



CPSC
Information Resource
Management (IRM)
Strategic Plan
2017-2021

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Message from the Executive Director

I am proud to introduce the Consumer Product Safety Commission's (CPSC) first Information Resource Management (IRM) Strategic Plan. I commend the Office of Information and Technology Services' leadership for having the vision and seeing the value in developing this plan. Through the contributions of our Chief Information Officer, James Rolfes, and his staff, as well as contributors across the CPSC, this plan captures the goals and objectives of CPSC's current and future technology direction. Moreover, the plan reflects the collaborative spirit of our staff and their dedication to CPSC's life-saving mission.

In 2014, when CPSC staff began developing the agency's 2016 – 2020 Strategic Plan, it became evident that information technology and data collection and analysis are critical cross-cutting priorities that are necessary to achieve CPSC's mission of "Keeping Consumers Safe." The Strategic Planning Committee identified these cross-cutting strategic priorities as integral to the agency-wide plan and fundamental to "the way CPSC works."

The CPSC is a data-driven agency that relies on technology and information services to collect, store and analyze data from a wide range of sources to support and enhance our business and mission-critical systems. In fact, technology and information services are key components of every public health and safety program and activity at the CPSC.

The IRM Strategic Plan works in concert with other key agency planning documents, including the 2016–2020 Strategic Plan and Annual Operating Plan. This IRM Strategic Plan purposefully mirrors these documents to ensure that the priorities identified in each document are aligned. The IRM Strategic Plan is intended to be a practical resource to guide our long-term vision and direct our near-term priorities. Therefore, the IRM Strategic Plan is not a static document. We expect that as the CPSC's annual operating plans and activities change, this plan will reflect those changes and continue to serve as a resource for the direction of CPSC's information technology priorities and goals.

Patricia H. Adkins

Introduction

Data, Information technology (IT) systems and information management services are integral to the Consumer Product Safety Commission’s (CPSC) operations and the attainment of agency strategic goals and objectives. Effective management of information and technology in a government agency involves a wide range of activities and complex interrelationships. Some of these activities are readily apparent, while other aspects are far less visible, despite being critical for overall success. The following illustration of an iceberg (Figure 1) identifies some of the information management responsibilities that are visible to the end user, those above the water line, and some that are not, those in the blue area, which represents the water.

