



**Section 3**  
**INFORMATION TECHNOLOGY PROGRAMS**

# INFORMATION TECHNOLOGY PROGRAMS

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## SECTION 3

### 3.1 INFORMATION TECHNOLOGY PROGRAMS

#### Technology Overview

##### Purpose

**F**und 104, Information Technology, was established in FY1995 to strengthen centralized management of available resources by consolidating major Information Technology (IT) projects in one fund. Based on the 1994 Information Technology (ITAG) study, this fund was created to account for spending by project and is managed centrally by the Department of Information Technology. Historically, the E-911 Emergency Telephone Service Fee, a General Fund transfer, the State Technology Trust Fund, and interest earnings are sources for investment in Information Technology projects. However, in FY 2001, the E-911 Emergency Telephone Service Fee revenue and related project expenses were moved to Fund 120, E-911 to satisfy a state legislative requirement that E-911 revenues and expenditures be accounted separately.

The County's technology strategy has several key elements: provide an adequate technology infrastructure for agencies in making quality operational improvements; redesign existing business processes with technology to achieve large-scale improvements in service quality and achieve administrative efficiencies; and promote the use of technology in enabling government services without "doors, walls or clocks". The County's long-term commitment to provide quality customer service through the effective use of technology is manifested in service enhancements, improved access to services electronically, expedited response to citizen inquiries, improved operational efficiencies, better information for management decisions, and increased performance capabilities.

##### FY 2011 Initiatives

In FY 2011, funding of \$5.5 million, which includes a General Fund transfer of \$3.2 million, Cable Communications Fund transfer of \$1.8 million, and interest income of \$0.5 million, is provided to meet contractual obligations and complete planned phases of existing IT projects in Fund 104. These projects continue to meet one or multiple priorities established by the Senior Information Technology Steering Committee and include a mix of projects that provide benefits for both citizens and employees and that adequately balance continuing initiatives with the need

for maintaining and strengthening the County's technology infrastructure. Funded projects will support initiatives in general county services and sustain enterprise technology foundation systems and infrastructure. Although many initiatives meet more than one of the technology priorities, for narrative purposes below, projects have been grouped into only one priority area.

In accordance with the FY 2011 Budget Guidelines funding requests for Fund 104 IT projects were limited to mandates and existing IT projects requiring a planned funding increment to meet contractual obligations and/or to complete a planned phase. During the annual Fund 104 submission process, agencies were advised that in response to significant budget constraints FY 2011 Fund 104 Funding requests must represent the planned budget increment supporting a previously approved phase required to continue the project deliverables. While funding for IT projects is very limited in FY 2010 and FY 2011, it is anticipated that expenditure requirements will increase in future years due to several large systems approaching the end of their useful life.

In keeping with established procedures, a Project Review Team consisting of business and technical staff from the Department of Information Technology (DIT) and the Department of Management and Budget (DMB) evaluated all submissions requesting additional funding for clear alignment with project plans and anticipated deliverables. Evaluations considered continued alignment with project plans from both a business and a technical perspective, including whether the continued implementation of the project would realize proposed benefits. Benefits of the project were weighed against the cost and several risk factors, including potential unknowns related to expenses, changes in scope necessitated by new business drivers, technological relevance, operational transformation needs, project schedule viability, and the impact of not funding or otherwise delaying the project. Technical factors examined include alignment with County technology architecture and standards, impact on existing County IT infrastructure, and availability of viable products and services. Also considered were factors such as organizational experience with the solutions that support

the project business goals, and the availability of human resources both in DIT and the sponsoring agency to implement the project.

### Funding Priorities

The Senior IT Steering Committee establishes the funding priorities for technology projects. Beginning in FY 2004, based on global changes in social and economic paradigm shifts, the new priorities shown below were adopted. The recommended IT investments meet the five key investment policy objectives shown below and are supported by the Senior IT Steering committee and the Information Technology Policy Advisory Committee (ITPAC). A more detailed explanation of the projects within these requirements is provided within:

- **Mandated Requirements:** enacted by the Federal Government, Commonwealth of Virginia, Board of Supervisors, Court ordered or County regulation changes.
- **Completion of Prior Investments:** multi-year lease purchase, implements phase or completion of planned project.
- **Enhanced County Security:** homeland security, physical security, and information security and privacy.
- **Improved Service and Efficiency:** consolidate business practices; support more efficient government; optimize management and use of County assets and data; enhance systems to meet the expectations and needs of citizens; and promote service that can be provided through the Internet and e-government.
- **Maintaining a Current and Supportable Technology Infrastructure:** consistent and reliable hardware, software and communications infrastructure; ensure that citizens, businesses and County employees have appropriate access to information and services.

The five investment policy objectives relate to the County's continuing focus on making access to government services more reliable, secure, and efficient. The projects on the following pages are supported and will receive additional funding in FY 2011. The established priorities for IT projects for FY 2011 are summarized as follows:

PRIORITY	FY 2011 ADOPTED FUNDING
Completion of Prior Investments	\$1.4 million
Enhanced County Security	\$1.0 million
Maintaining a Current and Supportable Technology Infrastructure	\$3.1 million
<b>TOTAL</b>	<b>\$5.5 million</b>

### Completion of Prior Investments – \$1.4 million+

The County's IT program focuses on using technology as an essential tool to enable cost-effective delivery of services, and continues to stress the need to build reliable, supportable projects for these services in a timely manner. Many projects funded can be completed within that fiscal year, while others are multi-phase projects that require more than one year of funding.

In FY 2011 funding of \$665,550 is included to support the Computer Integrated Facilities Management (CIFM) system for the Facilities Management Department and Park Authority. The two agencies hold the greatest portion of responsibility for the maintenance of the County's largest and most valuable physical assets: its properties, facilities, and the subsystems that keep them operational. FY 2011 funding will support completion of the CIFM project and the deployment of the remaining mobile devices to allow field access to asset data, inventories, operational information as well as improved data collection and inventory tracking. The investment support efficiencies within agencies, by streamlining time-intensive paper-intensive processes associated with generating and documenting reports, while reducing the amount of travel required between offices, stations, and the field.

Funding of \$350,000 is included in FY 2011 to support the continued implementation of an electronic summons solution for traffic tickets in Fairfax County. The goal is for officers to capture and transmit traffic summons information to the Court electronically via hand held or in-vehicle electronic devices. The project aims to eliminate manual data entry, ensure data integrity, provide accurate code section violations to officers in the field, facilitate faster and safer ticketing process for officers and enhance public access to traffic ticket and case information.

Funding of \$300,000 is included to continue Fairfax County's investment in e-Government. The County continues to use public access technologies to support the expanding demand for on line e-services and information associated with the County's growth and diversity. A comprehensive approach is employed to ensure an efficient infrastructure capable of supporting multiple business solutions. FY 2011 plans include the development of collaborative functionalities for County agencies including implementation of a new FairfaxNet SharePoint portal to provide a centralized resource for County content, forms, policies, news, applications, and training.

FY 2011 funding of \$75,000 in the Courts electronic wayfinding project is required to complete installation of wayfinding to Juvenile and Domestic Relations District Court (JDRDC) courtrooms and the Courthouse information desk.

### **Enhanced County Security – \$1.0 million**

Ensuring the security of the County's IT investments and information assets is of primary importance to the Department of Information Technology. Through many projects and initiatives, efforts are focused on the security of various levels of County data, from e-mail to homeland security measures. During FY 2011, the County will continue to implement a multi-faceted approach to securing County data and assets.

Funding of \$862,882 is recommended in FY 2011 to support final implementation of the integrated Public Safety Computer Aided Dispatch/Records Management System (CAD/RMS) as part of the Public Safety Architecture Modernization initiative. The funding supports final implementation and integration of modules, as well as wireless support to ensure a unified technology platform across public safety agencies.

FY 2011 funding of \$100,000 is included to create a data warehouse to enable effective management information reporting from various disparate Department of Family Services (DFS) systems. This project will enhance security and efficiency within DFS by providing standardized, consistent, clean and integrated data sourced from 30 distinct department wide IT systems. The data will be structured to address the reporting and analytical needs of each division and the department, and will provide a systematic way to retrieve and analyze data in order to enhance overall service delivery.

Funding of \$75,000 is recommended to design and develop a secure, scalable and easy to use Community Services Board (CSB) HIPAA data repository to store current and future HIPAA related information. The project will ensure CSB's compliance with federally mandated HIPAA regulations designed to protect the privacy and confidentiality of individually identifiable health information. The design will include appropriate role based security and scalability to enable multiple departments to store HIPAA-related information on a consolidated and secure platform.

### **Maintain a Current and Supportable Technology Infrastructure – \$3.1 million**

In an ever changing technical environment, maintaining a current and supportable technology environment is a challenge that must be continually addressed to ensure performance, operability, security and integrity. The County's technological improvement strategy strives to balance business needs that require technology investments with the desire to adopt contemporary but relevant and supportable technology industry trends, as well as the ability to leverage existing infrastructure. Projects funded in FY 2011 support the goal of continuing to update and strengthen the technology foundation where practical, and ensure that residents, the business community and County staff have appropriate and reliable access to information and services.

Funding of \$1,742,000 in FY 2011 supports the continued implementation of the multi-year Telecommunication Modernization Project designed to replace disparate telephone systems throughout the County with a contemporary telecommunication platform that includes functionality to integrate voice with data capabilities such as e-mail, other messaging systems, streamline business processes, consolidate use of telecommunications facilities, enhance system operational efficiency, and reduce overall support costs. An additional core benefit will be the use of distributed telecommunications applications across the enterprise fiber network (I-Net). The new voice communications platform also provides secure communications to support the needs of Telework. This project provides the telecommunications infrastructure to serve the communications needs of County agencies and advances service delivery to citizens, while maintaining flexibility to adopt future technologies with a minimal need for new spending. This project is funded by a transfer from Fund 105, Cable Communications.

FY 2011 funding includes \$843,705 to complete the lease-purchase obligation associated with the Public Service Radio Replacement project. Radio replacement was completed during FY 2007. In future years, a hardware refresh cycle will be needed for the subscriber radios associated with this project.

FY 2011 funding of \$278,212 is recommended for continued support for the County's planned ongoing maintenance of essential Geographic Information System (GIS) data. FY 2011 funding represents support of the annual update of the GIS base map data for 25 percent of the County based on spring 2009 aerial imagery and other data. This funding combined with the previous three years of work will complete the first planned four year update cycle. GIS data is heavily used by the general public as well as numerous County agencies, including: Police, Fire and Rescue, Department of Public Works and Environmental Services, Transportation, Housing and Community Development, Planning and Zoning, and Tax Administration.

FY 2011 funding of \$100,000 is included to begin requirements analysis for replacement of the existing case management system for the Community Services Board (CSB). Replacement of the existing SYNAPS system was recommended by the Beeman Commission Report. It is anticipated that replacement of the entire system will be required in FY 2012 and FY 2013.

Funding of \$75,000 is included in FY 2011 to provide for continuing information technology training and certification in recognition of the challenges associated with maintaining skills at the pace of technological changes and to ensure that the rate of change in information technology does not outpace the County's ability to maintain proficiency. As the County's workforce becomes increasingly dependent on information technology, training support has become more essential.



Budget ID Number	PROJECT TITLE	FY 2011 STATUS	FY 2006 ADOPTED	FY 2007 ADOPTED	FY 2008 ADOPTED	FY 2009 ADOPTED	FY 2010 ADOPTED	FY 2011 ADOPTED
<b>FUND 120</b>								
IT0001	Public Safety Comm.Network	On-going	8,497,796	5,908,579	7,233,079	7,984,403	4,304,000	5,179,000
	<b>TOTAL FUND 120</b>		<b>8,497,796</b>	<b>5,908,579</b>	<b>7,233,079</b>	<b>7,984,403</b>	<b>4,304,000</b>	<b>5,179,000</b>
<b>FUND 104</b>								
IT0004	Geographic Information System	On-going	491,180	411,000	386,680	158,840	150,000	278,212
IT0006	Tax / Revenue Administration	On-going	866,930	0	0	0	0	0
IT0010	Information Technology Training	On-going	300,000	200,000	250,000	100,000	50,000	75,000
IT0011	Doc. Management and Imaging	On-going	1,493,410	1,351,629	1,145,000	0	0	0
IT0015	Health Management Information	Complete	0	0	280,785	0	0	0
IT0022	Tactical Initiatives	On-going	850,000	276,539	96,648	0	0	0
IT0024	E government	On-going	500,000	475,000	275,000	208,190	0	300,000
IT0039	Court Modernization Projects	On-going	350,000	0	0	988,960	0	0
IT0048	Incident Reporting & Training Sy.	On-going	0	0	0	416,691	1,835,791	0
IT0050	Public Service Comm. Replc.	On-going	491,864	588,517	632,166	663,223	781,901	862,882
IT0054	SYNAPS	On-going	0	0	500,000	0	0	175,000
IT0055	Fairfax Inspec. Database Online	On-going	520,775	285,376	351,000	0	0	0
IT0056	Pilot Crim Tech.-Wayfinding	On-going	0	0	0	0	182,000	75,000
IT0058	Remote Access	On-going	50,000	100,000	0	0	0	0
IT0059	Child Care Technology Systems	On-going	0	0	194,165	0	0	0
IT0060	Telecommunications Modernization	On-going	3,300,000	4,495,000	1,757,461	1,534,750	2,100,000	1,742,000
IT0061	Information Technology Security	Complete	450,000	225,000	244,160	300,752	0	0
IT0062	Police Records -LEADS	Complete	300,000	500,000	2,200,000	4,147,000	1,224,691	0
IT0063	Facility Space Modernization	Complete	99,208	0	0	0	0	0
IT0065	Facility Maintenance Management	On-going	548,750	0	392,000	188,218	0	665,550
IT0067	Stormwater Maintenance Mang.	Complete	335,993	0	0	0	0	0
IT0068	Home occupation Permitting Sy.	Complete		46,375	0	0	0	0
IT0069	Integrated Housing Management	Complete	160,000	222,500	0	0	0	0
IT0071	E-Summons and Court Scheduling	On-going	405,000	552,500	0	200,000	0	350,000
IT0072	Citizen Relationship Management	On-going	0	500,000	250,000	300,000	0	0
IT0073	UDIS Replacement	Complete	0	820,000	0	0	0	0
IT0074	Data Analysis Reporting Tool	Complete	0	238,000	450,000	0	0	0
IT0076	Interactive Web Intake Program	Complete	0	130,000	0	0	0	0
IT0078	Courthouse Expansion Technology	On-going	0	1,730,000	0	500,000	0	0
IT0079	FOCUS Project	On-going	0	0	800,000	7,000,000	0	0
IT0080	RSIS	Complete	0	0	217,200	0	0	0
IT0081	Housing Manag. Software Upgrade	Complete	0	0	125,000	0	0	0
IT0082	Land Use Information Accessibility	On-going	0	0	300,000	0	0	0
IT0083	Public Safety Architecture Mod.	On-going	0	0	2,687,750	1,892,458	3,156,293	843,705
IT0084	DFS- Data Reporting Project	New						100,000
IT0085	Loan Processing Sy. Replacement	On-going	0	0	0	126,000	0	0
IT0086	Fire Station Alerting	On-going	0	0	0	200,067	0	0
IT0087	ParkNet Security Upgrade	On-going	0	0	0	179,571	0	0
	<b>TOTAL FUND 104</b>		<b>13,222,774</b>	<b>13,835,951</b>	<b>13,760,015</b>	<b>19,104,720</b>	<b>9,480,676</b>	<b>5,467,349</b>
	<b>GRAND TOTAL: IT PROJECTS</b>		<b>21,720,570</b>	<b>19,744,530</b>	<b>\$20,993,094</b>	<b>26,337,799</b>	<b>13,784,676</b>	<b>10,646,349</b>

