ALAMEDA COUNTY
Information Technology Department

STRATEGIC PLAN

2018 - 2020

Message from the Chief Information Officer (CIO)

Information technology is a critical component of modern government. As a key support element for service delivery in County government, information technology is increasingly the vehicle of choice for direct delivery of County services. The purpose of this Strategic Plan is to assess the status of information technology in Alameda County government, provide guidance for all departments and decision makers, and maximize the positive impacts of information technology in delivering the best possible services to the residents of Alameda County at the lowest possible cost. The Goals of the Information Technology Strategic Plan are to:

- Establish a formal information technology strategic planning process to give executive management and County government agencies the broad direction they need;
- Communicate how information technology supports the strategic goals of the Alameda County Board of Supervisors and Departments;
- Communicate information technology long-range goals and immediate objectives to managers and staff in all County departments, other County entities, citizens and external organizations; and
- Communicate how the Information Technology Department (ITD) supports Alameda County Departments and Agencies in the development, installation and support of new information technology services.
- Communicate how ITD supports Community Engagement through technology.

One of the critical components of the Information Technology Strategic Plan is the continuation of the partnership between ITD and the departments. The ITD Vision and Mission statement are centered on the concepts of ITD not reacting to the needs of the departments, but proactively seeking out new solutions to information technology opportunities and challenges within the departments.

In addition, the Strategic Plan is to establish standards for information technology related software and hardware. While some of these standards are suggested guidelines for the County departments, others must be followed. Implementing technology standards across departments and agencies within the County will result in:
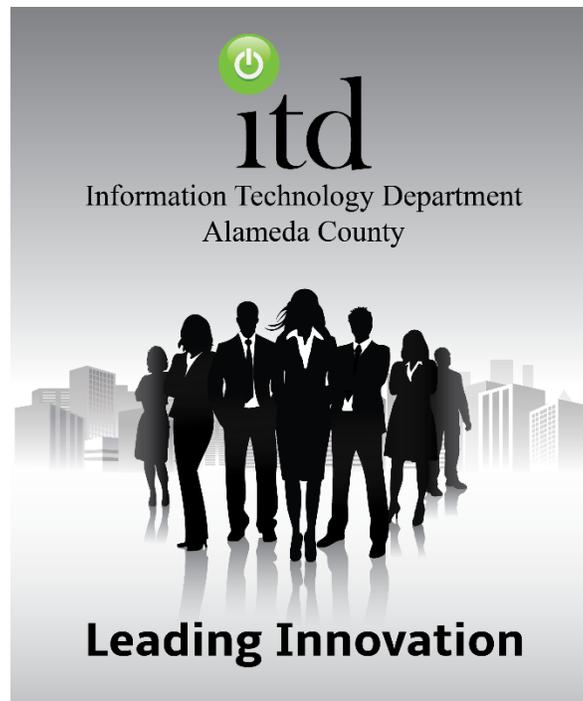
- Reduced training costs for software and hardware support staff,
- Greater interoperability between departments when sharing data, and
- Enhanced ability to perform disaster recovery.

The Strategic Plan is to allow the County to take advantage of new technology to provide better service to our citizens. The Plan includes objectives to investigate ways to increase Alameda County transactions via the internet. This includes providing citizens with the means to conduct business with County departments through the Internet, Social Media and mobile apps as well as, providing constituents with information about County activities and services.

Tim Dupuis, CIO
Alameda County Information Technology Department

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EXECUTIVE SUMMARY

Information technology is a critical component of modern government. This is reflected in the growing investment by the County in information technology assets. As this investment has grown, the Information Technology Department (ITD) has acknowledged the need for a comprehensive Information Technology Strategic Plan. ITD developed this Strategic Plan to capitalize on the opportunities to provide more efficient service to the citizens of Alameda County, as well as, the opportunity to contain costs. The Strategic Plan provides guidance for all departments and decision-makers in delivering the best possible services at the lowest possible cost. To assist in providing this guidance, one of the critical components of the Strategic Plan is the continuation of the partnership between ITD and other departments.

The ITD Vision and Mission Statement is centered on the concept of proactively seeking out new solutions to information technology opportunities and challenges within the departments. The Strategic Plan establishes standards for information technology-related software and hardware. The Strategic Plan includes objectives to allow the County to take advantage of new technology to provide better services to our citizens. This includes providing citizens with the means to conduct business with County departments through the Internet, as well as, providing constituents with information about County activities and services. In the development of the Strategic Plan, there were six guiding principles against which each goal and objective was measured. These information technology guiding principles were:

- Support the business objectives and policy initiatives of the County Board of Supervisors.
- Treat information as a strategic resource.
- View technology investments from an enterprise perspective.
- Conduct County business online through the internet or mobile device.
- Provide the public secure access to County information and services via the web.
- Support the Value-Based Budgeting Priorities of the Board of Supervisors.

The ITD Strategic Plan provides a foundation for an enterprise wide approach to the development and management of information technology. This is not intended to limit department or agency creativity, but to provide a stable infrastructure and environment in which to solve common business problems faced by many agencies and to allow the agencies to collaborate on significant efforts.

A Continuous Process Improvement strategy is a key part of the Strategic Plan. The Plan is a living document - ITD will review the Plan periodically, and update it as needed.

STRATEGIC PLANNING BACKGROUND AND PURPOSE

Background

ITD has been actively implementing information technology within the Department and in support of the County departments and agencies for years. Recognizing the opportunities to provide more efficient service to the citizens of Alameda County, as well as the opportunity to contain costs and leverage future asset acquisitions, ITD embarked on an effort to develop a strategic plan which would include establishment of recommended standards for information technology assets. Alameda County has been a forerunner of information technology innovation in California. As the investment by the County in information technology has grown, ITD has recognized the need for a comprehensive information technology Strategic Plan.

Purpose

The Alameda County Information Technology Strategic Plan provides a framework for the effective management of information technology assets in the County. The primary role of information technology is to support the business objectives of the County and to facilitate agency efforts to provide efficient and effective services to the citizens of Alameda County. The Plan will guide agencies in their internal information technology planning. Department plans and on-going activities should be reviewed for consistency with this County ITD Strategic Plan.

The Plan also provides a foundation for an enterprise wide approach to the development and management of information technology. Many future technology efforts will cross agencies with a single goal of providing services to the citizens of Alameda County. This environment requires technology which can communicate, interoperate, and share data and resources while reducing the costs associated with training and support through the use of an enterprise architecture and standards for IT. The Plan is not intended to limit department or agency creativity but to provide a stable infrastructure and environment in which to solve common business problems faced by many agencies and to allow the agencies to collaborate on significant efforts. The Plan is built on the assumption of an information technology management model which uses the best features of both centralized and decentralized information technology management, support and decision making. The Plan provides a foundation for the development of IT architecture and standards. The architecture and standards are critical to ensuring the ability of multiple departments or agencies to share resources including applications and data. The standards provide for interoperability, consistency and more effective management of training and support costs.

VISION, MISSION, KEY RESULT AREAS AND GOALS

Vision
ITD is the highest quality vendor of choice offering services at competitive prices. We are the first point of contact to meet the needs of departments in a timely manner. We offer the best business and process consulting so departments can improve the quality of their service to the public by connecting business needs with the appropriate technology. We offer friendly professional staff that operate in a forward-thinking mode and collect and disseminate information in a consistent, standardized and secure environment. ITD is leading the way with new technology to fit Alameda County's needs.

Mission
To be innovators and leaders in information and technology services at Alameda County. As agents of change, lead the County with technological innovation, excellence in customer service, superiority in technology and unsurpassed availability of information resources.

Technical Vision Statement
Deliver easy to use Internet applications to make information more accessible to the citizens and all stakeholders.

Provide growth on utilizing enterprise-class and emerging technologies and excellent client support on existing systems.

Continually enhance network and application security to protect County information resources.

Enable business continuity by delivering networking and server technologies which provide redundancy, scalability, speed, reliability and flexibility.

Utilize web based technologies incorporating data, images, documents and business processes to promote enterprise solutions and enhance department and agency communication and collaboration.

Adopt a "mobile-first" design philosophy when developing web applications that ensures the web application is mobile friendly and device agnostic.

Continue to develop mobile applications in support of internal business practices and to meet the needs of citizens doing business with the County.

Encourage staff mobility by providing collaboration tools.

Promote open data and transparency through the Data Sharing Initiative.

Leverage Data Warehouse technology to aggregate County Data sets for Inter and Intra-Department Data Sharing and Business Intelligence Reporting.

Leverage the Cloud technologies to develop innovative solutions, improve business efficiencies and achieve operational scalability.

Key Result Areas

Three primary responsibilities are key to serving our customers:

- To analyze, interpret, and exploit the progress and direction of the emerging technologies for the benefit of the County departments.
- To provide stable, responsive computer systems for County departments and agencies to accomplish their missions.
- To enhance citizen engagement through our websites, social media, hackathons youth outreach and mobile/web apps.

Goals

The following long-range goals and objectives will address our key result areas, improve mission accomplishment, improve response to our customer departments and agencies, and move ITD toward our vision.

- Continue to enhance and support a secure, reliable infrastructure for Alameda County.
- Provide cost-effective service and applications to meet customer needs.
- Continuously enhance ITD capabilities to serve customers.

ITD OBJECTIVES

Objectives

The following objectives will address our key result areas, improve response to our customer departments and agencies, and move ITD toward our vision. Appendix A provides a sampling of some of the current projects and directions in support of these objectives.

1. Continue to enhance and support a secure, reliable infrastructure for Alameda County.

1.1 Provide County departments the benefits of enterprise infrastructure and services and economies of scale.

- In support of the Board of Supervisors Information Technology Efficiency Initiative, partner with County departments to centralize technology support and services.

- Continue to support the County's Green Initiatives and Climate Action Plan by enhancing our power, cooling and monitoring technologies within the County Data Center, as well as, expanding our virtual server/storage and cloud offerings, where appropriate, to County departments.

- Improve service efficiencies and capabilities by utilizing current technologies and practices.

- Continually enhance reliability and security of the information infrastructure incorporating hardware, software and best practices.

1.2 Facilitate business continuity by delivering highly available, secure network, server and software platforms.

- Continue to enhance hardware and software to maximize redundancy and recoverability and minimize any single points of failure.

- Work with County departments to understand business continuity requirements and priorities.

- Continue to expand capabilities in the area of data archiving, retention and recovery.

2. Provide cost-effective service and applications to meet customer needs.

2.1 Provide solutions to improve County service delivery by enabling public and employee self-service access to Alameda County services and information.

- Improve public access to County services through expansion of web based capabilities and applications to include expanded service options and payment choices.

- Continue to expand and explore technologies to effectively share information such as video and audio streaming, graphical representations and proactive outreach.

2.2 Improve County Department effectiveness and efficiency by providing applications and access to information to facilitate County department efforts to streamline and automate operations.

- Expand and enhance the use of image and document management solutions.

- Encourage Departments to adopt and use DocuSign eSignature to eliminate the need for print documents, streamline the workflow, and improve business processes.

- Explore the applicability of collaboration tools, proactive messaging and email alerts in custom developed application to streamline department operations.

- Incorporate and expand the integration of technologies such as RFID and GIS (Radio Frequency Identification, Geographic Information Systems) to streamline department operations.

2.3 Provide systems to enhance multi-agency data sharing and interoperability.

- Provide the means to share data sets across County Departments through the utilization of Data Warehousing. This also provides an opportunity to leverage Business Intelligence and Analytical Reporting as needed by the business.

- Enhance department capabilities to share information among multiple jurisdictions and agencies through integration of separate departmental applications and data sources.

- Support justice partner operations providing a common portal with access to state, county and city data sources.

- Support County wide procurement, contract compliance and financial monitoring through continual integration of vendor, contract and financial data.

- Expand the use and governance of enterprise geographic information and maps (EGIS) with centralized maintenance and sharing of common data and maps.

