Information Technologies

WHAT IT IS

Re-Focus on the basics in this new age of unstable funding

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Discussion Topics

- IT's Role
- County's IT **Infrastructure**
- Business Systems Support/**Applications**
- IT Funding Model
- IT Future Cost Needs Matrix
- IT Current Major Initiatives
- IT Challenges

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IT's Strategic Plan - 2007

The plans and strategies being followed for the past several years are helping move IT into a more strategic role within the County

1. Improve the quality of products and services for our customers.
2. Enhance value to the customer
3. Improve efficiencies and effectiveness
4. Leverage technology to drive low-cost and high-performance innovative solutions
5. Invest in human and organization capital

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Regroup and Refocus

The focus NOW needs to be on updating IT plans and strategies at a much more Basic, Sustainable, and Tangible level.

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IT's Role - Help Serve the County

1. Develop & Support Automated Systems
   - **Assists Employees in;** Carrying out their mandated tasks; Answer phones, Process and present information, Pay bills, Issue permits, Account for expenditures; Revenue intake and tracking
   - **Citizens can;** look up and process information on the web 24x7; make online payments; appt scheduling
2. Implement Standard Professional Systems and approaches to ensure County information and services are Available, Accurate, Protected, and Secure

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Decentralized County IT

- 39 IT Department staff
- 31 formal IT positions outside of the IT Department.

| Dept	IT Staff	PCs	Servers	Dept	IT Staff	PCs	Servers
Assessor	2	50	0	Library	1	158	7
Child Support	1	65	0	Probation	1	101	4
Dev Services	1	71	4	Elections	1	40	2
DA	1	76	3	Sheriff	6	256	30
Env Mgmt	1	55	1	Surveyor**	8	18	6
Health Services*	3	208	9	Transportation	4	240	6
IT**	32	40	80	Treasurer/Tax	2	35	1

IT provides direct support to those County depts without their own IT staff
* IT supervises these technical staff
** Technical and Application development staff

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IT Org Chart

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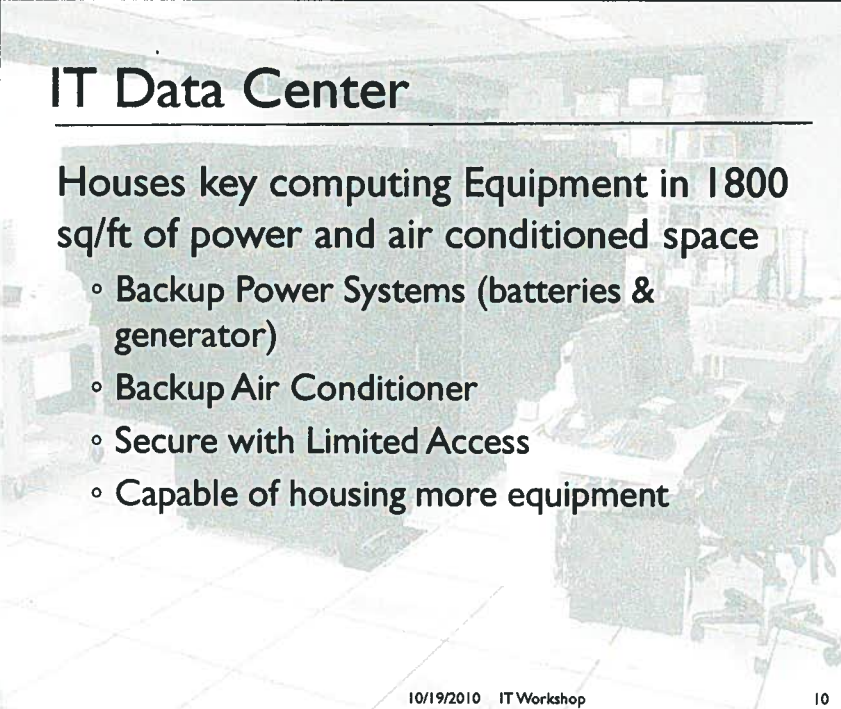10/19/2010   IT Workshop   7
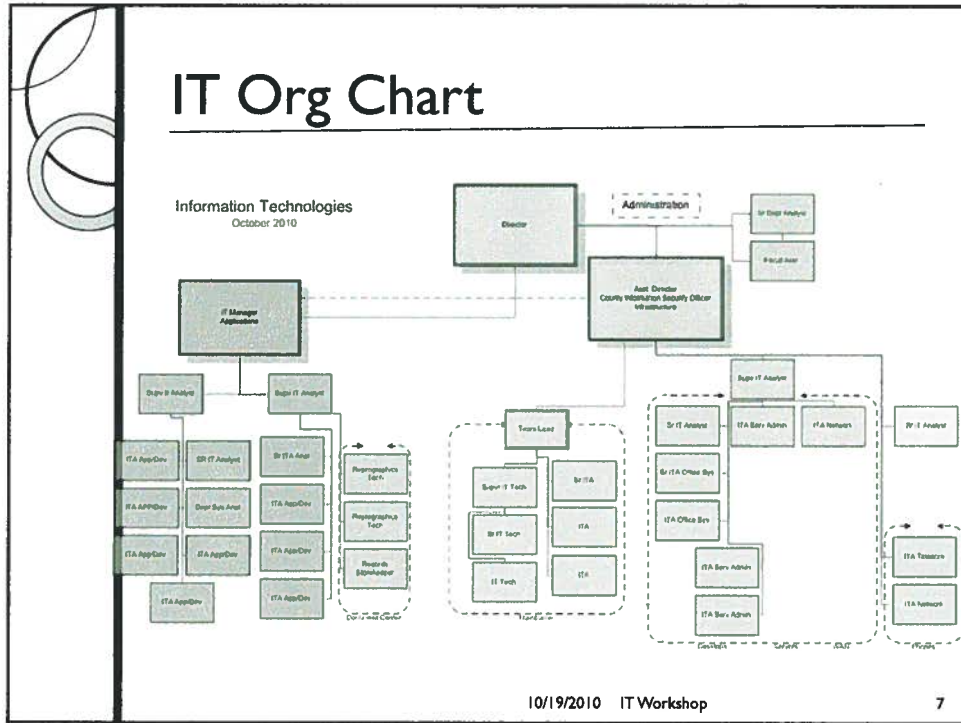
IT Department Divisions

