

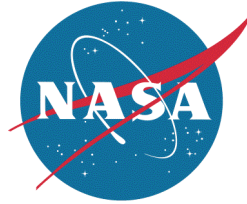


Information Resources Management (IRM) Strategic Plan

Office of the Chief Information Officer



September 2007



NASA Office of the
Chief Information Officer

Information Resources Management (IRM) Strategic Plan

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Approved by:

A handwritten signature in black ink, reading "Jonathan Q. Pettus", written over a horizontal line.

Jonathan Q. Pettus
NASA Chief Information Officer

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Preface

On January 14, 2004, President George W. Bush gave NASA a defining challenge for the 21st century with compelling new objectives outlined in “A Renewed Spirit of Discovery: The President’s Vision for Space Exploration.” The Vision commits our Nation to a new journey of exploration of the solar system, beginning with the return of humans to the Moon by the end of the next decade and leading to subsequent landings on Mars and other destinations, such as near-Earth asteroids. The Vision’s fundamental goal is “to advance U.S. scientific, security, and economic interests through a robust space exploration program.”

The strategic management and transformation of information and information technologies will be imperative to effectively realizing the Vision for Space Exploration. Effectively managing, preserving, protecting, and disseminating the information required to achieve, and resulting from, exploration is vital to mission success. Also, seamless collaboration of the NASA workforce across multiple Centers will be vital in the planning, design, and development of exploration-related capabilities and technology.

This September 2007 version of the NASA Information Resources Management (IRM) Strategic Plan reflects the IRM strategies, goals, and objectives required for the strategic management of information and information technologies (IT), directly contributing to mission success for the Agency.

Introduction

The NASA Chief Information Officer (CIO) has responsibility for ensuring that NASA’s information assets are acquired and managed consistent with Federal policies, procedures, and legislation, and that the Agency’s IRM strategy is in alignment with NASA’s vision, mission, and strategic goals. This plan is a companion document to the NASA Enterprise Architecture (EA) and has been developed as a mechanism for documenting the NASA information technology strategy and plan for execution.

As NASA embarks upon an IT transformation to align with NASA’s Strategic Plan reflecting the Vision for Space Exploration, this IRM Strategic Plan impacts the entire Agency. Information and information technologies are crucial to achieving NASA’s strategic goals, and NASA’s IT environment will transform to support and prepare for changes in NASA’s mission activities.

NASA Strategic Goals

Effectively managing, preserving, protecting, and disseminating the Agency's information across the Agency and to external NASA stakeholders, including the public, is imperative for mission success. The NASA IT Principles, Strategies, and Supporting Actions identified in this document support the achievement of the Agency's strategic goals outlined below.

- Strategic Goal 1: Fly the Shuttle as safely as possible until its retirement, not later than 2010.
- Strategic Goal 2: Complete the International Space Station in a manner consistent with NASA's International Partner commitments and the needs of human exploration.
- Strategic Goal 3: Develop a balanced overall program of science, exploration, and aeronautics consistent with the redirection of the human spaceflight program to focus on exploration.
- Strategic Goal 4: Bring a new Crew Exploration Vehicle into service as soon as possible after Shuttle retirement.
- Strategic Goal 5: Encourage the pursuit of appropriate partnerships with the emerging commercial space sector.
- Strategic Goal 6: Establish a lunar return program having the maximum possible utility for later missions to Mars and other destinations.

The NASA CIO has identified four IRM Strategies to support the achievement of NASA's mission and mission support objectives as follows:

1. Align IT investments with the NASA mission.
2. Ensure that NASA's information and information systems are appropriately secure based on the categorization of the information processed by, or stored within, the systems.
3. Improve information sharing and efficiencies through Agency-wide solutions.
4. Implement an IT asset management and operations capability that provides Agency-wide visibility and monitoring of NASA networks and systems.

NASA IT Principles

The following principles will guide tactical decisions and planning, as well as provide guidance that is relevant now and in the future:

1. **MISSION ENABLING:** IT at NASA serves to enable NASA's mission.
2. **INTEGRATED:** NASA will implement IT that enables the integration of business (mission) processes and information across organizational boundaries.
3. **EFFICIENT:** NASA will implement IT to achieve efficiencies and ensure that IT is efficiently implemented.
4. **SECURE:** NASA will implement and sustain secure IT solutions.

