

MOTOMESH

The Multi-Radio Broadband Solution for
Public Safety, Public Works and Public Access



Over 65 Years of Understanding the Needs of Public Safety

In today's world, you need a solutions provider that understands what Mission Critical is all about: the lives and well-being of your employees and the citizens they protect. That's why Motorola is a leading provider of interoperable communication systems for public safety, first responders and government agencies. Our experience, along with our skills, people, partnerships and alliances, allow us to build innovative, fully integrated technologies that let organizations like yours share vital information with ease and confidence. We've been doing it for 65 years, and we'll be standing by our customers for years to come.

We are committed to bringing all of our knowledge and technical expertise together, so you can focus on what you do best... to serve and protect the public.



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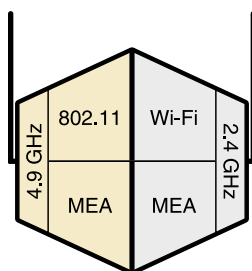


With the MOTOMESH Multi-Radio Broadband Solution, Municipalities Can Now...

Enhance Public Safety by giving First Responders secure and dedicated 4.9GHz mobile broadband connectivity to databases, reports, and video.

Boost Municipal Worker efficiency by delivering photos, blueprints and GIS enhanced data to field personnel, while supporting on-line report filing from their vehicles and laptops.

Provide residents and visitors with Wi-Fi access in local hotspots, public transportation, or across the entire city.



Four Networks in One.
A MOTOMESH access point contains four radios, and provides services to four different networks in a single deployment.

Motorola's mesh networking technology enables users to wirelessly access critical broadband applications seamlessly – any time, and anywhere.

Licensed 4.9GHz and Unlicensed 2.4GHz

Every MOTOMESH access point contains two standards compliant 802.11 (Wi-Fi) radios and two of Motorola's acclaimed Mesh Enabled Architecture (MEA) mobile broadband radios. One set of Wi-Fi and MEA radios operate in the unlicensed 2.4GHz band. The other operates in the 4.9GHz public safety band.

Public Safety, Public Works and Public Access

MOTOMESH is a wide area, multi-radio solution that offers the security, capacity and flexibility cities need. It can deliver mobile broadband access to diverse municipal agencies, as well as Wi-Fi access to the public. The MOTOMESH architecture supports up to four radio networks in a single access point and is built on Motorola's proven MEA mobile broadband networking technology.

State of the Art Mesh Networking

By leveraging technology originally developed for battlefield communications, MOTOMESH supports high-speed data, video, and position location services for fixed and mobile users. Data links automatically self-form and self-heal between users and network infrastructure. Because every access point is meshed, backhaul, deployment and operational costs are greatly reduced. Municipalities of all sizes may realize a higher ROI than with traditional networks.

Seamless Mobility – Even at High Speeds

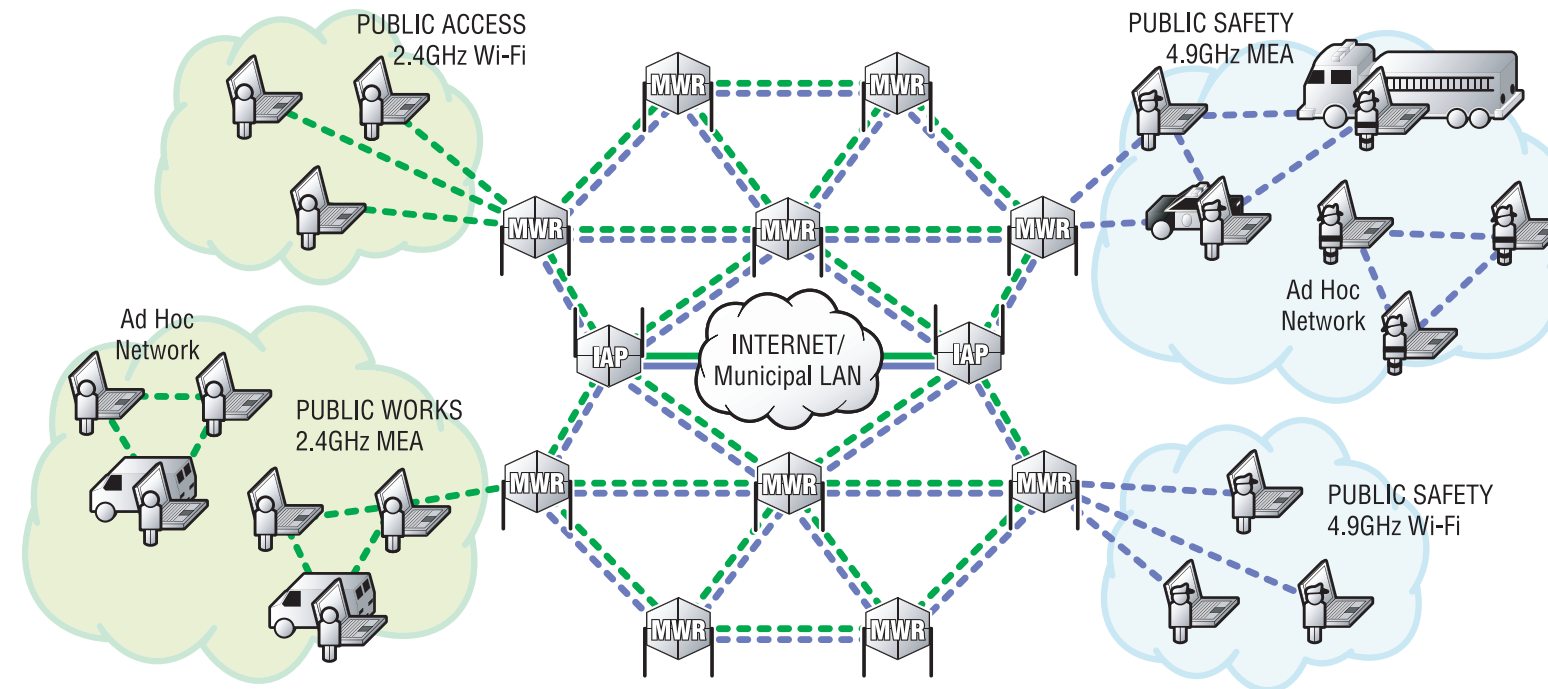
Seamless broadband data connectivity is available throughout the network to both stationary and mobile MEA users. This constant connectivity can be used to deliver real-time, remote monitoring of in-vehicle video – even when traveling in excess of 150 mph.

