Information Technologies Workshop

IT Master Plan Initiatives

June 17, 2009

County Strategic Framework Objectives –
For FY 2007-08 & FY 2008-09 – BOS Adoption March 13, 2007

- Run the Business
  - Strategic Goal – Improve Technology Efficiencies
    - Explore and integrate technology to increase operational efficiencies and improve service delivery.

Issues Identified on June 8, 2009 BOS Budget Workshop

- How to maintain the County computer infrastructure while meeting the potential for on-going reductions based on economic decline
- Budget does NOT include any funding for the Application Improvement Program
  - In FY 2007-2008, approval was given to begin the process of replacement of the Legacy Systems, with the use of a consultant to work with the County on Requirements and Gap Analysis
  - Due to budgetary issues, the County has made little progress in regards to our Legacy Systems for the last two years
    - An end user satisfaction survey of the current financial systems was completed in September 2008

Issues Identified on June 8, 2009 BOS Budget Workshop

- Technology Refresh Program:
  - Budget does NOT include any funding for computer replacements via the Technology Refresh Program
  - Telephone Infrastructure:
    - Budget DOES include funding to complete upgrade of the phone switch to SLT. Due to budget reductions in 08/09, this upgrade was pushed to 09/10
    - Current telephone equipment will no longer be maintainable without significant upgrades. This budget does NOT include Upgrade for the Telephone Infrastructure – Warranty expires in 2012
    - Telecommunications refresh program started in 05/06 is now obsolete due to changes in technology
      - Revised plan which will streamline our infrastructure will cost Aprox. $660,000, but will save money on numbers of switches, line charges, software etc.

Issues Identified on June 8, 2009 BOS Budget Workshop

- Budget does not include any funding for:
  - Replacement of the uninterruptable power source (UPS) that provides continuous power for IT and most of Bldg B due to lack of parts.
  - Potential need to replace the center HV/AC's due to age and obsolescence
  - Due to staff reductions IT's ability to support various departments is severely diminished (DCSS, Health Services and Surveyor.

IT Master Plan Proposal Beginning in FY 2009-2010 Budget

- Recognize that budget FY 2009-2010 has no funding available to address these issues
- Position the County for future years for a more enterprise focused IT Master Plan with improved technology efficiencies
  - What does enterprise focused IT Master Plan mean?
    - A centralized approach to all El Dorado County IT Strategies and Initiatives
      - A single approach and standardization for all Hardware, Software, Infrastructure and Applications across the county
      - More effective utilization of all IT staff to ensure success in implementing county wide solutions, while recognizing the individual needs of the departments

IT Master Plan Proposal: Action Items for the Next 12-18 Months

- Create Funding for Major Technology Initiatives
  - Approve Capital Improvement Project (CIP) concept for acquisition and/or development of major IT Technical Infrastructure, Application Legacy Systems replacement and facility upgrades.
    - **Issues:**
      - **Continuing to use operational budget has failed due to budget constraints**
      - **Technology changes rapidly, so it is difficult to plan**
      - **Impossible to conduct multi-year projects with annual budgets**

IT Master Plan Proposal: Action Items for the Next 12-18 Months - continued

- **CIP Solution:**
  - All major IT projects, similar to DOT projects (facilities and road construction) would be planned and addressed annually for setting both county wide strategies and provide funding over multiple years
  - Multiple year projects would be guaranteed successful
  - Other Counties have adopted this model, i.e. Orange, Fresno, Mariposa, Monterey, Nevada, Calaveras and others.