NASA IRM Strategies and Supporting Actions

1: Align IT investments with the NASA mission

Supporting Action	Description	Target Completion Date
1.1 Governance for decision making	Establish a governance structure for IT decision making that integrates the institutional and programmatic decision chains. Codifying the governance structure in updated NPD and NPR 2800 documents will indicate success.	January 2008
1.2 IT infrastructure master planning	Develop a comprehensive strategy and master plan to manage the Agency's IT infrastructure, enabling cross-Center collaboration and achieving efficiencies. The strategy requires identification of the "To Be" architecture and a transition plan that includes a prioritized list of initiatives addressing integration, efficiency, and security, along with milestones and funding requirements.	December 2007
1.3 Project management and control	Establish IT project management requirements to manage IT projects that align with NASA standard program and project management processes, and establish requirements that are compliant with Federal CIO Council guidance. This action requires the CIO to work with the Office of the Chief Engineer to include IT requirements in a new policy document, NPR 7120.7 "NASA Information Technology and Institutional Infrastructure Program and Project Management Requirements." The issuance of NPR 7120.7 in NODIS will indicate success.	March 2008

Supporting Measures, Activities, and Milestones:

Measure or Activity	Target/Milestone
Governance framework in place to manage NASA IT	Q2 FY08: Up-to-date policies and procedures in place and IT Board structure implementation
Up-to-date NASA EA	Q4 FY08: EA volume updates reviewed and approved by NASA Senior Management and signed by the NASA Administrator
IT investment prioritization and selection process maturity	Q2 FY08: IT Master Plan and Investment Prioritization Process in place
IT investment control maturity	<ul style="list-style-type: none"> Q2 FY08: NASA Procedural Requirements document issued to guide management of IT projects Q4 FY08: Center structures in place to review IT projects in formulation and implementation phases

2: Ensure that NASA's information and information systems are appropriately secure based on the categorization of the information processed by, or stored within, the systems

Supporting Action	Description	Target Completion Date
2.1 Certification and accreditation (C&A) of systems	Achieve risk-based C&A of all systems. 100 percent C&A of NASA's identified information systems will indicate success.	November 2007
2.2 Encryption of sensitive information	Implement encryption solutions to protect sensitive information. The implementation of public key infrastructure (PKI), Entrust ICE, and other technologies to encrypt data on mobile devices, such as personal digital assistants (PDA), memory sticks, laptops, CD-ROMs, and external drives will measure success.	October 2009
2.3 IT Security Corrective Action Plan (CAP)	Develop and execute an action plan to correct identified security deficiencies. The completion of all actions in the CAP and downgrading of IT security from a material weakness will measure success.	September 2008
2.4 Smart card deployment	Implement integrated identity, account, active directory, and smart card management. This action requires the issuance of HSPD-12 smart cards, integration of all applications into the NASA account management system, completion of the active directory migration, and use of smart cards on the desktop. Smart card use for access to NASA information systems will measure completion.	September 2011
2.5 Strong authentication	Implement strong authentication for high impact systems. This action requires the use of two-factor authentication for all High Impact systems and applications, whether by controlling physical access to systems (where allowable) or through retrofit of systems to support two-factor logical access (smart card and password).	June 2009

Supporting Measures, Activities, and Milestones:

Measure or Activity	Target/Milestone
Percentage of systems certified and accredited	Q1-FY08: 100 percent of NASA systems with a current Authorization to Operate (ATO)
Number of Agency-wide applications using common infrastructure for identity, account management, and authentication	<ul style="list-style-type: none"> • Q3-FY08: 50 percent of applicable HIGH systems • Q1-FY09: 100 percent of applicable HIGH systems • Q4-FY09: 100 percent of applicable MODERATE systems • Q4-FY10: 100 percent of applicable LOW systems
Percentage of systems in compliance with approved operating system benchmarks	100 percent of non-waived systems (on-going)
Network security architecture	<ul style="list-style-type: none"> • Q3-FY09: Enterprise DMZ deployed • Q4-FY09: Central Intrusion Detection System in place • Q4-FY09: Define Network Perimeter • Q1-FY10: Re-home point-to-point circuits to DMZ
Efficacy of privacy controls	<ul style="list-style-type: none"> • Privacy impact assessments completed for 100 percent of applicable systems (on-going target) • Annual notification to employees of privacy responsibilities – Q3 FY08

3: Improve information sharing and efficiencies through Agency-wide solutions.