Form Instant Tactical Data Networks

The Multi-Hopping capabilities of the MEA network allow client devices to form instant, ad hoc broadband networks where no predeployed infrastructure exists. Each MEA radio acts as a router/repeater for all other MEA devices in the network. MEA users can “hop” through neighboring devices to communicate with each other – or to reach distant network access points that can connect them to other data and voice networks.

Fast and Accurate Position Location

Depending on network configuration, patented position location technology is available to every MEA device. Using this technology, users know where they are and can instantly find out where any other user is, without having to rely on GPS satellites. Location can be determined in places that GPS satellite signals cannot penetrate, like urban canyons, inside buildings, tunnels, or other obstructions. Users can be located in less than one second, providing quick and accurate location information for personnel or asset tracking.



Public Safety, Public Works & Public Access. MOTOMESH delivers a wide area, multi-radio broadband solution to public safety and other municipal agencies. MEA radio users can also form instant, ad hoc, peer-to-peer networks - any time, and anywhere.

PUBLIC SAFETY BENEFITS

- 4.9GHz band gives dedicated access to First Responders
- Both the uplink and downlink run at broadband speeds
- Allows the desktop to move into the field for improved efficiency and responsiveness
- Instantly forms a broadband network between MEA users
- MEA radios offer seamless connectivity at highway speeds
- All MEA devices are capable of providing location and tracking information, indoors & outside – without the need for GPS
- Supports standards body initiatives to leverage 802.11 technology into the 4.9GHz band
- Users from other city agencies and the general public do not impact public safety access

PUBLIC WORKS BENEFITS

- Improves productivity by reducing trips to headquarters for data retrieval or report filing
- Seamless broadband connectivity turns time in the field into productive time
- Enables paperless dispatching, work orders and reporting
- Supports AVL services for tracking and accountability
- Enables remote worksite and vehicle video surveillance

PUBLIC ACCESS BENEFITS

- Increases resident, business and visitor satisfaction
- Public Wi-Fi access can be provisioned at a few hotspots, on buses & public transportation, or supported citywide
- Public access can be deployed as a free service or as a revenue generator to help accelerate ROI
- Access available to any Wi-Fi enabled device or PC card

MOTOMESH NETWORK COMPONENTS

IAP7300 / Intelligent Access Point

The Intelligent Access point provides the wireless gateway between a MOTOMESH network and the wired world. If greater network capacity is required, additional IAPs can be easily deployed. The self-forming, self-healing and self-balancing routing inherent in a MOTOMESH network minimizes the need for expensive site planning. Dual independent backhaul connections keep Mission Critical bandwidth secure and separate from the public network.

MWR7300 / Mesh Wireless Router

The Mesh Wireless Router extends coverage and connectivity by meshing IAPs and users together. Data signals can hop through one or more MWRs to enable non-line-of-sight communications. MWRs also act as reference points for position location determination.

WMC7300 & WMC6300 / Wireless Modem Card

4.9 GHz and 2.4GHz MEA wireless access cards allow any computing device that supports PC cards to access a MOTOMESH network. These cards also form instant broadband meshes between themselves and other MEA client devices when no MOTOMESH infrastructure is present.

VMM7300 & VMM6300 / Vehicle Mounted Modem

4.9 GHz and 2.4GHz MEA wireless modems provide a mobile, high bandwidth radio, and feature a standard RJ-45 Ethernet port to support laptops, hubs, printers, IP video cameras or any other Ethernet-ready device. The VMM also forms an instant broadband mesh with any other MEA device.

MeshManager / Network Management

MeshManager provides a single, comprehensive network management suite for controlling security policies, network provisioning, client administration and performance monitoring for all of the devices in a MOTOMESH network.