

Information Resources Management
Strategic Plan
2020–2025

Office of the Chief Information Officer

June 15, 2020



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Date

Approval of this document demonstrates agreement on the scope, desired outcomes, schedule, costs, and resource commitments stated in this document.

Document History

DOCUMENT VERSION #	ISSUE DATE	BY	DESCRIPTION OF REVISIONS
1.0	12/20/19	BAH	IRM Strategy Draft – PMD Review
2.0	04/01/20	BAH	IRM Strategy Draft – IMTLT Review
3.0	6/4/2020	Ken Klinner	PM DCIO Review
4.0	6/15/2020	William Vajda	CIO Review



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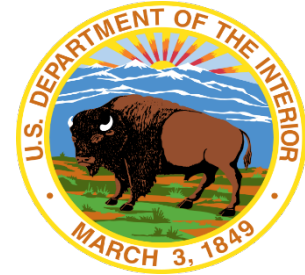
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Executive Summary

The Office of the Chief Information Officer (OCIO) for the U.S. Department of the Interior (DOI, Department) worked in partnership with DOI Bureaus and Offices to develop the 2020-2025 Information Resource Management (IRM) Strategic Plan. This plan articulates a vision to deliver technology and information resources to mission programs and the public over the next five years. Our plan recognizes there are challenges in achieving this vision as DOI's information technology (IT) landscape supports a geographically dispersed workforce serving a complex and diverse mission set. This plan integrates feedback from bureau and office IRM leadership, mission programs, and our partners from across the Office of the Secretary to better meet those challenges.



The six strategic goals in this plan outline major steps DOI will take to achieve our IRM vision. The objectives detailed in later sections of this document support these goals.

- **Goal 1 - Responsible Stewardship of the IT Landscape:** Institute governance and architecture processes that prioritize IT investments which most effectively meet mission requirements while achieving the best overall value to serve the public.
- **Goal 2 - A Skilled IRM Workforce:** Develop a talented, innovative and knowledgeable IRM workforce that can support current, emerging, and future mission needs.
- **Goal 3 - Customer-centric IT Services:** Enable user-centric analyses and mission and business partnerships to drive IT service improvements and future investment decisions.
- **Goal 4 - Effective Enterprise Portfolio Management:** Improve the visibility and oversight of the enterprise portfolio through data-driven decision-making and continuous alignment with priority mission needs.
- **Goal 5 - Data as a Strategic Asset for Public and Organizational Use:** Manage data efficiently and securely as an asset in order to achieve maximum value from its control and analysis.
- **Goal 6 - Seamless Integration of Cyber Security and Privacy:** Establish an enterprise-wide risk management framework and standardized cyber architecture to protect DOI information assets.

The six goals have common themes that provide a foundation for achieving our vision and mission.

- **A People Focus:** Integrate customer experience into decisions about what IT solutions we develop and ensure our workforce has the skills and talent to deploy those solutions.
- **Optimal Resource Allocation:** Proper stewardship of public resources serves as a principle driver for allocating our limited resources towards investments that best meet mission needs.
- **Data Driven Decisions:** Timely, reliable, and accurate information is the critical enabler for improving how we serve our customers, how we protect our IT assets, and how we support our workforce.



Message from the CIO

It is with great pleasure that I share with you the Department of Interior (DOI) Information Resource Management (IRM) Strategic Plan, 2020-2025. It communicates our strategic priorities and expected outcomes over the next five years. The Plan was developed with input from all levels of the Office of the Chief Information Officer (OCIO) and members of the Information Management Technology Leadership Team (IMTLT), representing IRM leadership from each Bureau and Office. The collaborative process resulted in a Strategic Plan that provides a unified vision for how DOI will improve IT services to support mission programs and better serve the public.

Our vision is to create, manage, and deliver valued information resources to improve the quality of DOI's preservation, protection, and power services to the American people. By 2025, DOI will be a data-driven, customer-centric organization with an optimal IT landscape that invests in innovative technologies and a highly skilled workforce. This new wave of IRM will have a lasting impact on the Department for generations to come.

The Strategic Plan lays out the goals and key objectives expected to get us to the future we envision. I am grateful to our IRM leadership and outstanding IRM professionals across DOI who work tirelessly towards our future. We have accomplished some key improvements and continue to work on building world-class IRM services. I am committed to be a strategic partner to our Bureaus and Offices, our customers, and the public and dedicate myself to helping DOI achieve the vision laid out in this Strategic Plan. I invite you to join me on this exciting journey.

William E. Vajda



Introduction

The Department of the Interior’s (DOI) ten Bureaus and seven Offices receive technology and information resource support from the DOI Information Resource Management (IRM) community. Their missions are complex and diverse, involving over 70,000 employees operating from over 2,500 geographically dispersed locations across the United States and US territories. DOI conserves and manages a fifth of the continental US land to preserve the Nation’s natural resources, sustain the cultural heritage of Native Americans, and advance scientific understanding of our ecosystems. These activities require different types and levels of information resource management support, whether for wetland management, leasing for mineral and resource extraction, scientific and environmental research, or maintenance of recreational sites.

The OCIO and its Associate Chief Information Officer (ACIO) partners play a critical role in providing the enterprise information technology (IT) and information management services, data management and optimization, and cyber resiliency which allow Bureaus and Offices to better focus on fulfilling their missions and serving their customers. While OCIO and ACIOs have made recent strides toward a single customer support service, common network access, and a standardized approach for monitoring IT investments; improved coordination of key investment implementation and performance reviews require more matured core management practices and new processes. OCIO and ACIOs across the Department remain committed to identifying opportunities for ongoing improvement of IRM support to mission programs.

