



wi4 Mesh

MOTOMESH™ Solo

Single Radio Meshed Network with Mobility Enabled Access

A Mobility Enabled Access network can improve productivity by providing high speed data, video and location services to mobile users and field personnel.



Motorola's mesh networking technology enables users to wirelessly access critical broadband applications seamlessly – virtually any time and anywhere. Whether utilizing predeployed infrastructure, or an instant, ad hoc, broadband network formed with other users, Motorola's mesh networking technology delivers real-time data to detect, prevent, and respond.

Internet Architecture - Enhanced and Mobile

Motorola has enhanced the network architecture and capabilities found in the wired Internet, and made them mobile. The Mobility Enabled Access (MEA) solution is a flexible and scalable wireless network that can maximize performance and bandwidth efficiency for wireless applications. Self-forming, self-healing and self-balancing routing allows wireless devices to become the network, offering a towerless, seamless, and flexible high-bandwidth wireless solution.

Architecture Components

MEA networks are composed of four hardware and software elements: the Wireless Modem Card for clients (WMC), Mesh Wireless Router (MWR), Intelligent Access Point (IAP), and the Mobile Internet Switching Controller (MiSC).

WMC6300 / Wireless Modem Card

The Wireless Modem Card (WMC) delivers 6 Mbps burst data rates for live audio and video, fast and accurate position location, and other data services to any device with a PCMCIA card slot.

MWR6300 / Mesh Wireless Router

The Mesh Wireless Router (MWR) is a small, low-cost wireless device that is primarily deployed to guarantee coverage in large geographic areas, campuses, or even in-building applications. MWRs are used to seed new network deployments, and enable non-line-of-sight communications between clients and IAPs.

IAP6300 / Intelligent Access Point

The Intelligent Access Point (IAP) is a small, low-cost device that acts as the transition point from the wireless MEA network to the wired Internet and Public Switched Telephone Network (PSTN). Each IAP supports burst data rates up to 6 Mbps. Additional IAPs can be deployed to increase capacity at any time.

MiSC / Mobile Internet Switching Controller

The MiSC provides routing, switching and management functions for the MEA network. It provides the connectivity between IAPs and wired world. The MiSC is comprised of off-the-shelf hardware components. Software consists of both off-the-shelf products and Motorola's MeshManager software.

A Total End-to-End Solution

Motorola's wireless broadband portfolio offers an array of access and backhaul technologies for complete end-to-end municipal wireless initiatives. Motorola wi4 Fixed Point-to-Multipoint and Point-to-Point solutions can provide reliable, high-capacity Internet backhaul links to Motorola mesh networks. MeshPlanner and MeshScanner enable detailed network planning and optimization capabilities. Additionally, Motorola's MOTOWi4 Ready Applications Ecosystem offers a wide range of validated solutions to generate immediate benefit from your wireless network.

SPECIFICATION SHEET

MOTOMESH Solo
Single Radio Meshed Network
with Mobility Enabled Access

BENEFITS

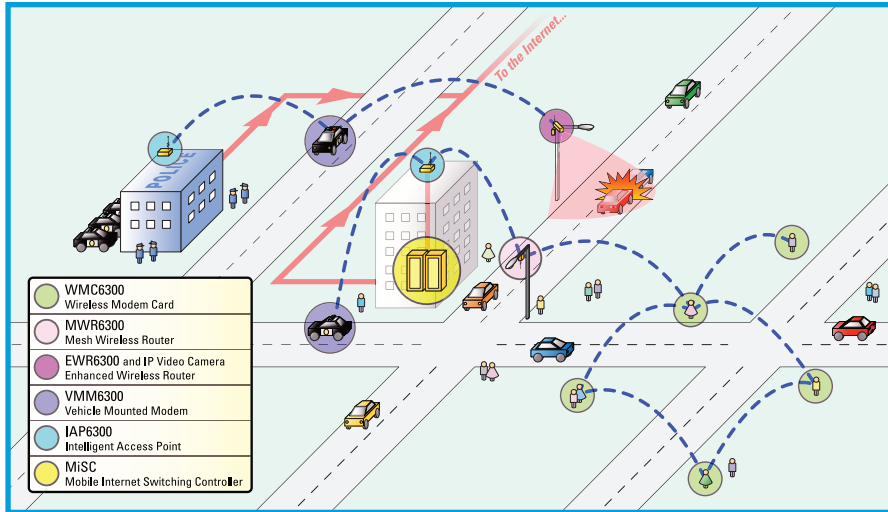
- Best-in-class radio performance
- Reliable coverage
- Best-in-class throughput
- Robust security