1. **Enterprise Infrastructure Services**
   - Data Center Operations
   - Mainframe Operations and Support
   - Servers
   - Network Connectivity
   - Desktop PC Support
   - Phone System

2. **Business Systems Support - Applications**
   - Web Development
   - Application Support, Development, & Training
   - Systems Analysis/Review
   - Document Center (copying/scanning/records)

3. **Admin**
   - Contracts, Purchasing, Coordination & Guidance
     - Also provides base admin support for Surveyor and Records

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Infrastructure

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IT Data Center

Houses key computing Equipment in 1800 sq/ft of power and air conditioned space
- Backup Power Systems (batteries & generator)
- Backup Air Conditioner
- Secure with Limited Access
- Capable of housing more equipment

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IT Mainframe

- **Runs Core County Systems:**
  - Financial, purchasing, HR/payroll, welfare, probation, data storage, property and land management systems
- **Requires 11 Specialized support staff**
  - 8 Analysts & 3 operators (going to 2)
  - Getting harder to find staffing resources
  - Staffed 15 hours/day, 5 days a week

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Ongoing Mainframe Costs

System	Annual Maint	Annual IT Staff	Annual Total
Mainframe	$467	$684	$1,151
Program Costs			
FAMIS	$41	$17	$58
HR/Payroll	$75	$151	$225
BPREP	$11	$5	$17
ADPICS	$34	$3	$37
Property	$122	$240	$362
LMIS*	$40*	-*	$40*
Total	$790	$1,099	$1,890

-All $ are in thousands
-These mainframe programs are all past their end of life, support costs are increasing, fewer vendors willing to support
-* Handled by Surveyor (not IT)

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IT Servers

- For all non-mainframe programs;
  - Email, printing, electronic file storage, virus checking, backup of files, databases; pushes out standard programs
- 80 Servers within the data center
  - 32 physical servers
  - 48 virtual servers on 7 physical devices
    - Virtualization minimizes cooling needs, electrical needs, space needs and adds speed, flexibility, & redundancy
- Approximately 45 servers outside the main data center

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Countywide Connectivity - WAN

- The backbone for all of the County's automation infrastructure allowing communications for;
  - Phones, mainframe, PCs, internet, printing, email, internet access; server access
- Equipment is countywide:
  - Wires, fibers, leased data circuits, wireless links
  - 200+ switches/routers at more than 100 County sites,

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IT Desktop Support

- Provides Help Desk PC support
  - Load computer programs, troubleshoot and repair problems, install and move PCs, printers & monitors
- There are 1,796 PCs in the County
  - IT provides primary support for 557 PCs (18 depts)
- All PCs have access to the network (file & print) and the internet (security patches, updates, websites) via the WAN
- Current Standard County PC costs $825
  - Constantly working with purchasing to insure lowest prices

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Countywide Phone System

- 2,200 County phone lines located at offices throughout the County
  - County owned system supported by County staff
  - Costs are approx. 20% less than outsourcing
- Parts of the system (including voice mail) are well beyond the manufacturer's end of life
- Phone infrastructure being combined into the data infrastructure to lower ongoing costs

