



Solution Overview

Customer

City of Riverside, CA Wastewater Treatment Plant

Industry

Water and Wastewater

Key Benefits of Thin Clients

Unity of Platform
Simplified Support
Redundancy

Applications Deployed

Wonderware InTouch
IndustrialSQL

ACP Solutions

TC-3500



About ACP ThinManager®

ACP's ThinManager® is an enhancement to the basic Windows® Terminal Server operating systems such as Windows® 2000 Server and Windows® 2003 Server. The features added by ThinManager® focus on the industrial market, allowing users to replace the PCs they are now using on the factory floor with inexpensive "Windows terminals" that are much easier (and less expensive) to maintain. While any Thin Client will allow multiple instances of existing Windows® software to run on a single PC (the Terminal Server) only ACP Enabled Thin Clients running under ThinManager® provide the functionality, redundancy and I/O required in industrial installations.

ThinManager Technology Simplifies Operations at City of Riverside

"The Thin Client system makes it much easier to update systems and to add new systems. It just makes managing the entire SCADA system much more effective and efficient."

— **Stephen Schultz, Wastewater Systems Manager, City of Riverside, CA**

The wastewater treatment plant for the City of Riverside, California processes approximately 33 million gallons a day at a facility with preliminary, primary, secondary and tertiary treatment. Solids handling for the facility includes anaerobic digestion and mechanical dewatering.

The 1,000 foot elevation change across the plant's service area makes communication with the system's 22 lift stations a challenge. The plant also manages a 3.3 MW co-generation facility and the City's closed landfill operation. The work is detailed, complex, and the continued smooth operation of the facility is important to both the community and the local environment.

"We have the same issues as any other wastewater treatment plant," says Steve Schultz, the City's Wastewater Systems Manager. "We have a limited reserve of funding and we try to tackle the facility expansion with internal staff whenever possible."

The Challenge: Simplify SCADA Maintenance and Updates

In 2002 the plant's SCADA operations were disjointed - coordination and maintenance were difficult and expensive. Changes to one system were often not replicated on other systems. As a consequence, SCADA operations could best be described as disparate, unconnected and often unreliable. Loss of data was not uncommon, which presented a significant problem for a facility with several critical reporting requirements.

Emory Scriven, Project Manager for WaterHammer, Inc., consulted with The City of Riverside and described the problem this way: "We had around 15 stand-alone PCs throughout the plant. With all of the problems of continual updates, new service packs, and new drivers, there were naturally high maintenance costs".

Steve Schultz agreed. "Just the ability to move information from one treatment

process to another area within the facility was problematic. We wanted a centralized server and a more economical way to view the system from within the plant. Where I worked before in San Bernardino, CA, they have the Thin Client system and it seemed to be what we needed here." And once again, ACP's ThinManager met the requirements exactly.

The Solution

ACP's Thin Client management and enabling software, ThinManager, allowed the City of Riverside to focus on the process, not fight with computers. ThinManager also helps the City manage their Terminal Servers from within the same user interface that they use to manage all of the Thin Clients.

By replacing failure prone PCs with ThinManager Ready Thin Clients the staff was able to greatly simplify their daily operations and reduce costs. Thin Clients, with no moving parts and no local storage, improved reliability and reduced downtime. Adding new interfaces is as easy as plugging in a Thin Client and turning it on, giving immediate access to the existing software and data. This ease of expansion gives them a way to plan for the future with a redundant system.

Future Plans

Schultz and his team are considering adding the Laboratory Information Management System to the SCADA system. The move to Thin Client technology shortens the development cycle, lowers costs and gives improved reliability. With ThinManager, redundancy is built-in, and the City can do development work from any terminal. The Thin Clients give the flexibility to install nodes wherever there's fiber optic cable available. With Thin Clients and ThinManager, the City of Riverside can finally focus on the controls and instrumentation side of the SCADA system and keep the entire processing plant running smoothly.

