

---

## Why Cities Should Understand, Implement, Manage and Capitalize on Technology

With the increasing sophistication of technological advances, technology has become more important and prominent in our everyday lives. A continual influx of features, functions and services, both online and in personal devices, make us increasingly connected. The advancement of cell technologies, improved citizen services, text, email, chats, video apps and wearable technologies make it possible to be in touch with each other in just about any location. Technology has become a necessity. In our connected world, it is essential to make sure that technology is not only available, but also secure and cost-effective; with today's expectations for instant access and reliable stability, it can be difficult to find a balance. However, it is vital to do so, because technology can be a strategic tool that can help cities and other agencies provide needed services to their constituents.

Many cities use technology for engaging and relaying important information to constituents, as well as offering many services that affect their everyday lives. Technology is a backbone for providing services such as well-maintained, safe roads, free of trash and debris, and synchronized street lights that help traffic flow and air quality. It affects public safety, ensuring police and fire can respond to emergencies and other incidents in a timely manner – which can save lives. Technology provides an improved and more personal connection for outreach to and engagement with citizens. Furthermore, it contributes to clean and safe water and many other needed services that we do not think about on a day-to-day basis.

Technology has become not only a convenience but also a personal necessity for our residents. Services including online permitting, utility bill pay, bus location, water usage information, parking services, public safety and others all play a part in our constituents' everyday quality of life. As a result, it is highly important that service providers be concerned with ensuring that their systems are running efficiently, effectively and securely so that the needs of the constituents are appropriately supported. It is no longer an expectation that these technologies are available; it is an expectation they will work well continuously.

Moreover, today's cyber landscape includes an increasing number of threats and cities (and other agencies) need to be careful to ensure proper safeguards are in place in order to protect systems. Security is a provision that cannot be overlooked, but many organizations do not have the necessary provisions in place – it is an afterthought.

On average, cities spend 2.5% to 3% of their overall budgets on technology; they must ensure that the technology implemented is cost-effective, provides the proper services and that taxpayer funds are not wasted.

Technology continually evolves and is now making our operations “smarter”. Today's technology has brought us terms such as the Internet of Things and Smart Cities – concepts centered on technology and its delivery. There have been many articles on cities that have implemented systems that have deemed them to be a “Smart City.” Smart parking, smart streetlights, mobile

applications, shot detection – these are a few of the elements that fall into this category and enhance the quality of life for citizens and visitors. Smart Cities have become a mechanism to attempt to boost economic development and attract visitors. The same holds true with the Internet of Things (IOT), another term used for technology that collects data that can provide enhanced services including sensors, connected cars, asset management and other systems that can improve efficiencies and potentially save dollars. Smart Cities generally have a form of citizen engagement mechanism where citizens can participate in government. This can be in the form of providing feedback, issuing service orders and/or sharing information on city services and events such as road closures or holiday schedules for city services as well as other forms of input and participation that can be achieved by mobile applications and/or website features. In addition, some communities have implemented the use of drones or 3D technology in order to provide additional value to their “Smart City” initiatives.

Many cities have incorporated cloud computing and/or hosted offerings as part of their operations. Cloud computing, where it makes sense, can offer cost savings, ease of access and opportunities to be nimble. That said, not all cloud offerings are cost-saving measures, so an organization needs to carefully weigh the costs with the benefits of moving to the cloud and/or keeping their operations in-house. There are pros and cons to everything. Knowing if the cloud is “right” for a city or organization depends not only on the features and service offerings but also all costs and considerations, such as security, availability and provider reputation. One size does not fit all.

Technology needs to be a consideration of any organization. Traditionally, it is often considered an operational need, operating behind the scenes or as an afterthought. However, it should be an integral part of any organization’s operations. The backbone of many services, it can increase efficiencies and potentially generate revenue – it should be considered of utmost importance. Technology should be considered an investment in community and constituent well-being. In fact, it should be considered a strategic tool, woven into the framework of every city’s planning process.

This topic as well as many others will be discussed in the session “Getting the Most Value From your City’s Technology Investment” presented by the Municipal Information Systems Association of California (MISAC) at the League of California Cities annual conference in September. You cannot afford to miss it.