Information Technology Strategic Plan Refresh

May 4, 2023

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About The Government Technology Group

The Government Technology Group (GTG) is a technology consulting firm comprised of former public service information technology leaders. The three principal partners have the collective expertise of over 85 years as Chief Information Officers. We have extensive experience in local government with practical, hands-on, real-life proficiency delivering traditional business applications and technologies. We have developed and implemented technology plans for Dublin San Ramon Services District; the cities of Concord, Danville, Hayward, Sunnyvale, Ventura, Chico, Vacaville, Santa Barbara; the housing authorities of Alameda and San Mateo; and Riverside County.

Why Strategic Planning ?

- Serves as a guide to IT-related decision-making, with IT projects prioritized and implemented using the plan as a framework.
- Created to align with District's strategic goals.
- Identified projects were prioritized based on supporting these goals.
- Helps guide an organization as it formulates its overall IT strategy.
- Becomes a roadmap to help implement those strategies.
- Assists the IT team to know its priorities which are aligned with the organization's goals.
- An IT strategic plan is a living document, and industry standard best practices are to update strategic plans every 5 years to align with the agency's strategic goals.

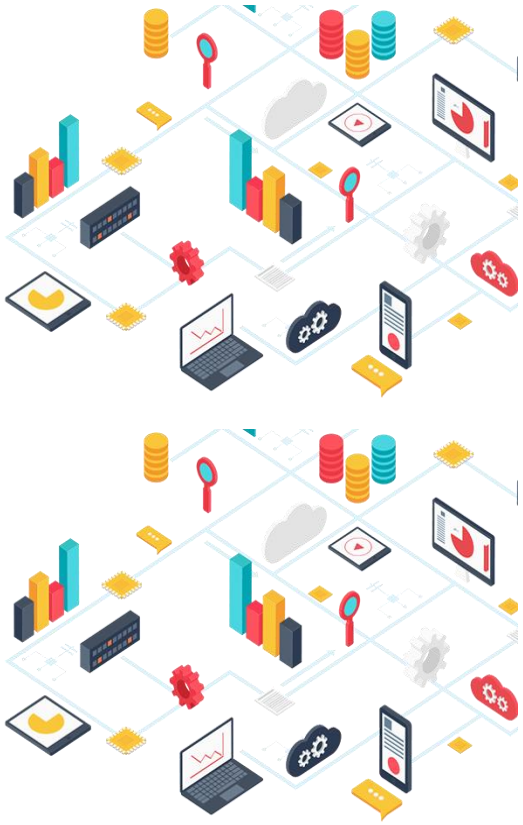
Scope of Work

The District commissioned a five-year Information Technology Strategic Plan Refresh including a Business Continuity and Disaster Recovery Refresh and a Security Audit.

This included:

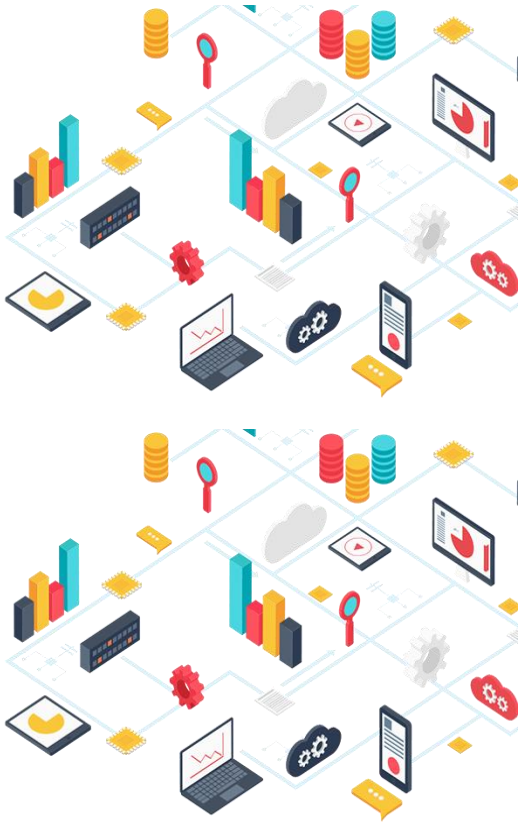
- Review and evaluate current IT services
- Assess agency IT governance structure
- Perform enterprise security assessment
- Update agency business continuity plan

The outcome of these reports will improve the strategic direction of the agency's technology support system.



