



End-to-End Global Solutions Provider

Motorola offers multiple products to satisfy the requirements of government agencies and municipalities around the globe. Motorola has extensive experience with wireless solutions deployed in more than 4,000 networks and in 120 different countries. These wireless broadband networks enable key applications such as video surveillance, mobile office capabilities, public access, VoIP, meter reading (parking and utilities) and traffic management. In each case, Motorola's network solutions help municipalities and government agencies realize significant cost savings, effectively extend network coverage and provide a faster, more robust network.

Wireless Citizenship

Today, cities are beginning to rely on residents to take an active role in keeping their community safe, clean and in good shape. Active citizenship encompasses a true partnership between a person and the government, and includes reporting any misdoings, crimes, suspicious activities or problems with city property and infrastructure. Citizen participation can be as simple as reporting a pothole on a street, or as serious as reporting a crime in progress. While cities expect their residents to be responsible for their community, it is the city's responsibility to provide the tools necessary to enable citizens to easily notify the proper officials to resolve the problems in real-time. The easier it is for residents to report troubling incidents, the more likely they will act. Therefore, robust, reliable, easily accessible and secure networks are a necessary piece of the solution.

Many cities already have a wireless network in place for services and are looking to augment existing networks, rather than to perform a costly and time-consuming redesign and new deployment. Cities around the U.S., and globally, often find themselves in the position of needing additional network services, but do not want or need to purchase a completely new network infrastructure. Very often the existing networks are performing mission critical tasks and do not need to be replaced. A scalable, flexible and multi-solution approach is the most cost-effective and sensible path to follow.

One Network Multiple Functions

One municipality in the U.S. facing these challenges came to Motorola for help. The city needed to provide wireless access to city employees and residents to efficiently utilize city staff, time and assets. The city had already deployed a web-based dispatch program enabling citizens to report problems in their neighborhoods, but it also wanted to provide a wireless network for work orders to be quickly dispatched to employees in the field.

The city was already using the MOTO-MESH™ Solo system for their police force, operating on the 2.4 GHz frequency band. With Motorola's unique MEA (Mobility Enabled Access) technology enabling high-speed mobility (able to

maintain connectivity even in vehicles traveling in excess of 150 mph), Solo was able to meet the police officers' mobility requirement. However, the city needed to expand its network for other city services as well. Motorola's wireless broadband portfolio was able to meet the city's requirements by deploying an overlay network of MOTO-MESH Duo radios. Utilizing industry leading interference mitigation, the MOTOMESH Duo and Solo networks were able to co-exist, while providing the city with multiple access layers of connectivity for users at the street level. Both Duo and Solo access points are small and lightweight (weighing under five pounds), making them easy to deploy and virtually invisible to the community. In addition, Motorola's Point to Multi-point (PMP) access points and subscriber modules were deployed to backhaul the voice, video and data directly from the units on utility poles and street lamps to existing towers. The towers then were backhauled to the city's Network Operations Center (NOC) using existing fiber and Motorola's Point to Point (PTP) products.

Quick Return on Investment

Since the installation of the Motorola wireless network solutions, the city has experienced a very fast return on investment. The automatic link between resident reported issues and work order dispatching has driven significant savings.

For example, a citizen reported a pothole on her street to the public works department by using the web-based system. This triggered a service ticket that was routed from the department of public works, and then was sent directly to the work crew in the field. Within an hour, the pothole was filled with asphalt and the ticket was closed. Before the implementation of the wireless networks, the crew would have completed their current work assignment, gone back to the office, picked up new service tickets and proceeded to each job in course. With Motorola's wireless broadband networks, work crews are seeing and responding to problem tickets for their departments in real-time, saving valuable work time and overall increasing the efficiency of the city works department. By spending less time driving back to the offices and more time in the field, more is done with less. Even better, the city is saving more than \$50,000 annually on fuel costs by eliminating the need for constant return trips to police headquarters and public works depots.

In addition, the city is seeing cost savings by deploying MOTOMESH Duo as an overlay network instead of going with another competitive solution. MOTOMESH Duo offers high powered radios which maximize coverage and require fewer access points to provide more coverage than leading competitors. Since both the Solo and Duo products utilize the same software including the same Intelligent Routing Algorithm, MeshConnex™, the city experienced the same enhancements across its entire network. Finally, both the Solo and Duo networks are managed through Motorola's One Point Wireless Suite, giving a simple, intuitive interface to monitor performance and configure the network. These benefits enabled the city to see a lower total cost of ownership.



Unparalleled Solution

Motorola's wireless broadband networks are proving to be the winning solution for this city because the multiple network solutions in Motorola's portfolio are scalable and can be combined to deliver a complete, end-to-end solution. The depth and breadth of the Motorola offering is unparalleled by any other solution in the market today, making it easy for customers to add on and combine different services quickly, efficiently and cost-effectively as needs arise. Motorola designed and deployed a unique solution consisting of the MOTOMESH Duo, MOTOMESH Solo, PTP and PMP products, providing all the services and functionality the city needed to solve its daily problems.

About Motorola Wireless Broadband

Motorola's industry-leading portfolio of reliable and cost-effective wireless broadband solutions provide and extend coverage both indoors and outdoors. The Motorola Wireless Broadband portfolio offers high-speed connectivity systems that support data, voice and video communications, enabling a broad range of fixed and mobile applications for public and private networks. With Motorola's innovative software solutions, customers can design, deploy and manage broadband networks, maximizing up-time and reliability while lowering installation costs.



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