## 3.2 Public Safety

### IT0001 Public Safety Communications Network/Systems

#### Project Description

This project provides for continued support and maintenance of the Department of Public Safety Communications (DPSC) network, radio and mobile communication components. The network's component systems are vital for ensuring immediate and systematic response to emergencies, and replacement and enhancement is necessary to maintain performance, availability, reliability, and capacity to meet growing County population and demand for public safety services. The Public Safety Communication Network (PSCN) supports emergency communications of the Police, Fire and Rescue, and Sheriff's departments. This includes public safety call taking (E-911, Cellular E-911, non-emergency), dispatching, and all affiliated communications support. Two of the major technologies utilized are a Computer Aided Dispatch (CAD) system with an integrated mobile data communications component and a wireless digital radio network for voice communications. The mobile data communications capability facilitates the dispatch of resources with minimal voice communications, provides field units direct access to local, state and national databases, and allows continuous contact with DPSC. The Public Safety Architecture Modernization Project (IT0083) provided the underlying infrastructure components and shared capabilities required for the implementation of a new integrated, interoperable Computer Aided Dispatch which was completed in November 2009.

This project will support the planned upgrade of Fairfax County's public safety radio system from an 11 site, SmartZone 3.0 Public Safety Trunked Radio System to a 12 site, 7.9 ASTRO25 Digital Trunked Radio System. The upgrade will transition the radio system to an IP based

network, enhance the existing outdoor and in-building radio coverage of the current system, and relocate the radio system central controllers from vulnerable locations to the heavily secured Public Safety and Transportation Operation Center.

#### Project Goals

The goal of this project is to ensure immediate and systematic response to emergencies, and to maintain performance, availability, reliability, and capacity for growth due to increase in County population and demand for public safety services.

#### Progress to Date

Technical requirements for the upgrade of Fairfax County's public safety radio system have been completed and a contract was awarded in January, 2010. Final system acceptance is planned for June 2011.

#### Project Budget

Funding is provided by Fund 120. FY 2011 funding of \$1,600,000 is included in Fund 120 for the fourth year life cycle replacement of a five-year replacement cycle for Mobile Computer Terminals (MCTs). FY 2011 funding of \$3,579,000 is provided in support of updating the County's Public Safety Radio System to the most current technology platform.

#### Return on Investment

The return on investment for this project is realized by the performance, productivity, and effectiveness of public safety services in Fairfax County. Replaced and upgraded technology for these systems is critical to the safety of the public and the public safety personnel they support.

### IT0011.5 JDRC Electronic Records Management System

#### Project Description

Juvenile and Domestic Relations District Court plans to implement an electronic records management system to allow the Court to replace traditional paper-based case files with electronic court case records for case processing and management. The system will be designed to facilitate information management and the sharing of documents, objects, and unstructured data through the use of imaging, document management, records management, and

enterprise application integration (EIA) tools. This document management system, which will be developed or procured, will allow the court to maintain its case records in electronic rather than paper format. The increasing volume of case records and the complex retention, confidentiality, and destruction criteria as mandated by the Virginia Code have severely impacted the court's ability to manage court documents. The Electronic Records Management System will convert new case records and retrieved existing

case records to electronic format in order to substantially reduce the need to rely on paper documents to initiate services to the public.

### Project Goals

An electronic document management system will provide improved security and integrity of records, reduce labor intensive and time consuming record retrieval and re-filing processes, provide simultaneous and instant access to court records, reduce costs associated with space and shelving for storage of paper documents, and provide a means of safeguarding documents with an electronic backup of court records.

### Progress to Date

The first set of processes for Informal Hearing/Monitored Diversion was implemented at the end of the third quarter of FY 2006. Functionality enabled in this first implementation included electronic document storage in case file format, workflow, form creation, scanning/scanned data routing, and enablement of electronic signatures. A portion of the baseline infrastructure was also built. The infrastructure houses the various environments for testing, training, acceptance, development and production.

Due to the nature of the remaining business areas to be covered and the new budget constraints the project will proceed with a more modest initial scope. The functionality will be built around the post-court process, specifically; case creation, document creation, user ability to view case records electronically, scanning and imaging, expungement, public viewing, and redaction. The user base will grow substantially; besides intake users presently utilizing the system, personnel will include the court clerk staff and public counter staff, judges, and the probation staff. A training period to accommodate the large number of users and diverse areas of duties will be planned. The initial Informal Hearing/Monitored Diversion functionality and content already in Documentum will be incorporated into the new project so as not to have two separate systems.

### IT0039 Circuit Court Technology

The Fairfax Circuit Court is nationally recognized for its delivery of outstanding public service and continues to actively pursue state of the art technological solutions to improve customer support and operational efficiencies. This project covers multiple facets of Circuit Court operations and receives funding through the Commonwealth of Virginia's Technology Trust fund.

### Milestones:

- Successful implementation of processes for Informal Hearing and Monitored Diversion with use by intake officers, intake clerks and limited services staff
- Infrastructure to support application, docbases, scanning, etc. set-up (missing failover to another site in case of all server failure at the Government Center)
- Successful deployment of hardware including desktops, monitors, scanners, and eSignature pads, for all presently activated users
- Successful deployment of software, including new County/JDRDC image, Adobe, and signature software loaded on users machines, and scanner software loaded on scanning workstations
- Creation of the ERMS lab (utilized for testing of the application and training sessions) which consists of 8 student workstations, one instructor workstation, a scanner and scanning workstation, and eSignature capabilities
- On going work to determine the requirements and design for the remainder of the system.

**Project Budget** Funding is not available in FY 2011.

### Return on Investment

This project will reduce staff time dedicated to locating missing files, and retrieving and re-filing records. It will reduce the physical storage space required for court records, avoiding the cost of leased space near the courthouse. Response time will be expedited for internal and external customers at the Records and Fines and Costs counters, and public access to court records will be made easier and more efficient. Planned back-up systems will provide the necessary data security.

### Project Description

**Court Automated Recording System (CARS)** – The Clerk's Office of the Fairfax Circuit Court is responsible for providing Fairfax citizens with reliable, timely, and accessible public records. As custodian of historical land records, the Land Records, Public and Services and Probate sections of the

Circuit Court recognized a critical need to preserve deteriorating paper documents, to ensure their availability for future generations. This project was initiated in an effort to preserve these documents and streamline the methods used to record, maintain, store, and view them. More than 39 million Land Record, Public Service and Probate images, dating from 1742 to the present have been digitized, indexed and loaded into the Court Public Access Network (CPAN). CPAN is a web-based, online retrieval system that is available 24 hours a day, 7 days a week, with more than 2,000 subscribers located domestically in twenty-eight states, the District of Columbia, and internationally in India. Subscribers include citizens, title examiners, law offices, mortgage companies, banks, the Commissioner of Accounts, and County agencies.

**Case Management System (CMS)** – The Court Modernization project began in 1997 with the County-initiated merger of the Circuit Court Judicial Operations agency with the Circuit Court and Records agency, to reduce administrative duties and expenses. At the time of the merger, the Clerk of Court and the Circuit Court Judges identified that a common, more robust case management system was essential for a successful merger of the two agencies. The current case management system automates the process of how a case moves through the court system and includes: case initiation and indexing, docketing and related record keeping, scheduling, document generation and processing,

calendar, hearings, disposition, accounting functions, security, and management and statistical reports. In 2006 and RFP was developed to replace the existing case management system, with a system which incorporated identified business processes and the latest developments in case management software, such as integrated Electronic filing and forms as well as document imaging and management. The RFP process was concluded in 2008 without an award. Circuit Court is working with Justice Systems Inc. (FullCourt) to negotiate a new contract to upgrade the existing case management software to the FullCourt Enterprise version which can provide imaging, electronic filing, DMV interfaces, as well as many other enhancements.

**Radio Frequency Identification (RFID) Project** will incorporate an RFID based system to assist in the real-time tracking of courts case file folders as they move throughout Circuit Court. The goal is to improve efficiency and customer services by greatly reducing staff time, effort and resources dedicated to searching and locating court case files. The project will utilize RFID tags affixed to case file folders so that court files can be tracked with strategically placed RFID readers. Additionally the system provides users the ability to submit queries for finding the real-time location of the folders or at a minimum the movement of the folders as well as last area in which the file was located as captured by the readers.



Fairfax County Courthouse

**Redaction** – The Commonwealth of Virginia passed legislation mandating the Clerk of the Circuit Court to redact the social security number (SSN) from all images in Circuit Court automated systems that are viewable via secure remote access. The Circuit Court has identified nearly 39 million images currently online and viewable through the Court Public Access Network (CPAN), a subscription internet service. Additionally, FCC requires a Commercial-Off-The-Shelf (COTS) software package with the capability to integrate into CARS for day-forward operations to remove SSN prior to final export of the new images into public view. Finally, the software must be capable of adding additional privacy requirements into the redaction process, back-file and day-forward, if future legislation is passed.

### Project Goals

Circuit Court modernization initiatives in the Clerk of Court's technology program include:

- Expanded electronic filing of more than 100 land record document types
- Replacement of the 10 year old case management system with a fully integrated system providing civil and criminal processing, imaging and electronic filing capabilities
- Redaction of social security numbers from nearly 39 million images in CPAN and integration of the redaction software into existing workflows
- Increase the number of courtrooms which use new technologies to facilitate remote testimonies, audio and visual displays of evidence, integrated assisted listening and interpretation capabilities

### Progress to Date

Past accomplishments include development and deployment of the Court's Land Records Recording System, including document imaging; implementation of the Court Public Access Network (CPAN) retrieval system, use of an automated jury management system to administer 45,000 potential jurors annually; deployment of a case management system to control the administration of the Court's judicial caseload; development and implementation of paperless probate processing; development and implementation of a streamlined marriage license process which utilizes scanners to import data from customers' operator licenses; implementation of electronic docketing display directing public to the assigned courtroom.

### Milestones:

#### CARS

- Digitized back-file images with associated indices and implemented web-based CPAN – 1999
- Scanned, indexed, and stored all land record documents for electronic processing – 2000
- Added non-deed document processes for indexing and storage (judgment abstract and notices, marriage licenses, financing statements) – 2000
- Redesigned processes to include automated cashing and scanning capabilities to update the public record in a more efficient manner – 2001
- Expanded images and associated indices available on CPAN to 1742 – 2001
- Electronic filing prototype for mortgage releases using the ACH transfer of funds – 2002
- Implemented Public Services cashing system – 2005
- Automated the administration of estates system – 2006
- Incorporated the use of commercial credit cards for payment of fees and taxes – 2007
- Creation and implementation of Electronic filing system – FY 2009.
- Electronic Filing System (EFS) rolled out to the public – FY 2010
- Integration of redacted data and processes mandated by the legislature – FY 2010
- Integrate with Identity Manager for single sign-on capabilities – FY 2010
- Integration of automated scanning in the marriage license application process for customers from nearby states – FY 2010
- Online Marriage License pre-application available to the public – FY 2011

## CMS

- Provided web-based availability of court information on CPAN-2005
- Implemented electronic docketing display directing public to the assigned courtroom – 2006
- Conducted demonstrations of case management systems recommended by the National Center of State Courts in preparation for the RFP – 2006
- The RFP process was concluded in 2008 without an award.

## RFID

- Architectural Review Board Approval – October 2009
- Infrastructure Requirements (data lines and electricity) – November 2009
- Submission of test data and identifying data elements – January/February 2010
- Implementation upon successful contract award – Spring 2010

## Redaction

- The contract was awarded in late April, 2010.

## Budget

FY 2011 funding of \$568,824 from the Virginia State Technology Trust fund will support Circuit Court technology projects.

## Return on Investment

CARS provides immediate electronic access to CPAN for over 2,000 commercial customers. The system provides added functionality to search for and correct errors that

occurred in documents recorded in the previous land records system. Additional benefits include enhanced retrieval and administration of Circuit Court records and an expedited transfer of information to the Department of Tax Administration, Geographic Information Systems and the Department of Public Works and Environmental Services.

For CMS, anticipated imaging and electronic filing enhancements will provide increased efficiencies in the processing of more than 22,000 civil and criminal case filings annually. Multiple parties will be able to access electronic case files simultaneously and file documents from their office or home, reducing the need to travel to the courthouse and provide 24/7 accessibility. Potential interfaces with other jurisdictions will allow the exchange of electronic documents and/or data and eliminate existing manual processes between jurisdictions.

