Reclamation
Information Technology/
Electronic Government Strategic Plan
FY 2007 - 2012

March 2007, Version 2.0
Chief Information Office

U.S. Department of the Interior
Bureau of Reclamation

Table of Content

List of Key Acronyms:

Chief Information Office (CIO)
Chief Information Officer's Council (CIOC)
Department of the Interior (DOI)
Electronic Government (E-Government)
Enterprise Architecture (EA)
Federal Enterprise Architecture (FEA)
Information Technology (IT)
Investment Review Board (IRB)
Office of Management and Budget (OMB)
President's Management Agenda (PMA)
Program Assessment Rating Tool (PART)

Message from Reclamation's Chief Information Officer

Supporting Reclamation's core mission, which is aimed at effectively and efficiently delivering water and power to millions across the western United States, is a primary goal of the Chief Information Office. Providing this support, however, has not always been an easy undertaking because of Reclamation's decentralized organizational structure, the number of diverse and aging systems in use across Reclamation, and the number of competing and diverse demands placed on the Information Technology (IT) Program. Nonetheless, the Chief Information Office has made significant progress in supporting Reclamation's mission-and business-related requirements by working closely with its customers located in the regions as well as other offices and by developing a well-rounded IT Program. With the continued support of the Chief Information Officer's Council (CIOC) and other organizations, the Chief Information Office hopes to make further improvements in Reclamation's IT Program. Some of these improvements include: modernizing mission and business IT capabilities, supporting the development of common and cost-effective IT solutions, and providing secure technologies and information management services across Reclamation.

In coming years, Reclamation's IT Program will likely continue to face a wide array of challenges in the areas of IT security, capital planning and investment control, enterprise architecture, project management, workforce development, information management, infrastructure, and telecommunications. A roadmap, such as the attached Information Technology and Electronic Government Strategic Plan for Fiscal Years 2007-2012, will help Reclamation prepare for these challenges while simultaneously supporting core mission requirements aimed at effectively and efficiently delivering water and power to the American public.

Randy Feuerstein,
Chief Information Officer
Bureau of Reclamation
(March 2007)

Planning Principles

The IT and E-Government Strategic Plan for Fiscal Years 2007-2012 aligns with Reclamation-wide goals and objectives as well as provides an overall strategy for accomplishing corporate-wide goals and targets established by the Department of the Interior (DOI) in support of the President's Management Agenda (PMA) and Electronic Government (E-Government). Through the application of some basic principles, Reclamation identified several key goals that not only directly or indirectly support mission and business goals and objectives but the wide array of IT goals, performance measures, and initiatives established by the Department and Office of Management and Budget (OMB). These key principles include:

- **Balancing Needs -** IT management goals, objectives, and decisions will be balanced with bureau-level resources, technologies, and mission and business requirements;
- **Applying Sound IT Practices** - Sound IT business practices will be applied to foster improvements in system and business processes as well as security over IT assets and information;
- **Expecting Results** - IT investments and initiatives will be managed to ensure results and benefits are derived from investments while minimizing risks in order to better support internal and external customer needs;
- **Leveraging IT Opportunities** - Externally mandated IT and E-Government initiatives will be managed in a cost effective and efficient manner as well as leveraged as much as possible at the bureau-level to ensure technical compatibility and cost savings.

The Chief Information Office (CIO), with the assistance of the Chief Information Officer's Council (CIOC), will continue to apply these principles to ensure that goals and objectives within this Plan are attained, and more importantly, that improvements are made in the delivery of IT services and systems through the elimination or consolidation of duplicative systems or services, reductions in service costs, improvements in mission or business operations or capabilities, and advancements in citizen-centered services. The CIO and CIOC also will continue to apply these principles when assessing the performance of Reclamation's IT Program, making changes to the IT Program, and rendering IT investment recommendations. (For information on the CIO governance structure, see Appendix V.)

I. Reclamation IT and E-Government Strategic Goals

Building on Departmental and Reclamation's strategic planning framework, the Chief Information Office identified several key goals for the IT Program. These goals support Reclamation's corporate-wide priorities as well as directly or indirectly support higher level IT goals and performance measures established by the Department and for E-Government. More importantly, the goals provide a framework for improving and transforming Reclamation's IT program and if implemented and achieved, likely will enable the organization to meet ongoing and future mission challenges in a more effective and cost efficient manner. Reclamation's IT Program goals fall within five key areas: (1) *IT Infrastructure Support*; (2) *Information Management*; (3) *Performance Management*; (4) *Program Maturity;* and, (5) *Mission Support/Alignment.*

Figure 1.1 : Key Areas Within Reclamation's IT Program
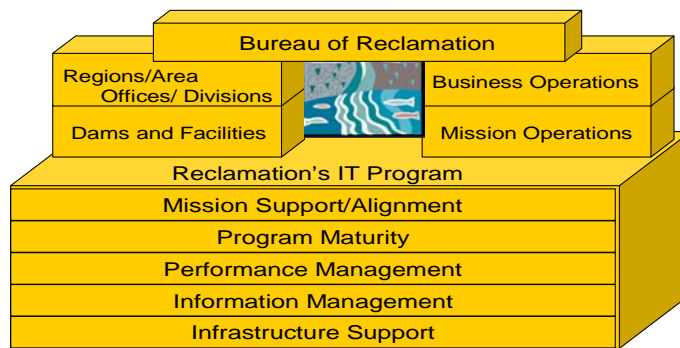
The following summarizes information on IT program goals; linkages to other IT or mission-related goals; strategic objectives associated with goals; steps needed to achieve the goals and strategic objectives; and measures to assess progress within these areas.

Infrastructure Support - Goal 1: Provide an IT infrastructure that supports common and reliable communications and computer capabilities for mission and business-essential programs and operations as well as promotes service improvements and cost savings

Linkages to Other Goals:
Goal (1) supports goals and objectives in *Interior's Government Performance and Result Act (GPRA) Strategic Plan for FY 2007-2012* and within the *Resource Use* area as well as goals in *Interior's Information Technology Strategic Plan for FY 2007-2012*, which

are aimed at using technology to promote operational and service improvements. This includes improvements in the following areas: consolidating technology and centralizing the management of wide area networks through the Enterprise Services Network; consolidating e-mail services as part of the Enterprise Messaging System effort; centralizing and improving access control system management through Active Directory, Public Key Infrastructure, and e-Authentication implementation; consolidating web management through the use of enterprise centers; consolidating help desk servicing and contracting activities and promoting the use of Enterprise Systems Administration to manage desktop and other services; utilizing new services, such as Internet Protocol Version 6 (IPv6), Voice over Internet Protocol (VOIP), Radio over Internet Protocol (ROIP), and Wireless services.

Goal (1) further aligns with objectives mandated by the PMA and Interior's E-Government Scorecard, which are aimed at promoting the development and deployment of enterprise-wide and government-wide systems that consolidate infrastructure and business processes through the use of fewer and more uniform or common systems and technologies based on business lines. At the Reclamation-level, goal (1) supports corporate priorities to develop and deploy common and more consistent systems and platforms to support mission-and business-related functions and operations, which likely will result in more effective and consistent solutions and reduced costs for stakeholders, as recommended by the National Research Council, National Academy of Sciences[1].

Strategic Objectives:
1.1 Consolidate IT infrastructure systems and communications capabilities as planned and leverage opportunities to improve IT capabilities, business practices or cost savings in IT Operations, regions, area offices, and across the network to the extent possible. This includes but is not limited to conducting server and platform evaluations and consolidating/upgrading server platforms/systems to reduce costs and servicing requirements within IT operations.
1.2 Increase customer awareness of IT resources, capabilities, and services and promote customer service through the use of standard business practices and online tools and other IT services.
1.3 Leverage enterprise licensing agreements and improve acquisitioning and licensing practices to the extent practicable and look for opportunities to mitigate the risks of unexpected costs and unused licenses as well as to identify any cost savings or cost avoidance opportunities.

Steps to Achieving Goal and Strategic Objectives:

- An Active Directory infrastructure is being implemented to enable consistent and centralized network management, reduce or consolidate server management activities, improve web-server hosting, standardized naming conventions for simplified management of network resources, and development and support of

---

[1] *Managing Construction and Infrastructure in the 21st Century Bureau of Reclamation*, National Research Council of the National Academies.

enterprise-wide standards, services, and economies of scale through the encouragement of consolidated or enterprise-wide service centers/contracts.

- Implement the Enterprise Services Network, Electronic Messaging System, and other mandated department-wide IT infrastructure initiatives to further consolidate and improve infrastructure and communications capabilities. While these initiatives may not generate near-term cost savings, look for opportunities to leverage these technologies to reduce servicing requirements and to re-allocate resources within Reclamation to improve IT services in other areas as well as communications and information sharing capabilities.

- Evaluate and identify opportunities to consolidate and improve other communication programs and service areas, including web server infrastructure capabilities and the radio program. Work with the Department to ensure that Reclamation interests are identified and addressed in these areas and to leverage opportunities for improvements in business practices or operations.

- Evaluate regional and area office infrastructure capabilities and identify any business practices and service areas that offer opportunities for cost savings or avoidance as well as improving existing capabilities associated with IT programs or operations.

