



meternet

case study

About The Project



Location: Santa Clara, California, USA

Property Type: Four-story, 202-unit multifamily community (built in 2006, 461,832 sq ft)

Stakeholders: Meternet (service provider), property owner and management team, 202 resident households

Technology Partners: Mainlink & Axioma Metering (ultrasonic meters, data management platform, mobile app)

The Challenge



Until early 2024, Mission Terrace relied on aging analog meters that were manually read once a month. Without real-time visibility, water leaks often went undetected for extended periods. As the meters aged, their accuracy declined, resulting in billing discrepancies and growing resident dissatisfaction.

The Solution



Meternet deployed a turnkey submetering system from Mainlink and Axioma Metering using advanced ultrasonic meters. Three of Kerlink's indoor LoRa® gateways were installed across the property. Real-time data is sent to the platform, while residents monitor their usage and receive instant leak alerts via the mobile app.

Executive Snapshot

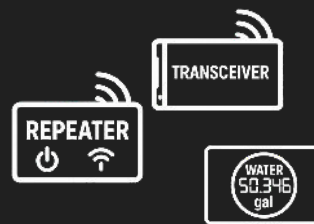


In just 30 days, Meternet successfully planned, managed, and completed the installation of 404 Axioma ultrasonic water meters (202 hot and 202 cold) at Mission Terrace Apartments. The result is a fully automated metering infrastructure (AMI) that provides remote, accurate, and transparent water usage data to both property managers and residents.

- **15-minute** installation per ultrasonic meter
- **30-minute** water downtime per unit (2 meters per apartment)
- **2× faster installation** compared to mechanical meters
- **\$8,000 saved** on labor by choosing ultrasonic meters with faster, any-angle installation
- **\$40,400 saved** by eliminating remote meter displays — the resident mobile app provides regulatory-compliant visibility at zero cost
- **6 water leaks** detected within the first two months

Component	Quantity	Purpose
NTEP Certified Ultrasonic water meters for hot & cold	404	High accuracy, 16-year battery life, no moving parts, and built-in leak detection
Indoor LoRa® gateways	4 (3 active)	Resilient building-wide coverage
Data Management Platform	1	Real-time analytics, precise billing exports, network health dashboard, and detailed reports
NTEP Certified Residential Mobile App	Unlimited	Resident engagement & instant leak notifications

The Solution Eliminates Unnecessary Hardware Costs for Property Owners



According to the California Code of Regulations UR.2 – Accessibility of Customer and NIST Handbook 44, water meters must be “readily observable.” If a meter is concealed behind a wall, ceiling, or installed in a vault, compliance requires either a remote water meter display or an NTEP-listed wireless endpoint with a mobile app.

Because the Mainlink and Axioma Metering solution is NTEP-certified and includes a resident-facing mobile app that provides easy access to water usage data, the client was able to eliminate the need for remote display readers at each unit. A single display reader, including installation and wiring, costs approximately \$200. For a 202-unit property like Mission Terrace, this resulted in an estimated \$40,400 in total savings.

Why LoRa®?

LoRa enables real-time water consumption monitoring over long distances with minimal energy usage, eliminating the need for costly infrastructure such as wired networks or frequent battery replacements. Its strong signal penetration ensures reliable data transmission even in challenging environments, while secure, bidirectional communication supports remote updates and diagnostics. Scalable and cost-effective, LoRa empowers property owners and utilities to optimize water management and future-proof their infrastructure.



Gateway positions within the apartment complex are marked with black circles and numbered labels.