Figure 1: IRM Strategy Overview









Strategic Planning Process

In a coordinated effort with Bureaus and Offices, the OCIO developed this IRM Strategic Plan in alignment with the DOI Strategic Plan, 2018-2022 (Figure 1) to ensure that information resources and IT improvements continue to provide vitally important support to missions and functions dedicated to protecting natural resources and sustaining our ecosystems and cultural heritage. OCIO solicited the IRM needs of mission programs and ACIO partners across the Department to determine enterprise-wide priority initiatives that would have the greatest

impact for Bureaus and Offices¹. OCIO then analyzed the IRM needs within the context of Federal policy guidance and mandates like the President’s Management Agenda (PMA) and the Federal Information Technology Acquisition Reform Act (FITARA). During the strategy development process, the OCIO and its partners also considered the recent restructuring of DOI into twelve unified regions and the implications for IT support to mission programs.

The result is an IRM Strategic Plan that establishes a common vision for OCIO and ACIO partners to provide exceptional IT service delivery and address enterprise-wide needs relevant to all Bureaus and Offices. The six strategic Goals (Figure 2) focus on maturing governance processes, modernizing IT system interoperability and providing real-time, robust data so leaders have visibility into fiscal spending and system performance to make better decisions collaboratively. It serves as the Department’s roadmap for achieving priority IT and resource management investments, informed by customers’ experience, which will also guide IRM leadership in making appropriate investments in IT workforce development. Collectively, these Goals will enable the Department to link investments to performance improvements and mission outcomes.

Figure 2: IRM Strategic Goals and Objectives

<p style="text-align: center;">OCIO VISION A trusted partner to empower the field to solve mission challenges.</p> <p style="text-align: center;">OCIO MISSION Through the effective and innovative use of technology and information resources, enable transparency and accessibility of information and services to the public.</p>					
Goal 1 Responsible Stewardship of the IT Landscape	Goal 2 A Skilled IRM Workforce	Goal 3 Customer-centric IT Services	Goal 4 Effective Enterprise Portfolio Management	Goal 5 Data as a Strategic Asset for Public and Organizational Use	Goal 6 Seamless Integration of Cyber Security and Privacy
<ul style="list-style-type: none"> IT Governance Aligns IT Investments with Mission Priorities Requirements are Synchronized Across the Department A Unified Enterprise Architecture Approach that Achieves Business Goals 	<ul style="list-style-type: none"> Workforce and Workload Practices that Address Talent Needs Recruitment & Succession Strategy to Support Innovation Professional Development Plans Sustain IRM Expertise 	<ul style="list-style-type: none"> Customer Experience (CX) Drives IT Services for Internal & External Customers Effective Partnerships through Customer Success Management (CSM) Customer Service Monitoring & Improvement Program 	<ul style="list-style-type: none"> A Mature IT Portfolio that Informs Decision Making Capital Planning, Budget, and Procurement Transparency Alignment of All IT Expenditures with Business Needs 	<ul style="list-style-type: none"> Data Governance Enables a Robust Data Ecosystem Data Is Findable, Accessible, Interoperable, and Reusable Data Literate DOI Workforce Efficiently Leverages Data to Support Evidence-based Decisions 	<ul style="list-style-type: none"> Full Visibility Across the Environment Streamlined and Standardized Cyber Operations Effectively Managed Access Promote a Privacy and Transparency Framework 

The strategic Objectives delineate key areas of activity that will enable the IRM community to achieve its vision. The Plan includes short- to long-term activities that our IRM workforce will undertake to improve how they deliver services to internal users, partners, and the public. Appendix B: IRM Strategic Plan Implementation presents a high-level set of activities required to determine the best approach for fulfilling the Plan. Appendix C: Information Resource Management (IRM) Strategic Plan Performance Indicators provides a set of performance outcomes anticipated for each Goal and associated key performance indicators (KPIs). It is essential to incorporate measures and KPIs so that stakeholders can track progress as Plan execution evolves and adapt project plans, as needed. Finalizing implementation details will align additional metrics with short and long-term activities.

¹ Developers of the IRM Strategic Plan engaged stakeholders from across the Department to reflect the priorities of the various mission programs that OCIO supports. Appendix A: Strategic Planning Approach summarizes their front-end research.



Vision

We create, manage, and deliver valued information securely, efficiently, anytime, anywhere to improve the quality of DOI's preservation, protection, and power services to the American people.

Mission

Through the effective and innovative use of technology and information resources, enable transparency and accessibility of information and services to the public.

Goals and Objectives

Over the next five years, OCIO, Bureaus, and Offices will accomplish the expected outcomes of the IRM Strategic Plan. The Goals and Objectives provide for a singular future-state enterprise architecture that enables streamlined and cost-effective IT operations and investment decision-making that is responsive to the needs of end-users and mission operations.

The Goals are interdependent. Achieving improvements under a specific Objective can impact Objectives under other Goals. For example, Goal 5 introduces new data management practices so Data Is Findable, Accessible, Interoperable and Reusable (Objective 5.2); this Objective supports efforts under Goal 4 to realize visibility into investment performance.

This Plan will link portfolio performance and end-user needs in ways previously unavailable, allowing targeted, high-impact improvements that ensure responsible resource stewardship. OCIO and ACIOs will balance end-users' needs for consistent, reliable IT support with delivering cost beneficial results for the IRM portfolio.



Goal 1: Responsible Stewardship of the IT Landscape

Institutionalized governance and architecture processes enable the transparent and synchronized prioritization of IT investments so DOI can meet mission requirements more effectively. Structured engagement from Bureaus and Offices allows for better stewardship of information resources so they can direct the savings toward better services for the public.

