation of VA’s value realization framework to support outcome and value based assessments of IT investments. Refer to the FY 2018-
1.3.1 Investment Review Process

M-13-09

Designated to engage strategic partnerships by establishing relationships across VA, the IT Account Managers enable OIT to become a trusted partner in serving Veterans. They represent the business in the OIT portfolio management process, budget formulation and execution, multi-year programming, continuous prioritization review, and financial change requests. IT Account Managers partner with VBA, VHA, NCA and VA’s corporate functions to build technology aligned to business partners’ needs. In addition, the ‘Enterprise’ Portfolio IT Account Manager ensures that the interests and needs of OIT itself are addressed and managed in order to propel the organization forward in a results-driven manner. All IT Account Managers also work with the CIO and other OIT leaders to prioritize projects within the IT portfolio and efficiently allocate resources to improve existing services and build products that are driven by our business partners’ needs. The intake / demand management process facilitated via IT Account Management is critical to VA IT Portfolio Management. The process has defined criteria to prioritize and aid decision making to fund, or retire / decommission IT systems. Account Managers will continue to make portfolio prioritization decisions and bring to the Board only those prioritization changes that require funding approval or reallocation. The intake process serves as an entry point for IT capability requests submitted to OIT for evaluation to support investment management. It is a standardized process to:

- Evaluate and process requests from a portfolio perspective
- Reduce redundant and outdated capabilities
- Inform strategic investments
- Ensure alignment to VA’s strategic priorities and
- Provide necessary high-level architecture and related work products to better inform development in the Veteran-focused Integration Process (VIP) Additional details specific to the intake / demand management process are included in the VA Enterprise Roadmap

1.4 Management Processes

M-13-09 | VA Strategic Goal #3, Objectives #3.1, #3.2 | OIT Strategic Goal #1, Objectives #1.1, #1.2, #3.3

Management processes along with IT governance aid in streamlining execution and instill efficiencies and effectiveness while providing appropriate standard operating processes and associated standards and procedures. Management process aspects specific to Veteran-focused Integration Process (VIP) and Enterprise Architecture are discussed briefly in this section.

1.4.1 Veteran-focused Integration Process (VIP)

VIP is the follow-on framework from VA’s Project Management Accountability System (PMAS) for the development and management of IT projects. VIP will propel the Department with even more rigor toward Veteran-focused delivery of IT capabilities. VIP reduces overall project cycle time from six to three months. It reduces documentation needs and improves execution efficiency. VIP also supports
reporting via a VIP Dashboard for VA’s external reporting commitments. Reports are generated from the VIP Dashboard for various external customers such as GAO, the Office of Inspector General, OMB, etc.

Specific to the IRM function, a major reporting responsibility called the OMB Major IT Business Case Details submission occurs monthly through the VIP Dashboard. OMB requires agencies to submit product data (approximately 40 data elements per product activity) and performance data from VA directly to the Federal IT Dashboard. VA executes the associated monthly ‘Major IT Business Cases’ (formerly OMB Exhibit 300) reporting requirements via the VIP Dashboard. VA Product teams are required to make timely updates to the Dashboard regarding costs and schedule. VA Product Managers are expected to ensure that actual start and completion dates are entered into the Dashboard in a timely manner.

1.4.2 Enterprise Architecture for Business Transformation
Enterprise Architecture (EA) is intended to offer real-time visibility into VA’s business and IT environments and ensure alignment of VA’s IT environment and activities with the Department’s critical mission needs. The VA EA Vision and Strategy adopts four primary outcomes to measure EA success based on the OMB Common Approach to Federal Enterprise Architecture (CAF):

- Serve as an authoritative reference
- Promote functional integration
- Improve service delivery
- Facilitate resource optimization\(^{28}\)

The VA EA vision is to promote Department-wide transformation and aid decision-makers within VA Administrations and Staff Offices. With VA’s business transformation, EA will play a greater role in simplifying the complex business environment by providing clear visibility into IT and associated business processes. VA EA through its various lines of sight will continue to enforce focus on Veteran Experience and promote Veteran-centric processes and IT related governance boards for decision making discussed in Section 1.3 and aid in VA mission accomplishment.\(^ {29}\)

2 Veteran Experience and Integration

VA values and has the utmost respect for its customers, i.e., the Veterans. OIT will focus on IT modernization to enhance Veteran experience and integration. Additionally, VA IT / cybersecurity is targeted as part of IT modernization to implement efficient and cost effective secure solutions that provide a seamless experience and improve customer service. Improving Veteran experience remains VA’s priority that is targeted through the FY2018-2019 APG #2.\(^ {30}\) Improving Veteran experience is also in alignment with the President’s Management Agenda (PMA), Cross Agency Priority (CAP) Goal #4 to improve customer experience with federal services. The goal is to foster delivery of effective and positive customer experiences in which Veterans feel valued. VA intends to achieve this goal by listening to Veterans, their families, and supporters – when they describe how they want things to work. Veteran-
centric systems and processes will be designed to meet Veterans’ needs and eliminate organizational silos.

