

## Response to Questions on the FY 2009 Advertised Budget Plan

**Request By:** Chairman Connolly

**Question:** What are examples of the return on investments for the investments we are making in technology?

**Response:** Fairfax County has realized return on investment in recent years in the form of cost savings, cost avoidance, reduced staffing, and enhanced services and revenue collections. Cross agency technology projects have created enterprise wide solutions that leverage infrastructure and provide multiuse business solution platforms. In addition, agencies have an improved ability to aggregate data resulting in actionable information to enable improved business decisions, more seamless communication, as well as timely information and services to the community. Scalable technology solutions have created opportunities for increased efficiencies to meet growing workloads and demands.

Integrated document management capabilities leveraged across multiple agencies allow for more efficient work flow and reduce the storage of vast quantities of required paper records. E-government initiatives provide single information architecture and supporting infrastructure for all platforms needed to provide information and e-services to the public 24 hours/7 days a week without the need for additional program staff. The platform generates economies of scale by providing the necessary support required for the increasing demand for e-commerce/e-government services. Geographic Information Systems (GIS) is another foundational technology which enables the County to implement spatially enabled applications for increased operational efficiencies by substantially reducing the number of staff hours required for planning, tracking, analyzing, and mapping. Fairfax Inspections Database Online (FIDO) is a strategic initiative to consolidate inspection services. The system streamlined and enhanced code enforcement by eliminating stove pipe systems in multiple agencies and creating a unified single system to assist inspectors from different agencies working on the same case. The system provides critical support for interagency coordination and communication.

Across the County, there has been a substantial shift towards automation of business processes in recent years. These initiatives have increased transparency while providing a higher level of service to residents. Specific examples of returns are shown in the attached table.

## FY 2009 - Response to Q and A – IT Return on Investment

IT PROJECT	COST SAVINGS	COST AVOIDANCE	NON-QUANTIFIABLE BENEFITS	ENHANCED REVENUE
<p><b>E-Government Projects.</b> E-Gov technologies (internet, IVR, Kiosk, Public access sites) provide on line access to County information and services. For example customers served by some E-Gov technologies: Kiosks: more than 10.8 million IVR 4 million since 2005 Web: 52,445 visitors per day.</p>	<ul style="list-style-type: none"> <li>• Fewer staff required for providing routine information to the public.</li> <li>• Staff can be deployed to handle more complex tasks, and respond to requests that require more complex and/or specialized knowledge.</li> </ul>	<ul style="list-style-type: none"> <li>• Generate economies of scale by providing the necessary support required for the increasing demand for e-commerce/e-government services.</li> <li>• Enables the County to build applications quicker and more efficiently by maintaining reusable components.</li> </ul>	<ul style="list-style-type: none"> <li>• Citizens become better informed and better served by the County.</li> <li>• Promote data sharing across jurisdictional lines, increasing the scope and value of information and services, facilitating new services, and improving citizen and constituents' search capability.</li> </ul>	<ul style="list-style-type: none"> <li>• The county continues to expedite the collection of payments that have steadily increased over the last several years- E-Gov Payments: 2005 - \$32,244,282 2006- \$41,690,358 2007 - \$50,597,541</li> </ul>
<p><b>Geographic Information System - GIS</b></p> <p>provides substantial savings in various County agencies including: Purchasing and Supply Management (DPSM), Finance (DOF), Planning and Zoning (DPZ), Public Works (DPWES), Health(HD), Housing and Community Development (HCD) Fire and Rescue (FRD), Police (PD), Transportation (DOT), Tax Administration (DTA), and Parks.</p>	<ul style="list-style-type: none"> <li>• GIS saves DPSM staff hours to create auditor areas to better manage the yearly county asset audit efficiently.</li> <li>• GIS automates Housing Forecasting and saves hundreds of staff hours required to analyze housing data.</li> <li>• DPZ –saves time by creating staff report maps in GIS. -Uses GIS for Planner of Day Operations, reducing staff time in responding to inquiries.</li> <li>• FRD -Nearest hydrant calculations – saves time answering insurance queries about closest hydrant.</li> <li>• DOT- saves staff time on planning pedestrian projects, locating and managing new park and ride facilities, planning Fairfax Connector, planning and analyzing bus locations.</li> </ul>	<ul style="list-style-type: none"> <li>• DOF/Risk Management Division (RMD) – GIS saves staff time for insurance claims by quickly ascertaining if county properties are in floodplain or Resource Protection Area (RPA).</li> <li>• DPWES –GIS saves staff time in sanitary sewer permits calculation automation, storm water modeling mitigates potential future costs.</li> <li>• HD -Tracking mosquito/West Nile virus, improving planning and prevention, reducing exposure, and saving health costs.</li> <li>• DTA –GIS enables DTA to graphically report property value trends by magisterial district.</li> <li>• Parks -Mowing plans were created in GIS to conserve fuel and time by leaving some environmentally sensitive areas uncut for the benefit of the environment.</li> </ul>	<ul style="list-style-type: none"> <li>• Land Development Services Network (LDSNet) - Integrates GIS enabling users to request development information by Geographical area.</li> <li>• GIS enables engineers who plan the sewer systems to calculate and analyze sewage flows automatically to determine impacts of additional developments.</li> <li>• FRD- Pictometry assists dispatchers in directing response activities and helping firefighters figuring out hose runs and best access to the burning area.</li> <li>• PD- Using GIS in crime analysis to identify patterns and catch criminals (most recent success was the arrest in Falls Church in a sex offense case).</li> </ul> <p>DPWES - used GIS to assist in preparing for gypsy moth/canker worm spraying program.</p>	<ul style="list-style-type: none"> <li>• Parks - Acquisitions Division uses GIS to help identify properties for purchase that have the most value for the county.</li> <li>• Capital Facilities uses GIS to better track county property assets.</li> </ul>