- Enhancing access to information via use of centralized imaging/optical scanning and electronic records management/storage systems.

3. Continuously enhance ITD capabilities to serve customers.

3.1 Enhance ITD expertise.

- Promote technical training and continuing education of ITD staff on development processes, tools, and emerging technologies utilizing a variety of delivery options such as formal professional training, computer based training, and vendor briefings.

3.2 Advance core ITD processes.

- Continue to refine our development methodology to enhance application delivery time and component reuse.

- Continue to enhance and streamline application and infrastructure change control.

- Continue to reduce problem resolution response time.

- Expand planning and tracking of projects leveraging Portfolio Management.

3.3 Maintain leading-edge technology.

- Participate in trade shows and association memberships.

- Forward information to departments on emerging information technology solutions and best practices.

- Invest in R&D for new technologies.

- Effectively upgrade hardware and software to take advantage of newly released features and capabilities.

3.4 Benefit from Cloud Computing.

- Consider Cloud computing when implementing new solutions or while performing major enhancements to an existing technology to bring value to the businesses and its customers.

STRATEGIC PLANNING METHODOLOGY

The Information Technology Strategic Plan was developed by the Alameda County Information Technology Department (ITD). The Information Technology Strategic Plan begins with a statement of the strategic vision and principles for information technology. This is followed by an assessment of the internal and external information technology environments. The guiding principles for information technology issues are presented, followed by a specific description of the plan development, review and implementation steps. Appendices to the Plan contain the specific standards developed as well as supplemental material.

The Alameda County Information Technology Strategic Plan is an evolving document. Alameda County ITD is responsible for the annual review of the plan, will update the Plan on an annual basis, and will provide continuous oversight.

Approach:

The development of the strategic plan involved the following steps:

• Assessment of strengths and opportunities of the current information technology environment.
• Definition of Critical Success Factors.
• Review of the Alameda County Board of Supervisors' Guiding Principles.
• Ensure ITD direction is in support of the County's Efficiency and Green Initiatives.
• Determination of Alameda County Information Technology long-range goals.
• Definition of Alameda County Information Technology Department short-term objectives to attain County information technology goals.
• Review of information technology plans from other government agencies.

Internal Assessment:

Strengths
Alameda County has several key strengths that have allowed the Information Technology Department to become noted within the State as a leading information technology department. Three of these strengths are the current ITD staff, the existing network built by that staff, and the in-depth knowledge of the applications built by the staff.

Staff
Effective strategic planning requires Information Technology staff willing and able to step up to the challenges of new technology, new business process, new policy and procedures, and a tolerance for risk.

Infrastructure
A strategic plan for ITD is imperative as the need for computing power and data availability grows. Alameda County ITD has made great strides in keeping the department current in technology for both hardware and software. As the public demand for more online and Internet access to government has increased, ITD has answered that demand.

Applications
The Alameda County ITD is tasked with supporting a wide variety of applications. Each of the applications represents a business unit that is a stakeholder in ITD's ongoing effort to increase the level of support provided. The ITD Strategic Plan involves the stakeholder at the appropriate point in time. For the strategic plan to be a comprehensive document, the applications supporting the County departments are considered in the development of the plan. A list of the current applications in use in Alameda County can be found in Appendix E, Alameda County Current Applications.

Opportunities
There are several opportunities, some immediate and some longer range that Alameda County ITD can implement. In the near term, the implementation of further e-commerce and web-based services to citizens will have a significant impact. In the longer term, look into the Cloud based technologies to reduce cost, increase speed to market and to bring efficiencies.

CRITICAL SUCCESS FACTORS AND KEY IMPLEMENTATION STEPS

Critical Success Factors

The following have been identified as factors that are critical to the successful implementation of the Strategic Technology Plan.

- Board of Supervisors commitment and leadership.
- Department executive management commitment and leadership.
- Cross department cooperation and coordination.
- Agency participation in setting information technology directions.
- Compliance/adherence to information technology architecture and standards.
- Managed expectations for information technology initiatives.
- Education/training of information technology staff and departmental staff involved in the deployment and maintenance of information technology assets.

Key Implementation Steps

- The first step in the implementation of this Strategic Plan is the internal review and CIO approval of the Plan.
- ITD will publish the Strategic Plan to County departments.

REVIEW AND UPDATE PROCESS

This ITD Strategic Plan is a living document. ITD will review the progress of projects.
Also, ITD will discuss options for assisting departments and agencies in identifying
opportunities for enhancing current applications or investigating new opportunities. ITD
will review and update the Strategic Plan annually.

INFORMATION TECHNOLOGY GUIDING PRINCIPLES

The following principles are key statements of direction related to information technology and its ability to serve as an enabler to meet the needs and goals of the County government. These guiding principles are intended to provide an environment in which the County can achieve its objectives related to providing high-level customer service. The principles are interrelated and meant to provide a cohesive approach to IT. While objectives and strategies are defined for each principle, they must be viewed within the context of the total environment described in this section of the plan. Guiding principles include:

• Support the business objectives and policy initiatives of the County Board of Supervisors.
• Conduct County business electronically and with self-service offerings.
• Treat information as a strategic resource.
• View technology investments from an enterprise perspective.
• Ensure electronic access to information and services while maintaining privacy.
• Support the Value Based Budgeting Priorities of the Board of Supervisors.

Principle One: Support the business objectives and policy initiatives of the County Board of Supervisors.
The primary role of information technology is to support the business objectives and policy initiatives of the County. Information technology can enable improvements in business processes including reduction of costs and cycle times. Technology has a limited value when not applied to the business objectives and goals of the organization. Information technology planning, budgeting and management must be closely integrated with the business planning, development and management to ensure that information technology is being applied effectively and efficiently. This planning includes business recovery planning. As processes become more dependent on technology it is critical to develop a business continuity plan to be utilized in the event the technology is not available. Effective business recovery planning can mitigate the damage from a short-term technology outage or a long-term problem caused by a natural disaster.

Principle Two: Conduct County business online.
County business can frequently be transacted more efficiently and effectively utilizing information technology to support the process. Web and Mobile based technologies improve the speed of business transactions and reduce the amount of manual intervention required. The Internet can also be used very effectively for publishing documents. Electronic forms hold the promise of additional opportunities to reduce the amount of paper being collected and processed. Electronic forms can also increase the accuracy and timeliness of the data. Mobile Computing enhances productivity, provides location flexibility and streamlines business processes.

Principle Three: Treat information as a strategic resource.

Information is a critical asset of, and owned by, the County. It must be managed from an enterprise perspective to ensure accuracy, integrity and availability, privacy and security. This includes developing a methodology or structure for sharing data across functional, technical and organizational boundaries. Agencies and departments act as custodians or stewards of the data and facilitate the sharing and reuse of the data. Only the data necessary to support the business objective should be collected. Data should be collected once and used many times. Duplication increases the likelihood of erroneous data and of having different values for the same piece of data. There are many terms for data used for decision making including decision support systems, executive information systems and data warehouses. While these technologies can provide significant benefits to decision makers they can only be effective if the data is timely, accurate and consistent. In addition, non-sensitive data is to be made available to the public so the community can unlock its value

Principle Four: View technology investments from an enterprise perspective.

Technology investment decisions should be made from an enterprise perspective and not that of a single department or agency. An enterprise wide focus is necessary to ensure that the County's information technology resources are being utilized in the most effective manner. Many major business processes in the County cross two or more departments. A strong technology infrastructure is required to support enterprise wide applications as well as department or agency specific projects. Strong information technology architecture and standards are required to ensure the interoperability, compatibility and shared usage of technology resources. The architecture and standards provide a foundation for building information technology applications. New information technology projects must identify the impact on the enterprise and on the customer. The customer may already be interacting with one or more other County information technology applications. These existing systems can be leveraged to reduce costs and provide improved service to the customer.

Principle Five: Provide electronic access to information in the public domain and services which are secure.

Providing efficient electronic access to information requires a strong infrastructure and a standard set of navigation methods and tools. Adequate privacy of information must be included in all electronic access methods.

Principle Six: Support the Value Based Budgeting Priorities of the Board of Supervisors.

Ensure that technology resources are aligned to support:

1. Vulnerable populations such as infants, children, young mothers and families, frail elderly and disabled persons who require food, clothing, shelter, and health care.

2. Public safety for all residents of Alameda County through prevention and control of crime and the effective prosecution of criminals, including incarceration and alternatives to incarceration.

3. Control of drug abuse by means of education, prevention, treatment and criminal prosecution.

4. Deliberate budget measures to promote prevention as a corollary to service in addition to a focus on treatment and control.

5. Assurance that essential support services are budgeted whenever priority programs are funded.

6. Encourage and reward programs and services which promise more efficient and effective ways of delivering essential County services.

7. Assure that the minimal level of mandated services will be provided.

OTHER STRATEGIC PLANNING CONSIDERATIONS

Infrastructure Principles
The ITD Strategic Plan goal is to work towards a standard infrastructure to support the County. ITD is responsible for design, installation and support of the following infrastructure technologies:

- Network and Telephony Services: WAN/LAN/Wireless, Routers, switches, firewalls, security devices, Internet Services, VoIP, and Remote Access

- Server Services: Virtual Servers, SAN, Centralized Active Directory, Collaboration tools such as Email, Anti-SPAM, Web Conferencing, Instant Messaging, Endpoint Security

- Support Services: Client in-person support, Supported Departments Program, mobility and personal technologies

- Radio Services: Land Mobile Radio communications, fully interoperable between two counties for public safety and other key teams.

- Data Center and Operations: Environmental, Power, Access Control, 24/7/365 monitoring and alerting, disaster recovery/business continuity, etc.

- Technical Services: IBM Mainframe infrastructure, support and connectivity for public safety and other critical systems.

- Database and Middleware Services: SQL, DB2, Oracle, PeopleSoft infrastructure and large job processing services, GIS support.

In addition to the servers and workstations managed by ITD, many agencies utilize local Information Systems staff to manage their departmental servers and workstations.   The standards for server & workstation hardware and software are contained in Appendix D.

Technology Standards
The Strategic Plan has been developed to move the County towards a common standard for hardware and software. The standards are in some cases the recommendation of ITD for a level of technology. In some cases, the standard is a requirement that must be adhered to due to an application requirement, a State mandate, or to ensure the highest level of service to the departments. Having a common architecture and standard will ensure interoperability (the ability to share information and resources) and communication among applications and systems while keeping support and training costs manageable. Appendix D Technology Standards, displays the standards that ITD has developed.

Development and Deployment Principles

ITD has the proven ability to develop information technology applications. These range from large-scale applications with many end users and interfaces to other applications to the smaller end of the scale, such as a County Department internet website. One of the goals of the Plan is to outline for departments how ITD will expand its development role to support departments.

APPENDICES

A: Current Project Sampling

B: Security

C: Best Practices Guideline

D: Technology Standards

E: Alameda County Applications

F: County of Alameda Centralized Technology Policy

APPENDIX A – CURRENT PROJECT SAMPLING

Information Technology Department provides services to County departments and constituents by incorporating technology with process and policy innovation. ITD continually undertakes projects and activities to achieve goals to:

- Continue to enhance and support a secure, reliable infrastructure for Alameda County.
- Provide cost-effective service and applications to meet customer needs.
- Continuously enhance ITD capabilities to serve customers.

Following is a sample of some of the current and near future projects undertaken to support the County in its quest to provide timely, effective and efficient services to constituents. Additionally, Appendix E provides a brief listing of current applications that are supported by the Information Technology Department.

Continue to enhance and support a secure, reliable infrastructure for Alameda County.