- Assess help desk and other services support by the Chief Information Office and determine if these strategies are in line with infrastructure changes proposed by the Department; identify opportunities for any cost savings as enterprise-wide and Department-wide consolidation activities are implemented. This includes examining ways to develop and deploy enterprise asset management systems or tools to track assets, resources, and performance data.

- Investigate and deploy interactive and manual evaluation systems or processes to better identify and gauge IT infrastructure requirements as well as user needs, including but not limited to the extent to which hardware or software within aging platforms needs repair work or replacement, and the extent to which help desk services, web-based or online services, wireless services, and other technologies and IT tools are supported, utilized, and meet user needs as defined by satisfaction levels or ratings for selected services/systems/websites.

- Develop standard processes to identify, define, and track requests for system, application, database, and other communication services. Use the processes to address planning and funding issues associated with IT operations and to look for opportunities to streamline processes and minimize costs. In addition, use the information to identify any lessons learned and to develop future performance metrics.

- Develop strategies to evaluate licenses and other contractual arrangements associated with the management of Reclamation's IT infrastructure and look for

opportunities to streamline business practices associated with these tasks and any opportunities for cost savings in licensing arrangements or other acquisition approaches.

Measures of Progress:

- **Deployment of Common Services** - Completion of mandated enterprise-wide IT infrastructure services or initiatives launched to consolidate servers or other systems used in support of the IT infrastructure and regional general support system structure, including but not limited to Enterprise Services Network, Electronic Messaging System, Active Directory, Radio Management initiatives, as well as the completion of transition plans and use of enterprise-wide service centers and contracting mechanisms, demonstrating cost avoidances or other improvements. This includes the consolidation of servers to reduce maintenance tasks and costs, where appropriate.

- **Completion of Implementation Strategies -** The completion and implementation of transition plans for enterprise-wide solutions (including plans for an enterprise-wide asset management initiative or system) and the timely deployment of solutions at regional and area office levels as well as business and other organizational units, with minimal disruption to existing infrastructure services.

- **Promotion of IT Services** - The establishment of standard service request processes and utilization and other survey assessments to determine the extent to which IT infrastructure services are utilized or underutilize and the extent to which customers or users rely on IT services and are satisfied with such services, including but not limited to the use of help desk services, online websites, web tools, and other services. Use this information to establish baseline performance metrics and to make improvements in service areas as needed. The information also will be used to identify any opportunities to eliminate IT services based on customer input and utilization rates.

- **Participation in Departmental Teams -** The involvement of team members in Departmental, enterprise-wide, and E-Government initiatives or other Reclamation projects (e.g., Managing for Excellence teams and other conferences) to ensure that IT program issues relevant to Reclamation are addressed as initiatives are unveiled and/or implemented. Make effort to involve non-IT organizations within Reclamation to ensure that organization-wide or mission requirements are addressed.

Information Management - Goal 2: Enable the development and deployment of common applications, tools, and services for greater information and knowledge sharing and to promote better records and information management practices

Linkages to Others Goals:

Goal (2) aligns with goals and objectives in the Department's *IT Strategic Plan for FY 2007 - FY 2012* and *E-Government Strategy* document. Specifically, this goal aligns with the Department's strategic outcome goals to improve information, records, and web management across the organization, with an emphasis on establishing standards and architectures where deemed appropriate. In the *E-Government Strategy* area, this goal aligns with objectives to: consolidate web management through the use of enterprise centers; provide enterprise-based operations that improve the quality, access, and sharing of data; improve management and mission-related support capabilities, including payroll processes, financial analysis tools, and asset management tools; ensure that up-to-date, easy-to-use, and centralized tools and information are made available to users; improve operating efficiencies and effectiveness through internal information sharing and collaboration using data management, electronic records management, and other electronic tools.

Goal (2) further supports Reclamation's effort to improve IT capabilities to better support water management and recreational activities and to ensure that these capabilities are developed in ways that support 'seamless' interactions and communications with key partners, as prescribed by the NAS. Developing the tools and technologies to support information sharing with internal and external partners or stakeholders is very much in line with these corporate-level priorities.

Strategic Objectives:

2.1 Develop procedures and tools to more uniformly and efficiently manage Reclamation's web-enabled services, including providing a stable and secure environment to disseminate mission and business information to internal and external stakeholders; developing tools to standardize, secure, test, and improve the quality of web information; and implementing techniques to obtain customer input on web services.

2.2 Educate the user community (i.e., regions, area offices, and other organizations) about the IT program, new IT initiatives, and existing geospatial and other analytical tools to increase awareness, knowledge of technology capabilities, and other state-of-the-art tools and applications that may be used within the existing environment to enhance information sharing among employees and across the organization. Through outreach efforts, help executive and business system owners and IT managers better understand their roles and responsibilities in managing sensitive information (e.g., cultural resources, land records, personnel information, threatened and endangered species, etc.) essential to operations.

2.2.1 Leverage these efforts to encourage data sharing and the use of common and collaborative data sets and tools and the implementation of IT security and privacy standards. Further, work with the end user community to identify opportunities to capture important and mission-related data, models, whitepapers, and other work for retention and to enhance knowledge sharing across the

organization, especially in critical areas where succession plans may fall short (e.g., SCADA design and operation, engineering, etc.).

2.3 Encourage the user community to be involved in the process of identifying new technologies and tools for mission and business-related work by standardizing and integrating the IT investment proposal process within Reclamation and as part of various enterprise architecture efforts and to enhance Reclamation's web environment to better capture ideas for business or mission improvements and costs.

2.4 Develop business requirements and modeling practices for improving the development and deployment of IT systems as well as business practices; this should include efforts to improve data management, business data stewardship, data quality and information sharing across the organization.

2.5 Develop collaborative processes to regularly manage and monitor data sharing modeling and enterprise architecture-related initiatives to promote the utilization of common systems, application, and data sets and information sharing.

Steps to Achieving Goal and Strategic Objectives:

- Standardize web development, testing, and maintenance practices to better ensure Reclamation's web environment is uniform, customer-focused, and secure. Implement these procedures and look for opportunities to identify any problems or areas for improvement - including ensuring compliance with applicable privacy, records management, and dissemination laws and regulations.
- Evaluate and utilize data modeling tools and other IT tools to create data sets and determine whether these models can be further improved to better leverage information sharing capabilities within the organization.
- Develop consistent records management policies and maturity management practices to foster improvements across the organization.
- Promote educational and outreach programs to enhance user awareness and knowledge of IT data management services and processes. Look for opportunities to establish collaborative data stewardship and sharing pilots or initiatives to foster data and information sharing across the organization.
- Standardize, integrate, and simplify IT investment and decision-making processes to minimize redundancies and ensure that new IT proposals address business requirements; provide for uniform oversight measures to ensure that IT proposals are developed and/or purchased in a consistent manner.

Measures of Progress:

- **Utilization of Common Web-Supported Services** - The Chief Information Office and Office of Public Affairs will develop procedures for standardizing web development and testing practices and that promote the implementation of common web security measures. Procedures will be in line with applicable requirements, and conformance will be based on survey results that determine the extent to which web developers and content managers understand and follow

procedures. In time, selected web sites will be examined to ensure compliance with procedures, with results provided to the Office of Public Affairs for follow-up action.

- **Utilization of Outreach and Educational Programs/Groups -** The Chief Information Office will conduct regular educational and outreach programs to enhance the awareness and knowledge of IT program activities, services, data and records management requirements, and other processes, including developing briefings, questionnaires, memos, brochures, videos, and online or web sites to disseminate information to customers and/or the public. This includes establishing collaborative data sharing user groups involving regions and area offices as needed and to improve business practices.

- **Development and Review of Information Management Practices -** Review information management policies and practices to ensure compliance with applicable federal laws and guidance. In addition, effort will be made to look for ways to make data and information management processes more consistent with privacy and other federal laws (e.g., FOIA, FISMA, etc.) and regulations - including through privacy impact assessments, system requirement analyses, and data and information modeling techniques. This also includes participating in department-wide teams engaged in establishing web standards, content management requirements, privacy standards, and information dissemination practices.

- **Development and Utilization of Standard IT Proposal Process** - The CIO will work with other leadership, oversight, and budget groups to standardize terminology and processes for initiating the development and piloting of IT initiatives or proposals for state-of-the-art tools to ensure uniform and simplified investment management practices are applied and communicated to the user community. This includes purchasing IT systems, tools, and other devices requiring significant funding and the use of common business requirement documents and tools.

- **Application of Data Models and Identification of Common Data Sets-** The CIO will assess the extent to which progress has been made in applying data modeling tools and developing common data sets for mission-essential operations and ensure these measures are incorporated in the IT proposal process.

Performance Management - Goal 3: Leverage opportunities to utilize Department-wide, E-Government, and Bureau initiatives to eliminate system redundancies and antiquated business practices for increased productivity and/or cost savings

Linkages to Other Goals:
Goal (3) supports Interior IT Strategic goals in the areas of Enterprise Architecture and E-Government, including developing agency-wide/government-wide blueprints, completing enterprise architecture models, minimizing system redundancies, increasing the re-use of

IT components and applications, reducing IT ownership costs. In addition, the goal supports objectives in the *Department IT and Business Enterprise* document for E-Government. Many of these goals or objectives are aimed at improving the efficiency and effectiveness of business processes and leveraging enterprise architecture to improve mission performance and realize strategic goals and objectives. Objectives further supported by Goal (3) include: providing IT services that help the organization promote streamlined and standardized business processes through use of automated business rules and resource sharing and the alignment and implementation of technology with business strategy to improve mission performance, establish cross-business data sharing and integration and technology component reuse.

