Axis IP Network Video on Ruckus WLAN

The video surveillance market is booming, driven by heightened security concerns as well as the transition from traditional CCTV technology to IP Video Security that leverages standard wired and wireless networking.

IP video cameras can record and store streaming video files, with confidence, for virtually unlimited periods of time. Wireless networking makes it possible to place and aim wireless IP surveillance cameras in previously inaccessible blind spots and difficult to access locations. Video security systems can rapidly pay for themselves in reduced security guard insurance premium costs, while also delivering improved peace of mind for you, your employees, and your customers.

However, wireless IP cameras are only part of the equation; streaming IP video is only a reliable option with a stable and fast wireless network (WLAN) where video stream quality is consistent and pervasive. When it comes to mission-critical surveillance, half measures are unacceptable.

Ruckus and Axis

Ruckus and Axis provide a uniquely powerful and easy to deploy solution. Axis is the global market leader in network video security, and Ruckus is the leader in high performance WLAN. Working together, we provide resellers and customers with a full range of video security solutions that can be deployed in even the most challenging environments.

Ruckus and Axis together offer a full range of video solutions, the highest quality wireless video, and easy deployment and operation

Axis Network Video Advantages

Whether a customer wants to migrate from traditional CCTV or install an entirely new security system, Axis provides distinct advantages.

Image Quality

Superior image quality enables better and faster decisions and improved accuracy for manual or automated analysis and alarm tools.

Remote Accessibility

Axis provides a simple and comprehensive solution for capturing and securely distributing video over any public or private IP network.

Easy, Future-Proof Integration

With an Axis network video solution, you can integrate your existing analog system with products that bring it up to speed with the latest IP technology. Video can be stored offsite for convenience and security, so companies with several offices across a city or the world can leverage the network video solution for security surveillance and remote monitoring purposes. In addition, Axis network video has the capacity to provide a high level of integration with other equipment and functions, making it a continually developing system.

Put the cameras wherever you want, integrate applications, and leverage your investments

Full Feature Cameras

Axis cameras support capabilities such as remote pan/tilt/zoom, Power over Ethernet, high definition, audio and motion detection, while meeting your requirements for image quality, recording capabilities and reliability.

Scalability and flexibility

Axis network video systems can be expanded simply by adding more network cameras. This is just as easily done regardless of whether the new cameras are to be placed at the same site, or at a new location communicating over the Internet. New technologies, additional cameras, and extra storage capacity are all easily added as required, thanks to strict adherence to industry standards.

Cost-effectiveness

Save money and lower total cost of ownership thanks to strict adherence to industry standards

Axis' professional network video products run on Ethernet networking. Using standard PC server hardware for video recording and storage radically reduces management and equipment costs. Additional cost savings can come from leveraging Ruckus WLAN infrastructure to reduce installation and operating costs.
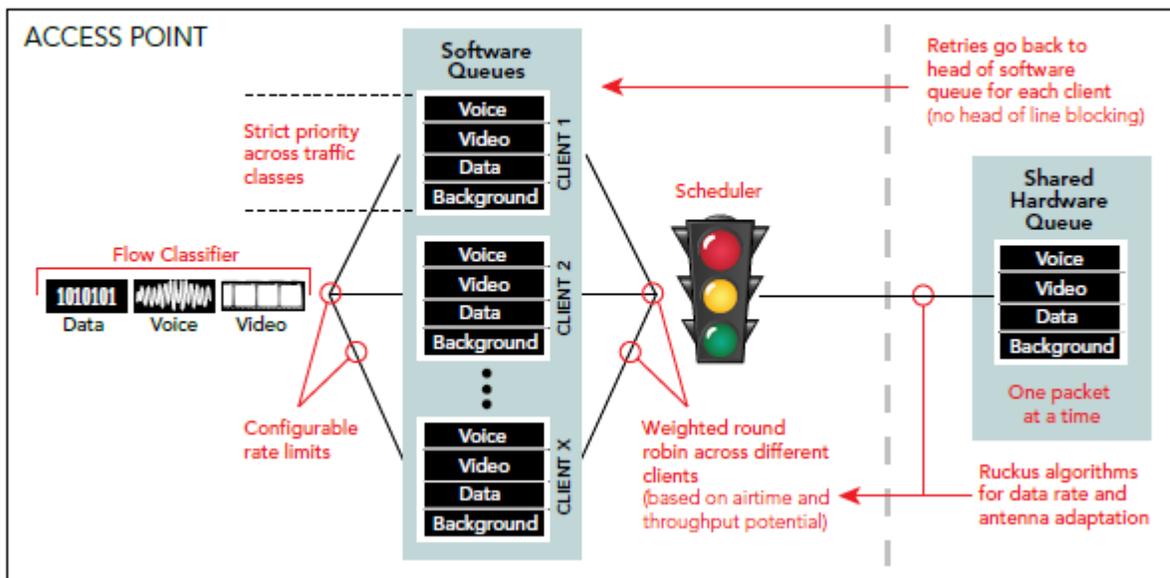
Proven technology
Safe investments that last well into the future

Network video started at Axis. They invented and launched the first network camera back in 1996, and continue to lead this market.

