

TECHNOLOGY SERVICES

Strategic Plan

MARANA, ARIZONA
**YOUR
TOWN**



maranaaz.gov

INTRODUCTION

The Technology Services Department is pleased to present the 2015 update to the Town of Marana Technology Strategic Plan. This plan maintains continuity with the 2012 plan that focused the Town's resources on the efficient and effective use of technology to deliver services. The plan update lays out a strategic vision and direction for technology. It is not meant to be a tactical plan that lays out specific tasks and operational responsibilities; rather, it provides strategic objectives which can serve as guideposts for Technology Services and Town decision-makers in support of the Town Strategic Plan III initiatives.

Technological change is and always will be a constant. New technologies evolve at a rapid pace and can have a profound impact on our society and culture. As new applications, devices and business models are embraced for use in our everyday lives, the demands on Town government to accept these changes and conform is enormous. We must not ignore these demands nor just be simply reactionary, but instead look for thoughtful and innovative ways to use new technologies to deliver Town services and engage our citizens.

One technological trend that is having a profound impact on how Town information and services are consumed is the continued proliferation of mobile technologies. People increasingly are accessing online services and information throughout the day, whenever and wherever they happen to be — and smartphones are often the primary platform for this access.

Another trend that we expect to further develop is the creation of an electronically engaged citizenry. Open data advocates continue to expand the use of government data in creative ways to produce useful mobile and web applications. These tech savvy "digital citizens" do not want to wait for government innovation to occur, but instead will take the initiative and provide value-added applications themselves. Locally we are seeing this occur with growing participation in groups such as StartupTucson, Code for Tucson, and events such as the National Day of Civic Hacking and Code Across Tucson. This movement has the potential to change our role from one of an application service provider to an application enabler.

The movement towards open data, government services anytime/anywhere, and the movement away from the desktop and towards a mobile environment is reshaping Town processes and the technology that is used to provide those services. Current Town apps and on line services are meeting some of the expectations of our community, but much work still needs to be done. We have only scratched the surface of what we can offer via technology. The initiatives listed within will position the Town to be more responsive to the service demands of our customers going forward.

MISSION

Technology Services will lead in the delivery of innovative technologies and services to provide effective, secure, and efficient solutions in support of the vision, principles, and strategic goals of the Town of Marana

VISION

To be recognized as an innovative, value driven, customer-focused, and effective technology services provider.

GUIDING PRINCIPLES

To achieve this vision and to support the continued improvement in the services provided to Town departments and the citizens of Marana, the following principles will be applied and adhered to:

- TECHNOLOGY SOLUTIONS MUST ADD BUSINESS VALUE.

New technologies will be adopted when they meet a customer need and clearly delineate a measurable return on the investment.

- DATA MUST BE ACCESSIBLE ANYTIME AND ANYWHERE INDEPENDENT OF DEVICE HARDWARE AND OPERATING SYSTEM.

Town information must be available for day-to-day decision-making, transparency, and to communicate, inform, and engage residents in civic participation.

- SYSTEMS MUST BE SECURED AND DATA MUST BE VALID.

Town systems must be secured to minimize risk and insure the integrity of data, while encouraging an open environment that facilitates the exchange of information and data.

- PEOPLE ARE KEY RESOURCES TO ANY TECHNOLOGY INITIATIVE.

The Town must continue to invest in the skill development of technology staff to take advantage of evolving technologies

STRATEGIC INITIATIVES

To take advantage of current technology advancements and potential enhanced service delivery opportunities, the following four strategic initiatives (along with corresponding objectives) will be embraced:

1. Mobility
2. Town Information is an Asset
3. Leadership and Collaboration
4. Operational Excellence

MOBILITY

One technological trend that is having a profound impact on how Town information and services are consumed is the continued proliferation of mobile technologies. People increasingly are accessing online services and information throughout the day, whenever and wherever they happen to be — and smartphones are often the primary platform for this access.

We are experiencing a similar movement within the Town as departments increasingly are looking to mobile technologies as a tool for staff to access information and report issues while in the field. For example building inspectors use tablets to log inspection results while in the field, and Marana Water staff have begun using a smartphone app created by Technology Services to report results of well site equipment maintenance inspections.

The migration away from desktops and towards mobile platforms is one that will continue. This will require a new strategy for application development and delivery. No longer can the Town combine numerous features and information into a single package as is found on our web site. Instead individual apps will be created around specific tasks, events, or functions providing a more focused and efficient user experience. This modular approach will also allow for faster development and upgrade cycles. This will create a suite of Town apps that need to be connected at some level and consistent in their look and usage.

Objectives:

- Create Town mobile apps with standard design and branding including:
 - Consistent look and feel
 - Standard naming conventions
 - Industry standard search and menus
 - Platform responsive
- Make government services and information accessible via mobile devices
- Ensure secure access to data and information
- Focused user experience

A RECENT PEW RESEARCH STUDY FOUND THAT: NEARLY TWO-THIRDS OF AMERICANS OWN A SMARTPHONE, AND 19% OF AMERICANS RELY TO SOME DEGREE ON A SMARTPHONE FOR ACCESSING ONLINE SERVICES AND INFORMATION AND FOR STAYING CONNECTED TO THE WORLD AROUND THEM — EITHER BECAUSE THEY LACK BROADBAND AT HOME, OR BECAUSE THEY HAVE FEW OPTIONS FOR ONLINE ACCESS OTHER THAN THEIR CELL PHONE. 40% OF RESPONDENTS SAID THEY USED A SMARTPHONE TO LOOK UP GOVERNMENT SERVICES OR INFORMATION AND 56% USE THEIR PHONE AT LEAST OCCASIONALLY TO LEARN ABOUT COMMUNITY EVENTS OR ACTIVITIES, WITH 18% DOING THIS "FREQUENTLY. (PEW RESEARCH CENTER APRIL 1, 2015 U.S. SMARTPHONE USE IN 2015)