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<b>Fairfax Inspections Database Online (FIDO) and the Health Department:</b> FIDO has resulted in a complete business process redesign for the Health Department's Division of Environmental Health.	<ul style="list-style-type: none"> <li>• Eliminated antiquated systems and multiple databases, duplication of paperwork and redundant data entry.</li> </ul>	<ul style="list-style-type: none"> <li>• FIDO allows enhanced enforcement activity on properties where multiple agencies have cases creating efficiencies in staff time.</li> </ul>	<ul style="list-style-type: none"> <li>• Provides one system that contains the information required for staff and management to perform their duties.</li> </ul>	
<b>FIDO and the Strike Team:</b>	System enabled close coordination of workload and case assignment which greatly improves: <ul style="list-style-type: none"> <li>• Operational efficiency</li> <li>• Accuracy in information, and</li> <li>• Program effectiveness.</li> </ul>	<ul style="list-style-type: none"> <li>• Use of the system avoids multiple agencies working the same cases on the same properties.</li> <li>• Provides critical support for interagency coordination and communication about new and existing cases.</li> </ul>	<ul style="list-style-type: none"> <li>• FIDO provides an internet portal for citizens to report alleged land use violations in their neighborhoods.</li> </ul>	
<b>FIDO and Fire Prevention Division at the Fire and Rescue Department (FRD)</b>	The new system required a careful review of each business process which resulted in: <ul style="list-style-type: none"> <li>• Streamlined processes,</li> <li>• Increased efficiencies in scheduling and inspections,</li> <li>• Elimination of duplicate inspections,</li> <li>• Enhanced enforcement capabilities across agency lines.</li> </ul>	<ul style="list-style-type: none"> <li>• FIDO allowed DPWES and FRD to work together to identify areas where one-stop shopping could be provided to the customer and duplication of staff time avoided.</li> <li>• The system immediately cross-checks contractor information against the permit type to ensure the contractor is licensed to do the job – another protection check for the county resident.</li> </ul>	<ul style="list-style-type: none"> <li>• Prevents a building permit from being released before all inspections are approved.</li> <li>• The shared database allows uninterrupted tracking for each property entered into the system, tied to the property rather than owner.</li> <li>• Any construction, zoning, health, or fire related activity is permanently attached to the address, cannot be removed, and is searchable.</li> <li>• The interface capabilities of the software provide instant access to state license and BPOL information.</li> </ul>	<ul style="list-style-type: none"> <li>• Revenue increased to the county through the addition of seven new permit types.</li> </ul>

