



Information Technology Information Management

Strategic Plan Fiscal Years 2020-2024

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Information Technology Information Management Strategic Plan

Fiscal Years 2020-2024

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ABSTRACT

The U.S. Nuclear Regulatory Commission’s (NRC’s) Information Technology/Information Management (IT/IM) Strategic Plan for fiscal years 2020–2024 describes how the agency will leverage IT/IM goals, objectives, and strategies to support and enable the NRC mission. The IT/IM Strategic Plan responds as part of Title 44 of the *Code of Federal Regulations*, Section 3506(b)(2), and the Clinger-Cohen Act of 1996. The Office of the Chief Information Officer is required to develop and maintain an information resources management strategic plan. The plan lays out the mission and vision for the agency’s IT/IM efforts and establishes three goals along with associated objectives and strategies. This plan provides the technology and strategic guidance that informs and supports the agency’s budget formulation and prioritization processes over the next 4 years.

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EXECUTIVE SUMMARY

The U.S Nuclear Regulatory Commission (NRC) has updated its Information Technology/Information Management (IT/IM) Strategic Plan for fiscal years 2020–2024. The IT/IM Strategic Plan describes how the current plans support the [NRC’s Strategic Plan: Fiscal Years 2018–2022](#). The NRC’s Strategic Plan states, “Information technology developments in an increasingly mobile society will impact the agency’s operations. NRC will need to take advantage of technology to enable an effective and efficient work environment. It is essential to maintain a reasonable balance between the need to maximize technological innovation to perform our mission and the secure use and protection of sensitive and proprietary information. The NRC needs to be aware of the heightened risk that sensitive information held by the agency or its licensees could be lost, misplaced, or intercepted and obtained by unauthorized users. The agency will need to develop and maintain a knowledgeable workforce capable of addressing both these technology and security challenges.” This statement is the main influence in the development of the IT/IM Strategic Plan Framework. In addition, the [President’s Management Agenda](#), which outlines cross-agency priority goals, was leveraged to ensure that the NRC implements the long-term vision for modernizing the Federal Government.

MESSAGE FROM THE CHIEF INFORMATION OFFICER

I am pleased to present this update to the U.S. Nuclear Regulatory Commission's (NRC's) Information Technology (IT)/Information Management (IM) Strategic Plan. The objective of the NRC's IT/IM Strategic Plan Framework is make it easier for the NRC staff to "get the right information to the right people at the right time" while enabling and supporting the NRC's mission: "The NRC licenses and regulates the Nation's civilian use of radioactive materials to provide reasonable assurance of adequate protection of public health and safety and to promote the common defense and security and to protect the environment."



The IT/IM Strategic Plan Framework includes three goals: to empower, serve, and protect. The NRC developed these goals with a view to the future to ensure that it develops staff and processes that are agile and allow for innovation to manage an ever-changing IT/IM environment. At a high level, the goals aspire to (1) entrust a highly engaged IT/IM staff to effectively partner with business counterparts and customers, (2) deliver effective and efficient IT/IM services that meet customer needs, and (3) safeguard the agency's information and IT assets by detecting, protecting, and responding to events.

As the NRC's Chief Information Officer, I am accountable for the agency's IT/IM programs, the scope of which extends to every NRC office and affects both internal and external stakeholders. The NRC workforce strives to maintain an open and transparent partnership with our stakeholders and to ensure responsiveness to data and business needs. The right-sized IT/IM capabilities and resources, in alignment with the agency's mission priorities, provide a path to the future.

