

Case Study: Seattle Police Dept.

The Challenge

The Seattle Police Department needed to provide a safe, secure environment for celebrants at its annual Mardi Gras festival. Due to several incidents at past events, officials wanted to ensure the public safety by extending the capabilities of its officers without having to add expensive infrastructure. The Seattle PD knew it could benefit from a video surveillance solution, but could not afford to deploy an expensive, wired network that would require trenching or disrupt the beauty of the historic downtown district. Wireless video surveillance was the best option but the Seattle PD had tried one wireless video surveillance network that came up short on expectations.



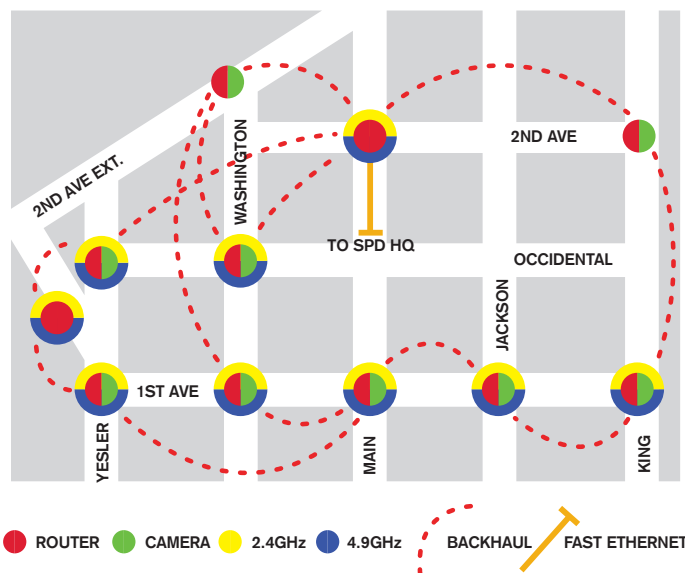
Requirements

- A video surveillance solution that wouldn't require a huge investment of both time and money
- No compromise on video quality; Jitter-free, frame-by-frame broadcast-quality video streams
- A solution that maintained the aesthetics of an historic downtown district that does not need trenching
- A scalable solution easily and quickly installed, removed or deployed to a different area



The Solution

Azalea experts designed a wireless mesh network that connected video from nine cameras mounted on light poles over a twelve-block area. The installation was managed by Semaphore Corporation. Azalea's MSR2000 dual-radio routers provided the links for streaming video to be captured by the cameras and sent back over the 5 GHz spectrum to an MSR4000 quad-radio router mounted on the top of a nearby fire station. That video was then collected and sent to Police Headquarters several miles away. After being recorded and captured on a central server, the video was distributed over the 4.9 GHz public safety spectrum to a mobile command center that was strategically parked in the area.



A quad-radio MSR4000 tri-band router receives video signals from nine cameras deployed over a five-block area and centralizes them in the Seattle PD video surveillance center. The video is then sent to a mobile command center and also handheld devices carried by patrolling officers.



“Finally the technology has arrived that lets us do the type of work we need to do to provide the best possible protection for our community”

Seattle PD Detective Monty Moss

From this mobile command center, police officers on foot were able to patrol the crowds each carrying a handheld mobile device that operated on the 2.4 GHz spectrum. From these devices, the officers could control the angle, tilt and zoom of the PTZ cameras mounted above on the light poles. This provided a bird's eye view of occurrences in the area and allowed the officers to quickly respond to any threatening or dangerous situations.

All this was deployed and configured in a matter of days, providing a temporary or long-term video surveillance solution that could be scaled or moved as needed. The clarity of the video and reliability of the Azalea network allowed Seattle police officials to provide the public safety they needed without incurring the costs of adding expensive infrastructure. The temporary wireless network was designed to provide the flexibility of removing or repositioning the cameras, routers, and antennas as needed to expand or move the network.

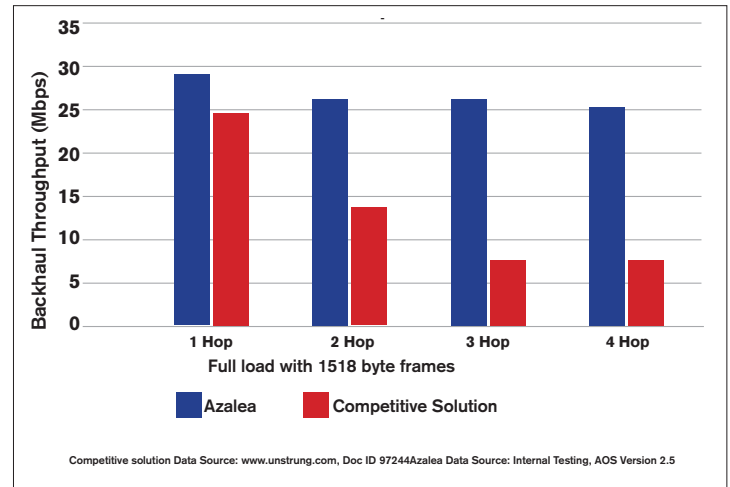
Azalea's Wireless Mesh Network Technology offers Reliable, Broadcast-Quality Video and Lower Cost of Deployment

Not all wireless mesh network solutions are the same. Azalea Networks' true Layer-3 solution offers the highest quality video performance even over multiple hops. It's due to three key technologies exclusively offered by Azalea:

1. Adaptive Wireless Routing™ (AWR) As a dynamic, distributed routing protocol purpose-built for wireless networks, AWR is able to forward packets at near nominal wireless data rates across multiple hops with a per-hop latency of under two milliseconds. And AWR is remarkably efficient, enabling it to be implemented cost-effectively on wireless nodes with multiple radios.

2. Active Video Transport™ (AVT) Azalea's innovative Active Video Transmission (AVT) solution is designed to remove impairments to video quality including jitter and packet loss, dramatically improving video performance.

3. Motrix™ With Motrix roaming, users are free to move about the entire broadband wireless network infrastructure without re-initiating active sessions because the seamless transition from one access point to another is completed in under 50 milliseconds.



Azalea's wireless mesh network provides reliable, consistent bandwidth over multiple hops.

Azalea Networks

Azalea Networks delivers on the promise and potential of wireless voice, video, and data with superior performance and lowest cost of ownership. Azalea's solution provides network intelligence to its broadband wireless infrastructure through an innovative wireless routing technology ideal for service providers, government agencies, and industrial enterprises that need the superior high performance, scalable capacity, quality of service, seamless mobility and other advantages made possible by true, intelligent network routing. Azalea's solution is purpose-built for wireless broadband infrastructures deployed in converged voice, video and data applications.

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