Through the implementation of the RFID project the Circuit Court will save considerable time/effort/resources in tracking down case file folders in a repository that grows every year by approximately 27,000 files. The case file folders move from section to section throughout the court as processes necessitate, at any point judges, court administrators and clerk's staff can potentially be looking for the same case file. The RFID system will greatly improve operational efficiency and ensure safeguarding legal records and files. Nearly all retired judges from the Circuit Court bench have identified the need for better tracking of case files as a high priority for overall improvement.

The Redaction Project will enhance the security and integrity of CPAN by removing SSNs from public view. An added cost savings of the project will be the ability of the software to identify items that may be redacted by future legislative mandate without incurring additional reprocessing costs.

## IT0048 Fire and Rescue Incident Reporting and Records Management Systems

### Project Description

The Fire and Rescue Department's (FRD) Incident Reporting and Records Management Project is part of a multi-system, multi-phase initiative called the Public Safety Architecture Modernization project designed to provide a unified technology platform across public safety agencies in Fairfax County.

### Project Goals

Project goals include the replacement of the legacy Computer Aided Dispatch (CAD) system with a new and fully integrated and interoperable Computer Aided Dispatch system. The new CAD system can be integrated with the Fire Records Management System (FRMS) and Electronic Patient Care Reporting System (ePCRS). Project plans also include upgrading the existing Fire Records Management System (incident reporting) from a legacy web based application to the vendor supported client\

server solution and implementation of a field based Electronic Patient Care Reporting System (ePCRS) to capture patient care reports electronically. Deployment of the FireRMS, the mobile component of FRMS, in order to digitally store emergency response pre-plans as well as provide a platform to update FRMS information is also included in this project. FireRMS Mobile can be deployed to all Fire and Rescue Department operational vehicles including command and tactical units.

### Progress to Date

The ePCRS was implemented in FY 2008 with the deployment of a tablet based computer system for all Fire and Rescue units. Patient treatment information is collected directly on the tablet computer while the crew members provide emergency medical care. The patient information is linked via secure wireless service to the Electronic Patient Care Reporting Servers for direct storage. The process is fully HIPAA compliant and digitally capturing the patient information reduces the overall time required to complete the required reporting process through the elimination of duplicate processes (paper and pen reporting) and provides more accurate information for better recordkeeping. This system enables the Fire and Rescue department to comply with the Commonwealth of Virginia's Office of Emergency Medical Services (OEMS) mandated emergency medical services (EMS) data reporting requirements. In addition, the data captured can be reviewed to assist the Fire and Rescue Department in both the strategic planning for future services and the tactical deployment of Emergency Medical units based on that information. The ePCRS is currently in full production.

In FY 2009 the transition from the web based Fire Records Management System (FRMS) incident reporting system to the client\server FRMS incident reporting system and integration of the new incident reporting system with the new CAD system was completed. This change in application platform better positioned the Fire and Rescue Department to implement additional modules of the FRMS suite. Additional modules including those that cover Training, Personnel, Maintenance, Work Orders, Supplies and Inventory will be implemented in FY 2010. A limited deployment of FireRMS Mobile to command and tactical units will provide access to tactical and digital operational pre-plans for field personnel. Deployment to the balance of the operational fleet depends on availability of future funding.

### Milestones:

- Rolling go live and field tuning of ePCRS – April 2008
- Completion of Fire Records Management installation and configuration – FY 2009
- Implementation of additional modules of Fire Records Management – FY 2010
- Deployment of FireRMS Mobile and digital pre-plans to command and tactical units – FY 2010
- Future deployment of FireRMS Mobile to remaining operational fire vehicles.

### Project Budget

Additional funds have not been recommended in FY 2011 due to budget constraints.

### Return on Investment

A unified public safety architecture consisting of a modern records management system, integrated with CAD and other public safety agencies management systems enables more effective public safety operations in Fairfax County. This project ensures FRD's continued compliance with National Fire Protection Agency requirements, the Virginia EMS mandated reporting requirements, and will improve data management, statistical analysis, decision making capabilities, FRD's resource and apparatus standards, and improved operations.

The Electronic Patient Care Reporting System provides more timely and accurate tracking of patient transport information by creating more detailed patient treatment documents electronically with a tablet device directly interfaced with the current Computer Aided Dispatch system. With this system, billing information is readily, securely extracted, and electronically transmitted to the billing vendor which greatly improves the efficiency of billing and revenue collection. Patient care is enhanced through accurate documentation and information dissemination to the medical facility when the patient is transported. Furthermore, a reduction in the staff time required to complete patient care and incident reports provides units with a quicker "return to service" time.

Enhancements to the Fire Records Management System consolidates personnel, training and apparatus records in a single system of records, eliminating several legacy applications, and provides a central business system for the Fire Department. Deployment of FireRMS Mobile and availability of digital pre-plans to tactical field units are

critical to the Fire and Rescue Department operations. This functionality aids in determining the safest response to an emergency event. The overall Public Safety CAD/RMS system provides significant efficiencies for public safety

information and technology utilization. The systems have been consolidated under a single strategy with the various components interfaced when appropriate for a comprehensive view supporting incident response.

## IT0056 Courtroom Technology – Electronic Way-Finding

### Description

The electronic way finding system allows for electronic displays of public information and court dockets on large flat-screen displays strategically placed throughout the courthouse. The docket system scrolls through defendants' names and courtroom assignments and provides citizens summoned to court an efficient way to locate their courtroom. This system replaces an inefficient paper based system whereby each day court staff manually posted reams of printed court dockets on bulletin boards spread throughout the courthouse.

### Project Goals

All three courts continue to maximize and share resources focused on providing citizens summoned to court an efficient way to locate their courtroom and reduce the congestion and confusion experienced by the public on the morning their court session is scheduled. This project seeks to improve citizen's access, internally and externally, to the Courts and allow all three Courts to share common resources while providing flexibility and adaptability to incorporate future changes in technology and court processes.

### Progress to Date

All three courts currently utilize electronic docket display and share an information wayfinding system that displays public information at the main entrance of the courthouse. Future endeavors seek to integrate the docket display

systems with the Supreme Court of Virginia (SCV). In addition, future efforts will focus on expanded use of the existing systems and additional support for the public information desk via wayfinding, kiosks, etc.

### Milestones:

- Phase I – Pilot GDC Traffic Dockets, expand GDC to include civil and criminal dockets, completed FY2006
- Phase II – Add displays for Circuit Court civil and criminal combined, completed November 2005
- Phase III – add way finding at Main Entrance, completed FY 2009
- Phase III – add new displays for JDRC, completed FY 2010
- Phase IV – additional Circuit Court for renovated wing, FY 2010
- Phase IV – additional GDC for renovated wing, FY 2010
- Phase V – add functionality to assist public information center, FY 2011

### Budget

FY 2011 funding of \$75,000 is provided to complete installation of a unified electronic Way finding system for the Fairfax County Courthouse.



Fairfax County General District Court – Traffic Dockets

## Return on Investment

In implementing electronic way-finding, the objective continues to be on providing citizens summoned to court an efficient way to locate their courtrooms and reduce congestion and confusion experienced by the public. The

primary benefit will be improved efficiencies, the facilitation of court processes, and services that provide a direct benefit to the citizens, businesses and employees that reside in Fairfax County and conduct business with the Courts.

## IT0062 Police Records Management System - I/LEADS

### Description

The goal of this project is to implement a modern, intelligent, comprehensive Law Enforcement Records Management System (I/LEADS) that will improve reliability, accuracy, quality of data, and will operate on the principles of "single point of data entry" and query. The I/LEADS System replaces the legacy Police Records Management System and is based upon proven technology derived from current industry and County standards. The system expands the capacity of the Police Department, allowing it to better analyze – statistically and through spatial techniques – data on incidents and personnel. It also aids in identifying trends, and assists in staffing decisions and monitoring departmental effectiveness. Intelligence led policing, improved criminal justice, and overall strategic public safety resource deployment will be improved upon implementation.

### Project Goals

The new police records management application I/LEADS will integrate with the Computer Aided Dispatch (CAD) system in the Department of Public Safety Communications, ensuring a unified technology platform approach that seamlessly shares processes and data across public safety functions and leverages available technologies. I/LEADS increases the Police Department's ability to prevent, respond to, manage, and analyze situations that threaten the safety and property of citizens.

### Progress to Date

I/LEADS system went live in January 2010. This implementation is one of the largest technology initiatives and the most extensive records management upgrade for the Police Department.

### Milestones

- Data mapping and data conversion from the Old PRMS to (I/LEADS) – FY 2009
- Installation and configuration of software (I/LEADS) – FY 2009

- Acceptance testing – FY 2009
- Go Live to production – January 2010
- End user training – in progress through FY 2010

### Budget

Additional funding is not recommended in FY 2011.

### Return on Investment

A unified public safety architecture consisting of a modern records management system, integrated with CAD and other public safety agencies management systems, will result in more cost effective public safety operations. This project will ultimately impact nearly all aspects of police work and police information collection, and link them through an integrated system with the new CAD. A modern system that assures accurate, timely, reliable and accessible information on events, county geography and police information will permit the Police Department to efficiently act upon events, from initial response through tracking, investigation and reporting. Additionally, capture and storage of reliable and accessible data from the system will result in the ability to effectively address staffing crime analysis resource allocation, tactical planning and strategic planning. The new system will provide opportunities to increase effectiveness by eliminating redundant work and open up opportunities for information sharing and interoperability between law enforcement agencies. This is a significant tool in developing investigative leads, linking crimes across jurisdictional boundaries, and conducting crime analysis.

## IT0071 Court Scheduling and Electronic Summons

### Project Description

This project is designed to develop automated solutions to streamline the traffic summons and court scheduling processes by managing court dockets in a manner that will minimize high and low periods of activity and implement of a Electronic Summons application to automate the capture and transfer of traffic summons information.

### Progress to Date

#### Phase I

The court Scheduling System (CSS) allows court administrators and the Police department to coordinate traffic court dates in order to level out and evenly distribute daily court dockets in the General District Court. CSS produces reports to help manage and resolve scheduling issues between the Court and the Police Department. Additional functionality was added to CSS to streamline officer court dates, and allow the Fairfax County Police Department to enter criminal and juvenile cases court dates into the system. This phase of the project was successfully completed in FY 2010 with the addition of ticket writing groups external to Fairfax County such as the Virginia State Police.

#### Phase II

This phase consisted of the implementation of an electronic summons solution for traffic summons in Fairfax County. The goal is for officers to capture and transmit traffic summons information to the Court electronically via hand held or in-vehicle electronic devices. The project aims to eliminate manual data entry, ensure data integrity, provide accurate code section violations to officers in the field, facilitate faster and safer ticketing process for officers and enhance public access to traffic ticket and case information.

## IT0078 Courthouse Expansion Technology Project

### Project Description

This project is committed to the planning, design and implementation of modern courtroom technologies for new and renovated courtrooms constructed as part of the on-going Courthouse expansion efforts. The evolution of courtroom technologies has resulted in the development of a Courtroom Technology Management System (CTMS) that successfully integrates modern courtroom technologies into traditional courtroom activities.

### Project Goals

Goals are to provide the public efficient and timely electronic access to cases to enhance the public's ability to utilize automated options for review of case information and payment of fines; and manage court dockets more effectively therefore improving service to court users and the public. The Court Scheduling System was designed to streamline and improve management of traffic court dates between the Fairfax County General District Court and law enforcement agencies. The E-summons project aims to reduce data entry efforts and increase data quality as it relates to accuracy, integrity, reliability, and timeliness.

### Project Budget

Funding of \$350,000 is included in FY 2011 to continue implementation of an E-summons solution in Fairfax County.

### Return on Investment

Automated solutions will allow for the reallocation of existing staff to positions that provide direct assistance to the public, ensure greater accuracy in capturing defendant information, eliminate data entry errors with potentially serious repercussions for defendant, allows faster ticketing processes that get officers back on the road more quickly, reduce overtime for officers waiting in court, reduce the frustration and time citizens have to wait in court for a hearing, provide more efficient use of Commonwealth's Attorneys and Deputy Sheriffs, as well as provide the public near real time electronic access to case information. Eliminating double data entry, reducing redundancies between agencies, and streamlining court scheduling and docketing processes, will create multiple opportunities to improve existing operations and provide better customer service to the citizens of Fairfax County.

enhance, annotate and print. The courtrooms contain touch-screen panels for the judge, clerk and attorneys to control multiple microphones and video displays for the judge, clerk, court recorder, attorneys, jurors and gallery when presenting and viewing evidence and remote witnesses.

The CTMS is overseen by a centralized Courtroom Technology Office (CrTO) and was developed in partnership between the three Fairfax County Courts; Circuit Court, General District Court, Juvenile and Domestic Relations District Court and the Fairfax County Department of Information Technology.

**Project Goals**

The primary goals and objectives were and continue to be to improve citizens access, internally and externally, to the Courts, facilitate trials and hearings in the most effective and efficient means possible, allow for all three Courts to share common resources and provide for flexibility and adaptability to incorporate future changes in technology and court proceedings. The CTMS meets these objectives by providing consistency and standardization in all courtrooms for all three Fairfax Courts and achieving courtroom efficiencies and operations while optimizing available resources.

**Progress to Date**

The CTMS evolved after a successful Courtroom 5E High Technology Courtroom Prototype was completed in October of 2006. The first phase of the CTMS project was completed during 2008 and launched five new, high-tech courtrooms connected over a fiber backbone through a centralized Master Control Room (MCR) and distributed to other ancillary facilities to include the Adult Detention Center (ADC) and secluded witness rooms. During August 2009, the Juvenile and Domestic Relations District Court relocated to the new courthouse whereby nine new high-tech courtrooms were integrated with the CTMS. Along with the original Courtroom 5E prototype, the Fairfax Courts now offer 15 courtrooms with high-tech capabilities. Renovation efforts for 26 older, existing courtrooms are under consideration. The County plans to renovate two or three existing courtrooms during calendar year 2010. Future modifications to CTMS include adding functionality for electronic court recordings, remote interpreting and wireless.



