Fairfax County VIRGINIA

SECTION 2

STRATEGIC DIRECTIONS AND INITIATIVES

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FEATURED IN THIS SECTION

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Keeping up with the pace of change in technology and using technology effectively to advance strategic goals, optimize service efficiencies and meet end-user and public expectations are still the most critical challenges facing information technology providers. Advances in technology can enable achieving better and faster service at a reduced cost, but investments in technology can be expensive and incorporation into the business complex. New technology must be adopted carefully and integrated wisely into the existing technology infrastructure of an organization in order to minimize operational disruption and maximize the benefits in a cost-effective manner.

The following five strategic focus initiatives address the County's objective to provide effective, efficient and customer-oriented access to data and services for constituents and for internal government customers on an enterprise scale.

2.1 E-GOVERNMENT

The e-Government initiative is a foundational program supporting the County's goal of a "government without walls, doors, or clocks. The comprehensive strategy uses enabling technology, policy and processes that integrates the Fairfax County Web Site www.fairfaxcounty.gov, Kiosks, Interactive Voice Response (IVR) platforms, and incorporates Cable TV platforms, the County's Public Access sites in Libraries and Access Fairfax sites, and the County's Communications Plan for comprehensive and cohesive access to information and services that span over fifty agencies services. In addition to the on-going efforts to enhance the look, feel, navigation and search capabilities of the Web, and deploying new services and transactions, the strategy incorporates CRM and Content Management tools for wide-ranging service options. The county has achieved much success and acclaim for its e-government focus in integrating the WEB, IVR and Kiosk platforms offering a variety of channels for on-line services for a complete public access capability to services and programs. In FY 2008, the county will continue its efforts to add new services to the e-government channels, including new transactions and e-payments and enhanced search. The e-government program will also continue to work with the Commonwealth of Virginia, regional partner municipalities, and federal government agencies in interoperability of common service portals and developing web services standards which will enable cooperative access and seamless integration of information for presentation of information and services regardless of the origin or the source.

Major FY 2008 accomplishments for e-Government initiatives included new applications such as Frequently Asked Questions, Pod Casting, Really Simple Syndication feeds, My Neighborhood enhancements, Athletic Facilities Application Request, Jury Plus, and the implementation of an advanced Search application. We will be expanding our offerings in mobile access by making the county's public website accessible via wireless devices www.fairfaxcounty.gov/mobile. This will allow citizens to interact with the county government through personal wireless device. We also deployed a new kiosk located at the Fairfax County Department of Housing and Community Development. The County continues to work with Homeland Security on regional interoperability initiatives to establish policies, procedures and protocol for the exchange of data supporting emergency response.

Sharing has become an integral part of the Web experience. It is often referred to as online collaboration, and is now known as well as Web 2.0, social networking or social media. A few examples of these technologies include wikis (community developed reference material), podcasts (subscription-based audio information), RSS or Really Simple Syndication feeds (subscription-based information), Second Life (virtual reality) and MySpace (social networking). Web 2.0 is in wide-spread use socially, allowing the average person to become a published, world-wide source of news and opinions as well as allowing people across the world to share and work with others. This is not a new version of the Web, but an increased prevalence and focus on sharing, discussion and collaboration.

Through our e-Government initiative, Fairfax County Government has been using enabling technology to provide a "government without walls, doors, or clocks". Thus far, efforts have largely been focused on providing access to services. However, services are only part of the relationship between citizens and government. Fairfax County is now expanding its efforts to provide tools to assist citizens in their participation with our county government to improve communication and services (Citizen-to-Government Networking).

Some of these tools will help people interested in the county and its operations know more about county activities and programs by making information available through information channels they use in their daily lives. The county has long made it possible for people to subscribe to information that is published through e-mail (http://www.fairfaxcounty.gov/email/lists/), and is increasing the breadth of information available. More recently, the county has introduced the use of RSS feeds (http://www.fairfaxcounty.gov/rssfeeds/), which allow users to have information sent to them through tools explicitly designed to allow them to track published information. The county has also begun making podcasts available (http://www.fairfaxcounty.gov/podcasts/), and will add to the information provided through that avenue. Additionally, the Fairfax County Public Library (http://www.fairfaxcounty.gov/library/) has taken the lead in making the county more visible and accessible by introducing moderated book discussions and a presence on shared sites, e.g. MySpace and Flickr.

Goals for FY 2008 include expanding our strategy for the use of Citizen-to-Government Networking in the county's e-Gov initiatives. While more content will be developed for channels that we already support, we will be developing policies and procedures for publishing county information and making services available through shared sites in the public domain to reach a broader audience, and delivering content and services through additional channels. We will also continue building new e-service transactions and e-payments, continue improvements for navigation and improved synchronization of content from disparate sources, add more interactive features to the WEB site, and to expand and enhance applications such as a Special Needs registry supporting County support to citizens in emergency response situations. In addition, DIT will continue to enhance the e-Government channels to make them more compliant with Section 508 for accessibility; and maintain our ultimate goal to facilitate the delivery of integrated and accurate information to citizens via multiple platforms along with an implementation of additional web search capabilities.

Customers Served

Kiosk: more than 10.8 million "Screen Touches" to date
IVR: 4 million since FY 2005
Web: 40,271 visitors per day, more than 1,200,000 visits per month

Information and Services Available

Adult education classes	Web
Becoming a child-care provider	Web, Kiosk
Board Meeting minutes (searchable)	Web, Kiosk
Budget information and approved budget	Web
Bus tour schedule	Web, Kiosk
Child-care provider list	Web, Kiosk
Collection of household trash & recyclables	IVR, Kiosk
County Code — full text	Web
County demographics	Web, Kiosk
County maps, scrollable, printable	Web, Kiosk
Courts — Circuit, General District, and Juvenile	Web, Kiosk, IVR
Crime statistics, Wanted List, Neighborhood Watch	Web
DTA EPay	Web
DTA Tax Evaders	
HIPAA	
Institute for Earl Learning Training	
iCARE DTA Real Estate Assessment and Information Query	Web
Library Graded Reading Lists	
Library Picture Books	
Offsite	Web
Public Meeting Calendar	
Community Emergency Alert Network System (CEAN)	
Fire & Rescue Media Information	IVR, Kiosk
Health information	Web, IVR, Kiosk
Housing information	Web, IVR, Kiosk
Inspection scheduling status	IVR, Kiosk
Information for victims of crime	IVR, Kiosk
Job opportunities	Web, Kiosk
Library information line	IVR
Multi-jurisdictional information	Kiosk
My Neighborhood	
Newcomer information	Web, IVR, Kiosk
Parks/Recreation information	Web, IVR, Kiosk
Public safety information	Web, IVR, Kiosk
Real estate property assessment & tax information	Web, IVR, Kiosk
Seniors information and programs	Web, IVR, Kiosk
Frequently Asked Questions	Web, Kiosk
RSS Feeds	Web

Podcasting ..... Web
Doing Business with the County
Access Health Department food inspections database ..... Web
Access GIS aerial photography with pan and zoom ..... Web
Apply for County jobs ..... Web, Kiosk
Apply for a library card ..... Web, Kiosk
Board of Supervisors compliant forms ..... Web, Kiosk
Building Permit Fee Estimate ..... Web, Kiosk
Directly connect to County staff ..... Kiosk
Download request for proposal/invitation for bid ..... Web
Electronic Mailing List ..... Web, Kiosk
Estimate Electrical Permit Fee ..... Web, Kiosk
File complaints about landlord or consumer problems ..... Web, Kiosk
Find location of closest Library by entering zip code ..... Web, Kiosk
Register & pay for Park Authority classes, camps, & tours ..... Web, IVR
Locate facilities and public transportation ..... Kiosk
Obtain permit/plan status ..... Web, IVR, Kiosk
Pay taxes with credit card ..... Web, Kiosk
Pay taxes via eCheck ..... Web
Pay traffic tickets with credit card ..... IVR, Kiosk
Query current real estate property & tax information ..... Web, IVR, Kiosk
Query Human Services online "Resource Guide" ..... Web, Kiosk
Query for current position on the Housing Waiting List ..... IVR, Kiosk
Query specific court case information ..... IVR
Query status of an inspection, permit, or plan ..... Web, IVR, Kiosk
Query Victim Services data for offender release date info ..... IVR
Register a vehicle ..... Web
Request faxes of court fees and procedures ..... IVR, Kiosk
Renew vehicle registrations ..... Kiosk
Reserve a golf tee time ..... Web, Kiosk
Reserve/renew Library books — search catalogue ..... Web, Kiosk
Reserve a picnic area ..... Web, Kiosk
Report change of address for tax purposes ..... Web
Report a lost pet ..... Web
Report a zoning or noise ordinance violation ..... Web, IVR, Kiosk
Search for information in historical newspaper ..... Web
Search for Health Department clinics by area of County ..... IVR
Search for County agency telephone numbers by keyword ..... IVR, Kiosk
Sheriff Service Civil Process ..... Web, Kiosk
Subscribe to County publications ..... Web, Kiosk
Volunteer to help in the Library or Parks ..... Web, Kiosk
Zoning and Noise Ordinance compliant form ..... Web, Kiosk
Athletic Facilities Application Requests (AFAR) ..... Web, Kiosk