Information Technology Overview

- **Infrastructure**:
  - The District has an increasingly complex IT infrastructure for a utility district.
  - The infrastructure is comprised of 16 geographic locations that contain IT equipment within the boundaries of the District.
  - This number and complexity is likely to grow as additional infrastructure, sensors, and other equipment at remote facilities are installed to further the District in its efficiency and data driven decision making goals, as well as increased reporting requirements.
- **Applications**:
  - The IT staff provides primary support for numerous business applications to fulfill the District's business case.
  - These business applications are comprised of both widespread use systems and special systems to address a particular need.

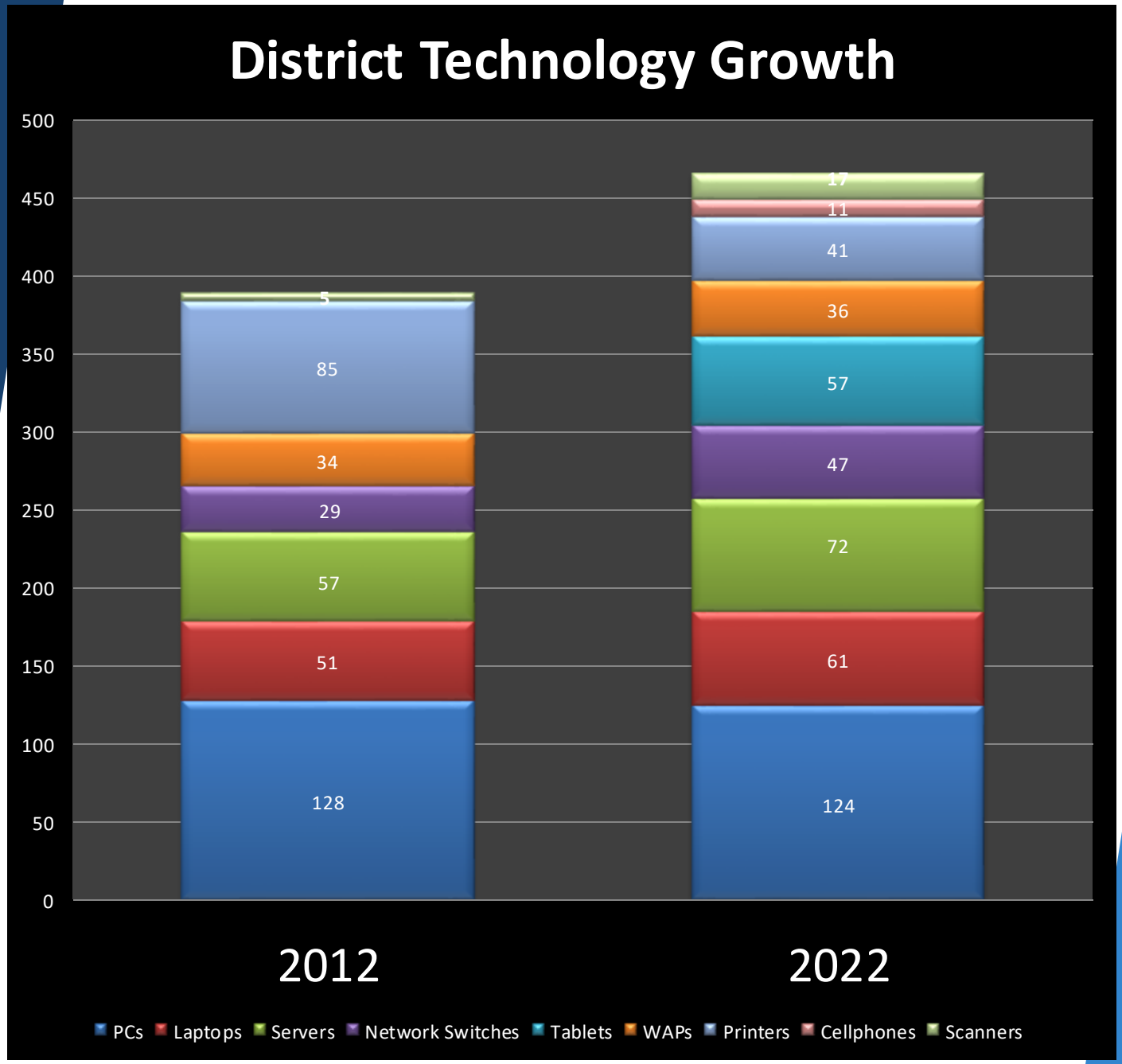


Information Technology Overview

- **Budget**
  - Expenditure for the District's IT service delivery equates to approximately 3.04% of the District operating budget.
  - A Municipal Information Systems Association of California (MISAC) survey of its members determined the average cost for IT service delivery for an agency was 4.7% of their operating budgets.
- **Management/Supervision/Staffing**:
  - Total staffing for IT service delivery is 4 FTE's, which includes management, applications, and technical support.
  - IT supports approximately 466 devices with 3 technical staff
    - desktops, tablets, laptops and scanners and printers
    - cell phones, wireless access points
    - network switches, servers, infrastructure, integrations
    - security

Technology Growth 2012 - 2022

- Number of tablets, laptops, servers, network switches and wireless access points have increased over the past ten years
- 389 devices in 2012
- 466 devices in 2022
- Complexity of wireless infrastructure and devices for mobile workforce increase network support required
- Cybersecurity threats also increase support required



Issues and Recommendations

Improve network and wireless connectivity to all locations

Board goal of maximizing appropriate use of technology to improve operational efficiency.

