Technology Master Planning

Maximize Your Investments

Presented by

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&
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CLIENTFIRST
TECHNOLOGY CONSULTING

YOUR PRESENTERS

David Krout, CPA *(inactive)*

- Managing Partner, ClientFirst Technology Consulting
- CA-based, National, Local Gov. Focused Consulting Firm
- Former Government IT Consulting Manager for a top 5 CPA/Consulting Firm
- Worked with over 120 agencies, thousands of Dept. users
- ClientFirst – 500 Agencies, Over 3,000 Projects

Janelle Rau

- General Services Agency Director, County of Mendocino
- Over 20 years local government Executive Management and Leadership experience
- County Office of Emergency Services/Logistics Section Chief
- Leads County's High Performance Organization Model efforts with Departments and Elected Officials

THE CHALLENGE

Questions,
Answers,
and the Plan

WHY DO A TECH MASTER PLAN

- Align technology with the agency's Goals
- Identify and budget for initiatives to:
  - Improve resident services
  - Increase efficiency
  - Reduce risk

WHY DO A TECH MASTER PLAN

- Planning makes expenditures more efficient
  - Budget based on a plan vs. plan based on budget
  - Process identifies efficiencies otherwise not clearly evident
  - More than Strategy
  - More projects, dependencies, and pre-requisites considered
  - Better management of limited resources
  - Some projects can free up costs to apply to future initiatives

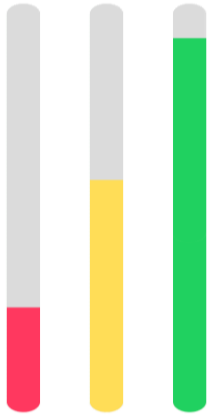
BENEFITS

The Technology Plan will:

- Focus staff on what creates the most value
  - Resident services
  - Process Improvements
- Improve cybersecurity and resiliency
- Right size IT resources
- Create a flexible planning and measurement framework
- Improve Governance Technology Decision-Making

OUTCOMES

- More buy-in at all levels of organization
  - Change Management throughout process
- Improved Exec. Management understanding
- Increased Elected Official support
- More projects completed going forward
  - 70-90% of plan versus historical 25-35%



- Not just a report – An ongoing and evolving framework to manage technology

TIME FOR A HANDOFF

COUNTY OF MENDOCINO

Rural county on California's North Coast

- 3,878 square miles
- 88,018 population as of 2017
- About 23 residents/sq. mi.
- 3 satellite locations

Total Budget: $350MM

- Discretionary revenue: $80MM

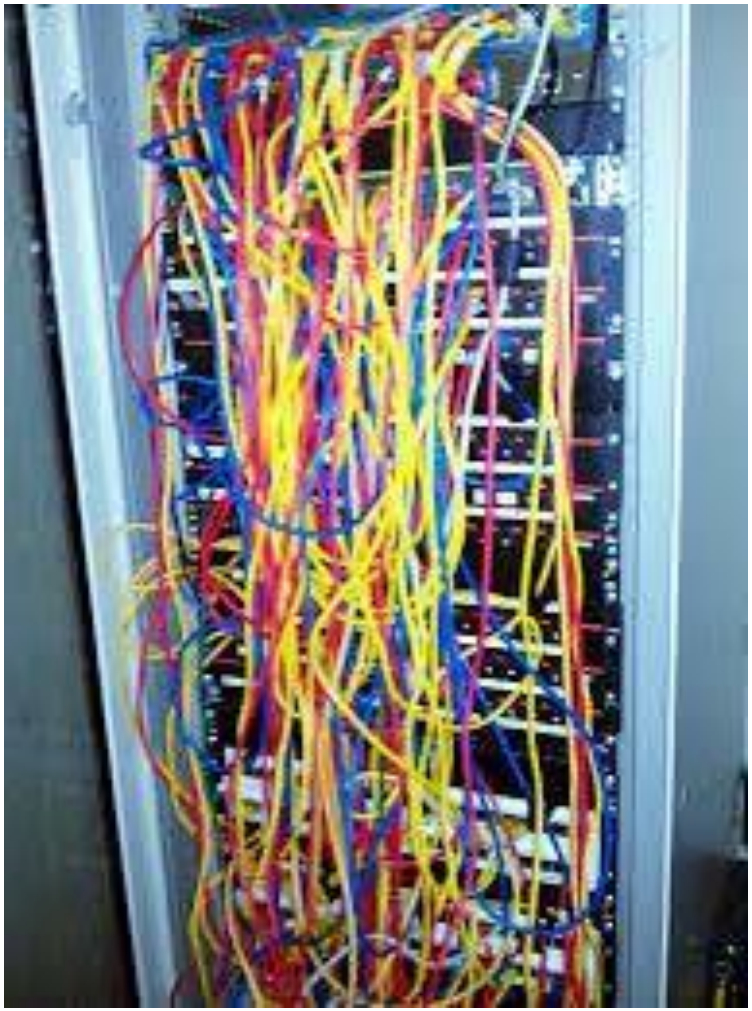
1,400 Total Staff

- 29 IT staff

WHY PLAN WAS NEEDED

- The Reason:
  - Almost everything needed replacement (20+ years of deferred maintenance)
  - The business of the County was beginning to suffer
- Assess where we were and plan where to go
  - Amidst a rapidly changing IT industry
- Leverage IT to improve resident services
  - Efficiency improvements welcome
- Build consensus, gain BOS approval, and revitalize IT
  - Upgrade infrastructure
  - Replace key systems