2.2 ENTERPRISE CONTENT AND DOCUMENT MANAGEMENT

The county established a strategic approach to content and document management in developing from an integrated solution on an enterprise platform. Content Management is the foundation for organizing and using information from structured data (through business applications), and unstructured data in electronic or imaged documents (word processing documents, spreadsheets, e-mail, and reports). The county is developing an enterprise information architecture which frames this plan and becomes a tool for web services, applications development, and web static page content search and navigation. The solution also includes a rich document management capability which allows more efficient management, flow and storage of vast amounts of required paper records. Since many government processes still require paper records, requiring departments to store large volumes of paper over prolonged periods of time, frequent retrieval of the documents is necessary, time consuming, cumbersome and inefficient. The enterprise document management technology with incorporated workflow solution will improve business process efficiency and productivity, and meet the needs to view hard copy records with automated applications to complete services. In addition to fast and reliable business processes, this will minimize the demand for additional paper records storage space, protect against mounting storage costs, and reduce human and physical plant asset risks associated with handling of the voluminous units of paper. Business Reference Model (BRM) is the basis for classification of data that aligns with three Business Areas: Service to Citizens, Support Delivery of Services and Internal Operations and Infrastructure. These areas are subdivided into thirty-five separate Lines of Business which cut across all agencies. This BRM provides the foundation for the Enterprise Information Architecture and will allow for the integration of data across Lines of Business within the County. The BRM serves as the foundation for a more exhaustive Taxonomy of Services which is currently under development for the County. When combined with other metadata, this taxonomy will provide for improved search and classification capabilities across application data and static content. This classification of data is the first and most important step in correctly implementing an Enterprise Content Management System.

In addition to continued work on the Information Architecture and implementing Documentum's Content Management System, the following has been accomplished:

- Classified the variety of information types currently offered on the Web Site
- Implemented workflow processes and define requirements for contributing content to the County's Web site
- Piloted delivery platforms for Mobile Content (i.e. Wireless "Contact Us")
- Developed an XML Document Model and Metadata associated with static content
- Implemented the Technical Architecture for Content Management
- Continued work on the Information Architecture including:
  - the "Taxonomy of Services" for the County
  - the Inventory of Systems classified by Lines of Business
  - development of an XML Namespace for the County
  - development of repositories for storing XML Objects
- Developed the template and methodology for agency web files that are currently on the county's Web site

Goals for FY 2008 as they relate to Integrated Content and Document Management are to:

- Convert the content of WEB files to XML for county agencies current pages
- Continue XML content migration to Web, Kiosk and Mobile platforms
- Build new XSLT templates based on content classification (increases the ability for custom look and feel for special content requirements such as news releases)

Content management integrates with document management. For business activities that also rely on a variety of documents, the document management process initiative employs technology at the beginning of a document's life cycle (originated as hard and soft copy) using the system to catalogue and track the documents and enable automated workflow processes through the entire life cycle. This comprehensive approach and associated implementation of technology is called Integrated Document Management (IDM). Through research and analysis conducted in 2004, the County found that best in breed products for content management engines also incorporated document management needs. The integrated solution is more cost-effective, and provides a seamless integration for use of information found in imaged documents and information in databases and other systems required for a complete business transaction. IDM technology provides the ability to organize electronic documents, manage content, enable secure access to documents, route documents and automate related tasks, and facilitate document distribution.

Another component of IDM includes document imaging, which will continue to play a much larger role in the county's business environment. Despite e-government efforts, there remain situations where there is a continued need for paper documents in certain business processes. Because of legal mandates, many government processes remain paper-intensive, requiring some departments to store large volumes of paper over prolonged periods of time. Consequently, many County departments are exploring technical solutions to alleviate the demand for increased storage space needs, protect against potential disasters that can potentially destroy volumes of important paper documents, and improve business processes. IDM solutions encompass core business practices, as well as provide better archival and disaster recovery capabilities. The County's continuing investment in this technology is closely tied to these business trends as well as the growing document management needs of its agencies including goals for paperwork reduction.

In FY 2007, the County implemented IDM technology for document work flow projects in the Office for Children and the Juvenile and Domestic Relations District Court, began multiple initiatives for the Department of Family Services, and continued work in the Commercial Inspections Division of LDS in DPWES to meet the needs of the sewer lateral section. Analyses were conducted in the Department of Finance for an automated Accounts Payable imaging system, and for integration with Commonwealth systems for the Department of Family Services.

Although the individual departmental business requirements vary for the use of IDM technology, the following benefits and quality improvements have resulted from these projects:

- Increased worker productivity by allowing employees to share and act on accurate information through the delivery of the right documents at the right time
- Enhanced communication and collaboration through shared information
- Improved speed of the information and transaction flow throughout county agencies
- Improved access and security through controlled access to sensitive documents
- Reduced time spent searching for critical documents
- Improved disaster recovery through electronic storage and backup of information that is far more secure than paper
- Reduction in clerical, paper, printing and storage costs

In FY 2008, the County will initiate planning and assessment work with the Department of Housing and Community Development, and will deliver a pilot electronic accounts payable solution for the Department of Finance. Program plans include continued initiatives to implement IDM and workflow technology for projects in the Department of Family Services, Office for Children, the Juvenile and Domestic Relations District Court, the Clerk to the Board office, and the Department of Planning and Zoning. The program will also ensure development of a robust and scalable infrastructure "core" that can incrementally grow over time to meet future needs.

Document management and imaging projects, especially when work flow automation is used, can greatly improve operational efficiency and effectiveness. These solutions provide business units with the capability to reduce costs, accelerate business transactions, ensure regulatory compliance, and support cross-department communication. In addition, these projects deliver enhanced security for the information contained in the documents. The system offers granular control over each piece of data and enables access by authorized users and only for the specific information they need and are approved to retrieve.

2.3 CUSTOMER RELATIONSHIP MANAGEMENT (CRM)

The expectations of government services continue to change dramatically. Citizens want to interact with government through the channels that best suit their needs. Fairfax County continues to enhance the services with Customer Relationship Management (CRM), technology applications. In earlier adoption of technologies to enhance the capability of tracking and responding to citizen inquiries and matters of government interests, Internet Quorum' (IQ), and 'IPhinity' call distribution technology were incorporated and have yielded numerous benefits for constituents and multiple County offices and agencies. Significant staff productivity and efficiency improvements have been achieved in supporting information exchange with citizens through multiple communication channels: in-person, telephone, e-mail, web, and Kiosk. More opportunities are allowed County staff to respond better and be involved in the mission and goals of their agencies through the usage of CRM. Fast and convenient access to services and information assist the agencies in responding to citizens based on the needs and preferences.

The successful implementation for the offices of the Board Supervisors and the Clerk to the Board to record, route, and manage interactions with constituents and organizations has expanded throughout the County. The Web enabled system 'Internet Quorum' replaced several obsolete custom applications and provided the expansion of IQ to 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 Alternative Dispute Resolution Program.

