Water AMI City of Wilmington

Public Works & Transportation Committee

Industry Leadership

IoT managed services, distributed energy management and outcomes

+285M

Endpoints delivered

+25M

Water Modules Deployed

+3M

Cellular Modules Deployed
Water/Gas/Electric

+100M

Endpoints under management at ~1,200 utilities

+8,000

Customers in 100 countries

$2.4B

2024 Revenue

RF | Under Canopy | CELLULAR

Multiple network options: Choose the connectivity that fits your needs

40M+

Endpoints across 30 countries use Temetra Water Platform

~4M

Streetlights Awarded with ~3M Deployed

150 delivery experts

Provide comprehensive implementation and project management.

Itron Oconee Overview

GROUND SURFACE	3,746K SQ FT (86 ACRES)
Facility	330K SQ FT
Manufacturing	145K SQ FT
HEAD COUNT	1012
VOLUMES (METERS, ENDPOINTS, NETWORK DEVICES)	10.3M

QUALITY RESOURCES

- Fully staffed Quality team consisting of 34 team members in Oconee
- Global Quality footprint with multiple members of the global quality in at the Oconee facility

QUALITY MANAGEMENT SYSTEM

- ISO 9001:2015 certified
- ISO 80079-34:2018 certified
- Multiple external audits annually by customers and regulatory bodies
  - Measurement Canada Accredited Authorized Service Provider
- By the end of the year, the factory plans to have additional certifications:
  - ISO 14001:2015 (Environmental Management Systems)
  - ISO 45001:2018 (occupational Health and Safety Management Systems)

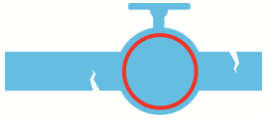
ISO 9001:2015

Center of Excellence

R&D, Manufacturing, Supply Chain, Operations, Marketing, Finance, IT, & HR

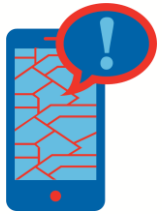
Utility Drivers

Financial constraints & need for cost-effective solutions



Aging Infrastructure/Asset Management

Climate Change & Impact on Water Availability & Quality



Demand for Digitization of Data for New & Existing Systems for Water Mgmt.

Growing Focus on Water Conservation, Sustainability & Energy Efficiency

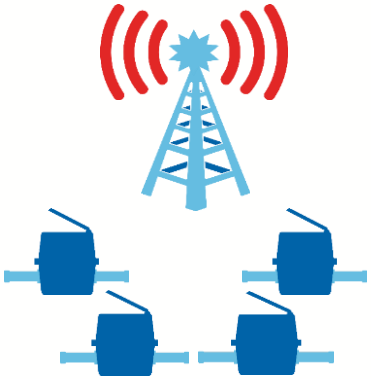
Employee Turnover & Employee Attraction

Regulatory & Stricter environmental standards

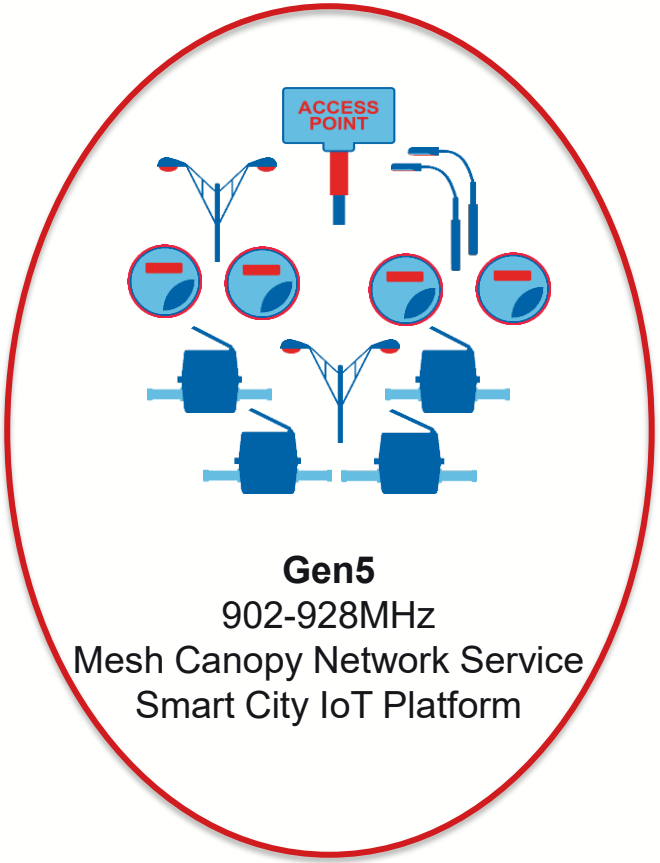
Rising Customer Expectations & Efficient Water Services

