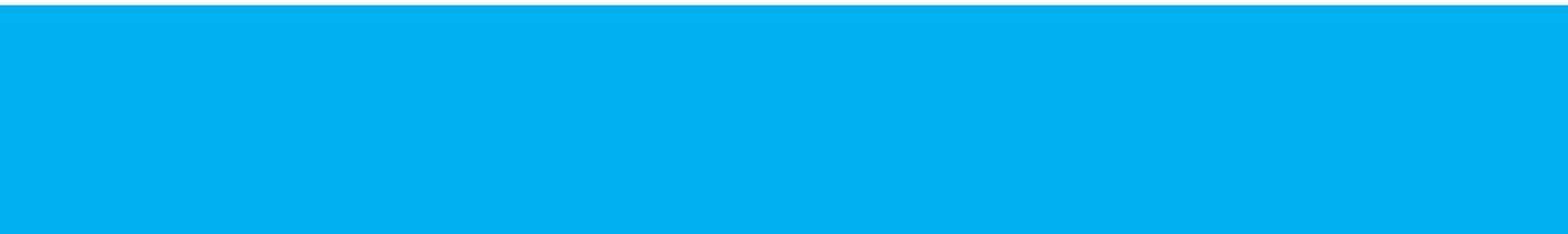
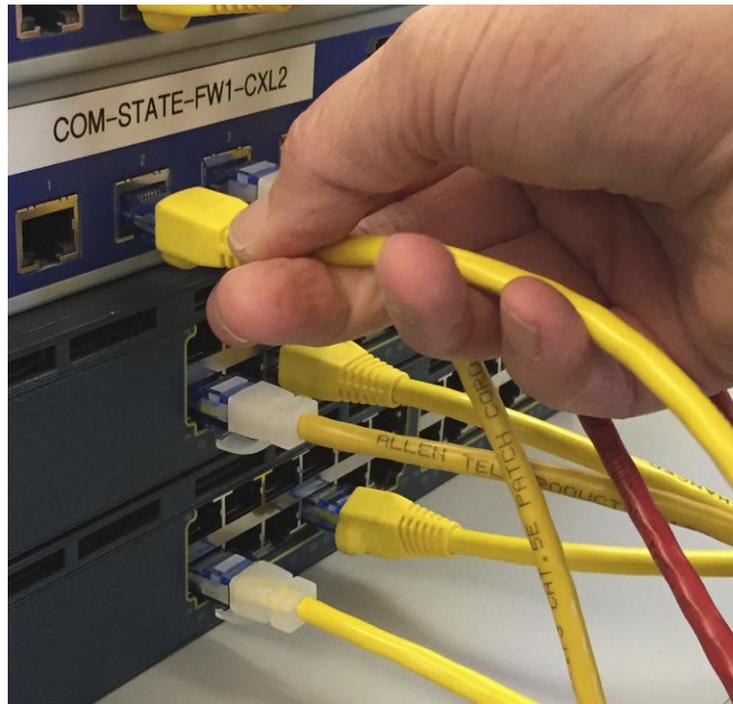


# County of Marin Information Services & Technology **STRATEGIC PLAN 2015-2020**



## Message from the CIO

The world is more interconnected than ever. Technologies are transforming the way we live, work, and do business. The ability to be online is a necessity. People use a variety of online tools to communicate with one another and to transact their business. Mobile technologies such as smart phones and tablets have become the standard. Click, touch, interact, imagine!

As we begin to reinvent ourselves, we are reminded that the Information Services and Technology (IST) department plays a major role in helping County departments provide necessary services to the public. We understand the urgency of putting useful technologies in the hands of County employees and how this will help us all improve our levels of public service. The questions we have asked include:

- How do we catch up?
- How do we best support our customers?
- How should the role of IST change?
- Where should our focus be for the next 5 years?
- How do we get there?