INFORMATION IS AN ASSET

Town citizens today expect to get whatever information they want, whenever they want it, and wherever they are using their mobile device. Not only must the Town provide responsive information from its website and mobile apps, we must also look to create "mobile moments"- the ability to deliver a service or information when it is required by our citizens. As an example why should the Town require a customer or business to drive to Town Hall for a paper permit, when one can be requested, paid for and delivered electronically? We must continue to look to offer our services through a mobile platform and allow appropriate validation via the same medium much the same way in the airline industry that a boarding pass can be generated and validated using a smart phone. We must also look for ways to enhance the experiences of our citizens through the use of technology. A Town developed hiking app might send an alert to the hiker's phone when a specific GPS coordinate is reached. The app then can inform the hiker of an historical event, or information specific to that location. These types of apps and user experiences will require more modular and agile development methodologies. Development of a Town API and Data Warehouse will allow Technology Services staff to access data from all Town systems and quickly develop all sorts of applications and analytical information for consumption.

In addition to Town developed applications we are beginning to experience an Open Data movement locally. Open data advocates have pushed hard and successfully for an approach best described as "give me access to all of your data and I will do things with it that you haven't imagined." From this grew the trend that we are seeing today of mobile and web application developers taking location data and analytical data from multiple sources and presenting it in new and creative ways. This has the potential to change us from application providers to application enablers.

While the movement towards mobility and open data has taken hold, the Town must ensure that Town data is secure and valid. Security of Town data and systems will be a top priority. Technology Services will be devoting a staff position to this effort in 2016. Specific policies and procedures will be created to minimize the risk of malicious agents and programs. Appropriate training will be provided to staff on an ongoing basis as well as part of the new employee on boarding process.

Objectives:

- Develop a Town API and Data Warehouse
- Enhance transparency and openness through an open data initiative that promotes public engagement
- Ensure secure access to data and information and protect Town data and systems from malicious activities

DATA BREACHES FIRST 6 MONTHS OF 2015

- **THERE WERE A TOTAL OF 245,919,393 DATA RECORDS LOST OR STOLEN IN THE FIRST HALF OF 2015. THAT'S THE EQUIVALENT OF 16 RECORDS LOST OR STOLEN EVERY SECOND.**
- **DATA BREACHES TOTALED 888, UP APPROXIMATELY 10% FROM THE FIRST HALF OF 2014.**
- **WITH 707 DATA BREACHES, NORTH AMERICA ACCOUNTED FOR 80% OF TOTAL BREACHES FOR THE HALF.**
- **ONLY 4% OF THE TOTAL BREACHES INVOLVED DATA THAT WAS ENCRYPTED IN PART OR IN FULL.**
- **THE MAJORITY OF BREACHES IN THE FIRST HALF OF 2015 (53%) INVOLVED THE THEFT OR COMPROMISE OF IDENTIFIABLE INFORMATION, SUCH AS NAMES, ADDRESSES AND SOCIAL SECURITY NUMBERS.**
- **THE GOVERNMENT SECTOR LOST MORE THAN 77 MILLION DATA RECORDS — 31% OF ALL RECORDS LOST IN THE FIRST HALF OF 2015.**

SOURCE: BREACHLEVELINDEX.COM

LEADERSHIP AND COLLABORATION

Technology Services will lead in the design and implementation of an appropriate mix of process and technology to address business challenges and enhance Town service delivery. Delivering business value is an essential component of any effective technology strategy. New technologies will be adopted when they meet a customer need and clearly delineate a measurable return on the investment.

More and more Town departments are looking for new ways to implement technology to meet the demands of their users. This is beginning to place a heavy demand on Technology Services resources. It is conceivable that this demand will necessitate the formation of a technology governance framework in the future. This governance process will set the priorities of Town technology projects and resources to ensure that the largest return on investment is realized, especially in meeting Town strategic plan priorities.

Technology Services will continue to look for opportunities to collaborate with other entities in the region. Shared services models between governments have been slow to develop, but recent successes in other states have proven the value of such efforts.

Objectives:

- When required, implement a governance process for prioritizing Town technology priorities
- Participate in regional and statewide leadership groups and seek out opportunities to share services and collaborate
- Identify the role of technology in the development of a smart community
- Leverage shared services where appropriate to increase value, eliminate unnecessary duplication and reduce costs.

OPERATIONAL EXCELLENCE

Operational Excellence is a conglomeration of IT best practices, continuous improvement, staff empowerment and maintaining an infrastructure that is responsive to the needs of our customers. Technology Services' most important task is to maintain our current systems and applications. Our goal is to continuously look to improve our operations and streamline our processes while reducing our costs and risks. The following objectives will help us achieve our goal of operational excellence:

Objectives:

- Leverage Cloud and "as a Service" technologies to achieve scalable, cost efficient, and rapidly deployable systems and insure infrastructures remain current
- Continually analyze Technology Services and Town Department processes to gain efficiencies and remove bureaucratic barriers to the adoption of new technologies
- Ensure town technology staff have the skills to implement this vision, and to take timely advantage of new technology trends
- Ensure robust and reliable disaster recovery capabilities
- Increase Town use of Business Intelligence and analysis tools to better leverage Town data