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<b>FIDO - Land Development Services, DPWES</b>	<ul style="list-style-type: none"> <li>• Significantly reduced the amount of time required to train new employees as permit technicians.</li> <li>• Allowed new hires to be placed in a productive frontline environment much quicker than was possible with the legacy permitting system.</li> <li>• FIDO has increased data search functionality over the legacy permitting system allowing staff to work more efficiently and to provide improved information to customers.</li> <li>• Increased productivity with fewer errors.</li> </ul>	<ul style="list-style-type: none"> <li>• The implementation of FIDO has enabled staff in LDS to work more efficiently, and respond more effectively to an increasingly complicated regulatory environment.</li> <li>• System and process improvements brought on by FIDO have enabled LDS to “do more with less” and have diminished requirements for additional staff, thereby avoiding significant cost increases.</li> </ul>	<p>Significant improvements for customers in providing greater access to:</p> <ul style="list-style-type: none"> <li>• Permitting,</li> <li>• Plan status,</li> <li>• Inspection information via the FIDO website,</li> <li>• Tracking permit status,</li> <li>• Immediate access to rejection comments,</li> <li>• Better collaboration with other sections involved in the permitting processes,</li> <li>• Better customer service to both internal and external customers.</li> </ul>	<p>LDS Cashiering Section has seen many revenue-related improvements including:</p> <ul style="list-style-type: none"> <li>• More accurate collection and calculation of revenue,</li> <li>• More efficient and reliable distribution of funds to the appropriate index/sub-object codes.</li> <li>• Faster retrieval of data and greater access to cashiering information,</li> <li>• The system is tailored to the Cashiering Section’s needs and provides more accountability for advanced funds collection and easier researching tools.</li> </ul>
<b>Circuit Court- Land Records Automation System- Court Automated Recording System (CARS)</b>	<ul style="list-style-type: none"> <li>• Reduced staffing needs in the Land Records recordation processes.</li> <li>• Reduced physical facility requirements to support the growing number of users and transactions.</li> <li>• Increased staff efficiency by eliminating many repetitive manual tasks.</li> <li>• Faster and more accurate processing of documents.</li> <li>• Title examiners are able to research documents without the assistance of a probate clerk.</li> <li>• Streamlined recording process for deeds, land record documents, marriage licenses and fiduciary filings; save staff time and create operational efficiencies in the Clerk’s Office.</li> </ul>	<ul style="list-style-type: none"> <li>• Since users can access the system electronically via Court Public Access Network (CPAN) there has been significant reduced wear and tear on Court equipment and maintenance costs have been reduced by 40 percent.</li> <li>• The introduction of the virtual probate file significantly reduced the number of hours spent in manual probate processing by Court staff.</li> <li>• Automated systems reduced the number of public visits to the courthouse which reduces security concerns, congestion and parking problems at the courthouse.</li> </ul>	<ul style="list-style-type: none"> <li>• Provides immediate electronic access to information vital to the real estate and legal communities for supporting real-estate transactions and sales processes.</li> <li>• Provides a significant increase in time savings to users of the automated systems.</li> <li>• Immediate retrieval and administration of Circuit Court records.</li> <li>• Expedited and accurate sharing of information with the Department of Tax Administration and State agencies.</li> </ul>	

