DEPARTMENT OF INFORMATION TECHNOLOGY

I. DEPARTMENT MISSION TO THE COUNTY

To provide leadership to County management and departments in the deployment of Information Technology (IT) and Telecommunications. Services include planning, design, implementation and maintenance, consulting services, prudent risk and security assessment in the application of technology and communications. The Department of Information Technology ("DoIT") is also responsible for providing Wide Area Network, Countywide Telephone Services, Public Safety Radio Communication System and Enterprise Data Center infrastructure services that are reliable, secure, available and scalable.

II. MAJOR BUSINESS UNIT FUNCTIONS

A. ADMINISTRATION/CUSTOMER SUPPORT CENTER SERVICES

Administration: Our Administration staff is comprised of the people who process all that paperwork, but there's a lot more that goes on behind that paper! They maintain the purchasing of Information Technology (IT) hardware, software, or services. They consult with IT staff in other County departments.

Customer Support Center: Our Customer Support Center (CSC) is staffed 6:00 AM to 5:00 PM Monday through Friday. The Customer Support Center documents all reported problems and either solves the problem immediately or routes the problem to the appropriate business unit within DoIT for resolution.

BUDGET: $2,822,830 (spread amongst all units in department)
FTE: 10

B. OPERATIONS

Our Operations Team operates the Data Center on a 19/5 basis with two full shifts on site Monday through Friday. Through the use of robotics, Operations has been able to go to a "lights out" model on weekends. We hope to expand this model over the next few years. The data center houses a variety of computer equipment, including our IBM Z10 mainframe, AS/400s, RS/6000s, Sun and IBM UNIX servers, and a number of Window based servers. All of these systems are operated and monitored to meet the business requirements of our customers.

Operations is responsible for the hardware and operating software on these systems and performs the Database Administration duties in support of Oracle, Informix, and IDMS data management systems.

Operations utilizes a scheduling system to automate the processes run for

our customers. High-speed laser printing and MICR printing are available to our customers. All paper stock and special forms are located within our warehouse adjacent to the data center. Off-site storage is utilized for customer's critical systems and information to support disaster and business recovery procedures. Operations is also responsible for insuring the County's "off-site" disaster recovery platform.

Payroll cut-off varies and many times it comes over the weekend. When this occurs Operations is still responsible to be available to run the weekend process plus print reports. So far, in 2013 Operations has covered two payroll weekends.

Operations also supplies many outside customers with tax data by sending CD's or FTP's to the customers site. Operations is also the backup for CSC after hours.

BUDGET: $4,488,973
FTE: 9

C. SYSTEMS & PROGRAMMING

Systems & Programming staff provide our customers with high quality information application services. This incorporates consulting with customers about their present and future technical application information needs, proposing innovative solutions to meet the customer's business goals, and incorporating appropriate state-of-the-art technology solutions in designing systems and application programs. S & P also provides application development, integration, implementation and maintenance services, resolves customer's requests for assistance in a timely manner, and promotes an atmosphere that encourages entrepreneurial skills for individual staff member's initiative and innovation.

Our Systems & Programming staff do this by using Service Level Agreements on DoIT's mainframe application server, using IT tools such as COBOL, IDMS, CICS, FT, and Oracle, and PC applications such as Access. They assist DoIT customers in their annual budgets and provide 24/7 support for applications.

BUDGET: $5,077,887
FTE: 22

D. NETWORK SERVICES

Our Desktop and Network Services' staff provides our customers with business and technical consulting services, which includes overall IT infrastructure design and implementation, contract and project management, contract negotiation services, system integration services,

enterprise-wide computing and file server availability, full back-up and storage services, facility planning services, corporate e-mail and internet.

As part of the business analysis functions, Network Services will support County departments in their IT strategies to ensure that their IT solutions align with their business goals. The number of Service Level Agreements (SLAs) with departments remained the same for this year. The SLA basically gives a department a guaranteed level of service, and provides DoIT with a guaranteed staffing requirement for a period of three years. This makes it much easier to budget both costs and revenues over the long-term.