- Research and develop Cloud Services Strategy.
- Deploy Microsoft Office 365 (cloud collaboration tools) Countywide.
- Assess Softphone Mobility Options.
- Maintain Active Directory and Microsoft Server OS versions at current levels.
- Assess a mobile device management solution.
- Continue the consolidation of Active Directory domains and servers.
- Deploy Endpoint Refreshes to Social Services Agency & Applicable Customers.
- Relocate servers to data center when appropriate.
- Prepare for Phase 4 of the NextGen Network project to upgrade WAN.
- Execute Phase 4 VoIP Project: transition PBX Hayward Hub to VoIP core.
- Conversion from OPT-E-MAN to ASE technology for WAN connectivity.
- Perform regular network security and vulnerability audits.
- Upgrade multiple Call Center Interactive Voice Response (IVR) systems.
- Transition cloud based offsite to efficient storage (Infrastructure-as-a-Service).
- Enhance and grow systems housed at secondary Disaster Recovery site.
- Research e911 system technologies and system replacements
- Improve efficiency and scalability of ITD storage networks (SAN).
- Continue to improve data loss prevention via the Technology Reuse Program.
- Research and deploy an upgraded IT Service Management system
- Update County's ERP application - PeopleSoft HRMS and Financial to the latest version

Provide cost-effective applications, service and support, and assistance to enable departments to maintain a high level of service and reduce the cost of government. These include:

- **Improve Alameda County services and information delivery for citizens and employees**.
  o Create and redesign websites to provide easier access to county services, community events, youth programs, sustainability programs, self service payments, and other information for residents, visitors, and employees.
  o Continue to expand the use of self-service to County employees and departmental program interfaces such as self-service performance evaluation processes.
  o Continue to develop mobile web applications to support internal business practices and meet the needs of citizens doing business with the County.
  o Continue to use Social Media for two-way communication.
  o Coordinate both internal (Rethink AC) and external hackathons (Apps Challenges) to promote open data, transparency and collaboration.

- **Facilitate County Departments' efforts to streamline and automate processes.**
  o Enhance departmental efficiencies and support the County Climate Action initiatives of electronic records and paper reduction by expanded use of eSignature, document imaging, management, workflow, and e-forms in areas to include: preparation and publicizing of County Board of Supervisors meetings, integration with ALCOLINK Financials and HRMS and alternatives for department's storage of paper files.
  o Facilitate departmental efforts to share data and information by utilizing our data sharing portal where data, maps, and documents can be downloaded and utilized by departments and the public as well, such as by developing specific data sharing solutions to include the integration of Enterprise Graphical information with Assessor Property Valuation processes and exchanging local Criminal Justice and Probation release data with state wide law enforcement systems.
  o Provide new tools and applications in support of departmental efforts to automate and streamline current business practices.

- **Enhance and support a secure reliable infrastructure for Alameda County**.
  o Continue maintenance and upgrades to both ALCOLINK HRMS and ALCOLINK Financials with future Oracle/PeopleSoft releases. This will maintain ACOLINK's Oracle support and bring new features such as ability to access from a mobile device.
  o Modernize legacy systems.

- **Continuously enhance ITD capabilities to serve customers.**
    - Constant improvement of department core processes and staff expertise is key to ensuring that ITD is positioned to provide effective, timely and reliable solutions to County departments.
    - Continue to improve analysis, development and deployment methodologies incorporating techniques and tools such as Project Life Cycle methodology (PLC), platform independent web based services, and improved source, backup and change control software and techniques.
    - Continue to review and enhance capabilities related to security intrusion prevention and virus protection systems as well as participate in security audit processes.
    - Upgrade infrastructure hardware and software (operating system, database etc.) to take advantage of new features and capabilities.
    - Investigate technologies to determine applicability in providing additional services to County departments to include areas such as: data replication, Microsoft Skype for Business (instant messaging, video and web conferencing, desktop sharing, etc.), SharePoint Portal services
    - Extend CORPUS/CRIMS for increased security and data interoperability features including connectivity outside of Alameda County while maintaining the availability and scalability of the technology platform.
    - Provide businesses the ability to manage on their own the content of their website using an enterprise Content Management System (CMS).

APPENDIX B - SECURITY

It is important for the County to review the security risks associated with maintaining an organization's information architecture, then take cost-effective precautions against those risks based on that analysis. There are several areas of security that must be considered:

- Infrastructure
- Mobile
- Cloud services
- Web presence
- Identity Management
- Internal
- Error or procedural
- Mainframe
- Database
- Risk Management
- Asset Identification
- Application
- Privileged Accounts
- Business Continuity / Disaster Recovery
- Next Generation intrusion protection systems and firewalls
- Distributed Denial of Service (DDoS) attack mitigation
- Advanced threat protection from malware/ransomware/data loss
- Sandboxing technologies
- Physical / Access Control
- Remote Access
- Endpoint Protection

The following table details the various categories of security for Alameda County listed above followed by ITD's Business Resumption/Disaster Recovery Strategy.

ALAMEDA COUNTY SECURITY	
Technology	
1. Physical	
Sheriff Department	On-site & Off-site 24x7 response. Weapons Screening
Secure ID Badges	Photo ID and secure access
Background Checks	Staff obtain detail background checks prior to employment.
Visitors	Sign-in log with numbered badges.
ITD Staff	Staff are onsite 24x7 to observe environment.
2. Infrastructure	
Intrusion Prevention Systems	Implemented [Specifics redacted for security purposes]
Firewalls	Implemented [Specifics redacted for security purposes]
Event Correlation	Implemented [Specifics redacted for security purposes]
Application Delivery Controllers	Implemented [Specifics redacted for security purposes]
Access Lists	Implemented [Specifics redacted for security purposes]
Antivirus	Implemented [Specifics redacted for security purposes]
Antispam	Implemented [Specifics redacted for security purposes]
Encryption	Implemented [Specifics redacted for security purposes]
Proxy Services	Implemented [Specifics redacted for security purposes]
Windows Active Directory	User ID and Password Policies
	Group and User permissions
	Folder / File Attributes
	Share Folders permissions
	Audit Logs
3. AIX	
AIX Security	Tivoli Access Manager (TAM) added for granular user access to files objects and resources. OS and services at higher levels of security then native.
WebSphere Security	Admin controlled by Active Directory
Windows File Access	Authentication controlled with Active Directory
LDAP	Special user access in conjunction with TAM

4. Mainframe

User Authentication to Mainframe Applications	RACF
Inter-partition access	Firewall software at LPAR level
Encryption	SSL provided at both Hardware and Software level

5. Database

Database Security	IBM DB2 and Microsoft SQL Server Security provide granular user access to the column level via access groups. IBM DB2 User authentication and access groups are controlled by RACF. Microsoft SQL Server user authentication and access groups are controlled by Microsoft Active Directories.
Client Access	IBM DB2 provides client access via CAE. Microsoft SQL Server provides client access via Management studios, ODBC and Microsoft SQL Server direct connect drivers.

6. Application

Application Migration	Change Control Process
PeopleSoft	Security provided by Tuxedo
PeopleSoft	Provides user authentication to the application and identification of user types
	Audit Logs
Client/Server Applications	Y6Security Application provides user authentication to application and identification of user types
	Audit Logs
Report Access	Security Provided within Mobius/RACF
Device Authentication	Terminal Identification is provided within some CICS based applications

Business Continuity / Disaster Recovery

The purpose of a Business Continuity/Disaster Recovery Plan is to enable an organization to survive a disaster and to reestablish normal business operations. In order to survive, the organization must resume normal processing of critical operations within a reasonable time frame. Therefore, the goals of a good Business Continuity/Disaster Recovery Plan should be to:

- Implement and maintain a Disaster Recovery hot-site.

- Identify weaknesses and implement a disaster prevention program.

- Minimize the duration of a serious disruption to business operations.

- Facilitate effective co-ordination of recovery tasks.

- Reduce the complexity of the recovery effort.

Historically, the technology function has had the responsibility for providing contingency planning. This led to the development of recovery plans to restore system resources in a manner that did not always respond to the needs of the business supported by those resources. Contingency planning is a business issue rather than a technology issue. The effects of long-term operations outage may have a catastrophic impact. The development of a practical recovery strategy will be a product of the providers of the data processing, communications and data center services, the users of those services and management personnel who have responsibility for the protection of the organization's assets.

The methodology used to develop the plans emphasizes the following:

- Provides management with an understanding of the total effort required to develop and maintain an effective recovery plan.
- Defines recovery requirements from the business functions' perspective.
- Documents the impact of an extended loss of operations and key business functions.
- Focuses properly on disaster prevention and impact minimization, not just recovery.
- Develops a contingency plan that is understandable, practical and maintainable.
- Integrates contingency planning considerations into continuing business planning and system development processes.

The Business Continuity / Disaster Recovery plan will:

- Complete build out of Disaster Recovery hot-site.
- Assess existing vulnerabilities.
- Implement disaster prevention and avoidance measures.
- Develop a far-reaching plan, enabling appropriate and timely reaction to business disruptions.

APPENDIX C - BEST PRACTICES GUIDELINE

The following guideline is offered to departmental Information Services (IS) staff to assist in their efforts to plan, establish and maintain technology meeting departmental business requirements while ensuring efficient use of the County's Enterprise network and applications.

Recommendations are presented in these areas:
- Infrastructure
- Hardware High Availability / Maintenance
- Cloud Services
- Data & Software Security
- Administration
- Documentation

Every effort will be made by the Information Technology Department (ITD) to update these guidelines on a regular basis. However, departmental IS staff are encouraged to consult with ITD during the planning phase for new rollouts and significant upgrades.

Infrastructure
Contact ITD for all networking requirements. ITD will design, install and manage all networking technologies. The following are the standards which are in effect at this time to ensure efficient operation for your agency/department within the County's Network:

- Install minimum Category 6 for all new data cabling; patch and drop cables must also be certified Category 6 for cabling vendor to honor data cabling warranty.
- ITD will procure, install and manage all network devices, circuits and support contracts for a determined monthly charge to the agency.
- TCP/IP is the County standard. Primarily limit network protocol to TCP/IP and UDP; utilize DHCP for endpoints; use static IP addresses for servers and printers.
- ITD will host and manage all DNS and DHCP services.
- ITD will manage the installation and security of all wireless access points.
- ITD will support and manage network QoS and Infrastructure monitoring systems.
- All Internet web servers must reside in the ITD data center.
- All external remote access is managed by ITD. Do not use modems or web services such as www.gotomypc.com for remote access.
- Connect sites to the County network using the greatest bandwidth within budget.
- Obtain IP addresses & mainframe sessions/addresses from ITD.
- ITD will maintain ongoing maintenance contracts for all network infrastructure.
- ITD is to be the single and only Internet Service Provider (ISP) for all departments.

Hardware Fault Tolerance/Maintenance
The following guidelines are recommended to ensure availability of mission-critical data on local server(s):

- Purchase high-reliability, upgradeable, server-class hardware and software with sufficient capacity to meet departmental needs projected for a minimum of three years. Consult ITD for recommendations. Review server usage/requirements annually.
- Configure server drives with the appropriate RAID configuration.
- Install clustered, load-balanced and/or a hot backup servers for high availability.
- Install and maintain uninterruptible power supply (UPS) for each server; install software for graceful server shutdown and event log; monitor console/logs daily; printers and servers should not be on same UPS.
- Install and maintain data backup systems for each server. Check backup log daily; if using tape, implement tape rotation schedule, including regular offsite storage.
- Test recovery procedures.
- Maintain maintenance contracts on servers, printers and critical workstations.
- If appropriate, schedule regular maintenance periods for routine reboots, maintenance, and modifications. Notify staff of this schedule well in advance of downtime.
- Provide each user access to at least two LAN printers.