Fairfax County Circuit Court – Courtroom 5J

**Milestones:**

- Phase I complete – Courtroom 5E prototype/ cable cutting -Oct 2006
- Completion of the master courtroom technology plan/design for new / renovated courtroom – January 2008
- Phase II complete – technology roll out to 5 new courtrooms for Circuit Court and GDC- Dec 2008
- Phase III complete – technology roll out of 9 new courtrooms, master control room and secluded witness room for the Juvenile and Domestic Relations Court – FY 2010
- Phase IV – renovations and shelled courtrooms- two of twenty six existing courtrooms will be renovated during FY 2010-FY 2011. The courtroom renovation project is funded through the County's Fund 312 (Public Safety Construction). No additional funding is allocated in fund 312 or fund 104 beyond FY 2010.

**Project Budget**

Additional funding is not available for FY 2011.

**IT0083 Public Safety Architecture Modernization****Project Description**

The Public Safety Architecture Modernization project supports implementation of common infrastructure supporting integrated Computer Aided Dispatch (CAD) and Public Safety Records Management System (RMS), including public safety communications, as well as Police, Fire and Rescue, and Emergency Medical Services records management. This project provides the underlying infrastructure components and shared capabilities required for an integrated, interoperable public safety system. This project also supports operational components of a CAD and RMS including network infrastructure, and adopting standard Geographic Information System (GIS) to meet public safety requirements.

**Project Goals**

The project will implement an integrated public safety information architecture enabling data sharing across functional areas of the CAD and RMS in order to support key public safety lines of businesses and provide flexibility to respond to both internal and external data sharing requirements. In this multi-track and multi-phase project,

**Return on Investment**

The CTMS allows all new and renovated courtrooms to share a common infrastructure with distributed services through a centralized Master Control Room (MCR). The distributed environment provides consistency, standardization and scalability between the three courts and is designed to meet future growth and changes in technology. The primary benefit continues to be improved efficiencies and the facilitation of court processes and services that provide a direct impact to citizens, businesses, and employees.

Newly implemented processes such as prisoner arraignments are conducted on a daily basis both locally and remotely from any of the high-tech courtrooms and Adult Detention Center saving significant staff and travel time. The electronic evidence presentation functionality allows for various electronic evidence sources, such as CD/DVD/VCR, document camera, enhanced x-ray, computer video and multi-audio interface with annotation and printing capabilities to be submitted as evidence reducing the volume of paper requirements while facilitating and speeding up the trial process.

the legacy CAD and Mobile, Police RMS and Fire and Rescue RMS Systems will be replaced.

**Progress to Date**

In May 2008 a new Emergency Patient Care Reporting system (EPCR) was the first application to be implemented as part of this project. In November 2009 implementation of a new ICAD system for Fairfax County public safety agencies was successfully completed, and in January 2010 the new Police Records Management System – ILEADS also went into production. FY 2011 work will be focused on completing planned product enhancements and post implementation tasks.

All Fire and Police Department work sites have been upgraded with wireless hotspots. They now support the EPCR application and CAD Mobile. Both Police Records Management (ILEADS) and other Fire and Rescue applications are also being supported via wireless technologies. The public safety wireless hotspots will provide data communications to the field units, which enable updates to the systems to be pushed out over an internal network instead of having to manually touch

every one of the mobile units in the County fleet. Additionally, a commercial cellular carrier was selected to provide the primary means of communication between the mobile devices in the field and the wired infrastructure located in the McConnell Public Safety Transportation and Operations Center (MPSTOC). In addition to the aforementioned goals, a significant amount of geospatial information was captured, verified and incorporated into the new data model adopted by the Fairfax County Geographic Information System (GIS) Branch. This information will allow the CAD system to more accurately locate an incident and actually route first responders to the incident using the data that was collected during this phase of the project.

**Project Budget**

FY 2011 Funding of \$843,705 is provided to support commercial wireless broadband, planned product enhancements and post implementation tasks.

**Return on Investment**

The Public Safety Architecture Modernization project represents a joint initiative undertaken by the public safety agencies in Fairfax County (Department of Public Safety Communications, Police Department, Fire and Rescue Department, Sheriff's Office and the Office of Emergency Management) and provides an integrated public safety suite for CAD and RMS, with supporting network infrastructure to support robust GIS including automatic vehicle location (AVL), automatic vehicle routing recommendations (AVRR), broadband wireless data services and automated field reporting. Savings are achieved in implementing standards for all stakeholders, consolidating system infrastructure, and reducing system tool redundancies from prior independent systems. More importantly, this project greatly enhances Fairfax County's ability to respond quickly and effectively to emergencies that require coordination among the various responder organizations and share information required for collaboration, case management, reporting, remediation and mitigation.



## IT0086 Fire Station Alerting Technology Replacement

### Project Description

The purpose of this project is to provide a turn-key system replacement of fire station alerting components. This alerting system is a critical part of the 911 systems and public safety response, and is a requirement specified in the National Fire Protection Association (NFPA) 1221 Standard. This is a technology lifecycle replacement that is required in order to bring the Fire and Rescue Department's station alerting system to a technical level that will permit integration with the selected Public Safety Computer Aided Dispatch and Records Management Systems (CAD/RMS).

### Project Goals

The business and operational objective is to purchase and implement a proven fire station alerting system that enables Fairfax County to meet the public safety goals of reduced response times, enhanced communication, and immediate access to relevant and critical information. The goal is to integrate the Fire and Rescue Department's station alerting system with the Public Safety Communication Center systems. The system will reduce reflex time for response by providing immediate unit based visual and verbal alert indication at time of dispatch and prior to radio voice dispatch, provide safe lighting and alert process throughout station for personnel response to vehicles, recorded announcement, provide station alerting capabilities as required by NFPA 1221, and streamline maintenance and support for system components.

### Progress to Date

The first phase for the core system infrastructure to interface and align with the new Computer Aided

Dispatch System and replace end-of-life infrastructure and network components has been completed in all Fairfax County Fire and Rescue stations. Phase II the remaining infrastructure and component will be planned as funding becomes available.

### Milestones:

- Contract awarded – FY 2009
- Design complete – FY 2009
- Install basic Fire Station Alerting system in all stations – FY 2010

### Project Budget

Due to budget constraints FY 2011 funds are not available.

### Return on Investment

The Fire and Rescue Department expects to reduce overall response time to emergency incidents through immediate alerting of personnel. The system leverages the Computer Aided Dispatch system and provides immediate unit based alert indications at time of dispatch and prior to radio voice dispatch. The process reduces what the industry calls the "reflex time", or the amount of time between when the call is dispatched and when the response units are boarded by personnel and ready to respond. This is a life-cycle replacement from aging and incompatible equipment to an integrated COTS system. Maintenance and support costs for system components will be streamlined.

### 3.3 CORPORATE ENTERPRISE

#### IT0004.2 GIS – Orthoimagery Update

##### Project Description

This project is part of the County's ongoing effort to maintain aerial imagery in the Geographic Information System (GIS). GIS provides County staff and citizens the means to electronically access, analyze and display land related data. The imagery is used in the My Neighborhood viewer, the Digital map viewer, the new 3-D viewer (Virtual Fairfax) and in all of the county web and desktop mapping applications that include maps.

##### Project Goal

The goal of the project is the continued implementation of a four-year cycle to update orthoimagery for all 407 square miles of Fairfax County with high enough resolution and accuracy to be useful for most county applications and users.

##### Progress to Date

With the acquisition of state imagery in FY 2007 and FY 2009, the four-year imagery update cycle is up-to-date. Due to a change in the state's scheduling, the County benefitted from a one time 2-year update cycle. The state is now back on its 4 year cycle with the County scheduled to be flown again in 2013 as part of the state-wide effort. The county has cost-sharing partnership with the state to obtain the higher resolution imagery for the specific needs of the county.

##### Project Budget

No new funding for orthoimagery was included in the FY 2011 budget. Funds will be needed in FY 2013 to pay for the county's share of the cost to upgrade the state imagery to meet the necessary accuracy and resolution standards.

#### IT0004.3 GIS Oblique Imagery

##### Project Description

This project provides oblique imagery that enables users to view the sides of buildings and structures, ascertain the urban character of a location, and measure the heights of visible features. The project collects images of every location in the county from at least four directions (N, S,E,W). This image product enables agencies such as the Department of Public Works, Tax Administration, the Department of Public Safety Communication and Public

##### Return on Investment

The orthoimagery project provides a combination of cost-savings, enhanced revenue and non-quantifiable benefits. Multiple county agencies have benefited from the use and availability of high resolution orthoimagery data and others are expected to utilize the data to enhance efficiency and to assist various program management efforts across the county. For example, orthoimagery is used successfully in property appeals cases and allows the county to effectively defend increased property assessments and help citizens with home assessment valuations. The imagery is also utilized to resolve zoning enforcement cases, often providing definitive information about when illegal structures were built, thus helping the county to maintain desirable neighborhoods and safe structures. Use of aerial photography has also reduced the need for field visitations where county staff has a need to reconnoiter an area for various reasons.

The orthoimagery serves as a highly accurate quality controlled layer in the GIS to which can be used to accurately locate features (e.g, building outlines, streetlights, storm water features). It provides the basis from which many of the fundamentally important GIS layers are derived. This is possible because the aerial imagery used to create the orthoimagery is of high enough quality and accuracy that it can be used for the County's planimetric update project, saving the cost of additional imagery acquisition. Orthoimagery is not just an internal product but is also available in the public web applications that include maps, enabling users to view aerial imagery of any area of the county. These applications serve over a million maps per year enabling public users the ability to view parcel outlines, hydrography, as well as major and minor roads.

Safety Agencies to reduce the field time involved in their work by allowing virtual visitation. These virtual visitations enable staff to easily assess values and conduct analyses on buildings not previously possible. Additionally oblique imagery is instrumental in identifying sites for quick dispatch of responders to 911 calls. This imagery is also the source of the 3-D building imagery of the Tyson's Corner and Reston Herndon areas that is displayed in the Virtual Fairfax web application (the buildings sit on top of the orthoimagery). The 3-D imagery is essential in meeting a

board mandated requirement. This oblique imagery augments orthoimagery which is taken directly overhead and does not capture the sides to structures. Together, both sets of imagery are complimentary parts of the spatial data in the GIS data warehouse, giving County-staff access to a wide range of geo-spatial information about Fairfax County required in their business processes.

### Project Goal

This project's goal is to provide oblique imagery as a useful and key component of the County's spatial data warehouse.

### Progress to Date

The County has complete oblique imagery libraries for calendar years 2003, 2005, 2007 and 2009. The next update is scheduled for 2011. Originally five agencies: Police, Fire and Rescue, Tax Administration, Planning and Zoning, and Information Technology undertook a careful review of the technology and data and realized it provided significant value to their operations. These were the original supporters and each agency now makes substantial use of oblique imagery.

The imagery has progressively been made available through a series of software deployments that support it. This effort includes regular training conducted by DIT in support of promoting the dissemination of the program for staff. The use of the oblique imagery continues to increase; especially, since it is now available internally via the GIS-based GEM web application which has made accessing and using the imagery easier and available to staff at their desktops. Currently in addition to CAD/911 usage, there are over 160 unique users of oblique imagery who log over on average over 7,000 hours per month using oblique imagery. In support, GIS staff coordinate agency needs, specify requirements, perform QA, and provide the training and desktop implementation at no cost to agencies. The County does share the imagery with the town of Herndon and Vienna since they are within the boundaries of Fairfax County.

## IT0004.4 GIS Planimetric Data Acquisition Program

### Project Description

Planimetric data is planar data (2D) derived from observable natural and manmade features visible on orthophotography. Planimetric data layers make up many of the key GIS layers used in most of the maps made in the County. These key datasets are used in all of the County's

### Project Budget

Funding of \$128,212 is recommended in FY 2011 to support contractual costs for obtaining imagery planned for spring of 2011.

### Return on Investment

The oblique imagery has been valuable to many agencies and as time has past it has been adopted for more uses. In particular, The Department of Tax Administration (DTA) has found it very useful in supporting their operations. In FY 2010, DTA increased usage of oblique imagery and successfully reduced field inspection time and costs further. As mentioned above, oblique imagery is also used in the new CAD/911 system which is a new development in FY 2010. That system integrates oblique imagery, providing quick and easy access to it. Call takers and dispatchers use the oblique imagery daily to correctly identify incident location and plan responses to incidents.

The oblique imagery project provides a combination of cost-savings, enhanced revenue and non-quantifiable benefits. Oblique imagery is particularly useful in public safety since it enables staff to view and measure the sides of buildings to determine risks, site lines, rescue apparatus requirements, and other key features. The oblique imagery is now used daily in the new CAD/911 system to assist call takers in correctly identifying incident location and to assist dispatchers in supporting response to an incident. For instance, it helps Fire and Rescue dispatchers to detect small vertical features such as fences which could block fire fighter and fire hose access. Assessors are aided in the ability to determine the siding buildings – an important component of a property assessment. Oblique imagery is also the source of 3-D imagery since it contains building facades (skins) and elevation information, essential for effective representation for the actual areas. As a result of past funding, no additional aerial imagery flights were necessary to support the 3-D modeling since the existing imagery was able to serve as the source of the images required

web applications that incorporate maps, and in nearly all of the County's public safety vehicles through the new CAD/911 system. This update program is replacing the existing planimetric data which was derived from aerial photography flown in the spring 1997. Since that time the county has grown considerably, adding new housing, commercial locations, roads, storm water management

features, and other man made features. Additionally the topography has changed with new development. This has left the 1997 information outdated. The update program will leverage the 2007 aerial imagery acquired in partnership with the State. Acceptable newer imagery will be used as it becomes available.

### Project Goal

The goal of the GIS Planimetric Data Acquisition Program is to update approximately 25% of the county's planimetric and topographic data annually. The current effort will be more comprehensive and is expected to serve more county needs. Data sets will include impervious features; such as roads, pools, basketball courts and driveways; and will also include a capture of 2' contours a substantial improvement in the accuracy of the elevation data and building elevations. This program is dependent on the availability of current aerial imagery in order to acquire the latest changes on the ground.

### Progress to Date

As stated, the county's planimetric features, digital terrain model (DTM), and topographic contouring data need updating to reflect extensive topographical change and development activities. Through user surveys, agencies have indicated that they would benefit from regular planimetric data updates.