BUDGET: $1,744,279
FTE: 6

E. INFORMATION SECURITY

DoIT is responsible for the formation and ongoing maintenance of the Countywide Information Security Program. This program includes the implementation of the Countywide Information Security Awareness, Risk Assessment and Business Resumption programs. These programs are lead by the County Information Officer, and include the following:

Information Security Program (ISP): This program covers maintenance of malware protection system, intrusion detection, other Wide Area Network security systems, and oversight of computer communications methodology and practices.

Business Resumption Program (BRP): Business Resumption is the overall umbrella that covers Disaster Recovery (an IT function) emergency preparedness plans, and employees personal recovery capability that would cover such things as PC backups, restores, and off-site documentation (operational procedures).

BUDGET: $872,255
FTE: 1

F. TELECOMMUNICATIONS

The Telecommunications Division is responsible for County telephone and radio systems. On a day-to-day basis this division maintains and coordinates all of the telecommunications needs for the County. Tasks for the telephone group run from the moving of individual telephones to the design and installation of a state of the art VOIP digital telephone switch system. The radio group maintains public safety radio systems used by police and fire agencies. They maintain portable, mobile and base station radios used by these agencies as well as the mountain top radio sites

where the voice and data is transported via the County microwave radio system to the dispatch centers. Both groups are constantly evaluating the present telecommunications systems with an eye towards the future modernization of these systems as technological changes occur.

BUDGET: $9,064,344
FTE: 20

G. WIDE AREA NETWORK

The WAN staff is funded entirely by customer fees for a monthly, per-unit, connection to the County's Wide Area Network (WAN) Infrastructure. Their job is to insure the ongoing support and maintenance of the County's WAN backbone, email, internet access, and application system transport.

BUDGET: $3,585,550
FTE: 5

H. GEOGRAPHIC INFORMATION SYSTEMS

The GIS Business Unit is responsible for coordinating GIS activities across all County departments. It is funded by contributions from each participating department, as well as by a portion from the general fund. The primary responsibilities are to plan the overall GIS strategy for the County, act as a central resource for all departments, develop centralized applications and information sources, set policy related to GIS, and to ensure that GIS-related applications work together by developing standards and communicating with department representatives.

The Geographic Information Officer reports to the County CIO but serves under the GIS Policy Committee. This committee is made up of department heads from each stakeholder department, and approves the GIO plans, priorities and budget. The GIO is also responsible for facilitating technical level coordination meetings within the County and between other agencies, as well as interfacing with other organizations on policy level discussions.

BUDGET: $458,484
FTE: 3

I. DEPARTMENT DATA

BUDGET: $25,878,259[1]

FTE: 76 Filled: 59 Vacant: 17

CLASS	ALLOCATED POSITIONS[1]
CIO	1
Administrative Services Officer	1
Administrative Support / Customer Support	3
Accounting	5
Security	1
Operations	9
Systems & Programming	22
Network Services	6
WAN	5
Telecommunications / Radio Communications	20
Geographic Information Systems	3

NOTE: (1) Budget Data as of 02/13/2015

III. DEPARTMENT ACCOMPLISHMENTS

A. ADMINISTRATION SUPPORT/CUSTOMER SUPPORT CENTER SERVICES.

Administration Support: Continually negotiating DoIT's hardware/software on-going maintenance contracts and equipment purchases to minimize costs and keep our rates low.

Customer Support Center: Available from 6:00am until 5:00pm, five days a week. Each CSC representative has improved their skill set with current Windows operating systems, core office application suites and has been enabled with administration of our new cloud based systems, and several remote access solutions for end user support.

This is evident when CSC is able to answer calls efficiently and accurately during crisis events when Network Services has no one available. With the inclusion of network staffing in CSC it has been extremely helpful when calls come in

regarding network or PC problems, which we were not originally equipped to handle.

In conjunction with Health Services and Telecommunications, completed a new procedure that improved Work Request processing by enabling users to open their own Work Requests on-line and minimize downtime. This gives users the ability to follow up on their own Work Requests when there are questions or the problem remains outstanding. CSC has built a database library that allows us identify and correct almost all duplicate orders. By keeping this library updated with all current issues we can readily fix most problems on the first call.