Ruckus WLAN

Ruckus' adaptive antenna technology provides twice the capacity and range of other WLAN products, enabling a more reliable, higher performing wireless connection regardless of environmental interference. This ensures that Axis standard and high definition video is reliably delivered regardless of the environment.   Ruckus' BeamFlex technology makes this possible by leveraging up to 19 polarized antennas, along with realtime software that focuses each packet of energy on the client - steering around interference and increasing overall signal strength.

Ensure Optimal Video Quality

SmartCast is an advanced superset of IEEE 802.11e/WMM hardware based queuing standards that maximizes reliability and wireless performance. It automatically inspects, classifies, pre-queues, and schedules traffic *(See Figure 1)*. This means it can recognize Axis network video signals and prioritize them over other WLAN traffic, without requiring any special or complex configuration.

SmartCast also provides automatic Band Steering, directing dual-band radio clients to the optimal band, and Airtime Fairness, which more efficiently shares the spectrum with a combination of older and newer client radios. Ruckus SmartCast plus adaptive antenna technology is successfully deployed in millions of locations to optimize HD wireless video.
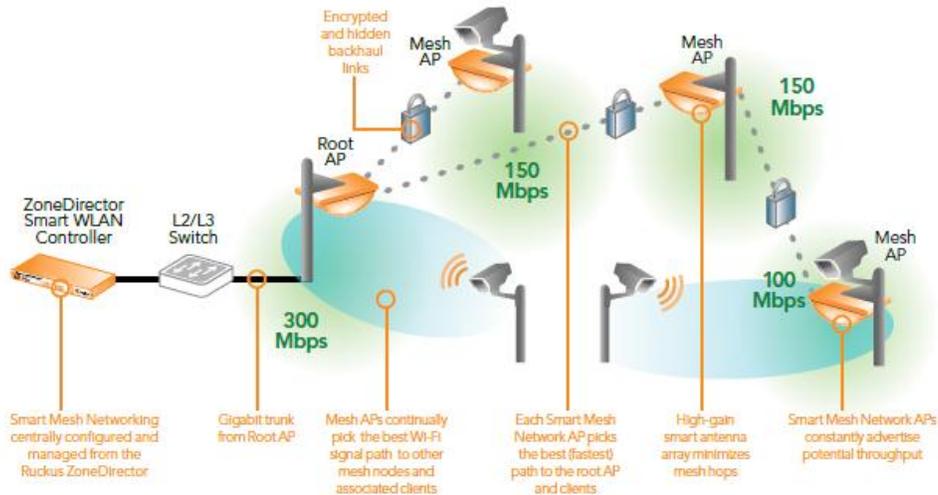

FIGURE 1: SmartCast Queuing and Scheduling

Maximize Coverage and Reach
Wireless mesh increases coverage range by repeating the wireless signal across several hops. This is ideal for Axis wireless video surveillance cameras since it enables wireless backhaul from almost any location where there is power. Ruckus' Smart Mesh Networking is self-organizing, self-optimizing, and self-healing. And, it is the first Wi-Fi meshing approach that combines high-gain smart antenna arrays, sophisticated RF routing, and centralized management within a single WLAN system.

Smart Mesh Networking automates configuration, reducing Ethernet cabling and eliminating extensive RF planning, enabling Smart Mesh Networking WLANs to be deployed and operational in half the time of conventional WLANs. Integrated interference avoidance ensures high reliability An intelligent antenna array in each ZoneFlex AP picks the best signal path for traffic at any given time and automatically steers signals around interference to ensure high availability of mesh links.

FIGURE 2: SmartMesh Networking with Wireless Video Surveillance Cameras

Ruckus and Axis Solution Advantages

- **Full range of cameras and video features**

- **High performance wireless networking**

- **PoE power for both the APs and cameras**

- **Increased efficiency and capacity**

- **Mesh networking for long range coverage**

- **Easy to deploy and operate**

- **Long term investment protection**

- **High ROI, payback often less than 1 year**

Together, Ruckus and Axis offer superior video and wireless performance coupled with reduced installation and operating cost.