Supporting Action	Description	Target Completion Date
3.1 Implement Agency-wide e-mail and calendaring solution (NOMAD)	Implement the Agency-wide messaging and calendaring solution. NASA will implement and operate a secure, robust, Agency-wide messaging, calendaring, and collaboration service. This action requires migrating all Centers to NASA Operational Messaging and Directory (NOMAD) capability.	June 2008
3.2 Cell phone and personal digital assistants (PDAs) consolidation	Consolidate cell phone and PDA solutions across the Agency. This action requires working with NASA Centers to migrate all current cell phone and PDA users from existing contracts to the Outsourcing Desktop Initiative for NASA (ODIN).	March 2008
3.3 NASA portal	Migrate public-facing Web sites to the NASA portal. Near term, the target is to migrate the set of Web sites that are responsible for 80 percent of HTTP traffic on NASA networks to the NASA portal. This action requires working with all NASA organizations to inventory Web sites and migrate content to the NASA portal.	December 2008
3.4 Enhanced search capability	Incorporate information management and enhanced search capability throughout the NASA information domain. This action requires a NASA-wide data reference model and common search service to be developed, along with a proposal for funding and deploying the service.	March 2008
3.5 Agency desktop consolidation	Maximize use of the Agency desktop contract to reduce costs and improve configuration and asset management. This action requires the migration of desktops and laptops from non-ODIN contracts and civil servant administration to ODIN at appropriate intervals.	October 2009
3.6 Internet Protocol Version 6 (IPv6)	Ensure the NASA network backbone and supporting IT workforce are positioned to route IPv6 data packets no later than June 1, 2008.	June 2008

Supporting Measures, Activities, and Milestones:

Measure or Activity	Target/Milestone
Migration of NASA public content to the portal infrastructure	Q4 FY08: Transfer public content that is generating 80 percent of the public traffic into the portal infrastructure .
Capability of NASA network backbone and IT workforce to handle IPv6 data packets	<p>For the NASA network backbone to be routing IPv6 data packets no later than June 30, 2008.</p> <ul style="list-style-type: none"> • Q1 FY08: Ipv6 addresses configured in devices • Q4 FY08: NASA's WAN, Center LAN backbones and peering points operating in dual stack mode
Migration of NASA users to a common Agency messaging solution	Q3 FY08: 100 percent of NASA Centers
Number of desktop seats in ODIN	<ul style="list-style-type: none"> • Q3 FY08: 50,000 • Q3 FY09: 65,000
Percentage of cell phones and PDAs under consolidated provider	<ul style="list-style-type: none"> • Q1-FY08: 90 percent • Q2-FY08: 100 percent
Enterprise IT service delivery capability	<ul style="list-style-type: none"> • Q4 FY08: Infrastructure configuration management processes implemented • Q4 FY09: End-to-end network management in place

4: Implement an IT asset management and operations capability that provides Agency-wide visibility and monitoring of NASA networks and systems.

Supporting Action	Description	Target Completion Date
4.1 Web site registration	Register all NASA Web sites to ensure compliance with laws, regulations, and content management requirements. This action requires all NASA public and private Web sites and FTP sites to register in the Agency Web site Registration System (AWRS).	May 2008
4.2 Cross-Center collaboration	Develop the necessary tools and integration standards to allow engineers to collaborate across Center boundaries and collaborate with NASA industry partners. This action requires transition from the current federated network architecture to a single NASA intranet to effect implementation of consistent access methods via virtual private network (VPN), guest network, and firewall settings.	August 2009
4.3 IT infrastructure management	Manage the IT infrastructure as an integrated architecture that responds to the needs of the Agency's workforce and incorporate appropriate technology innovation. This action requires expanding the OCIO enterprise architecture function to incorporate requirements and engineering analysis, technology integration, and defining standards.	October 2008