IT provides critical support for achieving this goal through easy, secure, seamless access and self-service oriented Veteran-centric capabilities. In addition, Veteran facing mobile applications will continue to be designed to leverage VA Identity and Access Management’s Single Sign-on External authentication framework. This framework will allow these applications to use Federal Identity, Credential and Access Management certified Identity Providers or Credential Service Providers approved by VA. Additionally, efforts to improve usability of Veteran facing VA websites and streamline availability of healthcare and benefits information to Veterans are ongoing.

2.1 Veteran Related Customer Service and Satisfaction

VA is working to keep pace with Veterans’ expectations and transform its customer service. VA is using the Veteran Journey Map as a strategic tool to execute mission and accommodate the needs of Veterans. The Veteran Journey Map is a cradle to grave continuum that a Veteran experiences. This starts from the time of entry into Military Service to death, and beyond inclusive of Veteran beneficiary support. Planning for soliciting regular customer feedback, streamlining processes, and delivering consistent, high-quality services is imperative. A key tenet to VA’s modernization effort is interoperability to include strategic partnerships to enhance Veteran related customer service and experience. VA will continue to partner with the Department of Defense (DoD) where Veterans begin their journeys as they enter Military Service.

VA will be collaborating with State, local, and tribal entities to support Veterans. Improved Veteran experience will be a hallmark of VA’s health, benefits, and memorial portfolios in their future states. In accordance with FY2018-2019 APG #2, VA will target and measure customer satisfaction based on Veteran experience. Specifically, by September 30, 2019, VA is targeting Veterans’ positive responses to increase from 67% (FY17Q4) to 90% in response to the statement, “I trust VA to fulfill our country’s commitment to Veterans.” Feedback from Veterans will be analyzed and results will be used to improve agency performance and maintain a positive Veteran experience and customer satisfaction.

3 IT Modernization

IT modernization is part of the transformational reform that is currently underway across VA. It is expected to yield Veteran-centric IT capabilities and aid employees and support personnel to efficiently and effectively accomplish VA’s mission. It is also in alignment with the PMA CAP Goal #1 of IT modernization as they are identical. Veteran-centric capabilities directly support Veterans and their beneficiaries. Modernized IT supports a modernized VA through digitization, strategic sourcing for IT and associated services, enabling interoperability, supporting public private partnerships, and reducing the overall footprint while increasing VA’s mission capability to support Veterans.

31 VA Enterprise Design Patterns, Mobile Veteran-Facing Application Security, 2015
32 US Department of Veterans Affairs Fiscal Year 2018 / Fiscal Year 2016 Annual Performance Plan and Report
33 Veterans Affairs Comprehensive IT Plan Sharing with Business Stakeholders, November 17, 2017 & U.S. Department of Veterans Affairs Comprehensive Technology Plan Sharing with Business Stakeholders, March 2018
VA IT modernization will be guided by the following principles:\(^{34}\)

- Leverage Open Application Architecture (e.g., Electronic Health Record (EHR))
- Modernize legacy systems (e.g., Veterans Health Information Systems and Technology Architecture (VistA), Benefits Delivery Network (BDN), Veterans Appeals Control and Locator System (VACOLS), etc.)
- Protect Veteran information and enhance VA’s security domain
- Redesign infrastructure framework
  - Leverage Common Services and Common Services Platforms to improve infrastructure to reduce cost of operations and promote interoperability and integration of operating IT environment (e.g., Application Programming Interface (API) Gateway, Enterprise Service Bus (ESB), Enterprise Resource Planning (ERP), etc.)
  - Tap Cloud to consolidate data centers and reduce cost of IT operations
- Use authoritative sources of data
- Enforce data integrity and quality in the VA IT environment
- Share relevant data across all VA lines of business and corporate environments
- Utilize common data sources to support common analytics for common reporting requirements for all VA lines of business including the corporate environment
- Use ‘BuyFirst’ strategy to evaluate IT investments to meet business needs with Commercial-off-the-Shelf (COTS) applications with minimal customization
- Minimize human interactions in business processes and maximize self-service capability through implementation of right content and achieve data digitization at an enterprise level

IT modernization spans the health, benefits, memorial, corporate and enterprise portfolios and will significantly influence their future state. Table 4.0 provides a summary of the future state as a result of IT modernization efforts across each of the portfolios.\(^{35}\)

<table>
<thead>
<tr>
<th>Portfolio</th>
<th>Future State</th>
</tr>
</thead>
</table>
| **Health** | • Single commercial EHR with workflow integration  
  • Expanded access  
  • Coordination of care (i.e., integrated healthcare)  
  • Resource-based scheduling  
  • Improved Veteran experience |
| **Benefits** | • Digitized processes  
  • Self-service and expanded automated processes  
  • Improved turnaround time (e.g., claims processing)  
  • Modernized, reliable systems with improved data integrity  
  • Improved Veteran experience |
| **Memorial** | • Digitized processes  
  • Improved Veteran experience  
  • Modernized, reliable systems with improved data integrity |

\(^{34}\) Ibid  
\(^{35}\) Ibid
Table 4.0: VA Portfolios – ‘Future State’ Summary

<table>
<thead>
<tr>
<th>Portfolio</th>
<th>Future State</th>
</tr>
</thead>
</table>
| Corporate | • Resource efficiencies through shared services and unmodified COTS solutions  
            • Coordinated approaches and strategic sourcing  
            • Operational transparency |
| Enterprise | • Reduced operating and maintenance costs  
            • Operational transparency and increased reliability  
            • Data standardization and seamless inter- and intra-system communication |

