



MOTOMESH™ Duo

Doubles the Flexibility of Municipal WiFi and Enterprise Networks



MOTOMESH Duo is a powerful, next-generation, two radio meshed network. Part of Motorola's leading-edge wireless broadband portfolio of products, it's designed to give providers of high-speed public access and public safety networks the flexibility needed to meet performance, capacity and ROI goals.

Meet Your Business Case by Increasing Your Capacity, Throughput and Profitability

Motorola's mesh networking technology enables users to wirelessly access broadband applications seamlessly - virtually any time and anywhere. Whether providing wireless access to a campus, municipality or residential neighborhood, Motorola's MOTOMESH Duo solution delivers real-time data to employees, customers or constituents. Mesh networking technology significantly reduces the backhaul costs of wide scale networks and leverages millions of WiFi enabled devices already deployed globally. The high performance MOTOMESH Duo solution is designed to meet strict cost per square mile and ROI (return on investment) targets.

MOTOMESH Duo networks are designed for the demanding performance and economic realities of today's Metro WiFi marketplace. With multiple radio configuration options, support for the latest security and QoS standards, and networking technology that incorporates Motorola's fieldproven MeshConnex routing engine, the MOTOMESH Duo system provides the flexibility and scalability network operators need - quickly, simply, and affordably.

Configuration Flexibility.

The flexibility of the MOTOMESH Duo solution enables enterprises, service providers and municipalities to choose the best combination of meshed WiFi radios to effectively address the requirements of all of their employees, customers, and constituents.

MOTOMESH Duo is available either in a single radio configuration with a 2.4GHz WiFi radio (802.11 b/g) or in a two radio configuration with an additional 5.8, 5.4 or 4.9GHz (802.11a) radio. In a single radio configuration, the 2.4GHz radio is used for both client access and node-to-node mesh links. This option is ideal for network deployments where coverage and service at a low cost is paramount. In the two radio configuration, the 5.8 or 5.4GHz radio is dedicated for node-to-node mesh traffic, while the 2.4GHz radio is used for client access. This configuration delivers increased performance and interference mitigation capabilities with lower latency than the single radio configuration.

Compact Size.

Weighing less than five pounds, the compact MOTOMESH Duo system nodes deliver mounting location possibilities that other larger units can't match. MOTOMESH Duo nodes can be installed in a wide range of locations, including light and utility poles, traffic signals, buildings and more. Slim, aesthetically pleasing designs and low profiles also help gain community acceptance.

Easy to Deploy.

The lightweight and small form factor means MOTOMESH Duo nodes are easy to handle. One person can install a module in as little as 15 minutes. MOTOMESH Duo networks are self-forming, so nodes automatically power up and self-integrate into the system. Built-in meshing intelligence means installers are not required to have special radio or networking training.

Affordability.

In addition to outstanding performance and flexibility, MOTOMESH Duo networks also offer outstanding cost-effectiveness and remarkable affordability. Every aspect of the system is engineered to help meet stringent cost-per-mile targets and ROI (return on investment) goals.

Quality of Service (QoS).