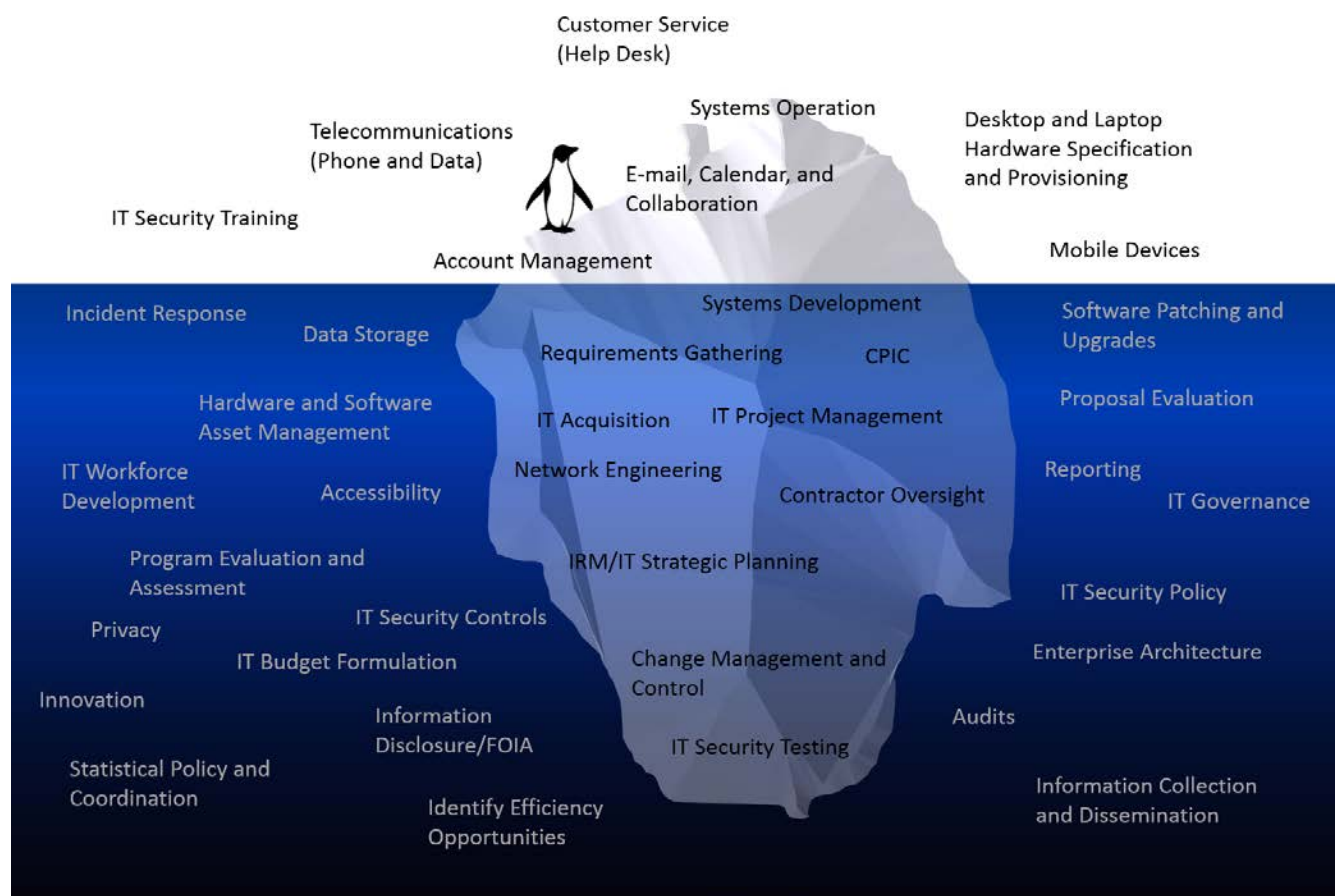


Figure 1: Major IRM functions

This plan is intended to form a framework for managing the complex interrelationships of the many information and technology activities of the agency. The CPSC Information Resource Management (IRM) Strategic Plan is intended to align agency IRM activities with the broader strategic goals and objectives found in the CPSC Strategic Plan. Beyond the core purpose of resource alignment, the IRM Strategic Plan communicates long-term information and technology management direction for agency leadership, program area staff, and employees

directly supporting IRM activities. Additional benefits of the IRM Strategic Plan include a basis for prioritizing activities, improving sequencing of initiatives to reduce rework or delays based on dependencies, the ability to demonstrate progress over time, and enhanced capabilities to meet future demand. The structure, nomenclature, and development approach are specifically intended to align with the CPSC's Agency Strategic Plan.

Context

The CPSC IRM Strategic Plan exists in concert with other agency planning documents and processes, including the Agency Strategic Plan, the Agency annual operating plans, and annual budget submissions. The CPSC Agency Strategic Plan includes cross-cutting priorities for information technology and data collection, emphasizing that information resource management support permeates all agency strategic goals. The IRM Strategic Plan incorporates initiatives from the Agency Strategic Plan and Annual Operating Plan, as well as IRM-specific initiatives intended to improve overarching capabilities needed to support day-to-day operations. The IRM Strategic Plan is intended to provide a cohesive, long-term framework for improving information resource management for the CPSC through the execution of focused initiatives.

Overview

Mission: Provide technology and information management support to keep consumers safe

Vision: To be a valued partner in the effective delivery of innovative solutions to keep consumers safe.

- **Goal A (Customer):** Deliver high-quality, mission-oriented solutions
- **Goal B (Financial):** Reduce incremental development and operational costs
- **Goal C: (Process)** Improve technology and information management internal processes
- **Goal D (Growth):** Improve organizational capacity

Significant overlap exists between the IRM Strategic Plan goal on Growth (Goal D) and the Workforce Goal (Goal 1) in the Agency Strategic Plan. The placement of the workforce-related items at the bottom of the IRM Strategic Plan is a convention within the Balanced Scorecard Strategy Map and emphasizes the foundational importance of the workforce for overall mission achievement.

