NATIONAL GALLERY OF ART
INFORMATION TECHNOLOGY PROGRAM
FY 2010

The National Gallery of Art depends heavily on Information Technology (IT) to support its interaction with the public and the staff. The Gallery's IT environment is a complex infrastructure consisting of 11 major IT systems serving the multi-faceted requirements of the Gallery including acquisition, care and display of works of art, special exhibitions and education programs, as well as financial and administrative management. The basic daily operations, beginning with opening the Gallery to the public each morning, require a variety of systems such as those for security, building automation, collections management, education, financial management, and retail.

IT supports many other non-major systems that nevertheless play a critical role in the day-to-day functions of the institution. Such systems include the VISTA scheduling system for school and group tours, a facilities' work order tracking system, a fixed asset tracking system, a check writing system, and computer assisted design (CAD) systems used by the Gallery's architects, designers and engineers.

IT is also central to the Gallery's risk management strategy as many of the systems require sophisticated IT support, from advanced climate control and security to collection, library, and financial management. The failure of any of these mission critical systems jeopardizes the security and safety of the works of art, staff and visitors and impedes the ability of the staff to meet performance goals and management initiatives.

Through the Gallery's web site, educational resources on the collection and special exhibitions offer anyone with Internet access features ranging from virtual tours to planning an actual visit and researching the collection. The Gallery's educational role is also supported by IT through the Internet/Intranet/Office Automation systems which provide the public with direct communication through its web site and e-mail and enable efficient staff communication throughout the Gallery.

The Gallery's FY 2010 IT budget submission is based on the implementation of its IT Strategic Plan. IT improvements have required multiple years to implement – up to one year to prepare the solicitation packages and select a vendor, and then up to two years to develop, test, and install the new systems. This plan addresses the proactive replacement, repair, and stabilization of the Gallery's mission critical systems.

The Gallery's IT environment is divided into the following categories:

- Art Care Systems
- Financial, Administrative and Operations Systems
- IT Infrastructure and Office Automation
- Web-based Programs to support E-government
- Enterprise Architecture and Planning

Current State of the Art Care Systems

Collections Management System (CMS): In the spring of 2008, the Gallery transitioned from its 20+ year old, DOS-based, custom-designed art collection system to

The Museum System (TMS), a commercial off-the-shelf system that is used in over 600 museums. User training was completed as part of the transition to the new system. This risk of failure to CMS is low.

Integrated Library System (ILS): The Gallery continues to use the Ex Libris commercial off-the-shelf *Voyager* system as its Integrated Library System. Digital library products are supported using *DigiTool* and *MetaLib*, products from Ex Libris Corp. A strong technology refreshment program is in place for these systems. The risk of failure to ILS is low.

Digital Imaging: The Gallery's archives of slides and color transparencies are degenerating. In order to preserve quality images of the collection, this aging technology must be replaced to prevent further deterioration of the images of the works of art and to archive for future generations images of the works of art as they appear today. The Gallery's digital imaging strategy, based on a number of recommendations from an internal study, has resulted in the creation of a digital photographic laboratory and the development of a prototype central electronic repository and management system for digital images of works of art in the collection. The project also included the deployment of an image work order production system, and an image licensing system is planned. The risk associated with digital imaging is medium as current processes are not cost effective and over time the current images of the collection are at risk.

Current State of the Financial, Administrative and Operations Systems

Integrated Security Management System (ISMS): A new system (*Seibold's Skyline II*) was acquired and became operational in FY 2006. A strong technology refreshment program is in place for this system. The risk of failure assigned to the security system is low.

Fire Control System: The Gallery uses the Siemens Cerebus-Pyrotronics MXL/MXLV system to protect the staff, visitors, Gallery facilities, and its collection of original works of art. Recently, the graphic display unit and hard drive for the proprietary MXL system failed and replacement parts are no longer available. While the fire control system still protects the Gallery, the unavailability of the proprietary display unit in the security control center greatly limits the ability of the operations staff to efficiently identify the precise location of alarms. The risk of failure assigned to this system is medium and rising.

Building Automation System (BAS): The current system, which controls the environment for protecting the art, the Gallery's staff, and visitors, has been in place since 1996. It is being updated with new software releases and related technology advances. One of the Gallery's key goals is to expand the coverage for monitoring and controlling temperature and relative humidity conditions throughout the Gallery complex. The risk of failure assigned to this system is low.