Water AMI Networks and Mobile Data Collection Systems

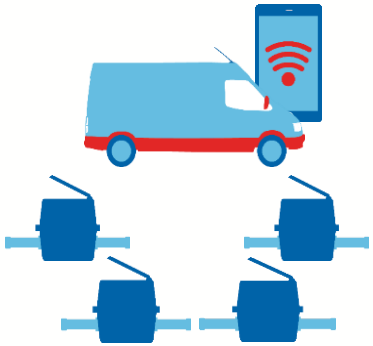
An industry leader in Mesh, Cellular, and Mobile AMI Data Collection



Cellular
690MHz – 2100MHz
Verizon and AT&T
Direct to Cellular



Gen5
902-928MHz
Mesh Canopy Network Service
Smart City IoT Platform



Mobile AMI
Drive-by Datalogging Extraction
or
Network contingency reading

Gen5 500W ERT Module

- **Gen5 mesh network or mobile mode**
- Encoder or pulse output compatible
- No programming required (encoder)
- 240 days of interval data storage
  - 5, 15, 30, 60 minute
- **Low latency on-demand reads**
- **Extended Field Connectivity (EFC+)**
- Over-the-air firmware downloads
- Event and Error detection
  - Cut cable tampering
  - Metered leak detection
  - Reverse flow
  - Low battery alarm
  - Extended alarms for select meters

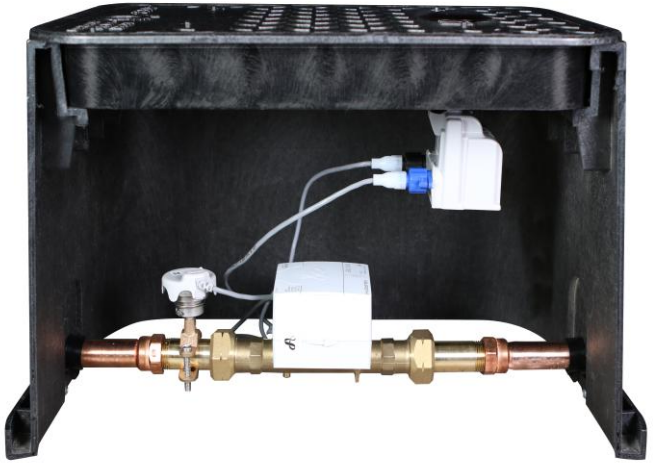
- Optional Acoustic Leak Sensor
- Optional Remote Disconnect Valve
- 20-year battery life
- Manufactured in USA

Pit Mount Module

Remote Mount Module

Gen5 Access Point w/ Electric Meter or Street Light Controller

Easy Installation and Activation



Easy Installation and Activation

Deliver Accurate Reads with Approved Meters

Itron has maintained compatibility with nearly every major water meter brand for over 20 years