David Nelson
Chief Information Officer
U.S. Nuclear Regulatory Commission

ACRONYMS

CAP	cross-agency priority
CISA	Cybersecurity and Infrastructure Security Agency
DHS	U.S. Department of Homeland Security
ESP	empower, serve, and protect
GAO	Government Accountability Office
IG	Inspector General
IM	information management
IT	information technology
NIST	National Institute of Standards and Technology
NRC	U.S. Nuclear Regulatory Commission
OCIO	Office of the Chief Information Officer
PMA	President's Management Agenda

INTRODUCTION

The U.S. Nuclear Regulatory Commission (NRC) Information Technology (IT)/Information Management (IM) Strategic Plan supports the agency's mission to license and regulate the Nation's civilian use of radioactive materials to protect public health and safety, promote the common defense and security, and protect the environment. Although the current NRC Strategic Plan does not outline corporate support goals, it does reference the need to provide a technology foundation that is mobile, innovative, and secure.

The NRC's Office of the Chief Information Officer (OCIO) has four main functions: (1) plan, direct, manage, and implement the delivery of centralized IT infrastructure, applications, and IM services, (2) provide principal advice and assistance to the agency's senior executives to ensure that the NRC selects and manages IT/IM resources in a manner that maximizes their value, (3) provide oversight of the NRC's IT portfolio to ensure compliance with the requirements imposed by the Federal Information Technology Acquisition Reform Act of 2014, the Clinger-Cohen Act of 1996, and the Federal Information Security Modernization Act of 2014, and (4) provide authoritative assistance, consultation, and guidance to the agency's senior management in the areas of computer security and compliance. To support the OCIO functions, the framework was developed to guide the people and the processes to achieve success. This framework includes the IT/IM mission, vision, goals, objectives, and strategies that feed into the IT/IM Enterprise Roadmap and Performance Measures.

The NRC designed the IT/IM mission and vision to support the foundations of the framework by keeping them at the forefront to ensure that the staff knows what it should accomplish at a high level (mission) and what it should aspire to (vision) every day.



One of the guiding documents in the preparation of the framework is the President’s Management Agenda (PMA). The PMA states that it “lays out 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.” By leveraging the PMA, the NRC developed the framework to incorporate the three PMA cross-agency priority (CAP) goals that are the key drivers of transformation:



- (1) to modernize IT to increase productivity and security (CAP Goal 1)
- (2) to leverage data as strategic assets (CAP Goal 2)
- (3) to develop a workforce for the 21st century (CAP Goal 3)

From the PMA

LOOKING TOWARD THE FUTURE

The NRC continues to build an agile and innovative IT/IM environment to incorporate advancements in IT/IM. The following future opportunities will keep the momentum moving forward to achieve a right-sized footprint:

- a continued focus on cybersecurity enhancements
- implementation of mobility tools that take advantage of enhanced wireless and fifth-generation infrastructure
- an increased use of Big Data to inform risks and actions quickly
- the adoption of more cloud services and shared services to minimize the Government-owned and -managed data center footprint

In support of the agency, the IT/IM Strategic Plan Framework has defined the mission, vision, goals, objectives, and strategies as a guide to empower, serve, and protect (ESP). The framework will be incorporated into the day-to-day work to ensure that the path outlined in this document is transformative. Using this framework in conjunction with the NRC’s Leadership Model and FranklinCovey’s Speed of Trust will give the staff a foundation on which to implement the modern NRC IT/IM services and solutions of the future.

IT/IM GOALS, OBJECTIVES AND STRATEGIES

The agency constructed the IT/IM Strategic Plan Framework to reflect the ever-changing environment of IT and IM. As the development of the framework unfolded, it was clear that it needed to be flexible and agile with the rapid development of new technologies throughout the Federal Government and the changes in the nuclear industry as a whole.

The development of the NRC IT/IM Strategic Plan incorporated work from several other documents, including, but not limited to, the following:

- NRC Strategic Plan: Fiscal Year 2018–2022 ([link](#))
- President’s Management Agenda: Modernizing Government for the 21st Century ([link](#))
- NRC Leadership Model ([link](#))
- various internal NRC executive-level presentations, including Commission briefings
- agencywide analysis of staff strengths, weaknesses, opportunities, and threats

At a high level, the framework goals will be the main source of reference within the agency. The acronym ESP will help the staff remember the guiding goals and outcomes that should influence how day-to-day IT/IM business is accomplished.