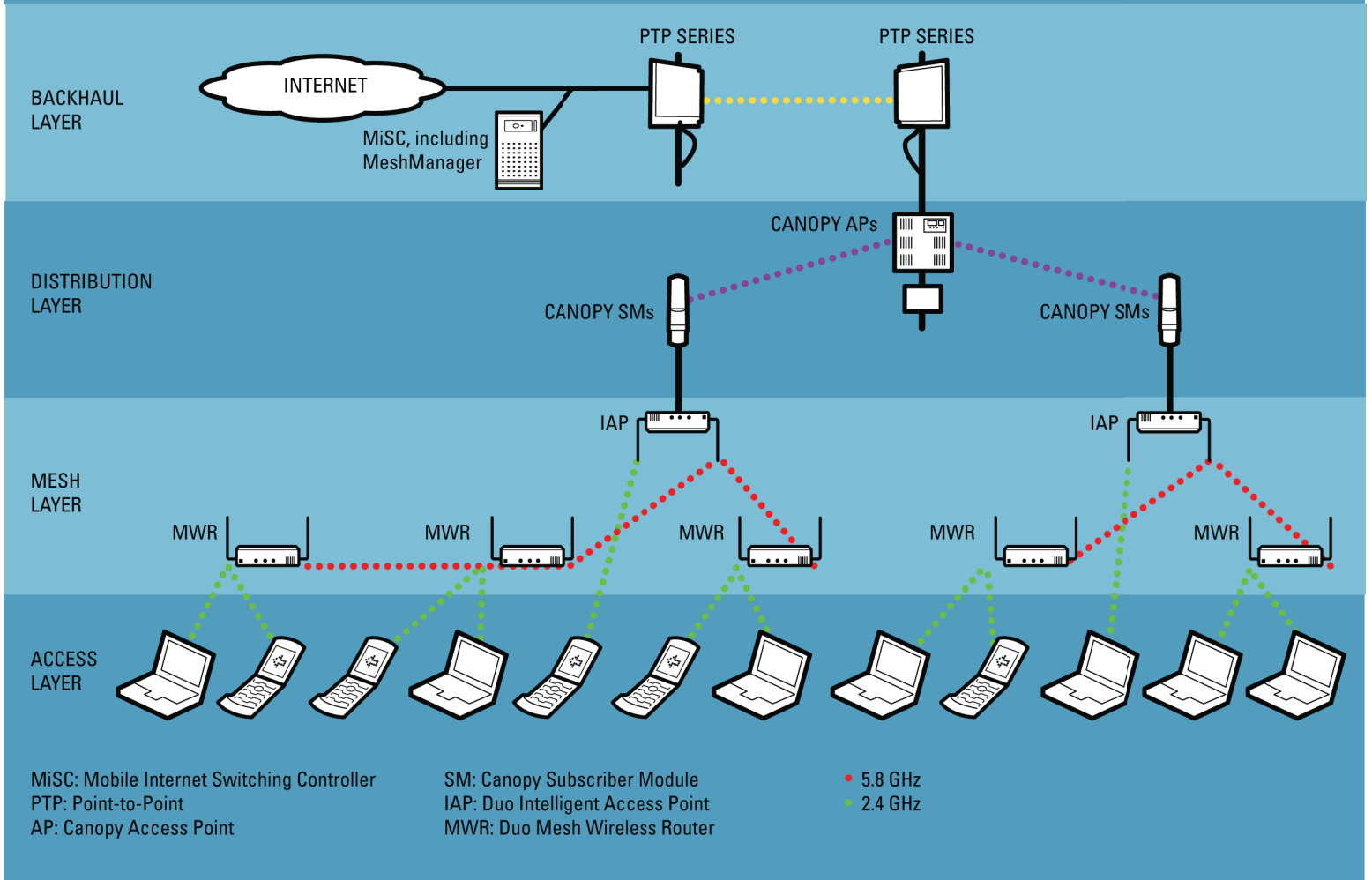
Delay-sensitive applications like video and voice services require different data priorities. MOTOMESH Duo supports IEEE 802.11e based traffic prioritization. It constantly monitors node congestion, and automatically tunes its QoS parameters to optimize route selections to support latency sensitive applications.

Support for Standards-Based Voice and Video Applications.

MOTOMESH Duo networks enable municipalities and service providers to establish profitable new revenue streams from in-demand voice and video services. The two radio system supports both 802.11e and 802.1p QoS standards, allowing providers to offer sophisticated fixed and nomadic video surveillance applications, as well as high quality VoIP services. In addition, the MOTOMESH Duo solution supports over-the-air software upgrades for adding new capabilities and standards. This helps protect your network investment for years to come.

MOTOMESH Duo Network

Reference Model Two Radio





Standards-based Technology that Assures Seamless High-Speed Access

Flexible & Adaptable Gateways.

Every MOTOMESH Duo unit is capable of being an intelligent access point (IAP) or mesh wireless router (MWR), reducing the cost of storing excess inventory and simplifying deployment. Additionally, IAPS immediately adapt to backhaul loss by becoming wireless routers, routing traffic to an alternate gateway in the network. This automatic, self-healing ability minimizes service interruptions and ensures continuous connectivity. With the embedded NetPerf Performance Tool performance can be obtained from Client to IAP or IAP to IAP.

Advanced Network Management.