Further and as part of the Department's *E-Government Strategy*, goals and objectives supported by Goal (3) include: implementing E-Government strategies to improve the effectiveness of services, such as the use of technology to better manage resources to promote responsible use and sustain a dynamic economy; providing recreation opportunities for America; safeguarding lives, resources and property; advancing scientific knowledge; and improving the quality of life for communities, as well as employing E-Government solutions to achieve Department-wide management excellence goals and goals prescribed by the PMA.

Strategic Objectives:

3.1 Initiate and complete key phases of the Water Management Modernization Framework and launch and complete work on the Dam Safety Blueprint initiative. Use information from these efforts to promote efficiencies in mission-and business-related practices and systems, including identifying opportunities for streamlining business practices and reducing system and process redundancies.

3.2 Ensure Reclamation IT and Mission/Business representatives are involved in enterprise-wide, E-Government, and cross-cutting initiatives aimed at achieving IT goals and goals prescribed by the PMA as well as Management Excellence. Identify opportunities to leverage these initiatives and improve business practices and IT systems and information sharing internally.

3.3 Implement an IT capital planning and investment control framework that integrates enterprise architecture principles and practices as well as initiatives endorsed by the Framework and/or Blueprint.

Steps to Achieving Goal and Strategic Objectives:

- Using the completed Water Management Modernization Framework launch the work necessary to complete blueprint(s), involving key stakeholders across the organization and the Department. This includes completing initial phases of the Dam Safety Blueprint, the first of multiple water-related blueprints.

- Communicate regularly with appropriate IT and mission/business partners responsible for or involved in the blueprint(s), E-Government initiatives, lines of business/data advisory initiatives/committees, enterprise-wide projects, and

ensure milestones are identified and understood. Ensure strategies or migration plans are in place to leverage these initiatives in support of Reclamation programs and operations.

- Establish an IT investment review process for Budget Year 2008 and out-years that integrates enterprise architecture principles and practices to rank and prioritize investments based on agreed-upon standards, which incorporate and address E-Government, lines of business, and enterprise architecture goals.

Measures of Progress:

- **Completion Initial Water Management Blueprint (Dam Safety)** - Using the Water Management Framework, complete one blueprint and gauge progress in the areas of dam safety to determine value of effort, including identifying any opportunities to improve or streamline business practices and/or achieve cost savings.

- **Completion of Enterprise Transition Plan Initiatives-** Regular meetings and updates on the progress made in achieving milestones in the Department's soon-to-be completed Enterprise Transition Plan will be used to assess progress in cross-cutting areas. The milestones that relate to Reclamation will be tracked and the percentage of milestones achieved will be used to measure progress.

- **Utilization of EA Investment Assessment Tool** - Completion of an IRB/CIOC investment evaluation/rating tool or process that integrates enterprise architecture principles. Use the tool or process to identify and reject IT investments for the BY 2008 or BY 2009 cycle.

Program Maturity[2] - Goal 4: Maintain an IT Program that fosters the maturity of organization-wide IT practices in the areas of security, enterprise architecture, capital planning and investment control, workforce development, and information and records management

Linkages to Other Goals:

Goal (4) supports multiple goals within Interior's *IT Strategic Plan for FY 2007 - 2012* and many of the goals in the Department's GPRA Strategic Plan *for FY2007-FY2012,* which are aimed at improving the efficiency and effectiveness of business processes and practices within Resource Use, Recreation, and Mission goal and performance areas. This includes objectives established to improve the maturity of organizational business

---

[2] Maturity is a term used to describe the extent to which an organization executes key practices and processes based on industry guidelines, best practices, and models within a field of practice, such as project management, enterprise architecture, and IT investment management. A higher maturity level is given to organizations that execute a greater number of key practices and processes.

practices within the areas of IT security, capital planning and investment control, IT workforce development, IT project management, records management, and architecture. The overriding objective is to improve business practices to further strengthen security over systems, investment decision-making capabilities, information management capabilities, and enhance compliance with common business standards and practices across the organization. Additionally, the goal supports corporate-level priorities to develop and implement consistent practices and operations to foster improvements across Reclamation and to better address stakeholder needs in a more consistent and uniform manner.

Strategic Objectives:

4.1 Develop strategies to ensure Reclamation's IT security, capital planning, and architecture efforts are based on repeatable best practices and maturity frameworks endorsed by the IT industry, Government Accountability Office, Federal CIO Council, as deemed appropriate. Update IT policies and directives and standards and guidance as needed.

4.2 Collaborate with Reclamation's Human Resources Division and other divisions to ensure various workforce planning and other business lines identified as part of Interior's Enterprise Architecture and at an E-Government (Quicksilver) level are being addressed and leverage opportunities from these initiatives to improve Reclamation business processes or systems to the extent practicable. Develop plans or update plans as deemed appropriate and to ensure that IT programs and other business functions are addressed as needed.

4.3 Develop maturity and IT management guidance as needed and to ensure Reclamation requirements and business practices conform to federal standards and requirements, including the areas of records management, privacy, geospatial data and information sharing, and web site management (e.g., National Archives and Records Administration, OMB Circulars, and other geospatial and web site guidance) as well as DOI requirements in a timely manner.

    4.3.1 Increase user awareness of records management requirements and practices through outreach efforts and informational brochures and briefings. Also, develop techniques to make improvements in data integrity, business practices, data security, and data privacy while implementing guidance or requirements. Work and collaborate with appropriate DOI Teams, E-Government Teams, and system-level teams within Reclamation (e.g., RMSS, GIS, and others) to ensure standards are appropriate and applied as required.

Steps to Achieving Goal and Strategic Objectives:

- The CIO will identify repeatable best practices and maturity frameworks to apply within Reclamation's IT program and establish action plans as needed to implement best practices or achieve action plan milestones. IT policies and directives and standards will be reviewed and updated to address new

requirements or gaps as needed.

- The CIO will work with Reclamation's regions, offices and other organizations to identify IT initiatives underway or planned to enhance business practices, including IT workforce training and development.

- The CIO will develop a process to ensure its information and records management standards and guidance are in line with applicable DOI and NARA requirements and implement changes in a timely manner based on milestones established for federal agencies. In addition, the CIO will develop informational and promotional materials for users on records management issues and practices and conducting regular reviews of compliance with applicable records management requirements and guidelines.

- The CIO will ensure information requests under the Freedom of Information Act (FOIA) are in line with applicable guidance established by the DOI and work to improve the quality and consistency of agency-level responses. In addition, the CIO will develop a framework to share data standards and privacy requirements and for integrating changes based on user input - including geospatial data.

Measures of Progress:

- **Utilization of Maturity Models to Improve the IT Program** - Completion of action plan tasks established to improve organizational maturity levels for capital planning, architecture, and security where appropriate. The Department has identified the maturity models that will be followed across the organization. In some cases, OMB has mandated use of the models. Otherwise, identify best practices and implement these practices when deemed appropriate.

- **Achievement of IT Workforce Training Goals** - Define and coordinate HR goals internally and with appropriate organizations to ensure IT workforce development issues are addressed and that PMA goals are achieved.

- **Utilization of Information/Records Management Guidance** - Completion of updated information and records management guidance and establishment of a process to assess FOIA responses to ensure consistency and quality, including statistics on briefings and attendance levels, training opportunities, and other outreach efforts to enhance user knowledge of records management requirements and processes, as well as reviews of compliance with applicable data management requirements and recommendations for improvements.

Mission Support/Alignment - Goal 5: Promote the adoption of IT programs and services that enable mission and business partners to attain strategic water resource management, hydropower, and other business or financial management goals and objectives

Linkages to Other Goals:
Goal (5) aligns with several of Reclamation's corporate-level priorities and *Water 2025* goals, including maintaining and modernizing existing water facilities so they will continue to provide water and power; enhancing opportunities for water conservation, use efficiency, and resource monitoring to allow existing water supplies to be used more effectively; improving water treatment technology, such as desalination, to help increase water supply; using collaborative approaches and market-based transfers to minimize conflicts; and, ensuring the existing water supply infrastructure can provide additional benefits for ongoing and emerging needs for water. Goal (5) also supports recommendations outlined in the National Academy of Sciences to better address infrastructure issues and costs.

Strategic Objectives:
5.1. Institute standard IT life cycle and project management practices to ensure that consistent and integrated approaches are used to initiate, evaluate, and recommend or terminate IT project proposals across Reclamation.
5.2. Collaborate with Reclamation regions, area offices, and mission and business organizations on developing electronic and state-of-the-art tools to share information on best practices associated with water, resources, and financial management functions.
5.3. Develop more effective outreach or survey tools to identify and evaluate the tools and systems or information needed by mission and business partners to perform their work more effectively and efficiently.

Steps to Achieving Goal and Strategic Objectives:

- The CIO will develop a proposal or issue paper for Reclamation leadership teams and councils to develop and employ a more consistent and integrated framework for initiating, evaluating, and recommending or terminating IT project proposals.