Implementation Highlights ✨

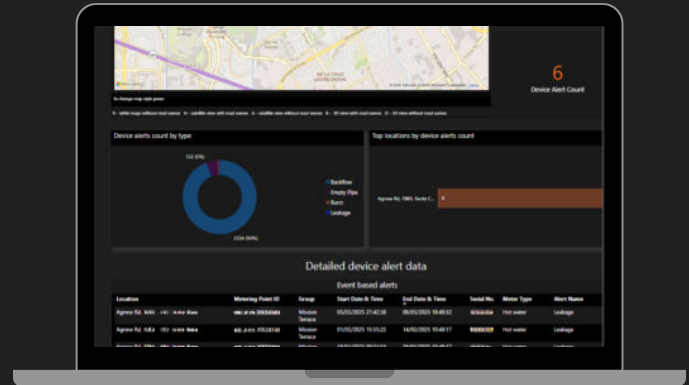
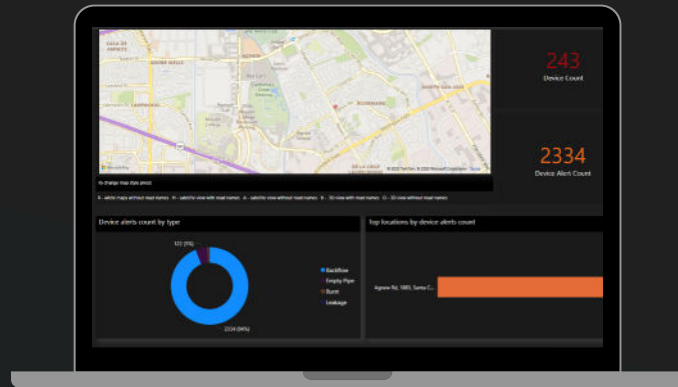
- **Overall project duration:** 4 months, with 30 days dedicated to technical installation
- **Average meters installed per day:** 20
- **Number of installers on site:** 2
- **Faster setup:** Ultrasonic meters supported any-angle installation. Gateways were mounted using existing infrastructure, and battery-powered meters required no additional wiring.

Data in Action (60 Days Insights)

Insight	What It Shows	Current Figure
Leak alerts	Early leak detection	6 alerts (all from one apartment)
Empty-pipe alerts	Possible supply disruption, faster response	122 alerts
Backflow events	Protects health & provides billing accuracy	2,334 alerts
Network health	Reliability of data delivery	95.05 % (fourth gateway pending)

Screens from the Data Management Platform

01. Leak Detection Alerts



02. Backflow and Empty Pipe Alerts



03. Network health monitoring module

Benefits by Stakeholder: Meternet (Service Provider)



- Remote meter reads replace manual walk-throughs and simplify maintenance
- Accurate usage data improves billing transparency and supports revenue recovery
- Certified meters and the mobile app meet California compliance requirements, eliminating the need for additional remote display installations and reducing both time and cost
- Maintenance-free ultrasonic meters with a 16-year battery life deliver long-term reliability and peace of mind

Benefits by Stakeholder:

Property Owner & Management

- Saved thousands of dollars by choosing the Mainlink & Axioma Metering's submetering solution and eliminating unnecessary hardware
- Gained full access to monitor and control the system from any device via the data management platform
- Early-warning alerts reduce insurance exposure and accelerate issue resolution

Residents

- Personalized consumption charts in the mobile app promote water conservation, while push notifications enable tenants to take action before a drip becomes a damage claim—building trust and reducing billing disputes.

What's Next?

Meternet is continuing its expansion with new smart water metering system implementations across additional multifamily communities, aiming to drive greater efficiency, compliance, and resident satisfaction.



“Mission Terrace is just the beginning. Avenue One is next with 404 meters, followed by Anchor Cove and Shadow Ridge - communities tired of inaccurate readings and undetected leaks.” — Dave Luebke, Director of Client Service, Meternet.

Mainlink and Axioma Metering are actively enhancing predictive analytics to save time, reduce costs, and support sustainable water usage across a wide range of property types. By delivering a solution that requires less hardware—eliminating the need for ongoing maintenance and replacements—they demonstrate that less can truly achieve more.

Key Takeaways



Analog meters hide costly leaks—AMI exposes them in real time. With LoRa® enabling building-wide coverage without rewiring, installation is fast and minimally disruptive. Dashboards transform raw flow data into actionable insights, and the upgrade quickly pays for itself through streamlined operations, reduced maintenance, and stronger resident trust.

For property owners, the savings are real: eliminating remote display readers alone saved over \$40,000, and faster ultrasonic meter installation cut labor costs by another \$8,000—all while achieving full regulatory compliance by choosing the Mainlink & Axioma Metering submetering solution.

Ready to future-proof your apartment complex? Contact us to partner.