



Oklahoma Natural Gas Boosts Pipeline Monitoring Efficiency with AirLink® Rugged Routers

# **QUICKFACTS**

## Company

Oklahoma Natural Gas www.oklahomanaturalgas.com

#### **Customer Profile**

Oklahoma Natural Gas (ONG), founded in 1906, is one of the oldest corporations in the state of Oklahoma. The company employs more than 1100 and serves over 847,000 residential, commercial and industrial customers. It services over 21,000 miles of distribution mains, and is a trusted and reliable supplier of energy and natural gas to the citizens of Oklahoma.

## **Objectives**

- Accelerate IMP compliance
- Remotely monitor pipeline network components
- Decrease operating expenses without expanding its workforce
- Increase shareholder value
- Implement a clear and simple upgrade path to evolving technologies
- Improved quality and accuracy of data

#### Results

- Critical emergency communications are now dedicated to the broadband network shared with Seattle Power, Wi-Fi is used for high-speed file transfers and software maintenance.
- Dispatching and emergency communications can use photos and transmit larger data sets.
- Software and file updates to MDTs and mobile devices can now be done on a regular basis.

#### Semtech Products and Services

- AirLink Router RV50
- AirLink Management Service



## INTRODUCTION

Oklahoma is the third largest gas producing state in the US. To serve its broad client base, ONG has extensive pipeline networks deployed over vast stretches spanning urban and rural areas. The company's priority is to deliver natural gas with no adverse effect on the public, its customers, employees or the environment, and its goals for environmental safety and performance meet or exceed all industry requirements.

## **CHALLENGE**

When the Office of Pipeline Safety issued a mandate in December 2003 requiring natural gas pipeline operators to develop integrity management programs (IMP) for gas transmission pipelines, ONG was ahead of the curve. The company had already started addressing the need to revise the complex and costly process of checking 900 sites each month.

To implement the new IMP programs manually, ONG estimated that it would need to hire 90 technicians. They would also need to supply vehicles and cover mileage and other travel expenses, creating a recurring annual expenditure of over \$5M. The costs and time required for this process led ONG to seek a solution that would enable remote monitoring without any additional recurring costs.

## **SOLUTION**

ONG implemented an asset management solution that included a Semtech AirLink Router, a rugged communications device specifically designed to handle remote asset management applications for utility management. With capabilities like remote monitoring and configuration, packet-level diagnostics and over-the-air software updates, the router provides the always-on and always-aware connection management required for today's mission-critical applications. Certified as Class I, Division II, the AirLink router is rated intrinsically safe and suitable for use in hazardous environments.



ONG installed 900 AirLink routers, one for each of its remote sites. Each router enabled information to be sent back to a single command base, eliminating the time and travel required for manual integrity checks. In addition, Semtech tailored its solution for ONG with specific enhancements that would efficiently manage data and reduce wireless network usage, further minimizing costs for the organization.

## **RESULTS**

Semtech' monitoring solution provided the low latency and reliability required for more frequent meter polling, making ONG's data reads more accurate. ONG was able to not only meet mandated IMP specifications, but also to use the new data retrieval process to reduce losses resulting from inaccurate billing.

Assuming annual technician compensation of \$45,000 and an annual vehicle operating expense of \$12,000, the recurring annual expenditure for manual integrity checks would be \$5.1M. The cost to purchase and deploy 900 AirLink routers was approximately \$630K. Even with recurring airtime, ONG recovered its investment in the second month of deployment, and continues to save over \$4.8M per year.

#### **About Semtech**

Semtech Corporation (Nasdaq: SMTC) is a high-performance semiconductor, IoT systems and cloud connectivity service provider dedicated to delivering high-quality technology solutions that enable a smarter, more connected and sustainable planet. Our global teams are committed to empowering solution architects and application developers to develop breakthrough products for the infrastructure, industrial and consumer markets.

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