

SOLVE THE TECHNOLOGY PUZZLE

Put the Pieces Together



Technology Master Plan



Board of
Supervisors

November 6, 2018

CLIENTFIRST
TECHNOLOGY CONSULTING

Agenda

- Planning Methodology
- Assessment (Current State)
- Strategies, Goals, and Objectives
- Budgets



Methodology

The
Process &
Approach to
Developing
the Plan

Phased Approach



Issues and needs
determined first...

with strategies and
goals to get there...

culminating in
actionable initiatives...

Assessment

The Current
Environment

Assessment: Strengths

- Strengths:

- Information Services staffs committed and hard working
- Core applications are a good fit for the County
- EOC performed well this summer
- Initial risk mitigation improvements help us sleep at night

A+



Assessment: Areas for Improvement

- County geography creates challenges
 - Recent fires highlight the need for resilient and flexible communications and technology
 - Costly to build technical infrastructure resiliency
 - Gaps in cellular coverage create mobile computing challenges in the field



Assessment: Areas for Improvement



Assessment: Areas for Improvement

- Potential for Improvements in Efficiency and Resident service
 - Limited online access and services for County Residents
 - Departments rely heavily on manual processes/paper
 - Limited self-service options for employees
 - Staff software skills are limited in most Departments
 - Application Systems are underutilized
 - Training on software applications is not a focus and is a significant need



Assessment: Areas for Improvement

- Munis Financial/HR/Payroll System still a good fit
 - Unchanged since implementation, presents opportunities for:
 - Process streamlining & improvements
 - Higher utilization of licensed functionality
 - Automation of manual/paper processes
- Budget Process (available in Munis) improvements
 - Automating a heavily manual paper and Excel process
 - Streamlining of processes with workflows and automation



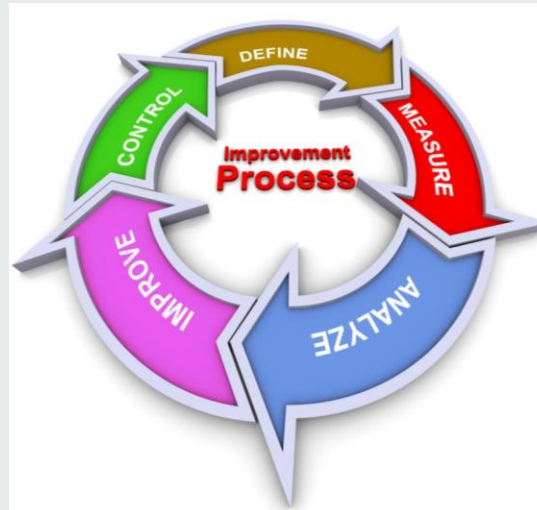
Assessment: Areas for Improvement

- Aegis CAD/RMS/JMS Analysis
 - Improve Utilization and Processes
 - Integrate and improve GIS/Spatial capabilities
- Tax System Replacement (Aumentum) has been acquired to:
 - Replace existing outdated end of life system
 - Follow Best Practices to ensure implementation success
 - Automate processes and provide online services



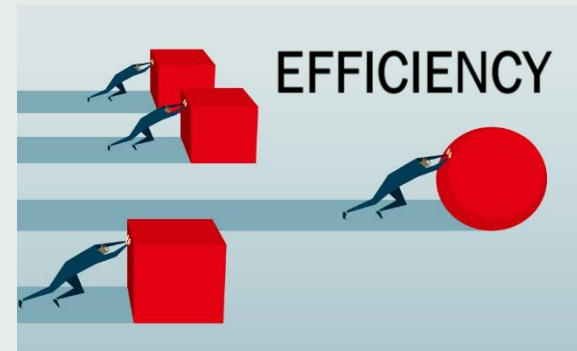
Assessment: Areas for Improvement

- Land Management (TRAKiT)
 - Opportunities for improved utilization
 - Implement online services and mobile field capabilities
 - Automate Cannabis permitting and licensing processes
 - Integrate and improve GIS/Spatial capabilities