In IST, we must think differently about our services and how we deliver them. “Mobile First” has to be our approach so that mobile capabilities are built-in rather than bolted-on – it’s what the public wants and what our departments are asking for. It is important that we develop the capability to ramp up for projects quickly and institute the funding models and job classification structure that makes this possible. We have to implement servers “as fast as Google or Amazon” because that’s the standard we’re measured against. Understanding the business of our customers leads to success so we must develop and deliver consulting services driving better alignment between IST and County departments. And, of course, all of this needs to be built on a foundation of rigorous security practices and the collective understanding that information security is everyone’s responsibility.

The future offers many opportunities for us to implement new technologies that will improve services for our residents and our internal County departments. We look forward to making an even greater difference in the lives of the public and our employees.

Sincerely,

Charlie Haase  
Chief Information Officer

## Introduction



In the County of Marin, the demands are increasing for information technology services from both the public and our workforce. The Information Services and Technology (IST) department has a long history of providing innovative technology solutions that come with exceptional customer service. For many years we focused on building core transaction systems that support business operations. We must now augment these foundational systems of record with more outward facing services utilizing online and mobile technologies that are in high demand. All of our new services have to begin with mobile in mind. IST must become more responsive and adaptive to the constantly changing technology landscape. In this strategic plan we set out to build on the department's previous success and to evolve the IST department into a more nimble and proactive organization that delivers the technologies and services needed by our clients.

# The Process

The development of the IST Strategic Plan began with our customers in mind. We adopted our Statement of Purpose - *We help our County departments succeed in serving the public.* This is why we exist and what determines our success.

Throughout the process of building this plan, we took an approach that included individual discussions with each of our customer departments, input from our newly formed Advisory Committee for Technology, engagement with our IST employees, review of our past strategic plans, and review of recent strategic plans from counties and cities.



The **5-Year Business Plan** recently adopted by the County has served to inform many of our strategies. The IST department will have significant responsibility in the focus area of **Innovation and Change**. We see our role as being catalysts for innovation and much of what we heard when gathering input from departments revolved around advancing service to the public and to our employees through innovative practices.

In gathering input from our customer departments, we found a number of common themes across the County.

The most sought-after changes include: expanding our ability to provide online services including taking online payments and offering automated electronic forms; developing impactful mobile apps; expanding the use of mobile devices by our employees; electronic signature capability; and automating various internal processes to improve effectiveness and efficiency.

# Trends

When we looked back at IST's strategic plan of 2000, we learned that, although the technologies used today are vastly different than those of 15 years ago, some of the primary themes are very similar:

- Responding to residents' expectations to conduct their business with the County through online means, 24x7
- The desire to make it easier for County employees to perform their jobs anytime from anywhere
- Improving the Public's trust in county government



## Servers

Over the years the server environment has changed dramatically from 34 physical servers and a mainframe to 187 physical servers with 345 virtual servers today. The future will see a significant number of these servers migrating to the Cloud rather than being located in our data center.



## Storage

The County's available electronic storage has increased by 12,375% since 2000. Storage specifically designated for the document management system has grown by 1,200% - from storing a few thousand documents to over 30 million documents today.



## Network

In 2000 there was no Wi-Fi available in the County. Today Wi-Fi is readily available in nearly every County office including the Marin Center and the Marin County Fair.



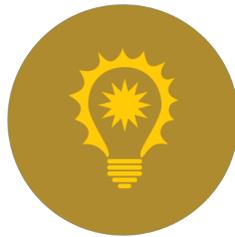
## Mobile Devices

In just the last 3 years the number of mobile devices accessing the County website has more than doubled.

## IST Strategic Plan

The following page depicts the IST Strategic Plan at a high level. Subsequent pages provide the desired outcomes, strategies, actions, and metrics. We have purposely identified actions that we plan to complete within the next two years and will review the plan frequently to make mid-course corrections/updates as we proceed. We anticipate that the plan will have a formal update toward the end of the first two years with new actions and metrics identified for subsequent years. In this way, this strategic plan will continue to be a working document that is periodically refreshed and renewed.