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<p><b>Courtroom Technology/Courthouse Expansion Technology – Video Arraignments and Remote Testimony</b></p>	<ul style="list-style-type: none"> <li>• Eliminates the need to physically move prisoners from the ADC to the Courthouse for arraignments, saving prisoner transportation costs and related staff time.</li> <li>• Reduced staff requirements for Sheriff/Adult Detention staff.</li> </ul>	<ul style="list-style-type: none"> <li>• Reduced travel requirements and costs for courtroom participants, including witnesses required for hearings.</li> <li>• Meets demands of increased workloads in the Courts and the Sheriff's Office.</li> </ul>	<ul style="list-style-type: none"> <li>• Increase efficiency of legal proceedings.</li> <li>• Allow witnesses and testimony normally unavailable to the court/ citizens.</li> <li>• Improve courthouse security.</li> <li>• Assists physically challenged participants.</li> </ul>	<p>General District Court: Pre-investment cost of \$200,000-\$500,000 per year reduced to the current cost of \$60,000 - \$120,000 per year = Savings of \$140,000 - \$380,000 per year.</p>
<p><b>Courtroom Technology - Electronic Wayfinding</b> The previous paper-driven process was replaced with electronic wayfinding system comprised of large digital monitors strategically located throughout the building that scroll through court dockets listing parties' names alphabetically and by courtroom assignments.</p>	<ul style="list-style-type: none"> <li>• The system provides for a faster and more reliable process producing instant cost savings and efficiencies attributed to significant staff time savings dedicated to posting, updating, and maintaining multiple daily dockets in both Circuit and General District Court.</li> </ul>	<ul style="list-style-type: none"> <li>• Increase efficiency for daily workflow processes and operations in the Clerks' Offices for both Courts.</li> <li>• Meet demands of increasing caseloads and accompanying workloads in both Clerks' offices.</li> </ul>	<ul style="list-style-type: none"> <li>• Reduce logistical barriers for citizens, attorneys, clients.</li> <li>• Assists physically challenged participants.</li> <li>• Reduces customer confusion and disturbances.</li> </ul>	<p>Circuit Court: Pre-investment cost of \$55,200 - \$110,400 per year reduced to the current cost of \$3,450 - \$6,900 per year = Savings of \$51,750 - \$103,500 per year.</p> <p>General District Court: Pre-investment cost of \$27,600-\$55,200 per year reduced to the current cost of \$5,175 - \$10,350 per year = Savings of \$22,425 - \$44,850 per year.</p>
<p><b>Library- Self-checkout/ wireless internet access</b> In FY 1998 96% of customer contacts occurred in libraries and 4% were online customer. In FY 2007, 53% of customer contacts occurred in libraries - the remaining 47% occurred online.</p>	<ul style="list-style-type: none"> <li>• Despite circulation increases the libraries will not need to add circulation staff to handle additional work.</li> </ul>	<ul style="list-style-type: none"> <li>• Wireless internet access at libraries helps the County meet demands for more internet access by Library patrons at a much lower cost.</li> </ul>	<p>Improved customer services: Self check out allows staff to help customers paying fines, registering for library cards or requiring assistance.</p>	
<p><b>Data Analysis Reporting Tool</b> – The Data Analysis Reporting Tool (DART) replaces existing ad-hoc, stovepipe reporting with a unified reporting methodology and capability.</p>	<ul style="list-style-type: none"> <li>• It is anticipated that the annual cost savings will amount to about \$190,000.</li> </ul>	<ul style="list-style-type: none"> <li>• The functionality and technology provided by DART can be leveraged and incorporated by an ERP system providing a future cost- savings to the County.</li> </ul>	<ul style="list-style-type: none"> <li>• On demand management information, updated daily.</li> <li>• Managers and users will be able to make better decisions in a timely manner.</li> <li>• Provides financial managers a better tool to measure and predict revenue.</li> </ul>	