3.1 Managing Information as an Asset

**M-13-09 | VA Strategic Goal #4, Objective # 4.3 | OIT Strategic Goals #1, #2, Objectives #1.1, #2.1, #2.2**

Information and IT play a strategic role in the transformation and modernization of VA into a “Veteran-centric” organization, wherein VA creates a single, integrated, and complete view of the Veteran. VA’s ability to provide benefits in a Veteran-centric manner rests on the ability to collect and manage information in a way that is secure yet discoverable, accessible, and understandable by authorized users anytime and anywhere. VA is building a secure information environment with interoperability and openness to support its mission. As part of this effort, OIT will institutionalize reliance on verifiable, authoritative data to improve performance-based Veteran experience, support decision making, and aid in improved quality of outcomes. A summary of the prominent modernization efforts and associated future state benefits are included in the sections below. For implementation details, see the VA Enterprise Roadmap.

3.1.1 Securing Personal and Sensitive Information

**M-13-09**

VA provides information protection, including protection of all personal information (e.g., Personally Identifiable Information (PII)) and controlled unclassified information (CUI), in three ways:

1. **Confidentiality** – information is made available only to those who rightfully have a need-to-know and should have access
2. **Integrity** – information is modified only by those who are authorized to do so
3. **Availability** – information is accessible only to those who need to know and are authorized to receive it when they need it

To ensure the privacy and security of Veterans’ data, their beneficiaries, VA employees, and other stakeholders, VA has implemented policy and training to ensure that VA systems are compliant with National Institute of Standards and Technology (NIST) Special Publication 800-53 controls for federal systems, as well as with additional VA-specific security controls. Further, VA, like other federal agencies, is working to develop and implement its Department-level CUI program and the frequency of controls verification.

3.2 VA Electronic Health Record Modernization (EHRM)

**2017 VA Agency Reform Plan**

VA is committed to providing seamless care for Veterans, including access to a complete electronic health record and shared, transparent care pathways. In order to ensure seamless care for Veterans, VA
is moving toward a single common system by adopting the electronic health record (EHR) system that is being deployed by DoD.\textsuperscript{36}

Modernized EHR will provide operational capability and standardization via a single, cloud-based instance.\textsuperscript{37}

- Clinical operations supported by standard definitions and coding
- Ancillary services (e.g., laboratory, radiology, etc.)
- Revenue cycle operations (eligibility, enrollment, billing for care VA provides to Veterans)
- Fill gaps in capability through agreements with third parties
- Seamless interoperability to enable continuity of care and increased coordination with community providers and DoD
- Software as a Service (SaaS) platform to improve service delivery

This effort will begin with a contract award and require VA and DoD to collaboratively partner to implement an EHR that provides seamless interoperability.

**Critical Success Factors:** \textsuperscript{38}

- Award Indefinite Delivery Indefinite Quantity (IDIQ) contract and associated Task Orders
- Complete IT modernization in advance of site transition to the new EHR

### 3.3 Health Data Interoperability – DoD/VA Interagency Program Office

**2017 VA Agency Reform Plan | VA Strategic Goal #1 | OIT Strategic Goal #3**

VA uses real-time information shared by DoD via the Veteran electronic health records and other data sources to better anticipate their needs. VA OIT in collaboration with DoD continues to fulfill this strategy through full organizational commitment of the DoD/VA Interagency Program Office (IPO), an office that reports directly to the VA Chief Information Officer. The IPO provides Service members, Veterans, and their beneficiaries with world-class health care by ensuring the DoD and VA’s Electronic Health Record (EHR) data is interoperable with each other and with the private sector. This is also in alignment with the PMA CAP Goal #2 related to data accountability and transparency. In support of health data interoperability, the IPO’s Executive Committee-approved priorities are:

- Encourage and enable collaboration across the DoD and VA by serving as a central resource for modernization and health data interoperability
- Oversee, measure, and monitor the effectiveness of the DoD’s and VA’s progress in achieving cross-organizational health data interoperability
- Serve as a conduit for the DoD’s and VA’s engagement with the Office of the National Coordinator for Health Information Technology, Federal partners, Standards Development Organizations, and industry to facilitate secure knowledge sharing and mature data, standards, and interoperability on the National and International level
- Assess, update, and maintain a technical and clinical framework aligned to health data interoperability standards and used by the Departments and affiliated health partners
- Monitor emerging standards, technologies, and innovations to drive the adoption of best practices to improve interoperability between the DoD, VA, and affiliated health partners

\textsuperscript{36} https://www.ehrm.va.gov/
\textsuperscript{37} Veterans Affairs Comprehensive IT Plan Sharing with Business Stakeholders, November 17, 2017 & U.S. Department of Veterans Affairs Comprehensive Technology Plan Sharing with Business Stakeholders, March 2018
\textsuperscript{38} Office of Enterprise Integration, December 15, 2017
The Departments and their private partners remain fully committed to enhancing health data interoperability between their EHR systems. Enabling health information exchange between EHR systems will serve as the foundation for a patient-centric healthcare experience, seamless care transitions, and improved care for our Service members, Veterans, and their families. Moving forward, the IPO will continue to partner with DoD, VA, and the private sector to support their interoperability and modernization efforts through coordination, collaboration, and joint governance ensuring our beneficiaries continue to receive the best care available.  