MOTOMESH Duo utilizes Motorola's One Point Wireless Manager to manage and visualize a multitude of capabilities for small to large networks and all of these capabilities are controllable from one central console. By completing one profile, a large number of devices can be configured easily, reducing the time required to provision individual devices and complete on-going adjustments. Once the network is up and running, the Wireless Manager is a flexible and powerful tool that monitors the health of the network's components and provides enhanced visibility with Google Earth™ for quick detection and resolution of problems that can impact network performance and user satisfaction.

Carrier-Class Security.

MOTOMESH Duo supports complete, end-to-end security, and provides WEP, WPA and WPA2 encryption on client access. Motorola's own SecureMesh ensures the highest data security within the meshedWiFi network. An additional security feature enables users to create access lists, which can block particular clients from accessing the network.

MeshPlanner.

MeshPlanner, Motorola's advanced network design software, helps streamline the planning of reliable outdoor wireless mesh networks that deliver exceptional coverage, capacity and performance. Used in conjunction with a thorough site survey, MeshPlanner enables providers to optimize MOTOMESH Duo network planning based on a wide range of operational and environmental factors.

Software Highlights.

The MOTOMESH Duo solution offers a multitude of software features for enhancing your network experience. With Peer-to-Peer Communication Blocking ISPs (Internet Service Providers) now have an effective way to manage billing applications and client tracking scenarios. With the combination of Duo's VLAN support and standard 802.11e QoS, ISPs can create differentiated services that will allow them to offer tiered packages. Finally, historical, comprehensive statistics are now available for future reference and review.

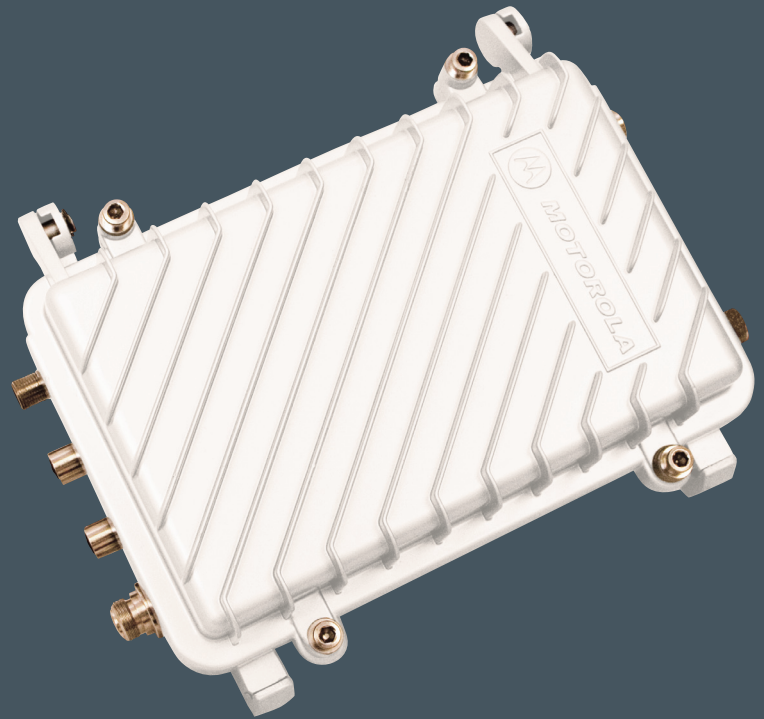
Motorola's MeshConnex Networking Engine.

MeshConnex is Motorola's proven high-performance routing and networking engine, successfully deployed in mesh networks around the world. MeshConnex technology delivers scalable, throughput-optimized WiFi access to users across a campus, neighborhood or entire city. MeshConnex enables self-forming, selfhealing wireless broadband networks that enhance performance and reduce the cost of backhaul, deployment and system engineering. Its patented Layer 2 routing technology, Mesh Scalable Routing (MSR), intelligently monitors performance, automatically solving interference problems by finding and establishing throughput-optimized connections.