COUNTY PAST EXPERIENCE



IT investment lagged, systems grew old, infrastructure was provisional, and all but basic computing tasks were out of reach

Makeshift solutions and half-measures left the County's IT infrastructure at risk and vulnerable

Organizational frustration with IT service became evident through leadership process

At this point, the CEO authorized staff to commission a Master Plan for how the County should use and invest and promote information technology and information resources (people)

TIME FOR A HANDOFF

THE PLANNING PROCESS

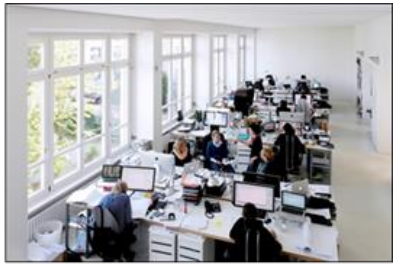
Phased Approach

OUR VIEW

Purpose/Operations

Systems Used

Foundation/ Infrastructure



- 100-300 Applications and Modules
- 80%+ is Software
- Many systems are highly underutilized
- Without more effective Application Management and User Support:
  - **Productivity**
  - **Efficiencies**
  - **Customer Service**
  - **Transparency Improvements**

are not significantly achievable

ONE GOAL OF A MASTER PLAN IS TO IMPROVE EFFICIENCY WHILE MAXIMIZING INVESTMENT

PHASED APPROACH

Agencywide Issues and Needs determined first…

…with Strategies and Goals to get there…

…culminating in tactical/actionable initiatives for executing the plan

NEEDS ASSESSMENT FOCUS

IT Infrastructure & Operations

- Interviews – Leadership to Help Desk
- Facility/Systems Walk-Throughs
- Network/Systems Engineering Reviews
- Review IT Staff and Organizational Structure
- Service Needs/Service Response
- Policies & Procedures

Departmental Business Operations

- Questionnaire and Information Requests
- Needs Assessment Workshops by each department
- Applications Portfolio

TIME FOR A HANDOFF

WHAT WAS DISCOVERED

PROJECT TEAM BEST PRACTICE

- The process of developing such a plan involved stakeholders horizontally and vertically throughout the organization.
- From the process owner in the field, to BOS, to CEO – everyone had a role in shaping the Master Plan.

SIGNIFICANT FINDINGS OF INTEREST

- Many technologies were generations behind
- Critical systems no longer supported by vendors
- Staff only able to “keep the lights on”
- Tens of thousands of hours spent using spreadsheets

SIGNIFICANT FINDINGS OF INTEREST

- Many software systems underutilized, preventing departments from achieving constituent/internal service goals
- Some departments lacked ownership of their applications
- Lots of pent-up demand for too many needs
- Demands exceeded resources (financial and employee)

AREAS FOR IMPROVEMENT

Significant potential for Improvements in Efficiency and Resident service

Limited online access and services for County Residents

Departments rely heavily on manual processes/paper

Financial/HR/Payroll System still a good fit

- Unchanged since implementation, presents opportunities for:
  - **Budget Process improvements**
  - **Electronic Document Management System**

ASSESSMENT: AREAS FOR IMPROVEMENT

IT Technical Findings

- Most key infrastructure components were obsolete and beyond life expectancy
  - Including communication systems that support Public Safety
- County geography limits internet and network connectivity options
  - Makes cloud computing risky
  - Reduces Emergency Preparedness and Resiliency alternatives
- IT operational tools and automation for repetitive tasks lacking

TIME FOR A HANDOFF

COLLABORATIVE WORKSHOPS

Critical to Educate and Gain Buy-In

EDUCATIONAL WORKSHOPS

- Educational Workshops
  - IT Infrastructure and Operations
  - Department-Focused
- Prioritization Workshops
- Executive Management

PRIORITIZATION WORKSHOPS

- It is necessary to conduct Initiative Prioritization Workshops with your Project Team and Department Participants

- Multiple Steps/Workshops
  - First, <u>without</u> the cost/budget information
  - Second, <u>with</u> budget information
  - Third, with resource constraints
- Adjusting prioritization establishes the sequence for execution of your plan initiatives