DIEHL Metering

Badger Meter

MUELLER

xylem Let's Solve Water

Honeywell

NEPTUNE TECHNOLOGY GROUP

SIEMENS

MASTER METER

KROHNE

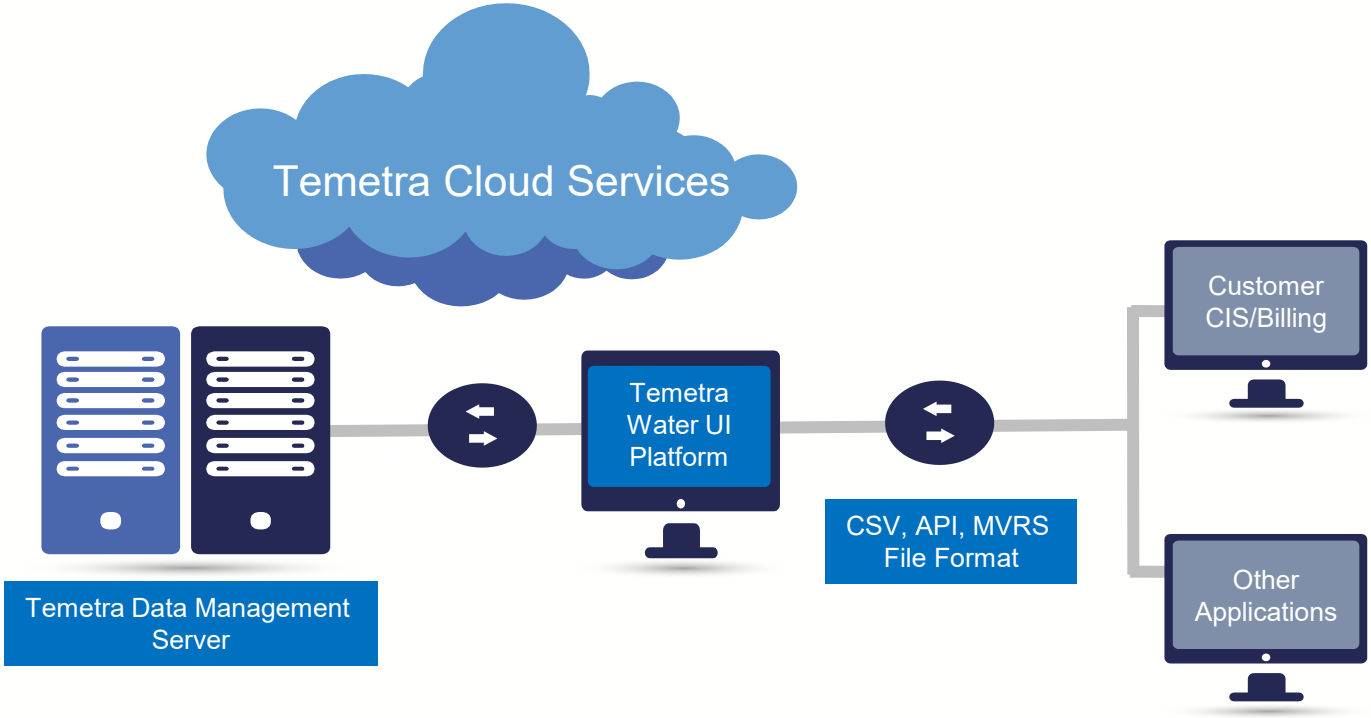
kamstrup

ZENNER

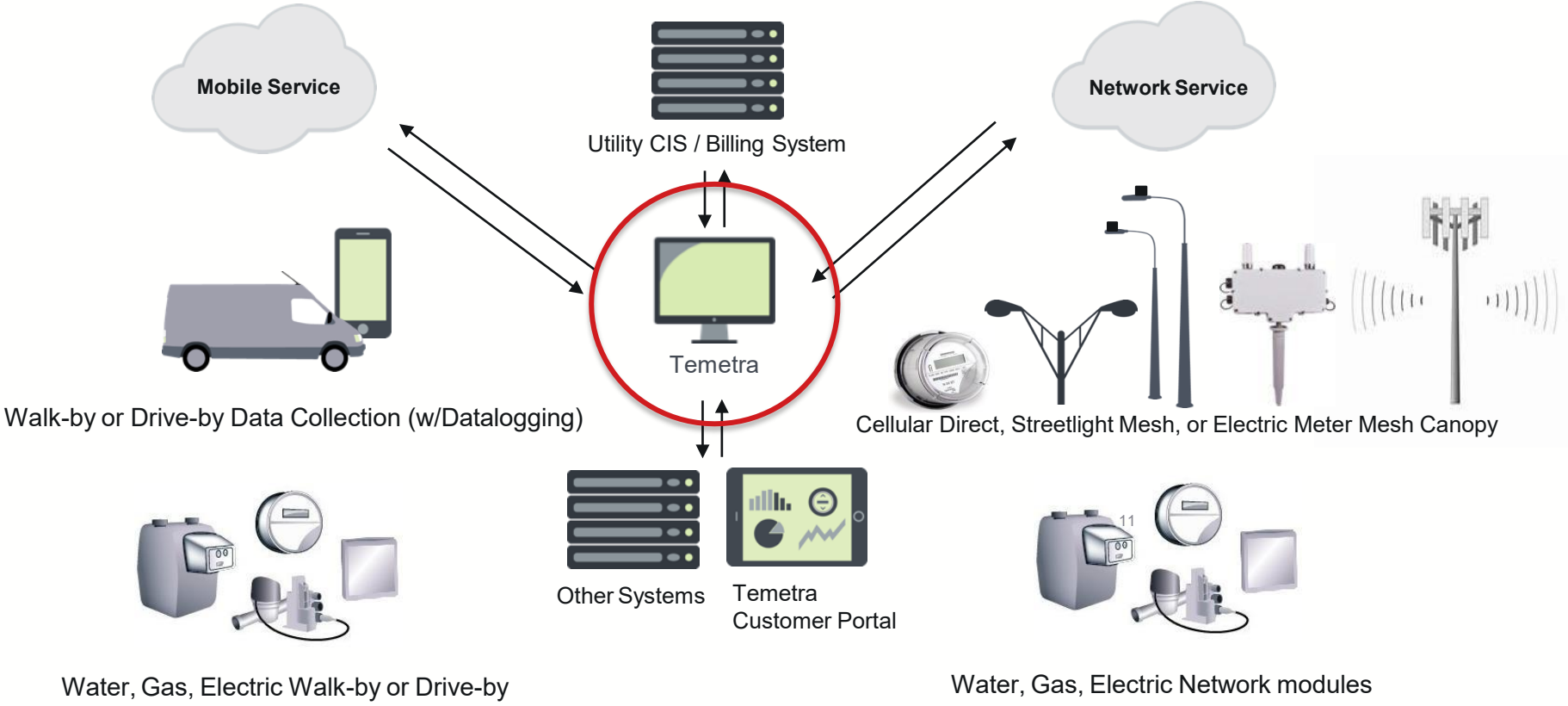
McCROMETER

Metron-Farnier Smart Water Meters & Systems

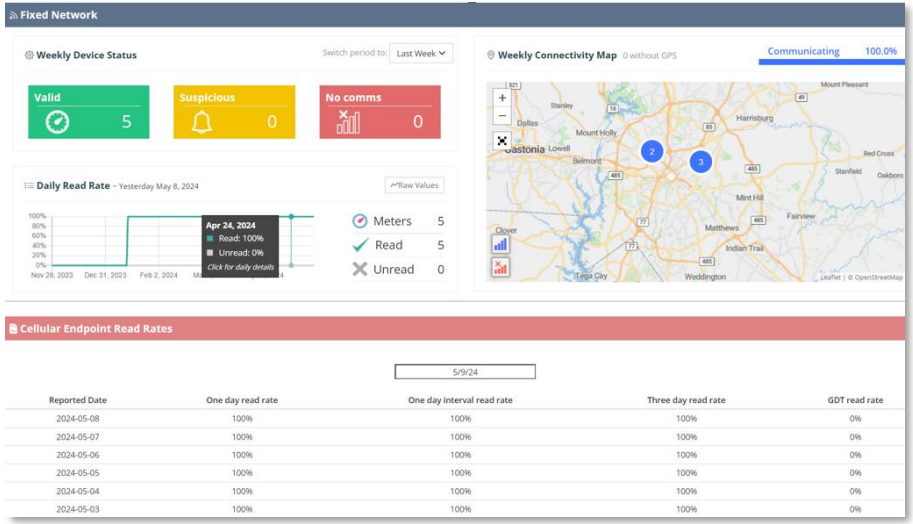
Temetra Integration



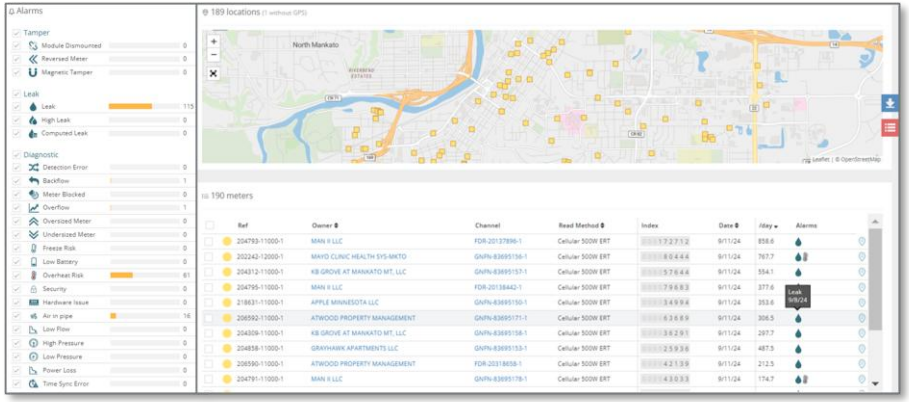
Temetra AMI Solution Architecture



Temetra Meter Data Management



Monitor Cellular Read Rates with Network Dashboard



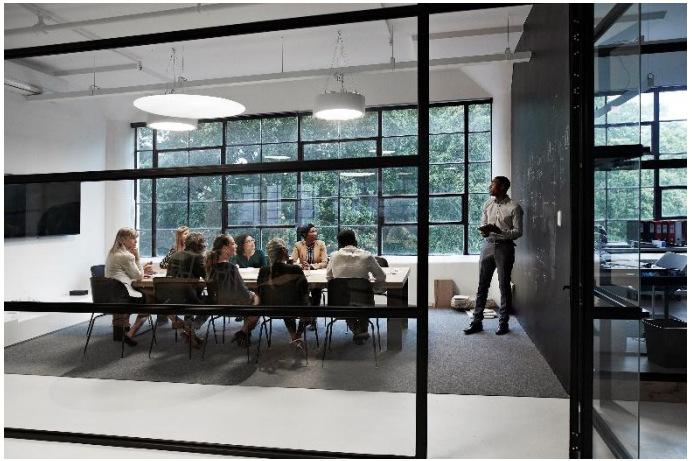
Protect Revenue, Assets & Customers with Event Alarms

Why Hosted NaaS for Water Utility?

Utilities are already critical infrastructure providers – **connectivity is essential next step**

Provides an affordable way for **smaller utilities and cities to automate operations**

No need for staffing or training for ongoing maintenance of a communication system



Easiest and Lowest TCO Model