IT Master Plan Proposal: Action Items for the Next 12-18 Months - continued

- **Address Organizational, Cost of IT and Governance**
  - **Direct the CAO office, with representatives from Departments, IT and the ITSC to review and recommend solutions to improve county wide efficiencies by:**
    - **Reviewing and analyzing current IT structure to determine if it matches up to enterprise needs and supports the IT Master Plan**
    - **Reviewing financial IT costs and how they effect overall enterprise efficiencies**
    - **Review IT governance principles in support of enterprise initiatives .**

Dramatic Changes In IT in the next 2-10 Years

- Major changes in the way Data will be delivered
  - Increase in Hosted or Managed Services
    - Software as a Service
    - Reduction in hardware and software licensing
  - The Internet will be more searchable
  - By 2015 Ethernet and wireless speeds will be increased providing businesses more flexibility and mobility at higher speeds
  - Desktop computer will be reduced to smaller size.
    - A thin client approach where all apps are delivered from hosted or virtual servers
    - Touch screens will replace the mouse

Dramatic Changes, continued

- All SERVICES for the Public and employees will be Web Based
- Smartphone and cellular service will deliver more business apps at higher speed
  - More memory and processor power and become a primary communication tool
- Unified Communications will be prevalent pushing out voice, video, email, fax and all integrated into email
- Predictable presence
  - Allows data to be delivered to the owner based on predetermined behavior
    - Predicted by the Smartphone and understand physical habits as one moves around, checks Voice mail, checks email, starts their car, lights come on, powers on computer at work, logs on, etc. .

Current Status of Technology Efficiencies

- All technology efficiencies are measured on business improvements
- Central IT
  - Completed County Wide Technology Efficiencies
  - County Wide Technology Efficiencies in Process
- Departmental Technology Efficiencies

Central IT
Completed County Wide Technology Efficiencies

- Implementation of Virtualization Software for servers
- Linux services on Mainframe
- Hub and spoke network architecture
- Opt-e-Man (High Speed Fiber Data connection)
- Avaya Telephone Switch Upgrades
- Created Performance Measurements across organization
- Assumed responsibility for Central Duplicating and Records Management, creating the Document Center
- Implemented County Wide EDCAT, BPREP and SAEBRS Reporting systems

Central IT
Completed County Wide Technology Efficiencies

- Implemented an electronic reporting distribution system, replacing paper reports
- Implemented the County Imaging unit in Document Center
- Renegotiated multiple IT Contracts to lower costs, saved over $260,000 over last year
- Reduced the County Network systems from 2 to 1
- Reduced Computer Operations staff and reduced overtime by 63% due to automation
- Performed departmental business process reviews for 6 departments
- Implemented County Intranet.

Central IT
County Wide Technology Efficiencies in Process

- Implementation of management software with tools that track PC hardware and software usage across the enterprise

- Implementation of e-mail Archiving

- Business License System with T/TC

- Enterprise Contract Management

- Enterprise Appointment Scheduling solution

Central IT
County Wide Technology Efficiencies in Process, continued

- Standardization of Electronic (Intranet) forms
- Strategy for modernization of EDC Financial Systems
- Review, consolidate and/or compress customer service/support and internal processes
- Develop Enterprise Records Management Strategic Plan for Board approval.
- IBM mainframe acquired in 2007 and tape library acquired in 2009 will provide the capabilities for the transition to new enterprise applications.

Departmental
IT Technology Efficiencies

- Each Department tracks their own technology efficiencies
  - Many technology efficiencies have been realized in the individual departments
  - Some of the technology efficiencies have been incorporated into county wide technology efficiencies.

Partial List of Technology Efficiencies that should be addressed by EDC

- Standardize and keep current on Microsoft Technology
  - Microsoft has developed integrated products that will:
    - Improve relationships across departments
    - Increase visibility into the Organization
    - Improve operational efficiencies through workflow and approval processes
    - Drive innovation
    - Protect Information and ensure compliance.

Partial List of Technology Efficiencies that should be addressed by EDC continued

– EDC needs to standardize and keep current all across the enterprise for the following Microsoft products:

- MS Office Release Levels
- Server environments and Supporting storage
- Replace Lotus Notes with MS Exchange
- Implement SharePoint for workflow, document and web content management
- Review current applications; consolidate and provide enterprise solutions as appropriate, i.e. Contracts Management, Personnel, etc.