At various places in the IST Strategic Plan, you may notice the icons pictured below. These symbols indicate that an item in that section is linked directly to a similar item in the County's 5 Year Business Plan. If you reference the 5 Year Business Plan you will find the same icons and you will see how the two plans are connected.



**Innovation & Change**



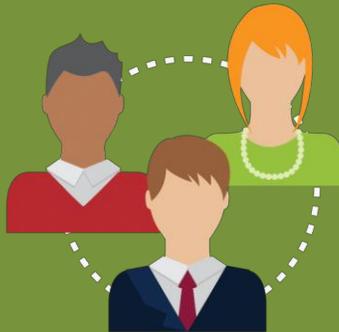
**Communication**

# IST Statement of Purpose

We Help our County Departments Succeed in Serving the Public

## Service Delivery for Today & the Future

- Access from Any Device, Any Time
- Increased Options, Reduced Barriers



## The Changing Role of IST

- Putting our Customers First
- Business Consulting Services

## Security at the Forefront

- Countywide Effort
- Data Security





## Service Delivery for Today & the Future

*Provide personalized, rapid access to information anytime from anywhere*

An engaged public and County workforce have new expectations of government – that it will be more accessible and inviting. In response, Information Technology (IT) practices are changing and technologies are being developed and adopted at an accelerated pace. Digital government is available around the clock. It's more transparent, more personalized, and provides greater opportunities for the public to get information, receive services, and be involved – when they need it, anytime, from anywhere.

### OUTCOME A

#### Access from any Device, Anywhere, Any Time

*IST will focus on providing County employees and the public the ability to access information from mobile devices – from laptop computers to tablets to smart phones – to support government efficiency and openness.*

### OUTCOME B

#### Increased Options, Reduced Barriers for the Public and County Staff

*IST will seek opportunities to offer more self-service along with personalized, flexible, and accessible tools for the Public and County staff.*

# OUTCOME A

## Access from any Device, Anywhere, Any Time

### Strategy 1: Establish a “mobile first” philosophy for all IST work.

**Action**  
 All new business applications, upgrades to existing business applications and website projects apply the “mobile first” strategy, meaning they are designed for mobile platforms from the beginning.

**Metrics**  
*100% of IST software selection functional requirements contain a mobile functional or technical specification.*

**Action**  
 Develop mobile apps for the Sheriff’s Office, Community Development Agency, Parks and Open Space, Cultural Services, Elections, the Fire Department, and the Criminal Justice Departments.

**Metrics**  
*The top six mobile apps are implemented within the next two years.*



**Action**  
 Complete the transformation of the County's public facing website for easy reading and navigation across a wide range of popular devices.

**Metrics**  
*Responsive web design has been completed for the entire County website within the next year.*

**Action**  
 Implement a mobile desktop solution that replaces the current Microsoft Office Suite with work-from-anywhere capabilities.

**Metrics**  
*Complete a pilot project in IST and HHS within the first year and complete implementation across the County within three years.*

**Action**  
 Expand the County WiFi network so that future office connectivity can be accomplished without the need for physical cabling to the desktop.

**Metrics**  
*Prioritize the installation of WiFi access points in the Civic Center and 1600 Los Gamos within the next two years.*



## OUTCOME A (CONTINUED)

Strategy 2: Launch an open government and open data initiative to encourage greater civic engagement.

**Action**

Select and implement an Open Data Portal to provide County data to the public.

**Metrics**

*Open Data software selected and implemented within the next year.*

**Action**

Identify and prioritize the next group of datasets that will be available through the Open Data Portal with emphasis on datasets that may be correlated with other datasets.

**Metrics**

*Identify and prioritize ten additional datasets to be included in the open data portal within years three and four.*

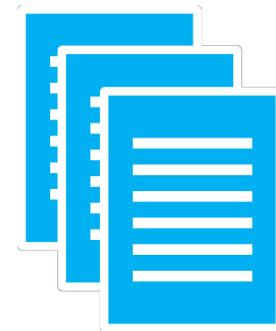
**Action**

Publish the following datasets on the Open Data Portal:

- Sheriff Crime Data
- Restaurant Inspections
- County Employee Salary Data
- Frequent Public Records Act Requested Information

**Metrics**

*These four datasets are available to the public via the Open Data Portal within the next two years.*



## OUTCOME B

# Increased Options, Reduced Barriers for Public and County Staff

Strategy 1: Enable the public and staff with online services.