A Winning Proposition for the Host Utility

A Multi-Use Approach

Increase Revenue Streams

- Little to no increment network investment required
- New business models and revenue streams

Community Mindset

- Provide value to water and gas utilities leveraging existing infrastructure
- Conserve critical resources like water, electric, and gas

Political Goodwill with Regulators

- Provide a service to water and gas utilities leveraging rate payer funded assets
- Demonstrate value to regulators to create goodwill

Customer Success & Closing Comments

Why would an IOU, water utility, or municipality care?

AEP & Fort Wayne Water
Fort Wayne, IN

HOSTED NAAS FOR SMART WATER

CHALLENGE

- Modernize Fort Wayne water distribution network
- Move from mobile reads to AMI cost-effectively
- Upgrade meter population to ultrasonic

SOLUTION

- AEP-owned AMI network covering Fort Wayne service territory
- Low-maintenance hosted NaaS model

RESULTS

- Currently 22K deployed
- Increased meter reading accuracy & billing
- Improved customer service
- Increased data from Ultrasonic meter extended data set

CPS ENERGY &
SAWS
SAN ANTONIO, TX

HOSTED NAAS FOR SMART WATER

CHALLENGE

- Modernize San Antonio water distribution network
- Move from manual reads to AMI cost-effectively

SOLUTION

- CPS-owned AMI network covering SAWS service territory
- Low-maintenance hosted NaaS model
- Started with a 2,500 resident pilot
- Expanded to full smart water AMI deployment

RESULTS

- ~100% read rate for smart water meters
- Reduction in truck rolls
- Increased meter reading accuracy & billing
- Improved customer service
- Exploring additional smart water applications
- Accelerated ROI & new revenue streams for CPS as network owner

COMED
WEC ENERGY GROUP (People Gas)
CHICAGO, IL

HOSTED NAAS FOR SMART GAS

CHALLENGE

- Improve gas safety through AMI
- Move from manual reads to gas AMI cost-effectively