KEY PLAN COMPONENTS

INITIATIVES

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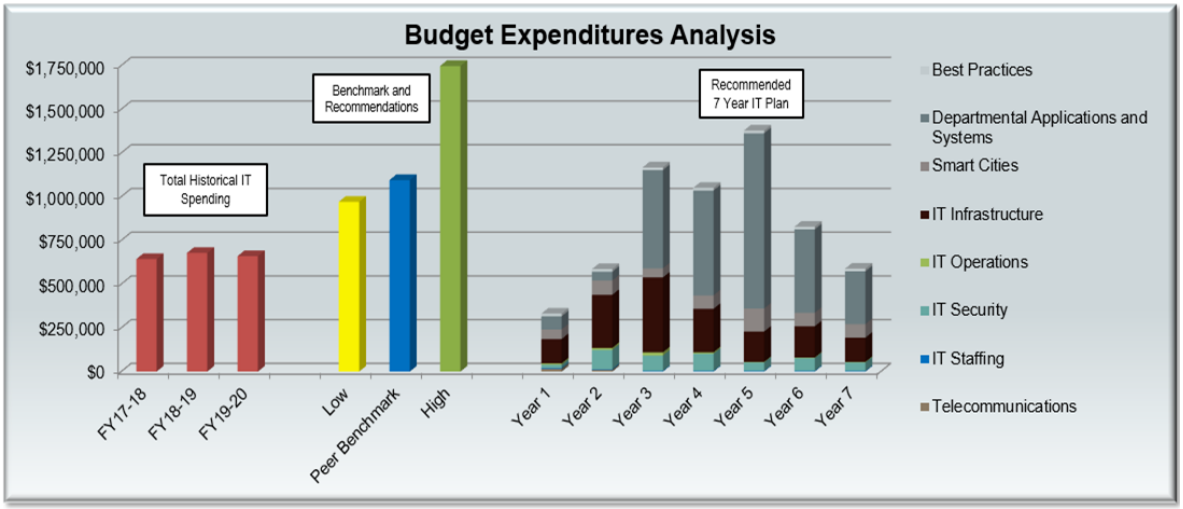
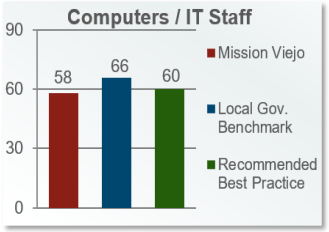
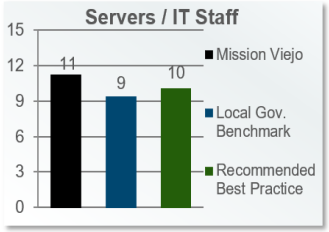
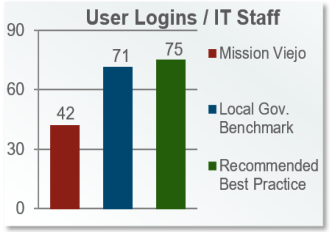
METRICS AND BENCHMARKING







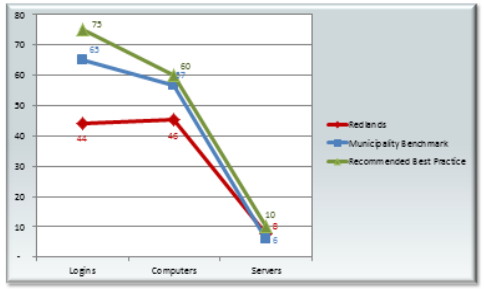


IT Staffing Ratios

The following table depicts Redlands's IT Staffing Ratios versus a Municipality Benchmark of 37 similar agencies. These agencies responded to a survey.

	Redlands	Municipality Benchmark	Recommended Best Practice
Logins	44	68	75
Computers	46	58	60
Servers	8	6	10

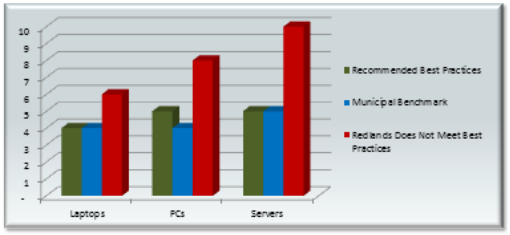
In this comparison, the City's staffing ratios for users, computers and servers are less efficient than their peers (i.e., supporting less users and devices per IT staff) and recommended best practices. As a part of our review, we did uncover many areas in which the City could expect to have significant productivity improvements for these benchmarks.



Equipment Replacement

The following table depicts Redlands's primary IT equipment replacement practices versus Recommended Best Practices and a Municipal benchmark of 36 agencies. These agencies responded to a survey and are from California, Illinois, and Wisconsin.

