Preserving the Past to Protect the Future

THE STRATEGIC INFORMATION RESOURCES MANAGEMENT PLAN

OF THE

NATIONAL ARCHIVES AND RECORDS ADMINISTRATION

February 2008

Version 5.2

PRESERVING THE PAST TO PROTECT THE FUTURE

MISSION

The National Archives and Records Administration serves American democracy by safeguarding and preserving the records of our Government, ensuring that the people can discover, use, and learn from this documentary heritage. We ensure continuing access to the essential documentation of the rights of American citizens and the actions of their government. We support democracy, promote civic education, and facilitate historical understanding of our national experience.

STRATEGIC GOALS

- *One*: As the Nation's record keeper, we will ensure the continuity and effective operations of Federal programs by expanding our leadership and services in managing the Government's records.

- *Two*: We will preserve and process records to ensure access by the public as soon as legally possible.

- *Three*: We will do our part to solve the challenges of electronic records in the Government.

- *Four*: We will provide prompt, easy, and secure access to our holdings anywhere, anytime.

- *Five*: We will increase access to our records in ways that further civic literacy in America through our museum, public outreach, grants, and education programs.

- *Six*: We will equip NARA to meet the changing needs of our customers.

Foreword

As our national record keeper, the National Archives and Records Administration (NARA) is a public trust that safeguards the records on which our citizens depend for documenting their rights, ensuring the accountability and credibility of national institutions, and analyzing the national experience. Both the Government and the citizen rely on NARA to meet an almost unlimited range of information needs from records. Literally thousands of people, including genealogists, lawyers, historians, veterans, newspaper and television journalists, and government employees, do research in our facilities each year. Thousands more write or call with inquiries for records or information from our holdings, while millions of "visitors" access our web pages, and more than 150 million documents are retrieved from electronic editions of the *Federal Register*, the *Code of Federal Regulations*, and related NARA publications.

Recognizing the citizen's expectation for ever-higher levels of performance and accountability in Federal Government agencies, the President has set a government-wide goal to provide high-quality service at reduced cost, make government services more accessible, and increase government transparency and accountability. As our nation continues its shift from an industrial to a knowledge-based economy, information resources become more and more important to government. For NARA, this importance manifests itself in the unique challenge of dealing with an overwhelming proliferation of electronic records. Successfully meeting this challenge requires that we adhere to NARA's strategic direction as described in our Strategic Plan, and support the mission and goals of the Strategic Plan in accordance with the guidance documented in our Enterprise Architecture.

This Strategic Information Resources Management (IRM) Plan summarizes key elements of NARA's Enterprise Architecture and provides an overview of NARA's strategy for managing IRM activities in alignment with the agency's strategic goals and business programs.

Contents of the Plan

Background

In the past, each of the National Archives and Records Administration's business offices generally built their own applications to support their business processes. Although this often led to the implementation of systems that satisfied user requirements, this approach is becoming untenable as technology increasingly influences how we fulfill our mission, as the scope and scale of our information technology investment grows, and as the need to integrate technology capabilities and business processes across all agency business offices and with external customers, partners, and stakeholders becomes imperative. To address these increasingly complex needs for information system integration and support, NARA will establish and execute agency policies and Information Resources Management (IRM) processes that assure we align investments in information technology (IT) with the agency's strategic goals and business performance objectives.

NARA's Chief Information Officer (CIO), in alignment with Federal law and Office of Management and Budget (OMB) guidelines, has established the Enterprise Architecture (EA) process as the overarching IRM process for the agency. NARA integrates the Capital Planning and Investment Control (CPIC), Program Management, Performance Management, IT Security, and Systems Development Lifecycle (SDLC) processes under the EA umbrella, and governs these processes to assure EA compliance across all IRM activities. This is a fundamental shift in our approach to IRM that moves us away from a program-oriented, budget-centric approach to investment planning and management toward an integrated, agency-wide (sometimes government-wide), architecture-based approach. Our EA helps us better leverage our IRM investments by making choices that are consistent with the strategic direction of our business.[1] While we develop and evolve our EA, we carefully consider the impact of technology on both our strategic goals and our current state of IT deployment. The outcome is a comprehensive set of guidance that helps us to fulfill our mission, meet our strategic goals, and serve our customers more effectively.

At its core, IRM and EA are business driven processes. For this reason our EA methodology starts with an analysis of business needs and includes a comprehensive business element. We recognize that the most significant determinant of the effectiveness of our IRM approach is the degree to which the business owns and participates in IRM activities and how effectively we align IRM activities and EA guidance with our business strategy. For this reason, we position the *Business Architecture* as the driving element of our EA. The Business Architecture is expressed in business terms and is owned and managed by the business. The Business Architecture Working Group (BAWG) is established as a permanent committee under the Architecture Review Board (ARB) to guide and manage the development of the Business Architecture. The active participation by the business offices on the BAWG provides input to the EA process that is critical to developing EA guidance that is useful, and relevant to the agency's mission.

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[1] Our EA is fully documented in the *National Archives and Records Administration Enterprise Architecture.*

The Impact of Technology

There are three key technology considerations that influence how NARA fulfills its mission. First, accommodating an ever-evolving range of electronic record formats presents a significant challenge. This includes thousands of Federal agency databases, millions of email messages, vast scientific "archives" of information pertaining to weather tracking and space exploration, and countless other records involving digital images, digital sound, geographic information systems, web sites, and other electronic record formats.

Second, the Federal Government is already using technology to produce a tremendous volume of records. During the 1990s, our holdings of electronic records increased from a few thousand files to several hundred thousand. We expect that growth will accelerate in the future. During the Clinton Administration, for example, White House staff used several electronic records management systems. Among the electronic records we accessioned from the White House were Presidential memorandums and documents, National Security Council cable traffic, the President's daily diary, and millions of email messages. We anticipate at least a tenfold increase from the George W. Bush administration. The State Department is estimated to have more than 25 million diplomatic messages in electronic form that will be transferred to us in blocks averaging a million messages a year, every year, indefinitely.

Third, users increasingly expect immediate electronic access to information at no cost. The growth of web access and e-Government, the availability of electronic access under the Freedom of Information Act, as amended by the Electronic Freedom of Information Act, and provisions of the Government Paperwork Reduction Act will further increase demands for online records and services. Consequently, we must preserve electronic records in a way that makes them usable, ensures their authenticity and reliability, and guards against tampering, while ensuring a full and accurate representation of the transactions, activities, or facts to which they attest.

Effectively integrating IT capabilities within our business programs is imperative to fulfilling our mission. Guidance expressed in our Enterprise Architecture will help ensure that we capitalize on opportunities to standardize and reuse IRM resources by analyzing, reengineering, developing, and implementing common IRM processes and functionality across business programs, and in conjunction with Government-wide initiatives. Our EA provides agency-wide planning information that we use to guide the acquisition, use and management of the agency's IT capabilities and assets from varying perspectives (or views) to include: business, data, application, system, technology, operations, security, records management, and IRM transitioning.