This project began from funding provided in FY 2010. A detailed statement of work was developed, and the SE quadrant of the county, which is densely populated, was selected for the initial quadrant. The aerial photography source for the first quadrant data update was from the spring 2007 state imagery. Results from the first quadrant will be available in mid FY 2010. An additional quarter, the NW quadrant, will also be compiled from the 2007 state imagery starting in mid FY 2010.

### Project Budget

This project has been jointly funded by Department of Public Works and Environmental Services (DPWES) and Department of Information Technology (DIT) through fund 104 for the first two quadrants of the county (SE, and NE). In FY 2011 \$150,000 is provided in Fund 104 for continued support for the planned initiative to update GIS planimetric data in Fairfax County.

### Return on Investment

The planimetric, DTM, and topographic contouring at 2' contour interval data update project will provide a combination of cost-savings, enhanced revenue and non-quantifiable benefits. Planimetric, DTM, and contour data has proved extremely valuable in a wide range of county operations. Cost savings have been achieved over time as GIS staff have assisted key agencies develop high resolution data. These included, DPWES, The Park Authority, and also Fairfax County Water, where a 1' or 2' detailed and accurate DTM was needed. For instance a 1' contour data set was developed for flood plain mapping of New Alexandria and Belleview project. The planimetric, DTM and contour update project makes a tremendous impact as it enables agencies to readily access data needed to assist projects anywhere in the County, which saves time and money and enhances response, efficiency, and overall productivity.

Planimetric data are also an important component in the mapping applications in the County's new Computer Aided Dispatch system. These data are used in all the public safety vehicles with CAD (about 1,400) and also by the dispatchers and call takers. Additionally, capture of many impervious surface features not currently present in the GIS enterprise database is a critical requirement for effective planning, designing, and management of storm water projects. Data sharing rather than redundant data capture avoids duplicative data creation and collection costs.

## IIT0006 Tax/Revenue Administration

### Project Description

This project provides the information systems development and technology infrastructure required to redesign the County's tax and revenue systems. The Tax/Revenue project facilitates a simpler process for citizens to fulfill their tax obligations and pay for services by modernizing the internal processes used for assessing, billing, and collecting County taxes and other revenues. In FY 2002, the County began replacement of the aging real estate mainframe system with a commercial-off-the-shelf (COTS) product called Integrated Assessment System (IAS). Implementation of IAS allowed for a comprehensive overhaul of many existing functions such as real estate administration, account maintenance, assessment, exemptions and adjustments, accounts receivable, and billing. The core system was completed in FY 2004. The current focus of the project is to migrate to the next generation of the IAS product, the WEB based iasWorld.

### Project Goals

Project goals continue to focus on tax and revenue modernization by implementing the remaining web-based modules of the client server real estate system. The implementation of additional product modules will enhance the efficiency of property assessing and inspection by field staff, enable a coordinated approach to managing public inquiries and correspondence, streamline common real estate transactions through customized forms, and provide the core technical architecture to enable the other interactive modules to operate.

### Progress to Date

The assessment administration, CAMA (assessment), accounts receivable and delinquent collection modules of the client server tax system are operational and fully integrated with the County's cashiering system. These modules comprise the core tax system. Implementation of the web-based product, iasWorld, will be complete in FY 2010.

### Milestones:

- Implementation of IAS modules with the exception of the Delinquent Collections Tracking product- February 2004

- Implementation of the iCare internet real estate property information lookup tool (Internet plug in for IAS) and integration of IAS with the department's cashiering COTS software Revenue collector - June 2004
- Installation of the WEB citizen inquiry tracking system module of iasWorld, iRespond) – June 2007
- Implementation of the web- based real estate system iasWorld – June 2008
- iMaintain Module Implementation – FY 2009
- iField Module Implementation – FY 2009
- iTax Implementation – FY 2009 – FY 2010

### Project Budget

No additional funding is provided in FY 2011.

### Return on Investment

The remaining IAS product for installation (iasWorld) will permit improved customer service without the addition of staff. Staffing can be held constant as inquiries and correspondence increase as a result of population growth, changing demographics, and changes in real estate assessments and rates. Citizen inquiries will be more effectively managed, and response turnaround times improved. In addition, real estate appraisal staffs can more accurately collect and record property characteristic data from site inspections, as staff will have the ability to input and transmit data from the field. Improvements in data quality and currency will better equip the County to provide more equitable assessments, defend appealed assessments, and improve the timeliness of revenue generated from the real time recording of property improvements. In addition, the new process eliminates redundant data entry work by support staff, as web-based screens will have consolidated fields from several screens in the client-server system. By operating the real estate application within the County's infrastructure, staff can ensure the security of County data communicated over the internet, monitor the application on a 24/7 basis for optimal availability, and ensure secure access.

## IT0011.11 Electronic Accounts Payable System

### Project Description

This project provides a solution that meets the County's goals for an electronic accounts payable process within the current infrastructure using adaptable technology to meet future requirements. Additionally, it provides for a phased-in implementation with minimum impact on existing business processes. The project will develop a methodology to utilize new accounts payable electronic processing methods to dramatically reduce the amount of time and effort required to process accounts payable transactions. The new methodologies will provide in-depth data analysis, targeted audit procedures, and improved internal controls to identify and correct weaknesses in the County's accounts payable processes.

### Project Goals

This project aims to improve the operating efficiency of the entire countywide decentralized accounts payable process, and at the same time achieve the Board of Supervisors' mandates to reduce paperwork and support telework. These goals will be achieved by maximizing the County's use of proven imaging, e-signature, and workflow technologies to replace reliance on paper document processing. In addition to the improved process efficiencies and cost savings expected, it is anticipated that this project will increase countywide internal controls and management reporting by utilizing automated reporting techniques to improve analysis of the County's accounts payable processes.

### Progress to Date

The electronic invoice package selected as the solution, Imagitek's Prodagio A/P, was installed in the production environment and the first go-live agency (DHR) was October 2007, with rollout to the two other proof-of-concept agencies (DIT and FMD) later the same month. Currently all county agencies are routing and approving invoices in the system. Due to the complexity of the system and logistics of transitioning all agencies from the old processes for approving invoices, the project is deployed in a phased approach:

Phase I – Roll out of EAPS to all county agencies is now complete. All county agencies were trained and transitioned to EAPS invoice processing within the first quarter of FY 2010.

Phase II – The process of incorporating the routing and approval of non- Purchase Order (PO) documents was piloted with four different agencies after year end

processing in FY 2009. Following a few modifications indicated by implementation in the pilot agencies, the non PO processing will be extended to all county agencies in FY 2010 and FY 2011.

Phase III – System upgrades and possible enhancements for placing all approvals within application, accepting electronic invoice submissions via a standardized file, creating a vendor portal and developing a retention plan for invoice documents.

### Milestones:

- Documented Proof-of-Concept Solution, November 2007
- Countywide- implementation of Phase I – completion Feb 2008
- County wide implementation of PO invoices – June 2008
- Enhanced Reporting – July 2008-January 2009
- Statement of Work for incorporating email and fax invoices September 2008
- Non-PO invoice – pilot-July 2008 – June 2009
- Documented completed County wide solution for Electronic Accounts Payable – FY 2010
- County wide Non-PO rollout – FY 2010-FY 2011

### Project Budget

Future technology enhancements will be accomplished through the Legacy Systems Replacement project (IT0079). No additional funding required in FY 2011.

### Return on Investment

This initiative involves the integration of the County's financial and procurement systems which has resulted in a paperless work process and enhanced management reporting. The greatest financial returns from implementing the electronic accounts payable process is reduced staff processing, document filing retrieval time, copier charges and storage costs. Further faster invoice processing maximizes opportunities to realize vendor discount terms. The electronic accounts payable process helps improve the County's relationship with its vendor community by facilitating communication.

### IT0011.13 Automated Board Meeting Records

#### Project Description

This project will design and implement a document-imaging program in the Clerk to the Board's Office, which will enable the Clerk to the Board's Office to electronically capture Board of Supervisor meeting records and make them available on-line to the public and county staff.

#### Project Goal

To electronically capture Board of Supervisor meeting records and make them available on-line to the public and to County staff.

#### Progress to Date

Develop user requirements for incorporating the Board of Supervisors' meeting videos with the agendas to create a robust easily accessible and searchable on-line record.

Project will utilize the enterprise infrastructure for electronic records management.

#### Project Budget

No additional funding is required for FY 2011.

#### Return on Investment

This initiative is expected to increase the efficiency of producing the board matters package including streamlining the process of getting the records on-line; provide a viable, accurate document system for older and one-of-a-kind documents; reduce error rates as much of the manual data entry will be eliminated; and reduce the space requirements for maintaining paper copies of documents.

### IT0022.9 Correspondence Tracking and Management System

#### Project Description

The Correspondence Tracking and Management project enables County agencies to capture communications, track contacts, events and complaints in order to enhance staff and interagency communication. Since its initial launch in 1999, this project continues to expand the implementation of a proven Commercial-Off-The-Shelf (COTS) product known as Intranet Quorum (IQ) which has been successfully deployed in several County agencies. IQ is a Correspondence Tracking and Management System that provides an integrated approach to delivering services to citizens, colleagues, and staff. In addition, IQ offers a variety of data points for easy and complete reporting.

#### Project Goals

Project goals include enhanced communication between County staff, departments and agencies. The system provides an integrated approach to service delivery enabling users to link to other areas within the database, as well as extend outside the IQ system through scheduling, scanned images, email, fax, and incoming/outgoing postal mail. The project enables agencies to automate business processes and workflows, reduce duplication of effort, share information. These benefits are amplified by the delivery of a seamless constituent interface and enhanced customer service.

#### Progress to Date

IQ was initially deployed at the offices of the Board of Supervisors, the County Executive, and the Clerk to the Board. Expansion to other agencies including the Office of Public Affairs, Consumer Protection, Human Rights Office, Department of Public Works and Environmental Services, County Executive and the County's Legislative function within the County Executive's office, Department of Purchasing & Supply Management, Department of Transportation, and the Alternative Dispute Resolution Program has been part of this effort. Over time, address data from the Geographic Information System (GIS) has been utilized with IQ to increase agency productivity. Migration to the new version IQ3 has been phased in across user agencies. This allows staff to perfect their migration strategies and application knowledge as well as minimize impact on the agency's productivity. In FY 2010-FY 2011 project work will continue support for current IQ users.

#### Project Budget

No funding is provided in FY 2011.

#### Return on Investment

Successful implementation provides enhanced communications between County staff, departments, and agencies, thus allowing agencies to share and monitor the status of projects, responses, and truck

other issues and events as those items progress through the County processes. The project enables agencies to automate business processes and workflows, reduce duplication of effort, and enable the sharing the information between agencies using present e-mail methods. These benefits are amplified by the delivery of

a seamless constituent interface and enhanced customer service. In addition, this solution does not preclude installations of applications that support the County's IT architecture, or interact with other agencies' CRM applications.

**IT0024.2 Public Access Technologies- Interactive Voice Response**

**Project Description**

Interactive Voice Response (IVR) technology program develops custom interactive telephone applications that can access and update data in variety of County databases, in addition to providing static information in a timely, convenient manner. For those citizens who do not have access to the Internet, the project was established at the request of the Board of Supervisors "to enable the County's customers to conduct business with the County wherever and whenever it is convenient for the customer". IVR is one of the foundation programs for enhancing public access to government information and business transactions.

**Project Goals**

The primary goal is to continue the application of text-to-speech technology for certain applications aligned with e-government goals. Interactive Voice Response enhancements include the continued integration of Web and IVR via XML technology for public use.

**Progress to Date**

The DIT IVR currently answers more a million calls annually. The system is available approximately 24 hours a day to interact with citizens, providing an additional option for conducting business with the County after regular business hours. By handling the more routine calls, the IVR allows staff to concentrate on those calls that most need personal attention. It also allows access to a great deal of information after hours or on weekends.

Current Applications:

- CEX: Medical Registry services in 7 different languages
- COURTS: Circuit, General District & Juvenile, Court Information Line (General Information, Traffic and Criminal Fine Payment by credit card, access to specific cases),
- CSP: Consolidate Services Planning survey of services provided,
- DPWES: Building Inspections (Requests and

- Cancellations),
- DPWES: Permit/Plan/Building Inspections Status Inquiry
- DPWES: Scheduling Special Pickups of brush or bulk items using customer address,
- DTA: Real Estate Data (spoken data and FAX on Demand by property address),
- DTA: Real Estate and Personal Property Tax Payments
- FS: Survey of services to check the quality of service
- FIRE: Fire & Rescue's Media Information Line (after-hours fire incident updates),
- HCD: Housing & Community Development's Housing Waiting List (gives position on list),
- HEALTH: Health Department Information and Departmental transfers,
- HR: County jobs availability and submitted resume status
- LIBRARY: Library Information Line (Locate Libraries by ZIP code, phone number search),
- OFC: Office For Children Training and Class schedules registration Line,
- OPA: Public Affairs 324-INFO Line (general County information, phone number search),
- POLICE: Victim Services Information Line (query of offender release date information),
- DIT: IT Help Desk- for all County computer related problems.

**Project Budget**

The program requires on-going support from E-Gov and telecommunications staff to plan and configure new systems, and to trouble-shoot telecommunications system problems.

**Return on Investment**

Public access technologies such as the IVR expand citizen access to county information and services and minimize staff resources need to provide basic information, and allow staff deployment more complex and specialized tasks. The Public Access Technologies continue to provide single information architecture and supporting infrastructure for all platforms to deliver new information and e-services to the public. It expands the capabilities of

the content management system in order to improve automated workflow, revision control, indexing, search and retrieval for enterprise systems. The project also

improves search capability for citizens and constituents, and enables the County to build applications quicker and more efficiently by maintaining reusable components.

