

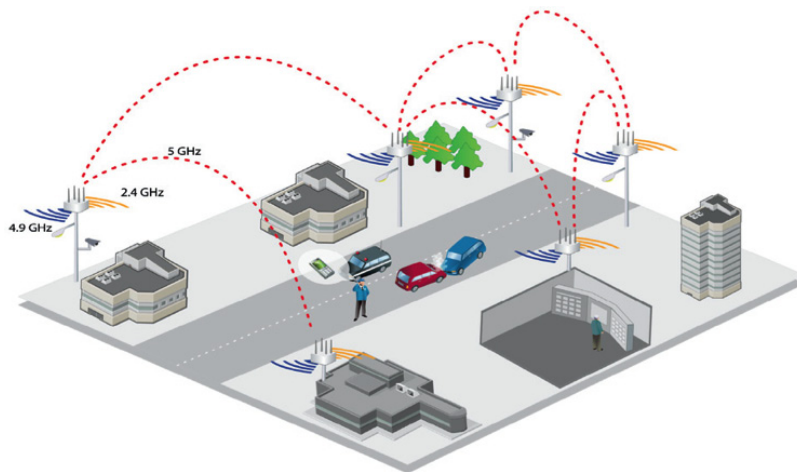


Video surveillance across wireless mesh networks

Public safety agencies, retail complexes, transportation authorities and enterprise security organizations depend on outdoor IP video surveillance cameras to deter crime, protect property, improve incident response time and provide forensic data for prosecution.

With wireless mesh networks providing the backhaul infrastructure for video surveillance systems, cameras with pan/tilt/zoom (PTZ) capabilities can be deployed quickly and cost effectively in any location without installing cabling. However, ensuring smooth HD-quality video can be a challenge. Latency and dropped packets can produce gaps in video streams when seconds count.

The wireless mesh must deliver consistent and scalable performance for video, as well as voice and data. Broad geographical coverage and capacity is also vital to support multiple bandwidth-intensive video streams. And finally, the wireless mesh must be resistant to self-interference and multi-hop performance degradation.



Aruba's Active Video Transport technology makes high-quality, cost-effective video surveillance possible. In an Aruba wireless mesh network, video surveillance applications are afforded expanded coverage, seamless roaming and high-definition video.

Aruba delivers HD-quality video

Comprised of multi-radio, multi-frequency wireless mesh routers that operate over the 2.4-GHz, 5-GHz and 4.9-GHz public safety band, Aruba outdoor wireless mesh networks feature Active Video Transport™ (AVT™) technology to support

latency-sensitive video, voice and data simultaneously across vast geographic distances.

AVT performs traffic shaping and load balancing across long-range directional links to deliver HD-quality video from mobile and fixed surveillance cameras, monitors and

The Aruba Difference

- Multi-radio, multi-frequency wireless mesh routers deliver HD-quality video, voice and data simultaneously across vast geographic distances
- Traffic shaping and load balancing across long-range directional links ensure HD-quality video from mobile and fixed surveillance cameras
- Video traffic traverses multiple hops across the distributed mesh network without introducing latency and with no degradation in image quality
- Performs deep packet inspection, MAC protocol optimization, an in-network retransmission protocol and adaptive video jitter removal
- Adaptive mesh infrastructure adjusts dynamically to traffic levels and RF signal strength to ensure high availability and consistent throughput

Video Surveillance

recording systems. With AVT, video traffic traverses multiple hops across the distributed mesh network without introducing latency and with no degradation in image quality.

AVT utilizes deep packet inspection, MAC protocol optimization, an in-network retransmission protocol, and adaptive video jitter removal to deliver enhanced video at up to 30 frames per second across the distributed wireless mesh infrastructure.

Aruba wireless mesh networks also employ Adaptive Wireless Routing™ (AWR™), which automatically optimizes traffic routes between multiple Aruba wireless mesh routers. This creates a truly adaptive mesh infrastructure that adjusts dynamically to connections status and quality to ensure high availability and consistent throughput across multiple hops.

In addition to AVT and AWR, Aruba wireless mesh networks leverage quality of service (QoS) enforcement mechanisms – including DiffServ, IEEE 802.11e and IEEE 802.1Q VLAN tagging – to ensure predictable performance for video, voice and other mission-critical applications.

Powered by an Aruba wireless mesh network, it is possible to deploy IP video surveillance cameras in any location, even in remote areas such as oilfields, construction sites and transit corridors. Wireless mesh routers from Aruba support strong authentication, encryption and other security standards to protect network integrity and privacy.



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