NARA's Principles of Information Resources Management

We embrace a set of IRM concepts that guide the development of our EA, the consequent acquisition of IT components and services, and the IRM methods and practices of the agency. These concepts are rationalized as a set of *Principles* in our EA and are founded on our architectural values of *simplifying* business processes and plans, *satisfying* user needs, *standardizing* software and institutionalizing standard processes for acquiring it, and *securing* our systems and data. The Principles are fundamental philosophies that express how NARA desires to plan for, acquire, deploy, use, and manage IRM resources as an enterprise: that is, how we will implement fully functional, secure, enterprise-level information systems that meet the needs of the business. The EA Principles state that we will:

> ➢ Maintain and update an Enterprise Architecture in alignment with the agency's business strategy;
> ➢ Thoroughly understand and evaluate our business processes before automating them;
> ➢ Design and build IT systems that meet customer needs;
> ➢ Ensure that the IT infrastructure is available, regardless of a customer's location;
> ➢ Deploy IT capabilities in phases;
> ➢ Manage data as a valuable asset that is critical to the operation of the agency;
> ➢ Manage the Total Cost of Ownership (TCO) for IRM Initiatives;
> ➢ Outsource the IT components and services we require whenever practical;
> ➢ Reuse IT components whenever practical;
> ➢ Acquire systems that are flexible and adaptable to change;
> ➢ Use managed processes to specify, acquire, and deliver IT capabilities;
> ➢ Align technology acquisition with the formal and de facto IT standards that are prevalent in the IT market;
> ➢ Address business continuity, security, privacy, and records management issues as an integral part of all IT system initiatives; and
> ➢ Verify the operational readiness of all IT components prior to placing them in production.

We believe that adhering to these EA Principles is vital, in that, adherence to them will increase our return on IRM investments and help accelerate the realization of our business strategies.

Six IRM Strategies

NARA has identified six key strategies for effective Information Resources Management that we must address. Addressing these six strategies will better enable us to fulfill our mission, meet our strategic goals, and satisfy our customers. The six strategies are listed below. Each of these strategies is further addressed in subsequent sections of this plan.

IRM STRATEGIES

(1) *Mission Alignment* **– Align all IRM activities with NARA's business strategy, agency performance targets, and all applicable government-wide programs.**

(2) *Enterprise Architecture* **– Develop enterprise-wide IRM plans and guidance as necessary to support our business programs.**

(3) *IRM Process Integration* **– Improve the management and execution of agency programs by better integrating our IRM policies and processes.**

(4) *Risk Management* **– Manage IRM risk from an enterprise perspective, and establish an IT Security Program to assure the security and privacy of NARA's information assets.**

(5) *IRM Governance* **– Institute IRM governance committees to oversee all IRM activities and assure conformance with business needs, EA guidance, and all applicable Federal laws, regulations, and guidelines.**

(6) *IT Infrastructure Support* **– Engineer, maintain, and operate a robust IT infrastructure.**

IRM Strategy One: *Mission Alignment* - Align all IRM activities with NARA's business strategy, agency performance targets, and applicable government-wide programs.

Overview

It is imperative that we derive all IRM requirements from our business strategy. To accomplish this, we develop and maintain a comprehensive *Business Architecture*.[2]

The content of the Business Architecture is expressed in business terms and is owned and managed by the business. The Business Architecture specifies our business goals and performance objectives, the products and services we currently provide, what additional products and services we desire to provide in the future, how we expect to leverage technology and information systems, how we identify and manage business risk, and how we prioritize and sequence changes to our business processes and services. The Business Architecture also considers factors such as the timing and prioritization of business change, legal and regulatory restrictions, and rules of operation. The goal of the Business Architecture is to define and document the near-term and strategic intent of the agency to a level of detail that helps us: (a) plan and manage program initiatives and their integration, (b) define and launch IT system acquisitions in alignment with business needs, and (c) guide the implementation and integration of business and technology change.

Strategic Business Activities

The following table identifies and briefly describes the business activities that we are managing to achieve our business goals, and shows the major IRM investments that support those business activities.

Business Activity	Description	Supporting IRM Investments
Implement 2006-2016 Strategic Plan	The ARB and the NARA Business Architect, supported by the BAWG, will work with the EA team to refine the Business Transformation Plan as needed to deal with changing conditions.	• EA program
NARA's Strategic Risk Management Plan	The NARA Strategic Risk Management Plan will continue to monitor any change in the likelihood or impact of previously identified risks and monitor any new risks that arise. The plan will be modified to address these changes.	• Currently a Business Office operating budget investment
Electronic Records Archives (ERA)	ERA will achieve Initial Operating Capability (IOC) in FY2008 and its use will be extended to additional NARA employees	• ERA • EA program

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[2] The *Business Architecture* is documented as part of the *National Archives and Records Administration Enterprise Architecture*.

Business Activity	Description	Supporting IRM Investments
	and additional agencies. ERA will be incrementally developed and deployed until it reaches full operating capability (FOC).	• IT Infrastructure
Comprehensive Emergency Management Program (CEMP)	NARA will: (1) Define and prioritize the Essential Mission Functions NARA must perform in emergencies; (2) Conduct a Business Process Analysis (BPA) and Business Impact Analysis (BIA) for each of the potential Primary Mission Essential Functions (PMEFs); (3) Analyze the capabilities required to meet emerging NARA responsibilities, such as its "First Preserver" role as the National Records Coordinator under the National Response Framework for Emergency Support Function (ESF) # 11; and (4) incorporate IT infrastructure upgrades as required to support Continuity of Operations Plan (COOP) requirements.	• COOP • IT Infrastructure
Textual Processing: Reduce Backlog	NARA will reduce the large backlog of poorly processed textual records that has accumulated over many years. The backlog consists of unprocessed records that NARA needs to establish intellectual control over so that customers can have efficient access to them. Staff has been realigned and new procedures and work processes have been implemented to make records processing more efficient and to maintain quality reference service with a much smaller staffing level.	• Currently a Business Office operating budget investment
Implement Digitization Strategies	NARA has acquired the new equipment, hardware, and software required to migrate analog reformatting processes to an 'all-digital' workflow. The digitization of high-priority holdings has begun and the dates for the conversion of the remaining holdings are being refined. NARA will monitor technology and operational advances in format conversion, and formulate plans to incorporate them as necessary.	• Digitization
National Declassification Initiative (NDI)	NARA is leading a government-wide initiative, the NDI, to meet the goals of the Executive Order 12598, concerning the declassification, exemption and referral of classified records that are 25 years old or older. The NDI represents a more fully	• Currently a Business Office operating budget investment

Business Activity	Description	Supporting IRM Investments
	coordinated executive branch-wide approach that integrates individual agency efforts and standardizes procedures and quality controls, thereby producing more reliable results. NARA will continue to declassify its holdings and will also develop plans for review of special media and converting analog special media to digital formats for preservation, case management and redaction.	
George W. Bush Presidential Materials Project	NARA will continue to plan and begin to implement the George W. Bush Presidential Materials Project. Activities will include: (1) Hire additional staff for the future Bush Project. These employees will work in other NL units until the Project is established; (2) Develop, test, and deploy ERA Increment 2 to take custody of the electronic records from the Bush administration; and (3) Complete renovation / construction of the Project facility.	• Currently a Business Office operating budget investment
Federal Register	NARA will: (1) Implement the Electronic Document Editing and Publishing System (eDOCS) capabilities that will aid the effort to submit documents electronically; (2) Assess the need to fine-tune automation support and editorial composition activities in eDOCS, and provide individual technical meetings for new adopters; and (3) Plan for the next generation eDOCS system.	• eDOCS
Federal Record Center Program (FRCP)	The FRCP will continue to integrate and automate FRCP operations by incrementally deploying the Archival Records Center Information System (ARCIS). ARCIS will include significant customized support for the Internal Revenue Service, one of the FRCP's largest customers. NARA will continue the implementation of approved electronic records services and develop operational support for them. These services include servicing temporary electronics records hosted by our partners, (electronic Military Personnel Files - eOMPFs and electronic Official Personnel Files - eOPFs); electronic media storage in the Electronic Records Vaults; production scanning (digitization of high volumes of	• ARCIS / NARA Integrated Siebel Platform (NISP)