E

Empower

- **GOAL:** Entrust a highly engaged IT/IM staff to effectively partner with business counterparts and customers.
- **OUTCOME:** The IT/IM staff embraces clear roles and responsibilities. Establish valued business partnerships across the agency that demonstrate shared trust while empowering ownership.



S

Serve

- **GOAL:** Deliver effective and efficient IT/IM services that meet customer needs.
- **OUTCOME:** Focus on customer service to continuously improve all aspects of service management practices, including communication, responsiveness, and service delivery. Increase service uptime while offering additional streamlined and modern capabilities.



P

Protect

- **GOAL:** Safeguard the agency's information and IT assets by detecting, protecting, and responding to events.
- **OUTCOME:** Establish an awareness of cybersecurity risk and knowledge; strengthen policies, processes, and controls; and implement effective governance.

STRATEGIC GOAL 1: EMPOWER

The first IT/IM Strategic Goal is to “empower.” Embracing its roles and responsibilities will enable the staff to establish valuable business partnerships across the agency and demonstrate trust and leadership skills.

Objectives and Strategies

The NRC developed the overview of the objectives and strategies below to support the goal of empower. The goal will entrust a highly engaged IT/IM staff to effectively partner with business counterparts and customers.

Goal 1: Empower

The IT/IM staff embraces clear roles and responsibilities. Establish valued business partnerships across the agency that demonstrate shared trust while empowering ownership.

1.1 Incorporate ownership and leverage trust with IT/IM staff to deliver and implement innovative solutions to increase agencywide productivity and agility:

- Establish and own clear organizational and service roles and responsibilities.
- Leverage the NRC Leadership Model, focusing on PREDICT characteristics.
- Build and demonstrate trust to gain confidence through consistency, communication, and integrity.

1.2 Build valued business partnerships that provide IT/IM solutions:

- Collaborate internally and externally to develop relationships across the agency.
- Provide partnership outreach to meet the needs of offices and the agency.

1.3 Transform the delivery of IT/IM services through receptivity to new ideas, adaptability, and diversity of thought:

- Develop communication methods that are responsive to the level of need.
- Leverage the NRC Leadership Model to spur innovation.
- Support continuous development of the staff’s external awareness.

The NRC has two agencywide initiatives that lend their support to implementing this goal. First is the NRC Leadership Model. This model communicates how we individually and collectively demonstrate leadership. It outlines seven leadership characteristics using the acronym PREDICT:

- (1) Participative Decisionmaking
- (2) Receptivity to New Ideas and Thinking
- (3) Empowerment and Shared Leadership
- (4) Diversity in Thought
- (5) Innovation and Risk Tolerance
- (6) Collaboration
- (7) Teamwork

As the staff begins to embrace the PREDICT characteristics, the level of empowerment rises.

The other initiative currently in place is FranklinCovey’s Speed of Trust. As stated in the FranklinCovey workshops, “Trust means confidence.” This program begins with a series of

workshops designed to provide opportunities for strengthening mutual trust among agency leaders, supervisors, and staff. As trust is built, it increases the speed and quality of the work while reducing costs.

Leveraging these two initiatives along with clearly outlining expectations to IT/IM staff will provide the environment necessary for the staff to demonstrate empowerment.

STRATEGIC GOAL 2: SERVE

The second IT/IM Strategic Goal is to “serve.” Much of the NRC’s IT/IM work focuses on customer service. Developing governance to support processes and procedures will benefit the entire agency by removing ambiguity. Currently, the NRC is merging all IT/IM acquisitions into a more streamlined and defined process to allow the staff to provide customer service that is responsive and timely. As technology progresses at a quicker rate, the NRC must ensure that its foundation is designed to respond to changing environments.