The CSC is currently administrating the Board of Supervisors online Stream and archival system.

CSC continues to enhance the monitoring services for Systems & Programming. CSC has also improved its ability to monitor all networks in the County by installing a Web-based monitoring system. This system has improved network availability because we now know, within seconds, of a network outage and can contact the WAN group immediately. It now has trend analysis capabilities which further advance the trouble shooting procedures.

Future Endeavors: CSC continues to advance in their remote services with the addition of managing the county Wi-Fi system to their list of responsibilities. This will allow the CSC group to provide rapid resolution to Wi-Fi outages.

B. OPERATIONS

- Contra Costa County CalWin Client Correspondence Project from the State of California.
- Process Contra Costa County's welfare recipients for the State.

C. SYSTEMS & PROGRAMMING

Health & Human Services

Employment & Human Services:

Direct Deposit: Direct Deposit was implemented for welfare client's cash benefits. The project has greatly reduced the printing of paper warrants which has the added benefit of freeing up Operations' Control staff, since there are fewer warrants to burst and sign. It has also reduced the number of lost and stolen warrant claims.

Electronic Benefits Transfer System: Contra Costa County was one of the first five counties in the State to install the Electronic Benefits Transfer (EBT) system. This is a federally mandated system. The system has done away with ATP (Authorization to Participate) forms that were used to receive food

stamp coupons. Now clients are issued a debit card much like an ATP and can access their food stamp benefits at local retailers through POS stations. This has eliminated the need to print food stamp authorization forms and direct mail coupons. Fraud has been greatly decreased and it is nearly impossible for a client to sell the food stamp benefits to others. Our County has chosen to offer clients the option to have the client's cash benefits added to their EBT card. Between direct deposit and EBT, warrant printing for welfare has been cut by more than half. We no longer need to have the ATP forms on hand or control their issuance. These forms were under the same security procedures as the warrant stock.

CalWin: DoIT is currently working with the customer on their data purification processes. This requires three rounds of processing with the vendor over the next year. More accurate data will result in less work for the caseworkers when CalWin gets into this County. If there are significant errors in the data, cases will not load into the CalWin system. If the case rejects, it is estimated it will take four to five hours to enter it as a new case into CalWin. Eliminating as many data errors as possible will significantly reduce conversion costs.

File Transfers: We have converted several processes that created tapes that were mailed to outside agencies to FTP (electronic file transfer). The data coming back from those agencies has also been converted to FTP processes. This has saved time and money both in processing and mailing. We have also incorporated Secure FTP (SFTP) in some systems.

BEST System Update: We have put into production over 25 system updates from Alameda County. We have also completed over 100 one-time requests for data or reports from DCSS during the past year and have written numerous programs for data extraction and report generation for Federal and State audits. DoIT established T1 connection between Alameda and Contra Costa Counties enabling us to receive program updates and programming/troubleshooting assistance.

Telecommunications:

Phone Directory: The employee Phone Directory, Intranet and County Departmental/Subject listings is online on the CCC Intranet. This subject and department information more readily available to the public. It also allowed County departments to update the directory entries for their department, eliminating the need to send changes to Telecommunications' staff for entry.

Telecom now provides and Apple IOS County Phone Directory application. This application allows the lookup of County employee and Department contact information.

General Government

- Implemented changes required by Superior Courts' migration to a separate entity from the County for payroll purposes. This required changes to the payroll system check printing, report distribution and implementation of separate MOU agreements. Total work effort was approximately 750 work hours.
- Implemented a new network to accommodate our migration of the Peoplesoft system to an Oracle database platform. This included the addition of 4 new servers, several printers and connectivity to the new RS6000 computer. Total work effort was approximately 500 work hours. Assisted the Training Institute to migrate to a new Training Module. This required converting existing data and supplying new information from the Peoplesoft system. Total work effort was approximately 150 work hours. Assisted the Human Resources department in upgrading their network and replacing 30 personal computers.
- Worked with the County Administrator's Office to implement the combining of the East County Fire Districts into one entity. This required modifications to payroll procedures and consolidation of files and reports.