- The CIO will conduct outreach efforts to identify the system, tools, and support needed by mission and business organizations in Reclamation and on obtaining more information on best practices. This likely will involve collaboration with the Office of Program and Policy Services, as sponsor of Reclamation's Water Management Framework.

- Information resulting from surveys or informal feedback on best practices or other tools will be collected and shared with other Reclamation organizations via the CIO's web site.

Measures of Progress:

- **Utilization of a Common IT Investment Management Framework** - Completion of an issue paper or proposal for leadership teams and councils within Reclamation to employ a consistent process for initiating, evaluating, and recommending or terminating IT project proposals. Use the model as part of the IT investment review process for budget year 2008 or 2009.

- **Identification of Business Priorities** - Completion of at least one survey sponsored by the CIO or as part of the Water Management Framework to obtain information from mission and business organizations within Reclamation on information and technology requirements, including but not limited to more information on business priorities. Use information gathered from this effort to prioritize and rank IT investments.

- **Establishment of Outreach Efforts to Identify Business and Mission Priorities** - Creation of a survey tools or instruments to better capture and identify the technologies or services needed by mission and business partners/ stakeholders. Work with mission and business organizations on strategies to provide the tools or resources (experts) to meet operational priorities and other work-related requirements, including supporting audit and financial requirements, providing IT acquisition and contracting advice and/or expertise, and supporting IT projects through project management or the employment of consistent IT practices. In the future, use survey tools to determine whether business and mission stakeholders collaborate with and rely on the IT program.

II - Results, Challenges, and Opportunities

In 2006, Reclamation's IT program achieved results, encountered challenges, and identified opportunities, making the program much more effective and efficient. Specifically and based on scorecard feedback provided by the Department, Reclamation's IT program contributed to a wide array of organizational goals and objectives and continues to make significant progress in a number of areas. As part of the President's Management Agenda (PMA) scorecard evaluation process, Reclamation's IT program received high marks or satisfactory ratings in a number of IT program areas, including

- **IT Investment Management Maturity -** Reclamation received a '*Green*' rating for work in this area and for implementing 55% of the key activities prescribed in the Government Accountability Office's IT Investment Maturity framework for level 3 in advance of established milestones. This means that Reclamation established a defined, repeatable governance structure for IT investment management and a process to evaluate IT investments. In addition, Reclamation ensured that IT project managers received required project management training and had the necessary tools and templates to complete project tasks as required. Reclamation's effort in this area will likely lead to business process improvements and cost savings through better project management, which includes more IT projects being managed on-time and within budget, and projects that support multiple and cross-functional mission and business needs.
- **Enterprise Architecture** - Reclamation received a *'green'* score from the Department for leading the Water Management Modernization Blueprint Framework initiative and developing a strategy to complete water-related blueprints as part of a broader, department-wide effort to improve business processes and operations. The Dam Safety blueprint initiative also was the first of potentially multiple blueprints launched within this area and is being led by a Reclamation team consisting of mission and business-related stakeholders - not IT. Taking this step will likely improve Reclamation's ability to lead and foster changes in water management processes.
- **Infrastructure -** Reclamation completed initial steps in multiple department-wide enterprise initiatives, including Active Directory and Enterprise Services Network. These infrastructure-related initiatives will help Reclamation standardize perimeter network security and infrastructure management capabilities, and over the long-term, lead to some reductions in the number of IT personnel required at the bureau and office levels for network support. Changes in this area will allow Reclamation to re-deploy technical personnel to other operating areas and likely will lead to improvements in IT operations. Though Reclamation received a '*green*' score, more work must be completed to fully realize the benefits from infrastructure modernization and consolidation efforts.
- **IT Security -** Reclamation received a *'green'* score from the Department for maintaining an effective IT security program and taking appropriate measures to safeguard systems and data from unauthorized use, destruction, and attack.

The importance of maintaining an effective IT security program has been underscored by recent scandals at the Department of Commerce (loss of over 1,000 lap top computers) and Veterans Affairs (loss of personal data for thousands of veterans) and likely will remain a focus of the Congress as public scrutiny increases over federal information security and management practices, making this program area more critical.

- **E-Government** - Reclamation received a '*green*' score from the Department for participating in multiple E-Government initiatives and providing sub-project management support to these initiatives as needed. While Reclamation does not lead any of the government-wide IT initiatives, it continues to play an important role in projects by actively participating in department-wide and government-wide initiatives - including Geospatial One-Stop, E-Grants, and the HR line of business effort.

Though Reclamation's IT program continues to be rated as '*green*' or '*satisfactory*', more will be done to build on these achievements and to look for opportunities to improve IT performance through better strategic planning and addressing challenges in a proactive manner. Some of these challenges include providing the necessary IT support for core mission and business operations while simultaneously supporting enterprise-wide IT initiatives. This is particularly true when trying to make the case for investments in costly infrastructure technologies, such as Active Directory, new servers, or changes to programming languages or code, during leaner budgetary periods and when system and communication capabilities continue to operate without disruption. Investing in these '*utility-like*' technologies, however, is essential in preparing for the development and deployment of future technologies and in paving the way for more significant business process improvements. Another challenge is the need to '*maintain the course*' when organizational, procedural, and cultural changes take time and buy-in from multiple stakeholders. It is easy to lose the way when progress occurs slowly or in an incremental manner over a number of years.

Strategic planning continues to be a way to help address organizational challenges and to communicate important information on IT programs, initiatives, and projects to Reclamation regions, area offices, and divisions or units. Reclamation's *IT and E-Government Strategic Plan* is a roadmap and provides overall direction on IT goals, objectives, and performance measures. It also serves as a reminder of long-term goals and objectives for the IT program. More importantly, the plan helps keep the IT Program focused on worthwhile mission and business goals and objectives.

Appendix I - Understanding Information Technology and Electronic Government Requirements

Strategic planning would be remiss if due consideration were not provided to the information technology-related laws, regulations, and instructions governing federal agencies and IT programs. The Congress and the Office of Management and Budget (OMB) have relied on legislation and regulations to ensure the proper acquisition, management, development, deployment, and oversight of information technology and related resources. To illustrate, the Paperwork Reduction Act of 1995 and Information Technology Management Reform Act of 1996 were enacted to improve the way federal agencies acquire and manage technology. Federal agencies were granted authority and responsibility to make measurable improvements in mission performance and in the delivery of services through the strategic application of IT. The legislation also built upon requirements in the Government Performance and Results Act of 1993 and re-focused agency-level efforts on IT and the strategic management of IT-related resources.

Legislation, the Clinger-Cohen Act of 1996, also created positions for Chief Information Officers and gave these officials the visibility and management responsibilities necessary to be held accountable for IT programs and results, including:

- advising the agency head on technology-related matters,
- developing and implementing interoperable, secure, and shared systems and infrastructure capabilities,
- developing a trained and skilled IT workforce; and,
- developing IT procedures to standardize and improve business practices and reduce redundancies across the organization[3].