Supporting Measures, Activities, and Milestones:

Measure or Activity	Target/Milestone
Percentage of Web sites registered	Q3 FY08: 100 percent
Percentage of enterprise architects certified in "Federal Enterprise Architecture."	100 percent of enterprise architects FEAC certified
Number of EA reviews conducted for NASA major IT investments	32 EA reviews conducted on major IT investments by Q2 FY08
OMB assessment of EA completion, use, and results	Meet or exceed President's Management Agenda scorecard criteria for maintaining Green. <ul style="list-style-type: none"> • Q1 FY08: EA Governance and Management – Target 4.0 • Q1 FY08: Federation of Enterprise and Segment Architecture – Target 5.0 • Q2 FY07: EA Deployment – Target 5.0 • Q2 FY08: CPIC Integration – Target 4.0 • Q3 FY08: IT Implementation Improvement – Target 4.0
Capability for appropriately secure cross-Center collaboration	<ul style="list-style-type: none"> • Q4 FY08: Corporate VPN deployed • Q1 FY09: Consistent remote access deployed • Q4 FY09: Agency mobile user support deployed • Q4 FY09: Enterprise resource domain established • Q2 FY10: Enterprise LAN architecture implemented

Appendix 1: Alignment of NASA Major IT Investments

Investment Title		Investment Description	Alignment
1	NASA Integrated Enterprise Management – Core Financial	The Core Financial and Contract Management Module will serve as NASA's Financial Accounting System and Contract Management System respectively. Core Financial will ensure that NASA meets President's Management Agenda scorecard standards while CMM improves accuracy and currency of acquisition data.	2006 NASA Strategic Plan – Cross-Cutting Management Strategies: Integrated Financial Management.
2	NASA Integrated Enterprise Management - Aircraft Management Module	The Aircraft Management Module Project manages, tracks, and reports all NASA owned or operated aircraft assets and aircrew. This includes aircraft utilization, scheduling, airworthiness, configuration, all aircrew flying records, and currency.	2006 NASA Strategic Plan – Cross-Cutting Management Strategies: Integrated Financial Management.
3	NASA Integrated Enterprise Management - Human Capital Information Environment	The Human Capital Information Environment Project is a key initiative in improving NASA's HR Capabilities. It is an integrated Agency-wide approach to Human Capital management with one authoritative data repository for Human Capital information.	2006 NASA Strategic Plan – Cross-Cutting Management Strategies: Strategic Management of Human Capital.
4	NASA Integrated Enterprise Management — Integrated Asset Management – Property, Plant & Equipment (IAM_PP&E)	IAM provides an integrated system for the management of NASA's PP&E to increase financial accountability, reduce costs (through increased equipment reuse), and prepare for Agency asset disposal challenges.	2006 NASA Strategic Plan – Cross-Cutting Management Strategies: Strategic Management of Capital Assets.
5	ARC Shared Capability Asset Program (SCAP) HECC MPIT	The HEC Program has established high-end computing systems and services providing users with advanced computational technologies, mass storage systems, and network solutions for cutting-edge science and engineering problems.	2006 NASA Strategic Plan – Cross-Cutting Management Strategies: Strategic Management of Capital Assets.
6	JSC Flight Operations (FO)	Shuttle support from manifests and schedules; flight products; software development and system integration; design drafting; engineering support and technical expertise; flight crew and controller training; flight simulations; profile des and anal; and I-load des.	2006 NASA Strategic Plan – Goal 1: Fly the Shuttle as safely as possible until its retirement, not later than 2010.
7	JSC Mission Control Center	A ground facility infrastructure of HW/SW providing mission, simulation, and mission test capabilities for command and control; planning; data archive trajectory; weather; and voice support of the International Space Station and Space Shuttle operations.	2006 NASA Strategic Plan – Goal 1: Fly the Shuttle as safely as possible until its retirement, not later than 2010, Goal 2: Complete the International Space Station in a manner consistent with NASA's international partner commitments and the needs of human exploration.
8	JSC Integrated Planning System	IPS provides the planning and analysis tools required to support long-range mission and vehicle assessments; trajectory design; mission and increment planning; pre-mission contingency analysis; ISS avionics reconfiguration; and direct mission support.	2006 NASA Strategic Plan – Goal 1: Fly the Shuttle as safely as possible until its retirement, not later than 2010, Goal 2: Complete the International Space Station in a manner consistent with NASA's international partner commitments and the needs of human exploration.