Cloud Computing
- When determining a cloud solution use the following guideline
  - Is there a Software-as-a-Service (SaaS) product available to perform the desired function?
  - If SaaS is not available or feasible, could the solution be developed on the Cloud using Platform-as-a-Service (PaaS)?
  - If PaaS is not available or feasible, could the solution be developed on the Cloud using Infrastructure-as-a-Service (IaaS)?
  - If IaaS is not available or feasible, could the solution be developed in-house using virtualized hardware?
  - If virtualization is not feasible then consider using physical infrastructure

Data & Software Security

The following practices are recommended to ensure the integrity of files stored on local server(s):

- ITD will manage and maintain virus protection for all servers and workstations.
- Maintain log of server hardware/software problems and changes; include problem resolution details, dates and staff involved.
- Convert mainframe access privileges to be User ID-based rather than Term ID-based.
- Prohibit/discourage remote control and modem use unless no other access method is available. If remote access is justified and required, use ITD's secure Virtual Private Network (VPN) or Web VPN. Require all remote control/access be subject to department/agency head approval.
- Rename "Administrator" and disable "Guest" accounts and change passwords periodically. Do not use "admin" for administrative accounts.
- Set user passwords to expire; provide user guidelines for complex password selection, recommending a minimum of eight characters, avoiding proper names and actual words.
- Utilize Secure File Transfer (SFTP) service for sharing confidential data.
- Utilize secure email solution when sending internet email with confidential data.
- All County staff requiring email will use the central system managed by ITD.
- Continually audit and review County Internet applications to ensure PCI compliance.
- Delete and purge email that is no longer needed. This includes cleaning out the "Deleted" Items and "Sent" Items folder in Outlook.
- Encourage users to store all mission-critical data on the server. Provide confidential storage locations on server and advice users.
- Disable/remove unneeded user accounts as soon as possible.
- Perform server housekeeping regularly, removing unneeded data files and folders/directories.
- It is every Department's responsibility to insure that they have valid licenses for all software used in their department (with the exception of Trend products, ITD will maintain licensing for those).

Administration
Departments and Local Administrators are encouraged to follow these principles for day-to-day administration activities for their departmental users:

- Designate primary and backup Administrators; provide appropriate training to Administrators.
- Establish naming conventions for user IDs, servers, workstations and server resources such as print queues, shares, and home directories. "Computer Name" and user ID standards should guarantee that each user and workstation has a unique ID Countywide.
- Active Directory user names should follow the first initial, last name standard.
- Computer Name (servers, workstations, printers) should begin with the acronym of your agency or department.
- For new users who may need access to ALCOLINK applications, ensure that new user ID does not exceed eight characters.
- Utilize group policies (GPO) to facilitate assigning access privileges to user accounts.
- Plan & budget for replacement of server hardware/software every three-five years. Review usage and requirements annually.

Documentation
The following topics, at a minimum, should be documented for reference by departmental support staff:

- Server hardware, software and defined resources (e.g., installed Operating System, service packs, shares, group definitions, login scripts, print queues, installed applications). Include hardware and software configuration details.
- Hardware and software inventory and license information.
- Warranty information, including expiration dates and vendor support phone numbers for all servers, workstations and other hardware.
- Backup & restore procedures.
- Disaster recovery procedures. Include hardware and software manufacturers' manuals.
- Procedures for creating/deleting user accounts.
- Procedure for managers/supervisors to request that user accounts & access privileges be created, deleted, modified.
- Procedure for Department Head approval of Internet access for staff members.
- Naming conventions for user IDs and Computer Names.
- Assigned IP addresses, mainframe session IDs and addresses.

APPENDIX D - TECHNOLOGY STANDARDS

The Information Technology Strategic Plan is built on the assumption of an information technology management model which uses the best features of both centralized and decentralized information technology management, support and decision making. Unless required for reasons displayed in the table, the standards are recommendations for the departments and agencies in Alameda County. The table below displays the Information Technology (IT) standards established by Alameda County. The standards are intended to promote the interoperability between County Departments, and take advantage of cost savings realized by having fewer variations of assets with the same purpose (i.e., supporting workstations that are all of the same brand and capability cost less in training and materials than supporting multiple brands). It is not the intent of ITD to impose a standard on departments that will limit department or agency creativity but to provide a stable infrastructure and environment in which to solve common business problems faced by many agencies and to allow the agencies to collaborate on significant efforts. Again, while some of these standards are guidelines for the County departments, some are mandatory standards that must be followed due to a technology requirement of an application used by a department.

The following table shows the recommended and mandatory technology standards. The standard is a recommendation unless there is an entry in the right hand column. Standards as updated will be made available on the intranet.

INFORMATION TECHNOLOGY RECOMMENDATIONS AND STANDARDS		
Technology	**Minimum Recommended Standard**	**Required Standard**
1. PC (desktop) hardware standards		
a. Memory	4 GB+	
b. Hard Disk size	512 GB + (SSD)	
c. Processor speed	I7	
d. Processor brand	Intel/AMD	
e. Monitors	23" Flat Panel	
f. USB drives	Yes	
g. Optical Drive	Optional	
h. Network Connectivity	1 GB Ethernet	
i. Wireless	802.11ac	
Technology	**Minimum Recommended Standard**	**Required Standard**
2. Desktop software standards		
Operating System	Windows 7 or Higher	Windows 7
Office	Microsoft Office 2013	Microsoft Office 2013

E-mail		Microsoft Outlook 2013
Internet Browser		Current Browsers
Database	Microsoft Access 2013	
Terminal Emulators	Net Soft 3270	
Project Management	Microsoft Project 2013	
Presentation	Microsoft PowerPoint 2013	
Flow Charting	Microsoft Visio 2013	
Virus Checker		ITD Trend Office Scan

3. Local hardware standards

Cable type	Category 6	
NIC – specs	1 GB Ethernet	
Hubs		Not Allowed
Routers/Switches		ITD Managed
Servers		No required brand/model
Database servers		No required brand/model
Back up devices		No required brand/model

4. Server software

Network operating system	Microsoft Windows Server 2012 or Higher	
Backup software		No required brand/model
Virus Checker		ITD Trend Office Scan

5. Other Workstations

LAN/PC Printers		No required brand/model
LAN/PC Plotters		No required brand/model
Mainframe Printers		Contact ITD

6. Internet Related

Web services		Hosted by ITD

7. Mainframe Services

Mainframe services		Hosted by ITD

APPENDIX E - ALAMEDA COUNTY APPLICATIONS

This is a partial list of the products created and supported by the Information Technology Department, organized into the program areas emphasized by the Board of Supervisors.

HEALTH SERVICES	Developed by	Updated
Google Search - search collection for BHCS website	**Google**	**Real time**
Vector Control Request for Services (Internet) – allows the public to enter their complaints and requests for investigation of vector-related activities.	**In-House**	**Real time**
Vector Control Animal Bites Reporting – Allows Animal Control Agencies to enter their animal bites reports online	**In-House**	**Real time**
Vector Control (Intranet) – Allows Vector control staff to track requests, daily activities and animal bite reports for state reporting	**In-House**	**Real time**
Vector Control (Manhole Inspection) – Mobile GIS application that allows staff to keep track of sewer inspection and baiting information for the City of Oakland electronically.	**In-House**	**Real time**
Intranet website and Environmental Health	**In house**	**Varied**
Personnel Requisition Form – Online application with electronic form for hiring or filling positions using DocuSign for eSignatures and DocuSign workflow.	**DocuSign / In-House**	**Real time**
Property Owner Identification Form - allows property owners to give information to Environmental Health	**In house**	**On Demand**
SOCIAL SERVICES	Developed by	Updated
Personnel Requisition Form – Online application with electronic form for hiring or filling positions using DocuSign for eSignatures and DocuSign workflow.	**DocuSign / In House**	**Real time**
CBO Contract Renewal System – Online application with electronic forms for renewing Board Approved CBO Contracts using DocuSign for eSignatures and DocuSign workflow, and custom workflow to automate process and upload automatically ALCOLINK and the Agenda Management System.	**DocuSign / FileNet / In House**	**Real Time**
SSIRS (Social Services Integrated Reporting System) – Data Warehouse that aggregates multiple data sources, applies sophisticated matching algorithms to identify and predict relationships amongst and across the data sources(s), and present Operational and Analytical findings through Business Intelligence Reporting.	**In house/IBM**	**Daily**
SMART (Service Management Access and Resource Tracking) - is a set of repositories of Social Service Agency (SSA) cases for the management of various services, such as Adult Protective Service (APS), Adoption Service (AS), In Home Support Service (IHSS) and Employment Services.	**EDS**	**Nightly**

Special Payments - The Special Payments application is used to generate and track special (non-routine or urgent) payments (via warrants) to vendors on behalf of various SSA programs for specific activities.	**In house**	**Real Time**
CTS (Contracts Tracking System) - allows SSA to ensure that clients get the services they need according to requirements and assuring money is being spent effectively and efficiently by tracing back services provided to the service providers.	**In house**	**Real Time**
Online Court Reports (OCR) Data Download - This process extracts information from CWS/CMS to focus on children and their parents which have upcoming court hearings. This information is used by another SSA application called Online Court Reports, which allows attorneys to receive Court hearing information electronically in an automated manner available 24X7X365.	**In house**	**Nightly**
Team Decision Making (TDM) - This system helps CFS schedule and track Team Decision Making meetings that are required to be held to help identify and determine outcomes for juvenile dependents in the Department of Children & Family Services (CFS).	**In house**	**Real Time**
VRU (**V**oice **R**esponse **U**nit) - This system, called Foster Care Tracking System (FCTS), allows Foster Care providing facilities to identify the clients who've been in their care the past month, via telephone or a website. The VRU system was implemented by SSA to prevent the over payments to the Foster Care payees. Notices are sent 3 times per month requiring payees to update the system if they still are caring for a child.	**In house/ATI**	**Real Time**
SSA Reports/CWS AD HOC Report - Provides on demand reporting of CWS information directly from the CWS tables hosted at the State and Respect Application tables (see below).	**In house**	**On Demand**
Time Certification - This application is used by SSA to compile a sub-set of the information required by the State in order to be reimbursed for services provided on behalf of the State.	**In house**	**Real Time**
Time Study / Time Entry - A bolt-on application within ALCOLINK, used by SSA employees to complete self-service time entry for Payroll as well as complete Time Studies needed by Social Services to recoup payments for services.	**In house**	**Real time**
RESPECT - The reconciliation System for Placement Costs, RESPECT was developed to mitigate the overpayment problem in Foster Care. RESPECT complements the VRU system mentioned above.	**In house**	**Nightly**
MEDS - The Medi-Cal Eligibility Determination Systems (MEDS) maintains Medi-Cal eligibility information for Medi-Cal recipients in California. The system also serves as a central clearinghouse of persons known to welfare in the State of California and information is maintained regarding recipients of AFDC, Food Stamps, SSI and Medi-Cal as well as other Special Programs. MEDS also serves as a way for individual counties to interface with other state and federal systems; such as but not limited to, Internal Revenue Service, Immigration and Naturalization Service, and State Disability Insurance.	**State**	**Real Time**