Law & Justice Information Systems

Criminal

AB109 – (Low Level inmates, supervised by County services). AB109 had a major impact to our current on-line LJIS Application. Our LJIS Team worked with the Courts Team to review, create and implement business rules which would allow for the tracking of these inmates with their current Law and Justice Information System (LJIS) application. Consideration and rules were also given to the impact of monthly, quarterly and annual statistics the courts report to the state. All modification was deployed into production on November 1st 2012. The courts systems are in compliance with AB109.

2011 Realignment Legislation – This is in conjunction with AB109. Currently the LJIS Team is working with the Courts Team to interpret the specifications which have been received by the AOC. Currently, the LJIS and Court Team are meeting, on regular basis, to create and design the enhancements to the LJIS Application which will allow for the system to report to the AOC in regards to the 2011 Realignment Legislation. There are many extensive deliverables which are included within this legislation; many have mandated deployment dates by the state.

Warrant Purge – The LJIS Team worked with the Courts Administration staff to develop criteria and processes which would be applied to the purging of closed or aged warrants within the application. This allowed for a complete 'clean up' of

the warrants within the courts criminal application. This project was executed successfully.

Traffic

A major modification was done to the Courts traffic application (AMORS) for the new process of Trial By Ticket. This process completely modified all business rules and processes in regards to how a ticket traveled through the traffic application. The goal of this new process was to reduce the amount of time a person/ticket were in the system, many 'loop holes' in the current process were identified and corrected to not allow a person/ticket to stay in the system for an extended period of time. This help close the 'Revolving Door' which has been observed by the traffic administrators. The LJIS Team and the Traffic Team worked together to develop and deploy new business rules, processes and reporting mechanisms (eliminated preprinting of forms). This project was a huge success and is the current method deployed for the traffic application within the courts.

Amnesty 2012 – The Courts Traffic division granted Amnesty within the traffic application. The LJIS Team and the Traffic Team, worked to define the parameters in regards to who would be considered for the amnesty project. There were major modifications done in the area of fee calculation and daily reporting of revenues. DoIT supplied the Traffic Administrator's monthly updates in regards to the number of tickets processed because of the amnesty project.

Traffic Database Rebuild – A housekeeping type of project was required for the traffic application because of the size of the database area which was beginning to enter into a critical space issue. DoIT worked with the Traffic Team to test and evaluate the application and database after the rebuild of the database which had been completed by the LJIS Team. The project was very successful.

JAWS

Warrant Conversion – To become compliant with the DOJ standards, the LJIS Team worked with the Sheriff's records Manager to create the rules and code which would be deployed to review/update all outstanding warrants for all agencies and make sure each warrant was compliant to the new agency code (from 7 to 9 characters), as well as to validate that each warrant was assigned to the correct law agency. This modification required all warrants, being updated,

to be resent to the DOJ to have the original warrant cancelled and reissued to the new agency. This coordination was made possible by the LJIS Team, Sheriff's IT Staff, and DOJ.

Precinct – It was reported that the precinct update into the JAWS application was no longer occurring. The LJIS Team worked with the County Recorder's Office to reestablish the communication and files between their office and the JAWS application. At this time there were additional enhancements coded into the JAWS application which would increase understanding and efficiency in regards to the agency Officer Beats. Outside agencies were very pleased with the outcome of this project.

Scars/Marks & Tattoos – (SMT): Currently, there is a major enhance in development for the SMT JAWS process. This enhancement will give the agencies the ability to standardize the reporting mechanisms in regards to SMT.

Land Information Systems

Assessor

The Assessors department made a major modification to the timing of when they do the assessment of property for the working roll. In the past, the LIS System would project a 2% Inflation Factor in July of each year. In December, of the same year, the Assessor will receive the actual inflation rate from the state. If the inflation amount is less than 2%, this causes an enormous amount of manual work to adjust the assessments to the lower rate. Receiving a lower than 2% inflation amount is fairly rare, but does occur during economic downturns. Like all of the county departments, the assessor is working with a reduced labor force, which would make the manual process to reduce the assessment amount hugely time consuming. To avoid this scenario, the Assessors worked with the LIS Team to research the idea of applying the inflation factor when it is received by the state. This required the organizing of the Assessors top Subject Matter Experts as well as senior level Program Analyst from DoIT. These teams spent extensive amounts of time redesigning every process that would be impacted by the under taking. Long story short – 18 months later, DoIT deployed the new business processes into production. All enhancements worked exactly as expected and desired. The Assessors are very pleased with the outcome of this project.