2017 VA Agency Reform Plan  

FMBT will provide a modern, integrated financial management and acquisition solution with transformative business processes and capabilities that will enable VA to meet its goals and objectives in compliance with financial management legislation and directives. FMBT will increase the transparency, accuracy, timeliness, and reliability of financial information across VA, resulting in improved fiscal accountability to American taxpayers and increased opportunity to improve care and services to our Veterans. The FMBT program will leverage economies of scale to reduce costs and increase efficiencies. Significant improvements will come from process standardization and reengineering.

Critical Success Factors: Increased transparency, accuracy, timeliness and reliability of financial and acquisition information across VA, resulting in improved fiscal accountability to American tax payers.

3.5 Legacy IT Systems Modernization  

2017 VA Agency Reform Plan  

With over 130 legacy IT systems that are no longer supported by vendors and do not meet business functionality requirements, VA’s legacy IT systems warrant the much needed modernization. Initially, VA will be focusing on legacy systems that impact major service offerings or support services. The Department will replace these legacy systems with more modern and stable platforms to meet the current and future needs of our customers and employees while reducing operational, business, and security risk to an acceptable level. Additionally, OIT has established a legacy system modernization and decommissioning strategy and roadmap. A retirement planning and execution process is in place to transition to cloud and SaaS options with OIT governance oversight. Project execution is governed by the VIP process. Highlights related to the prominent legacy system modernization efforts are presented in this section.

Telehealth: Legacy Telehealth will be replaced by expanded Telehealth. Veterans will have greater choice and easy access to the benefits, care and services they earned. The future state of the expanded telehealth envisions:
  - Fully realized hybrid model for telehealth, using both VA operated and commercial telehealth as a service (TaaS)
  - More than 50% of Veterans receive services via telehealth
  - Telehealth optimized for provider and patient access, network capacity, care quality and failover collaboration

39 DoD / VA Interagency Program Office, February 2, 2018
40 Office of Enterprise Integration, December 15, 2017
41 Office of Information and Technology, From Transformation to Modernization, 2017 Year in Review
• Telehealth supports on-demand Veteran access and resource based scheduling
• Improved Veteran experience and uniform availability of remote care driven by the consistent deployment of telehealth across VA; telehealth seamlessly integrated with EHR workflows (e.g., data feeds from remote patient monitoring for chronic care management)

**Critical Success Factor:** Leverage Telehealth technologies to enhance the accessibility, capacity, and quality of VA healthcare for Veterans, their families, and their caregivers anywhere in the country.42

**Community Care 2.0: | APG #3**
As part of the VA modernization initiative, VA is gearing towards interoperability on multiple fronts to include other federal agencies and community providers in support of Veterans benefits.

**Critical Success Factors and Key Results Indicators:** These will target the FY 2018 – 2019 APG outcome. By September 30, 2019, the percent of Veterans who are satisfied with receiving community care will increase from 73% (FY17Q4) to 79%. Benefits related legacy system modernization details are presented in Table 5.0.

<table>
<thead>
<tr>
<th>Legacy System</th>
<th>Modernization Effort</th>
<th>Expected Benefits</th>
</tr>
</thead>
</table>
| Benefits Delivery Network (BDN)             | Benefits Integration Platform (BIP) | • Share authoritative customer data across VBA Lines of Business and other VA offices  
                                             |                                         | • Enrich Veteran experience            |
| Burial Operations Support System (BOSS)     | BOSS Modernization       | • Expand Veteran self-service capabilities through the Vets.gov portal              
                                             |                                         | • Veterans to have ability to electronically submit Pre-Need eligibility determination forms.  
                                             |                                         | • Simplify benefits eligibility determinations for Veterans and their families and securely send sensitive information at a time of their choosing |
| Veterans Appeals Control and Locator System (VACOLS) | Caseflow               | • Enables a more efficient and timely appeals process |  
|                                              |                          |                                                                                   |

**Table 5.0:** Benefits related Legacy System Modernization

**3.6 Navigator**

**2017 VA Agency Reform Plan**
Veterans and Service members report difficulty in navigating benefits and services available to them from VA and non-VA organizations. In addition, VA is not well equipped to resolve associated challenges. Integration and coordination of various outreach programs are often fragmented, inefficient, under-resourced, or lack metrics to determine effectiveness. By listening and responding to Veterans’ navigation needs and establishing navigation of VA and non-VA benefits / services as a core competency, VA will connect Veterans, their families, caregivers and survivors with benefits and services, and Veterans will want to choose VA.

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42 Office of Enterprise Integration, December 15, 2017
**Critical Success Factor:** Self-service Navigator Tool on Vets.gov: partnering with industry technologists from the United States Digital Services (USDS) (see www.usds.gov), implement interactive, self-service Navigator tool on Vets.gov to reach all Veterans, service members, their families, caregivers, and survivors, who will be able to navigate benefits in an easy and understandable way using tools developed and co-designed with Veterans.  