### IT0024.3 E-Government- Internet/Intranet Initiatives

#### Project Description

This project supports initiatives that improve public accessibility to government information and services. A comprehensive approach is employed to ensure efficient infrastructure capable of supporting multiple business solutions. In addition to enhancing customer service for availability anywhere, any time, public access technologies reduce staff involvement in providing basic information and transactions, thereby allowing personnel to perform more complex tasks and respond to requests for more detailed or specialized information. Internet/intranet initiatives provide significant and wide-ranging opportunities to use technology as a means of making information more readily available to the public. Initiatives include research and development of emerging technologies, expansion of Web applications, improvements in search and navigation, integration with internal systems and other public access channels, and sustaining infrastructure.

#### Project Goals

The project's vision is to provide new information and services on all platforms, while continuing to build on existing information architecture. The planned functionality will be delivered in support of the County's taxonomy of information and services, using a single supporting infrastructure. The solution is based upon a single content repository for all platform and agencies. The repository enables various features of content management to provide accurate and reliable information, provide additional search capabilities on the public web site, and enable information sharing. The project includes implementing standards and processes for information engineering so that the same application and data is used county-wide in the development of Web content and applications.

#### Progress to Date

The County's Public Web site has been an extraordinary success and has received national recognition. The site receives approximately 52,445 visitors per day, which equates to an average of 297,013 page views per day and an average of 1,632,298 hits per day. Approximately 55 County agencies have a presence on the site. The functionality of site has expanded significantly with the

addition of significant content and information. New and updated business transactions have also been added during this period.

On going strategy include 'Sharing' which has become an integral part of the Web experience. It is referred to as online collaboration, and known as Web 2.0, social networking or social media. A few examples include wikis (community developed reference material), podcast (subscription based audio information), RSS or Really Simple Syndication feeds (subscription-based information), Second Life (virtual reality) and Twitter (social networking). The extensive use of Web 2.0 in social networking enables wide spread collaboration and information sharing, and enables individuals to rapidly share news an opinions worldwide. The County extended its presence by launching content on three social networking sites:

Facebook (<http://www.facebook.com/group.php?gid=7901829756>),

Twitter <http://twitter.com/fairfaxcounty>

Youtube (<http://www.youtube.com/user/fairfaxcountygov>).



#### 1 – Public Web Site Search and Navigation

During the first phase of the project over 120 content contributors were involved in migrating information from the old site to the redesigned site with a six-month period. The Project team defined a basic Information Architecture for the site, which was then validated by 14 citizen and business focus groups. A "look and feel" template was developed for the redesigned site and migration of over 20,000 files to the new templates was coordinated by the

project team. Most importantly, the establishment of working inter-agency groups for the development and dissemination of standards related to site design, application development and implementation proved critical in the project's success. As part of the redesign, a "Contact Us" database was implemented, which provides citizens with direct contact information to county staff from a single search interface. Additionally, site search functionality was enhanced.

In FY 2003, the main subject area pages (Living, Doing Business, Visiting and Government) were developed. Enhancements of the site included: News & Information section, Emergency Information, Local Weather and improved navigation. In FY 2004, a robust and secure environment that facilitates delivery of integrated and accurate information to citizens was built. In FY 2005, several new applications were added including Child Care training, My Neighborhood applications, kids and Teen portal, Seniors and Disability portal, Crime Mapping, and revamped DTA e-pay and Consumer Protection pages. In FY 2006, a new search on the public web site was implemented making site accessible via mobile devices.



In FY 2009, the public web site was redesigned to improve the architecture and functionality with a fresh look and cutting edge enhancements. To provide easy access to county wide services and information, consistent left-side navigation was introduced throughout the site. The implementation of the Google Search Application augmented the overall search functionality of the web site. Additionally a highlighted news section provides easy access to information categorized by topic, and brings into focus various County agencies, County wide

initiatives, and featured County services. The public web site is part of the "Going Green Initiative" and provides a conduit for carrying out on-line business with the County around the clock. Additionally, in order to improve ergonomics and enhance accessibility a new color palette as well as text only, printer friendly, and text resizing features were introduced. FY 2010-FY 2011 goals include developing a mobile application for the public web, as well as delivering the County's public web site content in multiple languages.

**2 – Infrastructure Architecture and Management**

The following Internet/Intranet Infrastructure initiatives are on-going:

- Secured network settings on all 34 servers to minimize risk of intrusion
- Implement a statistical reporting system for both Internet and intranet servers
- Refined the server monitoring system

**3 – Interoperability**

As a participant in the Government without Boundaries cross-jurisdictional project, Internet Services staff installed ASP.Net and created a Web Service, which generates XML data from a SQL database using a collaboratively defined schema. This project allows Fairfax County to share park-related data with other local, state, and federal jurisdictions. Additional critical work on regional interoperability for homeland security linking Emergency Operations Centers and CAD functions began in FY 2005 with implementation of a pilot prototype in FY 2006.

On Feb 18, 2010 the **Unit Status** and **Request for Resource** Services of CAD2CAD Exchange between the operational CAD systems of Alexandria, Arlington, and Fairfax was successfully implemented. The project complies with emerging regional and national data sharing standards, thereby allowing for the inclusion of other regional partners as future grant funding permits. This achievement represents both a technology integration success and a long sought-after milestone in the operations of 911 dispatch.

**4 – Infoweb Redesign**

The look and feel of the main page of the Infoweb (Intranet site) was redesigned, and continues to be enhanced. This is an on-going process that links with agency operational improvements.

Approximately 55 County agencies now have a presence on the site, offering more than 11,000 HTML documents, 12,500 PDF documents, and 15,000 images on the Internet site. Most agencies have Web content contributors, and Internet Services staff support content creation efforts for those agencies without a dedicated Web presence. The County Infoweb will continue to be updated with additional access to enterprise data and interactivity, and expanded to become a viable alternative for full transaction-oriented applications. The addition of new information and increased business functionality is essentially an ongoing project. Based on conversations with a wide range of County managers, it is also expected there will be numerous concurrent application development requests from a dozen or more agencies for core web-enabled applications as the benefits of the technology become more widely recognized. These requests for support are handled on an as-needed basis based on priority, visibility and functionality, and highest Return on Investment. In FY 2011 plans include the development of collaborative functionalities for County agencies including implementation of a new FairfaxNet SharePoint portal to provide a centralized resource for County content, forms, policies, news, applications, and training.

## 5 – Web Content Management

Web Content Management will deal with refining the site's information architecture, defining and implementing replicable workflows, as well as designing and

implementing the supporting infrastructure for Web content contribution.

## 6 – e Services

Internet Services prototyped new application development platforms and developed standards and best practices for the current environment. DIT supports other agencies in the development of Web content and applications.

### Project Budget

Funding of \$300,000 is provided for on-going support of multiple e-government programs.

### Return on Investment

This project continues to provide single information architecture and supporting infrastructure for all platforms and new information and e-services to the public. It further expands the content management system to improve automated workflow, revision control, indexing, search and retrieval for enterprise systems. The project improves the search capability for citizens and constituents while enabling the County to build applications faster and more efficiently by maintaining reusable components. Public access technologies minimize staff resources necessary for providing basic information, thereby allowing staff deployment to more complex tasks that require detailed or specialized information.

## IT0072 Customer Relationship Management (CRM)

### Project Description

This project provides the foundation for a comprehensive call center technology solution based on an open architecture, providing an opportunity for sharing process, resources and critical information across multiple Fairfax County call centers. This project addresses service needs by remedying existing business problems while improving operation efficiency and upgrading the technology infrastructure for all county call centers.

### Project Goals

The goal of this project is to implement a comprehensive CRM application which will use industry standard call center technologies and incorporate existing county automated tracking systems. The objective of county call centers is to provide timely and appropriate assistance based on the citizens' needs. Additionally the goal is to provide an opportunity to leverage call center

resources through virtual sessions. This project does not build or consolidate existing call centers nor create a central foundation supporting call center processes, integration, and sharing of resources as appropriate in improving overall services. This project is complimented by the telephone modernization project, which will improve the telephony foundation needed to distribute and track calls.

### Progress to Date

CRM application was deployed to support three Office of Public Affairs customer center sites. Frequently requested information and telephone numbers for county services and home owner association data is available in a centrally used knowledgebase to support consistent distribution of information. The Office of Public Affairs (OPA) processed over 33,550 requests for county information and resources in the past year and

half. The Office of Public and Private Partnerships (OPPP) is the clearinghouse for partnership information in Fairfax County. Efforts in OPPP have consolidated disperse contact lists, business partners, and resources enabling staff to utilize the system as a data depository for contacts, accounts, cases, service requests, solutions, correspondence, activities, and management of allocated staff and volunteer resources. Seible CRM solution was implemented in the Lee and Dranesville District Board of Supervisor Offices in FY 2009. In January 2010, the Department of Tax Administration (DTA) Audit Division migrated from the use of multiple Microsoft Access databases and Excel spreadsheets to the CRM which offered improved accountability, increased security, and instant interactive reporting tools. Implementation of Computer Telephony Integration and on line user training is planned for FY 2011.

**Milestones:**

- OPA Pilot Implementation completed.
- Agency Assessments – March, 2008
- Agency Integration/Training – June, 2008

- Agency Deployments – December, 2008
- Implementation of Computer Telephony Integration and on line user training- FY 2010-FY 2011

**Project Budget**

FY 2011 funding is not available.

**Return on Investment**

Return on Investment is realized from increased productivity from automation and/or streamlining of telephone processes, improved and reliable data capture required for mandatory service reporting, enhanced citizen communication and issues resolution, as well as delivery of improved operational efficiencies. CRM will allow improved historical data tracking through one system, increase awareness and insight to ensure appropriate follow up of citizen needs and concerns. It offers a more holistic view and aids in making well informed decisions about service delivery and improves communication.

**IT0079 Fairfax County Unified System – FOCUS**

**Project Description**

Fairfax County government and school system have embarked on a multi-year, joint initiative to modernize the portfolio of enterprise systems that support finance (FAMIS), human resources (government: PRISM -school: LAWSON), budget (BPREP), procurement (CASPS) and related administrative applications with an integrated approach that has the flexibility to meet current and future requirements. The project seeks to mitigate the risk that antiquated and disjointed systems pose for system failure and inferior data.

The current 'stovepipe' legacy business systems are on various, old technology platforms using a variety of hardware and software architectures integrated through a number of interfaces and reporting tools. Previous assessments of these aging systems revealed that they are past their projected useful lifecycle, no longer meet today's technology standards, and do not meet the demands of resource and financial management and decision-making. System limitations continue to drive a proliferation of multi-step tasks to produce desired data and the development of numerous 'workaround' systems to gain necessary functionality currently not available. This

has also resulted in an exponentially increased risk for fraud and security vulnerabilities. Due to their age, many of these systems have no vendor support and rely on retirement eligible in-house staff for maintenance.

**Project Goal**

A governance body of senior officials of the County and school system stakeholder agencies has guided the procurement of an integrated financial/procurement/human resources/budget suite that will support agencies in the delivery of government and school services and activities; take advantage of best practices; provide the opportunity for multi-faceted data-driven decisions; significantly improve the efficiency and effectiveness of existing processes; enhance e-government initiatives; promote telework opportunities; and aid in the transformation, transparency and standardization of financial and human resource processes. This initiative will foster an environment of change and redesign to allow for more efficient and effective processes.

**Progress to Date**

A joint Steering Committee and project team comprised of County and School personnel has been formed to

provide guidance and resources for day-to-day project activities. The Government Financial Officers Association (GFOA) is under contract to provide direction and resources in the identification of current processes, creation of requirements, and preparation and review of the procurement phases of the planning effort. Other work completed includes an assessment of the legacy systems used to support core business functions; identification, review and streamlining of existing business processes; identification and refinement of functional business requirements necessary in the software; and the identification and mapping of core business processes, which involved the production of more than 200 diagrams to document 64 key current business processes. More than 400 County and school staff from a cross section of the user community including functional managers, subject matter experts and end users assisted in this effort. Other achievements include a requirements gathering and validation process which involved examining 17 core processes in the finance, procurement, budget and human resource/payroll areas to identify what users need in a new system, followed by validation of those requirements. This provided the documentation necessary to move into the software procurement phase of the project which was completed in the summer of 2009 with the purchase of SAP software. The final phase of the planning effort, before officially launching project kick-off, is the procurement of SAP system implementation services which commenced in the fall of 2009. These services will provide the County necessary functional and technical expertise and resources to support the project goals as stated above. This procurement process is ongoing and is expected to be completed in the summer of 2010.

### Project Budget

Project funding will be required over the remaining life of the project and will be requested at appropriate times to ensure milestone payments are met.

### Return on Investment

The project seeks to mitigate the risk that antiquated and disjointed systems pose for system failure and inferior data. Automation and modernization will empower both employees and managers to execute processes more efficiently, and make the best strategic decisions based on the most timely and accurate information. This shifts the orientation of the system from that of a data repository to one of an information system solution. With the migration to a more standard, supportable database and development environment that incorporates workflow and Web technology, the project expects to create a collaborative environment where access to data and

information, even from remote locations, is based on system "look and feel" flexibility, intuition, data definition, data stewardship and security. The project will:

- Provide a seamless integration of a new system with existing applications;
- Reduce the number of shadow systems and reconciliations between systems;
- Align the reporting strategy with the County government and school system overall data reporting and consistent information management throughout the organizations;
- Incorporate fully integrated best business practices;
- Develop a system that is user-friendly and that empowers users to improve their business processes;
- Add and improve functionality in back-office functional areas;
- Improve the quality and accessibility of information for decision support;
- Reduce redundant data entry, storage, and paper processing;
- Support the countywide balanced scorecard initiative;
- Improve operational effectiveness and productivity;
- Enhance web self-service and improve customer service; and
- Retire existing legacy and back office systems and tools.



### 3.4 TECHNOLOGY INFRASTRUCTURE

#### IT0050 Public Service Communication Replacement

##### Project Description

This project provides continuing support for the Public Service Communications System, which provides two-way radio communications for all County non-public safety agencies as well as the Fairfax County Public School Transportation Department (school buses), FASTRAN and the Fairfax County Water Authority. The completed system provides adequate call processing capacity and area coverage to more than 90 percent of the area within the jurisdictional boundaries for Fairfax County. The previous network did not meet the user needs for additional coverage nor provide for future growth or for advanced features, such as mobile data communications.