Objective 1.1: IT Governance Aligns IT Investments with Mission Priorities

Establish a formal enterprise governance structure that will rationalize, prioritize and synchronize investments across the Department so information resource management (IRM) services align with mission priorities. This enables effective stewardship of IT resources throughout the investment lifecycle so DOI can better serve the public. The governance structure engages mission partners, IT professionals, and support functions (e.g., Acquisitions, Finance, HR) and follows a transparent set of processes, authorities, and decision support model.

Objective 1.2: Requirements Are Synchronized Across the Department

ACIOs must be involved in all Bureau and Office mission planning activities (Appendix A)². The OCIO provides IRM requirements captured during these mission planning activities to the Enterprise IT Governance Body for evaluation to determine if an enterprise-wide solution or a shared service exists, or if a Bureau or Office can leverage an individual capability as a shared service. The BOB synchronizes those requirements to drive cost-effective solutions and improve service delivery.

Objective 1.3: A Unified Enterprise Architecture (EA) Approach that Achieves Business Goals

Establish DOI business and technical frameworks to translate mission requirements into capabilities and services that drive portfolio planning and execution. These frameworks provide a consistent, standards-based approach for an architecture that supports investments, capabilities, and lifecycle decisions across DOI. An integrated architecture, developed with Bureaus, Offices and the Core Leadership Team (CLT) members, will provide an organized structure for the ecosystem of enterprise and mission-specific tools and technologies across DOI.

Goal 1 Performance Outcome

Upon completion, OCIO, Bureaus and Offices will use institutionalized governance and architecture processes to prioritize and synchronize IT investments to meet mission requirements more effectively, save money, and better serve the public.

² Refers to policy promulgated by DOI Memorandum on Changes in Information Technology Governance, Performance Management, and Acquisition issued June 12, 2019.



Goal 2: A Skilled IRM Workforce

The strength of our IRM organization is the people who support it. Building and maintaining a workforce of talented and creative IRM professionals is essential to the successful execution of mission objectives. Improved staff planning, recruitment, hiring, retention, development and succession strategies enable DOI to be an employer of choice for IRM professionals.³

Objective 2.1: Workforce and Workload Practices that Address Talent Needs

Enhance standard workforce and workload practices across DOI so the current talent composition and future talent needs of the IRM workforce can be effectively managed. These effective management practices will use industry-based competency models to define the right talent composition to meet common and unique Bureaus' and Offices' missions. Expand IT skills across DOI workforce.

Objective 2.2: Recruitment and Succession Strategy to Support Innovation

Create and implement an IRM recruitment and succession planning strategy to position the Department as an employer of choice for IRM positions. The strategy will outline ways to attract and expeditiously hire highly skilled IRM professionals with a broad range of business skills to fill vacancies and address attrition.

Objective 2.3: Professional Development Plans Sustain IRM Expertise

Develop an IRM learning strategy, based on the competency models identified in Objective 2.1, to standardize core knowledge, skills, and abilities (KSAs) across the Department and fold in Bureau-specific KSAs driven by distinct mission requirements. This will provide the Department with a highly skilled workforce that meets both current and future IRM personnel needs.

Goal 2 Performance Outcome

DOI will have a talented, innovative and knowledgeable IRM workforce that can support current, emerging, and future mission needs.



Figure 3: IRM Workforce Objectives Align with the Presidential Management Agenda CIO Workforce Action Plan, Dec 2019

³ The IRM Strategy development process involved stakeholders with insight into staffing needs across the Bureaus and Offices. The key concerns that emerged yielded the three Objectives listed under Goal 2. When compared with Federal workforce management priorities outlined in the PMA, it became evident that the OCIO Objectives aligned.



Goal 3: Customer-centric IT Services

IT should help customers perform work more efficiently and effectively. Improved data collection and monitoring of internal and external end-user needs will inform all IT design and development efforts⁴. Cyclical service performance data will ensure investments address end-users’ needs and achieve desired business results.

Objective 3.1: Customer Experience (CX) Drives IT Services for Internal and External Customers

Strengthen DOI’s business requirements analysis capability to tailor services to the needs of mission programs and business priorities. This capability will collect end-user data and translate business needs into defined IT requirements and solutions that precede and inform investment decisions. User-based requirements, based on customer experience (CX), result in the authentic design of priority IT support services required by mission personnel to deliver efficient and effective quality programs.

Objective 3.2: Effective Partnerships through Customer Success Management (CSM)

Provide customer success management through sustained engagement with end-users across Bureaus and Offices to liaison on IRM service performance and ongoing support needs. Research, identification, and monitoring of emerging end-user and program needs ensures IRM resources address the critical business pain points that affect fulfillment of core mission services. This capability will play a role supporting the definition, development, and maturity of multiple enterprise services and products.



Objective 3.3: Customer Service Monitoring and Improvement Program

Build the capacity to assess customer satisfaction with IRM services and IT performance by adopting a customer service assessment approach that collects user-centric metrics and customer satisfaction data for continuous improvement of customers’ service experience. User data will enable DOI to evaluate services to define improvements, prototype and test solutions prior to completing investment projects, and ensure service improvements maximize overall customer satisfaction. Customer experience insights shared across DOI will ensure synchronized improvement of interdependent initiatives and projects.

Goal 3 Performance Outcome

Upon completion, user-centric analyses and business partnerships enable service improvements, from service strategy through continuous improvement, so enhancements and future investment decisions align with priority business needs.