Strategic Planning Approach

A key purpose of the IRM strategic plan is to align the multiple IT and data-related initiatives across the agency. Much of the content for this strategic plan comes directly from the Agency Strategic Plan and Annual Operating Plan. The bulk of the initiatives of this plan have already been reviewed and approved by the agency.

This plan is organized around the Balanced Scorecard Methodology, which incorporates the goals and objectives planned across growth, internal process, financial and customer perspectives and structured into a strategy map (Figure 2) to identify the major relationships between the objectives. Performance goals and strategic initiatives are identified and aligned with the higher level strategic goals and objectives. Initial key performance measures round out the core strategic plan elements and provide a means for objectively assessing progress over time. A characteristic of the Balanced Scorecard Methodology is the inclusion of a relatively small number of measures that focus on the most important aspects of strategic delivery. Additional measures may be incorporated into future versions of the IRM Strategic Plan.

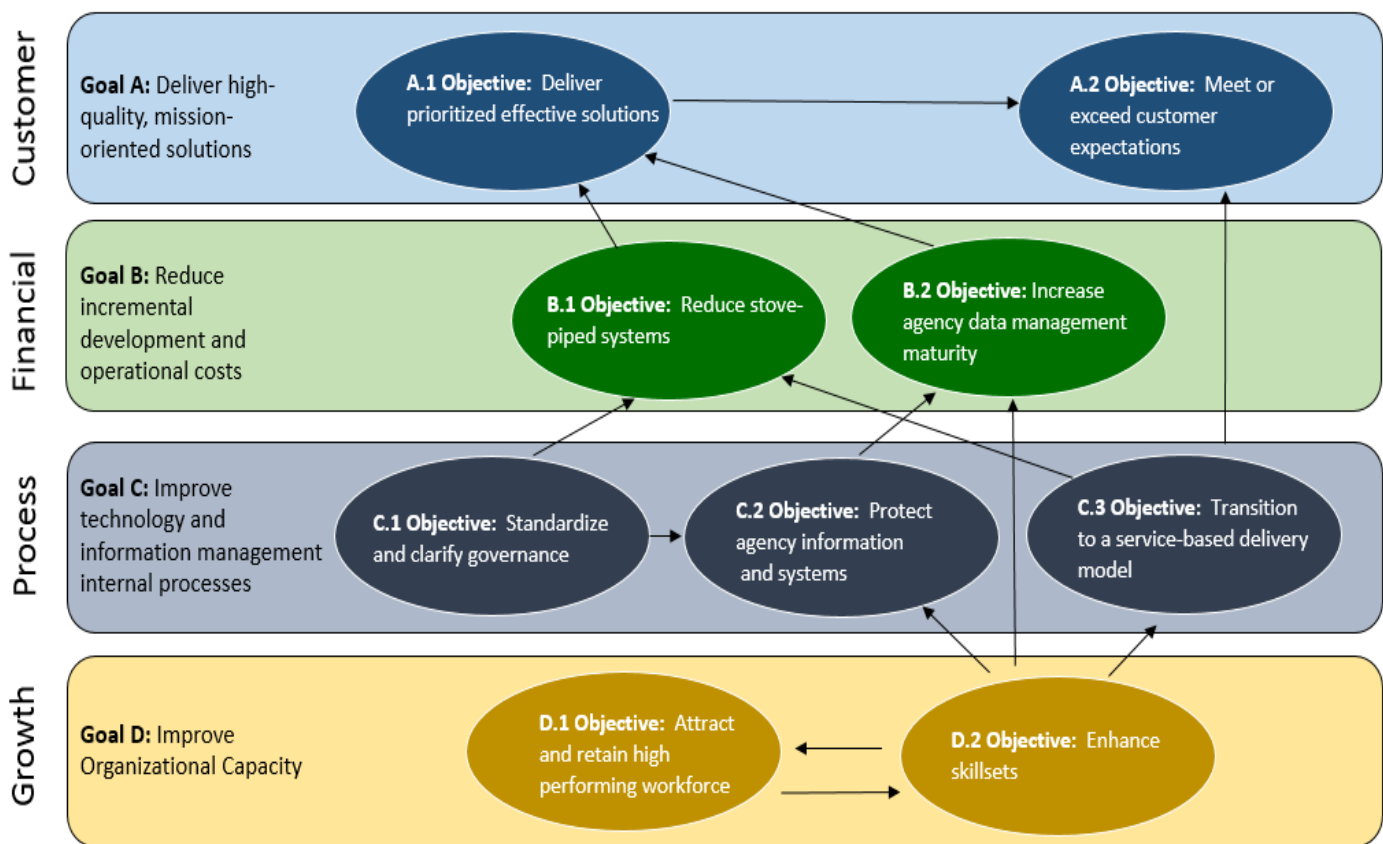


Figure 2: IRM Strategic Plan Strategy Map

Growth and process dimensions generally tend to include objectives that are more output oriented and provide the basis for realization of outcome-oriented goals in the financial and customer dimensions. Relationships, indicated by arrows on the strategy map, can be read, either from bottom to top, from top to bottom, or across, within a single goal.