Assessment: Areas for Improvement

- Enterprise Asset Mgmt. - EAM (Work Orders Maintenance Mgmt.)
 - CAMS automation, process and utilization improvements
 - Implement mobile field capabilities
 - Integrate and improve GIS/Spatial capabilities
- Electronic Document Management System
 - Countywide management of documents and content
 - Consolidate multiple current systems
 - Automate workflows, versioning, high level search/retrieval
 - Automate retention management
 - Integrate with other core application systems



Assessment: Areas for Improvement

- IT Findings

- Most key infrastructure components are obsolete and must be replaced
 - Includes communication systems that support Public Safety
- Separation of County and MSCO Information Services creates artificial barriers
 - Some separation required by security regulations
 - Inefficient to maintain skill-sets in both areas
- 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



Strategies, Goals, and Objectives

The Big
Picture

Replace End-of-Life Technology

- Replace county-wide radio network, network between facilities, in-building networks
 - Includes dispatch console and various ancillary radio components
 - Initially we identified and IS replaced core in-building network components and eliminated highest risk single points of failure
- Replace MCSO end-of-life critical network equipment
- Replace MCSO structured cabling
- Replace email system and associated components
- Develop a Sustainability Plan to maintain technology
- Follow procurement and implementation project management best practices

The plan invests \$12.5MM in replacing obsolete systems (63% of the total).

Improve Emergency Preparedness

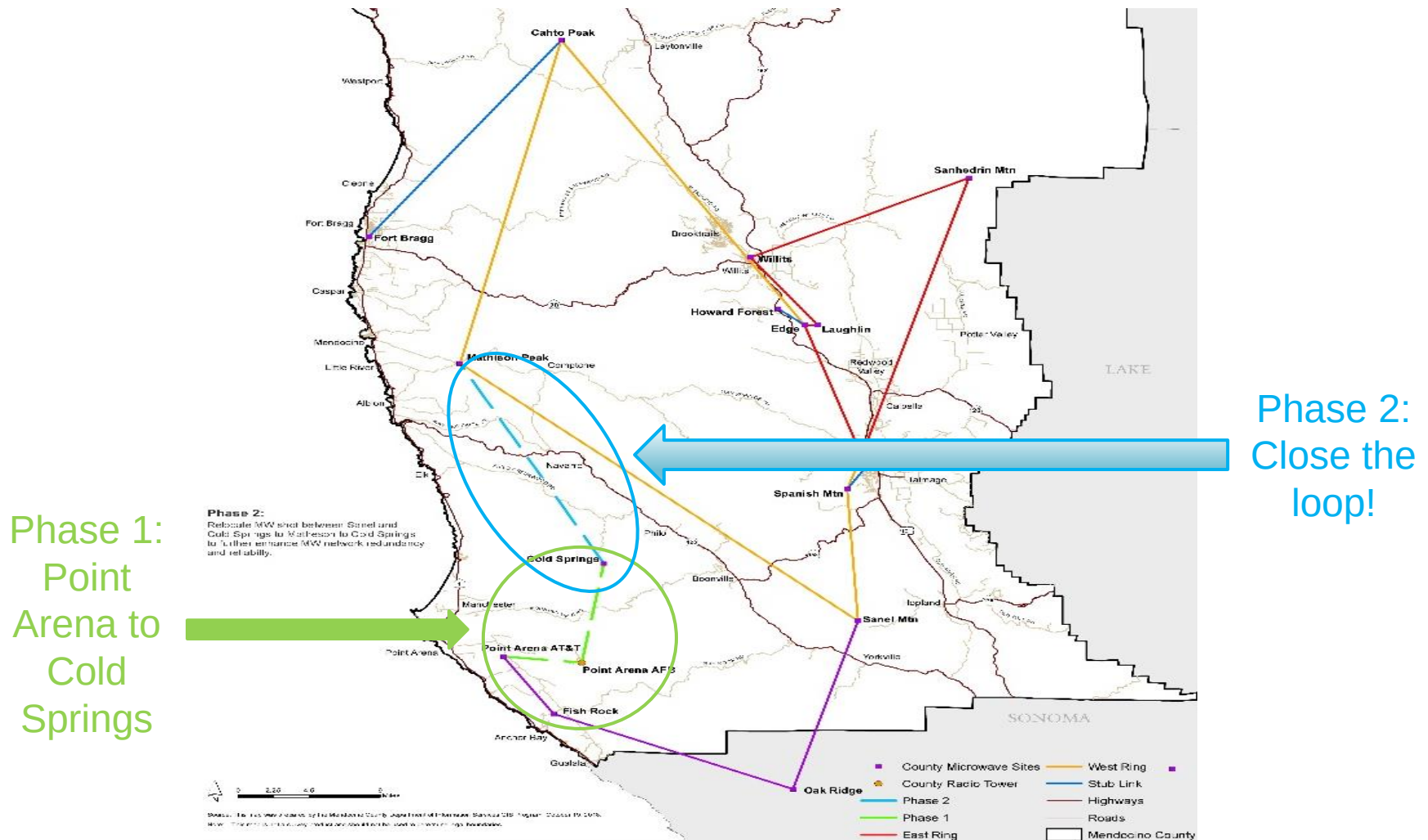
- Look for opportunities to improve resiliency
 - Complete resilient county-wide radio network
 - Implement resilient internet connectivity
 - Build resiliency into core infrastructure
- Continue to improve EOC functionality
 - Expand GIS data gathering to better define dwellings, parcels and property lines
- Develop secondary EOC and Disaster Recovery capabilities



