

City of Avondale, Arizona

CUSTOMER



City of Avondale, Arizona

INDUSTRY

Local & State Government

THE CHALLENGE

- A network for public safety applications including water quality control.
- Low total cost of ownership.
- Scalable for future network growth.

THE SOLUTION

- Redline's AN-80i, part of the RDL-3000 Virtual Fiber™ family for local & state governments.

THE RESULTS

- Extremely reliable wireless network for machine-to-machine applications.
- High performance to capably handle video, voice, and data applications.
- Scalable network with a low total cost of ownership.

REDLINE PROVIDES RELIABLE MACHINE-TO-MACHINE COMMUNICATIONS FOR PUBLIC SAFETY NETWORK

Avondale is a technologically progressive city that relies on wireless communications for the majority of its public safety services. The amount of traffic over their wireless network has grown steadily over the years to accommodate population growth, additional services, and more users. City officials realized demands on the wireless system were increasing more rapidly than initially expected. More specifically, the City wanted to install a water monitoring system as well as a network of high resolution video cameras to monitor traffic at busy intersections which introduced the need for highly reliable Machine-to-Machine (M2M) communications.

The City knew their existing network did not have the capacity to handle the new M2M applications and its ability to grow was limited. Adding more traffic would soon result in a slow and unreliable network, unsuitable for public safety applications.

The City required a network that would be:

- Reliable enough to handle critical M2M data from water quality monitors
- High capacity to support multiple public safety applications including video surveillance
- Economical with a low total cost of ownership
- Easily scalable for future network growth

REDLINE DELIVERS RESULTS

Avondale hired Network Infrastructure Corporation, a network integrator, to assess their options and oversee the installation of the new network.

After considering wired and leased line options, Redline's AN-80i, part of the RDL-3000 Virtual Fiber™ family of wireless systems, was chosen for Avondale for 3 key reasons:

1. It offers the reliability of fiber for critical M2M data
2. It is powerful enough to accommodate a variety of applications — from voice to cameras to water sensors
3. It has the flexibility with a low total cost of ownership and simple scalability via software upgrades

Avondale began the network transition by replacing some of the old wireless equipment with Redline systems. City officials immediately noticed an increase in the reliability of connections and improved signal integrity. This was enough to convince them to replace the entire network with Redline wireless systems.

With this new reliable network the City was able to install an M2M system for water quality monitoring. Redline wireless systems were connected to water sensors placed at the wells and water pumps to send real-time data to a central monitoring station where an automated system is programmed to detect any possible tampering. Redline is ideal for this application because the systems deliver consistent connectivity, provide the highest level of data integrity and offer high reliability to ensure critical data is delivered end-to-end.

Redline's wireless system also delivered so much improvement in capacity the City was able to add high



"Reliability has been the #1 benefit of the Redline network. 98% of our City communication is wireless using Redline's system. We needed something cost effective that we could own. Nine time out of ten, wireless will be faster, easier and more reliable than fiber and a better return on investment."

Michael Reese
IT Network RF Engineer
The City of Avondale, Arizona

resolution IP video cameras to monitor traffic at busy intersections around the City. Critical images from the cameras are reliably captured and delivered to help improve traffic flow and safety.

In addition to having a robust and reliable network, Avondale is enjoying a low total cost of ownership because, unlike systems that run on leased lines, the Redline network is completely owned and managed by the City and does not come with recurring costs. Avondale can easily manage their network growth by adding additional systems or enhancing performance of existing ones through software upgrades — when they need it.

ABOUT REDLINE COMMUNICATIONS

Redline Communications (www.rdlcom.com) is the creator of powerful wide-area wireless networks for the world's most challenging applications and locations. Used by oil and gas companies, militaries, municipalities and telecom service providers, Redline's powerful and versatile networks securely and reliably deliver M2M, voice, data and video communications.