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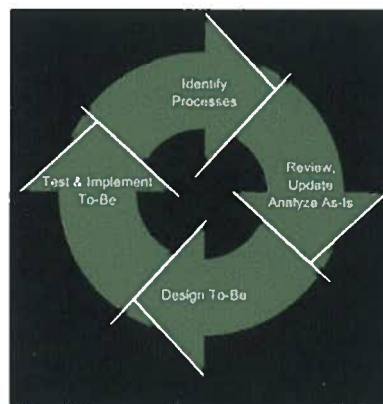
Business Systems Support - Applications

Business Systems Support - Applications

- **Needed To Realize the Benefits of Automation:**
  1. Modification of Existing applications to meet new County requirements
  2. Implementation of new systems to meet new County requirements (web)
  3. Training Employees to Use Systems

County Web Presence

- **Allows Citizens to do business with the County without having to come in or contact staff**
  - For routine or updated information on meetings, procedures, policies, and general info
  - To make payments and appointments
  - Allows existing County staff to work on more specialized issues/needs
- **IT staff implementing changes to allow departmental staff to update info as needed**
  - Allows IT staff to concentrate on automating more complex systems

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Business Systems – Implementations

Major applications being worked on (in addition to ongoing tasks:)

Active	Planned/Proposed
Web Site Redesign	Modernizing Mainframe systems
Web based Appt Scheduling	Phase II of Web Site (online forms, translations, alerts, ADA issues)
Clinical Workstation App. (MH)	
Cal OMS case mgmt (HS)	Phase II – Appt Scheduling
Reduce Need for Printed Info through Scanning/Imaging	MyCalPers Upgrade (State)
	EDD app Upgrade (State)
Employee Evaluation System	Document/image viewing online (HR/Risk/BOS)
Document Tracking (HR/Risk)	
Contact Mgmt (HS)	Phase II – Business License updates
Web based forms, surveys, video storage	Prop Tax bill on web
	EDCAT reporting enhancements

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Systems Analysis

- Systems Analysis is inherent in Everything IT works on to ensure the change being made or proposed takes advantage of the latest tools and techniques.
  - Larger or more formal projects require formal analysis
    - The time spent during the analysis phases saves time on the implementation phases
    - Looks at alternatives, changing business practices, evaluating the risks involved, costs (implementation & maintenance), and how the solutions fit within the County's infrastructure

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County Document Center

- **Print Shop** - Allows for timely and confidential creation of copies, reports, and brochures for County departments
- **Document Imaging** – scanning of paper records into scanned electronic records.
  - Currently 4,500,000 images available on line
  - Electronic records are more secure and more easily accessible
- **Paper Documents Storage** – physical storage and delivery of paper based records (Approx. 14,000 boxes).

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Document Center Funding

	Staff Costs	Equip Costs	TTL Cost	Revenue	NCC
Print Shop	$84	$122	$206	$127	$79
Imaging	$75	$8	$82	$35	$47
Records	$46	$5	$51	-	$51

(budgeted $ in thousands)

The use of these services is decreasing as County departments have limited discretionary $.

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Overall IT Funding

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IT Costs by Activity ($ in thousands)

Activity	Salary & Benefits	Equip & Maint	Total Cost	Revenue	NCC	FTE's
Mainframe	1,099	790	1,890	1,920	(30)	7
PC Support	347	52	399	130	269	3.5
Servers	599	366	961	926	38	3.5
WAN	127	510	636	926	(289)	2
Phone system	262	1,168	1,168	1,183	(15)	2
Web Support	314	12	326	48	278	4
Ongoing App Support	442	12	453	-	453	5
New App Dev	398	12	410	193	217	5
Document Center	205	135	340	163	177	3
Admin*	550	107	657	77	580	4
Total IT Costs	**$4,342**	**$2,901**	**$7,243**	**$5,563**	**$1,679**	**39**

*Includes: Director, Asst Director (Tech Manager + Security Officer), Sr Dept Analyst, Fiscal Asst

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IT Budget Breakdown

% of Total

Phone system 16%
Web Support 5%
Ongoing App Support 6%
New App Dev 6%
Document Center 5%
WAN 9%
Admin 9%
Servers 13%
PC Support 5%
Mainframe 26%