SOLUTION

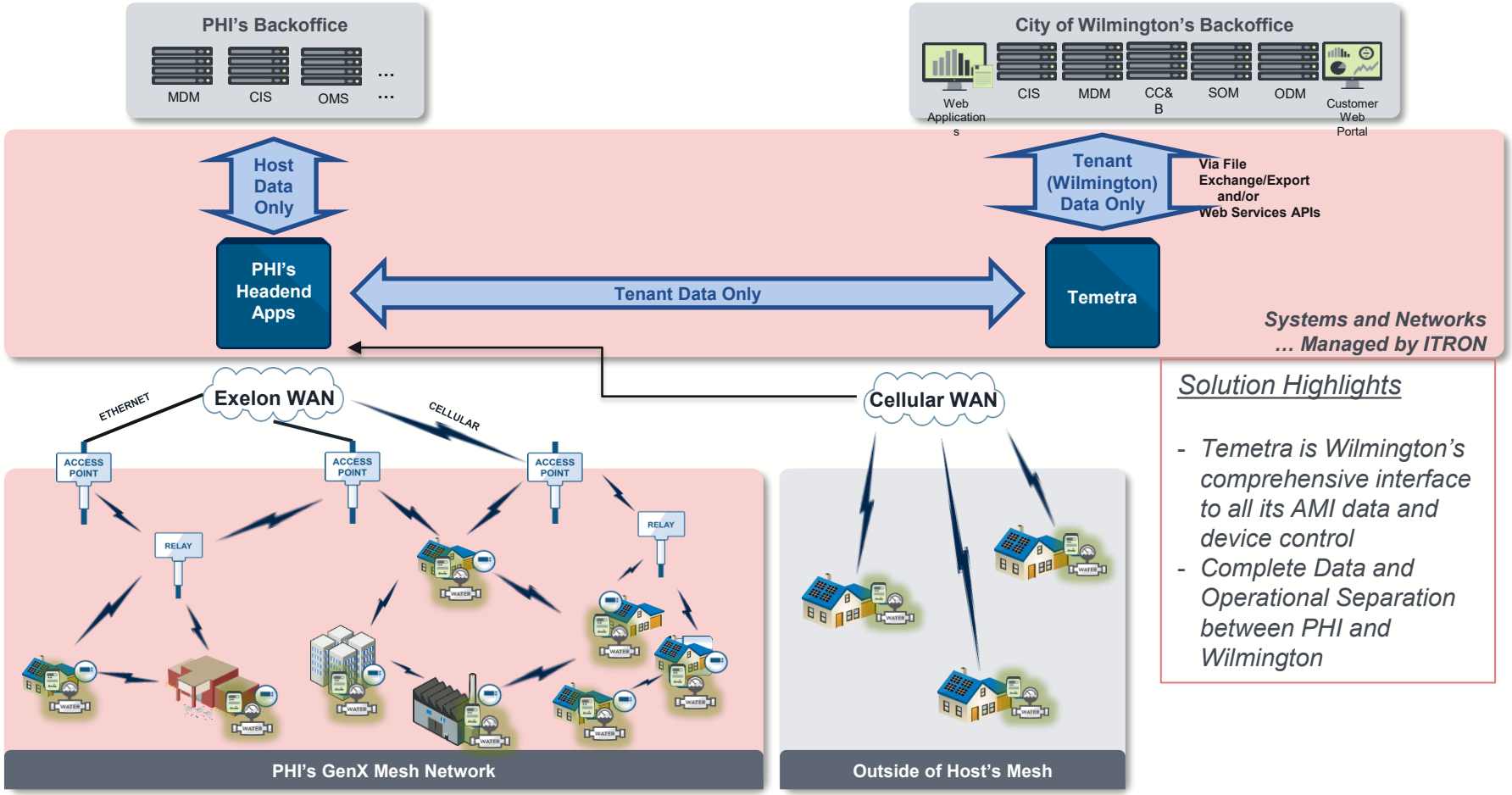
- ComEd-owned AMI network covering People's Gas & North Shore Gas territory
- Low-maintenance hosted NaaS model
- Smart gas endpoints

RESULTS

- Successful example of 2 large, separate IOUs sharing network access
- Will improve operational efficiency and reduce costs across all utilities
- Accelerated ROI & new revenue streams for ComEd as network owner

SOLUTION OVERVIEW

Leveraging PHI's existing AMI network



Solution Highlights

- *Temetra is Wilmington's comprehensive interface to all its AMI data and device control*
- *Complete Data and Operational Separation between PHI and Wilmington*

