



Creating Truly Smart Cities

Maintaining Resilience Within a Hardened Ecosystem

Introduction

“Smart cities” integrate information, communications and Internet of Things (IoT) technologies, within a secured environment, to manage a city’s assets, provide services to citizens, and increase efficiencies.¹ When cities are “smart,” there are many benefits. A recent global survey by ISACA asked today’s information and cybersecurity professionals about critical infrastructure systems and asked them to weigh in on aspects of “being smart.” ISACA’s survey respondents saw significant benefits of making cities “smarter” in areas such as transportation (70%), communications (65%) and emergency services (63%).²

Technology advancement can assist governments in providing services for their citizenry and generate insights that increase efficiencies, create more impactful programs, decrease public safety response times or reduce energy consumption. In short, it can bring improvements on a scale that most elected officials keenly desire.

Simply making a city technologically “smarter” is a great step forward, but it is not the only step that must be taken. Within the community of public officials throughout the United States, there is also a need for improvement in tech-savvy leadership and vision.

ISACA’s community of information and cybersecurity professionals, in response to the recent survey, indicated they believed that most levels of government (e.g., city, county, state, national) need to increase their technical knowledge.³ This does not mean every mayor needs to be an IT professional. It does mean, however, that today’s elected and appointed officials need a solid foundation in the risks, opportunities, potentials and implications of technology to best serve the futures of their communities.

The “Smart Cities” Ecosystem

Recent U.S. Census Bureau figures indicate there are more than 93,000 municipal entities and counties in the United States. However, no governmental entity is an island. Each governmental entity is part of a complex web of interactivity. Those 93,000 governmental units interact with

¹ McLaren, Duncan; Julian Agyeman; [Sharing Cities: A Case for Truly Smart and Sustainable Cities](#), MIT Press, 2015.

² ISACA Smart Cities Research Survey

³ *ibid*

hundreds of millions of citizens, as well as countless thousands of vendors, contractors, grantees, service providers and other governmental units.

“Smart cities” are most effective when they acknowledge that they are part of an ecosystem that demands increased cyber resilience throughout all levels of public and private sector enterprises, well-trained and highly qualified information and cybersecurity professionals at the individual level, and technologically savvy and adept leadership at the highest levels of that public or private sector organization.

Ensuring the security of such an ecosystem requires commitments from all involved, from the national level, through the state and county levels, right down to the leaders of local cities and municipalities, and the professionals working in them. Those commitments must be more than promises; they must be tangible collaborations across governments, NGOs and industries.

Legislative Solutions

With any consideration of critical infrastructure legislation, attention must also be given to “smart cities,” on multiple levels. First and foremost, cities are focal points for critical infrastructure. This especially includes technology, for it will be the bedrock upon which the futures of America’s municipalities will be built.

Secondly, the United States is growing. With that growth comes increasing reliance on technology to optimize the provision of services to citizens in municipalities large and small. That growth also means that “smart” cities will soon come to mean “all” cities out of necessity.

Finally, there are people to consider—not merely the citizens, but the elected and appointed officials who are the leaders of and working professionals in America’s local governments. As leaders, it is critical that these officials are provided with the tools to secure the data and information for which they are charged with stewardship, as well as the technical grounding to ensure that forward-focused and responsible decisions are made regarding their respective cities’ technology futures.

ISACA believes that it is paramount that “smart cities” be viewed at the enterprise level, with a focus on the governance of municipal technologies as a central point of concern.

Additionally, ISACA believes that helping municipalities build and mature their respective information and cybersecurity capabilities to improve the provision of services, while concurrently managing risk, is the most beneficial public policy path forward for “smart cities.”

For years, corporations have been the subject of “digital transformation.” The time has come to talk about this transformation in our nation’s cities and municipalities.

About ISACA

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Nearing its 50th year, **ISACA**[®] (isaca.org) is a global association helping individuals and enterprises achieve the positive potential of technology. Today's world is powered by technology, and ISACA equips professionals with the knowledge, credentials, education and community to advance their careers and transform their organizations. ISACA leverages the expertise of its 450,000 engaged professionals in information and cybersecurity, governance, assurance, risk and innovation, as well as its enterprise performance subsidiary, [CMMI](#)[®] [Institute](#), to help advance innovation through technology. ISACA has a presence in more than 188 countries, including 217 chapters worldwide and offices in both the United States and China.

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