The Clinger-Cohen Act of 1996 is perhaps the most widely known piece of legislation and provides key requirements for managing IT as an ongoing coordinated program within government. The Act not only mandated the establishment of defined duties and responsibilities for Chief Information Officers but required the implementation of capital planning and investment controls and established a requirements for IT strategic planning and performance management in these areas. OMB supplemented the Clinger-Cohen Act with implementing instructions - Executive Order 13011 and Circular A-130 - and required prompt implementation of provisions associated with the Clinger-Cohen Act. In 2000, Congress enacted the Electronic Signatures in Global National Commerce Act (ESIGN) and Government Information Security Reform Act (GISRA) to build upon some of these requirements and promote the use of electronic signatures and public key infrastructure (PKI) as well as the application of sound IT security practices within government.
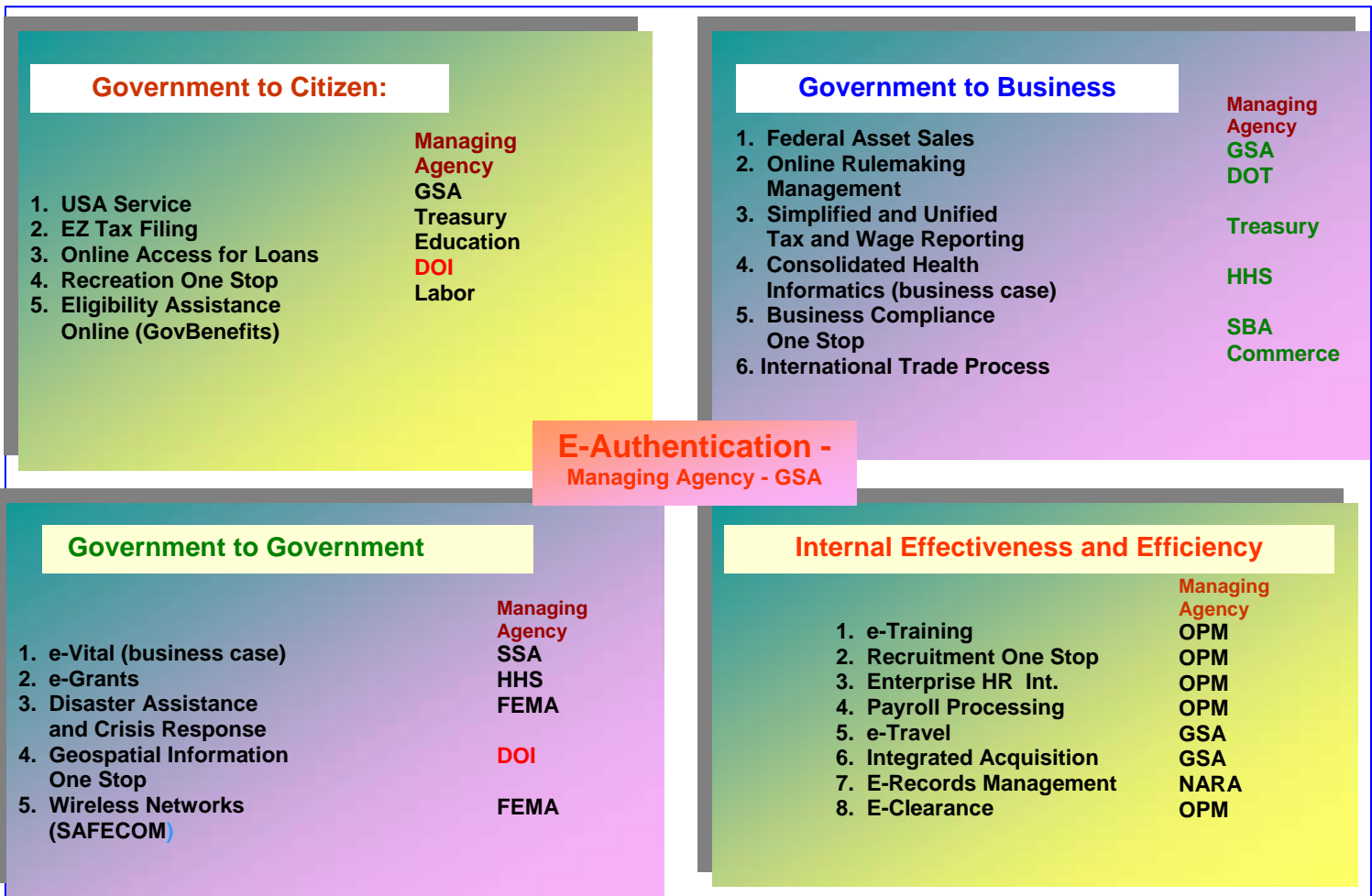
By 2002, Congress reinforced earlier IT mandates and enacted the Electronic Government Act, which included Title III or the Federal Information Security Management Act (FISMA), to encourage the use of web-based technologies and to

---

[3]For more information, see the Office of Management and Budget, *Executive Order 13011*.

provide for more citizen-centered IT services and improvements in IT security practices and performance across government.

The E-Government Act also called for the development and deployment of various cross-cutting, government-wide IT initiatives to foster transformation in functional areas, such as payroll processing, training, and personnel security screening practices, and to promote government to citizen, business, and government information sharing capabilities and other internal efficiencies across government. Initial cross-cutting initiatives launched as a result of the E-Government Act became known as *Quick-Silver* projects and 25 initiatives are now underway across government. Lead agencies have been assigned to manage initiatives and these agencies are responsible for the development and deployment of the necessary technology, with the financial assistance and involvement of other federal agencies. The Department of the Interior is currently the managing agency for two of the 25 initiatives. The following figure provides information on the 25 E-Government initiatives underway.

Figure: 25 E-Government Initiatives

Government to Citizen:

	Managing Agency
1. USA Service	GSA
2. EZ Tax Filing	Treasury
3. Online Access for Loans	Education
4. Recreation One Stop	DOI
5. Eligibility Assistance Online (GovBenefits)	Labor

Government to Business

	Managing Agency
1. Federal Asset Sales	GSA
2. Online Rulemaking Management	DOT
3. Simplified and Unified Tax and Wage Reporting	Treasury
4. Consolidated Health Informatics (business case)	HHS
5. Business Compliance One Stop	SBA
6. International Trade Process	Commerce

E-Authentication -
Managing Agency - GSA

Government to Government

	Managing Agency
1. e-Vital (business case)	SSA
2. e-Grants	HHS
3. Disaster Assistance and Crisis Response	FEMA
4. Geospatial Information One Stop	DOI
5. Wireless Networks (SAFECOM)	FEMA

Internal Effectiveness and Efficiency

	Managing Agency
1. e-Training	OPM
2. Recruitment One Stop	OPM
3. Enterprise HR Int.	OPM
4. Payroll Processing	OPM
5. e-Travel	GSA
6. Integrated Acquisition	GSA
7. E-Records Management	NARA
8. E-Clearance	OPM

Source: *Department of the Interior, Information Technology and Business Enterprise Strategic Plan*, June 2005, and the Office of Management and Budget's E-Government web-site - http://www.whitehouse.gov/omb/egov/c-1-citizen.html.

In response to legislation, OMB issued Circular A-11 to improve IT investment controls and management practices as well as updated provisions in Circular A-130 to improve IT planning and security management practices across government. OMB continues to update guidance and implementing instructions related to these Circulars and on occasion, supplements guidance with memoranda or directives. For example and in 2004, the OMB, with input from the Department of Homeland Security and the Bush Administration, issued Homeland Security Presidential Directive 12 (HSPD 12) to address requirements in the E-Government Act and other legislation related to the adoption and use of smart card and electronic signature technology. HSPD 12 requires federal agencies to use smart cards as part of the credentialing process for federal employees and contractors and to use the technology to enhance security over government facilities and systems, with an over-arching goal of enabling information sharing and the use of electronic signatures through public key infrastructure (PKI) capabilities.

In addition to providing guidance, OMB uses other techniques to promote the adoption and implementation of IT goals and requirements identified by the President and other government-wide councils and industry groups. The OMB uses a scorecard system to assess federal agency progress in implementing mandates under the PMA. The PMA, while not exclusive to IT, provides annual performance goals for federal agencies to implement within key areas as well as metrics to gauge progress in addressing cross-cutting goals aimed at improving the effectiveness of government programs and operations, including E-Government. Annually, OMB uses the scorecard to evaluate the performance of federal agencies in the selected areas, with red (failing), yellow (marginal), green (passing), and blue (model or best practice) indicating performance scores. Federal agencies typically develop similar scorecard system to prompt action at the bureau and office levels and to ensure achievement of PMA performance and other metrics across the department or organization.

OMB also uses the Chief Information Officers' Council Federal Enterprise Architecture effort to promote IT goals and transformation within government. About 39 lines of business have been identified through the FEA and to promote the consolidation and integration of government services and programs for greater efficiencies and cost savings across government. Through this effort, all federal agencies have been tasked with developing an Enterprise Architecture to achieve alignment with the 39 lines of business and to improve service delivery in key areas. This includes developing repositories to manage models within the EA and blueprints to communicate information on future IT capabilities envisioned for the organization. To further promote this effort, OMB directed federal agencies to develop implementation and alignment plans to better ensure the achievement of lines of business and E-Government initiatives.

Appendix II - Understanding the Department of the Interior's Strategic, E-Government, Business Enterprise, and Information Technology Plans

The Department of the Interior relies on multiple plans to communicate and provide guidance on key strategic, IT, E-Government, and Business Enterprise goals and performance objectives across the organization. Central to the strategic planning process is the Department's *Government Performance and Results Act Strategic Plan for Fiscal Years 2006-2012*, provides overarching goals for the entire organization. The Plan includes a business-oriented goal to '*Manage the organization to be highly skilled, accountable, modern, functionally integrated, citizen-centered, and results-oriented'*. End outcome goals and performance measures associated with this goal directly relate to the IT Program.

Several supporting plans also have been established by the Department to reinforce goals in the *GPRA Strategic Plan* and to keep pace with ever changing IT and E-Government laws and requirements. In October 2006, the Department's Office of the Chief Information Officer published an updated *IT Strategic Plan for FY2007-FY2012*. The plan provides a more focused look at IT strategic principles, goals, strategic objectives and performance metrics within several key focus areas, including

- Enterprise Architecture,
- Information Security,
- E-Government,
- Capital Planning and IT Investment Management,
- IT Infrastructure or Operations,
- Information and Records Management, and
- IT Workforce Management.

The updated strategic plan provides a very concise framework of the Department's IT program and strategic goals, which are very much aligned with the *Reclamation IT and E-Government Strategic Plan.* Areas of alignment are illustrated below.