Partial List of Technology Efficiencies that should be addressed by EDC continued

- Replace Aging enterprise applications
  - Financials, HR/PR/ LMIS, Work orders, Property
    - Utilize a More Sustainable platform
    - Virtualization of storage
    - Automatic signing of checks
    - Eliminate Continuous Forms
    - Streamline accounting functions in all departments and A/C
    - Provide Remote Printing
    - Implement Role Based Computing
    - Financial data accessible by anyone, based on roles – transparency

Partial List of Technology Efficiencies that should be addressed by EDC continued

- Promote (Mandate) electronic communications (forms, reports) to replace printed output
- Promote (Mandate) the use of electronic signature
- Implement an enterprise FAX Solution
- Implement "single sign-on" for access to County systems
- Promote (Mandate) County-wide licensing/funding for enterprise standards
- VoIP for all County Employer locations, replace telephones with use of PC's
- County wide electronic document retrieval
- Replace Inventory System – Asset Management
- Increase usage of Microwave equipment – use of Existing Radio Towers.

Partial List of Technology Efficiencies that should be addressed by EDC continued

- Web
  - Provide electronic payment services
  - Provide Social Network/Communication
  - Provide employee services
    - Employee discounts
    - Open enrollment
    - Blogs
    - Portal Services for all Employees
  - Broadband availability for all County Residents
- Utilize IT consulting services to improve County efficiencies
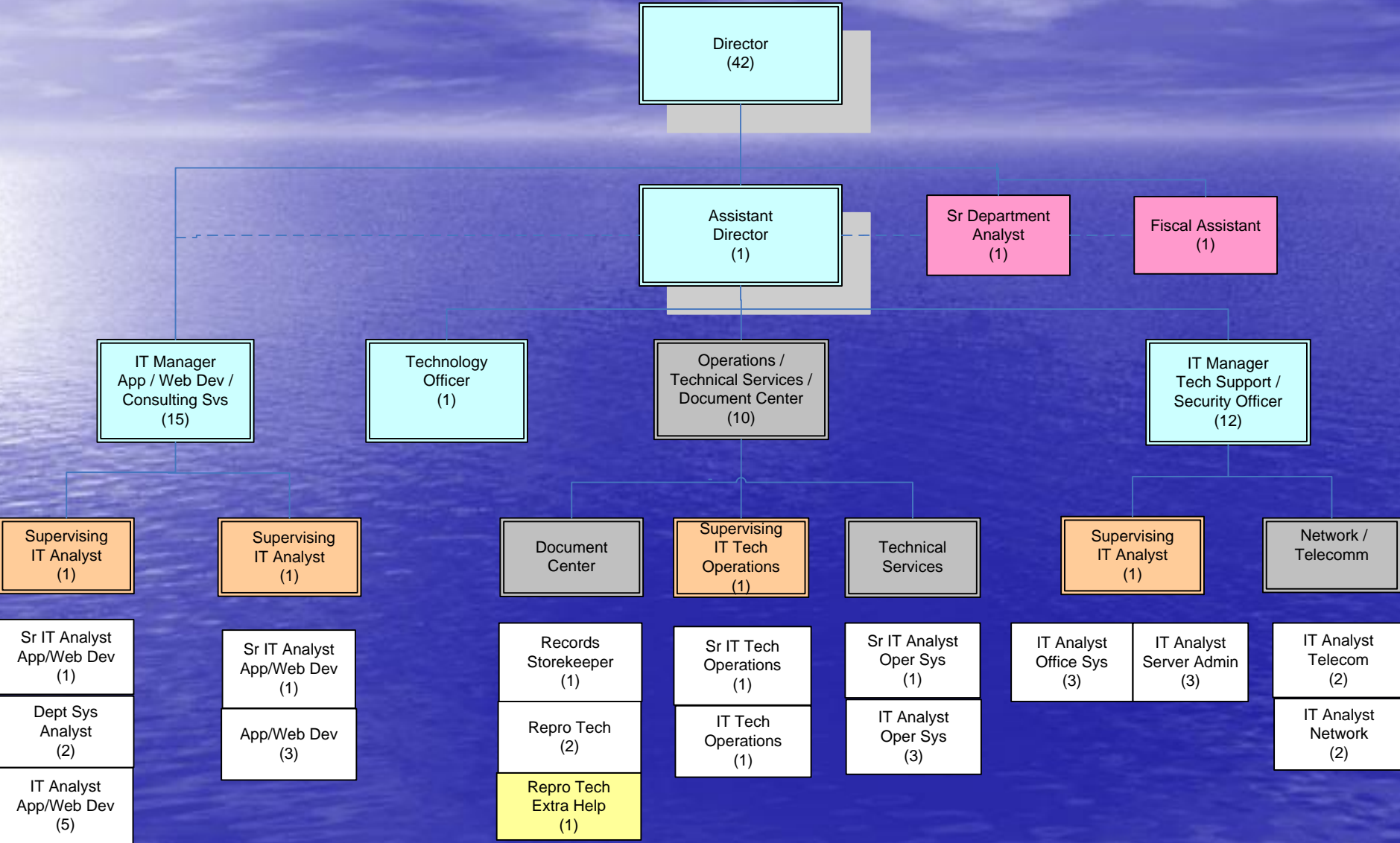 - Business process review/re-engineering
  - Project Management.