Financial Management System (FMS): The Gallery has replaced its legacy, DOS-based system that was over 20 years old with a web-based, externally hosted OFFM-compliant system (*Oracle Federal Financials*). Phase I of the new financial system was deployed in FY 2007 removing the dependence of this mission-critical system on an unsupported mainframe. Phase II of the new system was deployed in FY 2008. The risk of failure assigned to FMS is low.

Current State of IT Infrastructure and Office Automation

Office Automation (OA): The Gallery has now standardized and modernized its OA environment. Current Gallery-wide desktop Intel-based PC and Apple Macintosh hardware platforms are in place with standardized Microsoft Windows XP/Office XP and Macintosh OS 10 system software supported by an outsourced Help Desk. Inventory control of the OA assets has increased with the use of an on-line inventory management system and bar coding of equipment. The IT security of the OA environment has been enhanced with the development of a strong IT Security program and the addition of virus protection software throughout the OA architecture. A highly successful on-site OA training program has been implemented. The risk of failure to office automation remains low.

Data Network: The Gallery's current data network infrastructure, which supports the 11 major IT mission systems and over 1,000 desktops, is out-of-date and highly unstable. The existing network is unable to handle the current data traffic and is being replaced in phases. The first and second phases, the purchase and installation of new core switches and the wiring from the core switches to the data closets, are complete. The risk of failure to the data network will remain high until the replacement of the routers and wiring from the data closets to the desktops (phase 3) is complete.

Telecommunications: The Gallery has an extensive telecommunications infrastructure that supports voice, wireless, data cabling, and video communications. In 2003, the Gallery installed a PBX switch with Internet Telephony capability and has made significant progress upgrading the cabling infrastructure. Although the main PBX and Voicemail systems are state of the art, numerous telephones and other telecommunications subsystems are well beyond their normal lifespan and must be replaced. The risk of failure is low for the PBX and Voicemail subsystem.

Current State of Web-based Programs to Support E-government

Gallery Web Site: The Gallery's original web site was deployed in 1996 and for many years was an award winning site, but it now has become a dated resource failing to take advantage of emerging technologies to better serve the public. A Request for Proposals to develop the strategy, requirements and high-level design for the redesign of the web site was awarded in FY 2008, and the project is now in the discovery and strategy phase. The risk assigned to the web is medium.

Gallery's Intranet: The intranet provides Gallery staff with useful information on Gallery policies and business processes, including forms and instructions for accounting, personnel, travel, and procurement as well as a telephone directory and policy circulars. In order to realize the full potential of this important resource, the Gallery has initiated a phased redesign of the intranet. Several workflow projects are underway that allow Gallery staff to access additional information on-line. The most recent deployed application is an on-line internal request for imaging services. The risk assigned to the intranet is medium.

Current State of Enterprise Architecture and Planning

Capital Planning and Control Process (CPIC): The Gallery's IT Steering Committee (ITSC) continued its role in the selection, control and evaluation of major IT system projects as documented in our CPIC process. The ITSC establishes the priorities for the IT budget based on mission need and continued its oversight of all major IT modernization efforts. The Gallery continued to focus on IT risk management, adherence to the Gallery's enterprise architecture, and inclusion of IT security as part of the modernization programs.

Enterprise Architecture: The Gallery updated its Enterprise Architecture Modernization Blueprint. This version identifies emerging needs in data warehousing of archival, conservation and curatorial records; mass storage requirements for digital images; the need for central management of art related scheduling activities; a central inventory management system; and a personnel database that incorporates the OPM mandated electronic Official Personnel File (e-OPF). These new initiatives are mapped to OMB's Federal Enterprise Architecture Framework. IT drivers for the "To-Be" architecture were updated and have been included in the Gallery's IT Strategic Plan.

IT Security: Gallery-wide IT security was a high priority in FY 2008 and the Gallery continued to make progress in meeting FISMA requirements. Weekly and monthly reporting of virus and spam activity continued. Monthly reporting on the deployment of Microsoft-related IT security patches continued. Desktop personal computers continued to be "locked down" and a similar approach for "locking down" the Macintosh computers was developed and is being executed. The annual independent internal and external scan of the data network was performed and IT security vulnerabilities discovered were remediated. Progress was made in encrypting Gallery laptops with the acquisition of the Pointsec encryption tool; testing of the tool is underway in the test lab with deployment scheduled for FY 2009. A priority was placed on IT Security Awareness training and all users of the Gallery's network received the required annual refresher training. An independent contractor was selected to assist the Gallery with Certification and Accreditation of the major IT systems; the Gap Analysis for the General Support System was completed with a plan of action and milestones to track status of identified deficiencies. The Gap Analysis of the Financial Management System is underway.

