White Paper:

What is the Safe Cities – Smart Cities Movement?

Jun 2019

1621 N. Kent St. Suite 704
Arlington, VA 22209
(p) (703) 584-5350 • (f) 703.935.1147
www.winbourneconsulting.com

Contents

Introduction

Over the past 3-5 years, a term has come to dominate the public safety and technology international market place — this term is referred to as the Safe City concept. To be clear, there are no regulations or requirements to qualify as a Safe City. But, what has evolved over the past few years is a consensus on the main elements of the Safe City concept, drawing on the experience of many of the world's large metropolitan areas.

Safe City Driving Force—Migration to the Cities

For the first time in history, there are more people around the world living in cities than there are living in rural areas. While this global migration to urban areas is improving the living standards, health, and financial prosperity of these citizens; it also brings challenges to a city's infrastructure, resources, security procedures, and emergency response systems. Meeting these challenges will be critical to the success of cities in the decades that follow.

Linked with Smart City Technology Solutions—The Safe City concept has been developed precisely to help government stakeholders, city mayors, and police departments mitigate these challenges. Leveraging the existence of broadband communications networks Safe City solutions in connecting with Smart City analytic and big data management tools, real-time response procedures and emergency response systems. These solutions are enabling governments, emergency management agencies, and police departments to better protect their citizens from everything from terrorist attacks to natural disasters. City governments are looking for new ways to across departmental lines to link public health, fire and rescue, and social services to better serve their citizens.

Integration—The Safe City concept typically promotes interoperability across law enforcement, emergency services and other government agencies such as public health, transportation, and social services to streamline operations and provide 'situational awareness' to all stakeholders involved in the management of a city's security. This approach fosters collaboration and sharing of intelligence information.

Economic Benefits—Safe Ccity solutions can lead to savings from the reduction in crime, the mitigation of costly natural disasters, and the containment of terrorism. Also, benefits can come from providing the business and commercial community with a stable, safe environment to grow the economy and the quality of life of the city's citizens.

Citizen Engagement—The role of citizens in safe cities is critical to a safe city initiative. Allowing citizen's access to information means they will be more engaged in the civic activities and pride. Citizens will feel a civic duty for reporting crime, traffic conditions, or providing crowd sourced evidence.

Role Of IoT (Internet of Things)—Given the critical importance of security in cities, innovations in the IoT are increasingly improving the safety of city inhabitants. New services such as remotely connected CCTV and automated incident detection allow a quicker response to threats. Smart street lighting and modern traffic light controls can help to lower crime rates and improve driving conditions and is another example of the measures city planners are taking to improve residents' safety.

The Key Elements of the Safe City Concept

There are four key security elements of the Safe City concept. These are digital security, health security, infrastructure security, and personal security.

1. **Digital Security**—More and more cities are moving towards open digital platforms leaving the city data and systems open to cyber-attacks. When these attacks impact hospitals, water supply, transport and electricity grids, the city's ability to protect its citizens and visitors are threatened. To combat this rising threat, cities are taking different approach. Such as Hong Kong, in 2015, the city established the Cyber Security and Technology Crime Bureau to strengthen its capabilities in areas such as digital forensics and technology crime prevention. Los Angeles has launched the first city-based cyber lab in the U.S.

2. **Health Security**—Access to adequate healthcare, emergency services and hospitals are considered essential to people's sense of security. In addition, cities also need to deliver a healthy urban environment in the form of traffic management schemes, the provision of green spaces and other measures. The link between health and security also means implementing preventive measures wherever possible. For example, while terrorism has been gaining much attention as an urban risk, vehicle fatalities, were at 1.2m in 2015, far outweigh deaths from terrorist attacks—at 30,000 the same year, both staggering numbers.

3. **Infrastructure Security**—In developing countries, the rapid expansion of urban populations is also putting severe pressure on infrastructure. Slums and other unplanned urban developments are expanding, often in areas that lack basic services

such as water and sanitation systems. Climate change is presenting threats to urban infrastructure as the severity and frequency of hurricanes, floods, high winds and other extreme weather events increase worldwide. A recent study in Toronto indicated that if half the city's roof surfaces were green, irrigated roofs, it would reduce temperatures across the entire city by 1-2 degrees Celsius.

So-called "green infrastructure"—including permeable pavements, planter and green roofs—can be used to soak up storm water before it inundates a city. Cities are taking measures to incentivize these investments in green infrastructure. Washington DC, for example, has made it mandatory for construction firms to incorporate such features in buildings in some parts of the city.

4. **Personal Security--**Street lighting is increasingly being used as a means of crime prevention. Lampposts, seemingly simple as they are, can in fact be used to monitor everything from power consumption to pollution levels, traffic lights and parking spaces through the use of sensors. Sensors installed on the posts can also detect changes in noise levels that might indicate incidences of crime or civil unrest. LED lighting has proven to reduce city lighting costs up to 80%.

Many cities are now linking the city's CCTV infrastructure to artificial intelligence technologies to detect criminal behavior or unusual activity and reported as it happens, allowing cities to quickly deploy an emergency response.

Where do We Come In?

Winbourne Consulting is one of the leading public safety communications systems consulting firms in the world. We are actively working with Jakarta, Indonesia and Ho Chi Minh City, Vietnam on Safe City-Smart City initiatives. Many of the lessons learned in these cities have application in the US and other parts of the developed world.

About Winbourne Consulting

We have provided consulting and project management services to nearly 250 public safety agencies in the United States and 20 countries. Our clients include 8 of the 10 largest public safety agencies in the U.S.

For more information on how we may assist your agency, please contact: info@w-llc.com, or phone: 703-584-5350.

4 | P a g e

Winbourne Consulting, LLC
1621 North Kent Street, Suite 704, Arlington, VA 22209 USA
T. (703) 584-5350 F. (703) 935-1147
www.winbourneconsulting.com