##### Project Goals

The new radio system eliminates severe geographical coverage problem for County agencies, and provides reliable communications for the County's fleet, and interoperability supporting emergency management activities, and communications for an increasingly mobile workforce. The system also provides a fully independent backup radio system for public safety agencies.

##### Progress to Date

Prior year activities have consisted of the completion of a consultant study with recommendation for the replacement systems, the development of requirement specifications, contract award, tower site acquisition, and FCC licensing requirement activities, construction, and activation of transmitting tower sites, and the migration of schools and county fleets to the new system. The entire network and the remaining migrations were completed in FY 2007.

##### Project Budget

The FY 2011 project cost is estimated to be \$2,062,882 and includes the final year of a seven-year annual lease-

purchase payments for the new radio network infrastructure and operating costs during the year. Based on a portion of project costs, derived from the number of radio users that will be operating on the system as a percent of the total number of radios; \$1,279,022 will be recovered from Non-General Fund Supported agencies, the Fairfax County Public Schools and Fairfax County Water Authority in FY 2011, netting in a general fund cost to the County of \$783,860.

##### Return on Investment

In addition to enhanced reliability and coverage, the new network eliminates the two zones within the County and provides for seamless coverage on one system regardless of location, as well as provides ample reserve capacity for peak use periods and future fleet expansion. The replacement system provides reliable radio coverage to many areas of the County that were not covered by the older radio system. This provides the necessary protection and safety for bus drivers and other staff that depend on reliable communications, improves customer service to County citizens and other County agencies, and reduces reliance on commercial wireless networks in addition to future cost avoidance and other non-quantifiable benefits.

The new system is fully compatible with the mobile and portable radios used by the County's public safety radio system, which allows for direct communication between public safety and public service users for incident or disaster management, and provides a separate back-up system for the Public Safety system should that system fail. The County realized cost avoidance of over \$3 million by using the public service system to serve as the back up to the public safety system, rather than modifying the public safety system.

## IT0058 Remote Access

### Project Description

This project supports enhanced and expanded capability of internal users to access the County's systems from remote locations for service field activities, telework, and possible pandemic outbreak access. To accomplish this, the telecommunications infrastructure must be flexible in its modes of access, while maintaining a stable and secure communication environment.

### Project Goals

An enterprise-wide standardized remote access control methodology provides a solution for employees and external system users, and also is intended to be expanded to partners and County customers and residents to authenticate their identity in order to gain access to relevant data and do business in a secure manner. All user authentication and authorization management is policy based and centrally managed allowing for comprehensive audit and reporting services to support and log information on the extensive user base. This project supports increased security, simplified

management, rapid reporting and data analysis, and secure access from remote locations.

### Progress to Date

Required software licenses were obtained and project activity is on-going. Expanded remote access capabilities prepare the County for continuity of operations in case of catastrophic events such as pandemic flu, weather related disasters, etc.

### Project Budget

No funding is available for FY 2011.

### Return on Investment

This project provides a cost effective approach to enhance the County's infrastructure in order to provide flexibility for a variety of remote access devices that may be used by County staff. The capability encourages more employees to take advantage of telecommuting in line with regional goals supported by the Board of Supervisors.

## IT0060 Telecommunication Modernization

### Project Description

This project continues the implementation of Fairfax County's strategic goal for providing Voice over IP (VoIP) services over the County's fiber optic network – I-Net. This strategy includes a solution architecture that is scalable to support a variety of County sites and agency business requirements using IP-based telephone service. An IP based solution means medium and smaller sized sites can be economically brought into the common voice enterprise architecture. The plan is in full alignment with the County's principle of implementing contemporary, but proven, technologies, optimizing IT investments and fostering operational cost efficiencies.

### Project Goals

The strategic goal of this project is to move Fairfax County towards a long-term, flexible voice solution that will underwrite the use of Voice over Internet Protocol (VoIP). An IP enabled enterprise-class platform provides the County with the ability to adopt newer cost saving services such as Session Initiation Protocol (SIP) Trunking from the maturing IP telephony environment. The new architecture will yield a flexible yet stable infrastructure that will be the

foundation for the eventual evolution to a true broadband network architecture.

The replacement of the current voice communications infrastructure is a multi-year project that when completed will touch approximately 13,000 telephones, fax machines, private lines and devices used by Fairfax employees. The installations will occur in phases which allows the employee community to adjust to the changes, and thereby ensure a smooth change of voice platforms.

### Progress to Date

Following the contract award in May 2006, Fairfax County and Avaya, Inc. launched an aggressive "Immediate Relief/Proof of Concept" implementation at 7 sites. These sites were chosen to eliminate the escalating degradation of service in some of the County's oldest equipment. To date the project is 80% complete with more than 10,000 telephone lines on the Avaya platform. In addition, the project has begun to bring the following solutions online:

- Remote access for controlling telephone functions and call routing

- Unified Communications – integration with Microsoft Office Communicator
- Telework / Mobility / COOP Solutions
- County owned conference bridge
- Quality monitoring and call recording

**FY 2011 Goals:**

- Fourteen County Libraries
- Nine County Recreation Centers
- Four Large size locations (>50 telephones)
- Sixteen Medium and Small sized locations (<50 telephones)

**Project Budget**

In FY 2011 \$1.7 million is recommended to support continued implementation of the Voice Modernization Project. The funding is provided from the County's Cable Fund (105)

**Return on Investment**

The benefits derived from the implementation of this project are quantifiable and substantial. Direct cost savings include: reduction in leased circuit costs; a reduction in message unit costs for outside phone calls; and a reduction in overall maintenance costs, including moving phones, adding new phone and changes to existing phone service. In addition, the new voice infrastructure will allow Fairfax County to leverage embedded technology assets and to improve service delivery quality. Business processes will be streamlined because of the ability to share information over an integrated communications platform.



### 3.5 HUMAN SERVICES

#### IT0011.9 Document Management and Imaging – Department of Family Services

##### Project Description

This is a multi-year, multi-phased project that supports the transition within the Department of Family Services (DFS) from manual to automated processes for filing, storage and access to records using document management platform technology. Phases focus on specific divisions of the agency with the goal of providing an agency wide document management solution built on the County's standard platform.

##### Project Goals

Goals of the project are: a) to provide a reliable and secure system for cataloging, archival and retrieval of sensitive Human Services documents for case management, and, b) improve response times for client inquires of case records. In addition, the project allows for the management and preservation of DFS records in accordance with State and Federal mandates, and avoids non-compliance issues associated with the degradation, damage, or loss of paper files.

##### Progress to Date

This is a multi-phased project, where phases will be delivered in modular components aligned with the readiness of the necessary infrastructure. By implementing smaller phases, disruption to business operations is minimized. In FY 2005 and FY 2006, Infrastructure components were developed to support the delivery of the initial component for Family Self Sufficiency (FSS). Functional requirements and a prototype design were completed in FY 2007. Also in FY 2007, requirements definition began for Children, Youth, and Families, for the integration of the Commonwealth's SPIDeR system, and for the replacement of a data feed to a key financial systems. In FY 2008 system design and initial development / configuration tasks were completed.

##### Phase I – Self-Sufficiency Document Management and Imaging:

- Development efforts complete – winter 2008-2009
- User Acceptance Testing completed – Summer 2009
- End user training and phased implementation – late summer 2009

- Production go live and continued end user training – Fall 2009
- Complete user training and phased implementation at four sites – Summer 2010

##### Phase II – Children Youth and Families Document Management

- Finalized vendor statement of work for requirements analysis – Summer 2009
- Prepared project schedule – Fall/Winter 2009-Spring 2010
- Request cost proposals – summer 2010
- Design and development of system solution – Fall/Winter 2010
- User Acceptance testing – Spring 2011
- Implementation – Summer/Fall 2011

##### Project Budget

Due to budget constraints funding is not available in FY 2011.

##### Return on Investment

Cost savings will be realized as a result of improved processing of paper documents, use of staff time, and reduced error rates for more effective and efficient document management. Imaging and workflow project are expected to increase the security of records, promote telework; reduce error rates since much of the manual data entry will be eliminated; and reduce the space requirements for maintaining paper copies of documents. With the increased availability of accurate, available closed records, the Fraud Unit will be able to more easily investigate cases that may result in increased reimbursement. Accurate, timely processing of services and records are necessary to insure reimbursement for provision of services.

**IT0011.10 Document Management and Imaging – Office of Children**

**Project Description**

This project provides for the Office of Children's (OFC) Electronic Records Management system. The transition to an electronic system will ensure that citizens receive the most efficient, highest quality of service across OFC program division, and that all legal mandates are satisfied regarding record archival and citizen and client privacy.

Phase III includes imaging the files in the Directors office.

**Project Goals**

This project provides for a structured enterprise approach to the development of imaging and workflow capabilities in agencies that have identified an opportunity to provide increased security and integrity of their records; reduce the labor intensive record retrieval and re-filing process; expedite workflow processes through an electronic workflow management system; provide simultaneous and instant access to records; and reduce costs associated with space and shelving for storage of paper requirements.

**Progress to Date**

In FY 2007, the project transitioned Community Education and Provider Services, and the Child Care Assistance and Referral program to document imaging technology. The second phase of this project includes the Head Start and School Age Child Care program. Head Start maintains files for over 500 children and families in multiple locations. With this technology field staff and federal auditors will have the ability to review files electronically without traveling to multiple locations. The School-Age Child Care Program provides direct services to over 14,000 children in 134 centers throughout the county. Files are maintained on all staff, children and centers.

Community Education and Providers Services, Child Care Assistance and Referral program and SACC Registration are currently in production. Head Start, SACC Licensing, the Director's Office and SACC children's files have been delayed due to budget constraints. Currently work continues towards upgrading to the new version of the software for existing modules.

**Project Budget**

No additional funding is provided in FY 2011.

**Return on Investment**

Imaging and workflow project increase the security of records, protect sensitive information from unauthorized access; reduce staff time required for retrieval and refining of documents; reduce processing time as workflow efforts streamline the reviews required; provide a viable, accurate documents management system for old and one-of-a-kind documents; promote telework; reduce error rates by reducing manual data entry; and decrease the space requirements for maintaining paper copies of documents.



## IT0054 CSB – SYNAPS, HIPAA Database Consolidation, and SYANPS Replacement

### Project Description

SYNAPS was developed for the Fairfax-Falls Church Community Services Board (CSB) to improve client tracking, client/third-party billing, enhance client demographic information, staff productivity data, and provide for compliance with the Health Insurance Portability and Accountability Act (HIPAA) of 1996.

Replacement of the existing SYNAPS system was recommended by the Beeman Commission which was established in 2008 to advise the Board of Supervisors on the future direction and design of the mental health services delivery system serving Fairfax County. FY 2011 funding provides for the initial requirements analysis for the replacement of the entire system.

The CSB- HIPAA Database Consolidation project provides support for the design and development of a secure, scalable and easy to use Community Services Board (CSB) HIPAA data repository to store current and future HIPAA related information.

### Project Goals

The FY 2011 project goals include initial requirements for the replacement of the existing SYNAPS system including technology capable of supporting service and business practices and facilitating access to electronic information. The CSB- HIPAA Database Consolidation project will ensure CSB's compliance with federally mandated HIPAA regulations designed to protect the privacy and confidentiality of individually identifiable health information. The design will include appropriate role based security and scalability to enable multiple departments to store HIPAA -related information on a consolidated and secure platform.

### Progress to Date

SYNAPS efforts have included bringing the database and supporting application servers into current technology. Roll-out of new hardware has been base lined as an incremental just-in-time rollout so that hardware and licensing come on-line as CSB staff are trained and join usage of the system. Requirements for both the CSB HIPAA Database Consolidation and the SYNAPS replacement project will begin in FY 2011.

### Project Budget

FY 2011 funding of \$175,000 is recommended in support of the CSB HIPAA Data Consolidation effort and requirements gathering for the SYNAPS replacement project.

### Return on Investment

The enhanced system provides greater system reliability and end user satisfaction and produces a more reliable and less labor-intensive application. The eventual replacement of the existing SYNAPS system will improve coordination and collaboration of services and supports, with consistent practice models and strategies and cooperation across systems and among mental health providers, to ensure the appropriate and timely exchange of information and the coordination of effective services and supports. The goal is to ensure that all stakeholders have the information necessary to support both person/family-centered and systems-level informed decision-making. The CSB HIPAA Data Consolidation provides appropriate role based security and scalability to enable multiple departments to store HIPAA-related information on a consolidated and secure platform.

## IT0059 Child Care Technology – Office for Children

### Project Description

The Child Care Management system for the Office for Children (OFC) in the Department of Family Services determines client eligibility, tracks child enrollments, and processes approximately \$3 million per month in provider payments for the Child Care Assistance Program. This application processes over 2,500 home child care facility permits for Provider Services and connects families with child care providers participating in the Child Care Resource and Referral System. The application tracks

current market rates for providers and interfaces with FAMIS the county's current financial management system.

### Project Goals

This project brings OFC technology in compliance with the County's IT standards and requirements. Providers and centers will have access to their data via the web and the ability to maintain their profiles reducing the need for OFC staff to maintain data. OFC depends on this database to issue permits and support the Child Care

Assistance and Referral program, which includes the online search for child care on the public web. The goal of this project is to provide up-to-date, secure technology and offer e-government services to family day care providers and centers.

### Progress to Date

Design and environment configuration and acceptance testing are complete; move to production is planned for early in FY 2011.

### Project Budget

Funding is not available in FY 2011.

### Return on Investment

E-government services will give providers and centers the ability to access data and maintain their profiles, reducing the need for OFC staff to maintain data. This system supports the Office for Children's permitting of family care providers and the Child Care Assistance and Referral program. The system enables permitting and the processing of over \$3 million monthly payments to providers and centers. Upgrades avoid future cost associated with a non supported system. E-government services support the county's IT strategic plan.