Business Activity	Description	Supporting IRM Investments
	agency records) and Smart Scan (fast-turnaround digitization of small quantities of agency records). NARA will explore ways to augment the portfolio of electronic records services though the proof-of-concept Temporary Records Information Portal (TRIP) project and through FRCP use of ERA Increment 1 to test system capabilities and workflow, and develop products and costing models for temporary electronic records services.	
Preservation	NARA will undertake several related actions to ensure appropriate preservation of its holdings. These include: (1) Refining the checklist that captures and tracks information including prioritized preservation needs at the series and / or accretion level; (2) Executing a survey of preservation needs throughout the regional archives; (3) Performing container or folder-level holdings maintenance for selected, high-priority records; and (4) Implementing non-textual preservation plans and projects, as prioritized.	• Expanding NARA's Online Services (ENOS) / NISP
Locations	NARA will undertake several related actions to ensure appropriate storage of its holdings. NARA will perform the work in accordance with the capital plans for storage and facilities.	• Currently a Business Office operating budget investment
Civic Literacy	NARA will create exhibits, develop educational programs, including courses and workshops, and undertake outreach to the public through a variety of face to face and web based methods to promote civic literacy through enhancing awareness of the rich documentary heritage of our holdings for understanding American history and democracy. NARA will also measure the success of our efforts and make improvements based on the results of our findings.	• Currently a Business Office operating budget investment
Support Current Business Operations	Maintain baseline business operations.	• Order Fulfillment and Accounting System (OFAS) • Archival Research Catalog

Business Activity	Description	Supporting IRM Investments
		(ARC) • ENOS • Case Management and Reporting System (Case Management and Reporting System) / NISP • Archives Document Review and Redaction System (ADRRES)

Business Transition Strategy

The new business operating environment that we require to support our Strategic Plan is characterized as a set of business operating models in the *Business Concept of Operations* section of the Business Architecture.[3] Additionally, we maintain a *Business Transformation Plan* to describe the strategy by which we will transition from the current state of business operations to the new business operating environment we will need to meet the goals of our Strategic Plan. Business change management needs in the areas of products, services, policies, distribution channels, customer interactions, organizational structures, and employee roles are identified, assessed, integrated, and documented via the development of our business architecture and our ongoing business transformation planning activities. The figure below provides an overview of the business transition strategy. Key IT activities are noted in the *Systems* section of the figure. The *Sequencing Plan* provides a more detailed look at the IT activities that are planned to support business transformation work activities.[4]

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[3] See the *NARA Business Concept of Operations* section of the *National Archives and Records Administration Enterprise Architecture*.

[4] See the *NARA Enterprise Architecture Sequencing Plan* section of the *National Archives and Records Administration Enterprise Architecture*.

Overview of the Business Transformation Plan

Draft 1-23-08, 1:00 pm	FY08				FY09				FY10				FY11			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Budget Milestones	11/15	2/7	5/15	9/11	11/15	2/7	5/15	9/11	11/15	2/7	5/15	9/11	11/15	2/7	5/15	9/11

Key Work Activities
- Implement 2006-2016 Strategic Plan / Three-year Update of the Strategic Plan / Implement Updated Strategic Plan
- NARA Strategic Risk Management Plan: Continuously Monitor and Update
- Electronic Records Archive (ERA): Initial Operations Capability / ERA: New Search, Preservation & Storage Functions / ERA: Additional Automation, Support of New Record Formats / ERA: Further Support of Additional Record Formats
- Comprehensive Emergency Management Plan (CEMP): Integrate Emergency Management Plans / CEMP: Implement Primary Essential Mission Functions / CEMP: Evolve and Test CEMP and COOP Plans / CEMP: Upgrade Plans & Procedures
- Textual Processing: Increase Processed Records 10 Percentage Points / Textual Processing: Increase Processed Records Percentage by 10 More Percentage Points (×3)
- Digitization Strategies: Planning / Design Solution / Development / Evolve
- National Declassification Initiative (NDI): Meet 2008 Declassification Targets / (NDI): Meet 2009 Declassification Targets / NDI: Meet 2010 Declassification Targets / NDI: Meet 2011 Declass Targets
- Special Media Declassification: AoA, Requirements / Special Media Declassification: Product Plans
- George W. Bush Presidential Materials Project: Refine Plan and Start Implementation / George W. Bush Presidential Materials Project: Take Custody of Records / George W. Bush Presidential Library: Support Construction
- Federal Register: Further Automation / Update Requirements / Upgrade System Support
- Federal Records Center Program (FRCP): Initial Integration / FRCP: Support New Services in ARCIS / FRCP: Support Additional Services
- Implement Office of Regional Records Services (NR) Electronic Records Services (NR E-Records Services) / NR E-Records Services: Pilot 2 New Services
- NR E-Records Services: Analyze Pilots
- Complete Business Analysis for all NR Record Services / Adjust Prices for all NR Record Services
- Preservation: Update Plans & Milestones; Execution / Preservation: Update Plans, Execution / Preservation: Execution, Policy/Process Evolution / Preservation: Execution and Policy/Process
- Locations: Provide Appropriate Space
- Civic Literacy: Planning / Civic Literacy: Expand Programs

Policy
- Strategic Plan: Refine Policy Support / Strategic Plan: Support / Strategic Plan: Ongoing Policy Formulation, Updates and Reviews / Strategic Plan: Continuous Improvement
- Annual Performance Plan Metrics: Refine for FY2009 / APP Metrics: Refine for FY2010 / Refine for FY2011 / Refine for FY2012
- CEMP: Refine Policy
- Digitization Strategies: Terminology and Formats / Digitization Strategies: Policies & Procedures / Digitization Strategies: Refine Policy & Procedures
- Federal Register: Implement Paperless Publishing
- Financials for all NR Records Services
- NDI: Standards for Declassification Training
- Preservation: Policy Updates / Preservation: Update Policies As Needed / Preservation: Refine as Needed / Preservation: Policy Update

Process
- ERA: Lifecycle Management Plan Pilot / ERA: Monitor As ERA Evolves / ERA: Monitor As ERA Evolves / ERA: Monitor and Update
- HMS: BPR Refinement / HMS: Refine Business Processes / HMS: Monitor and Update / HMS: Monitor and Update
- ARCIS: Deploy New Process / ARCIS: Monitor and Update As Needed / ARCIS: Monitor and Update / ARCIS: Monitor and Update
- Digitization Strategies: Project Management Process / Digitization: Refine as Needed / Digitization: Monitor and Update / Digitization: Monitor and Update
- NDI: Enhance QA & Throughput
- Preservation: Update As Needed
- Pilot NR E-Records Services: Pilot New Process

Data
- Agency-wide Data Dictionary Update
- ERA: Refine Domain Model 3.0; Legacy Migration Phase 1 / ERA: Update Domain Model per Inc. 2; Legacy Data Migration Phase 2 / ERA: Update Model per Agency Data Dictionary; Legacy Migration Phase 3 / ERA: Update Model per Inc. 4; Legacy Migration Phase 4
- HMS: Domain Model 1.0; Plan Legacy Migration / HMS: Agency-wide Forms and Assess Data Migration / HMS: Update Data Model / HMS: Update Data Model; Legacy Data Migration
- ARCIS: Develop Domain Model 2.0
- Digitization Strategies: Registry and Data Integration
- NR E-Records Svc: Dom. Model Support - ERA, ARCIS