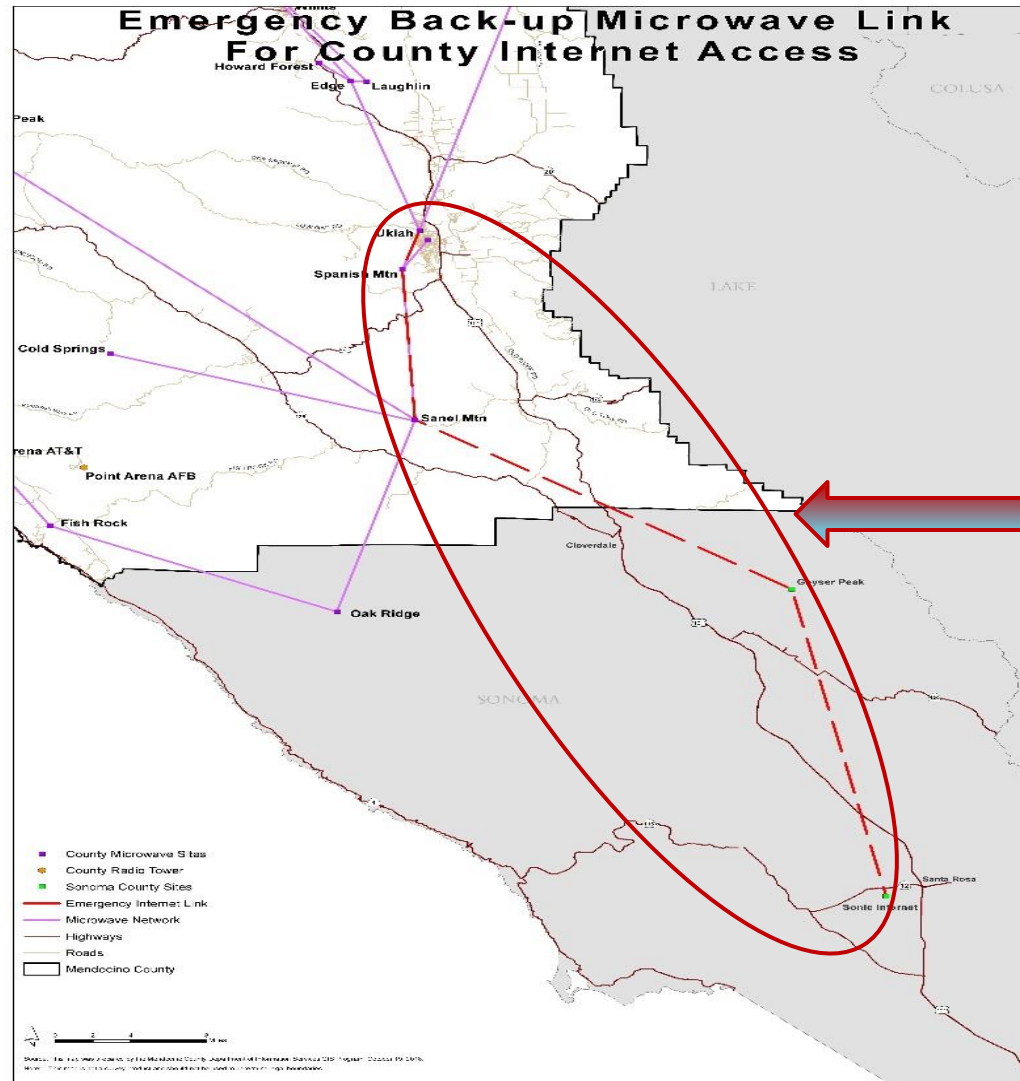
The plan invests \$3.3MM in replacing obsolete systems (18% of the total).

