The Aruba AirMesh Product Portfolio

Aruba offers a portfolio of mesh products that fit a variety of business and technical requirements. The AirMesh family includes both outdoor and indoor wireless routers for mesh and point-to-multipoint connections.

MSR4000

Outdoor mesh router with quad 802.11n radios. Software-configurable for 2.4 GHz, 4.9 GHz or 5 GHz.

MST200

Outdoor mesh access router with a single 5-GHz 802.11n radio and an integrated directional antenna.

MSR2000

Outdoor mesh router with dual 802.11n radios. Software-configurable for 2.4 GHz, 4.9 GHz or 5 GHz.

MSR1200

Indoor mesh router with dual 802.11n radios. Software-configurable for 2.4 GHz or 5 GHz.

With AirMesh, municipalities, public safety agencies and industrial enterprises benefit from one of the highest capacity and most reliable wireless mesh networks available today. Aruba AirMesh is field-proven in many of the world's largest wireless mesh networks.

Customers can rely on 24/7 access to Aruba's world-class customer support and services that ensure that the products operate optimally and deliver services to the highest standards possible.

High-Performance Outdoor Connectivity with Aruba Wireless Mesh Networks

Municipalities, public safety agencies and industrial organizations need a reliable and affordable way to provide network services to their outdoor workers and devices.

Aruba AirMesh outdoor solutions provide organizations with high-performance networks that support voice, video and data communications over vast geographical areas. With AirMesh, organizations can enjoy the same capacity, reliability and security as wired networks – but with the convenience and flexibility of wireless.
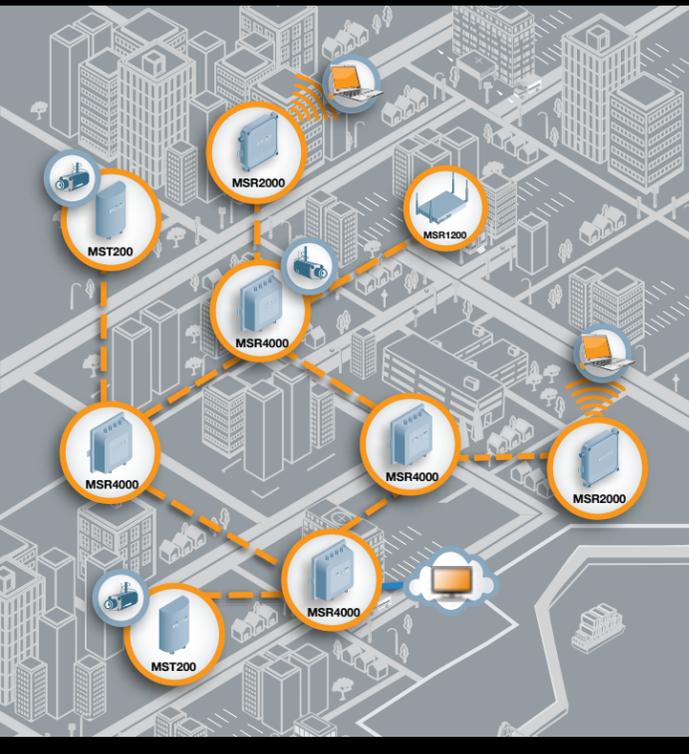
www.arubanetworks.com

Aruba AirMesh wireless mesh routers allow industrial enterprises and municipalities to establish reliable network connectivity almost anywhere. Intelligent routing delivers scalable, reliable networking services, and a multi-radio architecture delivers massive capacity.

The Aruba Difference

◆ Unprecedented performance and scalability with intelligent Layer 3 routing.

◆ Massive capacity with a multi-radio 802.11n architecture.

◆ Advanced traffic management and quality of service for multiple applications and user groups.

◆ Ruggidized hardware to withstand extreme environmental conditions.

◆ Software-configurable radios support mesh backhaul and Wi-Fi access with flexible frequency selection (2.4 GHz, 5 GHz or 4.9 GHz).

◆ Planning, deployment and management tools to reduce operating costs.

Unprecedented Network Performance

The AirMesh multiservice network allows organizations to consolidate separate data, voice and video networks onto a single infrastructure, which lowers IT costs and simplifies operations.

AirMesh routers use an 802.11n multi-radio architecture that delivers exceptional capacity – up to 300 Mbps per radio. Available in single-, dual- and quad-radio platforms, each software-configurable radio can function as a wireless mesh backhaul link or as a wireless access point (AP) capable of operating in the 2.4 GHz, 5 GHz or 4.9 GHz bands.

The mesh backhaul network is comprised of multiple point-to-point links, with each link operating on a different RF channel for optimal frequency use. And with enhancements to support distance, long-range directional links can be established up to 5 kilometers (3.1 miles).