Investment Title			Investment Description			Alignment		
9	GSFC Earth Observing Sys Data Info Sys	Earth Observing System Data Information System (EOSDIS) is a comprehensive distributed Earth science data and information system designed to support NASA's EOS. Operating since 1994, and supporting all EOS missions, it has been evolving to meet technology and user requirements.	2006 NASA Strategic Plan – Sub-Goal 3A: Study the Earth from space to advance scientific understanding and meet societal needs.					
10	NASA Center for Computational Sciences	The NCCS provides high performance computing systems, mass data storage, networks, and services that support primary scientific modeling research in Earth and space sciences, engineering applications, and the exploration initiative.	2006 NASA Strategic Plan – Goal 3: Develop a balanced overall program of science, exploration, and aeronautics consistent with the redirection of the human spaceflight program to focus on exploration. Sub-Goals 3A, 3B, 3C, 3D, 3F.					
11	GSFC Space and Ground Network IT Support	This investment has operated since the 1980s, providing communications for multiple spacecraft via steerable antennas from tracking stations. These existing sites are operated for pre-launch and on-orbit tracking, telemetry, and command services for near-Earth spacecraft.	2006 NASA Strategic Plan – Goal 3: Develop a balanced overall program of science, exploration, and aeronautics consistent with the redirection of the human spaceflight program to focus on exploration. Sub-Goals 3A, 3B, 3C, 3D, 3F.					
12	ESMD – Integrated Collaborative Environment	The Integrated Collaborative Environment (ICE) program provides a common data repository to the Exploration System Mission Directorate (ESMD) for sharing, collaborating, integrating, accessing, and managing information for all ESMD products.	2006 NASA Strategic Plan – Goal 4: Bring a new Crew Exploration Vehicle into service as soon as possible after Shuttle retirement.					
13	SOMD – NASA Integrated Services Network	NASA Integrated Services Network (NISN) provides WAN services, which directly support the Space Operations, Science, and Aeronautics Mission Directorates, and all NASA Centers and facilities, Agency institutional activities, and many projects and missions.	2006 NASA Strategic Plan – Supports all goals, sub-goals and cross-cutting management strategies					
14	SOMD – Payload Operations and Integration Center (POIC)	This investment provides ISS Payload Operations mission support: command processing, real-time telemetry processing for pre-launch integration/checkout, simulation, training and flight. It also provides automated payload planning, scheduling, and integration.	2006 NASA Strategic Plan – Goal 2: Complete the International Space Station in a manner consistent with NASA's international partner commitments and the needs of human exploration					
15	JSC Software Development/Integration Laboratory	The Software Development and Integration Laboratory (SDIL)/Avionics is the Command and Data Handling (C&DH) subsystem that uses the onboard computer and network capabilities of the International Space Station (ISS).	2006 NASA Strategic Plan – Goal 2: Complete the International Space Station in a manner consistent with NASA's international partner commitments and the needs of human exploration.					
16	KSC Shuttle Launch Control System (LCS)	The LCS provides hardware and software development, modification, and sustaining engineering for Checkout Control and the Monitor subsystem, Shuttle Data Center, Record and Playback System, and associated subsystems.	2006 NASA Strategic Plan – Goal 1: Fly the Shuttle as safely as possible until its retirement, not later than 2010.					