Table II - Cross-Walk of Departmental IT Strategic Goals to Reclamation IT/E-Government Strategic Objectives, FY2007 to FY2012

Goal Area	Departmental Goals	Reclamation Objectives
Enterprise Architecture	**FY2007:** ▪ Develop EA models in compliance with Federal Enterprise Architecture (FEA); ▪ Achieve 4 out 5 on OMB EA Maturity Framework ▪ Complete Modernization Blueprints (including Water Resources Management) **FY 2008 - FY2012:** ▪ Keep EA models current and compliant with FEA ▪ Implement Blueprints ▪ Retire 50% of redundant systems based on EA and Modernization Blueprints	▪ Strategic Objectives 3.1 and 4.1 ▪ Strategic Objective 3.1 ▪ Strategic Objectives 3.1 and 4.1 ▪ Strategic Objective 4.1 ▪ Strategic Objectives 3.1 and 4.1 ▪ Strategic Objective 3.1
IT Security	**FY2007:** ▪ Mature existing policies and procedures for cyber security program ▪ Mature risk management and compliance programs, with regular vulnerability scanning and penetration testing ▪ Establish mature incident response capabilities for infrastructure ▪ Complete certification and accreditation of 97% of systems ▪ Complete IT security training for 95% of employees and contractors ▪ Enhance security controls for protection of data and systems ▪ Mature security training program ▪ Achieve 3.5 out of 5.0 on Federal IT Security Awareness Maturity Framework **FY2008 - FY2012:** ▪ Measure and improve existing polices and cyber security program ▪ Measure and improve security training program ▪ Synchronize IT security activities with EA, privacy, and capital planning	▪ Strategic Objective 4.1 ▪ Strategic Objectives 3.2 and 4.1 ▪ Strategic Objectives 3.2 and 4.1 ▪ Strategic Objectives 3.2 and 4.1 ▪ Strategic Objectives 3.2 and 4.1 ▪ Strategic Objectives 3.2 and 4.1 ▪ Strategic Objectives 3.2 and 4.1 ▪ Strategic Objectives 3.2 and 4.1 ▪ Strategic Objectives 3.2 and 4.1 ▪ Strategic Objectives 3.2 and 4.1 ▪ Strategic Objective 3.3

	▪ Achieve 4.5 out 5.0 on Federal IT Security Assessment Framework	▪ Strategic Objectives 3.2 and 4.1
E-Government	**FY2007:** ▪ Act as managing partner for 2 of the PMA E-Government initiatives ▪ Act as service provider for 2 of the PMA Lines of Business ▪ Act as the Managing Partner for a line of business **FY2008 - FY2012:** ▪ Continue to act as managing partner for E-Government initiatives ▪ Continue to act as service provider for 2 PMA lines of business ▪ Continue to act as managing partner for a line of business	▪ Strategic Objectives 3.1 and 3.2 ▪ Strategic Objectives 3.1 and 3.2 ▪ Strategic Objectives 3.1 and 3.2 ▪ Strategic Objectives 3.1 and 3.2 ▪ Strategic Objectives 3.1 and 3.2 ▪ Strategic Objectives 3.1 and 3.2
IT Investment	**FY2007:** ▪ Achieve level 2 and 70% of level 3 of the GAO Investment Maturity Framework ▪ Keep 90% of IT investments within 90% of costs and schedules ▪ 100% of IT investments must be reviewed and approved via the required IT investment process **FY 2008-FY2012:** ▪ Achieve level 3 of GAO maturity framework by FY2008 ▪ Achieve level 4 by FY2010 ▪ Achieve level 5 by FY2012 ▪ Synchronize capital planning with EA and security efforts	▪ Strategic Objectives 3.2 and 4.1 ▪ Strategic Objectives 3.2 and 4.1 ▪ Strategic Objectives 3.2 and 4.1 ▪ Strategic Objective 4.1 ▪ Strategic Objective 4.1 ▪ Strategic Objective 4.1 ▪ Strategic Objective 4.1 ▪ Strategic Objectives 3.3
IT Infrastructure	**FY2007:** ▪ Transition to ESN and provide 90% problem reports and improve mean time to repair to 2 hours ▪ Continue ESN optimization ▪ Mature security practices ▪ Ensure ESN is available for users 99.5% of the time ▪ Complete initial operating capability for ESN lab	▪ Strategic Objectives 1.1 and 1.3 ▪ Strategic Objectives 1.1 and 1.3 ▪ Strategic Objectives 1.1 and 1.3, and 4.1 ▪ Strategic Objectives 1.1 and 1.3

	▪ Consolidate Active Directory services for ESN and migrate bureaus to ESN	▪ Strategic Objectives 1.1 and 1.3
	▪ Establish enterprise asset management in conformance with ITIL maturity framework	▪ Strategic Objectives 1.1 and 1.3 and 4.1
	▪ Complete agreements for Radio program; establish initial operating capability; expand on radio capital planning efforts	▪ Strategic Objectives 1.1 and 1.3
	▪ Complete transition of commercial wireless services contract	▪ Strategic Objectives 1.1 and 1.3
	▪ Establish DOI Networx transition plan and implement	▪ Strategic Objectives 1.1 and 1.3
	FY2008-FY2012:	
	▪ Complete ESN and Networx contract transition; migrate to ESN and IPv6; ensure ESN availability 99.9% of time; complete full operational capability for ESN lab	▪ Strategic Objectives 1.1 and 1.3
	▪ Complete migration of desktop, LAN, data centers, and helpdesk to ESN; complete enterprise asset management based on ITIL framework; establish messaging system	▪ Strategic Objectives 1.1 and 1.3
	▪ Complete Active Directory migration and standards	▪ Strategic Objectives 1.1 and 1.3
	▪ Complete full operating capability for Radio Program; complete blueprint for fire and law enforcement and radio use; complete migration of bureau radio networks to enterprise services	▪ Strategic Objectives 1.1 and 1.3
	▪ Complete transition to Networx	▪ Strategic Objectives 1.1 and 1.3
Information and Records Management	**FY2007:**	
	▪ Develop consistent records management policies and procedures	▪ Strategic Objectives 2.1, 2.4, and 2.5
	▪ Implement FOIA improvement plan in bureaus	▪ Strategic Objectives 2.1, 2.4, and 2.5
	▪ Continue to meet E-Government Scorecard metrics for privacy and information security	▪ Strategic Objectives 2.1, 2.4, and 2.5
	▪ Assist in the development of web-related architecture	▪ Strategic Objectives 2.1, 2.4, and 2.5
	▪ Assist in web-related standards	▪ Strategic Objective 2.1
	▪ Ensure compliance with web standards	▪ Strategic Objective 2.1

	and training requirements	
	FY2008-FY2012:	
	▪ Develop records management capability maturity model (FY2009)	▪ Strategic Objectives 2.1, 2.4, 2.5 and 4.1
	▪ Implement an electronic records system (FY2012)	▪ Strategic Objectives 2.1, 2.4, 2.5 and 4.3
	▪ Complete FOIA plan	▪ Strategic Objectives 2.1, 2.4, 2.5 and 4.3
	▪ Continue to meet E-Government Scorecard metrics	▪ Strategic Objectives 2.1, 2.4, and 3.2
	▪ Assist in the development of web architecture and standards	▪ Strategic Objective 2.1
	▪ Ensure compliance with web training requirements	▪ Strategic Objective 2.1
IT Workforce Management	**FY2007:**	
	▪ Initiate study to determine the impacts of enterprise initiatives on the IT workforce	▪ Strategic Objectives 4.2 and 1.3
	FY2008-FY2012:	
	▪ Develop and implement an IT workforce plan	▪ Strategic Objectives 4.2 and 1.3

Along with the *IT Strategic Plan for FY2007-2012*, Interior completed an *E-Government Strategy for Fiscal Years 2004-2008* to provide a framework for implementing E-Government goals across the Department. The *E-Government Strategy* identifies an approach for addressing Interior's four mission goals: *Resource Protection; Resource Use; Recreation, and Serving Communities,* and aligning E-Government goals within one framework. The Department's six E-Government goals include:

- Goal 1 – *Resource Protection* – Use technology to improve Interior's ability to protect the nation's natural, cultural, and heritage resources;
- Goal 2 – *Resource Use* – Use technology to improve Interior's ability to manage resources to promote responsible use and sustain a dynamic economy;
- Goal 3 - *Recreation* – use technology to improve Interior's ability to prove recreation opportunities for America;
- Goal 4 – *Serving Communities* – Use technology to improve Interior's ability to safeguard lives, resources, and property; advance scientific knowledge; fulfill trust responsibilities to Indian tribes and individuals; and improve the quality of life for the communities we serve;
- Goal 5 – *Management Support* – Employ E-Government solutions to achieve the Department's management excellence goals and the PMA; and,
- Goal 6 – *Organizational E-Government Capabilities* - Reinforce the underlying structures and processes necessary to successfully develop, implement, and operate E-Government solutions.

These six E-Government goals also include a number of sub-objectives to better ensure implementation and achievement of primary goals.

In addition to this document, the Department completed an *IT and Business Enterprise Strategic Plan,* which provides a tactical framework for addressing and achieving overarching IT goals in the Department's *E-Government Strategy* document. Key focus areas and goals within the *IT and Business Enterprise Strategic Plan* include:

- *Goal (1) Enterprise Architecture – Leverage EA to improve Interior's mission performance and realize strategic goals and objectives*
- *Goal (2) Security – To protect the availability, confidentiality, and integrity of DOI information technology resources*
- *Goal (3) E-Government – Improve the efficiency and effectiveness of DOI business processes*
- *Goal (4) Capital Investment Planning – Improve the planning, execution, and management of IT investments*
- *Goal (5) Enterprise/Operations – Provide enterprise-based operations that improve the quality, access, and sharing of data*
- *Goal (6) Records Management – Create and safeguard records cost effectively and apply retention schedules according to federal regulations and system-enforced rules*
- *Goal (7) Workforce Development – Ensure IT human capital is sufficient and capable to meet our IT goals and DOI mission objectives.*

The *IT and Business Enterprise Strategic Plan* also provides for a range of milestones and targets to ensure implementation and achievement of goals and performance objectives.