	Redlands	Municipal Benchmark	Recommended Best Practices
Laptops	6	4	4
PCs	8	4	5
Servers	10	5	5

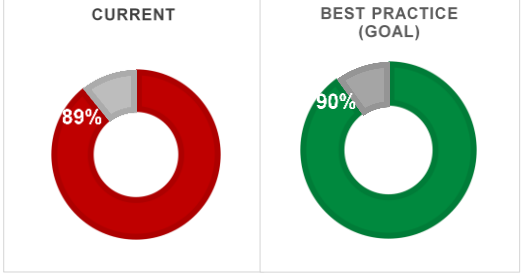


Unfortunately, the City continues to utilize laptops, PC's, and servers longer than best practices recommend. Issues with extending utilization of laptops, PC's, and servers include:

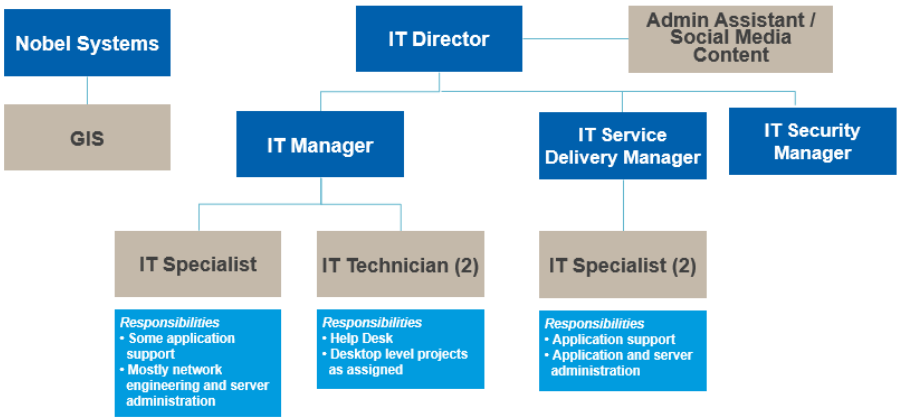
- A higher failure rate after four and five years of productive life
- Laptops are less powerful than desktops and, therefore, tend to run newer software more slowly
- Battery life decreases with age

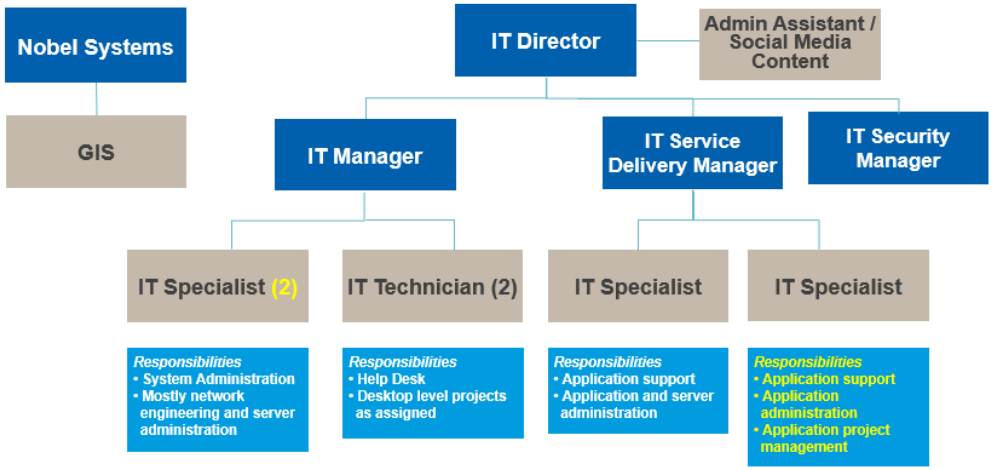
Many of our clients have moved to a five-year replacement plan for PCs due to reduced capital funding.

SERVER VIRUALIZATION



IT STAFFING ANALYSIS





Shift one IT Specialist to infrastructure

Add IT Specialist with sole focus on department applications and project management

CIP / BUDGET

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Technology Master Plan Capital Budget

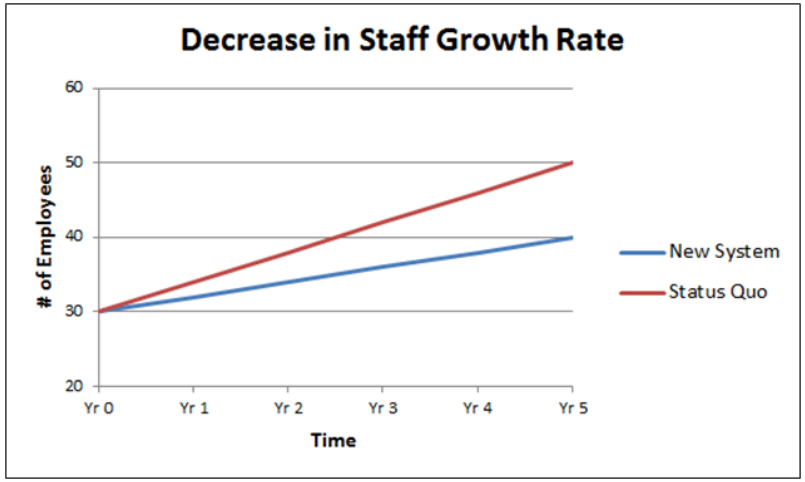
H -	**High** - Initiative is mission critical, it mitigates risk, and/or it has significant cost benefit or return on investment. Also provides significant level of service or protection to constituents and the community. Funding for these initiatives typically begins in the beginning of the 5-year planning period.
M -	**Medium** - Is important to the organization, has measurable cost benefit or return on investment. Medium-priority initiatives also provide a service and protection to constituents and the community, but at a lower degree than a high-priority initiative. Funding for these initiatives typically begins in the middle of the 5-year planning period (Year 2 or 3). Can also be a high-priority initiative that is dependent on another high-priority initiative that is a prerequisite.
L -	**Low** - Provides value, but with minimal cost benefit or return on investment. Can also be a medium-priority initiative that is dependent on another medium-priority initiative that is a prerequisite. Funding for these initiatives typically begins towards the end of the 5-year planning period (Years 3-5).