IEVS - The IEVS system is used to identify potential cases of program integrity violations such as under reported income, unreported income, and duplicate aid. SSA is expected to follow up on cases reported by IEVS (known as referrals), to investigate and confirm whether any corrective action is needed, and then perform the corrective action.	**State**	**Real Time**
CALWIN - The CalWIN system provides tracking and financial reporting for clients receiving financial assistance. EDS maintains the system in Sacramento for a consortium of 18 Counties that includes Alameda County.	**EDS**	**15 Minutes**
CIS – The database used with CalWIN, the CalWIN Information Server replicates data from the state Consortium in Sacramento to the SSIRS Data Warehouse for operational and analytical reporting usage.	**EDS**	**15 Minutes**
CMIPS – Case management and Payrolling System is a Statewide system that manages the identification of Household services for Elders and disabled adults, as well as the provision of the identified services by qualified Household Chore Providers. Data from CMIPS is aggregated and loaded into the SSIRS Data Warehouse for operational and analytical reporting usage.	**State**	**Real Time**
CWS/CMS - This is the State system which is the repository of all Foster Care cases; data from CWS/CMS is aggregated and loaded into the SSIRS Data Warehouse for operational and analytical reporting usage.	**State**	**Real Time**
IFCN - Integrated Fraud Communications Network supports the Welfare Fraud Division by tracking cases being investigated by the Income Earnings Verification Unit. Receives input from IEVS.	**In house**	**Real Time /Quarterly**
CASH ISSUANCE - This system receives input from the CalWIN system and processes warrants and payment to SSA clients. Files are sent and received from the Bank and Auditor's Office.	**In house**	**Nightly**
Workload Distribution Tool – This system reads the CalWIN (CIS) to assign the new cases / case actions to the available workers	**In house**	**Real Time**
EITC Online Appointments Scheduler – This system enables the public to schedule the tax preparation appointments online during tax season	**In house**	**Real Time/Jan-Apr**
Adopt-A-Family – This system manages the holiday gift program	**In house**	**Real Time/Nov-Dec**
CHILD SUPPORT SERVICES		
SHAREPOINT– Most of our operational systems, such as support desk services, training management, and supply requests, are built on this platform.	**In house**	**Daily**
BLUE HOST - Provides internet website hosting services.	**Blue Host**	**Real Time**
ARREARS CALCULATOR – A mobile device website for payment calculations to support child support arrears payments.	**In house**	**Real Time**

SINGLE SIGN-ON – Enterprise Single Sign On Manager used to support user logon to multiple applications.	**Tools4Ever**	**Real Time**
PUBLIC PROTECTION		
Consolidated Courts	**Developed by**	**Updated**
E-Process - Internet site to allow duty judges to review and approve Probable Cause Declaration (PC-Decs) documents and electronically approve Warrants online. Judges can approve these documents from any location with internet service. This application eliminates the need for the Judicial and Law Enforcement teams to meet in person to complete their duties, thus expediting the criminal justice process in Alameda County.	**In house**	**Real time**
Sheriff's Applications	**Developed by**	**Updated**
CORPUS - Criminal Oriented Records Production Unified System criminal case management system. Legacy system now replaced by CRIMS and in process of being decommissioned.	**In house**	**Real time**
CRIMS - Consolidated Records Information Management System – Alameda County's criminal case management system and criminal data hub serving 41 Alameda County criminal justice agencies. It processes criminal information from arrest through adjudication. Intranet based portal provides data inquires to multiple databases: AWS, MUGS, RECAP, Improve, DOJ, and local police agencies Records Management Systems. Also automates several law enforcement processes. Incorporates an Enterprise Service Bus that integrates data from Odyssey and 4 other criminal justice systems	**In house**	**Real time**
ATIMS: The Jail Management System (JMS) implemented by the Sheriff to support the Jail Operations.	**ATIMS**	**Real time and 30 minute interfaces with CRIMS**
Inmate Locator - Internet website that allows the public to locate a person currently held in an Alameda County holding facility by PFN or by name. It also displays all persons booked within the last 24 hours.	**In house**	**Real time**
AWS - Automated Warrant System provides electronic warrants to replace manual searches of hardcopy files. This system includes automated interfaces from the criminal system (CRIMS), Adult Probation System (APS), and allows updates to the State criminal system (CLETS).	**In house**	**Real time**
Imaging - Sheriff criminal reports and HR	**In house**	**Varied**
CAL-ID - An automated fingerprint identification system.	**LiveScan COGENT**	**Real time**
SWIFT - Sheriff's Work Furlough Information & Tracking schedules and tracks inmates assigned to work detail in lieu of jail time.	**In house**	**Real time**

Cogent/CMS - This photo identification system is a digital imaging system that captures photo Ids and supports the pre-booking processes. This application is owned and supported by the Sheriff.	**COGENT**	**Real time**
STARS - Initiates and tracks security requests for employees within the Sheriff's Office.	**In house**	**Real time**
CME Reports - Provides reports for the Coroner's Office using SSRS, and is used in conjunction with the CME (Coroner Medical Examiner) system	**In house**	**On Demand**
Urban Shield Mobile Web App - Provides the Sheriff's Office staff, and participants pertinent event, and scenario information needed during the week long regional response preparedness event	**In house**	**Annually**
Fire Department Applications	**Developed by**	**Updated**
Imaging – Fire Prevention	**In house**	**Varied**
Fire SitStat – A GIS based application for the Fire department to get a common operating picture of various incidences.	**In house/PSOMAS**	**Real time**
Public Defender Applications	**Developed by**	**Updated**
PDRS - This system notifies the Alameda County Bar Association when the Public Defender has "conflicted out" a case. The Bar Association then assigns a lawyer under the Court Appointed Attorney Program (CAAP).The Alameda County B A R System automates the case tracking and declaration accounting functions of the Bar Associations Court Appointed Attorney Program (CAAP).	**In house**	**Real Time**

JCATS - Interface to the Public Defender's case tracking system. This is an automated interface that provides CRIMS information to the Public Defender's system in real time. It also contains an interface that provides daily Court Calendar updates, and also provides functions to notify Bar Association when a case is conflicted out	**Canyon**	**Real time and nightly**
Internet Website - Public Defender internet site	**In house**	**Varied**
District Attorney Applications	**Developed by**	**Updated**
Imaging - Closed Case Files for Adults and Juvenile	**In house**	**Varied**
Criminal Docket Finder - Internet website that allows victims of crime to track the progress of their cases in the county court system. Search can be done by Docket Number and Court Name or Police Report Number and Agency Name	**In house**	**Real time**
DALITE – DA's Case Management System – An intranet web application to manage the case filing and tracking workload of the DA's office	**In-house**	**Real time**
SB1193 Event and Compliance Management mobile web app - Provide volunteers the ability to mark businesses that are complying with the SB1193 requirements during Community Action Days and gives the DA's office ability to manage the compliance.	**In house**	**Varied**

Probation Applications	Developed by	Updated
APS - Adult Probation System manages information on probation case referrals, referral investigations, and supervision workloads. It sends probationer status to the California DOJ Supervised Release File.	**In house**	**Real time**
Adult Self-Reporting – Kiosk application allows designated adult probationers to report changes of address, phone, and employer information or any police contact to probation officers on a regular basis. Also used to notify probationers to report in person for drug testing and other reasons.	**In house**	**Real Time**
PRISM (Legacy) - Web application to view adult probationer District Attorney docket information and to administer adult risk assessments and juvenile needs assessments. Also includes tools to manage the Adult Self-Reporting kiosks.	**In house**	**Real time**
PRISM2 – Juvenile probation case management system includes tools to maintain client and referral information, to assist probation officers with client supervision, and to keep track of juveniles detained in county facilities.	**In house**	**Real time**
Smart Justice Interface – An interface from the adult probation case management system to the Department of Justice allows for sharing information state wide.	**In house**	**Nightly**
IMAGING - Adult case files	**In house**	**Varied**
IMAGING - Juvenile Case Files	**In house**	**Varied**
Time Study / Time Entry - A bolt-on application within ALCOLINK, used by Probation employees to complete self-service time entry for Payroll as well as complete Time Studies needed by Probation to recoup payments for services.	**In house**	**Real time**
Internet and Intranet Web Sites Intranet Department Home Site	**In house**	**Varied**
ISELINK/In-Time Used by staffing to schedule staff hours, staff leaves and overtime. Allows staff to view their schedules online	**Vendor**	**Daily**
Incidents Tracks OC Pepper Spray/restraints usage.	**In-House**	**Daily**
Kicked Out of Class Tracks incidents when youth are kicked out of the classroom.	**In-House**	**Weekly**
Grievances Tracks youth grievances.	**In-House**	**Weekly**
Camp Wilmont Sweeney (CWS) Database Provides camp youth demographics, program enrollment, home visit list, various pre-populated forms, queries and reports.	**In-House**	**Daily**
Camp Wilmont Sweeney (CWS) Incident Report Tracks camp youth negative/positive reports, incidents, injury and drug tests results.	**In-House**	**Daily**
Detainee Money	**In-House**	**Varies**

Tracks all youth money over $50 that is collected and held for safekeeping. Upon release, funds are returned to the youth.		
Transportation Tracking Tracks each time a youth is transported outside of the facility. Provides reason, youth name, and travel frequency reports.	**In-House**	**Daily**
Transportation Log Allows DPO's to submit transportation requests for youth. DPO's complete the transportation requests using this database and **submit it to** the Deputy Chief. The Deputy Chief reviews the requests and assigns transportation officers to the tasks.	**In-House**	**Daily**
Overtime Hours Tracks overall overtime hours.	**In-House**	**Weekly**
Weekend Callouts Tracks when JIO's call out on a Friday, Saturday or Sunday.	**In-House**	**Weekly**
Weekend Training Academy (WETA) The purpose is to monitor minors enrolled in the Weekend Training Academy (WETA) program.	**In-House**	**Daily**
GPS Minor List List of minors on electronic monitoring (aka EM).	**In-House**	**Daily**
GPS Tracking Tracks the GPS ankle bracelets.	**Vendor**	**Daily**
Home Supervision Statistics on Home Supervision, which includes daily roster and reports.	**In-House**	**Daily**
Transition Center The database tracks referrals to services that are provided by the Transition Center.	**In-House**	**Daily**
Juvenile Justice Crime Prevention Act (JJCPA) This database was developed for a Community Probation program which is funded by the Juvenile Justice Crime Prevention Act. Using this database, Program Analysts are able to collect data needed for annual reporting to the State of California.	**In-House**	**Varies**
Juvenile Assessment Tracking This database is created for tracking the risk assessment results for the youth who receive Juvenile Risk Assessment. Reports can be generated from the database for data analysis. The aforementioned assessment is not the YLS.	**In-House**	**Daily**
Placement Tracking Database When a minor is committed to a group home clerical staff enters information into the database and generates forms to initiate the placement process. The data being tracked is as follows: disposition, referral, name and type of placement, placement start/end dates, court review dates, general demographic information, family information, etc.	**In-House**	**Daily**
Screening for Out of Home Services (SOS) In an effort to provide the best placement for minors and to reduce placement costs, all placement referrals need to be reviewed by the SOS Committee. DPO's use this database to enter placement review requests, schedule appointments, and submit requests to the SOS Coordinator via MS Outlook. Before each SOS review meeting the SOS Coordinator uses	**In-House**	**Varies**

this database to prepare meeting agendas and reports for the committee. The SOS Coordinator then records the outcome and emails them it to the respective DPO. Reports are generated from the database for placement analysis.		
Youth Offender Block Grant (YOBG) Track minors in the program funded by Youth Offender Block Grant (YOBG). This database tracks the services minors receive, program outcome, etc.	**In-House**	
Adult Investigation Assignment To keep track of assignments	**In-House**	**Daily**
PROPs (Probation Rehabilitative Opportunity Program) To track referrals, legal actions, notes & etc. data for the Probation Rehabilitative Opportunity Program (PROPs) clients.	**In-House**	**Varies**
GENERAL GOVERNMENT PROGRAM		
Assessor Applications	**Developed by**	**Updated**
Interface with AAB APPEALS - online and batch, the system is used to track appeals of assessments via interface with the Assessor's IMPROVE system.	**In house**	**Real time**
IMPROVE - The Integrated System to Manage Property Value is a LAN/WAN PC System with an integrated relational database. It supports real property valuation and surrenders for the Assessors department.	**In house**	**Real time**
IMPROVE.NET – A web-based enterprise application to replace IMPROVE (Integrated System to Manage Property Value) and CUPS (County Unsecured Property System)**.** It supports real property valuation and surrenders for the Assessors department and provides enhancements to the legacy IMPROVE functionality. Upon its full release, legacy IMPROVE and CUPS will be retired.	**In house**	**Real time**
PROP: Property Value - Allows the public the convenience of doing property values and tax lookup via the web.	**In house**	**Real time**
PVAL: IMPROVE Web Interface - Allows the public using specific workstations at the assessor's office and all county workers to query IMPROVE data using the web	**In house**	**Real time**
CSA - Commercial Sales Analysis. Web application allowing Assessor to perform sales analysis for appraisals of the commercial properties**.** Upon completion of the IMPROVE.NET project, will be replaced by the CSA module of the IMPROVE.NET application.	**In house**	**Real time**