3.7 Value Management and Analytics

**2017 VA Agency Reform Plan**

VA currently has multiple sources of data and inconsistency among that data, which impedes data-driven decision-making. Moreover, the way VA receives, analyzes, and disseminates information is not standardized. This prevents VA from creating a common operating picture and accurately measuring value and cost by service offered. GAO has released multiple recommendations on these challenges, including the need to develop plans to measure Enterprise Architecture outcomes; track progress toward achieving expected outcomes; and define, measure, track, and report progress toward achieving expected value and outcome-oriented metrics. OIT is focused on analytics through establishing the Office of Strategic Planning and Analysis to institutionalize the Value Realization Framework within OIT and the governance bodies. This will enable OIT to deliver PortfolioStat / IDC metrics in an accurate and timely manner to OMB and drive improved outcomes.

3.8 IT Infrastructure Modernization

**M-17-22 | VA Strategic Goal #4, Objective # 4.1 | OIT Strategic Goal #1, Objective #1.1**

The VA enterprise IT infrastructure provides the backbone upon which OIT delivers the necessary technology and expertise to achieve VA’s mission. OIT exercises stewardship over all VA’s IT assets and resources. While VA maintains an available, scalable, and redundant infrastructure that substantially reduces the government’s risk and enables future IT service delivery growth, there is room for improvement. IT infrastructure modernization is expected to instill agility, improve responsiveness and product quality through continuous customer engagement, support capacity planning, and use of flexible platforms, especially those based in the cloud to meet varying customer demands. Therefore, VA intends to update and improve its infrastructure primarily to bolster Veteran-centric capabilities and enable better employee performance and work experience through the use of modern technology and ultimately improve Veteran service delivery.

3.9 IT Infrastructure Portfolio Evolution

**M-13-09**

A transformed and optimal VA IT infrastructure will support agility and contribute toward improved Veteran experience. A few salient features associated with infrastructure modernization include:

- Provision of common services via Enterprise Cloud Management
- Efficient and dynamic service-oriented infrastructure to enable higher degree of wireless and mobile connectivity
- Implement Information Technology Infrastructure Library (ITIL) through reengineered infrastructure operations

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43 Ibid

44 Veterans Affairs Comprehensive IT Plan: Sharing with Business Stakeholders, November 17, 2017 & U.S. Department of Veterans Affairs Comprehensive Technology Plan, March 2018
- Standardized and sharable knowledge assets and applications to aid care coordination and decision support efforts
- Secure, scalable and reliable data management infrastructure including data governance and seamless integration into VA workflows (e.g., EHR)
- Robust modernized IT infrastructure across the enterprise
- Reduction of VA-owned data centers thereby reducing cost of data operations

OIT envisions a robust data management infrastructure for moving information across the entire VA network. A “data turnpike” concept that enforces rules for data flow and usage with a comprehensive VA-wide data view will support interoperability and emerging business needs to better serve Veterans.45

3.9.1 Enterprise Shared Services (ESS)  
**M-13-09**

VA’s Enterprise Shared Services Strategy is a key component of its efforts to provide a Veteran-centric environment as well as realize efficiencies in its operations. This strategy is in alignment with PMA CAP Goal #5 specific to sharing quality services. VA is working to provide Service Oriented Architecture (SOA) design patterns available for use across the enterprise. SOA is a key capability that will enable OIT to achieve its vision of providing seamless services and information to the Veterans on any device, anywhere, anytime. The strategy will accomplish the following objectives:

- Establish governance and policy and assign responsibilities for the requirement, planning, development, management, and usage of ESS
- Build shared services compliance into Enterprise Technical Architecture (ETA) policies, specifications, and preferred design patterns
- Build shared services that are discoverable and re-usable with standard service descriptions that are discoverable and reusable enterprise-wide
- Promote usage of the authoritative instance of data
- Manage common capabilities across existing processes and systems
- Establish training and outreach on VA shared service
- Promote collaboration with DoD, open source community, and other providers of shared services

VA has selected the OPM related HR Line of Business Shared Services Center (SSC) provider using the SaaS to create a standardized and interoperable HR experience while gaining the benefit of shared environments. The new HR information system will enable robust workforce and position management, allowing us to quickly identify vacancies and efficiently place talent where and when it is needed most. Further, the new system will provide the individual employee and manager self-service, which will dramatically reduce costs and improve HR services by putting transactional and front-line supervisor HR services in the hands of the workforce. Additionally, VA is developing an integrated enterprise solution for HR capabilities by consolidating HR support services to gain economies of scale and provide more efficient, effective services for our workforce. As part of the STOP Fraud, Waste, and Abuse (FWA) initiative, VA is centralizing internal controls and reducing improper payments. VA is also partnering with the Department of the Treasury to pilot their Do Not Pay (DNP) Tool, identify synergies between agencies for data analytics, and developing a “STOP FWA” App for smartphones, tablets, laptops, and desktops.