Initiativ	IT Initiative	Comments	Priority	Budget Range		FYE 2018	FYE 2019	FYE 2020	FYE 2021	FYE 2022	FYE 2023
				Low	High						
Best Practices											
1	**Technology Governance**	Conduct an IT Governance Workshop that will include a Governance guideline binder for County's future use and reference	M	$10,000	$20,000		$15,000				
2	**Sustainability Planning**	Providing tools and staff training	H								
3	**Project Planning and Implementation Best Practices**	Providing tools and staff training. This is policy and practices the County will follow per the initiative recommendations.	H								
4	**Applications Management Best Practices**	These are policies and practices the County will follow per the initiative recommendations.	H								
5	**Business Process Reviews**	These are policies and practices the County will follow per the initiative recommendations.	H								
6	**Software Selection Best Practices**	These are policies and practices the County will follow per the initiative recommendations.	H								
7	**Enterprise Reporting Best Practices**	These are policies and practices the County will follow per the initiative recommendations. Application Support will be critical to implementation of these practices.	M								
8	**User Training and Support**	Initially Windows 10, Office 2016, and then ongoing Office and Departmental Training budget year-over-year.	H	Ongoing			$50,000	$50,000	$50,000	$50,000	$50,000
9	**Training Rooms**	Facilities, computers and equipment, with refresh in year 3.	H	$25,000	$25,000			$25,000			
10	**IT Project and Services Portfolio**	Documenting IT roles and responsibilities for all services including SLA for business application support	M	$8,000	$12,000				$10,000		
11	**Return-On-Investment Considerations**	This is policy and practices the County will follow per the initiative recommendations. This will be covered in the IT Governance Workshop and included as part of individual initiatives, as applicable.	H								
Departmental Applications and Systems											
12	**Munis Gap Analysis and Utilization Improvement**	Increase utilization and close gap on functionality and capabilities that have not been implemented. This will include some process evaluation and improvement.	H	$300,000	$600,000		$100,000	$250,000	$250,000		
13	**Budgeting Process Review and Improvements**	This is an adjunct to the Munis Gap Analysis and Utilization Improvement, but focuses on a process review and plan to improve the budget creation process within the Munis system.		$30,000	$50,000	$35,000	$35,000				
14	**Bids Management Tool**	Recommend considering Tyler Munis functionality before considering third-party solutions	M	$25,000	$50,000			$50,000			
15	**NEOGOV Gap Analysis and Utilization Improvements**	Increase utilization and close gap on functionality and capabilities that have not been implemented. This will include some process evaluation and improvement.	M	$20,000	$30,000			$25,000			
16	**GovInvest License and Implementation**	Costs to be determined	M								

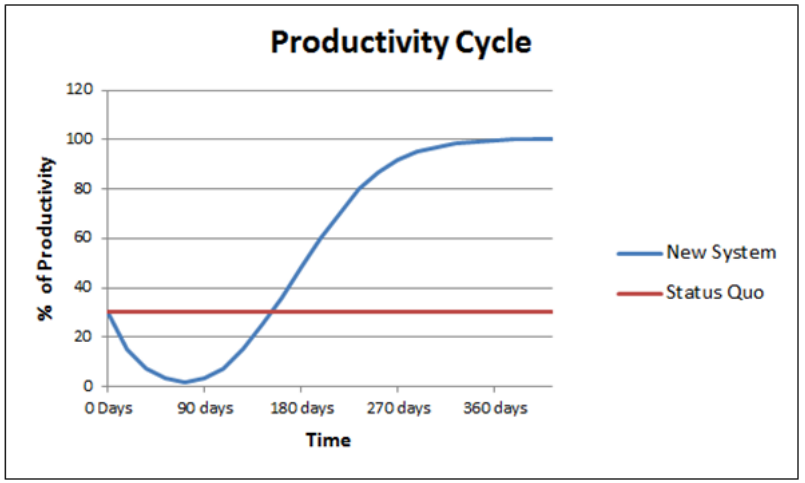
ROI – COST & PRODUCTIVITY

Automation and Shadow System Elimination

Five (5) Departments each @ 8 hours spent per week on Shadow Systems	=	**40 hour per week**	=	**One Full Employee**	=	**Estimate of $100,000 annual Employee Cost (fully burdened)**	=	**$500,000 in Savings over 5 Years**