Appendix III - Quick-Look
Reclamation's IT Portfolio, Budget Year 2008

IT Investment	Primary Linkage to DOI Strategic Goal	Linkage to CIO Program Goal s
Accessibility Data Management System (ADMS)	**Recreation** - Provide for a quality recreation experience, including access and fair value	Mission Support/Alignment
Bureau of Reclamation Computer Aided Design (BORCAD)	**Resource Use** - Manage resources to promote responsible use and optimal value	Mission Support/Alignment
Bureau of Reclamation Geographic Information System (BORGIS)	**Resource Use** - Manage resources to promote responsible use and optimal value	Mission Support/Alignment
Bureau of Reclamation Hydrological and Meteorological Information System (BORHMIS)	**Resource Use** - Manage resources to promote responsible use and optimal value	Mission Support/Alignment
Bureau of Reclamation Safety and Security Information System (BORSSIS)	**Resource Use** - Manage resources to promote responsible use and optimal value	Mission Support/Alignment
Bureau of Reclamation Water Management Information System (BORWMIS)	**Resource Use** - Manage resources to promote responsible use and optimal value	Mission Support/Alignment
Bureau of Reclamation Water Operations and Record Keeping System (BORWORKS)	**Resource Use** - Manage resources to promote responsible use and optimal value	Mission Support/Alignment
Corporate Data Warehouse (CDW)	**Resource Use** - Manage resources to promote responsible use and optimal value	Mission Support/Alignment Performance Management
Colorado River Storage Project Supervisory Control and Data Acquisition System (CRSP SCADA)	**Resource Use** - Manage resources to promote responsible use and optimal value	Mission Support/Alignment
Central Valley Automated Control System (CVACS)	**Resource Use** - Manage resources to promote responsible use and optimal value	Mission Support/Alignment
Central Valley Operations Decision Support System (CVODSS)	**Resource Use** - Manage resources to promote responsible use and optimal value	Mission Support/Alignment
Federal Standard Requisitioning and Issue Procedures (FEDSTRIP)	**Resource Use** - Manage resources to promote responsible use and optimal value	Mission Support/Alignment
Foundation Information for Real Property Management (FIRM)	**Resource Protection** - Watersheds, landscapes, and marine resources	Mission Support/Alignment

IT Investment	Linkage to Primary DOI Strategic (GPRA) Goal	Linkage to CIO Program Goals
Grand Coulee Power Office Supervisory Control and Data Acquisition System (GCPO SCADA)	**Resource Use** - Manage resources to promote responsible use and optimal value	Mission Support/Alignment
Great Plains Region Supervisory Control and Data Acquisition Systems (GPSCADAS)	**Resource Use** - Manage resources to promote responsible use and optimal value	Mission Support/Alignment
Hoover Supervisory Control and Data Acquisition System (HSCADA)	**Resource Use** - Manage resources to promote responsible use and optimal value	Mission Support/Alignment
Lower Colorado Region Supervisory Control and Data Acquisition Systems (LC SCADAS)	**Resource Use** - Manage resources to promote responsible use and optimal value	Mission Support/Alignment
Movable Property System (MPS)	**Resource Use** - Manage resources to promote responsible use and optimal value	Mission Support/Alignment
Mid-Pacific Region Supervisory Control and Data Acquisition Systems (MP SCADAS)	**Resource Use** - Manage resources to promote responsible use and optimal value	Mission Support/Alignment
Northern California Area Office Backup Supervisory Control and Data Acquisition System (NCAO Backup SCADA)	**Resource Use** - Manage resources to promote responsible use and optimal value	Mission Support/Alignment
Program and Budget System (PABS)	**Accountability -** Improved Financial Performance	Performance Management
Pacific Northwest Region Supervisory Control and Data Acquisition Systems (PN SCADAS)	**Resource Use** - Manage resources to promote responsible use and optimal value	Mission Support/Alignment
Proposal and Performance Contract Management System (Prop C)	**Resource Use** - Manage resources to promote responsible use and optimal value	Mission Support/Alignment
Reclamation Perimeter and Backbone Wide Area Network (RecNet)	**Resource Use** - Manage resources to promote responsible use and optimal value	Mission Support/Alignment Infrastructure Support
Reclamation electronic Document System (REDS)	**Resource Use** - Manage resources to promote responsible use and optimal value	Mission Support/Alignment Information Management
Reclamation Mission Support System (RMSS)	**Resource Use** - Manage resources to promote responsible use and optimal value	Mission Support/Alignment Infrastructure Support
Safety, Security and Law Enforcement Classified (SSLE CL)	**Resource Use** - Manage resources to promote responsible use and optimal value	Mission Support/Alignment
Time and Attendance System (TAAS)	**Accountability -** Improved Financial Performance	Performance Management
Technical Service Center Engineering Support System (TSCESS)	**Resource Use** - Manage resources to promote responsible use and optimal value	Mission Support/Alignment
Technical Service Center Management Information System (TSCMIS)	**Resource Use** - Manage resources to promote responsible use and optimal value	Mission Support/Alignment Performance Management
Upper Colorado Region Supervisory Control and Data Acquisition Systems (UC SCADAS)	**Resource Use** - Manage resources to promote responsible use and optimal value	Mission Support/Alignment

Appendix IV – Key Information Technology Legislation and Regulatory Guidance

The primary legislation that provides guidance on the usage of IT resources includes, but is not limited to the following:

- **Section 508 of the Rehabilitation Act of 1973**
- **Privacy Act of 1974**
- **Computer Security Act of 1987**
- **Government Paperwork Elimination Act of October 1988**
- **Chief Financial Officers Act of 1990**
- **Government Performance and Results Act of August 1993**
- **Executive Order 12906 - Coordinating Geographic Data Acquisition and Access: The National Spatial Data Infrastructure, April 1994**
- **Federal Acquisition Streamlining Act of October 1994**
- **Clinger-Cohen Act of February 1996**
- **Electronic Freedom of Information Act Amendments of February 1998**
- **Critical Infrastructure Protection Plan (Presidential Decision Directive 63) of May 1998**
- **Public Law 106-107 of November 1999**
- **Electronic Signatures in Global National Commerce Act of August 2000**
- **Government Information Security Reform Act of October 2000**
- **Federal Records Act (36 CFR 1220) of May 2002**
- **OMB Circular A-16 of August 2002 (Revised)**
- **E-Government Act of 2002**
- **Federal Information Security Management Act of 2002 (FISMA)**
- **OMB Circular A-11 of July 2003**
- **Management of Information Resources (OMB Circular A-130) of 2004**
- **Homeland Security Presidential Directive 12 of 2004**

As amended, **Section 508 of the Rehabilitation Act of 1973** requires federal agencies to ensure that their electronic and information technologies provide people with disabilities access to information and data comparable to that of people without disabilities. This requirement applies to federal as well as members of the general public that conduct business with the agency. Additional guidance regarding this Act and its implications for electronic government has been issued by the interagency CIO Council and the Department of Justice.

The **Privacy Act of 1974** provides specific guidance to federal agencies on the control and release of appropriate records.

The **Computer Security Act of 1987** provides for the security of Government information systems. The Act requires each agency with a federal computer system to

establish a security plan to protect the security and privacy of sensitive information. In addition, the Act establishes a Computer System Security and Privacy Advisory Board within the Department of Commerce and directs the National Bureau of Standards to establish a computer standards program for federal computer systems. The Act also requires that agencies provide periodic training for their employees on the management, use, and operation of computer systems.

The **Government Paperwork Elimination Act of October 1988 (GPEA)** specifically provides for Federal agencies, by October 21, 2003, to give the public the option to submit information electronically; to maintain or disclose information to the public using electronic means; and to use electronic authentication methods to verify the identity of the sender and the integrity of electronic content. The law directs agencies to engage in the "acquisition and use of information technology, including alternative information technologies that provide for electronic submission, maintenance, or disclosure of information as a substitute for paper, and for the use and acceptance of electronic signatures."

The **Chief Financial Officers Act of 1990** brought more effective general and financial management practices to the Federal Government through statutory provisions that established in the Office of Management and Budget a Deputy Director for Management, established an Office of Federal Financial Management headed by a Controller, and designated a Chief Financial Officer in each executive department and in each major executive agency in the Federal Government. The Act provided for improvement, in each agency, of systems of accounting, financial management, and internal controls to assure the issuance of reliable financial information and to deter fraud, waste, and abuse of Government resources.

The Act also provided for the production of complete, reliable, timely and consistent financial information for use by the executive branch of the Government and the Congress in the financing, management, and evaluation of Federal Programs.

The **Government Performance and Results Act of August 1993 (GPRA)** requires government agencies to link performance to results and fosters short-term business planning and long-term strategic planning. The law also requires that agencies develop performance plans that articulate their target performance goals and progress towards meeting these goals. Electronic government is a means by which agencies can fulfill these performance goals. The Act also encourages bureaus and offices within agencies, such as CIO and IT organizations, to improve service delivery and focus on results and customer satisfaction.

The **Executive Order 12906 - Coordinating Geographic Data Acquisition and Access: The National Spatial Data Infrastructure (April 1994)** established geographic information as a critical element in promoting economic development and improving nationwide stewardship over natural resources and the environment. It also established the need to standardize geospatial data and to coordinate federal, state, local, and tribal government geospatial initiatives through a Federal Geographic Data Committee, which

was established by the OMB under Circular A-16.