Systems
- ERA: Deploy Increment 1, Rel. 1 & 2 / ERA: Deploy Increment 2 / ERA: Deploy Increment 3 / ERA: Deploy Increment 4; Interfaces
- HMS: Deploy Pilot / HMS: Deploy 1.0 / HMS: Expand Automation / HMS: Assess Integration Needs
- CEMP: COOP Site Upgrades, Mail/File/Print, Work-at-Home, EDOCS / COOP: Assess access to ERA, ARCIS, HMS / COOP: Support Additional Applications
- ARCIS: Deploy Release 1.0 in FRCP / ARCIS: Begin 2.0 Development / ARCIS: Deploy 2.0, 3.0 / ARCIS: Deploy 4.0
- Special Media Declass: Requirements / Special Media Declass: Design System Solution / Special Media Declass: Develop & Deploy Solution
- Digitization Strategies: Requirements / Digitization Strategies: Monitor/Update IT Infrastructure / Digitization Strategies: Monitor/Update IT Infrastructure
- Fed. Register: Website Beta
- ADRRES: NDI Release 1.0
- NR E-Records Services: Add 2 Production Scan Sites per year
- NR E-Records Services: Expand Production Scanning, Prototype TRIP / NR E-Records Services: Analyze Pilots for System Requirements Changes / NR E-Records Svc.: Deploy TRIP 1.0

Organizational Change
- Integrate ERA, ARCIS and HMS into Operations and Train Personnel / ERA: Continue Integration and Train Personnel / ERA: Finalize Integration, and Train Personnel
- COOP: Establish Main COOP site / COOP: Add Infrastructure & Applications
- NL: Establish George W. Bush Presidential Materials Project as a unit in NL
- NR: Organizational Assessment of Regional Archives
- Implement NR E-Records Services: SOPs, Marketing Plans, Pilots / NR: E-Records Services Marketing / NR E-Records Services: Marketing
- NR: Prepare for NR E-Records Services
- System Retirements: Operational Planning / System Retirements: Operational Changes

IRM Strategy Two: *Enterprise Architecture* **– Develop enterprise-wide IRM plans and guidance as necessary to support our business programs.**

Overview

We recognize that the practice of developing, implementing, and managing an Enterprise Architecture is critical to accomplishing organizational goals. At NARA, we use our EA to provide a clear and comprehensive picture, in both business and technology terms, of how we operate today, how we plan to operate in the future, and how we plan to transition to the future state. As such, our EA is critical to leveraging information technology in support of our business objectives, particularly large business transformation initiatives like ERA. We use our EA process to help us recognize and balance the trade-offs between satisfying our immediate operational needs, and positioning ourselves to achieve our long-term strategic goals.

Enterprise Architecture is a joint business / information technology (IT) management process that helps us plan the design, development, acquisition, and implementation of the IRM capabilities that we require. The EA process produces a set of work products (i.e., the EA) that document the strategies, plans, and guidelines by which we will acquire, integrate, secure, deploy, use, and manage IT components and IT services in support of our business objectives.
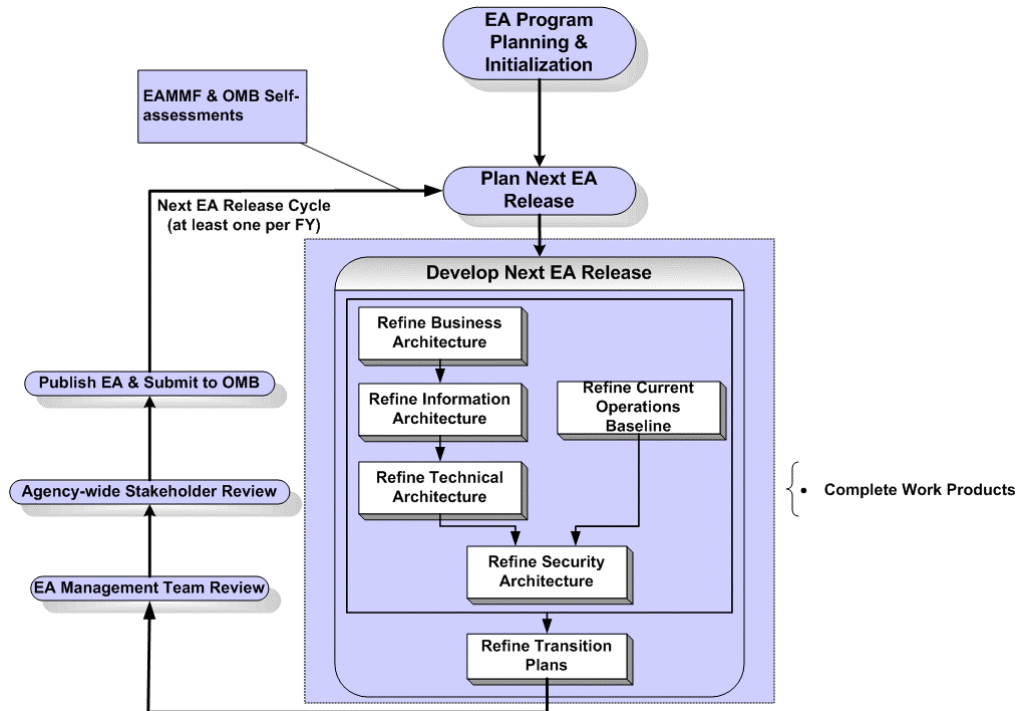
We define our EA process and EA work products by a formal methodology—the *Enterprise Architecture Planning and Development Methodology*—as summarized in the figure below. The goal of our EA process is to enable us to effectively leverage IT in support of our business needs and to better enable us to respond to changes in public policies, customer expectations, and business strategies. To accomplish this goal we use our EA to provide a comprehensive picture, from both business and technology perspectives, of how the agency operates today, how it plans to operate in the future, and how we plan to transition to its future state. As such, we use our EA to:

> Assert a core set of principles that help guide the management and use of IT within NARA;

> Provide a business architecture to help identify our business needs for IT capabilities and describe the sequence in which those capabilities should be deployed;

> Describe the information needs and flows of our business processes and services;

> Specify a modernized set of information systems and/or service components that are well-aligned with the business processes they support and the information resources they utilize;

> Specify a robust, standardized, shared, and well-managed technology infrastructure based upon industry standards;

> Integrate IRM processes to help optimize and reuse IT assets across the agency; and

> ➢ Identify IT sourcing strategies that optimize the use of in-house and outsourced IT resources in alignment with our core business competencies and strategic business needs.

Summary of the EA Methodology

The size, scope, and complexity of our IT projects; our evolving and changing business needs; and the dynamics of technology markets necessitate that the EA be developed iteratively. Our EA is continually refined and updated as the business needs for IT are clarified and as our business planning activities evolve and change.

EA Management Strategy

The EA work products we develop via our EA process are structured to provide planning information that is critical to IT acquisitions and the overall execution of our business activities. The general types of information provided in our EA include:

> ➢ Business planning information as represented by the *Business Concept of Operations*, *Performance Architecture*, *Business Process Hierarchy*, and *Business Process Definitions and Flows;*

> ➢ Technology planning information as represented by the *Data Architecture*, *Systems Architecture*, *Application Architecture*, *Operations Architecture*, and *IT Security Architecture*;

➢ Transition planning information as represented by the *Business Transformation Plan* and the *Sequencing Plan*; and

➢ Technical standards information as represented by the *Technical Reference Model* and the *Technology Standards Profile*.

Since EA is a key IRM strategy, we implement a program planning and program management approach with our EA program. We implement an annual program planning cycle that occurs after the OMB EA assessment each February. We maintain our *EA Program Plan* to identify, describe, and schedule the changes planned for EA work products in a given year.[5] Changes are always scheduled and prioritized based upon our business needs, and OMB guidance. We provide a complete update to and review of our EA at least annually, as prescribed by our EA methodology and in alignment OMB's EA assessment directives.

