Economic Stimulus: Building Public Safety Network Infrastructure for Immediate Jobs Creation and Sustainable Benefits

At-A-Glance

What Is the Economic Value of 21st Century Network Infrastructure for Public Safety?

The Works Projects Administration jobs of the 1930s lasted only as long as it took to finish the building. In contrast, the success of the economic stimulus program of 2009 will be measured not only by immediate jobs creation, but also by sustainable economic growth and competitive advantage. Public safety agencies can meet all of these goals by:

- Approaching safety and security holistically—taking into account all five steps of the safety and security continuum (Prepare, Prevent, Detect, Assess, Respond)
- Providing mobile access to the headquarters network, allowing public safety officers to respond more quickly to emergencies
- Unifying previously separate voice, video, and data networks, increasing efficiencies and lowering costs
- Enabling communications interoperability using radios, phones, cell phones, and other communications devices, allowing for multi-jurisdictional communication during emergencies
- Creating new jobs, along with increasing responsiveness and your "force" capabilities now and into the future

Jobs Creation

Using stimulus funds to build 21st century infrastructure for public safety creates immediate as well as long-term jobs.

Immediate Jobs	Long-Term
· Network planners*	· Network administrators and managers*
· Laborers for cable trenching and installation	· Technical support staff*
· Technicians to install network devices, wireless access points, video surveillance cameras, gunshot detectors, environmental sensors, and more*	· Network analysts*
· Trainers for installation*	· Project managers*
	· IT analysts*

* Skilled jobs

Immediate Return on Investment from Mobile Access to the Headquarters Network

Building a network infrastructure for public safety offers the following mobility benefits:

- Reduces crime and fear of crime: When police officers can access criminal databases and enter traffic tickets and accident reports from their vehicles over an outdoor wireless mesh network, they can spend more time on the street, increasing police visibility in the community. The network can also be used to connect video surveillance cameras, which help deter crime and make residents feel safer.
- Enables effective and efficient resource deployment: Law enforcement agencies can deploy video surveillance systems in critical areas, allowing headquarters to determine the appropriate number and type of officers to deploy.
- Increases speed of decision making: Law enforcement officers in the field can consult booking photos or restraining orders that help them make timelier and more informed decisions.
- Improves situational awareness: First responders on their way to a hostage situation, fire, or other incident can study real-time video captured by a wireless camera at the incident scene to begin planning their response, gaining valuable time. Network-connected gunshot detectors can automatically notify first responders, enabling them to respond more quickly to come to victims' aid, protect bystanders, and interview witnesses.
- Enhances the quality of decisions by providing access to more resources: Firefighters on the way to a hazardous-materials spill can consult hazardous-materials databases, gas chromatography/mass spectrometry (GC/MS) data, and building blueprints to plan actions for the best outcome.

Immediate Return on Investment from Unified Communications

Building a network infrastructure for public safety offers the following unified communications benefits:

- Reduces operational costs: Public safety agencies can manage one, unified IP network instead of separate networks for voice, video, and data.
- Reduces communications costs: Kent Police in the United Kingdom reduced communications costs by 30 percent with unified communications by lowering long-distance tolls and leased-line costs.
- Reduces training costs: First responders can receive regular training over the network, with voice, video, and web collaboration. The Arlington County, Virginia fire department uses video solutions to broadcast real-time training directly to each fire station.

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Sustainable Advantages

Building a network infrastructure for public safety offers the following sustainable advantages:

- Enables communications interoperability: A vital element of effective day-to-day public safety services as well as emergency response, IP networks enable first responders and government officials to communicate directly using any type of radio system as well as phones, cell phones, and laptops.
- Enables regional and national collaboration: Municipalities that deploy an outdoor wireless mesh network can take full advantage of NIets, the National Justice and Public Safety Information-Sharing Network. State troopers can quickly determine if a driver's license is valid, and police officers can check the criminal history of a suspect being detained in the field. Task force detectives can check the registration of a suspicious aircraft or boat, and public safety agencies can receive interstate Amber Alerts as well as Homeland Security alerts. In addition, community police officers can check to see if someone is a registered sex offender.
- Fosters economic development: Safer neighborhoods increase the community's attractiveness. This benefit can also lead to higher property values and an increased tax base.

Start Now

Contact your Cisco account team for ideas about how building outdoor wireless mesh networks or adding network infrastructure to buildings and mobile command vehicles can help create jobs, increase return on investment (ROI), and deliver sustainable advantages. Your account team can also provide standards-based architecture blueprints for a variety of projects and help identify procurement vehicles and partners.

Resources

www.cisco.com/web/strategy/government/safe_secure.html

Case Study: City of Austin Rapidly Establishes Communications in Any Location

The City of Austin, Texas, integrated a rapidly deployable communications system into its mobile command vehicle, helping ensure that first responders have network access even if a power outage or disaster occurs.

The equipment in the vehicle automatically connects using whatever method is available: wired, wireless mesh, or satellite. When connected, the system provides wired and wireless connectivity in and around the vehicle so that public safety personnel can use laptops, handheld devices, and other tools to access maps, database information, streaming video, and more.

The system also enables the city to support more than a dozen different radio systems used by its various agencies, including push-to-talk radios and regular phones, as well as to communicate with the emergency medical service dispatch team within the city's Combined Transportation Emergency & Communications Center. Having the different types of radio and other voice technologies available in one system enables incident commanders to make informed decisions and relay those decisions to the field as quickly as possible.

Case Study: City of Bowling Green Increases Situational Awareness

In April 2008, the City of Bowling Green, Kentucky began using an outdoor wireless network to deliver network resources to field personnel. If firefighters are dispatched to an incident scene, they can use a laptop in the truck to retrieve maps and access information about the types of hazardous materials that might be stored nearby, improving situational awareness.

Similarly, police officers can enter traffic tickets and accident reports and access criminal databases from the field. This arrangement enables them to remain on patrol longer, creating a force multiplier. The outdoor wireless network also enhances the city's ability to collaborate with other municipalities during a disaster by giving all first responders access to the city network, public safety databases, and other critical applications.

The city increased its ROI by using the same network to give building inspectors access to licensing records. If each inspector can do 20 percent more inspections each week by not having to return to the office to receive work orders and submit results, the same workforce can complete 20 percent more inspections without having to work more hours.

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