Initiatives identified in this plan are largely derived from existing planning sources to promote alignment of effort and reduce the potential for planning conflicts. Throughout the document, initiatives are mapped to their corresponding source document – the Agency Strategic Plan, Operating Plan, or the IRM Strategic Plan. The initiatives that are original to the IRM Strategic Plan tend to be operational in nature to avoid creating new strategies that may conflict with those in the Agency Strategic Plan. The strategic initiatives listed under each strategic objective are labeled with a code that identifies the original source document of initiative. The following diagram (Figure 4) explains the coding structure.

Interpreting the Strategy Map:

For a bottom to top example, Objective D.2 Enhance skillsets *supports the achievement of* Objective C.2 Protect agency information systems, Objective C.3 Transition to a service-based delivery model, and Objective B.2 Increase agency data management maturity.

For a top to bottom example, Objective A.2 Meet or exceed customer expectations *is supported by* Objective C.3 Transition to a service-based delivery model and Objective A.1 Deliver prioritized effective solutions.

In Goal D, Objective D.2 Enhance skillsets *supports* Objective D.1 Attract and retain a high performing workforce (and in this case vice versa).

Figure 3: Top-Down, Bottom-Up Strategy Map Interpretation Example

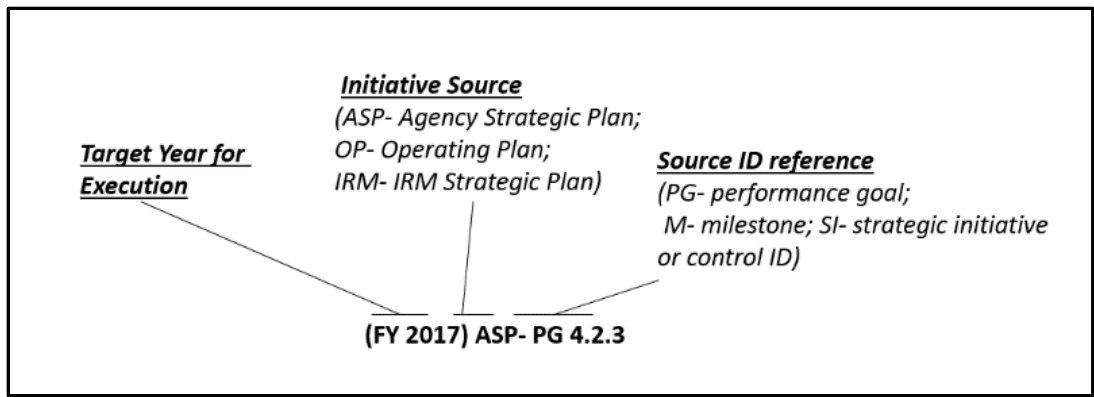


Figure 4: Strategic Initiative Coding Structure

Cross-Cutting Strategies

The following cross-cutting strategies are integral to the achievement of the goals and objectives in the IRM Strategic Plan:

- Leverage data and data-management practices as a basis for system interoperability and program collaboration
- Apply modular development approaches to deliver functional capability more rapidly, and to manage risk
- Increase user and stakeholder involvement in the design and development process
- Design solutions for enterprise use and future scalability
- Utilize shared services to reduce cost and improve capacity of internal resources.