The Clerk to the Board of Supervisors uses the IQ Boards and Commissions module to allow staff to track appointments and nominations to boards, committees and councils and to keep a complete correspondence history regarding contact with these individuals. Consumer Protection Division's modules include Complaint Tracking, License Administration and Taxicab Inspections. The systems enable staff to rapidly open and begin investigating cases. By expediting the administrative components of case investigations, the initial response time has been reduced, resulting in earlier detection of consumer protection violations. The historical research required to discern whether businesses are repeat offenders or not, and how past cases were resolved is now expedited; cross-referencing cases between investigators allows department staff to share online information pertaining to the same or similar consumer protection violations, and facilitates collaboration between department investigators on complaints and resolution techniques. The system also allows citizens to access complaint histories of businesses online in order to research and better determine the pros and cons of doing business with those merchants. In addition, the system allows Fairfax County Police access to information to check the licenses of all solicitors, peddlers, pawnbrokers, massage therapists, taxi drivers, etc.

The Office of the County Executive uses the IQ Legislative Tracking Monitor application to assist County agencies to monitor, review, respond to and track state legislation when the Virginia General Assembly is in session. The system includes the automated downloading of legislative bill information from the Commonwealth's Legislative Information System, eliminating the need for a legislative aid to manually perform the data entry task and faster ability of the need for County staff to search for bills and comments. The Office of Public Affairs uses this system and includes publications and brochure tracking and workflow. Other benefits include elimination of the cumbersome process of manually tracking constituent requests with a more efficient means of processing and tracking mandated Freedom of Information requests. The Human Rights Commission uses the system to create, track and report on case workflows allowing the HRC investigators to meet multiple requirements. It also streamlines complex discrimination processes and addresses privacy concerns for investigator and conciliators.

The FY05 'IPhinity' call center distribution application implemented for Human Services Consolidated Services Planning (CSP) call center offers efficiency in supporting the growing number of people seeking assistance from social services agencies with limited staff geographically disbursed at various sites. Accurate call management, collaborative capabilities, and workforce management tools aid in access to legacy systems, reduce paperwork time, and increases employee productivity. Centralized control to all call center resources, estimated wait time, skills-based routing, virtual call center processing, self-service options, callback messaging, and emergency recording, are all standard features available in the easy-to-use system administrator management interface.

'IPhinity' is customizable to route incoming contacts based upon selected criteria, set levels of access, record specialize voice promotes, manage calls based on specific business requirements, and track all interactions to ensure closed-loop resolution. CSP will be able to monitor and manage workload and performance with a comprehensive set of analytical tools for real-time and historical reporting. Computer Telephony Integration (CTI), internal calls or transferred calls will be presented to case worker along with a "screen-pop" of information from agency case systems and databases relevant to the citizen's call. This integrated approach will give CSP the opportunity to better develop relationships with citizens and more effectively focus resources to address their needs.

Future Enhancements

Future enhancement of the county's CRM initiative include implementing enterprise 311 Call Center to allows citizens to interact with the county through a single, clear point of entry eliminating the need to navigate through hundreds of telephone numbers to find the appropriate service department and reduce the calls to 911 for non-emergency help and assistance. A virtual 311 Call Center will integrate existing call center assets, improve the citizen's communication and experience with Fairfax County Government and serve as the County's primary unified communication gateway for all residents and business. This single point of access between citizens and local government would standardize call taking operations and enable employees to answer citizen questions and log service requests. Call takers will be able to respond to a broad range of questions spread across multiple databases which ensure all call takers have the most current information at their fingertips, regardless of the source. Based on department business rules, call takers will process request for service or issues using the comprehensive and flexible workflow tool provided to integrate routing to appropriate staff members. Service level agreements and partnerships with appropriate state, federal, and private entities that are partners with the County in service delivery will be established to further meet the citizen service needs and increase confidence in government. Other modules will be added, including CRM analytics and integration of the County's Geographic Information Services (GIS), which supports the pinpointing of related complaints or contacts within a specified geographic area.

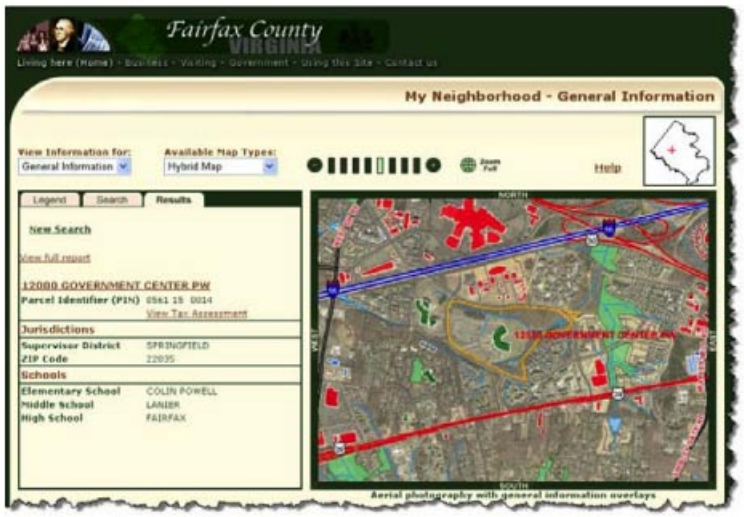
It is becoming critical to integrate CRM technology applications and communication channels with a common interface to supply one-stop customer service and a single citizen view within the County. CRM technology applications improve service delivery aspects to the citizens before, during, and after contact. An enterprise CRM application would consolidate citizen information and enable optimal service and rapid citizen response. Strategic alignment and integration of IT investment with IQ, IPhinity, and FIDO are the building blocks to support the usage of an enterprise case management and better inform the citizens and increase satisfaction. It will also provide greater visibility into the top concerns of constituencies; which enables agencies to proactively address local matters of interest and concerns, resulting in both service improvements and a reduced volume of incoming inquiries.

An enterprise-wide, automated, full function distributed CRM solution will organize the tracking and monitoring of communications, cases, contacts, events and complaints. It will offer a Web-enabled solution that will provide a robust, consistent foundation for managing all citizen relationships and support a knowledge-based, centralized repository of data allowing the County to leverage emerging technologies as it moves into a more unified messaging environment. Live help using a Web interface, such as instant messaging, will give users another method for receiving real-time support, and will incorporate multimedia and other forms of digital and wireless communications to improve the user experience.

Enterprise CRM supports a holistic view to aid in making well-informed decisions about service delivery to the County's diversified population and improvement of communication through seamless unified access of information via the County's web site, Kiosk, IVR systems, cable TV, in-person, as well a live 311 Agent.

In FY 2007, the County awarded a contract to IBM for Siebel CRM platform. The solution is intended for an enterprise scale, with the initial efforts developing the overall framework and pilot application in the Office of Public Affairs. Goals for FY 2008 include completing a pilot application in the Office of Public Affairs, and expanding to other county agencies that have current call center like processes with integration of Siebel to enterprise and agency specific back-end knowledge systems such as FIDO, IQ and others, and with the County's new telecommunications platform.