We recognize that clear and frequent communication is necessary to assure that our EA process provides value to the agency. To address our communications needs, we maintain an *EA Communications & Training Plan.*[6] This plan helps us better engage agency stakeholders in our EA process by:

➢ Identifying the EA information that is important to communicate to (and from) stakeholders via formalized communications;

➢ Identifying the communication liaisons between NARA program units and the EA program;

➢ Identifying EA program points of contact who can respond to requests or provide clarification on matters pertaining to the EA;

➢ Providing the schedule of major EA activities and milestones so that NARA stakeholders can appropriately engage in the agency's EA process; and

➢ Providing opportunities to train NARA management and staff on the agency's EA process, their respective roles in EA development, and the importance of EA to the agency, at all levels of the organization.

Numerous work products result from our EA process and they must be updated frequently to reflect the needs of our business. To help us control and manage changes to EA work products, we follow a set of Configuration Management (CM) procedures.[7] Enforcing these CM procedures ensures that our EA work products are well managed, and that all approved changes are appropriately implemented and reviewed.

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[5] See the *Enterprise Architecture Program Plan* for details on the current EA update cycle.
[6] See the *EA Communications & Training Plan* for details on the current EA communication approach.
[7] See the *NARA Enterprise Architecture Configuration Management Procedures* for details.

IRM Strategy Three: *IRM Process Integration* – Improve the management and execution of agency programs by better integrating our IRM policies and processes.

Overview

There are numerous IRM processes that we implement to facilitate organizational change and improve organizational effectiveness. Ten major IRM processes are mandated for Federal agencies and include: Strategic Planning, Budgeting, Capital Planning and Investment Control (CPIC), EA, Performance Management, Program Management, Project Management, Records Management, Information Assurance (or IT Security), and the Systems Development Lifecycle (SDLC). Each of these major management processes will typically:

> ➢ Address either agency planning activities, or project execution activities;
> ➢ Focus on either financial management, business management, program / project management, or technology management; and
> ➢ Have a scope and reach that is either agency-wide or project specific.

We recognize that the effectiveness of these processes is dependent upon how well we can implement, integrate, and govern them to achieve our business objectives. To that end we maintain policy directives and guidelines that define the scope of the processes and the procedures by which they are enforced. The table below describes the intent of these IRM processes and identifies the corresponding OMB or NARA policy directives that mandate their adoption.

IRM Process	Description	NARA (or OMB) Policy Directives
Strategic Planning	The Strategic Planning process is used to establish the mission, goals, business objectives, performance objectives, and operating philosophy of the organization. Strategic planning expresses (at a high level) how the business intends to evolve its operational capabilities and improve its service delivery over the long term.	• OMB Circular A-11
Budgeting	The budgeting process is used to develop and submit the agency's budget to OMB for inclusion in the President's budget and Congressional approval. The budget reflects both the operating budget of the Business Offices and strategic budget initiatives (SBIs) for new business programs.	• OMB Circular A-11
CPIC	The CPIC process focuses on evaluating and assuring the return on investment (ROI) of any proposed IRM initiative. The CPIC process assesses the viability and risks of potential projects based upon the projects' business cases and preliminary concepts of operations. CPIC helps	• OMB Circular A-11 • OMB Circular A-130 • NARA 801

IRM Process	Description	NARA (or OMB) Policy Directives
	the organization determine how best to prioritize IRM investments and allocate funding to business programs. CPIC also monitors and evaluates whether a program / project achieves its ROI objectives when deployed and if so, how quickly those ROI objectives are achieved.	
EA	The EA process focuses on integrating technology planning with business planning. EA addresses IRM planning and process integration from an organization-wide perspective. The EA process is used to: (a) determine the agency's business requirements for information systems, (b) assess how best to partition IT systems across the enterprise to assure interoperability, reuse, and standardization, (c) minimize data redundancy and interfaces, and (d) plan how to integrate and deploy information systems and technology to the business. EA is only effective when driven by comprehensive business planning as a component part of the architecture (i.e., the business architecture).	• OMB Circular A-130 • NARA 812
Performance Management	Performance management focuses on measuring how effectively the business is meeting its strategic and operational goals and objectives. Performance management looks at deployed business processes and services in terms of cost, efficiency, productivity, quality, and outcomes. Performance management differs from CPIC in that it focuses on the effectiveness of an organization's deployed business processes and services as opposed to whether or not a particular program / project achieves its expected ROI. Performance management also differs from Program Management in that it focuses on the effectiveness of the *outcomes from* programs rather than on the effectiveness of the *management of* the programs. Performance management information is integrated with and captured by projects that are deployed and operational that is, once the outcomes from a project can be measured and assessed.	• OMB Circular A-130 • OMB Circular A-11
Program Management	Program Management (sometimes called *portfolio management*) focuses on effectively integrating all activities in the organization's project portfolio. Program Management is execution-focused but from the perspective of understanding the schedules, resource needs, risks, costs, and dependencies across all projects in the organization rather than from the perspective of a specific project (which is handled by traditional *project management*).	• OMB Circular A-11 • NARA 801
Project Management	Project Management focuses on the effective execution of a single IT project in the areas of schedule, resource needs, risks, cost, and dependencies.	• OMB Circular A-11 • NARA 801

IRM Process	Description	NARA (or OMB) Policy Directives
	risks, cost, and dependencies.	• NARA 810
Records Management	The Records Management process ensures that all NARA operating units schedule new records series, and write and review records management requirements in alignment with all Federal records management directives.	• OMB Circular A-130 • NARA 101 • General Records Schedules (GRS)
Information Assurance	The Information Assurance process establishes the IT Security Program and the IT Security Architecture to define how NARA will secure its information technology (IT) assets. This process helps to ensure the confidentiality, integrity, and availability of NARA's information assets, and provides governance, program management, security services, and compliance auditing for all IT security activities across the agency.	• OMB Circular A-130 • NARA 804 • NIST Guidelines
SDLC	The SDLC process focuses on IT acquisition / development activities for an individual project or system. The SDLC process prescribes the steps, deliverables, and milestone exit criteria that an IT system project must satisfy as part of building (or acquiring) an information system, deploying it, and operating it. The activities guided by the SDLC process are typically a subset of the overall project management scope of a business initiative and are applicable when that initiative needs to integrate IT capabilities.	• OMB Circular A-11 • NARA 805

IRM Process Integration Strategy

Our strategy is threefold: (1) use the processes in the proper sequence, (2) assure that all of these processes are appropriately cross referenced to one another, and (3) effectively govern the processes to make sure that they are implemented as per our policies and guidelines.

Although these IRM management processes are interrelated, there is an optimum order in which they should proceed. The figure below provides a simplified overview of the sequencing of these processes. The basic premise behind our sequencing strategy is to ensure that enterprise planning precedes project execution, and business planning drives downstream IT system planning and IT project activities. It is important to note that information assurance and records management considerations are addressed across all IRM process areas.