A Mesh Designed to Support Multiple Services

Aruba AirMesh multiservice networks are optimized to support video surveillance, Wi-Fi access, and Smart-Grid services. The Aruba MeshOS™ operating system makes it possible to deliver reliable HD-quality video performance and high-speed roaming across even the largest multi-hop mesh networks.

AirMesh Delivers:

• **High-Performance and Reliability** – AirMesh offers superior resiliency and throughput with intelligent Layer 3 routing. Adaptive Wireless Routing™ (AWR™) technology directs traffic over the most optimal path. Capable of detecting radio link quality, AWR ensures that traffic bypasses congestion and RF link failures, while performing load-balancing across the mesh.

• **HD-Quality Video Surveillance** – With AirMesh, organizations can benefit from HD-quality video from mobile and fixed surveillance cameras, monitors and recording systems. Video can be delivered at up to 30 frames per second with Aruba's patented Active Video Transport™ (AVT™) optimization and traffic-management technology.

• **High-Speed Roaming for In-Vehicle Mobility** – AirMesh lets, users maintain application sessions in vehicles moving at 60 miles an hour. Aruba MobileMatrix™ technology facilitates fast roaming – even for voice and video – across IP subnets in less than 50 milliseconds. No special hardware or software is required, which simplifies deployment and operations.

Comprehensive Security and Quality of Service for Public and Private Networks

Security is fully integrated into AirMesh so that organizations can easily and confidently deliver Wi-Fi services to different user groups and applications. The mesh network can be securely segmented and quality of service (QoS) parameters can be enforced from end to end.

As a result, video surveillance and voice traffic can be guaranteed enough bandwidth to perform optimally, while traffic that is less susceptible to latency, such as e-mail, is given a lower priority. Public-safety communications can also be assigned priority treatment over non-emergency communications.

Planning, Deploying and Managing AirMesh Networks

To keep the total cost of network ownership at its lowest possible level, Aruba offers a suite of visualization tools that simplify the planning, deployment and management of AirMesh networks.

The Aruba Outdoor RF Planner is an indispensable purpose-built tool that makes it effortless for system integrators to design outdoor wireless mesh networks. Offering unmatched visibility into the RF environment, the Aruba Outdoor RF Planner lets system integrators draw up precise wireless mesh deployment plans that meet the specific business and technical requirements of their customers.
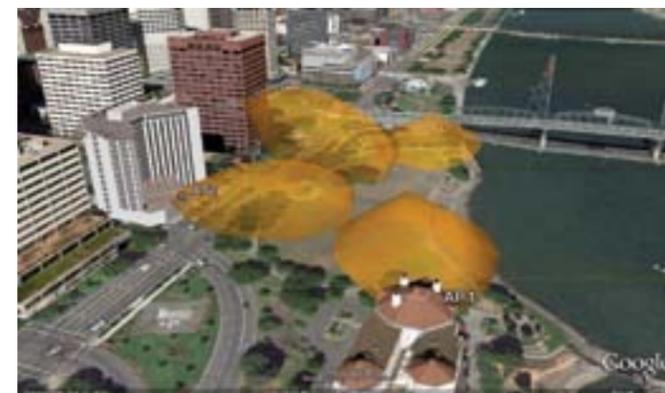
Aruba Outdoor RF Planner

Aruba MeshConfig™ is ideal for deploying small and medium-sized mesh networks. The browser-based MeshConfig tool offers graphical views that make it easy to centrally manage, monitor and troubleshoot mesh routers, mesh topologies, inventory and faults.

AirMesh is Ideal for

• **Video Surveillance**
  Public safety agencies and enterprises can protect people and property with IP video surveillance. With a wireless mesh, organizations can position cameras anywhere, eliminating the cost and complexity of running cable or fiber.

• **Pervasive Wi-Fi Access**
  Municipalities can blanket the city with secure Wi-Fi coverage to keep city workers and first-responders productive, no matter where they are in the community.

• **Connectivity for Industrial Operations**
  Industrial organizations can connect remote facilities, such as oil and gas fields or mining and construction sites, over vast geographic territories and challenging terrain.

• **Asset Management and Inventory Tracking**
  Organizations can track the location of high-value equipment and people over the mesh, which reduces theft and improves efficiency.

• **Smart-Grid Services**
  Cities can use the mesh to support automated traffic control systems, utility meter reading, and smart parking meters. Wireless mesh networks also supports sensors that can be used for seismic and gas detection.

Organizations will be able to manage large-scale mesh networks with Aruba AirWave®, the only multivendor operations solution on the market that manages wired and wireless infrastructure as well as mobile devices at multiple locations. The IT service desk will use AirWave to triage connectivity problems while valuable network engineering staff focuses on more strategic work.