⁴ OMB Circular A-11, 2019 and OMB Circular A-130, Managing Information as a Strategic Resource, 2016



Goal 4: Effective Enterprise Portfolio Management

Robust IT portfolio management practices allow for transparency around enterprise-level investment data to manage strategy, finance, risk, and performance. Enterprise portfolio management structure includes governance, budget planning and execution, acquisition, program management, the organization and the workforce. Efficient and effective synchronization of functional data allows for the appropriate allocation of resources against strategic priorities and mission needs.

Objective 4.1: A Mature IT Portfolio that Informs Decision Making

Enable data-driven decisions through mature portfolio management practices that integrate data via a service-based portfolio structure and a new portfolio governance process. These practices provide the DOI CIO with the transparency needed to conduct the management and governance of IT resources supporting DOI mission capabilities. This oversight ensures that strategy, finance, risk, and performance⁵ activities result in the efficient and effective allocation of IT resources



Objective 4.2: Capital Planning, Budget, and Procurement Transparency

Synchronize IRM budget, capital planning, and IT procurement policies and processes to provide the CXO community a singular, cross-functional view of IT financial data to inform enterprise decisions. These policies and practices allow for visualization of data for shared and transparent information that allows for timely, efficient, and informed review of investments and portfolio performance.

Objective 4.3: Alignment of All IT Expenditures with Business Needs

Drive IT planning and budget actions based on current and future mission needs leveraging cross-functional data from across the enterprise. This enables IRM leadership to prioritize resource allocations most efficiently and effectively to achieve enterprise goals and manage emergent mission needs.

Goal 4 Performance Outcome

In the end, IRM financial management policies and practices improve visibility of the enterprise portfolio with data-driven decision-making and oversight of IRM resources so they align with the highest priority mission needs.

⁵ The Federal Information Technology Acquisition Reform Act (FITARA), 2014, OMB Circular A-11, 2019 and OMB Circular A-130, Managing Information as a Strategic Resource, 2016, and the Clinger-Cohen Act, 1996, informs this Goal.



Goal 5: Data as a Strategic Asset for Public and Organizational Use

DOI data drives the evidence required to answer mission questions and support evidence-based policy. DOI must steward data, which is a critical asset for research, commercial and government decisions. DOI's data assets are essential for increasing transparency in our decisions and maintaining the public's trust. A more data literate workforce will have the knowledge and skills necessary to best use data to improve mission outcomes, increase automation and reap the rewards of artificial intelligence

Objective 5.1: Data Governance Enables a Robust Data Ecosystem

DOI's Data Governance board will orchestrate the people, processes, and technology to effectively manage DOI's data assets to best support DOI's mission. Departmental data policy will define the roles and responsibilities required to effectively steward DOI data assets to attain a degree of data quality and completeness needed to meet program objectives.

Objective 5.2: Data Is Findable, Accessible, Interoperable, and Reusable

DOI employees can search and discover all DOI data assets. All descriptions of DOI data will be easy to find for humans and machines. All DOI data will be open by default unless protected by law or regulation and published in formats that are both human and machine readable. Data descriptions will use a formal, accessible, shared and broadly applicable language for knowledge representation. Metadata and data will be well-described to enable replication and/or combined in different settings to answer mission questions.

Objective 5.3: Data Literate DOI Workforce Efficiently Leverages Data to Support Evidence-based Decisions

The DOI workforce will achieve data literacy by developing competencies required to work with data, analyze it and present evidence-based cases to best inform policy decisions.

Goal 5 Performance Outcome

DOI manages data as valued assets used to support evidence-based policy decisions and are open by default to the American people.





Goal 6: Seamless Integration of Cyber Security and Privacy

Establish an enterprise-wide risk management framework through policy and standardized cyber architecture to ensure the protection of DOI information and assets from compromise. Provide cost-effective security that enables maximum continuity of services and compliance with Federal laws and regulations in support of partners, employees and the DOI mission.

Objective 6.1: Full Visibility Across the Environment

Develop a common operational view (OV) that enables OCIO to make appropriate cybersecurity updates that provide constant, automated, and consistent protection of DOI data and assets. A standardized cybersecurity posture across Bureaus' operating environments mitigates weaknesses for current services and planned investments while enabling remediation of any compromises.

Objective 6.2: Streamlined and Standardized Cyber Operations

Create an optimal DOI cyber architecture in partnership with Bureau and Office counterparts to support system interoperability, maintain network integrity, and mitigate risk. The cyber architecture will streamline and consolidate security operations and systems to limit vulnerabilities, improve controls, and reduce costs from underutilized resources or duplicative functions. Development of cyber governance and policies will support effective cybersecurity operations management for the IRM portfolio and help to prioritize investments for budget formulation and projections.

Objective 6.3: Effectively Managed Access

Implement a common risk management framework⁶ across the enterprise to improve identity and access management and performance targets. Consolidate the Identity, Credential, and Access Management (ICAM) function with the Security Operations Center enables DOI to track, manage, and sustain risk across the common operational environment (under Objective 6.1).

Objective 6.4: Promote a Privacy and Transparency Framework

Protect individual privacy in Department operations and services by embedding privacy and transparency in delivery of information management and technology solutions through governance, policy, training, and other activities. OCIO will partner with Bureaus, Offices, and stakeholders to improve privacy protections and ensure the integrity, confidentiality and availability of the personally identifiable information entrusted to DOI. This would include information resource management requirements such as Controlled Unclassified Information, Section 508, Records, Information Collection Clearance, and OpenData.

Goal 6 Performance Outcome

Cybersecurity operations will deliver standardized and improved protection to mission services and investments across the enterprise.