A key part of our strategy is to use the EA process as the integrating IRM process for the agency. Business planning information is consolidated and refined via the Business Architecture. This information is then assessed for technology requirements to determine
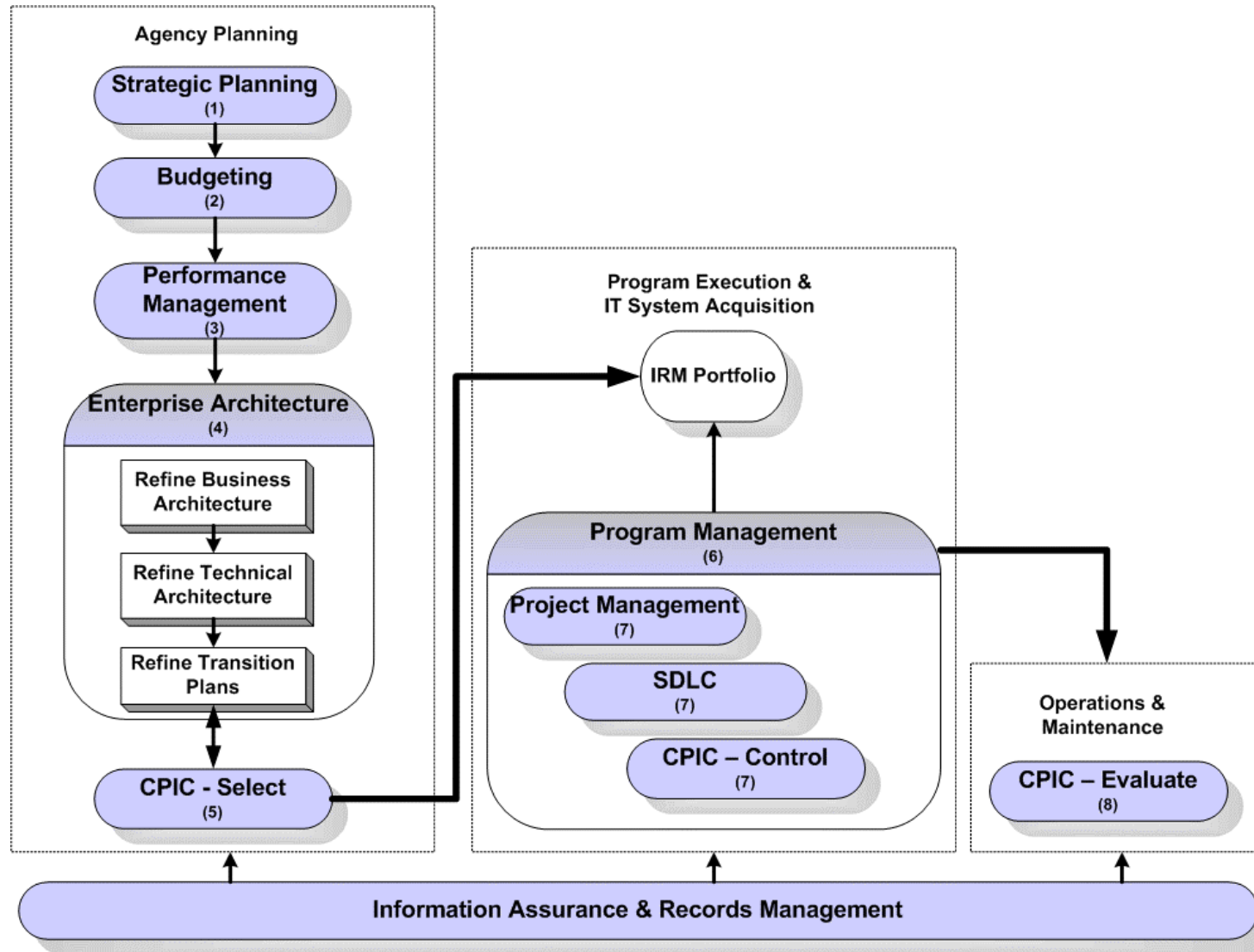
our needs for IRM projects. Once projects are determined to have acceptable business cases via the CPIC process, they become part of the enterprise transition strategy; they are added to the agency project portfolio; and they can begin the SDLC and the IT acquisition process. The final phases of the SDLC help us transition IT systems into operations and assure they are maintained throughout their useful lifecycle.

The final part of our strategy is to assure that all of our IRM policies and process guidelines are carefully cross-referenced to one another, and that they define key review criteria for milestone exit and approval by our governance committees.

Overview of IRM Process Sequencing

IRM Strategy Four: *Risk Management* – Manage IRM risk from an enterprise perspective, and establish an IT Security Program to assure the security and privacy of NARA's information assets.

Overview

Effective information security is essential to the mission of our agency and the expansion of Federal e-Government initiatives. As NARA moves to improve service to its customers and provide citizens with the capability to conduct a full range of online business—including transactions involving personal or financial data—citizens must be assured that their transactions are secure. Consequently, we must carefully analyze any privacy and security risks associated with new applications or uses of electronic data in an environment complicated by hacker attacks, web page defacing, and identity theft.

Our long-term goal is to achieve a fully integrated, continuously improving information security program. To achieve this goal, NARA will focus on integrating information security among people, processes, and technology across the agency, in alignment with and support of our Business Risk Management Plan. While reaching for operational excellence, the information security program will focus on a customer service oriented approach with risk based planning and decision-making. Therefore, the information security office becomes an ally to the business rather than a hindrance. For example, services such as strong authentication, identity management, host and network intrusion detection, and consolidated auditing and analysis are just a few security services that are demanded by modern business practices. The standard security goals of confidentiality, integrity, and availability serve to directly support our mission to safeguard and preserve records, provide essential documentation, and to provide access to NARA holdings.

IRM Risk Management Strategy

Our IRM risk management strategy is to integrate risk management, security, and privacy protections into all of our IRM management processes and all of our IRM activities from the development of our business architecture, through the execution of our IRM programs, to the operations and maintenance of our IT applications and infrastructure. Statutory imperatives set forth by the Federal Information Security Management Act (FISMA) and the corresponding IT security guidelines from the National Institute of Standards and Technology (NIST) designate security responsibility to an IT security program—and we must conform to this mandated guidance. However, we also recognize that we cannot effectively manage IT security from the perspective of a single program that is focused primarily on IT. Our challenge is to enhance and expand this focus to make security and privacy considerations integral to everything we do. To address the challenge of making security and privacy considerations an integral part of our agency culture, we will pursue the following strategic approach:

> ➢ We will maintain a *Business Risk Management Plan* and charter a *NARA Risk Review Board* (RRB) to identify, track, and manage business risks associated with IRM activities. The RRB will operate in concert with the ITEC and the ARB, and

assure that business program and technology risks are appropriately managed and mitigated commensurate with their potential impact to the agency's business.

➢ We will review all of our information assets from the business perspective, and categorize them according their sensitivity, importance to the business, and requirements for access control, protection, and recovery.

➢ We will maintain Continuity of Operations Plans (COOP) for our key business processes and services, and ensure that our investments in IT applications and infrastructure appropriately address our business continuity of operations needs.

➢ We will define and maintain an *IT Security Architecture* as an integral part of the EA and the authoritative IT security policy and standards guidance for the agency. This will help us assure that all FISMA and NIST requirements are uniformly and consistently addressed across our IRM activities, and that security and privacy considerations are integrated into the other domains of our architectural specifications and plans.

➢ We will include security and privacy review checkpoints as part of the milestone exit criteria in our key IRM management processes to include EA, CPIC, Project Management, and the SDLC. We will enforce these compliance checks via the ARB and CCB as part of our EA and system engineering compliance reviews.

➢ We will institute a rigorous Certification & Accreditation process to assure that all IT acquisitions address security and privacy considerations in accordance with our policies and standards, and that all security requirements are satisfactorily addressed prior to acceptance and deployment of IT applications and infrastructure components.

➢ We will develop a comprehensive security monitoring capability to detect, identify, track, manage, and resolve IT security issues in production—and we will ensure this capability is appropriately engineered, integrated, and managed within our overall IT operations environment and in alignment with our EA.

➢ We will perform periodic, independent reviews of all elements of our Security Program to ensure conformance with our policies and standards.