Control Staff Growth Rate



Product Realization Cycle

"As Is" Process (prior to new system)

Person #1 2 Work Units	Person #2 4 Work Units	Person #3 4 Work Units	Person #4 3 Work Units	Person #5 2 Work Units	=	TOTAL 15 Work Units

"To Be" Process (after implementation of new system)

Person #1 5 Work Units	Person #2 Participation Eliminated	Person #3 2 Work Units	Person #4 2 Work Units	Person #5 1 Work Units	=	TOTAL 10 Work Units

Workload Transference

TIME FOR A HANDOFF

EFFICIENCY OPPORTUNITY EXAMPLES

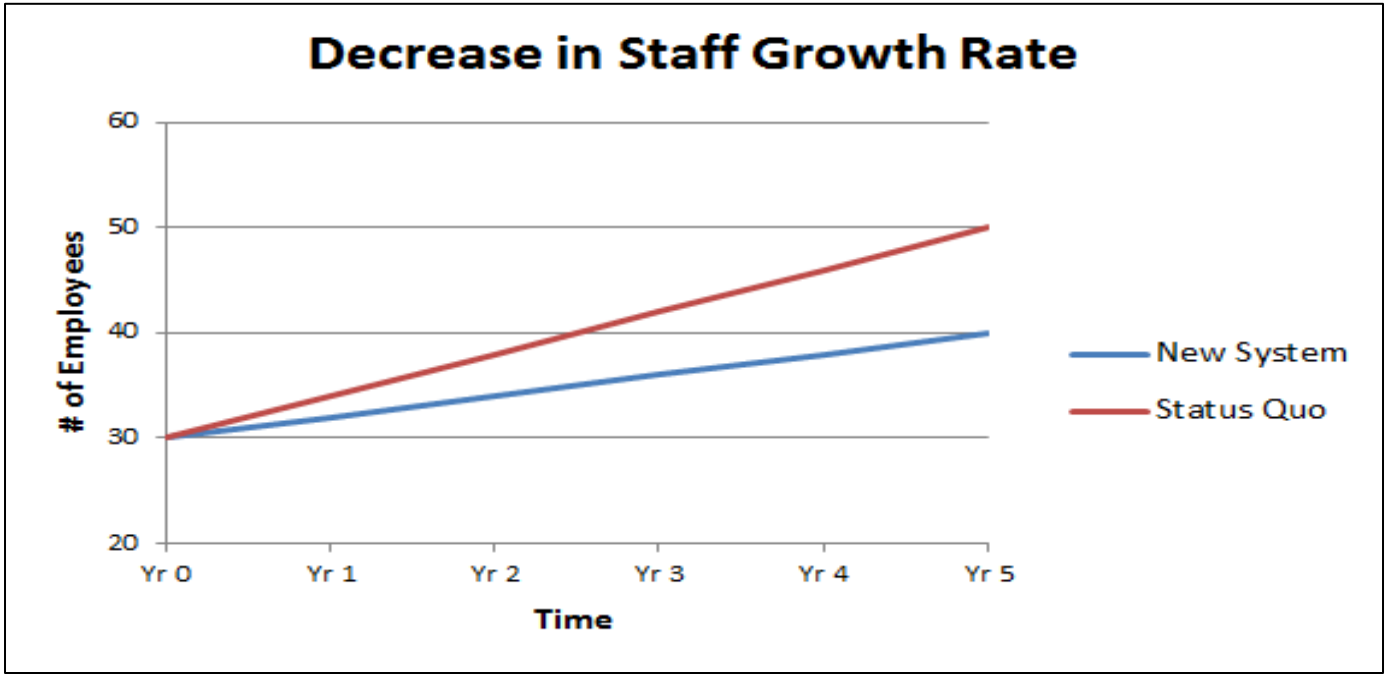
ROI & Governance

COUNTY OF MENDOCINO

- Assessment Results
  - 99 initiatives (more identified, but maintained confidential due to security risks)
  - Many potential areas for efficiency gains
  - Initial studies indicated over 120,000 hours could be gained
  - Estimated savings through automation of ***$4,462,000***!