Goal 2: Serve

Focus on customer service to continuously improve all aspects of service management practices, including communication, responsiveness, and service delivery. Increase service uptime while offering additional streamlined and modern capabilities.

Objectives and Strategies

The NRC developed the overview of the objectives and strategies below to support the goal of serve. The goal will deliver effective and efficient IT/IM services that meet customer needs.

2.1 Develop and deliver an IT/IM service portfolio that is right sized:

- Ensure that the staff performs day-to-day duties successfully to build a foundation to respond to emergent needs.
- Deliver high-quality project planning to customers.
- Provide end-to-end services.

2.2 Leverage a proactive approach to service that is responsive to customer needs in an efficient and effective manner:

- Improve IT process tools and communications.
- Respond to potential issues via a vetted process to deliver timely solutions.
- Provide end-to-end services.

2.3 Strive to improve customer experience:

- Actively seek feedback and examine performance.
- Build a culture to encourage constructive feedback on improvements to processes.
- Provide end-to-end services.

To improve IT/IM customer service, the NRC did the following:

- restructured the organization to align with the agency’s IT/IM service demands
- shifted to enterprisewide IT/IM contracts to deliver effective and agile IT/IM services

- modernized legacy IT and adopted cost-neutral or cost-minimal shared, cloud, and third-party-managed services to facilitate long-term cost savings

Providing quality end-to-end services that improve the customer experience will offer an environment that serves customers and ensures that the IT/IM staff has a path to success.

STRATEGIC GOAL 3: PROTECT

The third IT/IM Strategic Goal is to “protect.” The three main areas of focus under this goal are to detect, protect, and respond. Ensuring that NRC staff and contractors are educated will increase awareness and strengthen policies and procedures.

Objectives and Strategies

The NRC developed the overview of the objectives and strategies below to support the goal of protect. The goal will safeguard the agency’s information and IT assets by detecting, protecting, and responding to events.

Goal 3: Protect

Establish an awareness of cybersecurity risk and knowledge; strengthen policies, processes, and controls; and implement effective governance.

-
- 3.1 Continue to improve the way we protect information assets:
- Partner with peer organizations to coordinate and improve programs (e.g., the U.S. Department of Homeland Security (DHS)/Cybersecurity and Infrastructure Security Agency (CISA)/Government Accountability Office (GAO)/Inspector General (IG)/National Institute of Standards and Technology (NIST)).
 - Evaluate tools and programs to inform, adapt, and improve the NRC’s information security posture.
 - Educate customers on good security practices and known threats.
- 3.2 Practice risk-informed decisionmaking to provide protection while supporting the effectiveness and efficiency of the mission.
- Continuously review and improve processes to achieve efficiencies.
 - Leverage data to drive decisions.
 - Assess, identify, and mitigate agency risks with internal and external counterparts.
- 3.3 Educate system users and business owners to understand their roles in detecting, protecting, and responding to events.
- Provide training programs.
 - Communicate change management programs.
 - Deliver briefing reports to inform decisionmakers.

Identifying opportunities to improve security and reliability while modernizing is important. These opportunities include a continued focus on security at every level. The NRC is a leader among Federal cybersecurity programs; it is modernizing security toolsets while implementing cloud/shared services and device refreshes and more cloud opportunities for standard industry services that reduce significant internally provided infrastructure.