Access Application

The Assessors department has many in-house Microsoft Access applications that are used in a variety of their divisions. Because of the reduction of staff, over the last few years, the Assessors has partnered with the LIS Team to provide support for their in-house Access Applications. These are fairly sophisticated applications which handle many tasks within the Assessors department. On an 'As needed/requested' basis, the Assessor will come to the LIS Team with a request to enhance one of their current Assess Applications. Fortunately, DoIT has many Subject Matter Experts in the Microsoft Access area and have been able to assist the Assessors with their enhancements. The Assessors have been very pleased with the level of service they receive in this area.

Tax Collector

For many years, the LIS Team has been the primary support for the Tax Collectors Website in regards to the payments of secured, unsecured, supplemental and delinquent taxes. As well as for the E-billing, Supplemental Estimator and supplying tax payers with prior year tax information. The Tax Collectors website has been fully operational for the last eight years. Each year, the Tax Collector's team and the LIS Team are always looking at processes and methods to increase efficiency of the website and to increase the ease of use for the tax payers.

The Tax Collectors website has been through many major modifications to enhance the tax payer's ease of use experience, to increase the source of information that does not require a direct contact with the tax collector's office, and to replace vendors who currently process the payment methods accepted on their website.

D. NETWORK SERVICES

The Network Services Team continues to focus on building a Countywide network directory. This is an enterprise road map for the County departments' networks to work and share resources with each other securely.

- Provided network and desktop support to Clerk of the Board, Agriculture, County Counsel, County Administrator's Office, LAFCO, Risk Management, Human Resources, Auditor, Animal Services, General Services/Public Works and the Assessor.

E. WIDE AREA NETWORK

- Increased Internet access at a reduced cost through consolidation of Internet Service Providers.

- Continued upgrading WAN equipment. This includes implementing a new higher capacity firewall to support increased Internet access and security requirements. Reduced the count of WAN equipment, which improved WAN reliability and reduces costs. Implemented redundant servers to support core WAN technology to eliminate downtime due to equipment failures.
- Networked all major County phone locations to provide 24 by 7 remote access and monitoring. This allows DoIT telecom staff to make changes remotely and improves service. Worked with Public Works to network most County facilities to support their security and environmental systems providing secure remote access.
- Re-designed and upgrade the ACCJIN network with an all Fiber service transport to provide redundancy and reliability between the Sheriff, Warrant System and police agencies. Implemented security changes to keep ACCJIN compliant with CLETS security requirements. Implemented monitoring of ACCJIN equipment and data circuits to notify the DoIT Help Desk and WAN staff when an outage occurs.
- Installed WiFi access to several County locations. This is an ongoing effort to expand the internal and guest Wi-Fi network coverage within County Buildings.
- Implement a new high speed and lower cost wireless Animal Services department enforcement vehicle system. This new system is based on the "Cloud" based Aerohive Wireless system. It provides animal control officers a secure wireless network connect for their mobile data terminals. In addition, we completed the fiber optic service upgrade which greatly improved staff computer productivity.

F. INFORMATION SECURITY

- We have revised AB139 and AB140 which is currently in draft from waiting on CAO review and approval.
- Implemented detailed logging system for our major computer systems and security appliances. The system has been implemented by integrating Splunk software and our enterprise firewalls and active directory servers.

G. TELECOMMUNICATIONS

The Telecommunications' telephone team during the past year has been moving forward with the networking of the County's telephone communications system. This project has an emphasis on disaster response, E911 and cost reduction.

A Network based digital voice and web conference service model has been implemented as our new standard. The new system over comes the previous

limitations of 62 concurrent callers by allowing multiple voice bridge calls and up to 512 concurrent callers.