⁶ Memorandum for Heads of Executive Departments and Agencies, Enabling Mission Delivery through Improved Identity, Credential, and Access Management, OMB No. M-19-17



Critical Success Factors for Executing the IRM Strategy

The changes proposed in the IRM Strategic Plan require leaders to maintain unity of purpose through collective and coordinated action. Several critical success factors will enable OCIO to synchronize engagement and support:

Leadership and Vision.

IRM transformation efforts require a **strong and cohesive leadership team** that supports a **singular vision** with **clear and consistent communications** across the organization. A singular vision helps stakeholders plan, resource, and support ongoing improvements so efforts are mutually reinforcing and sequenced based on interdependencies to achieve maximum effectiveness efficiently. Visible demonstration of joint leadership between the CIO and ACIOs and across functions communicates shared ownership of the IRM Strategy and catalyzes a cultural shift toward collective continuous improvement. Leadership communications need to be relevant, consistent, and timely for personnel to understand the purpose of the proposed changes in the IRM Strategy, why the implementation plan is the best approach, and how they contribute to that singular vision.

Organizational Change Management.

Implementing the IRM Strategy will be complex for an organization with diverse missions and a geographically dispersed footprint. A **change management plan at the enterprise-level** is essential, given the changes the IRM Strategic Plan will catalyze across mission programs and the IRM workforce. It will synchronize, integrate, and sequence respective organizational design, business process, and workforce changes to minimize risk and costs.

Customer Focus.

A **Customer Success Management capability** enables OCIO and partners to remain focused on what matters, improving end-user experience with IT services to enhance their productivity and contribution to fulfilling the mission. Private sector and government that apply good CX practices have realized notable improvements in services, often lowering costs simultaneously. CSM can provide IRM leaders invaluable data regarding which investments provide the right service solutions for end-users. Understanding the customer experience—really knowing operational field office needs—is essential to data-driven decision-making and resource stewardship.

Performance Measures and Metrics.

OCIO Bureaus and Offices should monitor plan implementation on a regular and consistent basis. Bureaus and Offices should report and periodically review performance measures (recommended, quarterly and annually) to provide leadership and initiative owners timely data for real-time evaluation and modifications to project costs and resources, risk, and time. Data-driven performance assessment of project execution provides stakeholders visibility and awareness into key drivers affecting implementation, supports the exchange of lesson learned, and enables **continuous improvement** of existing processes and communications to enhance integration and synchronization of multiple efforts.

Dedicated Resources.

Plan implementation also requires the allocations of collective resources to solve enterprise problems and improve IT and IRM services for DOI. It is essential that OCIO, in coordination with ACIOs, Bureau and Office leaders, **align resources against top business and enterprise priorities** to maximize economies of scale and achieve the greatest mission impact for DOI components.



Appendix A: Strategic Planning Approach

To deliver this IRM Strategic Plan, the OCIO reached out to stakeholders at the Bureaus, Offices, and within OCIO to get unique perspectives from across the Department. Over the course of six weeks, the team spoke with over 30 individuals and reviewed many regulatory and Departmental documents, to ensure the IRM Strategic Plan reflected recent Bureau and Office inputs regarding IRM needs, Federal IRM requirements, and mission priorities. Executive staff and stakeholders used the resulting data to develop the Goals and Objectives.

The IRM Strategic Plan reflects the major priorities and initiatives that OCIO will undertake in the short- and long-term to implement significant improvements in how DOI delivers IT services to its internal and external customers.

The following references informed the initial research and data collection phase:

Administration and Agency Partners

- The President's Management Agenda, 2019 [The President's Management Agenda](#)
- Office of Management and Budget (OMB) Memorandum: Open Data Policy-Managing Information as an Asset, 2013 (M-13-13) [Open Data Policy](#)
- White House Digital Government Strategy: Digital Government: Building a 21st Century Platform to Better Serve the American People, 2012 [Digital Government Strategy, 2012](#)
- Federal Risk and Authorization Management Program (FedRAMP) [FedRAMP](#)
- Federal Information Technology Acquisition Reform Act (FITARA), 2014 [FITARA, 2014](#)
- OMB Circular A-11, 2019 and OMB Circular A-130, Managing Information as a Strategic Resource, 2016
[OMB Circular A-11, 2019](#)
[OMB Circular No. A-130: Managing Information as a Strategic Resource, 2016](#)
- 2019 Federal Cloud Computing Strategy, Cloud Smart [Federal Cloud Strategy, 2019](#)
- Executive Order 13833, Enhancing the Effectiveness of Agency Chief Information Officers, 2018
[Executive Order 13833, Agency CIOs, 2018](#)
- 40 US Code 11315, [US House Code on Property, Responsibility for Acquisition of Information Technology](#)
- OMB No. M-15, [M-15-14, Management and Oversight of Federal Information Technology, 2015](#)
- Government Accountability Office (GAO) Report, October 2019, Information Technology: Agencies Need to Fully Implement Key Workforce Planning Activities, [GAO Workforce Planning Report, 2019](#)

The U.S. Department of the Interior

- DOI Strategic Plan 2018-2022, [DOI Strategic Plan 2018 - 2022](#)
- Many Bureaus, One Mission Briefing – DOI Reorganization to Unified Regional Boundaries
- DOI Memorandum on Changes in Information Technology Governance, Performance Management, and Acquisition, June 12, 2019
- US DOI 2019/2020 Annual Performance Plan & 2018 Report (APP&R)



- DOI Departmental Manual, Chapter 24—Office of the Chief Information Officer
- DOI Federal Information Technology Acquisition Reform Act (FITARA) Implementation Plan, 2015

Additionally, the team reviewed documents from senior Department executive leadership, including Memoranda and working papers, for relevant information and guidance.