Investment Title		Investment Description	Alignment
17	JSC Space Shuttle Program Flight Software	The Space Shuttle Program Flight Software (FSW) element maintains, tests, reconfigures, and configures management of the Onboard Shuttle Software.	2006 NASA Strategic Plan – Goal 1: Fly the Shuttle as safely as possible until its retirement, not later than 2010.
18	JSC Space Shuttle Program Integration	The Space Shuttle Program Program Integration includes Payload/Cargo Engineering, System and Mgmt Integration, Technical Information Systems, International Space Station Program Integration and the Program Integration offices in Alabama and Florida.	2006 NASA Strategic Plan – Goal 1: Fly the Shuttle as safely as possible until its retirement, not later than 2010.
19	JSC Space Station Production Facility	Using COTS and internally developed applications, this project provides access to and maintains critical Program data, providing tools required for NASA, Boeing and other Program Participants to meet their Program commitments.	2006 NASA Strategic Plan – Goal 2: Complete the International Space Station in a manner consistent with NASA's international partner commitments and the needs of human exploration.
20	KSC Shuttle Integrated Logistics	Integrated Logistics (IL) is in the operational phase of the NASA CPIC process. Formerly reported as part of Shuttle Processing Support, IL provides repairs, maintenance, and warehousing of Shuttle Orbiters and associated Ground Support Equipment.	2006 NASA Strategic Plan – Goal 1: Fly the Shuttle as safely as possible until its retirement, not later than 2010.
21	KSC Shuttle Processing Support	This KSC investment is used to support Space Shuttle processing, launches, and landings. This investment is used to "keep the doors open" by minimizing obsolescence issues and hardware failures on the Shuttle schedule.	2006 NASA Strategic Plan – Goal 1: Fly the Shuttle as safely as possible until its retirement, not later than 2010.
22	KSC Shuttle Ground Operations	Ground Operations is responsible for all Shuttle processing, from landing recovery to launch. Ground Operations consists of systems not covered in the LCS and LSE categories. These systems are under configuration control of the Ground Board.	2006 NASA Strategic Plan – Goal 1: Fly the Shuttle as safely as possible until its retirement, not later than 2010.
23	SMD - Deep Space Network (DSN)	The DSN enables the mission to explore the solar system by providing a cost effective two-way communications link to missions operating in deep space and provide navigation information to the mission to chart a course in the sky.	2006 NASA Strategic Plan – Goal 3: Develop a balanced overall program of science, exploration, and aeronautics consistent with the redirection of the human spaceflight program to focus on exploration. Sub-Goals 3A, 3B, 3C, 3D, 3F.
24	NASA Office Automation, IT Infrastructure, and Telecommunications	NASA's investment in Office Automation, IT Infrastructure, and Telecommunications is managed as the NASA Integrated Information Infrastructure Program. NASA OAIT incorporates NASA's ongoing infrastructure and new improvement initiatives.	2006 NASA Strategic Plan – Supports all goals, sub-goals, and cross-cutting management strategies.
25	NASA Data Center	The NASA Data Center provides computing infrastructure support services across NASA as a Mission Support activity.	2006 NASA Strategic Plan – Supports all goals, sub-goals, and cross-cutting management strategies.

Appendix 2: Summary of Performance Against Previous NASA IRM Strategic Plan

(Against September 2006 IRM Strategic Plan)

2006 Goal 1: Provide an infrastructure that can adapt and evolve to emerging technologies and service models

Measure	Target	Results
Governance framework in place for the NASA EA	Up-to-date policies and procedures in place for use of the NASA EA, with EA volume updates reviewed and approved by NASA Senior Management and signed by the NASA Administrator.	Target met
Percentage of enterprise architects certified in "Federal Enterprise Architecture."	<ul style="list-style-type: none"> FY07 Plan: Q1: 50 percent of enterprise architects. Q3: 75 percent of enterprise architects FY08 Plan: Q4: 100 percent of enterprise architects 	Target met
Number of EA reviews conducted for NASA major IT investments	25 EA reviews conducted on major IT investments by Q2 FY07	Target met
OMB assessment of EA completion, use, and results	Meet or exceed President's Management Agenda Scorecard criteria for maintaining Green <ul style="list-style-type: none"> Q1 FY07: EA Governance and Management – Target 4.0 Q1 FY07: Federation of Enterprise and Segment Architecture – Target 5.0 Q2 FY07: EA Deployment – Target 5.0 Q2 FY07: CPIC Integration – Target 4.0 Q3 FY07: IT Implementation Improvement – Target 4.0 	Target met

