

Passive Revenue Protection Yields Results for a Major U.S. Utility

Every day a major U.S. utility queries its Ecologic Meter Data Management System (MDMS) for diagnostic meter flags received from its automated network within its nearly 2 million meter service area.

“This query helps us identify multiple types of meter issues that signify problems with the meter, the AMR module or potentially, could indicate device tampering by the customer,” said a representative of the utility. “In any case, these are issues that we need to address to reduce revenue loss.”

Specifically, querying for this information is aimed at identifying one of three conditions that could reveal electric meter tampering – reverse rotation, excessive power outage or magnet presence.

This utility doesn’t often actively pursue electric fraud situations. It finds that even “passive” monitoring yields worthwhile results, because it can prevent the problem from growing over time.

Fast Facts:

- Pacific Northwest Utility
- 1.8 Million Meters

Solution Highlights:

- Full Ecologic MDMS deployed in 2001
- Featured MDMS Module:
 - Network Performance Monitor

Problem:

In today’s world, where meters are read automatically through the use of AMR/AMI technologies, the absence of a meter reader visiting a residence or business gives some individuals the notion that they can tamper with the utility’s meter, slowing or stopping its revolution without getting caught, in order to decrease or eliminate their electric bill.

“In just two years, we’ve seen a six percent decrease in meters that needed further human validation,” said a representative of the utility.

While AMR/AMI meters have the built-in capability to detect and record symptoms exhibited due to malfunctioning equipment or tampering by a customer, the ability to efficiently retrieve and process this information has only recently been introduced to the market with the development and deployment of meter data management systems.

Solution:

The Ecologic MDMS has been in use at this utility since 2001, automatically gathering, validating, estimating and editing reads for its nearly 2 million meter service territory. In conjunction with the utility’s defined reference values and trends, the Network Performance Monitor (NPM) module – one of 12 application modules within the Ecologic MDMS – proactively monitors consumption patterns and abnormal trends.

“In just two years, we’ve seen a six percent decrease in meters that needed further human validation,” said a representative of the utility. “Today our approach is based on monthly querying and reporting, but as we better understand fraudulent usage patterns, we’ll continue to standardize and automate the processes.”

Using NPM, the system can be configured to generate reports, service orders or any user-defined course of action based on the occurrence of suspect events. These intelligent reports enable utilities to make the necessary business decisions to more quickly identify and resolve issues like potential revenue protection cases.

Results:

Since 2005, the utility has uncovered 315 situations that were pinpointed by the Ecologic MDMS as abnormal and verified by the utility's meter department personnel as potentially fraudulent low meter usage. By identifying these issues, the utility has been able to properly document suspected tampering for legal action and send personnel to correct the problem, thereby stopping related losses.

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