Overall NRC IT/IM Strategic Plan Framework

<p style="text-align: center;">Goal 1: Empower Entrust a highly engaged IT/IM staff to effectively partner with business counterparts and customers.</p>	<p style="text-align: center;">Goal 2: Serve Deliver effective and efficient IT/IM services that meet customer needs.</p>	<p style="text-align: center;">Goal 3: Protect Safeguard agency information and IT assets by detecting, protecting, and responding to events.</p>
<p><u>Outcome Goal 1:</u> The IT/IM staff embraces clear roles and responsibilities. Establish valued business partnerships across the agency that demonstrate shared trust while empowering ownership.</p>	<p><u>Outcome Goal 2:</u> Focus on customer service to continuously improve all aspects of service management practices, including communication, responsiveness, and service delivery. Increase service uptime while offering additional streamlined and modern capabilities.</p>	<p><u>Outcome Goal 3:</u> Establish an awareness of cybersecurity risk and knowledge; strengthen policies, processes, and controls; and implement effective governance.</p>
<p>OBJECTIVES and STRATEGIES</p>		
<p>1.1 Incorporate ownership and leverage trust with IT/IM staff to deliver and implement innovative solutions to increase agencywide productivity and agility:</p> <ul style="list-style-type: none"> • Establish and own clear organizational and service roles and responsibilities. • Leverage the NRC Leadership Model, focusing on PREDICT characteristics. • Build and demonstrate trust to gain confidence through consistency, communication, and integrity. 	<p>2.1 Develop and deliver an IT/IM service portfolio that is right sized:</p> <ul style="list-style-type: none"> • Ensure that the staff performs day-to-day duties successfully to build a foundation to respond to emergent needs. • Deliver high-quality project planning to customers. • Provide end-to-end services. 	<p>3.1 Continue to improve the way we protect information assets:</p> <ul style="list-style-type: none"> • Partner with peer organizations to coordinate and improve programs (e.g., DHS, CISA, GAO, IG, NIST). • Evaluate tools and programs to inform, adapt, and improve the NRC’s information security posture. • Educate customers on good security practices and known threats.
<p>1.2 Build valued business partnerships that provide IT/IM solutions:</p> <ul style="list-style-type: none"> • Collaborate internally and externally to develop relationships across the agency. • Provide partnership outreach to meet the needs of offices and the agency. 	<p>2.2 Leverage a proactive approach to service that is responsive to customer needs in an efficient and effective manner:</p> <ul style="list-style-type: none"> • Improve IT process tools and communications. • Respond to potential issues via a vetted process to deliver timely solutions. • Provide end-to-end services. 	<p>3.2 Practice risk-informed decisionmaking to provide protection while supporting the effectiveness and efficiency of the mission:</p> <ul style="list-style-type: none"> • Continuously review and improve processes to achieve efficiencies. • Leverage data to drive decisions. • Assess, identify, and mitigate agency risks with internal and external counterparts.
<p>1.3 Transform the delivery of IT/IM services through receptivity to new ideas, adaptability, and diversity of thought:</p> <ul style="list-style-type: none"> • Develop communication methods that are responsive to the level of need. • Leverage the NRC Leadership Model to spur innovation. • Support continuous development of the staff’s external awareness. 	<p>2.3 Strive to improve customer experience:</p> <ul style="list-style-type: none"> • Actively seek feedback and examine performance. • Build a culture to encourage constructive feedback on improvements to processes. • Provide end-to-end services. 	<p>3.3 Educate system users and business owners to understand their roles in detecting, protecting, and responding to events:</p> <ul style="list-style-type: none"> • Provide training programs. • Communicate change management programs. • Deliver briefing reports to inform decisionmakers.

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This IT/IM Strategic Plan supersedes NUREG-1908, Volume 3

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The U.S. Nuclear Regulatory Commission's (NRC's) Information Technology/Information Management (IT/IM) Strategic Plan for fiscal years 2020—2024 describes how the agency will leverage IT/IM goals, objectives, and strategies to support and enable the NRC mission. The IT/IM Strategic Plan responds as part of Title 44 of the Code of Federal Regulations, Section 3506(b)(2), and the Clinger Cohen Act of 1996. The Office of the Chief Information Officer is required to develop and maintain an information resources management strategic plan. The plan lays out the mission and vision for the agency's IT/IM efforts and establishes three goals along with associated objectives and strategies. This plan provides the technology and strategic guidance that informs and supports the agency's budget formulation and prioritization processes over the next 4 years.

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