- Action**  
Develop and implement online payments in departments such as Cultural Services, Community Development Agency, Parks and Open Space and the Assessor Recorder County Clerk’s office.



**Metrics**

*The top five County online payments are available within the next two years.*

- Action**  
With support from the ATOM Team, successfully implement Tyler-Munis.



**Metrics**

*100% of employees and managers use self-service options to complete time entry and enroll in all benefits.*

- Action**  
Implement electronic signature capability and make available to departments.



**Metrics**

*Electronic signature has been implemented and is an available tool for forms that do not require a “wet” signature.*

- Action**  
Develop and deliver Tyler-Munis user training and documentation.



**Metrics**

*80% of employees report that training is good or very good, which is confirmed by a survey conducted following implementation.*

- Action**  
Automate the highest-use forms so they can be completed and fully processed online, including the use for electronic signatures.



**Metrics**

*The seven highest-use forms have been automated within the next two years.*



## OUTCOME B (CONTINUED)

Strategy 2: Implement new technologies that improve employee productivity.

- Action**  
Implement single sign-on so that County employees only need to log on to their computer and all their software applications are available without performing separate logons.

**Metrics**

- *Implement all new applications with single sign-on including Tyler Munis ERP systems*
- *Implement single sign-on for all enterprise systems within the next three years*
- *Complete implementation of single sign-on for the County enterprise in five years.*

- Action**  
Deliver new/upgraded infrastructure as fast as Google or Amazon.

**Metrics**

*Within the next two years implement Service Level Agreements with customer departments for delivery of servers that match the time it takes for delivery of a server on Google or Amazon.*

- Action**  
Redesign and re-deploy the County Intranet (MINE).

**Metrics**

- *Complete within the next two years.*
- *80% of employees report that County information is much easier to access, which is confirmed by a survey conducted within one year of implementation.*



Strategy 3: The County website and business applications will be intuitive to use with built-in help, reducing the need for end-user training - Modernize new software releases to eliminate the need for end-user training.

- Action**  
Conduct focus groups to identify areas of improvement in navigation for the website.

**Metrics**

*Two focus groups conducted per year beginning within the next year.*

- Action**  
User experience standardized – looks the same, same flow, same organization of content.

**Metrics**

*Standards for user experience implemented for all new project work within the next three years.*

- Action**  
Expand learning options by making online self-help available resulting in a reduced need for end-user training.

**Metrics**

*Every new implementation has online self-help options within the next three years.*



## The Changing Role of IST

*Help Departments Increase Responsiveness, Efficiency and Innovation*

Given rapidly changing technology, the County requires an IST workforce that is adaptive and constantly retooling to effectively provide services. We must be quick to adapt, quick to respond, provide technology leadership to the people we serve, and ensure that we follow through. Collaboration among staff and with our County clients is a necessity. The IST Department's continued success and effectiveness depend on preserving our service oriented culture while adapting to the ever changing technology landscape.

To maximize our effectiveness, IST must operate more as a strategic partner with our departments. We will provide guidance and leadership on setting the standards and ground rules for how we get the most out of modern technology.

### OUTCOME A

#### Putting Our Customers First

*IST will build stronger relationships with customer departments to increase business alignment, responsiveness, and follow-through. Funding options and flexible staffing will be developed to ensure resources are available for completing customer departments' projects.*

### OUTCOME B

#### Business Consulting Services Available to Departments

*IST will develop the capacity to offer departments consulting services to improve and automate their work processes.*

# OUTCOME A

## Putting Our Customers First

Strategy 1: Develop IST capabilities that align with the County and Department missions and the Five Year Business Plan.

**Action**  
 Incorporate formal business analysis into each project to ensure that outcomes will meet client business needs and objectives.

