

Mesh Camera

Mesh Enabled Wireless Video System



MOTOWI⁴

Motorola's mesh camera video system is a robust, low cost, easy to deploy, mesh enabled wireless solution for fixed and mobile video.

Integrating Motorola's Mesh Enabled Architecture (MEA) technology directly into Sony's "IPELA" camera has created a solution that is smaller and more cost effective than conventional wireless video systems. Utilizing either licensed 4.9GHz or unlicensed 2.4GHz frequencies, the mesh camera system can be part of a larger MOTOMESH network, or act as a stand alone video solution. Users can wirelessly access high quality video feeds – even while traveling at highway speeds.

Motorola's mesh networking technology enables users to wirelessly access critical broadband applications seamlessly, and on the move. Whether integrating into an existing mesh network, or as part of an ad hoc, broadband network formed with other users, Motorola's mesh networking technology delivers real-time data to detect, prevent, respond.

Self-Forming Wireless Video Network

Motorola's intelligent MEA technology turns mesh camera nodes and clients into router/repeaters that form a seamless, wireless network automatically. This network can be deployed independently, or as part of a wider mesh network using additional mesh devices. Video and other broadband data can "hop" through every device in the network – even to and from vehicles traveling at highway speeds. Due to this Multi-Hopping feature, the video network actually becomes more robust as additional cameras and other MEA devices are added.

Support for 4.9GHz and 2.4GHz Operation

A mesh camera network can be configured to utilize either licensed 4.9GHz or unlicensed 2.4GHz frequencies. Motorola offers a Wireless Modem Card for each of these frequencies that is inserted directly into Sony's "IPELA" camera to create a mesh camera node. The camera comes preloaded with drivers for both the 2.4GHz and 4.9GHz MOTOMESH modem cards, and will automatically join the network when turned on.

Cost-Effective, Scalable and Easy to Deploy

Within each node, the routing and access functions are managed by an internal Wireless Modem Card, eliminating the need for externally connected network devices. This can significantly reduce costs compared to conventional wireless video systems. Mesh camera nodes provide a fast, easy way to add high quality video applications to existing Motorola mesh networks.

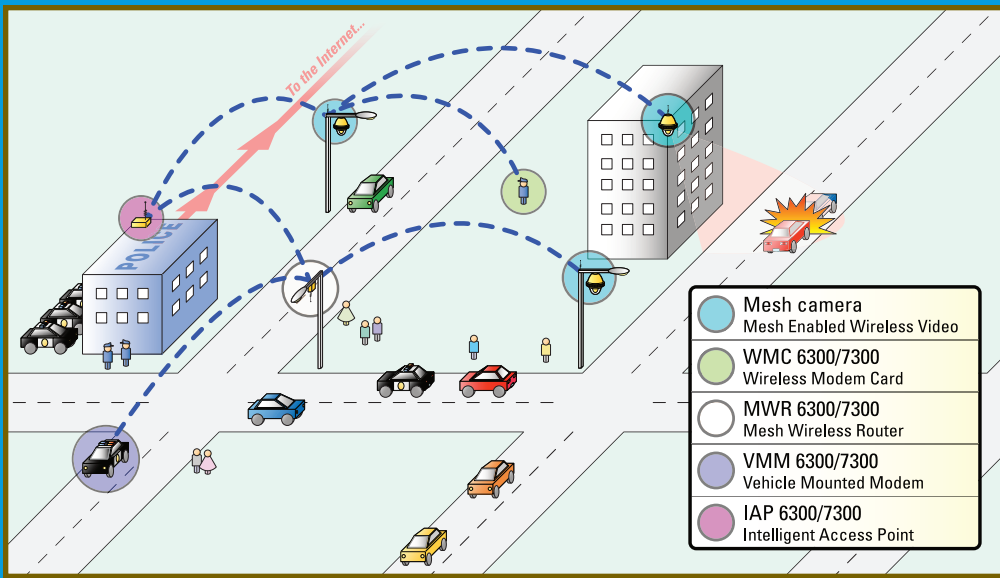
Quick Deployment of Event Video Surveillance

The integrated design and instant scalability of the mesh camera wireless video system also provides an ideal solution for quick, temporary deployments at events that require video surveillance. Since the mesh network self-forms when the cameras are powered up, video monitoring can be instantly deployed to improve situational awareness and incident response. MEA technology offers the ability to quickly scale up the video network by simply adding mesh enabled cameras, clients or other mesh devices to expand coverage.

Fast & Accurate Position Location

A mesh camera network also offers position location capabilities without relying on costly Global Positioning Systems (GPS). Mobile users and video cameras can be located and tracked in real-time. Depending on network configuration, location determination can be quicker and more accurate than consumer GPS, and is available in places GPS is limited, such as parking garages and urban canyons. Location data is provided in a standard GPS format, allowing applications that operate with GPS data to interact seamlessly with the mesh camera network.

Additional Mesh Camera Video System Features



- Network Time Protocol (NTP) Support
- Differentiated Services Using IP Quality of Service (QoS) Support
- Over-the-Air Software Upgrade Support
- MAC Access Control Lists
- Web (HTTP) Based Management Interface
- SNMP Agent for Remote Management
- Firmware Upgrades via Trivial File Transfer Protocol (TFTP)

Mesh Enabled Architecture Benefits

Mesh Camera Video System Features

- Self-forming and self-healing, ad hoc networking
- Uses either 2.4GHz or 4.9GHz radio spectrum
- Every camera in the video system acts as a router/repeater, and strengthens the network
- Cameras are instantly deployable
- Supports remote video streaming to and from vehicles – even at speeds in excess of 150 mph
- Built in location and tracking of cameras and clients – without relying on GPS

IPELA Camera Features

- Comprehensive pan and tilt allows 360° continuous pan and 0-90° tilt range
- 26x Optical and 12x Digital zoom
- High frame rate of 30 fps
- Motion and unattended object detection
- Day / night function, providing clear images even in extremely low light
- Built-in image stabilization features
- PCMCIA CardBus and Memory Stick Pro data interfaces built-in
- Local recording ready (with Memory Stick Pro)
- Dual encoding to allow simultaneous streaming in JPEG and MPEG-4
- Advanced Privacy Zone Masking with Spherical (3-D) Tracing
- Anti-tamper technology permanently encodes images recorded with unique camera ID
- Sensor In / Alarm Out ports (2 each)

Motorola Can Give You The Edge

Public Safety & Security Benefits

- Supports 4.9GHz radio spectrum licensed specifically for Public Safety use
- Mesh network architecture provides robust and reliable, broadband data communications
- Quickly deploy as permanent or temporary video surveillance platform – for schools, parks, airports, sporting events, etc.
- Stream live video to and from vehicles in route to, or engaged at an incident site
- Integrates seamlessly into wide area, 2.4GHz or 4.9GHz MOTOMESH networks

Benefits for Municipalities

- Supports unlicensed 2.4GHz radio spectrum for general public use
- Highly scalable solution allows deployment of networks of any size
- Built-in position location capabilities enable tracking of users and assets in real-time, without relying on GPS
- Stream live video to and from vehicles – even while traveling at highway speeds
- Provide improved system management and enhanced rider experience for Public Transit
- Integrates seamlessly into wide area, 2.4GHz or 4.9GHz MOTOMESH networks

The mesh camera wireless video system is part of Motorola's suite of fixed and mobile intelligent video solutions.



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