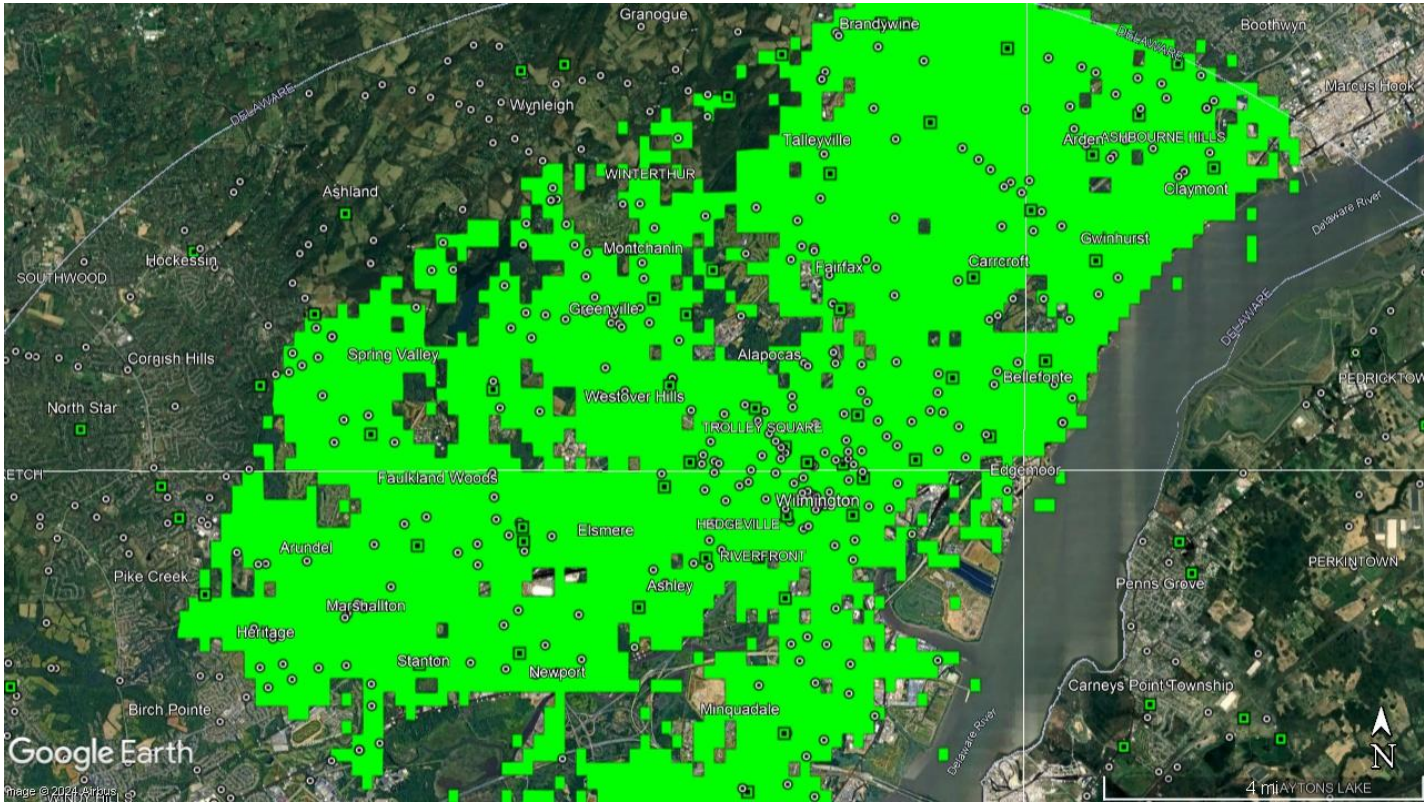
PHI AMI Overlay Wilmington Water

- The map to the right illustrates the locations of installed and actively communicating PHI Access Points, Relays, and electric meters in and around Wilmington.

Access Point

Relay

Electric Meter



PHI AMI Overlay Wilmington Water

- The map to the right illustrates the locations of installed and actively communicating PHI Access Points, Relays, electric meters, and Wilmington water meters.

Access Point

Relay

Electric Meter

Water Meter