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45 Office of Information and Technology, From Transformation to Modernization, 2017 Year in Review
3.9.2 Leveraging Cloud Technology and Associated Infrastructure

IT modernization reduces reliance on legacy systems and creates new capabilities for a modern VA through Cloud and associated IT Infrastructure. Moving VA to the cloud and introducing ERP capability enable simpler and more effective information flow to all who need it. VA will continue to execute its Cloud First and Data Center Consolidation Plan. Cloud will aid data center transition and improve operations. As part of the cloud transition, a cloud server vendor will be chosen by VA. A native architecture to support cloud is also expected to be developed. A cloud pilot and associated testing is envisioned in FY 2018. Cloud automated services will be developed in FY 2019. A complete review and improvement of IT infrastructure capabilities is expected to be accomplished by FY 2022. Cloud based analytics is also expected to evolve and become available by FY 2022. Cloud target applications will also be transformed by FY 2022. All projects that adopt cloud services will leverage associated approved technologies and standards located in the VA Technical Reference Model (TRM). This includes all commercial cloud service providers that meet VA security requirements. Cloud services provide the flexibility and adaptability and enables VA IT projects to adhere to the Veteran-focused Integration Process (VIP). Cloud computing brings business value to VA. It contributes to savings on capital equipment, operating expenses, and support, while significantly increasing business agility. By optimizing the use of cloud computing, VA will:

- Deliver IT systems via mainstream technologies that are flexible and responsive to demand in order to support VA’s mission
- Encourage and exploit dynamic and responsive supplier marketplaces and support emerging suppliers
- Achieve economies of scale in IT development and operations, while meeting budgetary and return-on-investment objectives
- Allocate IT expenditures to services and users by shifting from a Capital Expenditures to an Operational Expenditures model

Infrastructure as a Service (IaaS) capabilities are available through the implementation of the Adaptive Cloud Environment. IaaS includes support for on-demand, self-service provisioning, broad network access, resource pooling, rapid elasticity, and measured service. Leveraging SaaS solution results in significantly less operational management overhead and will open up VA’s production environment to private sector innovations. VA’s use of Platform as a Service (PaaS) will address challenges to rapidly delivering enterprise IT solutions to customers in response to changing business requirements. PaaS capabilities will allow VA to routinely replace entire environments.

3.9.3 Strategic IT Sourcing: IT Commodity and Cost Optimization

By modernizing IT tools and operations, VA will focus on digital innovation to achieve cost and operational efficiencies through managed services and strategic sourcing. Modernized IT supports interoperability, public private partnerships and reduces the overall footprint while increasing capability. VA’s corporate portfolio is expected to make gains through efficiencies via coordinated approaches and strategic IT sourcing. This approach is in alignment with PMA CAP Goal # 11 to improve management of major acquisitions. Modernization of VA Corporate infrastructure will enable VA to achieve greater

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46 Veterans Affairs Comprehensive IT Plan Sharing with Business Stakeholders, November 17, 2017 & U.S. Department of Veterans Affairs Comprehensive Technology Plan Sharing with Business Stakeholders, March 2018
47 VA Enterprise Design Patterns, Cloud Computing Architecture, 2016
48 VA Enterprise Design Patterns, Cloud Computing Software-as-a-Service (SaaS), 2017
49 VA Enterprise Design Patterns, Cloud Computing Architecture, Platform-as-a-Service (PaaS), 2016
resource efficiencies through use of strategic sourcing and other cost reductions resulting in faster responses at all levels.\textsuperscript{50} OIT leverages the best of both of VA staff’s expertise as well as the innovation of external partners to include public and private partnerships to deliver useful solutions to Veterans. Strategic Sourcing will continue to improve the speed to market, ensure compliance with IT acquisition legislation, and foster the most responsible allocation of taxpayer resources. VA will use and expand Commodity Enterprise contracts to reduce unit cost to the lowest commercially viable levels. Near-term plans for consolidating IT commodities include:

- Increase VA server virtualization from 50 to 75\% to provide additional capacity for shared services
- Eliminate analog fax devices and associated maintenance, hardware, and software costs
- Consolidate mobile device contracts
- Continue use of Governance Oversight and PortfolioStat to identify redundant projects and consolidate projects to obtain cost reductions

3.9.4 Enterprise Licensing

Enterprise licensing is an alternative to ad hoc licensing that enables VA to tap into economies of scale at a national level over regional, program, or locale-based purchase. Identifying opportunities for enterprise licensing begins with a holistic view of VA’s IT infrastructure and continues on into lifecycle replacement considerations. Strategic Sourcing collaborates with IT leadership to coordinate the creation and sustenance of enterprise licensing. Unlike other aspects of IT product and service delivery, enterprise licensing receives a higher level of budget priority over individual purchases. When considering the next generation of software, OIT works with software vendors and the open source community to determine if software under consideration can be deployed and managed at the enterprise level to meet corporate needs in a just-in-time manner and paying only for actual use.

4  Cybersecurity, Privacy, and Business Continuity

VA has an important mission that includes protecting the personal information of Veterans and mission critical data. In alignment with the PMA CAP Goals # 1 and # 2 of IT modernization and data accountability, the Enterprise Cybersecurity Strategy (ECSS) provides the approach to securely achieve this mission. The ECSS aligns with VA’s mission, core values, and the ‘Choose VA’ priority and aligns to VA efforts to implement the National Institute of Standards and Technology (NIST) Risk Management Framework (RMF) and the NIST Cybersecurity Framework to improve information security and strengthen risk management processes to reduce VA’s cybersecurity risk. The Office of Information Security (OIS) within OIT has full responsibility for the VA’s data and information security program. IT Operations and Services –Field Security Service provides services, tools, guidance, oversight, and direction to all VA Administrations and Staff Offices. VA is working to ensure that IT investments support Department goals and provide continual improvements in information security.

