Municipal Water Authority Case Study

Clifton Park Water Authority Case Study
Legacy SCADA replacement for drinking water treatment with zero-downtime cutover and mobile client access
Industry: Water & Wastewater

Quick Facts

Attribute	Value
Customer	Water Authority for the Town of Clifton Park, NY
Location	Saratoga County, New York
Tags	~1,500 total, ~1,200 communication points
Development	~1 week + 3 days onsite setup
PLCs	Sixnet RTUs, Modicon PLCs, Rockwell PLCs
Network	Cellular router-based VPN
Integrator	Teamwork Solutions, Inc.

The Challenge

Challenge: Replace legacy SCADA system with intermittent communications and trend archiving problems that posed data integrity risks to the highly regulated drinking water treatment process.

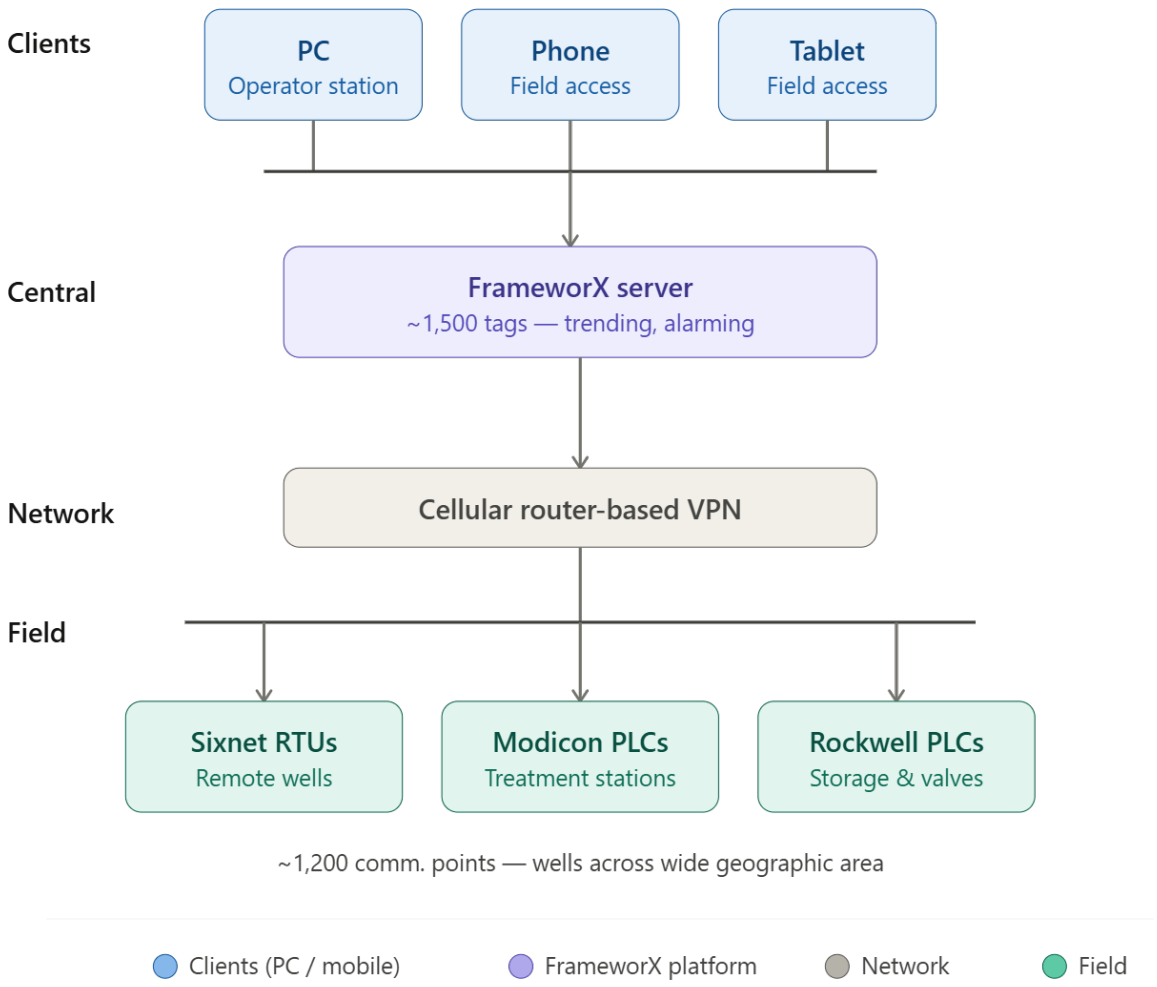
Specific pain points:

- Legacy software had intermittent communications issues
- Trend archiving problems made complete historical view difficult
- Data integrity concerns affecting process and reputation
- Multiple wells scattered across wide geographic area
- Highly regulated drinking water industry requires accurate real-time information
- Need for proper process functioning across all stations

Impact: Data integrity issues in a highly regulated drinking water environment posed risks to both process reliability and organizational reputation.

The Solution

Architecture



Tier	Component	Capabilities
Field	Sixnet RTUs, Modicon PLCs, Rockwell PLCs	Remote well stations
Network	Cellular router-based VPN	Remote station communication
Central	FrameworX Server	Monitoring, trending, alarming
Clients	PC, Phone, Tablet	Flexible access options
Future	Remote VPN Clients	Secure remote connections

Scale

Metric	Value
Total Tags	~1,500
Communication Points	~1,200
Engineering Time	~1 week
Onsite Setup	3 days

Process Areas

- Multiple drinking water wells (wide geographic area)

- Storage tanks
- Valves
- Water treatment

Key Technical Features

Feature	Benefit
Fine-Tuned Polling Rates	Tailored to each remote station's connection speed
Cellular VPN	Reliable communication with remote stations
Multi-Client Support	PC, phone, and tablet access
Custom Trending	Track and predict system operations
.NET Platform	Current and future Windows compatibility

Key Enablers

FrameworX capabilities that made this solution possible:

Capability	Application
Modern Interface	Comprehensive development and runtime features
Flexible Clients	Phone, tablet, and traditional PC support
.NET Technology	Future-proof Windows compatibility
Custom Poll Rates	Individual device polling tailored to connection speed
Multi-PLC Support	Sixnet RTUs, Modicon, Rockwell native drivers
Custom Trending	Tailored trend pages for operational tracking

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The Results

- **Zero-Downtime Cutover** — Migration from legacy SCADA completed without downtime, exceeding expectations
- **Performance Improvement** — System performance exceeds previous SCADA system
- **Cost-Comparable Migration** — Transition cost comparable to upgrading outdated software
- **Lower Total Cost of Ownership** — Price structure provides ongoing cost benefits
- **Increased Security** — .NET environment ensures current and future Windows compatibility
- **Field Access** — Agents can access information from the field via phone/tablet
- **Custom Trending** — Operators create trend pages with exactly the information needed
- **Future-Ready** — Underlying technology capable of meeting future needs

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Customer Testimonials:

> "We were very skeptical that we could shut down our old SCADA system and startup FactoryStudio without downtime. The change over process exceeded our expectations and FactoryStudio has been running smoothly ever since."
>
> *— Ron Marshall, Water Authority Superintendent*

> "The trending display tools in FactoryStudio allowed us to create a custom trend page that provides exactly the information I need to see to be able to track and predict system operations."
>
> *— Nate Clark, Assistant Water Plant Operator*

> "The FactoryStudio migration went very smoothly, and the system performance exceeds the performance of our previous SCADA system."
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> *— Corey Golden, Chief Water Plant Operator*

Resources

Download case study: CaseStudy_MunicipalAuhority.pdf

This case demonstrates legacy SCADA replacement for municipal water treatment with zero-downtime cutover and mobile client access.

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