Assessor Canvassing (BizChek) – mobile application used by Assessor's staff for field work.	**PSOMAS**	**Real time**
My Property App – mobile application for property owners to view property values and pay their property taxes. Co-owned with the Tax Collector. Available on Android and iOS platforms.	**In house**	**Varied**
Parcel Viewer – GIS application hosted on the Assessor's website. Provides information about county land parcels and property values for the parcels.	**PSOMAS**	**weekly**

ESDR - automated interface between eSDR and CUPS allowing business property records to be transferred to CUPS from eSDR.	**In house**	**varied**
Internet Website - Assessor's website	**In house**	**Real time**
Auditor Applications	**Developed by**	**Updated**
Automated Secured Corrections (ASC) - allows user to import secured property corrections from IMPROVE, make corrections and send to back end tax collector system.	**In house**	**Real time**
Auditor Supplemental Correction System (TSAD) - allows auditor to add and edit corrections to the Supplemental tax roll.	**In house**	**Real time**
Auditor Apportionment - Apportions tax collections to various county and public agencies.	**In house**	**Batch, varied**
SAUCR - Unsecured Auditor's Corrections - processes and audits corrections to the unsecured property taxes as surrendered to the Auditor by the Assessor.	**In house**	**Real time**
ADI County (Automated Data Input) - Web application that allows users to input mainframe data from desktop PC's for Auditor and ITD jobs.	**In house**	**Real time**
Auditor Property Tax Information System (APTIS) – Enterprise system for the Tax Analysis group. Initially, to manage tax area rates (TRAs) and AB8 taxes, with subsequent releases will be used for all the property tax activities by the Auditor.	**In house**	**Real time**
ALCOLINK Financials - Countywide system Includes: Accounts Payable. To track invoice payment, distribution of expenditures related to invoices and write warrants General Ledger. Collects Countywide financial information and produces Countywide financial statements. Asset Management tracks and reports depreciation of Countywide assets .Purchase Order - see GSA	**Oracle**	**Real time**
ALCOLINK Human Resources - Countywide Payroll, Time & Labor and Personnel Management system. See HRS Human Resources & Benefit Administration systems.	**Oracle**	**Real time**
ALCOLINK Warrant Recon - All warrant recon for County bank accounts has been moved into ALCOLINK Financials, including accounts which are not part of ALCOLINK system. This includes CalWIN, ACOE school districts, Hayward and Livermore Parks and Recreation, and Ohlone and Peralta junior colleges.	**Oracle**	**Nightly**
Authorized Approvers Application – custom online system that allows Agency/Department Directors to authorize other Agency/Department staff to sign Auditor forms on their behalf using DocuSign eSignature and workflow.	**DocuSign / In House**	**Real Time**
Tax Analysis Website - internet website allows public to search for AV tax rates by parcel number, address, city or unincorporated area, or TRA, to compare AV tax rates, and to lookup the latest contact information for special assessments.	**In house**	**Varied**
Central Collections: FHO Interface - Automates the sending and set up of collection cases due to court charges (Criminal and Traffic) from Courts to Central Collections.	**In house**	**Batch**

Central Collections Internet - Web Payment application - allows external users to pay Court Fines and other payments due to the County, and provides an automated interface to feed those payments to CUBS (CCWEBPAY)	**In house**	**Varied**
Central Collections IVR - Web Service - provides a credit card payment interface to support external users who are paying by phone using the ATI system. Also provides an automated interface to feed those payments to CUBS (CCOLL_IVR)	**In house**	**Real Time**
Central Collections Intranet - Web Payment application - allows internal users to make payments for users who have phoned in their payment or appeared in person to pay via credit card (CCOLL_Intranet)	**In house**	**Varied**

Small, Local and Emerging Business (SLEB) - (inter & intranet) Allows departments to search for vendors in Alameda County that provide goods and services to meet their needs. This program promotes economic development for the County. Vendors can update their own business information. Subsystems include **SLEB Maintenance, SLEB Query, SLEB Update, SLEB Reports, SLEB Vendor E-mail**	**In house**	**Varied**
Elation Systems WebServices Integration – ALCOLINK **Financials developed WebServices to and from the Elations Systems Inc. website, which is used for monitoring contract compliance and labor compliance for County contracts.**	**In house**	**Nightly**
Imaging - Compliance and SLEB Certification and Contacts	**In house**	**Varied**
Official Public Records Online Order System (OPR) - Allows ordering of copies of Public Records and Fictitious Business Name statements via internet and orders processed on Intranet. Queries HART Anthem database **OPR Maintenance** - Intranet application that allows the orders to be processed and credit cards to be charged	**In house**	**Varied**
e-commerce application for Birth, Death and Marriage Certificates (BDM) - Allows the online web ordering of vital records for birth, death and marriage certificates by using credit cards for payment. **BDM Maintenance** - Intranet application that allows the orders to be processed and credit cards to be charged	**In house**	**Varied**
Anthem Stores/views images of Official Public Records (real property records); Vital Records (birth, death, & marriage certificates); and information for various County Clerk functions (Fictitious Business Names, etc.); also used for scanning, indexing, and cashiering these documents.	**Thomson-Reuters**	**Real time**
Digital Reel Stores/views images of older, archived Official Public Records & Indexes (real property records); Vital Records (birth, death, & marriage certificates)	**BMI Imaging**	**On Demand**
Magicard Rio Pro Creates ID cards for professional registrations (process servers, etc.) filed with the County Clerk	**Alpha Card**	**Real time**

FAMDBAdmin Redacts social security numbers from Official Public Record images (real property records) after they are scanned	**Extract Systems**	**Real time**
RPCS Collection System that stores confidential data for the purpose of collecting court related fines and fees, Social Services Agency overpayments and other receivables which is mandated by the State, Federal and County law and regulations.	**RevQ – Columbia Ultimate Company**	**Real time**
Clientview Software for read only access to RPCS CUBS collector system for county agencies	**Eliptics software**	**Real time**
Internet Website - Recorder's office website	**In house**	**Varied**
Board of Supervisors Applications	**Developed by**	**Updated**
Constituent Tracking System	**In house / SalesForce**	**Real time**
County Administrator Applications	**Developed by**	**Updated**
Budget Request System - Facilitates the submission of departmental budget requests to the CAO.	**In house**	**Annually**
Salary Sheets Generator - This is a web based report system that generates the Salary Sheets on request. It is used by the Departments to access their own Salary Sheets without the need to request paper reports from the CAO.	**In house**	**Quarterly**
S&EB System. (CAO ADMIN) - Salary & Employee Benefit System generates salary sheets and benefit budget calculations for use by the CAO in the development and tracking of the Countywide budget.	**In house**	**Real time**
CAO Admin - Used to maintain Budget tables and security for Budget application.	**In house**	**Real time**
Countywide Budget System - Used by the CAO to maintain the Current Year Budget and to develop the Next Year's budget.	**In house**	**Real Time**
Budget Book System - Produces graphs and tables from the Budget System for the annual Budget Book.	**In house**	**Annually**
CAO Projection System - Takes actuals from ALCOLINK and projects expenses over the entire year to see if Departments are overspending.	**In house**	**Quarterly**
Quarterly Department Projection System - Extracts data from ALCOLINK (Ledger Card) and Budget (quarterly) for the CAO to use in making Budget adjustments.	**In house**	**Quarterly**

Auditor Position Interface to Budget "Audtr" - Used by the Auditor to view and report the Budget related information.	**In house**	**Real Time**
Children Services Budget – Used in the preparation of the Budget for Children Services	**In house**	**Annually**
Unincorporated Budget– Used in the preparation of the Budget for Unincorporated areas of the County	**In house**	**Annually**
CBO Budget– Used in the preparation of the Budget for Community Based Organizations.	**In house**	**Annually**
Imaging – SB90 Claims	**In house**	**Varied**

Budget Narratives – This web based system allows departments to provide descriptions associated to department's goal's, objectives and achievements to be included in the County's Budget Book published annually in June when the budget is submitted to the Board of Supervisors.	**In house**	**Annually 1st Quarter**
Budget Interfaces: Used to pass data between Budget and ALCOLINK HRMS **- Payroll Actuals:** Transmitted to Budget Biweekly **- Item Rates :** Transmitted to Budget Daily, except during Budget Season	**In house**	**Bi weekly**
Budget Interfaces - Used to pass data between Budget and ALCOLINK Financials **- Financial Actuals, Encumbrances & Adjs -** Transmitted to Budget Monthly **- Approved Budget -** Transmitted to ALCOLINK by the Annual Budget Roll	**In house**	**Monthly**
Budget Interfaces - Used to pass data from Payroll to Budget. - Payroll Actuals: Transmitted to Budget Biweekly	**In house**	**Bi weekly**
Open Budget – an interactive budget website developed in partnership with Socrata to provide drill down operating budget and capital project plan for the County on the Internet. Data is provided from the CAO budget system reflecting the Board approved County budget in a downloadable, tabular and graphical form.	**Socrata**	**Annually**
CBO Mapping - Internet site for mapping Community Based Organizations Has an intranet component for internal updates and geocoding via EGIS	**In house**	**Varied**
CAO Internet Website - Internet Home Page for CAO	**In house**	**Varied**
Data Finder - Internet web site allows community members to search for documentation for specific categories. **Data Finder Maintenance** - Intranet application that allows the CAO's office to update the links to the documentation	**In house**	
Intranet Website	**In house**	**Real time**

Women's Hall of Fame - This is an Internet web application that allows users to nominate women from Alameda County for their outstanding achievements and contributions in the field of science, health, community service etc.	**In house**	**Annual**
Leadership Academy - This is an Internet web application that has two versions: Adult and Youth Leadership Academy. It allows user to submit applications for participation in the free sessions provided by Alameda County where the participants learn about Alameda County (mission, budget department, and services) and also practice communication skills.	**In house**	**Varied**
DEAConf - Disability Conference -. An Internet version allows county and non-county supervisors and managers to register for the Disability Employment Awareness Conference and Training. The intranet version allows CAO users to manage registrations, workshops, and conference agenda.	**In house**	**Annual**
Diversity Language Study Application - allows public facing employees to record the languages they encounter in a given time period	**In house**	**Varied**
RMU Calendar - displays calendar of events on internet **RMU Calendar Maintenance** - allows for the updating of the calendar via the intranet **RMU intranet event registration -** allows employees to register for events	**In house**	**Real Time**
Clerk of the Board Applications	**Developed by**	**Updated**

Agenda Index System - Maintains a cross-reference of subjects and file numbers for Board Agenda items.	**In house**	**Real Time**
Boards and Commissions - Tracks boards & commissions and the seat positions associated with them. History is logged when a seat position changes. Generates reports and posts information to the County website for the Clerk of the Board.	**In house**	**Real Time**
AAB - Assessment Appeals Boards System tracks property assessment appeals from receipt of request through the final disposition (involving the assessor and hearings before the assessment appeals board). Includes viewing images of the Appeals documents. Property owners or their agents can file appeals online, sign using DocuSign, and pay using the County's designated payment provider.	**DocuSign / In house**	**Real Time**
Claims Tracking - The Claims system tracks claims against the County. Includes viewing images of the actual complaints.	**In house**	**Real Time**
CBS Imaging - Scans (and Indexes) documents imaged for the AAB, Claims, Maps, and Miscellaneous Image Viewing applications and Legal Hearing Officer Docs (LHO).	**In house**	**Real Time**
Miscellaneous Image Viewing - Provides for viewing a variety of miscellaneous documents & board agenda items.	**In house**	**Real Time**