2.4 GEOGRAPHIC INFORMATION SYSTEM (GIS)



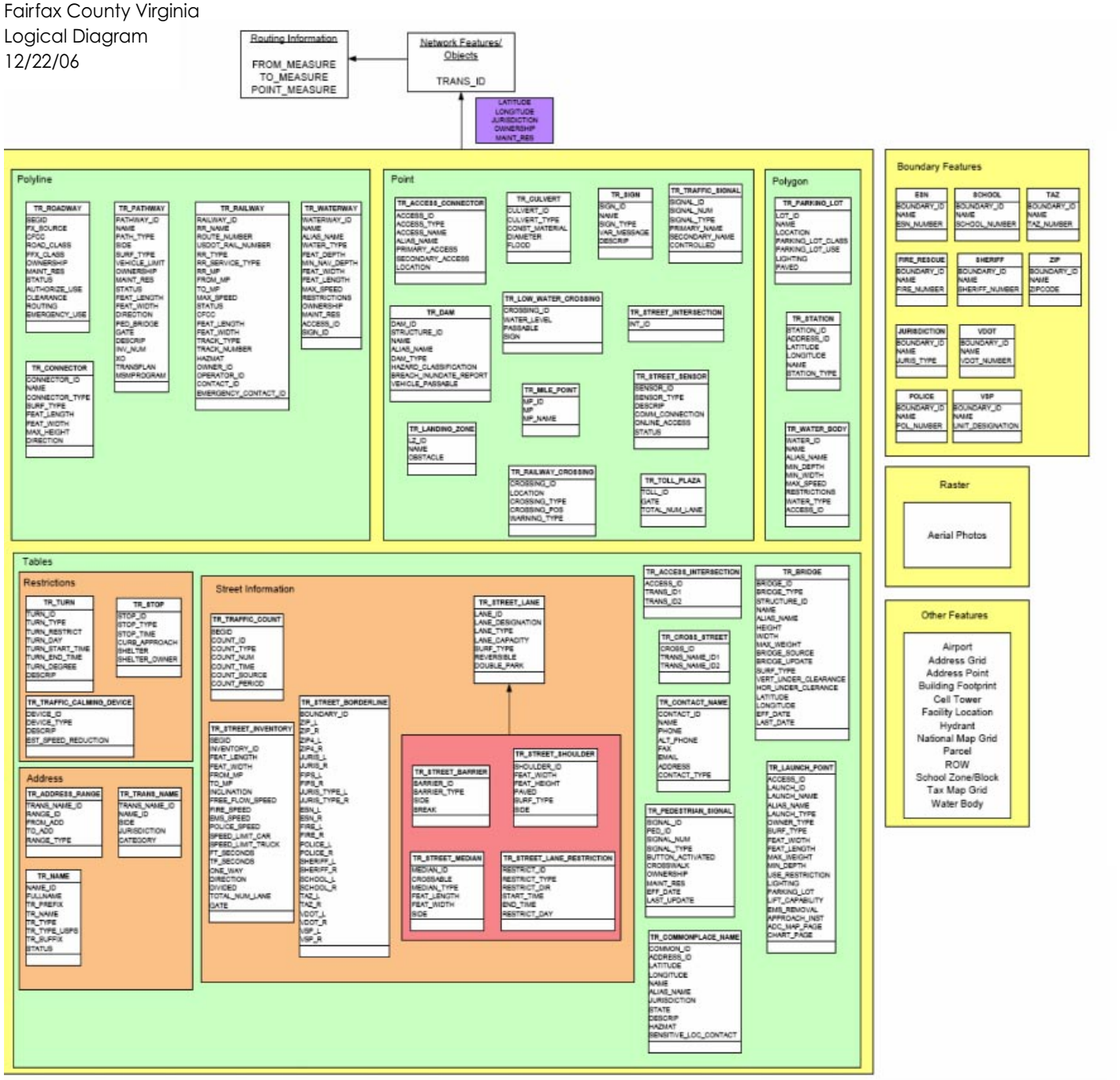
Fairfax County's GIS has continued its growth in the number of direct GIS users (now over 700) as well as thousands of indirect users, working with applications that now include GIS embedded as part of their operation. Some of these tools are available to the public via the Internet, as well as county staff on the intranet. These developments enabled GIS to meet its goals for 2006-7 with a range of activities. Overall GIS usage by the public and by County staff increased as a result of heavier use of existing applications and several new applications including the My Neighborhood (see Figure 1) application, the internal police incident mapper, and the IQ GIS interface for BOS offices. The Digital map viewer increased usage again, this time by 35% as more property/zoning and other maps are now viewed/downloaded via the internet. This year historic maps were added for property and zoning. Complete sets of the property maps are now available back to 2000, and zoning maps back to 2002. Over 7,000 premade maps are now available online. The amount of data available in the GIS data warehouse continued to increase. The GIS data warehouse now holds over 500 layers of data. The overall size of the vector data has increased to 88 GB (including business data tables), and the raster data is now over 1.5 TB on line and an additional 3.5 TB currently archived that will be moved to production. Vector data includes all of the data layers listed in Table 1-1 and is represented by points, lines or polygons. Raster data includes the digital imagery: raw photographs, orthophotos, and oblique imagery.

The amount of data within the layers has also increased. Table 1 illustrates some of the most significant layers and their 2005, 2006 and 2007 values, along with some additional values that only have FY 2007 data:

Table 1

DATA LAYERS	FY 2005	FY 2006	FY 2007
Parcels	341,000	343,500	356,000
Addresses	360,000	365,000	368,000
Building Outlines	248,000	252,000	257,000
Miles of Roads	4,000	4,800	4,700
Number of street lights			57,939
Linear miles of sanitary sewer lines			3,350
Linear miles of perennial streams			1,090

Fairfax County Virginia
Logical Diagram
12/22/06



In FY 2008, the GIS office will continue to increase the number of applications that include GIS within them, further enhance existing web-based GIS applications (for instance My Neighborhood). The GIS data will continue to be enhanced, and the quality improved as it was in FY 2006-7 where the accuracy of the centerline data and graphical representation were significantly enhanced. GIS also enhanced My Neighborhood adding sanitary sewer information and links to the property assessment pages, and worked with the LDSNet team to add more GIS functionality to their application as a result of the Board's Citizen Land Use Advisory initiative. More enhancements and integration are being planned for the future. Significant effort is underway designing a new multi-modal transportation model that will supply centerline data to the new Computer Aided dispatch multimodal transportation data model.

GIS is also expanding its support to Public Safety and Emergency Operations. It provides staff support in both areas. To help with the additional public safety work load an additional staff position was added in FY 2007, and a second one will be added in FY 2008.

Having key county data available digitally through the GIS provides a range of benefits to constituents as well as county staff. The orthoimagery is widely used within GIS as well as over the web. Because the parcel and zoning data is now maintained digitally, production of the county's parcel and zoning books has been greatly accelerated. Many times consuming manual steps are now replaced with the digital production process enabling staff to capture more features in the GIS (e.g., more easements, particularly conservation easements). Additionally, the changes to those maps are posted to the internet daily, providing web users of the Digital Map Viewer with the latest versions of the maps. Prior to that application those maps were printed for distribution annually. The popularity of that frequently updated data is shown by the continuing increase in the usage of the Digital Map Viewer (over 1.4 million maps were served through the Viewer in FY 2006). The breadth of GIS utilization across the County, and the extent of its integration into the overall IT architecture have built on the award winning plans and efforts of the preceding years. In FY 2005 the County's GIS won FOSE's E-Town Award for GIS Integration. The County's GIS program received a "Best of Breed" award in the 2003 Digital Counties Survey. This survey and award recognition was conducted by the Center for Digital Government, in partnership with the National Association of Counties. Other awards to county GIS programs include the VA Governor's Technology award for DPWES' use of GIS in routing refuse collection vehicles. Fairfax County's GIS has received international recognition via the Environmental Systems Research Institute (ESRI) Special Achievement in GIS (SAG) Awards for both the GIS Branch work and the countywide efforts in GIS. It also received recognition from the National Association of Counties for its use of GIS in the reapportionment process. The increasing use of GIS in Agency operations is an important goal of GIS which the awards highlight.

Updating of the 1997 aerial photography was continued with about 100 square miles of the southwest quadrant of the County having orthoimagery delivered in FY 2005. Previously the Northwest quadrant was flown in 2001; the Northeast quadrant in March 2003 and the orthoimagery was delivered in late spring 2004. The Southeast quadrant was flown in March-April 2004. This completes the first orthoimagery update cycle with updates in 2001, 2003, 2004 and 2005. The 2002 update was skipped due to the availability of the State imagery. The entire county was to be flown in 2006 by the State but contracting difficulties delayed that until 2007 (as a result there will be no aerial imagery of the county from 2006).

Oblique aerial imagery was flown again and delivered and brought online in FY 2006. Oblique imagery shows the sides of buildings, which orthoimagery does not. The side views enable County Assessors to more efficiently view and determine property values. The views also provide public safety officials with key information in planning emergency response, since they can see windows and doors and determine dimensions and heights above the ground.

To give a sense of the two different types of imagery, an example of each is included below. Figure 3 is an orthoimage, taken directly over the homes, while Figure 4 is oblique, taken from the side rather than directly overhead.