Improve Emergency Preparedness

Mendocino County Microwave Network Phase 2



Improve Emergency Preparedness



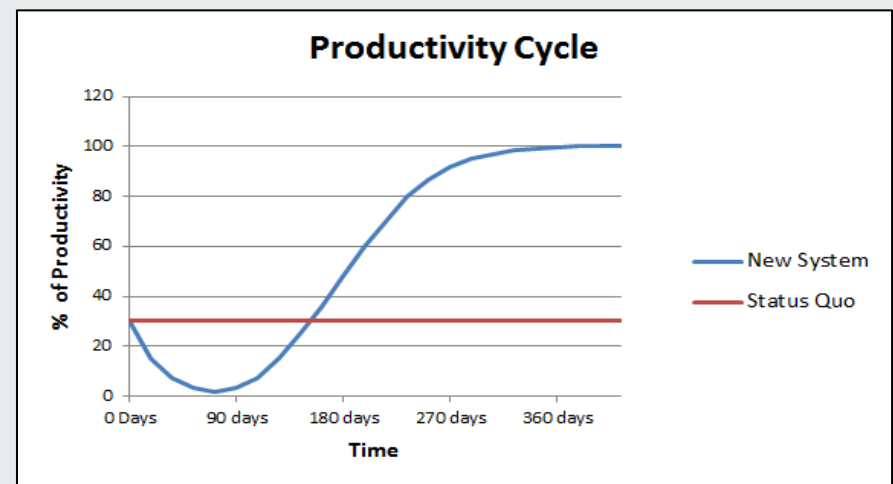
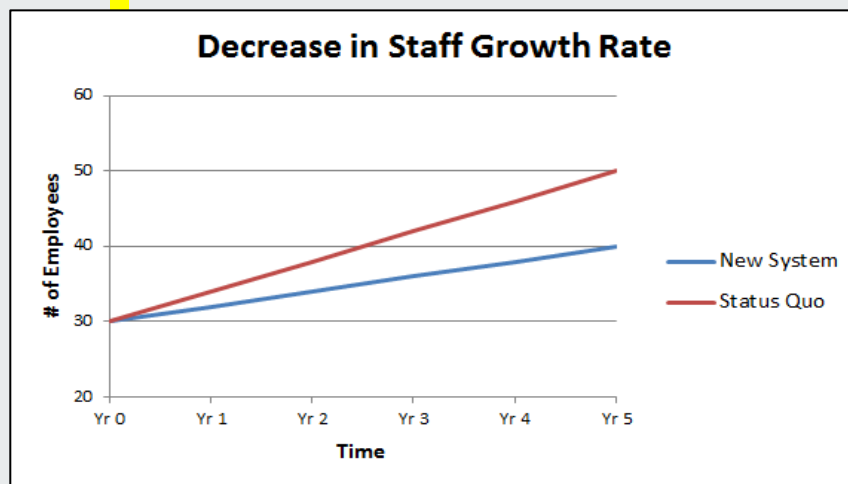
Improve Core Application Utilization and Business Processes

