



Broadcast Quality Video over Wireless

Distributing standard and high definition video has long been the promise of Wi-Fi, but the limitations imposed by slow 802.11 clients, inadequate network RF capabilities, and a lack of control over client behavior meant the results were less than satisfactory.

Aruba's application-aware 802.11n wireless LANs (WLAN) solve these problems, allowing you to enjoy jitter-free, multi-channel video without requiring wired infrastructure at the network edge. Our video optimization algorithms, intelligent multicast services, and infrastructure-based client management bring multi-channel video over WLAN into sharp focus.

The result: high quality, reliable video even in crowded environments like dormitories, lecture halls, and auditoriums.

Video over Wireless LAN Use Cases

Now you can deliver high definition educational and entertainment programming, surveillance and public safety video, and teleconferencing services to users in need of high quality video feeds. Including applications that are bandwidth intensive, delay and traffic sensitive, have special modes of distribution, and/or require multiple simultaneous sessions. Aruba can handle them all. Typical examples include:

- **Broadcast Television** – Send educational and entertainment programming to computers and high definition monitors;
- **Live Events Coverage** – Stream live corporate training sessions, event broadcasts, and sporting events;
- **Surveillance** – Broadcast surveillance, public safety, and process control video feeds;
- **Real-Time Interactive Sessions** – Use video for teleconferencing and telemedicine;
- **On-Demand Video** – Distribute self-paced instructional videos, movies, and podcasts.

Some of these applications stress even wired networks, but Aruba's Adaptive

Radio Management technology, Quality of Service features, and policy enforcement mechanisms ensure that the signals get through. Now you can deliver video wherever and whenever you need it without the onus of installing and maintaining an expensive cable plant. So rightsize your network by moving over to Aruba's adaptive 802.11n wireless for all of your video needs.

The Aruba Solution

Aruba has developed a range of technologies that work on top of the IEEE 802.11n standard to deliver high quality, uninterrupted video over a multi-use WLAN. Key features are described below.

Video Optimized Over the Wire

multicast optimization across the LAN is important because video can account for a large percentage of network bandwidth. The Aruba controller receives multicast streams from video sources in the network core, and then uses IGMP snooping to determine the state of the client. Video is sent only to access points with active clients, preserving considerable wired network capacity, especially when high definition channels are in use.

Benefits:

- Delivers secure, jitter-free, multi-channel video over WLAN
- Rightsizes network infrastructure by replacing expensive wires with 802.11n
- Supports high definition (HD), surveillance, broadcast, and interactive video applications
- Leverages one common multi-use WLAN infrastructure for video, data, and voice
- Lowers IT overhead through centralized management and control
- Scales to meet the needs of the largest campuses and enterprises

APPLICATION BRIEF
**Aruba Video over
 WLAN**

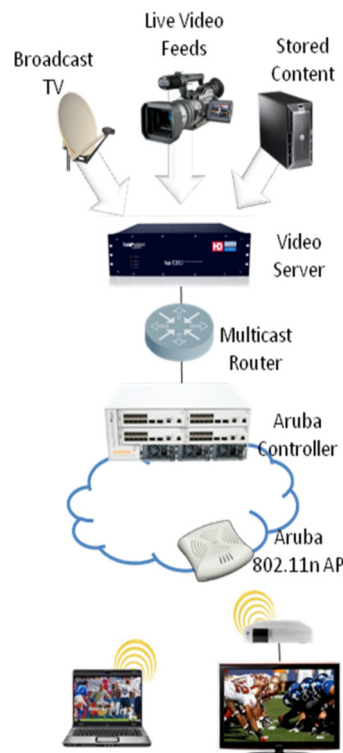
THE ARUBA DIFFERENCE	DESCRIPTION	BENEFIT FOR VIDEO
Affordable 802.11n	Enterprise-class 802.11n AP, with 5x the bandwidth and no price premium over dual-radio 802.11abg APs	Increases capacity for more channels
Wired & Wireless Multicast	Limits forwarding multicast video streams across the network to preserve valuable bandwidth	Maximizes use of network capacity
Video Rate Optimization	Selects higher data rates for multicast video traffic to increase available bandwidth	Ensures multicast video quality
Video Transport Optimization	New algorithms ensure the most efficient means of transport over the air based on real-time network usage characteristics	Delivers video quality in shared environments
Video Traffic Prioritization	Firewall-based packet inspection identifies video traffic, reserves bandwidth, and prioritizes video over latency-insensitive applications	Ensures QoS in multi-application environments
Adaptive Radio Management	Adaptive Radio Management maximizes wireless and video performance by mitigating the effects of high densities of users and adjacent channel and co-channel interference	Ensures QoS in multi-device environments

Video Optimized Over the Air

Aruba optimizes video over the air between APs and clients by actively monitoring the client mix, network capacity, application usage across clients, RF characteristics, and video subscription requirements. Based on this real-time assessment of network conditions, the network is continuously optimized and client behavior managed to support high definition (HD), multi-channel video.

A New Paradigm For Video Delivery

Aruba's adaptive 802.11n Wi-Fi and video optimization technologies let you wirelessly deliver multi-channel HD video to both fixed and mobile devices. As a result you can significantly lower the cost of video delivery, while enhancing user access to video content and interactive media.



WWW.ARUBANETWORKS.COM

1344 Crossman Avenue, Sunnyvale, CA 94089 | Tel. +1 408.227.4500 | Fax. +1 408.227.4550