The underlying GIS hardware and software architecture was enhanced again. The Oracle-SDE data warehouse

Figure 3

Figure 4

was moved to a new SAN and the Unix server was reconfigured for more flexibility. Tests are being done on new Citrix configurations to determine if they will provide enhanced performance. Failover capability for the SAN and Oracle are being added to an alternate site.

The master address database project was concluded. The Master Address Repository is now online and available for direct search and integration into other applications. It is now the authoritative source of parcel addresses for the County (It does not include business suite or apartment unit values since there is no county process to track them). Web services were developed to greatly simplify the ability of applications to link to the MAR to obtain parcel address data. Several other systems now link to the MAR including the My Neighborhood application and several internal applications such as IQ and FIDO. The MAR now holds over 365,000 scrubbed parcel addresses for the county. Phase II of the MAR will involve adding MAR interfaces to other key systems that include parcel address (e.g., real estate). Because the vast majority of County data is about a specific location within the county (approximately 80-90 percent of municipal data are locational), it is important to ensure that the data can be linked to the GIS in order to take advantage of "place-based reasoning" and analysis. The most common locational link is parcel address. The MAR provides current and correct parcel addresses to all County agencies. It standardizes the address format and simplifies linkage to address by making the data available on an enterprise server using County standard RDBMS.

This year the county has been working not only with the Virginia Department of Transportation, but also neighboring jurisdictions to develop a multimodal centerline data model. It has involved extensive review of existing transportation models (e.g., King County WA and Cobb County GA) as well as interaction with neighboring jurisdictions to document their centerline data needs and incorporate them into the model. This is essential in order to build a model that will work for emergency dispatch in northern Virginia as well as within the state in addition to general county operations.

The GIS Branch continues to provide County employees support via the DIT Technical Support telephone numbers.

Administrative Efficiencies and Service Quality Improvement

Over 25 county agencies now use GIS to some extent in their operations, including the GIS Branch itself.

- The transition to digital property and zoning information now enables the GIS Branch to maintain these maps daily. These maps are processed and made available for County staff and public users via the web. Because the production process is digital, more map series can be easily added. In FY 2008 a new soil series will be added that includes the county-wide soil evaluation program conducted jointly with the federal Natural Resource Conservation Services and the Northern Virginia Soil and Water Conservation District.
- The centerline file was modified to reflect the Northern Virginia common centerline elements and made available to County agencies and will be further enhanced after the multi-modal transportation model is completed.
- Substantial savings are being realized in the Department of Public Works and Environmental Services through the use of GIS. It was recognized by the State of Virginia for its integration of GIS with refuse vehicle routing and the subsequent flexibility and cost savings.
- GIS technology enabled the mapping of the Streams characterization project of the Department of Public Works to be completed in weeks rather than months.
- The Department of Public Works has digitized the sanitary sewer lines into the GIS and maintains them regularly. Storm sewers digitization has been completed and is now in the GIS data warehouse. The data are also available in the My Neighborhood application.
- The Department of Zoning is digitizing the Comprehensive Plan into the GIS for easier maintenance and viewing. They are using GIS in the urban design project for Tysons Corner. They have also done some 3-D visualization work to better understand proposed developments.
- The GIS now contains data from Fairfax Water and the City of Fairfax on hydrants and water mains.

- The Department of Transportation is using GIS to help it plan pedestrian safety projects.
- The Health Dept. is using it to conduct emergency preparedness planning.
- The Park Authority uses it for a wide range of planning and management activities
- Oblique and Ortho imagery are now available to 911 dispatch personnel, adding better response evaluation since operators can view actual conditions prior to units arriving.

The Department of Planning and Zoning staff is using GIS programming and analysis to tackle problems that would have ordinarily been overwhelming manual tasks. Such tasks include assignment of regional transportation analysis zone numbers to each of Fairfax County's 355,000 individual parcels. GIS programming now makes this a routine and quick process. GIS is streamlining the Area Plan Review (APR) through the use of a new Comprehensive Plan Amendment Tracking System (CPATS). In addition, GIS is used to with CPATS to generate notices for plan amendment applications. User errors are largely eliminated and the latest information is always used. GIS is integrated into DPZ's Land Information System (DPZLIS) The Staff Report Locator Map Production System module of DPZLIS is used to quickly create staff report maps by interfacing. Environmental planners use DPZLIS to generate environmental assessments of LDS or APR application subject areas. DPZLIS is also used widely by staff to generate custom page size maps of anywhere in the county they desire. These products have been especially beneficial in Zoning Enforcement issues. Public users can now check on the status of permits for development and view maps of the work via the internet.

In health areas, GIS has been used as part of the West Nile Virus planning and response, as well as tracking tuberculosis in the County. Previously the GIS had proven its value in the canker worm outbreak in FY 2001 (and before that the Gypsy Moth outbreak). GIS enabled County staff to quickly identify residents who would be affected by planned canker worm spraying and contact them ahead of time. The GIS also enabled them to provide spraying coordinates to the helicopter spray crews so that balloons would not have to be used. This was a significant time and cost savings. Drinking water wells have been identified and entered into the GIS.

The Fire and Rescue Department (FRD) has been making substantial use of GIS and is experiencing significant savings. For instance, in the process of responding to Fire Hydrant and Insurance queries, the GIS saves about 50 percent in staff time to determine the distances. A new Web application being planned will provide even more savings once it is developed and online. Another example of FRD's savings is in identifying the five-minute response time areas for stations — a factor crucial to establishing response areas that are within response time limits. Staff savings were estimated at 98 percent in doing that countywide analysis.

The Police Department had significant success in its use of GIS in crime analysis. In multiple instances, the Department's crime analysts were able to identify spatial patterns in crime incidents and successfully predict the subsequent crime locations. In those instances suspects were arrested. Police are now training some of their crime analysts to also be criminal profilers, an activity that depends heavily on GIS.

GIS was used extensively in planning for and responding to flooding in the Huntington area. These maps were helpful both for field personnel and staff in the Alternate Emergency Operations Center.

The GIS Branch continues its strategic interaction with County agencies to foster their development of GIS capabilities and integration into their business processes. The preceding years have seen GIS take root in most county agencies. The program will continue to expand and is an important tool for Homeland Security and Emergency Management efforts. The challenge is to continue foster, broaden and integrate growth of need and use with management involvement and support.

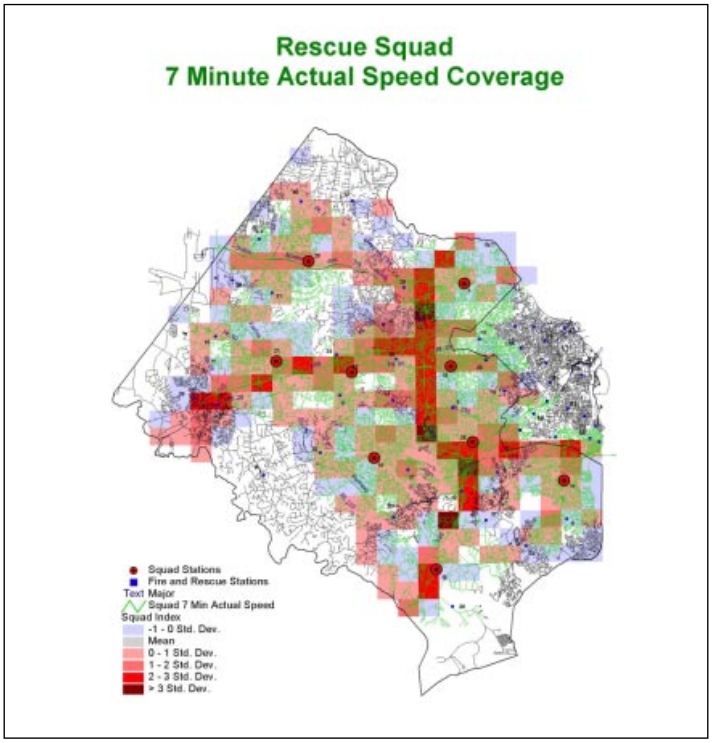
The GIS Branch is also pursuing a number of strategic activities to foster the sharing of GIS data and resources, particularly in the area of homeland security. The County is a member of NACo's GIS committee which looks at key GIS issues affecting counties. The county's GIS manager is a member of the Council of Government's CIO's GIS subcommittee, working on regional interoperability initiatives to include development of a regional GIS map and tying the GIS layer with a regional data exchange hub and is pursuing projects and funding to enhance regional GIS. Locally, Fairfax County is a member of the Northern Virginia GIS managers group, an informal group that regularly meets to coordinate activities. The most recent accomplishment is the development of a regional centerline file structure that became part of a state wide centerline file project and which will be augmented with the results of the multimodal modeling work underway. The Branch works closely with the State's GIS agency (Virginia Geographic Information Network, now part of Virginia Integrated Services Program). Internally, the GIS Branch has been working with the County's Emergency Management

Office to identify possible funding opportunities for some of the County's GIS data and/or hardware. The GIS Branch now directly participates in the Emergency Operations Center when it is activated. In addition, the GIS Branch is working with the Police Department to develop a web-based incident mapping application that will enable police to easily view up to date incident statistics and their locations. Some of this functionality will also be made available to the general public.