\textsuperscript{50} Veterans Affairs Comprehensive IT Plan Sharing with Business Stakeholders, November 17, 2017 & U.S. Department of Veterans Affairs Comprehensive Technology Plan Sharing with Business Stakeholders, March 2018
4.1 Cybersecurity Strategy, Associated Risk Management and Accountability

The ECSS directs VA leadership to act as cybersecurity resource stewards to identify and articulate requirements, standards, and opportunities for transformative cybersecurity improvements. The ECSS promotes collaboration, enables data protection, and provides resiliency in the face of a broad spectrum of threats through the realization of five cybersecurity goals to ensure Veteran information, VA data, information systems and infrastructure are protected; VA’s cyberspace ecosystem is resilient to threats; and VA continues to have a secure operational environment for effective operations and recruits and retains a talented workforce. 51

Risk management will be integrated with governance across the VA enterprise. As VA moves to a risk-based, threat-informed security program and posture, a thorough understanding of organization, mission, and system risks must drive VA’s decision-making. VA will:

- Integrate information security, enterprise risk management, and governance processes
- Establish and document VA’s information security risk tolerance in alignment with VA’s enterprise risk management program
- Make prioritized, defensible decisions related to the implementation of cybersecurity projects (that may be technical or procedure-based), and align programmatic activities with the NIST Cybersecurity Framework

The RMF provides the mechanism to address longstanding systemic issues in VA information systems. Security and privacy audit findings can be managed, long-term, through the RMF by associating each finding and its corresponding mitigation effort with security and privacy controls. Using the RMF and continuous monitoring program, the security and privacy controls are assessed on a regular schedule, with the results used to support ongoing authorizations of VA systems.

4.2 Strengthening Cybersecurity and Critical Infrastructure

VA identifies and strengthens its mission critical systems and infrastructure, modernizes IT, and employs an integrated, resilient architecture. VA is also committed to leveraging cloud and federal shared services. VA not only integrates cybersecurity protections into VA information systems and networks, but also verifies that business associates are appropriately implementing protections within their systems. Goal #3 of the 2017 Enterprise Cybersecurity Strategy has four objectives that drive execution to enforce critical infrastructure protection and strengthen cybersecurity. Key outcomes include the following:

- VA has an up-to-date inventory of its critical infrastructure and systems, with the appropriate level of security and privacy protections applied
- VA mission critical systems and supporting infrastructure, including contractor systems and infrastructure operated on VA’s behalf, operate within risk tolerance levels
- Obsolete and redundant systems and supporting infrastructure are removed
- Enterprise Security Architecture guides implementation of security and privacy protections into VA systems

Mission critical infrastructure is essential to VA’s business operations. It stores, processes, and transmits mission critical information, with an added emphasis on delivering services to the Veteran. VA must continue to identify the mission critical infrastructure to understand the potential impacts of a cyber incident and ensure robust physical and cybersecurity protections are in place. VA will:

51 VA OIT 2017 Enterprise Cybersecurity Strategy
- Identify, inventory, and prioritize mission critical systems and infrastructure
- Integrate security and privacy requirements into the system development lifecycle through risk-based process informed by cyber threat intelligence

VA plans to leverage shared security services. Use of shared security services improves return on investment, closes productivity gaps, and increases communications with stakeholders. Old and outdated systems and infrastructure introduce vulnerabilities and risk to the VA enterprise. Modernization of critical systems and infrastructure, including judicious decommissioning and retirement, protects the VA mission and enterprise. Therefore, VA will:
- Decommission obsolete legacy systems and infrastructure
- Reduce unused hardware components and software service features
- Adhere to, and leverage, federal initiatives and assistance to modernize IT
- Accelerate data center consolidation efforts

4.3 Security and Privacy – IT Investment Alignment

Security and privacy will be integrated into business, application, and system architectures. Protection of VA information systems and infrastructure must be designed and incorporated as part of development based on VA’s current security capabilities and architecture. VA will analyze gaps, ascertain needs and integrate with VA’s Enterprise Architecture to enhance resiliency and provide security and privacy protection across the enterprise.

4.4 VA Enterprise Cybersecurity

VA needs to maintain critical functions in the face of inevitable breaches. While defense in depth remains essential, VA also needs to be resilient. Implementing the appropriate policies, procedures and technologies provides VA with the ability to maintain continuity of operations both during and after a cyber event, as well as evolve VA’s resiliency to better adapt to advanced cyber threats. Outcomes include:
- Operationalizing cyber-threat intelligence to share, consume and respond to threat data
- Early detection of cyber threats and intrusions to minimize adverse impact to VA
- Incident response procedures enable VA to continue providing mission essential services, despite degraded conditions or compromises by an adversary
- System recovery procedures enable timely recovery of mission critical systems and infrastructure, while evolving cyber resiliency capabilities to mitigate impact
- VA remains vigilant to cybersecurity threats through ongoing awareness of information security, vulnerabilities and threats to mission critical systems and infrastructure