VIEW OF EFFICIENCY GAINS

- Demand for services, regulation and information requests continue to expand
- We typically look to efficiency gains to decrease staff growth



MEASUREMENT

- For staff time, we tend to develop an average hourly rate = pay rate + total benefits

	Average Salary	Overhead %	Total Annual Comp
Total Annual Comp	$60,000	41.15	$84,750

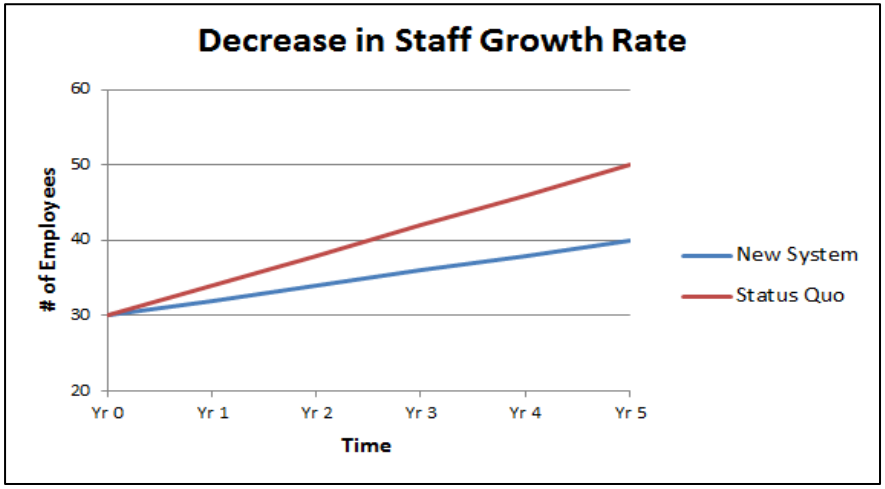
	Total Annual Comp	Hours	Hourly Rate
Total Annual Comp	$84,750	2080	**$40.75**

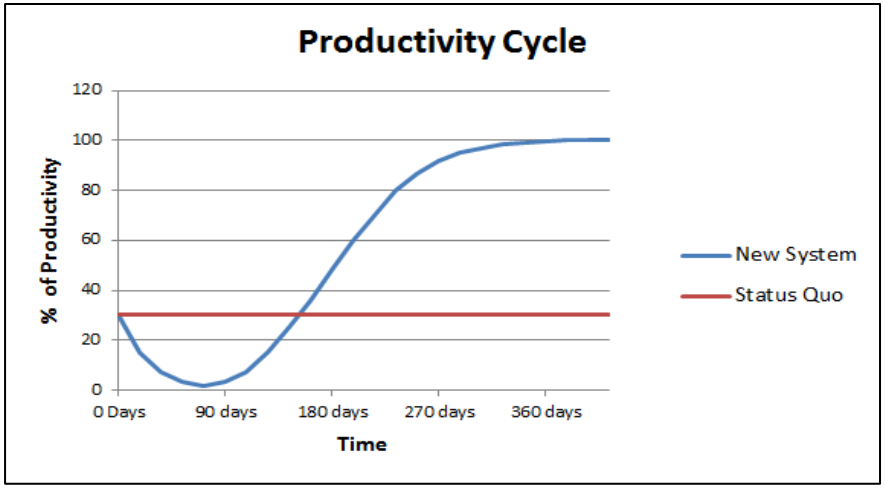
Procurement Processes Improve

- Results:
  - 53 specific improvements
  - Many save an hour/staff/week and affect 20 staff
  - Some improvements may affect 100 staff, twice/week
  - Total estimated savings = $1,450,000+

APPLICATION SYSTEMS IMPROVEMENT OPPORTUNITIES

- Preliminarily identified 161 efficiency opportunities
- Process reviews will find hundreds of additional opportunities
- Minimum potential efficiency gains are expected to be over 100,000 labor hours over the duration of the plan
- Goal: Free up staff time to focus on more valuable tasks and improving service to residents and internally





LASTING IMPACTS

Looking Back

ELECTED OFFICIALS BUY-IN

- Board of Supervisors made increased efficiency a formal directive in early 2019
- BOS has emphasized investment in labor & wages with direction to operationally downsize
- Need to become more efficient!!!

GAINS THROUGH AUTOMATION

- And finally, sometimes, we have to spend $ to save $s.
- Gains from automation can include:
  - Improved service levels
  - Time to implement new services
  - New hire avoidance – Eliminating positions through attrition and Position consolidation

SETBACKS

When we dug into it – before improvements could start:

- Application upgrades required
- Some in-system work arounds had to be revised

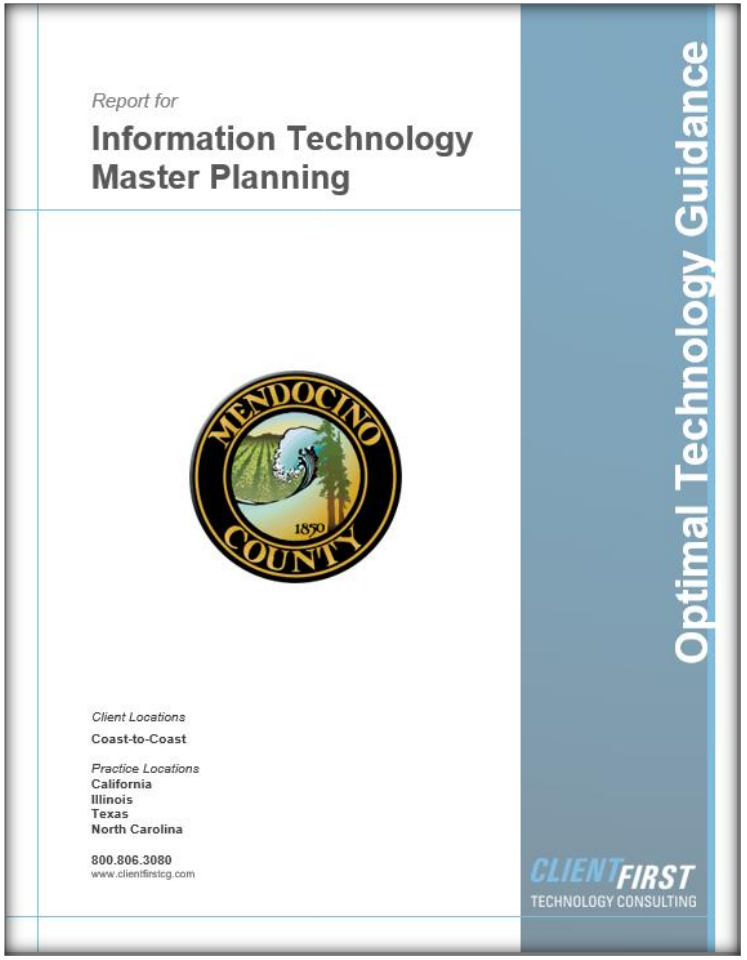
Teach staff how to work on Technology projects

- Culture of inertia had to change

So many needs, difficult to maintain focus on priorities

JUST THE BEGINNING

- Technology Master Plan approved in 2018
- 99 initiatives identified, along with estimated funding plan for each
- Approximately $20MM budget
- Many IT initiatives/projects were started and/or completed in first year

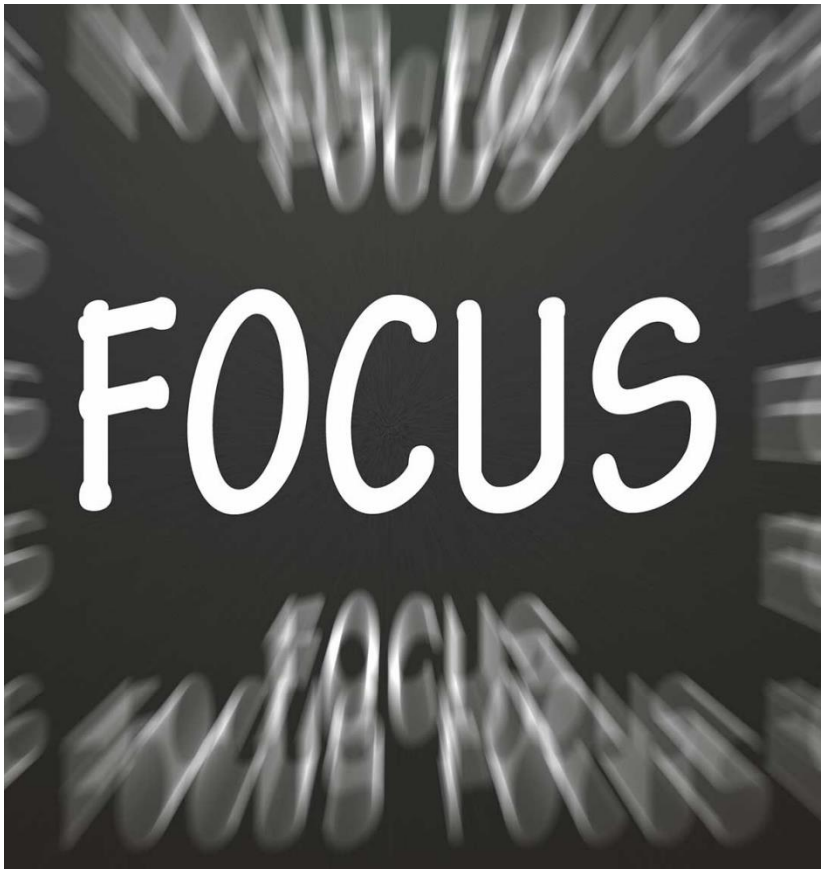


TECHNOLOGY GOVERNANCE

- Technology Governance is a struggle:
  - Many initial projects are infrastructure-focused with small user constituency
  - Limited interest in governance because Department impact is minimal
  - Most priorities set by Executive Office
  - BOS IT Ad Hoc provides guidance too

- Now that projects are beginning to affect the Departments, Governance will become more important

BRINGING FOCUS TO CHAOS



- Organizational culture is shifting from viewing IT as an added expense towards a view of IT being **added value** in any business process
- Technology supports and drives nearly all our business operation improvements
- Working to make technology **efficient**

CHANGING MINDS

- Working with departments that champion technology slowly brings others along
- When people learn “what Technology can do for them” they want to contribute their efforts to projects that produce efficiencies

QUESTIONS AND ANSWERS

HERE TO SERVE YOU

Thank you

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