Office of the Chief Information Officer

- OCIO Mission Statement, ([OCIO Mission Statement](#))
- Fiscal Year 2020 Information Technology Capital Planning & Investment Control Annual Requirements
- Accelerated Project Steering Committee Update
- DOI Hosting Strategy, March 2019
- Zero Trust Architecture, Inter-Agency Steering Group Minutes
- DOI IMT Strategic Priorities Draft, 2017
- DOI IRM Strategic Plan, May 29, 2015

Bureaus and Offices

Bureaus and Offices across DOI shared the following documentation with OCIO in support of the strategic planning effort:

Bureau of Land Management (BLM)

- Bureau of Land Management Information Technology Strategic Plan 2019–2024 [BLM Information Technology Strategic Plan 2019-2024](#)

Bureau of Safety and Environmental Enforcement (BSEE)

- BSEE Strategic Plan, FY 2019-2022 [BSEE Strategic Plan 2019-2022](#)

US Geological Survey

- Mission Area Briefings
 - Ecosystems
 - Core Science Systems
 - Energy and Minerals
 - National Land Imaging
 - National Hazards

Office of Trust Records (OTR)

- Office of the Special Trustee (OST)-Office of Information Resources (OIR), FY 2020 - FY 2024 Strategic Plan Memorandum: OTR 30-60-90 Plan of Action [Office of the Special Trustee - Office of Information Resources FY 2020 - FY 2024 Strategic Plan](#)
- Memorandum: OTR 30-60-90 Plan of Action, Update 90-Day Stage Report
- OST FY2019 - Investment Review Board Charter Final
- OIR Top-Level Organizational Chart



- OIR Leadership Charter
- OTR Transition from Paper to Electronic Records Management

OCIO reviewed additional documents for the following Bureaus and Offices:

US Fish and Wildlife Service (FWS)

- Partners for Fish and Wildlife Program Regional Strategic Plans, 2017-2021 [Partners for Fish and Wildlife Program Regional Strategic Plans, 2017-2021](#)

Office of Surface Mining Reclamation and Enforcement (OSMRE)

- Budget Justifications and Performance Information, FY 2019



Appendix B: IRM Strategic Plan Implementation

The Office of the Chief Information Officer will work in partnership with DOI Bureaus and Offices to develop IRM priority projects and initiatives in support of DOI's IRM Strategic Plan. These projects and initiatives vary and may include such things as governance, resource allocation, operations, determination of shared services, etc.

The following steps outline the annual process to develop project priorities and initiatives that align with the IRM Strategic direction and support mission needs.

- IMTLT conducts a series of meetings to validate, select, and prioritize key projects and initiatives within the context of the IRM Strategic Goals
- IMTLT evaluates and determines a final list of short- to long-term priority projects and initiatives
- OCIO includes priority projects and initiatives in Appendix B of the IRM Strategic Plan
- OCIO reissues the IRM Strategic Plan with a list of priority projects and initiatives in the Fall of 2020 and annually thereafter
- OCIO, Bureaus and Offices may develop implementation plans to support execution of the IRM Strategic Plan
- OCIO revises and reissues the IRM Strategic Plan as necessary but no less than every five years



Appendix C: Information Resource Management (IRM) Strategic Plan Performance Indicators

The following tables reflect performance indicators to monitor progress against outcomes.

GOAL 1: Responsible Stewardship of the IT Landscape

Performance Outcome:

OCIO, Bureaus and Offices will use institutionalized governance and architecture processes to prioritize and synchronize IT investments to meet mission requirements more effectively, save money, and better serve the public.

Table 1: IRM Strategic Plan Performance Indicators, Goal 1

OBJECTIVE	OUTCOME	KPI
Objective 1.1: Governance Aligns IT Investments with Mission Priorities	Governance bodies review all Department, Bureau and Office IT investments (new/O&M) by for validated alignment with strategic priorities	% of Department, Bureau and Office IT formal assessments conducted of IT development, modernization, and enhancement (DME) investments/projects as part of the annual IT budget review
Objective 1.2: Requirements are Synchronized Across the Department	Planned development, modernization and enhancement (DME) requirements undergo cross-DOI technical review for conformance to Department standards and OCIO shared service policies	% of planned IT development, modernization and enhancement (DME) projects Department Chief Technology Officer, Architecture Review Board, or similar programmatic function reviews
Objective 1.3: A Unified Enterprise Architecture (EA) Approach that Achieves Business Goals	Formally rationalize mission and business applications to realize optimal performance and cost efficiencies.	% of the mission and business applications (aligned to DOI IT investments) rationalized through Department processes, tools and practices



GOAL 2: A Skilled IRM Workforce

Performance Outcome:

DOI will have a talented and creative IRM workforce that better supports current and future mission needs.

Table 2: IRM Strategic Plan Performance Indicators, Goal 2

OBJECTIVE	OUTCOME	KPI
Objective 2.1: Workforce and Workload Practices that Address Talent Needs	Appropriately staffed IRM workforce with the requisite skills to manage new technologies at the Department	% of DOI Bureaus and Offices using competency-based workforce plans to assess IRM talent gaps
Objective 2.2: Recruitment and Succession Strategy to Support Innovation	All Department IT positions have a career path that guides professional advancement and supports recruitment, retention and succession planning	Time to hire for open positions IRM workforce retention rate (Total number of IRM employees minus the number of departed IRM employees)/ Total number of IRM employees)
Objective 2.3: Professional Development Plans Sustain IRM Expertise	The Department provides a positive work environment to empower IT employees to learn new skills and have opportunities for advancement.	% of DOI IT employees with a Professional Learning Path



GOAL 3: Customer-centric IT Services

Performance Outcome:

User-centric analyses and business partnerships enable service improvements, from service strategy through continuous improvement, so enhancements and future investment decisions align with priority business needs.