Additionally, there will continue to be emphasis on data quality, system reliability and connectivity as well as implementation of new GIS applications. These aspects are crucial to implementing GIS as a data "utility" across the County so that users at any of the County's offices can "turn on" their GIS "data tap" and have all of the data they need available to them immediately. Data quality is a paramount issue. Rigorous Quality Assurance/ Quality Control measures have been implemented on the parcel data updates. Similarly, rigorous quality standards have been developed for the aerial imagery being acquired. System reliability is becoming an increasingly crucial issue as more users integrate GIS into their daily operations. To ensure that the technology is available to them, the GIS Branch has procured additional servers, file storage and software to provide redundancy in case one of the systems goes off-line. The GIS Branch is now monitoring the performance of its applications while the DIT's Technology Infrastructure Division monitors the underlying hardware and communications links to ensure reliability. Critical applications are monitored around the clock and staff members are on call if system outages occur outside of work hours.

System connectivity is essential for thorough integration of GIS into County operations. It involves establishing robust, reliable and preferably real-time links between the GIS data warehouse and other vital county databases like the IAS real estate system, the Land Development System (LDS) and others. GIS staff will be working closely with other agencies such as the Department of Tax Administration and the Department of Planning and Zoning to ensure optimum connectivity between the GIS data warehouse, the Master Address Repository and their operations as well as with DIT to help provide sufficient bandwidth to offices that require it for GIS.

Finally, as the GIS Branch works closely with other agencies, staff will design and implement specific applications to enable users to more easily do the spatial analysis and querying they need to do with the GIS data. These custom applications will not only decrease the time necessary to do the queries, but it will increase the number of staff that can use the data since the applications will be designed specifically for their operations. Web-based applications will be used wherever possible.



2.5 FAIRFAX INSPECTIONS DATABASE ONLINE (FIDO)

The Fairfax Inspections Database Online (FIDO) project (formerly known as ISIS Replacement) is a strategic initiative to consolidate inspection services provided by multiple County agencies into a single software solution and to implement e-permitting capabilities for customers. The new system will enable all of the user agencies to work more collaboratively in their inspection and code enforcement efforts. This multi-million dollar, multi-year project connects four agencies in providing permitting, plan review, inspection, complaints management, and environmental health related services. Goals for this project include moving from the mainframe environment to a platform that enhances multi-agency access and participation in the affected processes, enhancing customer service by streamlining the permitting process, and facilitating the performance of as much business as possible via the Internet. The new system will provide online permitting, facilitate enhanced plan review capabilities, integrate with the GIS to capture and present data in a graphical format, integrate with the existing Land Development Systems' (LDS) database to ensure the seamless availability of land development data, and provide a virtual one-stop shop for processing permit applications.

The approach for this project represents a concerted effort to harness the expertise of all stakeholders in the design, acquisition, and implementation phases to ensure a seamless, streamlined integration with all other pertinent systems. A project steering committee is comprised of the Chief Technology Officer (DIT Department Director), Department Directors from the FIDO user agencies, and the Deputy County Executive(s). In addition, teams of representatives from each of the core user agencies and the Department of Information Technology (DIT) have been established to assist in the management of this effort and for the coordination of gathering system requirements from the stakeholders. Customers and county staff that use the system on a daily basis formed numerous workgroups to provide critical input for the development of the user and system requirements. Additionally, these workgroups included staff of the Health Department, Department of Tax Administration, Fire and Rescue Department, Department of Planning and Zoning (DPZ), Department of Public Works and Environmental Services (DPWES) and DIT. The collaborative efforts of these groups provided input on the needs of all the beneficiaries, with a concentrated focus on the day-to-day customers and the numerous organizations that rely on the County for permit processing and inspection information. Many of these teams continue to work on the configuration and implementation of the new system.

The FIDO system creates adaptability on a new platform that will serve as the foundation for all future e-permitting enhancements while providing immediate additional functionality and a streamlined process. The project will include the acquisition of a web-enabled system with the capability to provide access to permit information and the permit process 24 hours a day, 7 days a week and the availability of real-time wireless inspection results. The system will provide a virtual one-stop shop offering e-permitting opportunities for many projects not requiring plans. The replacement system will also provide managers the ability to perform an ongoing analysis of efficiency and effectiveness of resource utilization.

Anticipated future enhancements to the new system include the electronic submission, distribution and review of plans and permit applications by all required review agencies and the issuance of permits online for complex projects requiring the submission of large scale plans. The completion of this project will position the County to utilize additional e-government capabilities and will more fully integrate all of the land development processes to facilitate information sharing and one-stop permit processing. While enhancing customer service, this project will allow greater and immediate public access to permit related data, which in turn reduces customer inquiries and saves significant amounts of staff time. The management of the land development process will be enhanced by the ability to track construction projects throughout the project lifecycle. The consolidation of related data into a single system will improve the process as well as the consistency and reliability of information provided to customers. Finally, the vastly improved search and retrieval capability will facilitate research by the public and the County.

The early stages of this effort focused on the collaborative development of a comprehensive Request for Proposal (RFP) to procure an appropriate solution for the e-permitting system and to replace the multiple stand-alone inspection related databases being utilized by the Fire and Rescue Department (FRD), as well as the functionality required to manage complaints for the Department of Planning and Zoning along with ISIS. In FY 2003, a comprehensive review of vendor proposals — including both custom solutions and COTS packages was completed. The review process included the formation of Selection and Technical Advisory Committees (SAC and TAC) that involved representation from all key user agencies as well as from the DIT. From this process, the Hansen, Inc. solution was selected. In FY 2004, the focus shifted to configuration

and implementation of the new suite of software products.

During FY 2004 and FY 2005 the complaints module (i.e. Code Enforcement Module) was successfully implemented at DPZ and the Health Department while the Contracts License module was implemented at DPWES and the Health Department. In FY 2006, the FIDO permits module replaced ISIS at the DPWES and this module was also expanded at the Fire Department in FY 2007. FY2007 activities also included the expansion of the Complaints Module at DPWES and FRD, respectively.

The architecture for the new system is compatible with the existing LDS client/server architecture, which includes an Oracle database. The FIDO solution is consistent with County standards and fits well with County's e-government strategy of using emerging technologies to enhance services.

2.6 ENTERPRISE TELECOMMUNICATIONS

Voice communications is a bedrock technology in today's technology architecture. As government is asked to do more with less, stretching limited financial and human resources, it relies upon efficient voice communications to improve efficiencies and meet the growing needs of citizens. Whether it is citizen access via e-government, efficient management of government information, the advancement of education, the safety of our children on school buses, or most recently, homeland security, voice communications plays a critical role.

Integrating voice, video and data communications onto a common structure, which has been envisioned by the industry since the 1980's, is now becoming a reality. This convergence will bring tremendous benefits to enterprises such as Fairfax County that utilize large and disparate voice and data networks. New types of voice service platforms that support data application integration are commercially available and are seen as a cost effective means to improve the County's service to its citizens. Currently, that fully converged world is the provenance of "early adopters". After decades of high quality phone service provided through the traditional telephone networks, users expect new systems to have consistent voice quality, with never a doubt that they will hear dial tone when they lift the telephone receiver. At this point the industry is in the process of determining how to ensure 'five nines' quality in converged networks.