To make better use of staff time, fuel, and to obtain information faster through remote sensing of and communication to remote equipment.

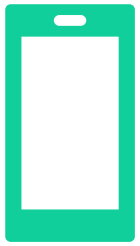
Cost savings realized by reduced fuel use and a reduction in non-productive person-hours would potentially offset part of the cost of mobile tools, security, and communication improvements.

A broadband initiative should be undertaken to improve communication to this remote equipment and all district locations and mobile devices.

Expand cybersecurity

Multi-factor authentication

Geo-fencing



Facilitate expansion of mobile computing

Improve and expand access to online forms and services

Expand the use of online forms for field crews and other staff.

Will increase efficiency and convenience.

In Customer Service area some forms and processes are not available online.

Allow customers to submit anything online that is available when visiting the Customer Service Center in person.

Recommend change in IT reporting structure

Agencies with IT networks and systems as complex as the District's typically use an organizational structure that provides the IT Manager (or Chief Technology Officer) a "seat-at-the-table" in the Executive Team structure, often reporting directly to the General Manager.

Information technology touches every aspect of the organization, and is increasing in complexity, with the growing risk of security threats that must be constantly mitigated and communicated at a strategic level in the organization.

This allows the agency to give adequate consideration to any IT issues that may be related to a pending executive decision during the decision-making process.

Improve staffing levels within IT to meet industry standards and demand for services

IT staffing level has not increased over the last 10 years.

All departments stated that IT does an excellent job but expressed that IT needs more resources.

In many areas there is only one staff member to provide support, and that support suffered greatly if that staff member was out.

The ratio of IT support staff to devices supported does not meet industry standards.

IT staffing levels need to be increased to meet growing demand for services.

Recommend adding one Business Systems Analyst and one Network/Security Analyst.

Improve staffing levels within IT to meet industry standards and demand for services

- The ratio of IT technical support staff to devices is below industry standards at 1:155 devices supported.
- A Municipal Information Systems Association of California (MISAC) survey of its members found an average ratio of 1:72 of IT staff to devices supported.
- Proposed staffing increase improves the ratio of technical staff to supported devices to 1:93
- AWWA 2021 Utility Benchmarking found equivalent utility districts have 6.5 to 7.5 staff in IT.
- Proposed staffing increase improves the District IT staffing level to 6.0.
- Estimated cost of approximately $335,000 brings 2022/23 amended IT operating budget to $1,820,736 which equates to 3.69% of the total district operating budget, below the MISAC average of 4.7%.
- Over 70 new projects including security, infrastructure and online applications require additional staffing.

Training

Business process review

Utilization of enterprise business system (Tyler New World)

Improve access to permit information

Better file management and document sharing (OneDrive/SharePoint)

Utilize outside subject matter expertise to address user needs

Evaluate cloud services

Expansion of broadband to support Smart District technologies

Evaluate GIS for centralization under IT

Other issues and recommendations

Security Audit

Spirent SecurityLabs

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Security Audit Overview

- The security audit included the following tests:
  - Perimeter penetration test
  - Internal penetration test
  - Wireless penetration test
  - SCADA identification and observation

Summary of Findings

- The District has little to no “attack surface"
- Overall, the District is within the range of results that is normal for a first security audit
- Regular testing and remediation will result in an above average rating

Key Security Recommendations

- Continue regular vulnerability assessments
- Maintain active monitoring of systems
- Recommend funding of projects identified in the security audit

Future Technology Projects

- Objectives and projects outlined in the plan align with the district's strategic goals.
- Implement annual strategic business plan updates
- Project prioritization based on
  - Number of District priorities/goals the project supports
  - Is the project required (reduce cost or risk, sustains operations)
  - Number of customers it benefits
  - Does it increase effectiveness or efficiencies of operations
- Oversight from the IT Executive Steering Committee
- Over 70 new projects identified
  - 30 software application projects
  - 20 security related projects
  - 13 technical projects
  - 15 organizational projects

Looking Ahead

Thank you for your time.

Questions?