➢ We will provide mandatory security and awareness training for all NARA managers, staff, and contractors that have access to our facilities and information systems.

IRM Strategy Five: *IRM Governance* – Maintain IRM governance committees to oversee all IRM activities and assure conformance with business needs, EA guidance, and all applicable Federal laws, regulations, and guidelines.

Overview

Perhaps the most significant determinant of the success of our IRM activities is the effectiveness by which they are governed. Governance is achieved by establishing leadership teams to assure adequate oversight and review of the plans for our IRM programs and the outcomes they produce. Our objective is to assure that all IRM program plans, IRM activities, and IRM outcomes are reviewed from the business, financial, program management, and technology perspectives; and to assure that our IRM programs achieve the desired results for the agency. When IRM activities deviate from their plans or fail to produce expected results, our governance committees are chartered to direct replanning of the activities, or to terminate them if appropriate.

IRM Governance Strategy

Our strategy for IRM governance is simply to maintain governance committees, via formal charters, to oversee the major IRM process areas of the agency and establish checkpoints for governance committee review and approval within our IRM management processes. To accomplish this strategy we established the following three governance boards to oversee our IRM activities:

(1) The Information Technology Executive Committee (ITEC);

(2) The Architecture Review Board (ARB); and
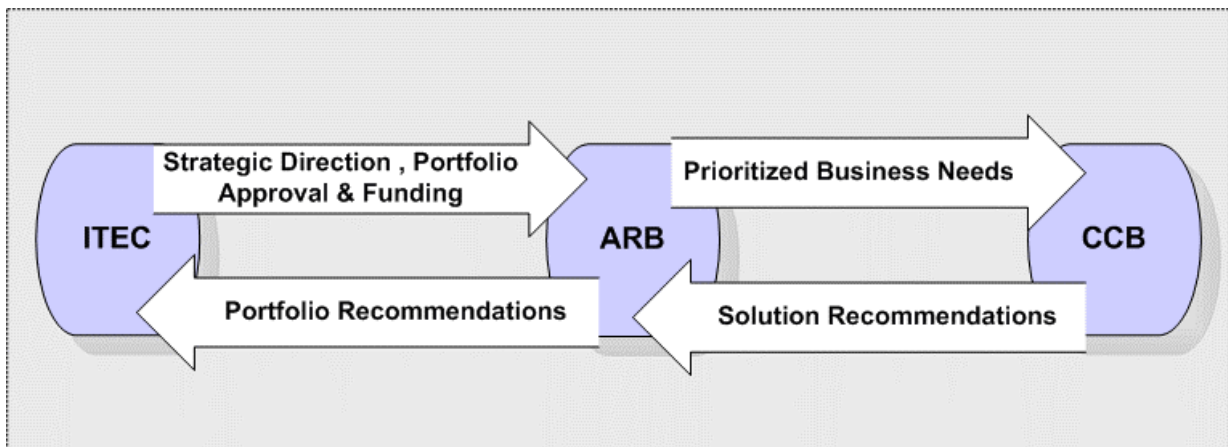
(3) The Configuration Control Board (CCB).

Governance for IRM planning processes is addressed primarily by the ITEC and the ARB via the EA process. Governance for project management processes and IT operations processes is addressed by the ARB and CCB via the SDLC process. Our EA, CPIC, IT Security, and SDLC policy directives all have milestone exit criteria that cross reference each other to assure that all IRM perspectives are considered when reviewing project plans and deliverables. The membership, purpose, and focus of these governance boards are described in the table below. The general interaction among the boards is depicted in the figure below.

Board	Membership and Purpose	IRM Process Focus
ITEC	The ITEC is chaired by the Archivist and is comprised of the senior business executive of the agency. The group's primary purpose is to oversee all business operations, and approve all investments, policies, and business plans for the agency. The ITEC is the executive steering committee	• Strategic Planning • Budgeting • Performance Management

Board	Membership and Purpose	IRM Process Focus
	for the agency.	• CPIC - Decide (i.e., Select)
ARB	The ARB is co-chaired by the agency CTO and the Product Management Director. It is comprised of business office senior managers and the IT office division heads. The ARB is the core steering committee for IRM process and work activities. The ARB oversees the agency's EA process and assures that all IRM investments and all IRM project deliverables (through the preliminary design phase of the SDLC) are reviewed for EA compliance and conform to EA guidance. The ARB also approves the annual EA Program Plan and all changes to the EA. The ARB is chartered to establish special working groups as required to support IRM program activities and facilitate IRM decision making. The ARB makes recommendations to the ITEC regarding the approval or disapproval of IRM investments.	• Enterprise Architecture • CPIC – Inform (i.e., Control & Evaluate) • SDLC • Program Management • Information Assurance • Records Management
CCB	The CCB is co-chaired by the Chief Engineer and the Director of IT Operations. It is comprised of the IT office division heads. The CCB is the steering committee for systems engineering and IT operations work activities. The CCB oversees the agency's systems engineering and IT system acquisition process, and assures that all IT project deliverables are reviewed for EA compliance and conform to agency standards. The CCB approves all changes to the IT Operations environment, and determines when new IT systems and infrastructure elements are ready for production operations.	• Project Management • SDLC • IT Operations • Information Assurance

Governance Board Interaction

IRM Strategy Six: *IT Infrastructure Support* – Engineer, maintain, and operate a robust IT infrastructure.

Overview

A sound IT infrastructure is an important and foundational element of our IRM strategy. The importance of IT infrastructure lies in its capacity to ease the implementation of value-added applications that often span business functions. Accomplishing NARA's strategic business programs depends on having a flexible, robust, secure, and scaleable IT infrastructure that supports web-based customer access to electronic records, lifecycle records management, and billable services. Requirements for these capabilities are imbedded in —and are critical to—each of our strategic business programs.

IT Infrastructure Support Strategies

Our first strategy is to establish a sound systems engineering capability for the agency. We recognize that one of our IRM principles is to outsource for the IT component and services we require rather than build them in-house. However, this approach still requires that we be able to document and manage our IT requirements, test purchased IT component for interoperability, and engineer IT components for deployment into our operations environment. For these reasons, we will perform the following activities.

➢ Develop and maintain a systems engineering program plan that allows us to track and manage all system engineering activities and prepare annual system release plans for the agency.

➢ Establish a standard application development and deployment platform (i.e., NISP) for our major, line-of-business applications.

➢ Develop systems engineering review criteria for all phases of the SDLC and integrate them within all IRM policy directives and process guidelines.

➢ Establish an enterprise requirements management process that enables us to trace and manage all IT requirements throughout the system development lifecycle. The process will include the implementation of an enterprise requirements repository.