Telecommunications telephone team is actively rolling out a new voicemail platform with enhanced features and functions. The new voicemail system allows end users the ability to integrate voicemail and email along with advanced iOS Smartphones.

Telecommunications is dealing with infrastructure issues that require short and long term solutions.

Future Endeavors:

The telephone team will be preparing to implement E911 service, which will transport address and room location of a call to the 911 emergency centers. This service will enable public safety to quickly respond to emergencies at specific identified County facilities.

Telecommunications will continue to evaluate and implement Voice Over Internet Protocol (VOIP) technologies. We are currently to implement this technology in remote offices, such as the Board of Supervisors.

The future of Telecommunications is changing every day. The transporting and routing of telephone calls is migrating from a hardware/copper environment to a software/Intranet environment. Radio systems are becoming integrated and support several technologies over the same radio platform. Telecommunications will continue to investigate newer technologies and introduce them as they become viable. If we do not accept these Telecommunications challenges we will only compound problems and expense in the future. Telecom will be incorporating more fiber optic transport to improve reliability and transport speed.

H. GEOGRAPHIC INFORMATION SYSTEMS

Powerful Analytical Tools

The availability of GIS has increased the importance and utility of the geographic component of information that governments routinely collect and maintain. GIS adds a powerful package of tools to an organization's information technology capability because of its ability to integrate and analyze diverse types of information based on physical location or proximity of various features or characteristics. Many of the advantages of a GIS are unique to particular applications. However there are several general advantages that a GIS offers public agencies and institutions.

Integration of Different Types of Data Based on Location

A GIS provides the capability to bring together different types of information

based on their proximity and to explore their interaction. For example, in researching ground water quality issues, information can be brought together on soil type, depth to ground water, fertilizer usage, cropping patterns, and irrigation usage to model the impact of irrigated, fertilized crops on ground water quality in a given area.

A Picture is Worth a Thousand Words

The ability of a GIS to graphically display (map) different features or characteristics, relative to their location, is a valuable tool in making an overall assessment of the implications of a particular set of information for public policy decisions or program planning.

Recording Changes and Keeping Maps and Records Current

The active link that a GIS allows between databases and maps greatly facilitates the maintenance of mapped information on dynamic features such as property parcels, etc. For example, with a GIS a County Assessor can, with relative ease, update a property parcel map with new information on an easement for a buried cable and tie that back to a database with the owner's information.

Enhanced Analytical Capabilities

A GIS provides a user with new enhanced analytical capabilities that would be difficult, if not impossible without this technology. For example, with the proper geographically referenced information, a GIS can very quickly determine which emergency unit should respond to an E911 (Emergency 911) call from a particular telephone number and the fastest route to take during rush hour traffic.

Facilitates Sharing of Information among Multiple Users

GIS facilitates the sharing and integration of geographically referenced information among multiple agencies or users. There are many applications that require common types of data (highways, streams, property parcels, etc.). A coordinated approach to GIS development would reduce the costs associated with the duplication of data development and maintenance by having one entity responsible for the development of a given type of data for a given area. This also has another benefit in that different public entities and agencies would be making and implementing public policy based on the same information.

GIS Accomplishments:

Note: This covers a period of less than six months since the establishment of the Geographic Information Officer position.

- Completed the Needs Assessment surveys for the County Administrator's Office and the Building Inspection department. The survey is in-progress for the Department of Information Technology.
- Created a County GIS data sharing policy and began its implementation

phase.
- Assisted with implementation of a mapping consolidation effort to combine mapping efforts of multiple departments into the Assessor's Office.
- New GIS web page development is 90% + complete.
- Conducted surveys of other agencies and performed site visits in preparation for the development of our Enterprise GIS Strategic and implementation plans.

I. DEPARTMENT WIDE

Internal to DoIT: The DoIT has continued to compress the total cost of ownership (TCO) model for the department during fiscal year 2012-13. We continue to move as many employees as possible to tablet and other mobile technologies, allowing them to work "unconnected" in the field. Wireless use has taken a big jump internally in the past year, as we continue to test the potential of this new technology inside the department before rolling more Countywide applications out.