VA capabilities are currently in place to operationalize cyber threat intelligence data. Adverse impacts to mission essential functions and services will be minimized through early detection of cyber threats and intrusions. Maintaining ongoing awareness of threats, vulnerabilities, and risks to VA’s cyber ecosystem is essential to early detection of cyber incidents. VA will:
- Deploy automated capabilities that enable VA to identify, prioritize, and mitigate cybersecurity risks on an ongoing basis
- Leverage analytic tools and techniques to enable behavior-based detection
- Continually evolve penetration testing capabilities to include emerging threats
Development of cyber recovery plans that address the tactical and strategic capabilities required for timely recovery of VA mission critical systems are essential to improving the overall resiliency of VA’s cyber ecosystem. VA will:

- Implement cyber event recovery activities for exercising and testing recovery capabilities and verifying VA’s ability to adequately manage cybersecurity risks
- Develop metrics to improve recovery and inform continuous improvement
- Evolve cyber resiliency capabilities to incorporate lessons learned and industry practices to mitigate the likelihood and impact of future incidents

**4.5 Business Continuity**

OIT’s approach to Business Continuity is a five stage process known as the Information System Contingency Plan Assessment.  

Stage 1: Identifies and maps OIT information system contingency planning requirements through development of a business impact analysis, threat assessment, and vulnerability assessment  

Stage 2: OIT strategy determination; generation of Information System Contingency Plans (ISCPs) and Disaster Recovery Plans (DRPs)  

Stage 3: Places the plans in the appropriate OIT repository followed by document review and approval  

Stage 4: Training OIT operations staff in ISCP and DRP roles and responsibilities; exercising individual components of plans; plan validation through testing; and updating plans as necessary  

Stage 5: Placement of OIT test results, updates, and validated plans in the approved repository  

**5 Workforce Development and Accessibility**

**M-13-09 | M-17-22 | VA Strategic Goal #4, Objective # 4.2 | OIT Strategic Goal #3, Objective #3.2**

OIT will modernize its human capital management capabilities to empower and enable a diverse, fully staffed, and highly skilled workforce and strive to be recognized as an industry leader in employee engagement and organizational health. Human capital management modernization objective is in alignment with the PMA CAP Goals #1 specific to IT modernization and # 3, People - Workforce of the future.

**5.1 Workforce Impacts based on the VA Reform Plan**

**M-17-22**

About 99.9 percent of OIT staff are permanent full-time employees. Approximately 39.1 percent of OIT employees are in mission critical occupations: IT Project Manager, IT Specialist (Customer Support), IT Specialist (Information Security), Management and Program Analyst, IT Specialist (Policy and Planning), IT Specialist (Network), and IT Specialist (System Analysis). With the progress in modernization across VA, negative impacts to workforce are not anticipated. Initial phases of IT modernization will entail increased use of full time equivalents as in the case of FMBT. Additional impacts due to EHRM will be established once the contract is awarded and progress is made. Completion of automation of processes

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52 VA Directive 0323, VA Continuity Program, November 5, 2010  
53 Ibid
in the process and service delivery phase will clarify true workforce impacts specifically for FMBT. Workforce efficiencies from other IT modernization efforts will become clear with progress over time.\textsuperscript{54}

5.2 Accessibility

\textit{M-13-09}

OIT ensures that VA employees are aware of accessibility considerations through the competency model. The competency ‘Accessibility’ or the knowledge of tools, equipment, and technologies used to help individuals with disabilities use computer equipment and software, is included in the competency model components. Employees are assigned this competency and are expected to meet specified proficiency targets.

OIT is committed to ensuring that VA’s electronic and information technology is accessible to people with disabilities as required by Section 508 of the Rehabilitation Act of 1973 as amended. The VA Section 508 Office continues to scan internet pages for accessibility, and has engaged the webmaster community to validate portable document format documents for compliance. Using a combination of automated and manual auditing, websites and web content have shown steady improvement over time providing more accessible websites for our external sites. \textsuperscript{55}

\textsuperscript{54} U.S. Department of Veterans Affairs Agency Reform Plan
\textsuperscript{55} Section 508 OMB Dashboard Report
Appendix A: *VA Enterprise Roadmap*

The current version of the *VA Enterprise Roadmap* will be posted to VA and OMB MAX sites after March 31, 2018 following OMB review and finalization.
<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
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<tbody>
<tr>
<td>API</td>
<td>Application Programming Interface</td>
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<tr>
<td>APGs</td>
<td>Agency Priority Goals</td>
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<td>APP&amp;R</td>
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<td>AS/CIO</td>
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<td>BDN</td>
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<td>BOP</td>
<td>Budget Operating Plan</td>
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<td>BOSS</td>
<td>Burial Operations Support System</td>
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<td>BVA</td>
<td>Board of Veterans Appeals</td>
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<td>Common Approach to Federal Enterprise Architecture</td>
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<td>COTS</td>
<td>Commercial-off-the Shelf</td>
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<td>CPR</td>
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<td>CVEB</td>
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<td>DGC</td>
<td>Data Governance Council</td>
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<td>Do Not Pay</td>
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<td>Disaster Recovery Plans</td>
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<td>EA</td>
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<td>Acronym</td>
<td>Description</td>
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<tr>
<td>I-CARE</td>
<td>Integrity, Commitment, Advocacy, Respect, and Excellence</td>
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<td>IDC</td>
<td>Integrated Data Collection</td>
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<td>IDIQ</td>
<td>Indefinite Delivery Indefinite Quantity</td>
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<td>IFAMS</td>
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<td>Personally Identifiable Information</td>
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