How **MOTOMESH Duo** Meets the Industry Standards of Today and Tomorrow

MOTOMESH Duo networks feature exceptional radio performance, flexibility and advanced technology that's compatible with crucial industry standards:

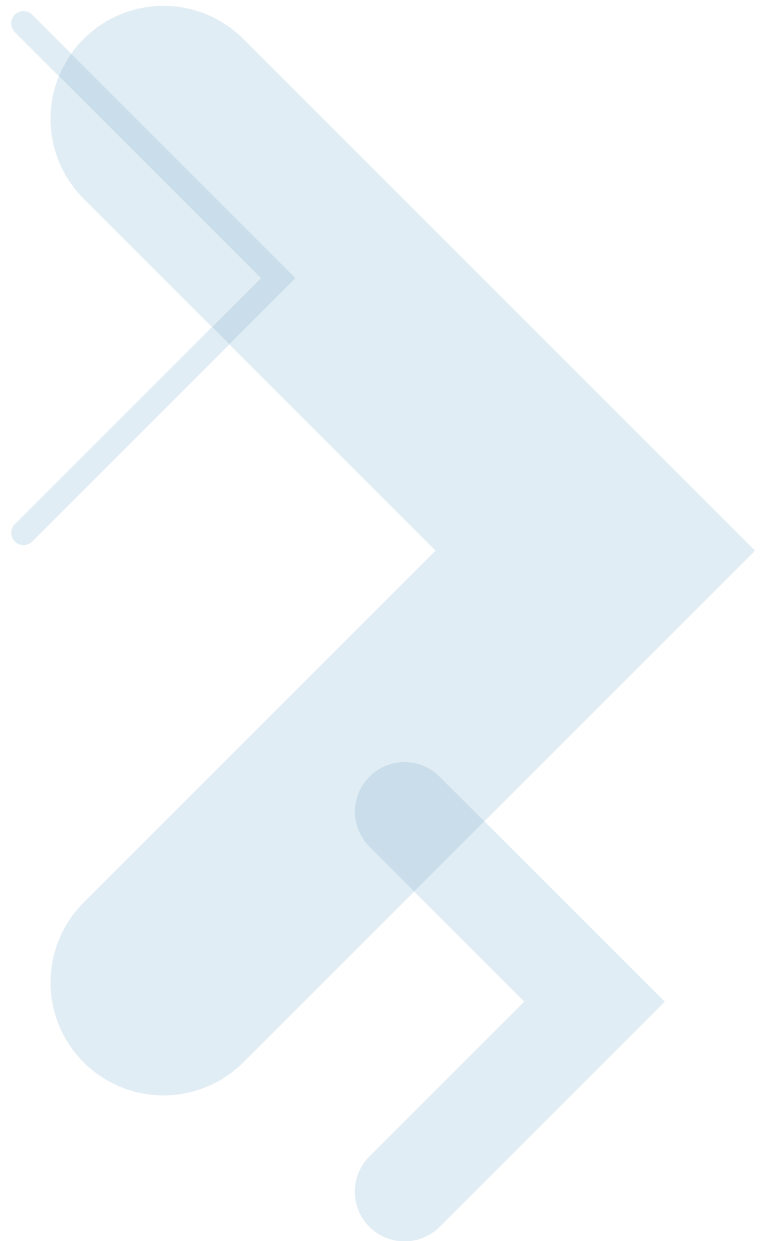
- Two Radios - available in three radio frequency variations – 2.4GHz / 5.8GHz, 2.4GHz / 5.4GHz and 2.4GHz / 4.9GHz
- NEMA 4 environmental rating in a package that weighs less than five pounds
- Over-the-air configuration support for the final IEEE 802.11s meshing standard
- 802.11e Quality of Service (QoS)
- 802.11i (WPA2), vAdvanced Encryption Standard (AES-based), WEP and WPA (TKIP) Security
- Exclusive, MeshConnex routing with Layer 1 situational awareness and Layer 2, hybrid proactive/reactive routing
- Support for Canopy Connect Power-over-Ethernet (PoE) or 802.3af Standard PoE device



Motorola, Your End-to-End Solution Provider

Motorola's wireless broadband portfolio offers an array of access and backhaul technologies for complete end-to-end wireless initiatives. Motorola's Fixed Point-to-Multipoint and Point-to-Point solutions provide reliable, high-capacity Internet backhaul links to Motorola's mesh networks. MeshPlanner and MeshScanner enable detailed network planning and optimization capabilities. Additionally, Motorola's ecosystem of applications offers a wide range of validated solutions to garner multiple benefits from your wireless network.

For more information about how Motorola's MOTOMESH Duo broadband public access solution can connect your customers or municipality to high-speed growth and success, visit us on the Web at www.motorola.com/mesh.



MOTOROLA

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