



City & County of San Francisco, CA Water SCADA System

Client: City and County of San Francisco, CA

Location: San Francisco, CA



System Features

- DYNAC® SCADA Software •
- Site Access System •
- Intrusion Detection •
- Fire Alarm •
- High Availability Architecture •
- Leased Line, Dial-up, Spread Spectrum •
- Radio and VSAT Comm Network •
- 3 Operational Control Centers •
with Distributed Database
- 78 RTU Sites •

DYNAC®

The San Francisco Water Transmission and Distribution System supplies water to approximately 2.5 million people in the San Francisco Bay Area including wholesale supply of water to thirty-three cities located in Alameda, San Mateo, and Santa Clara Counties. The SCADA system enables the City & County of San Francisco to improve the operation and management of its water supply, transmission, and distribution services. Water quality is continuously monitored throughout the system, with complete service area coverage to ensure safe and reliable delivery of high quality water to all customers.

This tightly networked computer architecture coupled with redundant communications between critical facilities provides a highly secure operations capability, even during natural disasters.

Three Master Computer Station/Operational Control Centers (MCS/OCCs) at Tracy WTP, Lake Merced and Sunol WTP have fully redundant SCADA servers with multiple workstations and connections to seventy-eight RTU field sites.

Two additional Operational Control Centers (OCCs) at Millbrae and Newcomb Avenue provide remote control of the system over the frame relay WAN and VSAT satellite backup system.

In the event that one MCS/OCC fails, the other MCS/OCCs can take over monitoring and control of the entire system. Real-time data is distributed to all three MCS/OCCs and stored in both short term (SCADA servers) and long term historical servers. Multiple communication links to RTUs are provided, ADN, spread-spectrum radio, UHF MAS radio, and VSAT satellite.

A sophisticated security access system is provided with both hardware (ID cards) and software to prevent unauthorized access and manage various areas of responsibility.