- Assess and identify opportunities for improvement in core applications systems.
 - Many systems are underutilized
 - Work-arounds are labor intensive
- Utilize ROI principals to prioritize processes requiring improvement.
- Review current business processes and revise and reconfigure to increase efficiency.
 - Utilize core applications systems to eliminate paper processes and shadow systems (e.g. Excel, Access, internally developed systems, etc.).
 - Offer residence and the public more online services
- Develop an ongoing application systems training program

The plan invests \$3.8MM in improving application efficiency (19% of the total).

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



Systems Improvement Opportunities

Application Systems with Efficiency Gain Opportunities include:

- ERP (Munis)
 - Finance/Accounting
 - Budgeting Process
 - Time & Attendance
 - Procurement Processing
 - Human Resources
 - Recruitment and Onboarding
- EAM/Work Management (CAMS)
- Electronic Document Management
- Animal Services
- Library Scheduling
- Justware
- Tax Billing and Collections
- Cannabis Permitting
- Building and Planning
- Sheriff CAD/RMS
- Moving some in-house developed solutions to commercial application solutions
- MS Access and Excel
- Paper

Shadow System Cost Saving - Example

4 departments each @
20 hours spent per week on
Shadow Systems

= 2 Full Employees =

Estimate of \$75,000 annual
Employee Cost (fully
burdened)

=

\$1,500,000 in Savings
Over 10 Years

Systems Improvement Opportunities

- A Few Examples:
 - Budget analysis and creation process done outside of accounting/finance system (involves all depts. and dozens of users over several months).
 - Automating requisition order file distribution could save nearly 1,000 hours per year
 - Streamlining performance evaluations could save over 1,200 hours per year
 - Reducing procurement processing time by 5 min. each could save over 10,000 hours per year
 - Streamlining open enrollment could save over 60 min. each (over 1,000 hours per year countywide)
 - Over 100 of the preliminary efficiency opportunities have not been analyzed

Expand Public Online Services

- Increase online capabilities for residents and the public
 - Land Management (TRAKiT software)
 - Online Planning w/Plan Application Submittal
 - Online Permits
 - Online Permit Inspection Scheduling
 - Online Code Enforcement
 - Online Citizen Request Management (CRM)
 - Mobile/Field Capabilities
 - Financials (Munis software)
 - Online Payments – AR, other miscellaneous billing
 - Vendor Portal
 - Bids Management
 - Increase Transparency
 - Implement EDMS Web Publishing capabilities
 - Improve OpenGov to provide Financial/Budget Information
 - Consider module for managing Public Records Requests

Employee Access & Self Service

- Improved Employee Access and Self Service
 - Financials (Munis software)
 - Departmental Online Access & Workflow
 - Departmental Online Budgeting
 - HR/Payroll
 - Employee Self-Service
 - Online Scheduling and Time Keeping
 - Mobile Field Capabilities
 - TRAKiT Land Management (TRAKiT software)
 - CAMS Work Order/Maintenance Mgmt. (CAMS or Replacement)
 - Other
 - Implement Intranet
 - Apply Wiki's where appropriate

Move Countywide to GIS/Geospatial Application Environment

- Leverage GIS integration with the County's systems to better utilize core applications
- Create GIS-based emergency operations applications
- Gather additional more detailed geospatial data for emergency operations and improved parcel analysis
- Utilize Esri's analytical capabilities to inform reporting and decision-making