Table 3: IRM Strategic Plan Performance Indicators, Goal 3

OBJECTIVE	OUTCOME	KPI
Objective 3.1: Customer Experience (CX) Drives IT Services for Internal and External Customers	The Department leverages data and inputs from information about internal and external user and stakeholder needs to develop new IT solutions	% of development, modernization, or enhancement projects leading to new IT assets/systems relying on business/mission user stories (epic data) prior to requirements development
Objective 3.2: Effective Partnerships through Customer Success Management (CSM)	OCIO CSM is the primary conduit for communications and information exchange around mission needs and requirements regarding IT service provision	% of funded projects with cross-functional support from CSM
Objective 3.3: Customer Service Monitoring and Improvement Program	The Department applies end-user satisfaction data analytics to plan service updates for IT solutions/services and Bureau/Office mission and business systems	% of IT investments that collect and use customer satisfaction data or user-centric metrics to improve IT service delivery



GOAL 4: Effective Enterprise Portfolio Management

Performance Outcome:

IRM financial management policies and practices use cross-functional enterprise data to manage portfolio resources efficiently and effectively to fulfill strategic priorities and mission needs.

Table 4: IRM Strategic Plan Performance Indicators, Goal 4

OBJECTIVE	OUTCOME	KPI
Objective 4.1: A Mature IT Portfolio that Informs Decision Making	Portfolio structure and processes enable lifecycle monitoring of business services/ projects per established objectives	% of IT investments associated with a portfolio service (Business or IT)
Objective 4.2: Capital Planning, Budget, and Procurement Transparency	IRM leadership has data and input from multiple management functions (e.g., HR, budget) necessary to support good IT investment decisions Evaluation of IRM resources and assets to determine priority and feasibility of current/future IT solutions involves a data-driven decision support model	Number of management functions represented per IT portfolio review and investment decision % of Bureau and Office IT acquisitions that exhibit adherence to DOI technology standards/governance decision model
Objective 4.3: Alignment of All IT Expenditures with Business Needs	Portfolio view of services driven IT investments based on business needs and effective communications with Bureau and Office programs IT expenditures directly aligned to business objectives	% of Bureau and Office IT internal budget reviews focused on IT services and projects



GOAL 5: Data as a Strategic Asset for Public and Organizational Use

Performance Outcome:

DOI manages data as valued assets used to support evidence-based policy decisions and are open by default to the American people.

Table 5: IRM Strategic Plan Performance Indicators, Goal 5

OBJECTIVE	OUTCOME	KPI
Objective 5.1: Data Governance Enables a Robust Data Ecosystem	Data Governance Board sets appropriate policies and procedures that align with mission objectives. Data management policies support a high level of transparency and accountability of DOI data assets.	% of DOI Strategic Plan KPIs linked to the data assets supporting them.
Objective 5.2: Data Is Findable, Accessible, Interoperable, and Reusable	Users can find relevant datasets necessary to support DOI's learning agenda and evaluation needs through the DOI Data Inventory.	100% of DOI's data assets associated within the DOI application inventory registered in the DOI Data Inventory. Data Assets in the DOI Data Inventory are FAIR, as necessary.
Objective 5.3: Data Literate DOI Workforce Efficiently Leverages Data to Support Evidence-based Decisions	DOI's workforce has the data skills needed to effectively use data to support their decisions.	Staff have access to a library of data literacy learning materials appropriate to position and grade. Data literacy assessments, routinely conducted across DOI to measure literacy improvements, show overall increase in data literacy rate.



GOAL 6 Seamless Integration of Cyber Security and Privacy

Performance Outcome:

Cybersecurity operations will deliver standardized and improved protection to mission services and investments across the enterprise.

Table 6: IRM Strategic Plan Performance Indicators, Goal 6

OBJECTIVE	OUTCOME	KPI
Objective 6.1: Full Visibility Across the Environment	DOI's enterprise Security Operation Center (SOC) has visibility into all information systems throughout DOI. Comply with BOD-18-02 for timely remediation of cybersecurity vulnerabilities within DOI HVA systems	% of information systems listed in CSAM into which the enterprise SOC has visibility (including HVAs) % of HVA systems without past due remediation plans for High/Critical vulnerabilities
Objective 6.2: Streamlined and Standardized Cyber Operations	DOI's legacy Advanced Security Operations Center (ASOC) transitioned into a modern, hybrid SOC	% of completion of the SOC
Objective 6.3: Effectively Managed Access	ICAM Governance teams exist at Bureau and Department levels (per M-19-17) DOI's established Trusted Identity Exchange Service (TIES) capability has identity and access data elements DOI Privilege Access Management (PAM) solution will create, manage, and terminate privileged user accounts for HVA systems	% of Bureaus with ICAM Governance fully in place % HVA systems utilizing TIES to improve access management capabilities % HVA systems managing privileged user accounts via the PAM Solution
Objective 6.4: Promote a Privacy and Transparency Framework	Public access to DOI services occurs without privacy safeguards compromised	% of programs and systems that have implemented privacy controls and safeguards for individual privacy protection



Glossary

Associate Chief Information Officer (ACIO) – Individual charged with oversight and visibility of all IT planning, operations, and performance within the Bureaus/Offices who reports to the Chief Information Officer and Deputy Bureau Director.

Business Architecture – Organizational framework that outlines the most important business structures and processes.