The **Federal Acquisition Streamlining Act of October 1994 (FASA)** established the Federal Acquisition Computer Network and increased agencies' flexibility in terms of procurement processes. Acquisitions are governed by the OMB's Office of Federal Procurement Policy. This Act, and subsequent amendments and directives found in the Federal Acquisitions Regulation (FAR), provides the legislative impetus for electronic procurement. OMB will continue to advance the evolution of agencies' acquisition processes from paper to electronic media to save taxpayer dollars, expedite processes, and ease the burden on businesses.

The **Clinger-Cohen Act of February 1996** facilitates, encourages, and provides for the efficient and effective use of modern information technology by executive agencies. The Act seeks to increase the responsibility and accountability of departments and agencies in achieving substantial improvements in the delivery of services to the public and in other program activities through the use of modern information technology. Formerly known as the Information Technology Management Reform Act, this law specifically mandates that agencies and departments:

- Establish Chief Information Officers (CIOs) with defined duties and responsibilities;
- Design and implement capital planning and investment controls; and
- Use information technology as a strategic enabler of agency and departmental missions and business objectives, implementing information technology-related actions to enhance performance and results-based management.

The **Electronic Freedom of Information Act Amendments of February 1998** created a specific procedure through which any person can exercise his or general right to request and obtain access to particular federal agency records and data.

Commonly called "E-FOIA," the Act has increased demand for publications and reports from agencies, leading many agencies to allow their publications and reports to be electronically downloaded from their Web sites.

The **Critical Infrastructure Protection Plan (Presidential Decision Directive 63) of May 1998** states that certain national infrastructures, e.g., energy, information and communications, and banking and finance, are critical to the national and economic security of the United States and the well-being of its citizenry, and that the United States will take all necessary measures to protect them. The Directive calls for a public-private partnership to provide protection, establishes a national organizational structure to effect that partnership, and directs the development of two sets of plans: each Federal department's or agency's plan to protect its portion of the Federal Government Critical Infrastructure and a comprehensive National Infrastructure Assurance Plan with input from all infrastructure sectors.

Public Law 106-107 of November 1999 The Federal Financial Assistance Management Improvement Act of 1999 (P.L. 106-107) covers all domestic "federal financial

assistance" programs. This encompasses all programs, including entitlements that provide resources (e.g., grants, contracts, loans, in-kind contributions) to states, localities, organizations, or individuals. Since it is limited to domestic programs, it does not cover foreign aid or assistance used in non-domestic situations.

The law requires OMB to work with other federal agencies to establish, when consistent with existing law:

- A uniform application for financial assistance (e.g., grant applications) from multiple programs across multiple federal agencies;
- Ways to simplify reporting requirements and administrative procedures, including uniformity and standardization of rules affecting funding from multiple programs;
- Electronic methods for applying for, managing, and reporting of financial assistance funds;
- Improved approaches for the collection and sharing of data pertaining to financial assistance programs, and efforts to strengthen the information management capacity of state, local, and tribal government and nonprofit organizations. This includes the development of a release form to be used by grantees for the sharing of information across multiple federal financial assistance programs. Presumably, the data sharing requirements could include a wide range of information, from program performance data to information about people receiving services (e.g., clients); and
- Specific annual goals and objectives to achieve these items.

Electronic Signatures in Global National Commerce Act of August 2000 (ESIGN) declares the validity of electronic signatures for interstate and international commerce; prohibits denying the legal effect of certain electronic documents and transactions signed by an electronic signature; clarifies broad circumstances in which an electronic record satisfies any statute or regulation that mandates a record in writing; requires inquiries into domestic and foreign impediments to commerce in electronic signature products and services; and embraces all technologies. The Act is also known as the "Millennium Digital Commerce Act" and the "ESIGN bill."

The **Government Information Security Reform Act of October 2000 (GISRA)** requires Federal Agencies to assess the security of their non-classified information systems. More important from an enforcement perspective, the law requires every agency to provide a risk assessment and report of the security needs of its systems. These reports must be included in every agency budget request. All agency programs will include procedures for detecting, reporting and responding to security incidents, including notifying and consulting with law enforcement officials, other offices and authorities, and the General Services Administration's Federal Computer Incident Response Capability (FedCIRC).

The **Federal Records Act (36 CFR 1220) of May 2002**, defines federal records and requires the establishment of agency programs to ensure adequate and proper documentation of organization, function, policies, decision, procedures, and essential transactions.

The **OMB Circular Number A-16 of August 2002 (Revised)** provided direction for federal agencies that produce, maintain or use spatial data either directly or indirectly in fulfillment of their mission. It established a coordinated approach to electronically develop the National Spatial Data Infrastructure and to further manage the Federal Geographic Data Committee (FGDC), which was originally established in 1990. It prescribed that data themes, metadata, the National Spatial Data Clearinghouse, standards, and partnerships be established. The Circular also defined agency-level responsibilities and reporting requirements, including responsibilities and requirements for bureaus and offices within the Department of the Interior.

The **E-Government Act of 2002** is defined as the Government use of web-based Internet applications or other information technology to enhance the access to and delivery of government information and services to the public, other agencies, and other Government entities; or to bring about improvements in Government operations that may include effectives, efficiency, service quality, or transformation. The Act establishes a new agency within the Office of Management and Budget, the Office of Electronic Government, which is responsible for electronic information management and for promoting interagency cooperation to improve public services.

The **Federal Information Security Management Act of 2002 (FISMA)** is Title III of the E-Government Act of 2002. FISMA provided a comprehensive framework for ensuring the effectiveness of information security controls over information resources that support Federal operations and assets. It recognized the highly networked nature of the current Federal computing environment and provided effective government-wide management and oversight of the related information security risks, including the coordination of information security efforts throughout the civilian, national security and law enforcement communities.

FISMA provided a mechanism for improved oversight of Federal agency information security programs. It acknowledged that commercially developed information security products offer advanced, dynamic, robust and effective information security solutions, reflecting market solutions for the protection of critical information infrastructures important to the national defense and economic security of the nation that are designed, built, and operated by the private sector.

The Act recognized that the selection of specific technical hardware and software information security solutions should be left to individual agencies from among commercially developed products.

The **OMB Circular A-11 of July 2003** discusses planning, budgeting, and acquisition of capital assets; describes requirements of GPRA and how to prepare and submit strategic plans and performance plans; and provides a basic set of performance measures on the management of physical and financial assets.

The **Management of Information Resources (OMB Circular A-130) of 2004** was revised on April 16, 2004, the OMB Circular A-130 established policy for the management of Federal information resources that apply to the information activities of all agencies of the executive branch of the Federal government, including procedural and analytical guidelines for implementing specific aspects of these policies. The circular requires that agencies develop and maintain an IT strategic plan that supports the agency strategic plan. The IT strategic plan is required to provide a description of how IT helps accomplish agency missions and how IT decisions are integrated with organization planning, budget, procurement, financial management, human resources management, and program decisions.

The **Homeland Security Presidential Directive 12 of 2004** (HSPD-12) establishes policy to enhance security, increase Government efficiency, reduce identity fraud, and protect personal privacy by establishing a mandatory, Government-wide standard for secure and reliable forms of identification issued by the Federal Government to its employees and contractors (including contractor employees).

Appendix V - IT Strategic Planning Governance Structure

Activity	Responsible	Accountable	Consulted	Informed
Define Strategy	CIO	CIO	CIOC/CFO/CFOC/ RLT/ DOI ITMC/E-Government Team	RLT/ DOI ITMC/DOI E-Government Team
Identify Gaps and Redundancies in Accomplishing Strategy	CIOC/CIO	CIOC/CIO	CFO/CFOC/ RLT/ DOI ITMC/DOI E-Government Team	RLT/ DOI ITMC DOI E-Government Team
Determine E-Government Opportunities and Priorities	CIOC /CIO	CIOC/CIO	DOI ITMC/E-Government Team	DOI ITMC/E-Government Team
Approve and Prioritize IT Investments	CIOC/CIO	CIO/RLT	BRC/RLT/DOI ITMC	DOI ITMC/ DOI E-Government Team
Evaluate IT Investments - Progress Against Performance Measures	CIOC/CIO	CIOC/CIO	DOI ITMC/E-Government Team	DOI ITMC/ DOI E-Government Team
Establish Consistent Communication and Provide Feedback as Deemed Appropriate	CIOC/CIO	CIOC/CIO	DOI ITMC/E-Government Team	DOI ITMC/ DOI E-Government Team
Refine Strategy, goals, objectives, and performance measures	CIOC/CIO	CIOC/CIO	CIO/CFO/CFOC/ RLT/ DOI ITMC	RLT/ DOI ITMC / DOI E-Government Team

Acronyms -
BRC – Budget Review Committee (Reclamation)
CIO - Chief Information Officer (Reclamation)
CIOC - Chief Information Officer's Council (Reclamation)
CFO- Chief Financial Officer (Reclamation)
CFOC – Chief Financial Officer's Council (Reclamation)
DOI ITMC – Department of the Interior (DOI) Information Technology (IT)
Management Council (Investment Review Board)
DOI E-Government Team
RLT – Reclamation Leadership Team

(Intentionally Left Blank)