Ensure Technology Governance

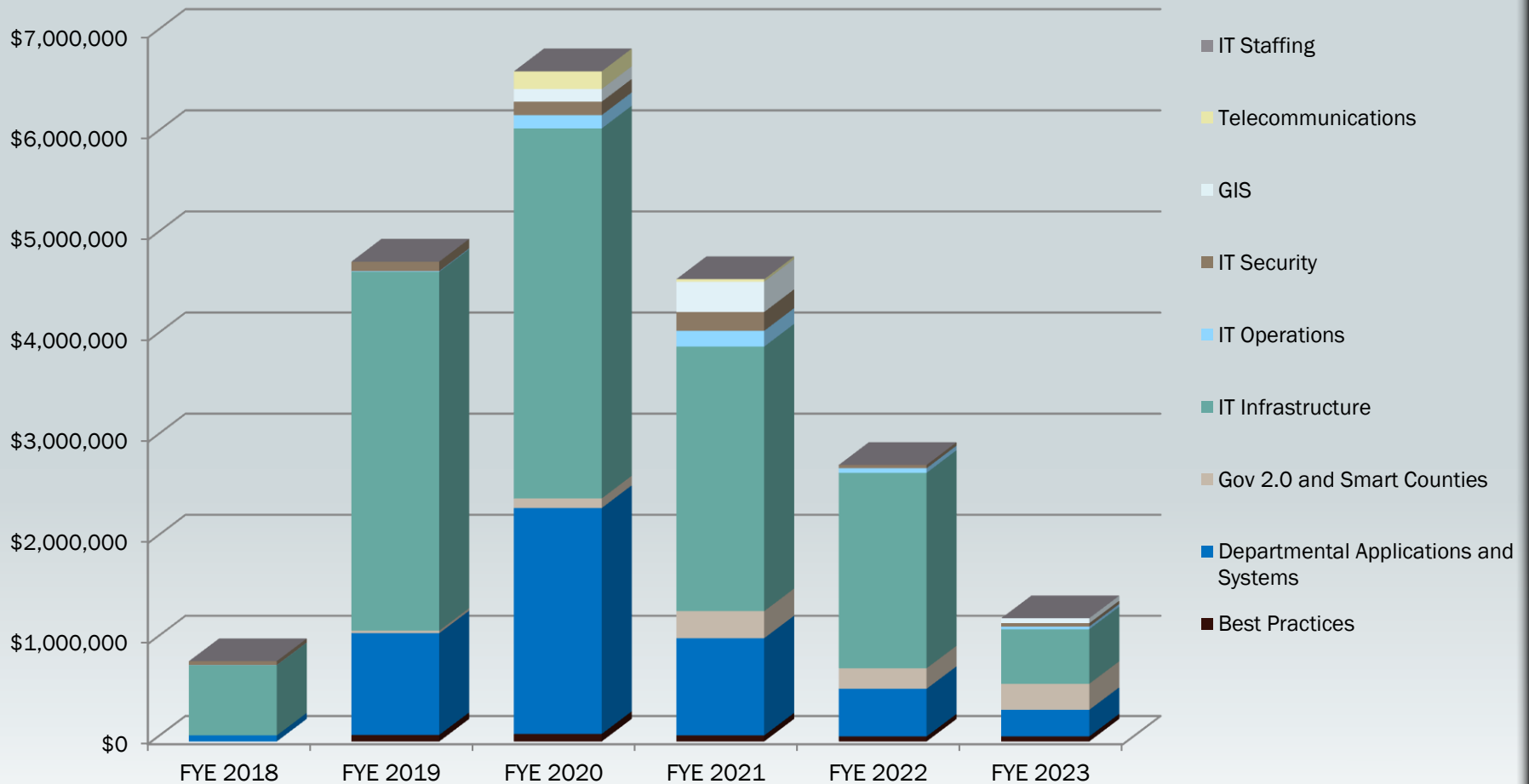
- A technology Steering Committee is recommended to:
 - Execute the Plan
 - Initiatives are designed to be actionable
 - The Steering Committee should oversee plan implementation
 - Maintain the Plan
 - The Technology Master Plan is a living document
 - Update every year as a part of the budget cycle
 - Utilize the Steering Committee to balance departmental priorities
 - Develop and review standards and policies
 - Collaborate and provide oversight on projects and initiatives



Plan Budget

IT Plan Five Year Budget

Recommended IT Plan Budget by Year



Questions and Answers