FY 2008 Accomplishments

Modernization of the Gallery's major IT systems continued, with the replacement of CMS as the top priority due to this system residing on the old, unsupported mainframe. Phase I of CMS was deployed in April 2008; and the unsupported mainframe was decommissioned in May 2008. Phase II of FMS was completed and deployed in FY 2008.

Consistent with the Gallery's enterprise architecture, the initial infrastructure required for the capture and central management of digital images is in place. A business process management "tool-kit" has been acquired and was being used as the foundation for the new digital imaging request system to track work orders.

New alarm points in the CASVA work and study areas were connected to the Building Automation System.

The IT office automation infrastructure remained stable. Efforts continued on the cost-effective management of IT equipment and software. The data network project continued with the development of the standards for the project, acquisition of software to document the new wiring system, development of an overall "pathways" plan for the new wiring, and execution of a pilot project to rewire the communication closet and offices which support the IT Help Desk users. A Request for Proposals was released for new fire suppression and HVAC systems for the IT Data Center/Server Room.

Work commenced on several OMB-mandated programs: The assessment phase of e-OPF was conducted with assistance from the Office of Personnel Management. The Gallery, with support provided from the General Service Administration, is in the process of re-issuing Gallery badges with Smart Cards that meet the requirements of HSPD-12. The Gallery's IT infrastructure was successfully tested against the requirements for Internet Protocol version 6 (IPv-6).

A program to perform Certifications and Accreditation (C&A) of major IT systems commenced. Each system will first have a "Gap Analysis" performed to determine readiness for the C&A process. The Gap Analysis of the General Support System and the Financial Management System were completed.

FY 2009 Objectives

In FY 2009, phase 1b of CMS II will be deployed. The final phase of the data network upgrade will continue with the rewiring of data closets and user offices. A new system to provide digital images to the public via our web site will be deployed. The central computer mass storage system required to store the digital images will continue to be augmented. A study will be conducted to determine requirements and architecture for a data warehouse for central storage of archival, conservation and curatorial records.

The IT Security Program will focus on encryption of laptops and protection of Personally Identifiable Information (PII). Efforts on C&A will continue with resolving deficiencies identified for the GSS and FMS. A Gap Analysis will be performed on the Retail System, the Integrated Security Management System, and the Integrated Library System.

New alarm points in the East Building will be connected to the Building Automation System.

Conversion of NGA personnel folders in accordance with the e-OPF program will commence.

FY 2010 IT Budget Request and Key Initiatives

$6,814,000 is requested for IT in FY 2010, the same amount as the FY 2009 Budget. Work on Phase 3 of the network modernization, a multi-year project, will continue. The remainder of the budget provides for the steady state costs required for the Gallery's Enterprise Architecture, IT security, existing license, maintenance agreements, and technology refreshment programs for the 11 major IT systems.

NATIONAL GALLERY OF ART
INFORMATION TECHNOLOGY (IT) BUDGET REQUEST
FY 2009 and FY 2010
($000's)

	FY 2009	FY 2010	FY 2010 Increase/ (Decrease) FY 2009
IT SERVICES AND SUPPLIES			
Building Automation System (BAS)	$ 50	$ 50	$ -
Collection Management System (CMS II)	55	60	5
Integrated Library System (ILS)	60	84	24
Personnel/Payroll Systems	121	121	-
Electronic Official Personnel File (e-OPF)	-	-	-
Financial Management System (FMS II)	769	818	49
Integrated Security Management System (ISMS)	300	322	22
Smart Card (HSPD-12)	25	58	33
Telecommunications	550	550	-
Digital Imaging	50	50	-
Intranet	450	486	36
Web Site	136	238	102
Network	620	659	39
Office Automation (OA)	1,591	1,547	(44)
Enterprise Architecture	160	176	16
Digital Data Repository	-	-	-
IT Security	320	375	55
Supplies	40	40	-
Total IT Services and Supplies	**5,297**	**5,634**	**337**
IT EQUIPMENT			
Building Automation System (BAS)	75	75	-
Collection Management System (CMS II)	-	-	-
Financial Management System (FMS II)	-	-	-
Integrated Library System (ILS)	-	20	20
Electronic Official Personnel File (e-OPF)	160	-	(160)
Integrated Security Management System (ISMS)	25	25	-
Telecommunications	30	30	-
Digital Imaging	50	50	-
Web Site	-	-	-
Network	590	490	(100)
Office Automation (OA)	587	490	(97)
IT Security	-	-	-
Total IT Equipment	**1,517**	**1,180**	**(337)**
TOTAL IT BUDGET	**$ 6,814**	**$ 6,814**	**$ -**