The long-term strategy for Fairfax County is to implement Voice over IP (VoIP) services and obtain the maximum utilization of its networking capabilities as well as garner the advantages in functionality and features that this leading-edge technology provides. Pure VOIP technology will soon be stabilized to the point where the risk of enterprise implementation will be acceptable to the County. As a result, DIT will implement a strategy for voice services, utilizing convergent-IP ready technology, over the County's fiber I-Net. This strategy includes a solution architecture that is scalable to support the variety of county sites and agency business requirements distributed over 400 square miles, and remote access needs. The strategy uses IP-based telephone service at the smaller sites, so that they can also be brought into the common voice enterprise architecture, avoiding investment in larger more expensive equipment. This approach is not without some service quality risks. Careful planning will significantly reduce the risks involved in converging IP data traffic with IP voice traffic onto one data network.

We believe this strategy is both prudent and forward-looking. It will position the County to increase its use of advanced convergent technologies as these technologies mature. It allows the county to leverage wide-area fiber network and platform infrastructure for both voice and data, and facilitates reductions in other voice service operational costs. The plan is in full alignment with the County's principle of implementing contemporary, but proven, technologies, optimizing IT investments and creating more operational cost efficiencies.

The following six strategic goals for Fairfax County voice services were developed and endorsed by Executive County management and will serve as the building blocks for Fairfax County's Strategic Voice Technology Plan.

GOAL	SOLUTION ELEMENT	BENEFIT TO FAIRFAX COUNTY
1 – Optimize the total life-cycle cost for voice services	Centralized Servers IP ***and*** Digital Sets can be moved by users w/o requiring system programming Secure Centralized Management accessible from anywhere	Reduced cost to update/upgrade. Moves Adds and Changes become less expensive. No increase in personnel needed to manage the system
2 – Provide common voice architecture, County-wide	Modular, scalable, "plug n' play" hardware and software components	Reduced cost to manage and maintain. Common look and feel of applications and telephones improves productivity of users Users and applications are portable; ex. Call Center agents can be anywhere internally or externally and have the same capabilities. Users can move between sites and take their number with them, with or without moving their phone
3 – Provide secure remote access for voice and data to expand Telework	IP Softphone/Agent with Advanced Encryption Standard (AES). Unique dual line Softphone, splits network signaling from voice Citrix support for IP Agent	Conversations remain private and users can work from anywhere Simplified operation for remote Simplified operation for remote users that doesn't require QoS and allows use of any telephone Contact Center agents can be remote and have secure access to applications.
4 – Provide compatibility with "best-in-class" citizen access technologies	Contact Center, i.e. Skills Based Routing. Mobility Solutions, i.e. Extension to Cellular. Section 508 Compatibility	Maximize # of productive information exchanges. Citizens can reach County workers even when they are away from their office. All workers/citizens have same opportunity to access information
5 – Develop a survivable architecture that is scalable and flexible	4 Layers of Redundancy, i.e. Mirrored Main Servers, Enterprise Survivable Servers (ESS), Local Survivable Processor, Redundant components Moduler Components	Unparalleled reliability and resiliency of underlying architecture Lower TCO as components can be combined and used in different ways like Lego building blocks
6 – Prepare for the convergence of voice and data onto one logical network	Applications are media agnostic. Universal licenses	Applications can be extended anywhere to any device, increasing productivity, and reducing cost. Add IP when ready at reduced expense. Existing features work the same as users move from TDM to IP easing transition and increasing productivity

To achieve the Goals for next generation voice switch architecture, as discussed above, there are a number of technical requirements that the target architecture should meet. Installation of independent phone systems for various sites—the future switch architecture is minimized, and it must support the County's integrated network philosophy with a single logical architecture. The solution must address the large number of County locations of various characteristics, supporting a variety of business and operational needs of county agencies, must be scalable and expandable, and should support a range of configurable telephone instruments and feature sets. The solution must also address the following requirements:

- Constituent Relationship Management (CRM) Technology
- Automated Call Distribution/ Interactive Voice Response
- Computer Telephone Interfacing
- Remote Access and Telework
- Unified Messaging
- County-wide Voicemail
- Inbound Caller ID
- Teleconferencing

The architecture must also facilitate development and rollout of a uniform dialing plan across the County offices, and fully support requirements for enhanced 911 Automatic Location Information.

The transformation of Fairfax County's voice platform is a significant endeavor that will require a great deal of planning and thoughtful implementation over many months, but it will have a revolutionary impact on the way that the County conducts business and provides services to its citizens. Voice over IP (VoIP) is clearly the strategic technology that the County will move toward, using a phased approach to minimize the risk at the two core locations. The new voice network infrastructure will provide uniformity of telephone features at all County locations and will be the foundation upon which to integrate function specific call centers, creating a virtual Constituent Contact Center that will streamline incoming call processing while reducing call center operating costs by maximizing agent productivity and lay the groundwork for the incorporation of future appropriate technologies.

In FY 2006 the County selected a competitive solution and began implementation. This comprehensive project continues into and beyond FY 2008 but the new functionality and integration of the voice and data platforms have already been implemented in selected county facilities. The replacement of the current telephony infrastructure will serve approximately 15,000 Fairfax County employees. The installation will occur in phases which will allow multiple opportunities and avenues to prepare the FCG community for the transition, and thereby ensure a smooth change of voice platforms. Successful implementation will require accurate and consistent communications regarding project status, system features and functionality, dialing plan information, and changes that users (both employees and citizens) can expect.

2.7 LAND INFORMATION ACCESSIBILITY

In January 2006 the Board of Supervisors established the Fairfax County Land Use Information Accessibility Advisory Group ("Advisory Group"). The purpose was to review how land planning and development information is currently made available to the public, and to make recommendations for accessibility improvements. The target stakeholder audience includes County staff and management, novice citizens, active land use citizens, developers, property owners, and others with an interest in knowing more about proposed and ongoing land planning and development activities.

The final report was accepted by the Board of Supervisors in January 2007. The Advisory Group appreciated the responsiveness that County staff had already provided for this initiative. In addition, they recognized several significant improvements that staff had already implemented since the inception of this Board request, including:

- New web page design to reorganize and consolidate the land planning and development information (http://www.fairfaxcounty.gov/living/landuse/)

- New ability to search the Land Development System ***using a County address*** to see all nearby land planning and development cases (on a map or by listing, with drill down capability; http://www.fairfaxcounty.gov/ldsnet/)
- New ability to search the Land Development System ***by Magisterial District*** to see area land planning and development cases (on a map with drill down capability; http://www.fairfaxcounty.gov/ldsnet/).

The Advisory Group recommended that the County embrace and build towards short-term, medium-term, and long-term improvements for land use information. Listed below are summaries of the 12 guiding principles, followed by 17 recommendations.

Twelve Guiding Principles for Fairfax County Land Use Information

The following 12 ***guiding principles*** are to help maximize public involvement in the land use review and approvals processes, and encourage the continuing modernization of information technologies in Fairfax County's land use review and approval processes.

1. Make land use information publicly available and accessible at the earliest opportunity.
2. Use geocoding standards across all County databases, land planning systems, electronic development files, and documents.
3. Collect and manage information so that it can be accessed from multiple entry points such as geographic location or by steps in the land use approval process.
4. Make all public land use information easy to find, including information developed by others and submitted to the County, as well as County-generated information.
5. Ensure consistency and user friendliness across all web pages and across all agencies of the County.
6. Create standard report forms to allow searches across projects and aggregation of those data for use by County citizens.
7. Make sure that information systems and any changes made to them are open and scalable so future needs can be addressed.
8. Tailor land use pages to meet the needs of different user types, and provide information as early as possible about Comprehensive Plan land use proposals.
9. Require external land planners and developers to submit land use application information to the County via electronic files using geocoding standards; also request 3D modeling and other visualization technology for larger and more complex land developments.