Strategic Goal A: Customer

Deliver high-quality, mission-oriented solutions

Delivering high-quality, mission-oriented solutions requires prioritizing projects and activities for automation and information services that include both internally hosted and externally procured systems so that demand does not exceed available resources. Communicating the status of stakeholder requests on a regular basis is important to managing expectations and outcomes.

Objective A.1 Deliver prioritized effective solutions

This objective includes performance goals and initiatives associated with the timely delivery of the most impactful projects and activities for the agency. This objective considers not just timely delivery, but also solutions that are genuinely effective in achieving agency needs.

Performance Goals

- Deliver priority initiatives within projected time frames
- Improve ability to identify highest-priority initiatives

Strategic Initiatives

- Implement electronic submission of progress reports from recalling firms (FY 2017) ASP-PG 3.2.2 SI5 and OP-2017M21/2017M52
- Enhance CPSC websites to make them compatible with mobile devices (FY 2017) ASP-PG 4.2.3 SI8
- Enhance the functionality and features of NEISS online sites (FY 2017) OP-2017M03

- Evaluate the results of the Partner Government Agency (PGA) Message Set alpha pilot involving voluntary trade participants (FY 2017) OP-2017M26
- Transition PGA Message Set Pilot program to beta phase, if warranted and approved by the Commission (FY 2017+) OP-2017M27
- Implement automated recall press release workflow and approval process (FY 2017) OP-2017M48
- Transition from RAM pilot 1.0 to RAM pilot 2.0 completed (FY 2017) OP-2017M50
- Implement two-way action messaging in pilot RAM 2.0 (FY 2017) OP-2017M51
- Develop a system for soliciting feedback from industry stakeholders to rate the usefulness of safety information provided by CPSC staff (FY 2017) OP-2017M72
- Streamline compliance notification to importers of noncompliant products electronically through the CPSC's RAM system, which will be integrated into the U.S. government's "Single Window" initiative. (FY 2017-2018) ASP-PG 2.3.2 SI 20
- Complete Strategic Initiative to: Finalize Trusted Trader Program (FY 2018+) ASP-PG 2.2.1 SI9

Objective A.2 Meet or exceed customer expectations

The demand for IRM products and services is significant, and customer expectations are high. This objective includes initiatives to improve transparency and accountability for IRM functions, as well as improving awareness of customer satisfaction and areas of most critical need.

Key Performance Measures

- Systems Availability: Percentage of operating uptime for IT systems (FY 2017) OP-2017OP65
- Infrastructure Availability: Percentage of operating uptime for IT networks. (FY 2017) OP-2017OP66

Performance Goals

- Improve transparency of IT decision-making and status
- Measure internal customer satisfaction for IT services
- Deliver improvements to external customer-facing solutions
- Objectively measure and report of system and network availability

Strategic Initiatives

- Improve www.CPSC.gov search functions, Frequently Asked Questions on www.CPSC.gov, and mobile compatibility (FY 2017) ASP-PG 4.1.2 SI4
- Implement Laboratory Information Management System (LIMS) at the National Product Testing and Evaluation Center (NPTEC) (FY 2017) IRM-A2 SI1
- Integrate user perspectives into Solutions Development Lifecycle (FY 2017) IRM-A2 SI2
- Administer IT customer satisfaction survey to internal CPSC users (FY 2017) OP-2017M42
- Upgrade CPSC cellular devices (FY 2017) OP-2017OP66
- Evaluate alternatives for improved field device mobility (FY 2017+) IRM-A2 SI3
- Develop EXIT Communications plan to guide effective and consistent communications (FY 2017-18) IRM-A2 SI3
- Create IRB dashboard for status of major IT initiatives (FY 2017-18) IRM-A2 SI4
- Examine and formulate approaches for improving network connectivity at port locations (FY 2017-18) IRM-A2 SI5
- Explore technological solutions that inform consumers about recalled durable infant and toddler products. (FY 2018+) ASP-PG 3.3.2 SI10