MAPS - Tracks the multiple steps involved in processing tax payments for new maps (from the initial receipt of deposit through the final payment of taxes). Multiple deposit types are processed. CBS Office uses system to coordinate the effort involved between multiple county departments and the parties filing the request. System prompts the CBS user through different processing steps, depending on the value of the data. Automatically generates needed (merged OLE) forms and letters from within the appropriate processing steps. Reports can be printed. Includes viewing images of scanned documents.	**In house**	**Real Time**
Agenda Management System – Consolidates, indexes, and generates the Agenda and Minute Orders required for Board of Supervisor meetings as well as other County Board meetings. Builds Agenda using Board Letters, Contracts, and other documents which are uploaded by Departments in the Agenda Submission application.	**In house**	**Real Time**
Agenda Submission - This is a web based application and is published on the intranet. This application is used by all departments in the county. It allows users to submit Board Letters and Supporting documents to the CAO Analyst. An email notification is generated for the CAO Analyst when a new board letter is uploaded. The CAO Analyst can make correction to the uploaded document.	**In house**	**Real Time**
IPad BOS Agenda Download - This is a desktop application and is installed on the clerk's machine in the Clerk of the Board office. This application merges the agenda and it's supporting documents to a cross-linked PDF file. This PDF files is copied on the internet location. An email notification is sent out to all users when the PDF File is created. The internet users can now download this PDF file to their iPad or PC from the link provided in the email. iAnnotate application is required if downloading on iPad.	**In house**	**Timed to Board Meetings**
Granicus - This is a third party application and the vendor is Granicus. This application is used to broadcast live audio and video meetings from the Board of Supervisors chamber. The agenda and related documents are attached to the meeting. The meetings are later archived and listed on the Granicus View Page for on-Demand use. Granicus Live Manager is used during the meeting to capture agenda items. Granicus Media Manager is used to manage the meetings. Media Vault and Stream Replicator are on site servers and help in live streaming of meetings to intranet users.	**Granicus**	**Real time**
Granicus Podcast - This is a third party application and the vendor is Granicus. As the BOS meetings are archived they are also made available to download on the PC and mobile device via the Granicus View page. The downloaded meetings are not attached to agenda to agenda items.	**Granicus**	**Real Time**
Calendar - Internet calendar to provide citizens and county workers to lookup Board meetings and Committee meetings. Provide agenda and minutes for the meetings. **Calendar Maintenance** - Intranet tool to allow updates of calendar	**In house**	**Varied**

Press Release - To provide public with news announcement and press releases on Internet **Press Release Maintenance -** Intranet application to allow posting of press releases	**In house**	**Varied**
Local Agency Formation Commission (LAFCO)	**Developed by**	**Updated**
ALCOLINK Financials – Used for managing County's Procurement process - setting up purchase orders, contracts, and payment of invoices, expense claims, etc.	**Oracle / In house**	**Real Time**
FileNet Imaging – Scans and indexes documents for electronic storage	**In house**	**Real Time**
Granicus – A third party application used to post Agenda Packets and minutes of meetings.	**Granicus**	**Real Time**
LAFCo Calendar – Internet calendar to post LAFCo Calendar of meetings	**In house**	**Real Time**
LAFCo Calendar Maintenance - Intranet application to allow updates to LAFCo calendar	**In house**	**Real Time**
LAFCo Internet Website	**In house**	**Real Time**
SharePoint Leave Request– allows employees to request leave, send email to requestor and approver	**In house**	**Real Time**
Personnel and Labor Relations Applications	**Developed by**	**Updated**
PREQ Position Request System - Provides for Department entry of Position Changes (adds, transfers, deletes, reclassifications) and approval by CAO and Central HR. Approved Position Requests update the Budget System and the ALCOLINK HRMS System.	**In house**	**Nightly**
PERL - PERsonneL is a Pre-Alcolink Legacy system of worker information which includes work assignments, tenure and seniority tracking and payroll history prior to Dec 2002. Seniority extracts (for ALCOLINK) and a limited daily process are still run.	**In house**	**Rarely**
Salary Survey - Used to compare equivalent Job classes and salaries with other government Agencies.	**In house**	**On Demand**
HRS Call Tracking - This application is implemented in Alcolink. It allows the EBC user to enter/update calls made by county employees regarding their benefits, reimbursements etc. It also tracks calls and generates reports. It provides employees real time data from Alcolink. The calls are searchable and editable.	**In house**	**Real time**
Employee Benefits Imaging - This application is implemented in the Enterprise Imaging System, FileNet. The EBC staff scans county employee's benefits related documents using KoFax and indexes them with Employee Number, Name, Document Type etc. The documents are processed and moved to FileNet where they can be updated, deleted	**In house**	**Varied**

and searched. The documents are source controlled and can be emailed to users on demand.		
Imaging HR Exam Certification - Facilitates the disbursement of Exam Certification Lists and Application packets to the Departments via Imaging. Central HR scans applications and certifications. Departments can view and print these from the Intranet.	**In house**	**Varied**
Imaging - Employee Work Files (ETF's an non-ETF documents)	**In house**	**Varied**
ALCOLINK Countywide Human Resources - Personnel Management and Benefit Administration systems see Auditor Payroll, Time & Labor.	**Oracle**	**Real time**
Employee Benefits Center Call Tracking System - Program developed inside of ALCOLINK HRMS to allow the EBC to track calls from employees and view pertinent employee information all in one page.	**In house**	**Real Time**
Salary Ordinance - Provides ability on internet and intranet to search classification information	**In house**	**Annually**
Internet websites - HRS, Conference Center, and Employee Services Center & Intranet web sites.	**In house**	**Varied**
General Services Agency Applications	**Developed by**	**Updated**
ALCOLINK Purchasing - Handles and tracks multiple phases of procurement (quotation, requisition, purchase order, receiving) of goods for all departments within the county.	**Oracle**	**Real time**
Space Charge - GSA's system within ALCOLINK to allocate building and maintenance charges to Departments based on space usage within buildings.	**Oracle**	**Real time**
Purchasing Contracting Opportunities - Provide public easy access to current and future contracting opportunities **Sole Source** - Internet application that provides public easy access to sole source contract opportunities **Future and current contracting Maintenance** - Intranet application to maintain contract information **Sole Source Maintenance -** Intranet application to maintain contract information	**In house**	**Real Time**
GSA Calendar of Events - Internet calendar to provide public list of upcoming events for GSA Purchasing **GSA Calendar Maintenance -** Intranet application that allows GSA to update their calendar items	**In house**	**Real Time**
Online Vendor Application Form - allows vendors to apply for approval online	**In house**	**Real Time**

Contracts Awarded Site - provides contract award information for projects that are posted on the Current Contracting Opportunities and Sole Source. Interfaces with ALCOLINK and the Elation Compliance System to provide the current contract value, start and end dates, along with contractor and subcontract information including change orders.	**In House**	**Varied**
Imaging - Purchasing, Technical Services Department, Real Property Management (RPM), HR Personnel and OAP.	**In house**	**Varied**
Internet Website - GSA website, Veteran building website **Intranet Website**	**In house**	**Varied**
GSA Childcare Calendar - Internet calendar allows public to lookup Childcare Committee meeting schedules and provide agenda and minutes for the meetings **Childcare Calendar Maintenance** - intranet application that allows updating of calendar items	**In house**	**Varied**
SLEB Waiver – an intranet application to allow county employees to request for authorization to waive SLEB Program requirements	**In House**	**Varied**
RREP Internet Web Site - Website educating the public about the Regional Renewable Energy Procurement Project (R-REP)	**In house**	**Varied**

Treasurer - Tax Collector Applications	Developed by	Updated
Deferred Comp DocuSign eSignature – online submission and signing of Deferred Comp forms with workflow to route for approval and subsequent upload to Deferred Comp Vendor.	**In house**	**Real time**
Secured Collections - Bills and collects payments for all current secured and supplemental property taxes.	**In house**	**Batches, daily**
Tax Collector Secured Collections Balancing (TSAC) – allows user to balance secured and supplemental payments prior to posting to tax roll.	**In house**	**Real time**
TCUPS - Tax Collector's Unsecured Property System bills and collects payments for all current and delinquent unsecured property taxes.	**In house**	**Real time**
SDS - Secured Delinquent System performs accounting for secured defaulted property.	**In house**	**Real time**
Business License - vendor supplied client-server system for running the County Business License Tax office.	**hDL**	**Real time**
Business License Web Renewal - web-based application allows the owner of a business operating in unincorporated areas of the County to renew an existing business license.	**hDL**	**Real time**
Tax Defaulted Land - Prepares and reports properties subject to sale at the annual auction.	**In house**	**Real time**

Tax Defaulted Land Canvassing – Mobile GIS application for the field work by Tax Collector's staff.	**In house / PSOMAS**	**Real time**
TaxTools - web-based integrated set of tools for Treasurer-Tax Collector office functions. Includes tax bill search and inquiry, payment inquiry, accounting reports, and tax defaulted land reports.	**In house**	**Real time**
Prop TaxPublic - web based application that allows taxpayers to view as PDF documents their current and prior year secured, supplemental and unsecured tax bills and to pay eligible bills by credit card and ACH (echeck).	**In house**	**Real time**
IVR (PropertyTaxIntraWeb) - an Interactive Voice Response system provides the public with telephone access to up-to-date information about their property assessments and taxes, with an option to pay by credit card. The IVR application is supported by the vendor (ATI). The web application PropertyTaxIntraWeb interfaces IVR and is supported by ITD.	**StreamWrite**	**Real time**
ADI Tax (Automated Data Input) - Web application that allows users to input mainframe data from desktop PC's for Tax Collector mainframe jobs.	**In house**	**Real time**

Remittance Processing and Cashiering - Automated check handling and bill processing, Treasurer checks, virtual stub, NCR receipts. Application is owned by Tax Collector and supported by vendor (Creditron).	**Creditron**	**Real time**
Imaging - Deferred Compensation, and Tax Default Land Auction.	**In house**	**Varied**
Tax Collector Documents - Allows Tax Collector staff to generate letters and forms for internal and public needs.	**In house**	**Real time**
Internet Website **Intranet Website**	**In house**	**Varied**
TEBM - Updates bank listing	**In house**	**Real time**
TERM - Tax bill request/suppression	**In house**	**Real time**
ALACO (SUPERSESSION) - Removal of DMV hold and look up owner and boat information	**In house**	**Real time**
Bid4Assets - Online system auction for tax defaulted properties	**In house/ Bid4Assets**	**Real time**
My Property App – mobile application for property owners to view property values and pay their property taxes. Co-owned with the Assessor. Available on Android and iOS platforms.	**In house**	**Real time**
Registrar of Voters	**Developed by**	**Updated**
Election Results - Upload results received from ROV to provide voters current election results via the internet and automatically post results by sending email, text messages, post Facebook and Tweeter messages via Gov Delivery.	**In House / Gov Delivery**	**Varied**
Election Results Map - displays uploaded results on map.	**In house**	**Varied**
Asset Tracking - Intranet application to track check in/check out chain of custody of election related assets.	**In house**	**Real time**
Help Desk - HEAT self -service thin client to track election day issues and resolutions.	**HEAT**	**Real time**
RFID - Includes global View application, business adaptor, flash clients, and handheld software.	**InSync**	**Real time**
Pollworker System - Intranet application to track poll workers, their training classes, their polling assignments, payroll, and evaluation.	**In house**	**Real time**
ROV eCommerce - Internet application to allow qualified people to purchase ROV reports - coming soon. **ROV eCommerce Maintenance** - Intranet application to allow processing of orders and charging of credit cards.	**In house / Gov Teller**	**Real time**