10. Make land use information accessible to citizens with a range of access to tools and resources, including users with no or limited access to the Internet.
11. Establish procedures and provide resources to keep land use information as timely and accurate as possible.
12. Investigate ways to increase the dialog and information sharing among all land use stakeholders.

The following 17 ***recommendations and improvements*** are intended to be designed and implemented over a number of years:

- **Expanded Application of Land Use Information Tools.** The Advisory Group recommends development of a more integrated and intuitive "front end" web page or portal or repository that enables users to go to one location and search for land planning and development information relevant to their inquiry location; further integration of LDSNet, My Neighborhood, GIS, the Courts Automated Retrieval System (CARS), the Fairfax Inspection Database Online (FIDO) system that contains permits and inspections information, and the DTA IAS system which contains real estate parcel information, and other related systems; expansion of the My Neighborhood capabilities combined with a data warehouse; providing more land use data that can be imported into a constituent spreadsheet for further analysis.
- **Further Integration of GIS into all County Land Use Information Systems.**
- **Land Use Public Hearing Information.** For public hearings the County should make available electronically the information currently provided in the hard copy (staff report, proffers, development plans, and affidavits).
- **Notification Process Above & Beyond State and Ordinance Requirements**. Fairfax County should study how to provide a process to electronically notify interested citizens about pending land use actions within a user-specified distance of a County address and according to certain categories of proposed land use.
- **Improve Access to Site-Specific Land Use History**.
- **Electronic File Submission and Review**. Fairfax County should update land use review processes to facilitate electronic file submission and review.
- **Citizens and contractors requesting permits should be able to file electronically and utilize address or other information already on file with the County**.
- **Land Use Orientation Page and Activity Calendar**.
- **Verbatim Excerpts and/or Viewable Proceedings of Planning Commission Decision Discussions Should be Available Online**.
- **Collection of Approved Plans and Visualization of Community-Wide Development**. The County should collect an electronic version of approved development plans and build an easily searchable electronic library.
- **Create New GIS Overlays**. The Comprehensive Plan should evolve into a more digital model with GIS layers showing the approved plan with options and alternatives and a layer showing existing property development.
- **Coordination within the County**. The County should work to ensure more cross-departmental coordination and use of spatial data, including public access:
- **Coordination with Other Jurisdictions**. The Advisory Group recommends that County staff stay in close contact with other jurisdictions and other agencies (e.g. VDOT) in an effort to make land use information more accessible, to learn about new techniques and technologies, and to participate in collaborative initiatives.
- **Outreach to County Stakeholders such as Citizens and Businesses**. The County should use available land use information and technologies to improve its conversation with and among citizens about land use.
- **Outreach to Civic and Homeowner Associations**. The County should encourage organizations like the Federation of Citizen Associations, District Councils, and larger citizen associations to work closely with Board member offices to collect information about which addresses and parcels are associated with each particular civic or homeowner association.

- **Ongoing Focus Groups**. Some type of periodic ongoing advisory group should meet to monitor progress and make further recommendations.
- **Enhancements to the Board Auditorium**. Enhance the capability for speakers and staff to use electronic media presentations and GIS displays in the Auditorium.

The Advisory Group encouraged the County to embrace the concept of continual innovative and incremental improvements as well as longer-term larger improvements as changes in business processes and technology permit. The Advisory Group also recommended that the Board provide consistent funding and sufficient resources to implement these recommendations as well as to sustain ongoing improvements.

To begin achieving the Advisory Group's vision, there will be a series of projects for new systems and enhancements made to existing systems. Specific project requests in Section 3 show some of the tactical efforts that will be undertaken to help improve Land Use Information Accessibility for constituents.

The final Advisory Group Recommendations are available at: http://www.fairfaxcounty.gov/landusecomm/

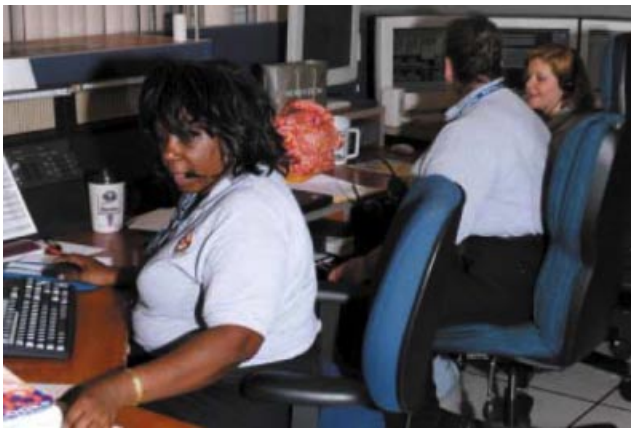
2.8 PUBLIC SAFETY INFRASTRUCTURE MODERNIZATION PROJECT

The goal of the Public Safety Infrastructure Modernization Project is to procure an integrated suite of software to support Computer Aided Dispatch (CAD) and Records/ Information Management Systems (RMS) for Fairfax County's Public Safety agencies. It includes the following major components:

- Replacement of the existing Northrop Grumman Computer Aided Dispatch system, Altaris
- Replacement of the existing Police Records Management system,
- Acquisition of EMS Incident Reporting solution for the Fire and Rescue Department, and
- Upgrading the current Fire Records Management system.

The CAD/RMS will serve as the core of this integrated, comprehensive public safety information management system. Over the past year, the County has conducted a procurement process, starting with a Request for Qualifications (RFQ), followed by an RFP and a rigorous evaluation of the proposals in order to obtain a modern, integrated state-of-the-art solution with a proven track record.

This project will provide the County's public safety first responders with ready access to the tools that will enable sharing of tactical information, often in real time and on-site, with a number of different entities such as emergency management agencies; neighboring Public Safety Access Points (PSAP) and Police and Fire departments; as well as

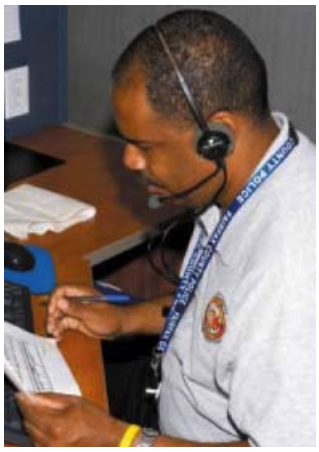


state and federal authorities including Department of Defense components. These requirements are particularly critical for the County and other jurisdictions in the National Capital Region and are consistent with NIMS guidelines.

There are numerous technical and functional improvements a new system will offer the County, and many are considered "baseline" products in current generation CAD and RMS applications. This new solution will include the following essential technical improvements:

- Integrated CAD/Records Management System for Police and Fire and Rescue — The current Police Records Management System is twenty years old, not integrated with CAD, and well past normal life cycle replacement. It does not support modern law enforcement and crime analysis activities.

- Automatic Vehicle Location (AVL) — The current CAD does not support GPS technology and applications to track the locations of public safety units. This is vital feature to insure personnel safety, as well as operational capabilities such as nearest unit response and appropriate resource utilization.
- Nearest Unit Response — Efficient routing based on quality mapping data, in combination with AVL will provide the fastest response to the scene and insure that the closest, most appropriate unit is provided with the optimal routing.



- Standards-Based GIS Capability that will integrate with and leverage existing County GIS data layer and mapping resources — Geographically represented data and information is essential to all pubic safety agencies, for both after action and statistical reporting, and for on-scene response and incident management. Integrated standards based GIS capabilities will enable the county to leverage technology resources and skill sets across the enterprise and increase efficiency.
- Standards-based interoperability to support both internal County data and information sharing across public safety and related agencies, as well as critical external data and information sharing such as CAD to CAD, inter operability with Virginia Department of Transportation as well as Virginia State Police will provide collaborative incident response with neighboring jurisdictions supporting mutual response.
- Up-to-date tools that improve system administration, enabling the County to better manage and own its application and increasing the ability for Public Safety to respond quickly and effectively to changing needs, and reducing reliance on third-party support and overall system maintenance costs.
- A non-proprietary, standards based system architecture built on a standard platform that reduces the frequency of costly and invasion forklift replacements based on hardware obsolesce. This improves the County's posture for planning refresh cycles into warranties and maintenance plans.