

## **Wireless Mesh Infrastructure Networks for Supporting Water Districts Data, SCADA and Video Requirements**

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### **FORMAT**

30 minute presentation

### **KEYWORDS**

Wireless, SCADA, Compliance, Infrastructure, Mesh, Reliable, Video Surveillance, Automated Gate Access

### **ABSTRACT**

Compliance with homeland securities critical infrastructure policies pose new requirements for active video surveillance, and automated gate access. Utilizing existing narrow band and cellular solutions cannot provide the needed bandwidth at low cost points for most water district installations.

Wireless infrastructure mesh networks present a cost-effective, scalable and secure solution for meeting SCADA and data requirements. A wireless mesh infrastructure can be configured with no single point of failure, and can deliver the redundancy and high reliability needed to aggregate the various types of data and video traffic required for water districts.

Another important issue to consider is that wired broadband connectivity must be relayed through multiple points in order to connect with fiber or copper connections. A scalable wireless solution provides the operator the ability to transmit multiple types of data, easily relaying up to 19 points to interconnect networks in a highly scalable and cost-effective manner.

Furthermore, a wireless infrastructure mesh network, built on layer 2 switch architecture, allows for easy integration into a water districts existing data network. The ability to encrypt data is an added feature that provides a high degree of security and protection for a water districts vital network data.

Attendees of this session will:

- Get a better understanding of the various network designs available to expand a water districts video and data network.
- Learn the key questions to ask stakeholders/decision makers in order to gather the information needed for initial and future network requirements.
- Learn to calculate return on investment when using a hybrid wired and wireless network to enhance existing cellular, copper and other networks currently used in water districts today.
- Learn current advances and new applications possible when using 900 MHz, 4.9 GHz, and 5 GHz spectrum.

**About the Author:**

**Matthew Selby** manages business development and technical applications for Firetide, a wireless mesh networking company in Los Gatos, CA. Matthew's persistence and determination to understand and excel in the wireless industry found him taking a position with Firetide. At Firetide, he promotes wireless network infrastructures that extend fiber-quality bandwidth into technically challenging outdoor environments including water districts and police departments. Matthew currently holds the title of Regional Manager for the South East specializing in the sales and engineering of mesh and WIFI networks. He also understands the technology that is needed for remote monitoring, SCADA and security surveillance applications. Matthew has been working in the wireless communication sector for over 7 years and has Bachelor's degree in Business Administration from the California State University (San Marcos).