Sample Ballot Pagination - Intranet application to assist ROV in laying out the sample ballot for the printer.	**In house**	**Real time**
Candidate Filing - Intranet application to help track candidate filing status and post official candidate filing to the Internet.	**In house**	**Real time**
Pollworker Signup - Internet form to allow people to sign-up to be a poll worker.	**In house**	**Real time**
Elected Officials – list of elected officials.	**In house**	**Real Time**
Lease Card System – Intranet application which tracks lease cards for polling locations. It also allows the owners to sign the agreement electronically through DOCUSIGN.	**In house / DocuSign**	**Real time**
ACERA Election – Intranet application which helps staff to keep track of the status of ballot whether received or not.	**In house**	**Real time**
Missing Registration Info – Intranet application which sends out email to voter to inform them of missing information in the system.	**In house**	**Real Time**
Absentee Ballot Application - Internet form to allow people to apply to be an absentee voter.	**In house**	**Real time**
Ballot Proofing – Intranet application to assist ROV staff proof the ballots in different languages (English, Chinese, Spanish, Tagalog and Vietnamese).	**In house**	**Real time**
Internet Website - ROV Department Home Page **Intranet site**	**In house**	**Real time**
Online Voter Registration Form - Internet Application that allows voters to register to vote online.	**In house**	**Real time**
District Lookup - Internet Application to show voters in which voting districts they are located, and also show any changes to districts since the last election.	**In house**	**Varied**
Voter Profile - Internet Application to provide voters access to their data at the Registrar of Voters, including the ability to update data and change their voting preferences	**In house**	**Varied**
UOCAVA Voter Profile – Internet application to provide military and overseas workers to download their official ballots.	**In house**	**Varied**
Candidate Profile – Mobile web application to allow candidates to view the status of their application including the ability to submit candidate statements, review candidate statements and official ballot layout.	**In house**	**Real time**
Poll Worker Profile- Mobile web application which allows election workers to view their information, precinct assignment, polling location information, classes, list of election workers assigned to the precinct, supply pickup information, and previous election history.	**In house**	**Real Time**

	Developed by	Updated
Roster Index and Street Index Printing – The application extracts data and sends them to the mainframe for printing. The Roster Index and Street Index are voter lists used in the polling locations every election.	In house	Varied
Imaging - Archive Statement of Voters, search and retrieve **Imaging -** Polling Location Surveys	In house	Varied
Arts Commission	**Developed by**	**Updated**
Art Collection Tracking – This is an intranet application which allows the staff to track art collections.	In house	Real time
Community Development	**Developed by**	**Updated**
CDA Calendar - Internet calendar to post CDA calendar of events **CDA calendar maintenance** - Intranet application to allow updates to CDA calendar	In house	Real time
Graffiti Abatement form - internet form to request graffiti abatement	In house	Real time
Façade Improvement form - internet form to request assistance with façade improvement	In house	Real time
CDA Project Tracking system - Intranet application which tracks different projects for Healthy Homes and Neighborhood Preservation and Sustainability (NPS). Provides interface with CDA's AP Rehab system.	In house	Real time
Lead Safe Work Practices Quiz – the online form allows the public to print a completion form which may be required for a building permit in many jurisdictions.	In house	Real time
Web Sites - Internet Department Home Sites for CDA, Agriculture, Redevelopment, Weights and Measures, Planning, Lead Poisoning	In house	Varied
Public Works	**Developed by**	**Updated**
Public Works Agency Time Keeping Interface to ALCOLINK - Biweekly interface file from Public Works Agency's Cost Accounting System automatically populates time entry for Public Works' employees in ALCOLINK.	In house	Bi weekly
Wells Permit - Internet app that allows contractors to submit permit applications for drilling ground wells and to pay for fees using credit card. **Wells Permit Maintenance** - Intranet application that allows processing of permit and payments	In house	Real time
Street Light Service Form - internet form to request street light service	In house	Real time
Imaging – Levee, Right of way, and Surveyor	In house	Varied
Internet Website	Square Space	Varied
County Wide	**Developed by**	**Updated**

Google Search - Google Search Appliance (GSA) hardware/software combo to create search collection for acgov.org **Google Administration**	**Google In house**	**Real time**
Docushare - Document storage repository that provides search for shared documents including forms, manuals, spreadsheets, charts, text, etc., and allows departments to update their own documents.	**Xerox**	**Varied**
DocuSign eSignature – Cloud based technology to allow uploaded documents to be routed via workflow, signed electronically and stored digitally.	**DocuSign**	**Varied**
View Direct/ infopac - Provides online viewing and hard copy distribution of reports.	**ASG**	**Varied**
Phone Directory (Intranet only) - Automates the County of Alameda Telephone Directory and offers online search of phone numbers by name or department. An update capability is provided that allows each department to select staff to add or modify names for their agency/department.	**In house**	**Real time**
Phone Directory (Internet) - Public directory online.	**In house**	**Real time**
Feedback Form - Intranet form to request feedback.	**In house**	**Real time**
Internet Homepage acgov.org	**In house**	**Varied**
Intranet Homepage alcoweb	**In house**	**Varied**
GovDelivery - email subscription service to notify subscribers of changes to web content. Also has the ability to send out ad hoc emails/newsletters.	**GovDelivery**	**Varied**
Combined Charities – An intranet application which allows county employees to donate online through payroll deduction and checks.	**In house / DocuSign**	**Real Time**
Collaboration Platform - Hosts various County Department/Agencies, committees, and initiatives SharePoint sites where employees and agency partners can store, organize, and share various types of content through a web browser.	**In house**	**Varied**
Data Sharing Initiative - Supports County initiative through maintenance of the County's open data portal Data.acgov.org. Organizes and hosts public hackathons to promote the initiative.	**In house**	**Varied**
Digital Video Services - Produces and Presents County videos to enhance communication of County events, and initiatives.	**In house**	**Varied**
Imaging- Integration with Alcolink and FileNet for invoices/vouchers, journals, requisitions, purchase orders, and vendor docs. Integration with Combine charities.	**In house**	**Varied**

Internet Ready.acgov.org website - Emergency preparedness website offers information and checklists to help County residents prepare for emergencies that may occur in Alameda County.	**In house**	**Varied**
Permit Portal – Website that allows the public to search for permits issued from any jurisdiction in Alameda County. Includes links to various County Agencies responsible for issuing various types of permits.	**In house**	**Varied**
Rethink Hackathons - Internal hackathons for employees to present their ideas to make the County more efficient, save tax payers money, improve services to the public, and improve the workplace.	**In house**	**Varied**
Shuttle mobile web app - Provides shuttle stop information for employees and the public with map routing and integrates with BART schedules.	**In house**	**Varied**
Social Media - Maintains Alameda County's Twitter, Facebook, Pinterest, Flickr and You Tube Channels.	**In house**	**Varied**
Web Content Management System - Hosts various department and county partner internet facing websites that provides content authors the ability update and publish content changes (EBEDA, EBRCSA, future County wide).	**In house**	**Varied**
MyAC Mobile App – An internal mobile friendly web app that serves as the County mobile portal. Employees can access the employee phone directory and Shuttle app via this portal.	**In house**	**Varied**
Information Technology Department	**Developed by**	**Updated**
iFact - this system is used to bill departments for 1-time and recurring charges via an interface to the ITD billing system (CIMS)	**In house**	**Real-time**
TDS ITD billing - This system generates bills for all agencies that use ITD services.	**IBM**	**monthly**
Application Status Maintenance - allows ITD to change the application status during an outage	**In house**	**Varied**
Meeting/Event Maintenance - allows for maintenance of meeting and event calendars, news and announcements	**In house**	**Real Time**
Leave Request - allows employees to request leave, send email to requestor and approver	**In house**	**Real Time**
Organization chart - displays ITD org chart with employee pictures	**In house**	**Real Time**
ITD secured phone book - subset of county phone book for ITD only	**In house**	**Real Time**
Client Server Security - Used by PowerBuilder Programs to authenticate against the PowerBuilder Security Model	**In house**	**Real time**
DPMN - call back (DPMO)	**In house**	**Real-time**
CBT - Computer Based Training on Internet. Courses and online books		

DPME - ITD Billing Time Entry System. This system interfaces with TDS by providing charges for ITD man-time by account.	**In house**	**Real-time**
DPMO/DPMN - ITD Job/Programmer Callback System	**In house**	**Real-time**
Imaging - ITD Proposals and Board Letters; Paid Invoices	**In house**	**Varied**
Zeke - scheduling system	**Vendor**	**varied**
D-Series - scheduling system	**Vendor**	**varied**
ePDF Electronic PDF Submission - The web services are published on the intranet. The intranet version of the application allows user to upload and manage forms and view user filled form data as captured in the database. The internet version captures form data once the filled form is submitted by the user.	**In house**	**Real Time**
Electronic Purchase Requests (ePR) – online system for submission of both ASG and ISG Purchase Requests which includes workflow and eSignature for executive approvals, budget checking approvals, and CIO sign off.	**In house / DocuSign**	**Real Time**

APPENDIX F – COUNTY OF ALAMEDA CENTRALIZED TECHNOLOGY POLICY

Introduction

In recent years, Alameda County has made a significant investment in computer technologies. The Board of Supervisors and County Departments have recognized that the implementation of modern computer technologies introduces efficiencies into the workforce allowing staff to provide more effective services to the citizens of Alameda County. Technology has also advanced significantly. It is easily accessible and relatively affordable. These factors have led to decentralized growth of the County's technology assets. Though Departments are benefitting from the technology, decentralized growth has resulted in unnecessary funding of duplicate systems and services. Furthermore, many of the critical decentralized systems lack redundancy and environmental protections required to remain useful during a disaster. This makes it difficult to develop effective departmental Continuity of Operations Plans (COOP). Also, the lack of redundancy exposes the County to possible loss of critical services during a disaster. To remedy this, the Board of Supervisors has directed all Departments to review technology initiatives with the Information Technology Department (ITD). ITD will determine which technologies will be hosted and supported by ITD in the County Data Center.

Technologies to be reviewed by the Information Technology Department:

- **Network Services**

  Computer networking requires an enterprise design. Network equipment installed at one department can dramatically affect other systems throughout the County computing environment. ITD is responsible for the installation, maintenance and support of all County networking equipment.

- **Server Hosting**

  Alameda County has made a large investment in a modern data center. The environmental protection systems and monitoring meet or exceed data center standards. Power redundancy and power protection such as an Uninterruptable Power Supply and a custom built diesel generator help ensure that computer systems will continue to function throughout a sustained power outage. 24 hours a day, 7 days a week there is staff in the data center that monitor equipment and ensure systems continue to be available. This is a County resource that all departments must leverage.

Continued

- **Email Services**

  Access to email has become an essential tool to conduct County business. An Enterprise Email system has been built in the County Data Center. This system is fully redundant and is capable of supporting all County email users. The system also is supported at the County's Disaster Recovery site. In the event of a catastrophic failure of the County Data Center, email service will be available at the Disaster Recovery site. All departments will use the ITD managed email system.

- **Malware Protection/Prevention**

  Malware such as computer viruses and spyware continue to threaten productivity. The County has built an enterprise malware protection/prevention system.   This system provides multiple tiers of protection throughout the entire County computer infrastructure.   It is essential that one centrally managed system be used to coordinate all malware defenses across the network. All departments will use the ITD managed malware protection/prevention system.

- **Enterprise Systems and Software**

  Enterprise Systems and Software are computer environments that can be leveraged by the majority of the County departments. Economies of scale can be achieved by purchasing a single environment that all departments can leverage. Unnecessary duplicate purchases and redundant staffing are eliminated. Enterprise licenses are negotiated to reduce the unit costs. All potential Enterprise Systems and Software will be reviewed by ITD for the purposes of centralizing these systems in the County Data Center with support from ITD.

Not all technologies are appropriate for centralization. ITD will base the centralized support and hosting decision on several factors including the potential countywide use of the technology and the potential cost savings achieved by centralizing the technology. The intent of this policy is to reduce technology costs, increase system availability, and improve services.