Applications 31%
Hardware 69%
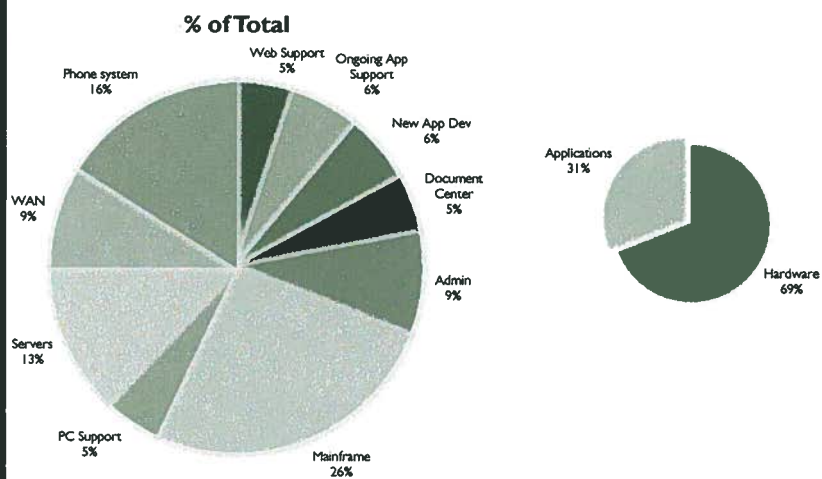
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IT Funding Mechanisms

Mechanism	Description
Mainframe	Allocation based on actual processor usage. Costs include: technical and programmer staffing, hardware and software maintenance costs
Network	-PCD (Per Connected Device) allocation of network costs (tech staffing, maintenance costs)
PC Support	-Direct billed at $60/hr and; -Funded through County overhead
Applications	-Some App staff time built into Mainframe costs; and -Direct billed at $60/hr from dept discretionary $; and -Funded through County overhead
Phones	-Monthly charge for equipment & maintenance; and -Pass through for actual long distance usage; and -Direct billed for moves/changes at $55/hr
Document Center	-Direct billing for time & materials; and -Funded through NCC
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County IT Efficiency Initiatives

Possible Alternative	Benefit	Status
Email on the web	No longer need costly equipment or expertise	Investigating with Sheriff
Protection from web downloads	No longer need costly equipment on site	Actively Testing
Use of Alternate Vendors for maint & support	Use of 3rd party vendors – saves $	In progress on hardware and software
Server Virtualization	Minimizes amount of needed equipment	Actively being used
Business Process Redesign	Streamline processes and make more efficient	Always Ongoing
Web - More Citizen Services On-line	Makes routine information easier to get	Always Ongoing
Looking at news ways of delivering IT services	Minimizes amount of needed equipment and support	Investigating with other Agencies

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IT Capital Needed (Hardware)

$ (in thousands) needed to continue based on 'current' IT model

Item/FY Year	Life (yrs)	2010	2011	2012	2013	2014
Desktop PCs	4/5	$760	$87	$87	$87	$87
Servers	6	$111	$7	$56	$52	$70
File/Data Storage	5*	-	$77	-	$65	-
Comm. Switches	5-10*	$500	$55	$250		$140
Mainframe	7	-	-	-	-	$500
Phone Switch	22*	$320	-	-	-	-
Voice mail	17*	$100	-	-	-	-
Phones	6*	$60	$60	$60	$60	$60
HVAC/Power**	20*	$255	-	-	-	-
Totals		$2,106	$286	$453	$264	$857

*older than manufacturer's designated end of life
** County CIP Project (Not in IT's budget)

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IT Current Major Focus

1. Come up with less costly Alternatives for equipment and application needs
   - Use of different technologies, partnering, sharing
2. Develop a model to upgrade/replace our Core Mainframe applications over the next decade
3. EMAIL alternatives
4. Updated Internal IT service request tracking
5. Better Coordination with Departmental IT staff
   - Update IT Governance models/County's IT Rules
     - IT as a leader or a follower?
6. Downsizing & Standardization of Equipment
7. ? (TBD)

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Current and Future IT Challenges

1. IT funding models limit department's use of IT
   - Especially on cross departmental systems
2. Limited staff and $ (within and out of IT)
3. Relying on Older, Obsolete Systems
   - Requires specialized skill sets
   - Don't meet all departmental needs so shadow systems are developed & supported
   - Expensive to maintain
4. Decentralization
   - Better Coordination Needed to Maximize Countywide IT
5. Governance & Prioritization of IT Projects
6. The resources needed to keep our existing systems running are different than the resources needed to move into the future
   - Existing systems use most of the current resources!

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Automation is Costly

1. Computers are needed to operate County programs
2. County programs are needed to conduct County business
3. Review of Current Business Practices is needed to unlock the benefits of automation for more efficient processes
   - Automating an older process simply makes it faster, redesigning a process makes it better
   - Less than 10% of IT resources going towards this type of Systems Analysis

Not Automating Wisely is More Costly

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Questions/Discussion?

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