2006 Goal 2: Optimize investments in mission and program unique IT systems by utilizing common infrastructure tools and services where practical

Measure	Target	Results
Migration of NASA public content to the portal infrastructure	Transfer public content that is generating 80 percent of the public traffic into the portal infrastructure by 4Q FY07.	Target not met
Capability of NASA network backbone and IT workforce to handle IPv6 data packets	<ul style="list-style-type: none"> NASA network backbone to be routing IPv6 data packets no later than June 30, 2008 Q1 FY07 – IPv6 DHCP, NTP, and DNS services established and tested Q3 FY07 – Develop standards and structure for IPv6 address allocation Q1 FY08 – Ipv6 addresses configured in devices Q4 FY08 – NASA's WAN, Center LAN backbones and peering points operating in dual stack mode 	Target met
Migration of NASA users to a common Agency messaging solution	<ul style="list-style-type: none"> 50 percent of NASA Centers by Q3 FY07 100 percent of NASA Centers by Q3 FY08 	Target met

2006 Goal 3: Provide a mission and customer focus to the provisioning of common IT services across NASA.

Measure	Target	Results
Customer satisfaction	<ul style="list-style-type: none"> Establish baseline customer satisfaction levels by Q2 FY07 Improve customer satisfaction levels to acceptable levels by Q4 FY08 (at least 75 percent satisfied or highly satisfied) 	Baseline established
Service level agreements in place for Agency-wide services	100 percent by 4Q FY07	SLA's in place for NASA Data Center, NASA portal, and Agency e-mail and calendaring.
Information management capability	<ul style="list-style-type: none"> Q4 FY07: NASA taxonomy developed Q4 FY07: Policy and procedural requirements approved for information management Q2 FY07: 20 percent of Scientific and Technical Information (STI) digitized Q4 FY07: 35 percent of STI digitized 	Taxonomy still in development. Information management policy and procedural requirements still in draft form. Target met for digitalization of STI.

2006 Goal 4: Protect and secure the Agency's information assets.

Measure	Target	Results
Percentage of systems certified and accredited	4Q FY07: 100 percent of NASA systems with a current Authorization to Operate (ATO)	More than 90 percent of systems achieved C&A by September 24, 2007
Number of Agency-wide applications using common infrastructure for identity, account management, and authentication	<ul style="list-style-type: none"> • 50 percent of applicable HIGH systems by 4Q FY07 • 100 percent of applicable HIGH systems by 4Q FY08 • 100 percent of applicable MODERATE systems by 4Q FY09 • 100 percent of applicable LOW systems by 4Q FY10 	Not met. Deployment of smart cards and implementation of Agency active directory solution in progress.
Percentage of systems in compliance with operating system benchmarks	100 percent of non-waived systems by 4Q FY07	Not met
Efficacy of privacy controls	<ul style="list-style-type: none"> • Procedural requirements approved by Q2 FY07 • Privacy impact assessments completed for 100 percent of applicable systems (on-going target) • Annual notification to employees of privacy responsibilities – Q3 FY07 	Met

2006 Goal 5: Maintain an Agency-wide IT investment portfolio in alignment with mission and business needs and ensure proper management of investments within the portfolio

Measure	Target	Results
Percentage of qualifying investments with an approved business case	100 percent of new investments	Met
Percentage of investments compliant with NASA Project Management procedures	100 percent of new investments	Met

2006 Goal 6: Maintaining a strong IT workforce through effective human capital management

Measure	Target	Results
Percentage of project managers validated according to Federal CIO council guidelines	100 percent validated for major IT investments	Met
Number of Center IT professionals completing developmental assignments in the office of the NASA CIO	Four each fiscal year	Met
Percentage of System Administrators certified in Systems Administration	100 percent by Q4 FY07	Met
Percentage of NASA personnel that have completed IT security training	100 percent by Q4 FY07	Not met – 94 percent