MOTOwi4

MOTOMESH Solo is part of the MOTOwi4 family of broadband access technologies, a comprehensive platform of wireless broadband solutions, applications and services. Designed to complement and complete wireless networks, MOTOwi4 solutions address a broad range of applications across municipal, enterprise, and operator segments. The comprehensive MOTOwi4 portfolio creates a true end-to-end ecosystem of complementary products, services and solutions that provide high speed connectivity enabling a broad range of applications in fixed, nomadic, portable or mobile environments. Working together, wi4 Mesh solutions combined with other MOTOwi4 access technologies deliver ubiquitous, metro-wide (community-wide, campus-wide) wireless broadband coverage.

WHY MOTOROLA

Motorola is uniquely positioned to address the wireless broadband market through the MOTOwi4 vision. Motorola has aligned its business units and roadmaps to provide a comprehensive, end-to-end solution covering all aspects of the broadband wireless access deployment. With our deep and extensive patent portfolio, over a decade of R&D investment, and our experience as a global supplier of broadband wireless access solutions, Motorola is primed to deliver its best in class wireless networks. Motorola is committed to leading the industry with end-to-end wi4 Mesh solutions addressing the full scope of the operator's deployment needs including access, core, devices, network management and services.



Mobility Enabled Access Benefits

Self-Forming

Devices discover, build and maintain their own routing tables in real time

Self-Healing

Dynamic route creation automatically deals with network congestion and node failures

Self-Balancing

The Multi-Hopping routing process moves network capacity to where it is needed

High Mobile Data Rates

MEA offers broadband data speeds to mobile client devices

Non-Line-of-Sight Connectivity

Mesh Enabled Architecture eliminates line-of-sight issues

Spectrally Efficient

MEA networks enable spectrum reuse many times superior than cell-based solutions

Towerless Infrastructure

Multi-Hopping technology eliminates the need for towers and expensive real estate

Supports Industry Standard IP

Use all existing Internet Protocol (IP) based applications and devices – any time, and anywhere

Fast and Accurate Position Location

All MEA devices are capable of providing location and tracking information, indoors and outside, without the need for GPS

Peer-to-Peer Networking

Instantly form networks between users without utilizing any network infrastructure

Motorola Can Give You The Edge

Costs Less to Deploy, Operate and Maintain

By leveraging low-cost, high-capacity, packet based infrastructure, entire networks can typically be deployed for a fraction of the cost of alternative solutions. Engineering, operations and maintenance expenses are also drastically reduced by the self-forming, self-healing, self-balancing architecture.

Pay As You Grow

Capacity and coverage can be increased at any time by deploying additional, low-cost Wireless Routers and Intelligent Access Points. Clients automatically extend network coverage as they join the network.

Leverages Existing Applications & Devices

By supporting an end-to-end IP strategy, MEA technology lets clients leverage existing devices and applications they use today. No new “killer app” is needed to make your deployment a success.

Leverages License-Free Spectrum

The MEA network supports more bits per client, while using less spectrum. This enables broadband networks to be deployed entirely in license-free frequency bands. Multi-Hopping continually reuses frequencies without creating interference - even in high-density areas.

Rapid Deployment

Motorola's solution is fast to deploy because it is towerless. The infrastructure can be mounted on streetlights, billboards, and buildings - placement is not critical. Because client devices actually become part of the infrastructure, end-users self-deploy a majority of the network themselves.



MOTOROLA

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