



City Of San Diego, CA SCADA System

Client: City of San Diego, CA

Location: San Diego, CA



System Features

- DYNAC® SCADA Software
- 6,000 Point Computer System
- Independent Radio Channels
- PLCs
- Data Warehousing
- Automatic Paging System

San Diego's water infrastructure is one of the most complex in the United States. Today, the City of San Diego Water Department serves more than 1.2 million people populating more than two hundred square miles of developed land. In addition to three water treatment plants, San Diego maintains and operates more than 2,890 miles of water lines, forty-five water pump plants, ninety-plus pressure zones, and more than two hundred million gallons of potable water storage capacity in thirty-two standpipes, elevated tanks, and concrete and steel reservoirs.

Transdyn built a Supervisory Control Data Acquisition System (SCADA) for the City to manage its complex water distribution network. High-availability DYNAC® SCADA servers at the Alvarado Filtration Plant Telemetry Control Center manage all aspects of the distribution system. In addition to operator workstations at the Alvarado plant, remote workstations are located at separate administration and maintenance facilities.

The servers currently manage Programmable Logic Controllers (PLCs) located at forty remote pump stations, pressure points, and water storage facilities with planned expansion up to three hundred remote facilities underway. The remote sites are linked to the Master Station through seven independent 900 MHz Multiple Address System (MAS) radio systems. Each MAS system is linked to the plant via seven 900 MHz point-to-point radio links.

A dedicated Relational Database (RDB) server obtains data from the network and provides long term storage in a relational database management system. The RDB server provides a gateway between the SCADA system and the City's existing Information System network.

The system provides remote access along with a paging system which automatically pages maintenance personnel via the City's paging service with alarm information. In response to a page, on-duty maintenance personnel access the system remotely with laptop computers via dial-up modems.