



**ENTERPRISE
AUTOMATION**
A TETRA TECH COMPANY

PROJECT PROFILE

Cellular Communications Network *City of Huntington Beach*

Client background

The City of Huntington Beach, California is a full service, predominantly residential city with a population of about 200,000 located in northwestern Orange County. The City owns and operates both the water utility and wastewater collection system serving its citizens. Their assets include 27 sewer lift stations, 10 wells, 5 reservoirs, 16 flood stations, and 9 turnouts where imported water from MWD is resold to several local cities and agencies.

The City engaged EA through two consecutive, 3-year professional services agreements to provide as-needed SCADA integration and support to the City's water utility department.

Project background

The City's existing SCADA system communicated almost exclusively over outdated 900 MHz radios and failing leased landlines. As part of their goal to increase data rates and improve communications consistency, EA and the City SCADA coordinator determined that a private MPLS cellular network was worth considering. The communications would need to cover over 30 remote sites all communicating back to a central SCADA control center.

EA solution

EA and the City developed a documented design for secure data traffic and worked with Verizon to commission the private MPLS network. Engineers set up a test bench to simulate full functionality from cell modem to SCADA within a controlled office environment. Following testing, pilot sites were chosen to collect real-world data. After this phase, EA configured the remainder of the cellular modems and separate firewalls. EA developed a systematic replacement plan to cutover the old sites from the leased landlines and 900MHz system in a non-disruptive way.

Project Manager



**Clarence
Go**

Project Technical Lead



**Steven
Drooz**

Key Insights:

- 900 MHz to cellular network upgrade
- Isolated test platform validation prior to site installation

Key Technologies:

- Cradlepoint Cellular Modems
- MOXA industrial firewalls
- Verizon cellular network
- Kepware KEPServerEX