Strategic Goal B: Financial

Reduce incremental development and long-term operational costs

Organizations use information and technology to improve capabilities and also reduce cost, as compared to manual processing alternatives. Improvements in cost-efficiency enable either expanded capability to meet unfulfilled demand, or opportunities for overall cost reduction. Success in this goal area frees resources that support the ability to deliver the objectives within Goal A: Deliver high-quality, mission-oriented solutions. This goal is supported by objectives within Goal C: Improve technology and information management internal processes and Goal D: Improve organizational capacity.

Objectives within this goal seek to increase the efficiency of service delivery and expand the availability of data in order to maximize overall value to the agency. This is primarily derived from economies of scale and improved reuse.

Objective B.1 Reduce stove-piped systems

Highly specialized solutions can meet specific isolated needs but are frequently inefficient in terms of the aggregate cost of development and operations. As more individual, single-purpose solutions are introduced, the ability to provide support for existing systems is

diminished, unless progressively greater levels of resources are dedicated. In addition to the system-specific costs, customized solutions create challenges when trying to integrate related functions or expand information-sharing across program boundaries. Standardizing platforms and designing for re-use will decrease cost and time for delivery, while promoting information-sharing and improving staff support capabilities.

Performance Goals

- Enhance scalability, reliability and efficiency through continued virtualization of computing resources
- Expand the use of reusable APIs, Web services and component-based design to enable greater reuse
- Develop CPSC enterprise architecture to allow for agency-wide understanding of the interactions of process, data, applications, and technology

Strategic Initiatives

- Continue implementation of full production RAM compliant with the U.S. government's "Single Window" initiative (FY 2017+) ASP-PG 2.3.1 SI17
- Establish CPSC approved product list and associated review processes for agency systems and software (FY 2017) IRM-B1 SI1
- Virtualize CPSC's core database platform, SQL Server (FY 2017) OP-2017M47
- Transition HQ, Field and NPTEC standard users to VDI (FY 2017+) OP-2017M46
- Improve human capital resource tracking and reporting (FY 2018+) ASP-PG 1.1.2 SI4
- Modernize Integrated Field System (IFS) (FY 2018+) IRM-B1 SI2
- Modernize sample tracking processes across the agency and sample tracking lifecycle (FY 2018+) IRM-B1 SI3

Objective B.2 Increase agency data management maturity

CPSC is a data-driven agency. Data and information in CPSC is a corporate asset that can be used to greater effect through agency-wide improvements in data-management practices and tools. Improved availability of both structured and unstructured information, along with a stronger common understanding of data-management practices will improve decision-making and enhance program collaboration. Records and knowledge management are also aspects of this objective that have significant impacts on agency compliance and continuity.

Performance Goals

- Expand agency-wide data management awareness, skills, and capabilities
- Improve agency records and knowledge management programs

Strategic Initiatives

- Enhance IT solutions and data mining techniques to improve collection and analysis (FY 2017+) ASP-PG 2.1.1 SI1
- Evaluate feasibility of Monthly Progress Report data for reuse to include as a potential future open data set (FY 2017+) IRM-B2 SI1
- Establish Agency Data Management Working Group under IRB to provide recommendations on enterprise data management topics (standards, data quality, big data, analytics) (FY 2017) IRM -B2 SI2
- Complete initial Operating Capability for SAS enhancements- Server SAS, Text mining and Pattern Recognition (FY 2017) OP-2017M01
- Report on solutions for submission of incident data from third-party platform and e-commerce sites prepared (FY 2017) OP-2017M18
- Evaluate big data capabilities for CPSC solutions (FY 2017) OP-2017M49
- Complete an evaluation of product identification capabilities and of the benefits of standardization (FY 2017) OP-2017M53
- Evaluate current records management program resource and skills requirements and develop a proposal for senior leadership for an integrated records and knowledge management approach (FY 2017+) IRM-B2 SI3
- Identify alternative sources of data that will assist in hazards analysis and reporting (FY 2017-18) ASP-PG 2.1.1 SI2
- Promote a universal product identifier to improve product traceability (FY 2017-18) ASP-PG 2.1.2 SI3
- Research and implement methods for improving completeness of data submitted to the CPSC (FY 2017-18) ASP-PG 2.1.2 SI4

Strategic Goal C: Process

Improve technology and information management internal processes

The effectiveness of internal processes can promote or inhibit an agency's information management capabilities. Decision-making, provisioning and processes associated with protecting agency information are core to effective information management.