Current EDC IT Organizational Environment

- Central IT
- Decentralized IT
- Cost of IT
- Governance

Central IT Organization

- Staff of 42
- Six functional units

Information Technologies
April 28, 2009

Director (42)

- **Assistant Director (1)**
- Sr Department Analyst (1)
- Fiscal Assistant (1)

Reporting under Assistant Director:

IT Manager App / Web Dev / Consulting Svs (15)
- Supervising IT Analyst (1)
  - Sr IT Analyst App/Web Dev (1)
  - Dept Sys Analyst (2)
  - IT Analyst App/Web Dev (5)
- Supervising IT Analyst (1)
  - Sr IT Analyst App/Web Dev (1)
  - App/Web Dev (3)

Technology Officer (1)

Operations / Technical Services / Document Center (10)
- Document Center
  - Records Storekeeper (1)
  - Repro Tech (2)
  - Repro Tech Extra Help (1)
- Supervising IT Tech Operations (1)
  - Sr IT Tech Operations (1)
  - IT Tech Operations (1)
- Technical Services
  - Sr IT Analyst Oper Sys (1)
  - IT Analyst Oper Sys (3)

IT Manager Tech Support / Security Officer (12)
- Supervising IT Analyst (1)
  - IT Analyst Office Sys (3)
  - IT Analyst Server Admin (3)
- Network / Telecomm
  - IT Analyst Telecom (2)
  - IT Analyst Network (2)

2/22/2012

25

Decentralized IT Organization

- Total of 35 Departmental IT employees*
  - 19 IT Departmental Coordinators and IT Specialists across 13 Departments
  - 9 GIS Analysts and an IT Manager in Surveyor Department
  - 5 IT Employees and an IT Manager in Sheriff Department.

    * Source: CAO's office

County Wide IT Estimated Costs as of 1/12/09 *

- County-Wide IT Costs – $11,885,904
  - 2.26% of County Budget
- Central IT - $6,260,678 – 52.7%
  - 1.19% of County Budget
- Departmental IT - $5,625,226 – 47.3%
  - 1.07% of County Budget.

- Note: Poll of 17 California Counties shows that the average IT Costs were 2.6% of overall County Budgets
  - Central IT was 1.90 %, and Departmental IT was .7 %
- * Source: CAO's office

Cost Of IT

- Current IT Billing Methods, and cost accounting
  - Not reflective of the new integrated technology that has been implemented
  - Inaccurate and doesn't fully reflect what IT is doing for each customer, creates inequity of payment by departments
  - Prevents Departments from utilizing IT
  - Doesn't allow for County Wide Expenditures or Governance

Cost of IT

continued

- The billed cost of fully loaded IT manpower services is much lower than the actual cost
  - complaints from the user community re: the negative impact of the cost of IT on their budget
  - Result has been the inflation of the net county cost of IT Manpower and created a prime target for reductions in lean budget times
  - Funding for replacement or update of mission critical enterprise systems and applications has not been forthcoming, due to lack of funds and enterprise thinking

Cost of IT
continued

- County Management has funded technology refresh programs for the mainframe, network, servers, storage systems and telecommunications.
    - Incremental charges have been passed on to County users in various ways:
        - Per processor second; per connected device; per telephone instrument; per telephone line charge; per voice mail account; etc.
        - This has worked for the on-going cost of these infrastructures; however, it is not an adequate to fund new acquisitions.