➢ Install a systems engineering lab that allows us to prototype and engineer new IT components, services, and capabilities - and verify the operational readiness of purchased IT component in a "production-like" environment.
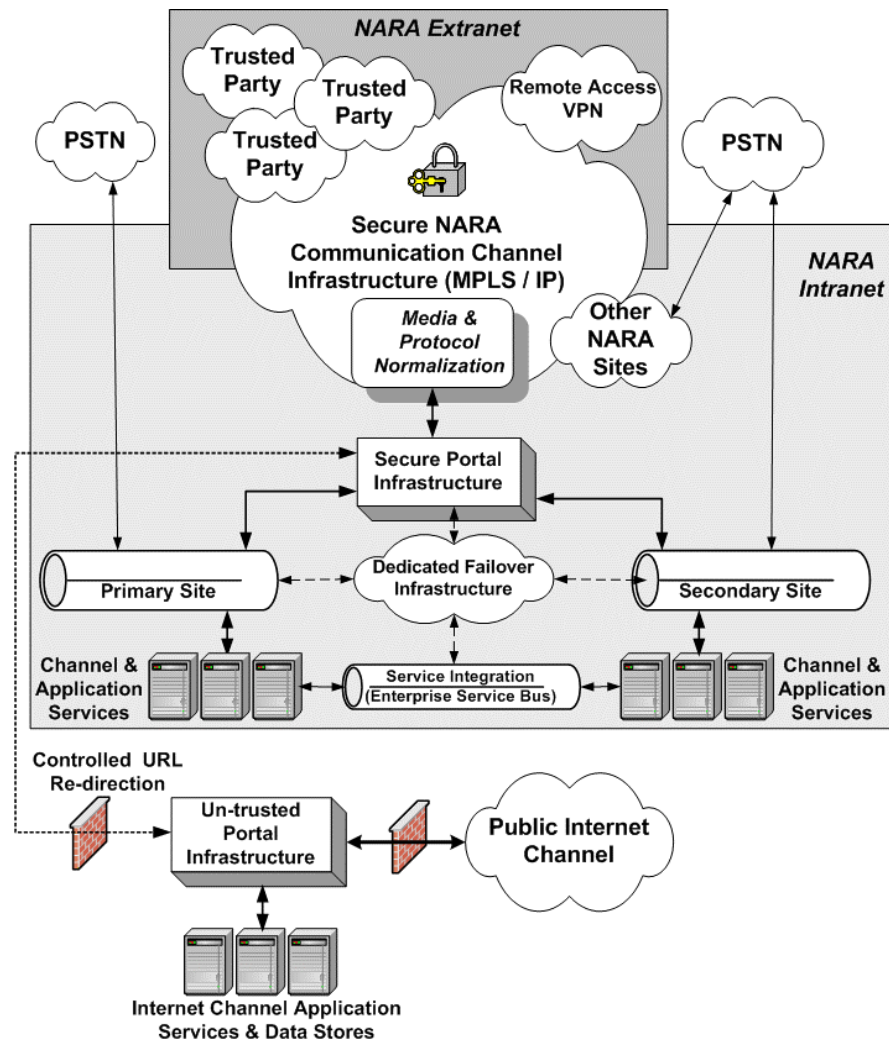
Our second strategy is to plan and engineer a NARANET infrastructure upgrade as depicted in the figure below. The infrastructure will provide the following general capabilities:

➢ Support data, voice, and video services and channel management;

➢ Position the agency for IPv6 implementation and Trusted Internet Connections (TIC) in alignment with OMB guidelines;

➢ Provide an extranet capability that allows us to interact securely with our business partners;

➢ Provide an enterprise service bus for service integration;

➢ Provide a failover capability for all network and platform elements in alignment with business continuity of operations (COOP) requirements; and

➢ Conform to the infrastructure design specifications expressed in the EA.[8]
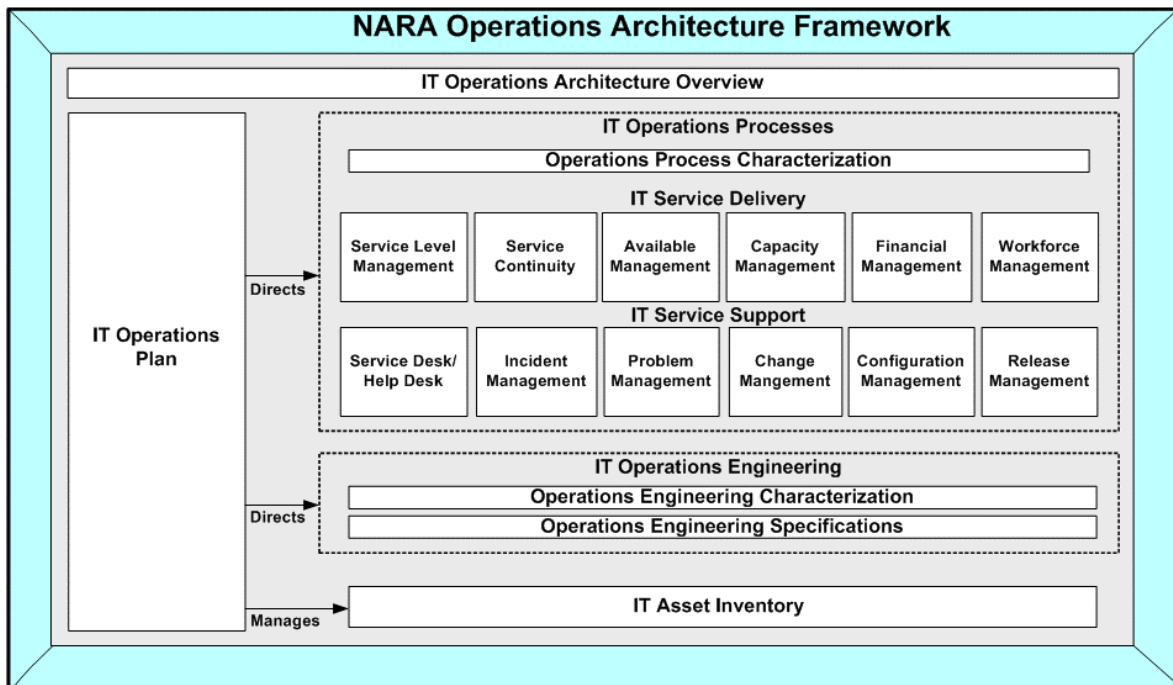
Next Generation NARANET – Concept

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[8] See the *Technical Infrastructure Design* section of the *National Archives and Records Administration Enterprise Architecture.*

Our third strategy is to re-compete our operations management contract and improve our IT operations environment. We will improve our operations environment to address all elements of the Operations Architecture Framework depicted below. The following activities are key to improving our IT operations capabilities:

➢ Develop, maintain, and manage to an IT operations management plan;
➢ Deploy, use, and manage enterprise-wide IT infrastructure monitoring capabilities;
➢ Maintain configuration management over all IT infrastructure components;
➢ Document all operations management processes and all operation engineering specifications, and keep them in a centrally managed and secure repository;
➢ Maintain the agency's IT asset inventory and integrate asset management with the acquisition process;
➢ Utilize the systems engineering lab for operations engineering activities; and
➢ Ensure IT operations and transition to support requirement are identified and addressed in the SDLC and as part of the systems engineering process.

NARA Operations Architecture Framework

IT Operations Architecture Overview

IT Operations Processes

Operations Process Characterization

IT Service Delivery

| Service Level Management | Service Continuity | Available Management | Capacity Management | Financial Management | Workforce Management |

IT Operations Plan — *Directs*

IT Service Support

| Service Desk/ Help Desk | Incident Management | Problem Management | Change Mangement | Configuration Management | Release Management |

IT Operations Engineering

Operations Engineering Characterization

Operations Engineering Specifications

Directs

IT Asset Inventory

Manages

Conclusion

This Strategic IRM Plan provides a short overview of the six IRM strategies that we need to focus on as an agency and identifies how we plan to continuously improve in each of these six strategic areas. We urge all NARA management, staff, and contractors, and any stakeholders in NARA's IRM activities to embrace this strategic plan, to review the more detailed planning guidance documented in our Enterprise Architecture, to become familiar with the policies we have established for IRM management processes and IRM governance, and support us as we move forward in our IRM endeavors.

Our six IRM strategies are as fundamental as they are challenging. We will continue to strive toward our goal of having IRM capabilities that are well aligned with our business objectives; that are supported by integrated management processes and governance reviews; that are guided by a comprehensive enterprise architecture; that are cognizant of risk, security, and privacy considerations; and that result in a robust, well-managed application portfolio and IT infrastructure for our business.