Objective C.1 Standardize and clarify governance

There are a wide range of factors that influence IT decision-making in a federal agency. Laws and regulations place requirements on the formalization of a wide range of information management-related decisions. Lower level decision-making requires formalization for consistency and to promote the reliability of information management. With a lack of formality regarding governance, agency customers needing services to support their programs can become confused and frustrated with the process. Governance provides structure through informed and accountable decision-making but can create bureaucratic bottlenecks that result in unnecessary delay or complexity. This objective focuses on right-sizing governance processes at CPSC for the IRB, which provides strategic-level direction and approves major IT investments through technical configuration reviews, as well as integrating lower level governance processes.

Performance Goals

- Streamline agency IRM related governance processes
- Integrate CPSC service catalog to formalize standard IT products and services into agency IRM governance processes

Strategic Initiatives

- Revise and publish CPSC Solutions Development Lifecycle (SDLC) (FY 2017) IRM-C1 SI1
- Revise and update governance framework for reviewing and approving new technologies, applications and services (FY 2017) IRM-C1 SI2

Objective C.2 Protect agency information and systems

Protecting agency systems and information is critical for reliable mission assurance. Numerous laws and regulations shape CPSC's responsibilities with regard to protecting its valuable information and data processing assets. The threat landscape is dynamic and government security and privacy programs must evaluate changes and adapt protective measures accordingly.

Performance Goals

What Is a Service Catalog?

A service catalog is an organized, customer-facing list of IT services available. It includes descriptions, costs, request processes, levels of service, and points of contact for additional information. A service catalog typically focuses more on capabilities, rather than product specifications, which allows IT management organizations to focus on ways to reduce cost and maximize performance. IT service catalogs are part of the standard best practice IT Infrastructure Library (ITIL) practices for providing IT services to meet the needs of the organization.

Figure 5: What Is a Service Catalog?

- Improve CPSC's IT security and privacy capabilities
- Revise and align CPSC's IT risk framework with agency risk processes

Strategic Initiatives

- Evaluate and implement improvements for system contingency planning (FY 2017) IRM-C2 SI1
- Evaluate and implement improvements for system configuration management (FY 2017) IRM-C2 SI2
- Implement mandatory two-factor Personal Identity Verification (PIV) use (FY 2017) IRM-C2 SI3
- Establish baseline for the percentage of completed Plan of Action and Milestones (POAM) (FY 2017) OP-2017M43
- Establish baseline for the percentage of critical vulnerabilities addressed from the United States Computer Emergency Readiness Team (US CERT) (FY 2017) OP-2017M44
- Implement advanced persistent threat and alert capabilities (FY 2017) OP-2017M45
- Evaluate current privacy program resource and skills requirements and develop a proposal for senior leadership (FY 2017+) IRM-C2 SI4
- Implement DHS supported continuous diagnostic and monitoring capability (FY 2017-18) IRM-C2 SI5
- Evaluate audit finding closure process to evaluate expanded role review role for the Office of the Inspector General (FY 2017-18) IRM-C2 SI6

Objective C.3 Transition to a service-based delivery system

Best practices in the management of information technology have evolved from providing responses to individual requests for software and hardware to a model that focuses on understanding the needs of the customer. IT departments still use hardware and software to provide services, but the technology details are abstracted to allow for greater attention to solving the broader needs of the customers in the most effective way. A service-based delivery model seeks to identify the range of services required by customers and to develop capabilities to meet those needs. A service-based delivery model will simplify access to the services and increase transparency into the costs of providing those services and the corresponding level of service that can be achieved within that funding level.