Business Operations Broker (BOB) – Cross-functional teams that represent the primary and secondary functions required to address IT problems shared across Bureaus/Offices within DOI’s unified regional structure.

Capital Planning – Strategic decision-making around large-scale investments that require significant resources and financial commitments to deliver notable changes in business capabilities or capacity to delivery services and products.

Career Path – An employee guide that includes the required competencies and experience for professional growth and advancement to a higher level of an occupation, whether by building subject matter expertise and/or management and executive-level skills.

Change Management Plan – A plan for orchestrating the implementation of organizational change by integrating and synchronizing interdependent activities that impact personnel, organizational structures, business processes and operations, and technology.

Chief Executive Officer (CXO) – Executive responsible for the strategy, planning, execution, and performance evaluation of core programs and services for the organizational component or functional group they manage.

Chief Information Officer (CIO) – Individual responsible for the planning, management, implementation, and performance of all IT within the Department of the Interior so that technology supports business objectives and mission needs efficiently and effectively.

Competency Model – A framework that articulates the core cluster of knowledge, skills and abilities (KSAs) an individual must apply to successfully perform duties and responsibilities associated with a specific job function.

Core Leadership Team (CLT) – Executive team that supports the CIO, including the Chief Technology Officer, Chief Data Officer, Business Operations Director, Director of Service Delivery, Director for Planning and Performance, and senior ACIOs.

Customer Experience (CX) – The result of an individual’s overall interaction with an organization’s services and products through all points of contact occurring for the duration of the relationship.

Cyber Operations – Organizational unit responsible for monitoring and sustaining the protection and security of all systems and data from compromise by internal or external threats, risk, and non-compliance.

Customer Success Management (CSM) – Relationship-focused client management that aligns client and organizational goals for mutually beneficial outcomes.



Data Ecosystem – The constellation of data structures, processes, assets and tools available to manage, analyze, visualize, and report on information within a defined organizational set of functions and practices.

End-user Experience – How an individual describes an encounter with an organization’s services and products, to include aspects of the interaction (e.g., user friendly, reliability, speed, etc.) and feelings (e.g. delight, frustration, satisfaction, etc.).

Enterprise Architecture (EA) – Approach to how an organization fundamentally structures its technology systems, the relationships among its components, and the governance principles to create and evolve a unified IT environment that has a symbiotic relationship with the business side of the organization to support mission functions and meet strategic objectives.

Enterprise Portfolio Management – Methods and processes in place for the business side to have transparent visibility into how OCIO and ACIOs allocate IT resources in support of service delivery and capabilities that align with strategic objectives.

Federal Information Technology Acquisition Reform Act (FITARA) – Landmark Congressional legislation that changed how Federal government agencies procure and manage technology systems, assets, information and data, and resources.

High-Value Assets (HVAs) – Components of Federal information systems, information, and data for which an unauthorized access, use, disclosure, disruption, modification, or destruction could cause a significant impact to the United States' national security interests, foreign relations, economy, or to the public.

Identity, Credential, and Access Management (ICAM) – The set of security disciplines that allows an organization to enable the right individual to access the right resource at the right time for the right reason.

Information Management and Technology Leadership Team (IMTLT) – Governance body comprised of ACIOs and Core Leadership Team members that meet to discuss implementation of strategic technology priorities that support mission and business objectives.

Information Resource Management (IRM) – Oversight and control over how CIO and ACIOs allocate all IT funds, assets, and human resources to support mission needs and broad strategic technology needs of the enterprise.

Learning Strategy – A strategy for how employees of various occupations across the organization complete learning events and professional development opportunities to develop KSAs necessary for advancement along their respective career paths.

Learning Path – A professional development program, correlated with an occupational career path, that provides learning events and experiences to prepare an employee with the requisite KSAs necessary to advance along that career path.

Key Performance Indicator (KPI) – Select measure or value that gauges the effectiveness of an organization at achieving business objectives; it evaluates progress toward reaching specific targets and outcomes.

Office of the Chief Information Officer (OCIO) – The organizational unit responsible for supporting the CIO execute duties related to planning, managing, implementing, and evaluating IT performance in support of business objectives.



Operational View (OV) – An enterprise architecture framework for describing the tasks and activities, components, and information exchanges required to conduct operations.

Organizational Change Management – Discipline dedicated to supporting organizations implement significant change through seamless integration and synchronization of improvements to realize workforce readiness, business processes, and technology realization and adoption without notable disruptions to operations.

Presidential Management Agenda (PMA) – A long-term vision for modernizing the Federal Government in key areas that will improve the ability of agencies to deliver mission outcomes, provide excellent service, and effectively steward taxpayer dollars on behalf of the American people.

Service Design – The activity of planning and organizing people, infrastructure, communication and material components of a service in order to improve its quality and the interaction between the service provider and its customers.

Succession Planning – A Human Resource function that analyzes and plans for the continual development of internal talent, so they are prepared with the necessary KSAs to succeed in leadership roles as they become vacant, especially for critical roles that require qualified and capable employees.

Talent Management – The practice of addressing competency gaps by implementing processes and practices that attract, hire, develop and retain quality professionals to fill job positions across the organization, including mission critical positions.

Workload Management – A Human Resource function that analyzes the distribution of overall work across various types and levels of occupations and functions to determine whether the current workforce can meet mission demands.

Workforce Planning – Human Resource process to monitor the overall composition of the workforce to ensure the organization can (a) anticipate and respond to changing mission requirements, (b) maintain workforce skills in a rapidly developing IT environment, and (c) recruit/retain the IT talent needed to meet the mission and projected service demands.