Organizational Considerations

- Total of 77 very talented IT personnel in County

- Is there a better way that we could be organized in order to provide overall county technology efficiencies?

- Are County wide IT costs being spent wisely?

Governance

Information Technology Steering Committee (ITSC)

- Policy A-10 – Information Technologies Steering Committee and Acquisition Procedures
  - Members: CAO (Chairman) IT Director, Surveyor(GIS Systems) and two Department head representatives from each of the following groups: General Government, Law & Justice, Land Use & Development Services, and Health & Human Services
  - Functions as an advisory capacity to IT, the CAO and the BOS
  - Approves all projects over $10,000.

Information Technologies Governance Model September 26, 2006

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Board of Supervisors
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Chief Administrative Officer
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Director
Information Technologies
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Information Technology
Steering Committee
(Department Heads)
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Information Technologies
Department
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Information Technology
Steering Sub Committee
(Departmental IT Staff)
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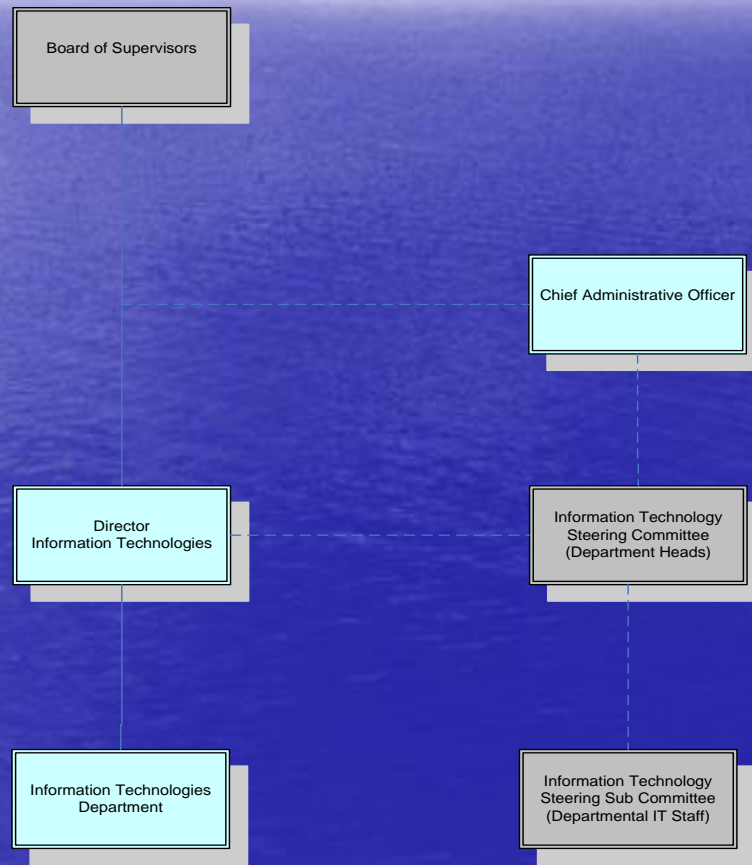
Governance

- ITSC issues
  - Quarterly Reports have taken the place of regular meetings
  - Decisions by the ITSC have been overridden due to budget restraints
  - Attendance by a large number of the ITSC department heads have been delegated to subordinates
  - Departments who implement/install new systems, do not take their request to the ITSC, and therefore no oversight by IT. IT Billing is the issue.

Recommended Action Plans Beginning in FY 2009-2010 Budget

- **Approve Capital Improvement Project (CIP) concept for acquisition and/or development of major IT Technical Infrastructure, Application Legacy Systems replacement and facility upgrades.**

- **Address Organizational, Cost of IT and Governance**
    - **Direct the CAO office, with representatives from Departments, IT and the ITSC to review and recommend solutions to improve county wide efficiencies by:**
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