## IT0084 Department of Family Services (DFS) – Data Reporting Project

### Project Description

Department of Family Services (DFS) is the largest of the County's human services agencies. DFS provides a vast array of programs and services through its major four divisions – Self-Sufficiency; Adult and Aging; Children, Youth and Families; and Child Care – as well as through the department's other components including the Office for Women and Domestic and Sexual Violence Services, the Comprehensive Services Act, and Disability Services Planning and Development. An intensive strategic planning process identified the need for a more integrated use of information technology systems. Currently multiple IT systems ranging from mandated Virginia Department of Social Services case management systems to customized off-the-shelf systems to locally developed and maintained databases are used to support the department. A data warehouse will provide a systematic means to retrieve and analyze data, to extract, transform and load data and to create management reports that will increase efficiency and effectiveness.

### Project Goals

Goals include development of a data warehouse to enable effective management of information reporting from various disparate Department of Family Services

(DFS) systems. This project will enhance security and efficiency within DFS by providing standardized, consistent, clean and integrated data sourced from 30 distinct departmental IT systems. The data will be structured to address the reporting and analytical needs of each division and the department.

### Progress to Date

Project work will commence in FY 2011

### Project Budget

FY 2011 funding of \$100,000 is provided.

### Return on Investment

A data warehouse will house a standardized, consistent, clean and integrated form of data sourced from various operational systems in use in the department, structured in a way to specifically address the reporting and analytic requirements of each of the divisions as well as the department as a whole. The system would streamline processes, improve communication and data sharing, reduce dual data entry, enhance collaborative decision making, improve data quality, and enhance overall service delivery and better customer service.

## IT0085 Loan Processing System Replacement

### Project Description

The Fairfax County Department of Housing and Community Development (HCD) provides loan assistance to resident homeowners under a number of County and Federally sponsored programs. These loan programs are available to assist low-to-middle income residents in securing and maintaining affordable housing.

### Project Goals

This project's goal is to replace HCD's twenty three-years old Loan Processing System with a COTS program that facilitates current loan processing and tracking need, as well as retains Mainframe connectivity and connectivity to the Department of Finance functionally. Through the years both the functionality and technology associated with the existing system have become dated and the need for a more robust loan processing system have grown. Implementing a current loan servicing system that utilizes web technology to properly account, service and report on the excess of \$46 million in loans in the HCD portfolio will allow for enhanced revenue and compliance with federally mandated HUD programs.

### Progress to Date

A request for Proposal was issued in the spring of 2009 and contract award is anticipated by the end of FY 2010.

### Project Budget

FY 2011 funding is not required.

### Return on Investment

To address current shortcomings of the Loan Processing System, the County would need to invest substantial amount of time at an estimated cost of \$300,000 and \$500,000 in programming fees and discontinue its plan to phase out the inefficient IDMS and its associated maintenance costs. Procuring and implementing a loan servicing system that utilizes web technology is needed to properly account, service and report on the excess of \$46 million in loans in the HCD portfolio, many of which are not captured in LPS. It also allows for enhanced revenues through the use of database matches (e.g., the Clerk of the Court, DPZ, etc.) which can enable HCD to independently determine if the conditions for loan repayment have become due. Given the large dollar amounts in our Proffer and various deferred loan programs the opportunities to enhance revenues or deter the loss of funds justify the need for this new system.



### 3.6 PLANNING AND DEVELOPMENT

#### IT0055 Fairfax Inspection Database Online (FIDO)

##### Project Description

The FIDO Project involved the replacement and consolidation of several platform-specific land use management systems into a single enterprise solution that supports land use permit issuance, inspection, and code enforcement operations at five County agencies (Public Works, Planning and Zoning, Fire and Rescue, Health, and the Code Enforcement Strike Team). FIDO supports ninety different permits (building, roof, basement, restaurants, Sign, sprinkler systems, fire alarms, etc.) land use complaint types (residential overcrowding, tall grass, junked cars, etc.), and also includes a web portal to allow citizens and businesses to query the status of a permit applications and code enforcement complaints.

##### Project Goals

The goal of the FIDO Project was to provide a single database solution that met the needs of multiple agencies involved in similar processes. FIDO was integrated with several other County systems (Land Development System, Integrated Assessment System, and Master Address Repository System, GIS) to provide a seamless process throughout the lifecycle of construction projects, and code enforcement management activities. Project goals also included enhancing customer service by streamlining the permitting process, and reducing permit issuance, plan review and inspection timeframes.

##### Progress to Date

All relevant FIDO modules (Permits, Code Enforcement, License, Customer Service, and Cashiering) are in production for DPWES, DPZ, FRD, the Health Department and Code Enforcement. Other agencies such as the Department of Housing and Community Development, and the County Attorney also access FIDO on an as needed basis.

In FY 2009, the project team completed implementation of an enhanced Code Enforcement module that transformed code enforcement activities from an agency-centric module to an address-based case management module that aggregates all agency activity for a specific address in a single case. Work also continued on the development of a mobile wireless building inspection system for DPWES that will interface with FIDO. In addition, a mobile wireless FIDO pilot was launched in the Department of Planning and Zoning in February 2009 that

involves the extension of the FIDO desktop to the field for up to 10 DPZ code enforcement inspectors. The pilot provides direct access to FIDO from the field through a laptop and virtual private network that allows the Inspector to interact with FIDO from the field.

Roll out of the FIDO wireless laptops to all DPZ code enforcement staff was completed in FY 2010. The Fire and Rescue Department and Health Department will use wireless laptops to extend desktop FIDO functionality to the field via VPN and commercial wireless networks. Project staff is working to complete roll out of the wireless laptops to all Health Department and Fire and Rescue Department Code Enforcement inspectors in FY 2010.

Remaining project tasks include implementation of web based permit and license applications, the addition of problem codes to the Dynamic Portal Complaints web site, the migration of data from the mainframe to a FIDO data repository, and providing email notification capabilities to customers.

##### Project Budget

FY 2011 funding is not available.

##### Return on Investment

FIDO consolidated land use data from several disparate systems into a single land use data repository that has transformed multiple agencies heterogeneous business processes to a homogeneous presentation layer that provides accessible business intelligence to key decision makers and customers. This data repository has led to a collaborative land use management business architecture that minimizes extended 3rd party reviews and information shortfalls that have historically prolonged permit issuance and code enforcement lifecycles. Data centralization has also maximized employee productivity by providing a single point of reference that has eliminated the need for phone calls and manual processes to determine the status of permit issuance pre-requisites (i.e, Site plan, code enforcement violations, contractor licenses, etc.).

System consolidation efforts included the elimination of redundant technical infrastructure and software maintenance expenditures that will ensure system efficiencies and cost savings throughout the FIDO system lifecycle. In addition, savings are realized through a

streamlined system that has enabled the land development industry to work more productively with the County thereby providing growth opportunities for County residents and businesses, that can potentially enhance tax revenues. Moreover, the e-government capabilities and collaborative

agency approach to code enforcement activities provided by FIDO has established an electronic dialogue between the County and citizens to monitor and/or eliminate conditions that may negatively impact quality of life issues in Fairfax County neighborhoods.

## IT0065 Facility Maintenance Management System

### Project Description

This project supports the acquisition of an Integrated Facilities and Grounds Management System as a single, integrated facilities information resource for the Facility Maintenance Department (FMD) and the Fairfax County Park Authority (FCPA). An updated system will increase the effectiveness and efficiency of staff and utilization of capital resources required to maintain and manage County and Park facilities and properties. The new system will support the goals of the project through the enhancement of data collection methods and tools, improved warranty tracking, elimination of redundant facilities information databases, user friendly interfaces for internal and customer access, and a strong reporting system.

### Project Goals

The goals of this project are to acquire and implement a Computer Integrated Facilities Management (CIFM) System. FMD and FCPA hold the greatest portion of responsibility for the maintenance of County's largest and most valuable physical assets: its properties, facilities and the subsystems that keep them operational. The maintenance aspect must be fully integrated with the management of those assets by encompassing all the functional components and activities that support Lease Management, Space Management and scheduling, Inventory Control, Grounds Management, Contracts Managements, Utilities Management, Physical Security, and Emergency Preparedness/Disaster Recovery.

Implementing a web base, "one stop shop" for facilities information, will enable internal improvement and efficiencies as well as provide more accurate, completed, and timely information to customer agencies. By consolidating the redundant facilities tables and databases maintained by various branches within FMD as well as by the participating "partner" agencies, the County will gain the benefit of more consistent data and improved interagency coordination of information.

### Progress to Date

Portfolio and Demand Maintenance – was implemented in March 2007. Implementation of Planned Maintenance, Inventory bar-coding, space management and configuration of handhelds was complete in June 2009; Real Estate Leases module – August 2009, and Capital Projects phase in December 2009. Last phases of the Capital and Facility Projects module will be complete in FY 2010. Work on the deployment of wireless server and deployment of the remaining Windows Mobile Devices, including licenses, hand held units, acceptance testing and training to facilitate field staff access to asset data, inventories, operational information, as well as improved data collection and warranty tracking will continue into FY 2011.

### Project Budget

FY 2011 funding of \$665,550 is provided for project completion.

### Return on Investment

Extensive saving will be realized through the streamlining of communications and processes throughout FMD and the Park Authority, the most quantifiable savings derived from time saved by field personnel (crafts, trades, and grounds personnel) and Work Control Center staff within the agencies. The replacement system will provide bar-coding and wireless technology to greatly improve the speed and consistency of data collection necessary to better utilize field staff and eliminate excessive hand recording of information that is entered into the system at a later time and/or by a different individual. Accurate and timely data collection plays a vital role in improving time management for field staff and will ultimately work to extend the life cycle of equipment. Improved data collection in the field, along with a web based customer request and inquiry interface will save time for staff in terms of handling customers' status inquiries and work order processing from initiation to close out.

**IT0082 Land Use Information Accessibility Initiatives**

**Project Description**

During January 2006, the Board of Supervisors established the Land Use Information Accessibility Advisory Group ("Advisory Group"). The purpose of the Advisory Group was to review the ways in which land planning and development information is made available to the public, make recommendations for accessibility improvements, and develop a high-level plan of action. The Advisory Group made a number of recommendations which were accepted by the Board of Supervisors in January 2007. See <http://www.fairfaxcounty.gov/landusecomm/> for the final Advisory Group report.

**Project Goals**

Project goals are to improve the ability of citizen and business constituent to easily access information concerning land use planning and development activities in their communities.

**Progress to Date**

Due to on-going budget constraints an incremental approach has been taken to address the Group's recommendations.

During FY 2007 LDSNET web page enhancements provided two new inquiries; the Search Land Use Information by Address, and the Search Land Use Information by Magisterial District. Both functions also supported searching by, and accessing spatial views of land development information on a map.

During FY 2008 – FY 2009 staff addressed several Advisory Group recommendations including:

- Improving navigation between the LDSNET & GIS My Neighborhood web pages for common data elements,

- Expanding the Search by Address/Search by Magisterial District features to incorporate building permits and additional Plan types/Plan history,
- Expanding the LDSNET web page to include Site and Rezoning plan summaries in downloaded PDF files,
- Documenting requirements for citizen email notification of Site/Rezoning plan submissions, and 3D imagery tool integration for the My Neighborhood web page.
- My Neighborhood web page integration to streamline end user navigation.

During FY 2010, work continued with a pilot application that integrated web-based GIS 3-D imagery and GIS capabilities with existing land use systems such as IAS (tax assessment), LDS (Commercial and Residential development plans), and FIDO (building permit issuance). The pilot application has thousands of 3-D buildings in the Tyson's and Reston/Herndon areas. With a single mouse click it is now possible to have a 3-D aerial tours of the County's business centers, historic sites, schools, parks – along with easy address-based searches/queries of construction sites and building permit issuance activities. Users can also view their own 3-D models within the application and conduct shadow analyses of 3-D objects. The pilot application (Virtual Fairfax) is in a testing phase and will be released to the general public during FY 2011. On-going efforts to address the Advisory Group's recommendations to meet government transparency objectives will continue in FY 2011 (subject to funding priorities.)

**Project Budget**

FY 2011 funding is not available.

**Return on Investment**

The project streamlines constituent access to relevant land use information, enhances navigation and provides more intuitive and web-based visualization tools for understanding the spatial environment. These efforts exhibit Fairfax County's commitment of make land use process and information more open, inclusive, and citizen-oriented. These projects further enable citizens' awareness of land use information impacting their neighborhoods and facilitate citizen participation in the process. Information on these systems is available 24/7 over the County's website.



## IT0087 ParkNet Security Upgrade

### Project Description

The project is an IT hardware and software integration project to upgrade and bring ParkNet, Fairfax County Park Authority's aging business application into compliance with Payment Card Industry Standards (PCI) and replace aging hardware and operating system platforms with a County-compliant, Windows-based hardware and operating system platform to serve the Park Authority and its citizen-customers.

### Project Goal

The project goal is the replacement of the ParkNet hardware and operating system platforms with a County-compliant, Windows-based hardware and operating system platform to serve the Park Authority and its citizen-customers. This initiative ensures conformity with current supportable IT architecture and security standards as well as compliance with the Payment Card Industry mandates for accepting credit card payments over the internet and IVR.

Project objectives include: securing the Parknet application from the threat of virus infection by using County-standard tools for anti-virus protection; securing the ParkNet application from threat of environmental mishap and promote Continuity of Operations Planning (COOP) by relocating it from the Herrity Building to the Enterprise Operations Center; increasing availability to staff and citizens, placing the administration of the ParkNet platform under the auspices and standards of the agency's organizational unit; providing a faster application for agency staff (which benefits county citizen-customers); and eliminating the need for special DEC Alpha Cluster and Open VMS skill for Automation Services Branch staff.

### Progress to Date

Completion of software integration, installation and testing is planned for the summer of 2010. The project will use existing County infrastructure resources for implementation.

### Project Budget

FY 2011 funding is not required.

### Return on Investment

The ParkNet system is critical to a range of agency core functions including recreation center and golf course point of sale activities to program and camp registration via the internet and IVR portal, architecture and security standards, as well as compliance with Payment Card Industry mandates for accepting credit card payments over the internet and on the IVR. Opportunities exist for enhanced revenue because of increased uptime and availability of the ParkNet system and the Internet class registration capability. The project protects the application, agency information, and citizen information by moving the server the County's Enterprise Operations Center (EOC), and promotes Continuity of Operations Planning (COOP) by involving County staff and resources in the protection of the data.