The department continues to implement WiFi wireless services in major county offices. We continue to invest in the most current technologies in the area of email "SPAM" and computer virus fighting.

Understanding budgetary limitations are and on-going issue, we have been focusing on upgrading and replenishing our oldest technologies as funding allows, while at the same time working out ways to extend the life of those technologies we will be unable to upgrade for 24 months.

Internal to County Operation:

Implemented the East Bay Regional Communications System (EBRCS) Project 25 (P25) public safety radio system. This has been a 5 year two County Radio system project that went live in West Contra Costa County in the last quarter of 2012. The Central and East Contra Costa County went live at the end of 2013. The system is a regional radio system and provides interoperable communications between all agencies within Alameda and Contra Costa County. It also provides a significant coverage footprint for all agencies. Local law enforcement will now be able to use their radios miles beyond their city limits. Only two primary law enforcement agencies remain to be migrated, Antioch and Brentwood.

Our County Digital Microwave System has been upgraded with new Dual Hot Stand by Radios in a ring configuration, which will improve the reliability of the system, therefore reducing down time.

IV. DEPARTMENT CHALLENGES

A. INTERNAL TO DEPARTMENT AND COUNTY OPERATION

This section has been combined for this year's report, because the same issues will impact both the internal department and the County in the same fashion, resources and actions outside of our own control.

The DoIT is now in a transition period, in which a vast majority of the institutional knowledge in the department will be leaving us within the next one to two years. The professional staff that built many of the applications running in the County today will no longer be available to support them. Universities are no longer teaching the skills we will require to continue to maintain these systems, and young people in college find these "old fashioned" technologies boring and uninviting in terms of the challenges and opportunities they are seeking. To be sure, the County is not alone in this dilemma. Most major financial institutions and larger commercial businesses employ similar technologies, but this transition process to a new generation of technologists is cause for concern to all of us. This can also be viewed as a "human nature" problem. Employees who have to learn one new piece of technology after another for a period of 20-25 years as a necessity of their profession, and are very close to retirement, are resistant to return to school to learn a new technology they might only use for a year. Some of these newer technologies take over a year of classroom and "hands-on" training to become proficient in. Our options will be one of four: Hire new people and spend hundreds of thousands of dollars to train them in these technologies, spend tens to hundreds of millions of dollars to replace all of the outdated technologies, outsource all of this work to a company that specializes in these older applications and can afford to hire the staff who will run them, or revamp current hiring/promotion requirements to enable training of gifted employees in lower paying jobs for a more cost effective transition. Budgetary considerations will play a very large part of the decisions made.

There is always the internal fight of saving department program dollars versus department operational support dollars. The County must continue to provide necessary services outlined by the Board of Supervisors. However, almost every County department relies heavily on its application of technology. When the DoIT has to make staff cuts because of budget cuts dictated by departments, we lose staff resources who may have been learning a County-specific set of tasks for a period of a year or more. Replacing these resources in better budget times will not be a matter of months but years due to training ramp-up. This gap will be filled out of necessity by more expensive contractors who will work as interim staff, then leave the County, taking along with them the institutional knowledge they have gained. The alternative would be to not support such applications and risk operational program failure. Equal cuts across the board do not produce equal impacts. Impacts to current technology

operations will produce far graver long-term consequences. Due to reduced staff, we now have single points of failure in every area or our Department.

V. PERFORMANCE INDICATORS

DoIT	FY 10/11	FY 11/12	FY 12/13	FY 13/14
Performance Measures	**Actual**	**Actual**	**Actual**	**Actual**
Workload Indictors				
Enterprise Server Transactions Monthly	**2,700,000**	**4,784,008**	**22,767,252**	**2,180,137**
Viruses Stopped	**183,547**	**2,500,000**	**108,108**	**136,182**
Spam Emails Stopped	**172,000,000**	**37,000,000**	**35,764,155**	**16,230,600**
Outcome Indicators				
WAN Availability	**99%**	**99%**	**99%**	**99%**
Enterprise Server Availability	**99%**	**99%**	**99%**	**99%**