**Metrics**  
*100% of IST project charters include business analysis as a deliverable within the next four years.*

**Action**  
 Make it easier for departments to request project work from IST by creating a simple web application to receive requests.

**Metrics**  
*Project request web application built and deployed within the next year.*

**Action**  
 Increase the impact of our departments' priorities by expanding the role of the Advisory Committee for Technology to include review and prioritization of technology projects and policies.

**Metrics**  
*Within the next year all discretionary IST projects exceeding a total cost of \$50,000 will be reviewed and prioritized by the Advisory Committee for Technology.*

Strategy 2: Expand IST capacity to deliver more.

**Action**  
 Create a formal project request process that informs the enterprise on how to initiate and fund new projects in collaboration with IST.

- Metrics**
- *Establish criteria and processes to initiate and fund projects from operating departments' baseline budget within the next two years.*
  - *Establish criteria and processes to initiate and fund projects with BCP funding within the next two years.*
  - *Establish criteria to initiate projects utilizing IST's baseline budget within the next two years.*

**Action**  
 Design the IST roles and responsibilities to match the priorities set by departments and the Advisory Committee for Technology by partnering with Human Resources to develop a classification structure with a flexible workforce, aligning with the 5-Year Business Plan.

**Metrics**  
*Within the next two years, identify and implement flexible workforce options that provide the ability to staff up for projects funded outside of baseline budget and scale back at completion of those projects.*

## OUTCOME B

### Business Consulting Services Available to Departments

Strategy 1: Offer consulting services to advise and manage delivery of IST solutions.

- Action**  
Create a Business Relationship Manager role within IST to work with departments in identifying needs and services that IST may provide to help departments succeed in their missions.

**Metrics**  
*Business Relationship Manager role implemented within the next two years.*

- Action**  
Assign Business Relationship Managers to each County Service Area.

**Metrics**  
*Assign within the next three years.*

- Action**  
Create a Change Management practice to help departments succeed as they work to implement the 5-Year Plan.

**Metrics**

- *Change management resource(s) identified and trained within the next year.*
- *Change management resource(s) deployed to help with 5-Year Business Plan implementation immediately after training.*

Strategy 2: Ensure the Project Management Office improves the delivery of projects on time and within budget.

- Action**  
Develop a formal process to analyze project results to increase rates of project success across the County.

**Metrics**  
*Within the next year 100% of projects are reviewed after completion to identify lessons learned.*

- Action**  
Increase Project Management training and skills to accurately forecast project resources and schedules.

**Metrics**  
*Increase PMP certifications within IST by at least two within the next two years.*





## Security at the Forefront

### *Protect and Maintain the Integrity of County Data and Infrastructure*

Protecting the public's information held by the County is paramount. Data breaches have become commonplace in the news. How confident are you that County data is secure and is protected from being accessed and/or altered by hackers? Within the last two years these organizations experienced data breaches that exposed their customers' or employees' private information:

- Target – 40 million card accounts
- Home Depot – 56 million credit and debit cards
- Federal Office of Personnel Management – 21.5 million federal workers
- Anthem – 80 million patient records
- JP Morgan Chase – 76 million households
- Army National Guard – 850,000 SSNs and personal data

There have been hundreds more with smaller exposures including Harvard University, UPS, Goodwill Industries, Kmart, Staples, and Sony.

The only way we can avoid becoming another statistic is to make security a top priority. We will need to implement sound security policies and practices, embrace a Countywide understanding that security is everyone's responsibility, and maintain a secure infrastructure that prevents unauthorized activity.



## Security at the Forefront

*Protect and Maintain the Integrity of County Data and Infrastructure*

### OUTCOME A

#### Coordinated Countywide Effort

*IST will establish a Countywide security culture emphasizing that information security is every County employee's responsibility.*

### OUTCOME B

#### Data Security

*Develop policies, procedures, and tools to keep County data and confidential information secure.*

# OUTCOME A

## Coordinated Countywide Effort

Strategy 1: Create a comprehensive information security program based on industry best practices.