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<b>Electronic Accounts Payable</b>	<ul style="list-style-type: none"> <li>Estimated savings from reduced staff time processing, document filing, retrieval time, copier charges and storage costs is an annual savings of more than \$2 million.</li> </ul>	<ul style="list-style-type: none"> <li>Reduction in storage cost saves more than \$400,000 annually.</li> </ul>	<ul style="list-style-type: none"> <li>Integration of the county's financial and procurement systems results in a paperless work process and enhanced management reporting.</li> </ul>	
<b>AVATAR (Health Department)</b> Upgrade old technology, comply with HIPAA regulations, and improve data and outcome measurements for the Health Department's Patient Care Services programs.	<ul style="list-style-type: none"> <li>Improvements in security and protection of electronic personal health information. The implementation resulted in a 30 percent increase in productivity.</li> </ul>	<ul style="list-style-type: none"> <li>Eliminated/consolidated multiple data systems, and Eliminated duplicate data entry which existed in the previous legacy system.</li> </ul>	<ul style="list-style-type: none"> <li>Enables program to obtain program evaluation and outcome measurements to analyze health trends in serviced population, and</li> <li>Anticipates evolving health trends in various demographics in the County.</li> </ul>	<ul style="list-style-type: none"> <li>AVATAR also minimized errors in transcription of health data into the client file, and enabled compliance with electronic patient/client billing and enhanced collection of fees.</li> </ul>
<b>SYNAPS (Community Services Board)</b>  Developed for the Fairfax-Falls Church Community Services Board (CSB), to satisfy the electronic system of record requirements established by HIPAA.	<ul style="list-style-type: none"> <li>Completely automated the ability of mental health workers to directly enter case information into the case data-base eliminating back-office data entry.</li> <li>SYNAPS will quadruple the number of system users from 200 to 800.</li> </ul>	<ul style="list-style-type: none"> <li>The system enables compliance with HIPAA regulations and thus helps the County avoid potential lawsuits due to non-compliance.</li> </ul>	<ul style="list-style-type: none"> <li>SYNAPS is enabling compliance with the Electronic Health Record initiative for 2010 which requires health records to be paperless.</li> <li>This system enables clinical staff to create secure on-line clinical assessments and treatment plans.</li> </ul>	<ul style="list-style-type: none"> <li>SYNAPS enables improved client and third party billing and enhanced client demographic and staff productivity data.</li> </ul>
<b>SACC Registration System</b> A web-based application integrates with the accounts receivable system, adds a module for SACC registration and billing.	<ul style="list-style-type: none"> <li>Parent late fees are incorporated into the system saving staff travel time and mileage to the main office.</li> </ul>	<ul style="list-style-type: none"> <li>Savings include reduced paper applications and mailings for invoices.</li> <li>This system also provides enhanced reporting for improved program management and effectiveness.</li> </ul>	<ul style="list-style-type: none"> <li>Faster service to citizens, focus on service delivery.</li> <li>Parents view enrollment information, cancel services, print tax info, and make payments online 24-7.</li> </ul>	<ul style="list-style-type: none"> <li>SACC parents can manage account online and pay for SACC services electronically, improving the timeliness of collections.</li> </ul>

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<b>Integrated Parcel Life Cycle System (UDIS)</b>	<ul style="list-style-type: none"> <li>• System reduced staff time required to develop County forecasts from 14 months to 4 months.</li> <li>• Results in resource savings from no longer needing to perform manual searches.</li> </ul>	<ul style="list-style-type: none"> <li>• System provides access to data previously inaccessible to the county and resulted in resource savings from eliminating manual searches.</li> </ul>	<ul style="list-style-type: none"> <li>• Customer service improvements include the ability to retrieve data in a spatial format which, among other things, enables Police and FRD to use the information to forecast future response times and locations for new facilities.</li> </ul>	
<b>Athletic Field Scheduling System</b>	<ul style="list-style-type: none"> <li>• Reduced staff time to enter the applications.</li> <li>• Staff time savings and fewer errors due to faster online application submissions.</li> </ul>	<ul style="list-style-type: none"> <li>• Permits issued online resulted in mailing cost savings and faster turnaround times for permits.</li> <li>• The interface from the County to Schools will eliminate manual data entry and the necessity to fax information ensuring the accuracy of information and reducing operating and staffing requirements.</li> </ul>	<ul style="list-style-type: none"> <li>• Staff can better focus efforts on efficiently and equitably distributing the limited field and gymnasium resources to the increasing number of athletic participants (which has increased approximately 15% over the past two years).</li> <li>• Improved customer service by enabling customers to pay online via credit cards and e-checks.</li> </ul>	<ul style="list-style-type: none"> <li>• The system will also ease the payment process for citizens and will increase the number of on-time payments.</li> </ul>
<b>Court Scheduling and E-Summons Project</b>  The Court Scheduling System is a joint effort between the Fairfax County General District Court (GDC) and the Fairfax County Police Department (FCPD).	<ul style="list-style-type: none"> <li>• Reduces high and low case numbers to balance traffic court dockets.</li> <li>• Provides for a more efficient and accurate scheduling of Fairfax County officers for traffic court which reduces officer overtime for court appearances.</li> </ul>	<ul style="list-style-type: none"> <li>• Provides predictable and manageable workloads for judges and court staff.</li> <li>• Provides more efficient use of Commonwealth's Attorneys and Deputy Sheriffs' time.</li> </ul>	<ul style="list-style-type: none"> <li>• Allows officers to get back on the road more quickly</li> <li>• Reduces the length of time the public and officers have to wait in court for a hearing</li> </ul>	