Performance Goals

- Establish agency enterprise architecture

- Develop an enterprise service catalog

Strategic Initiatives

- Determine feasibility of implementing an e-filing process for manufacturers, importers, retailers, distributors, and third party platform providers to submit incident data and/or section 15b reports (FY 2017+) ASP-PG 3.1.1 SI1
- Inventory, describe and identify IT cost drivers for CPSC services (FY 2017+) IRM-C3 SI1
- Establish an initial service catalog for CPSC (FY 2017+) IRM-C3 SI2
- Map program area functions and data use to agency systems (FY 2017+) IRM-C3 SI3

Strategic Goal D: Growth

Improve organizational capacity

The key component for improving organizational capacity in information management programs is a highly skilled and motivated workforce. Succeeding with this goal requires efforts to retain high-performing personnel, recruiting a diverse workforce with relevant skills and experience, and developing skill sets for the future, and providing an environment that fosters employee participation and engagement. The performance goals and initiatives within this goal area closely align with the workforce elements in the Agency Strategic Plan. It is important to note that the performance goals highlighted in this goal of the IRM Strategic Plan are those that are most closely linked to information and technology management areas and not an indication that the other aspects of Agency Strategic Plan Goal 1: Workforce aren't important more broadly.

Objective D.1 Attract and Retain a High-Performing Workforce

Recruit and hire a highly skilled and diverse workforce, while fostering employee engagement and innovation. This objective incorporates performance goals from two objectives in the Agency Strategic Plan- Strategic Objective 1.3: Attract and recruit a talented and diverse workforce and Strategic Objective 1.4 Increase Employee Engagement.

Performance Goals

- Improve targeted assessments to recruit talent
- Promote and recognize innovation and creativity
- Increase targeted outreach to increase diversity

Strategic Initiatives

- Perform best practice research across other federal and private sector organizations for information resource management (FY 2017+) ASP-PG 1.2.1 SI5
- Advance relationships with colleges and universities (FY 2017+) ASP-PG 1.3.2 SI13
- Train workforce on problem solving and framing methods to encourage innovation through alternative approaches (FY 2017+) ASP-PG 1.4.1 SI5

Objective D.2 Enhance Skillsets

Evaluate current skills and capabilities and compare to future expected needs to form the basis for continuous improvement and position information management to meet the needs of the agency.

Performance Goals

- Encourage and support professional development
- Deliver high-quality, targeted development opportunities

Strategic Initiatives

- Develop and implement individual development plans for information resource management positions (FY 2017) ASP-PG 1.2.1 SI6 and OP-2017M58
- Conduct training needs assessment for information resource management functions (FY 2017) ASP-PG 1.2.2 SI8
- Develop training plan for information resource management functions (FY 2017+) ASP-PG 1.2.2 SI9 and OP- 2017M60

Strategic Plan Implementation and Maintenance

The IRM Strategic Plan is intended to be future facing, establish consistency in approach and long-term direction, and serve as a practical guide for implementation. Periodic reviews provide opportunities for improvement and help promote sustained relevance. Technology and information management practices change rapidly. Agency strategic direction can shift as well. For these reasons, it is important that the IRM Strategic Plan incorporate regular reviews to ensure that the goals, objectives and initiatives remain relevant. The IRM strategic plan will be reviewed during the annual operating planning cycle. Initiatives and their anticipated timelines can also be adjusted during that review period.

Appendix A: Acronyms

ASP- Agency Strategic Plan

CDM- Continuous Diagnostics and Monitoring

CPSC- Consumer Product Safety Commission

DHS- Department of Homeland Security

GTIN- Global Trade Item Number

IFS- Integrated Field System

IT- Information Technology

ITIL- IT Infrastructure Library

IRM- Information Resource Management

MPR- Monthly Progress Reports

NEISS- National Electronic Injury Surveillance System

OIG- Office of the Inspector General

OP- Operating Plan

PIV- Personal Identity Verification

POAM- Plan of Action and Milestones

RAM- Risk Assessment Methodology

SDLC- Systems (or Solutions) Development Lifecycle

US CERT- United States Computer Emergency Readiness Team

VDI- Virtual Desktop Infrastructure