- Action**  
Create and staff the role of Information Security Officer, dedicated to establishing and enforcing security policies.

**Metrics**  
*Information Security Officer role established and staffed within the next year.*

- Action**  
Formalize security incident management and response procedures for County employees as well as within IST.

**Metrics**  
*IST Security incident procedure adopted within the next year.*

- Action**  
Develop and adopt a comprehensive set of Countywide security policies.

**Metrics**  
*Security policies adopted within the next two years.*

Strategy 2: Educate all County employees about the importance of information security best practices and their role in protecting County assets.

- Action**  
Make online security awareness training available to all County employees for completion every two years and include this training as part of the onboarding process for all new County employees.

**Metrics**  
*Online security awareness training compatible with County's TalentQuest online training system implemented within the next two years.*

- Action**  
Reinforce ongoing security awareness education through newsletters, blogs and other social media.

**Metrics**

- *Monthly Multi-State Information Sharing and Analysis Center (MS-ISAC) security newsletters published within the next six months.*
- *Develop and implement a process for notifying County employees about imminent threats*
- *Information Security Officer publishes security awareness blogs within the next two years.*

# OUTCOME B

## Data Security

Strategy 1: Secure and protect County data across all platforms.

- Action**  
Every five years complete a HIPAA Security Assessment working with all of the HIPAA covered departments to address findings.

**Metrics**  
*The first HIPAA Security Assessment is completed within the next year.*

- Action**  
Every three years complete a comprehensive security assessment.

**Metrics**  
*The first comprehensive security assessment is completed within the next two years.*

- Action**  
Implement a Bring Your Own Device policy and implement mobile device management software to support the increasing number of devices used by County employees.

**Metrics**  
*Complete within the next two years.*

Strategy 2: All County applications conform to security best practices.

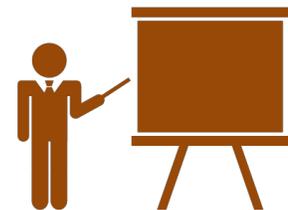
- Action**  
Assess the degree in which in-house and vendor-supported business software applications comply with countywide security standards and develop an action plan for bringing applications into compliance.

**Metrics**  
*Assessment is completed within the next 2 years.*

- Action**  
All IST software developers are trained in the use of secure coding techniques that align with our countywide security standards.

**Metrics**

- *Training begins within the next year.*
- *All developers are trained within the next three years.*



## OUTCOME B (CONTINUED)

### Strategy 3: Expand and mature Disaster Recovery capabilities.

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- Action**  
In collaboration with our County stakeholders, conduct a minimum of one mock disaster tabletop exercise per year.

**Metrics**  
*First tabletop exercise completed within the first two years.*

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- Action**  
Complete recovery testing for all critical business software applications and produce a detailed report documenting the results.

**Metrics**  
*Four systems tests completed within the next two years.*

- Action**  
Implement an emergency/incident policy that outlines the procedures for notification, communication and management of emergency incidents having to do with outages that impact the ability of County departments to conduct their normal work.

**Metrics**  
*Policy implemented within the next two years.*



## Putting the Plan to Work

The work now begins to execute the action steps identified in this IST Strategic Plan. Every IST staff member will have an important role in our success as we focus on completing these actions. Our organization will continue to adapt and many of our staff will acquire new skills as we strive to meet new demands.

We will call upon our Advisory Committee for Technology to help us prioritize the work within a number of our action steps including mobile apps, electronic payments, and automated forms. The committee will guide us with a continued focus on what is best for the County overall.

Near the end of the second year of implementing the plan, we will update our actions and add new ones to continue moving toward our desired outcomes. As the 5 year Business Plan is updated, we will respond accordingly so the two plans continue to be in alignment. Inherent in this process will be the need to take stock of new technologies so that we can respond accordingly to the needs of our customer departments.

It is exciting to consider the continuing opportunities for the IST department to make great contributions to our County Departments' success in serving the public!

