Case Study

WATER UTILITY

User
Opelika Utilities, serving 20,000 customers in Alabama

Partner
GISinc

Challenge
Identify nonoperational meters and reduce lost revenue

Solution
Insights for ArcGIS®

Results
Hundreds of meters identified quickly, resulting in a gain of $25,000 in revenue per month

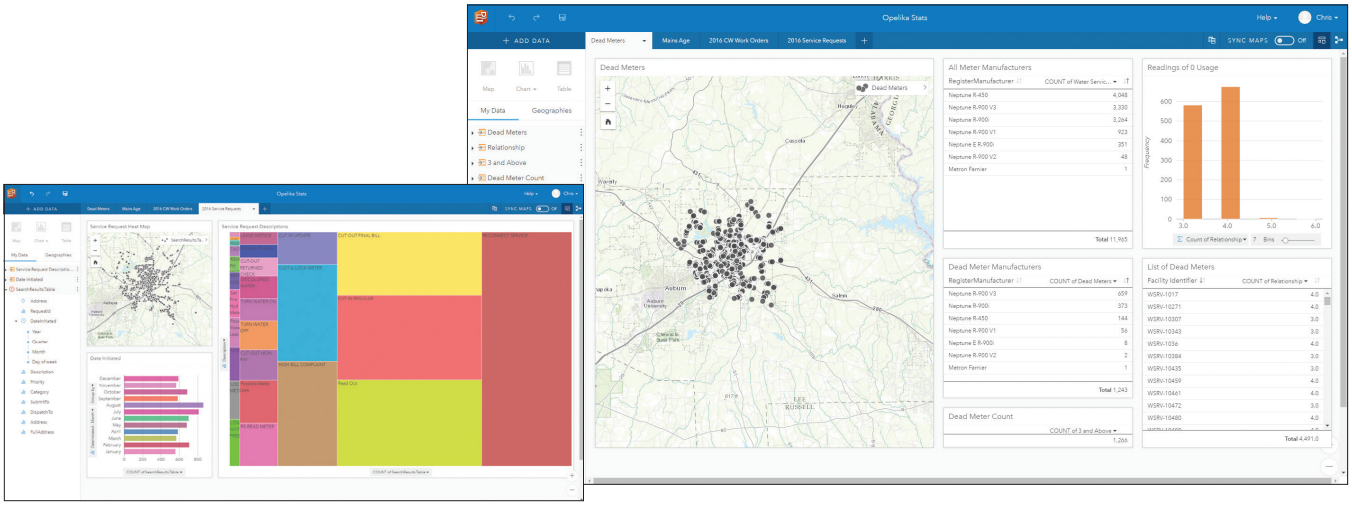
Operational Insights Increase Revenue

Opelika Utilities in Alabama serves nearly 20,000 customers in Lee County and the City of Auburn. The utility's mission is to assert a broad, long-term view of the water needs of Opelika's citizens and industries to assure that facilities, sources, and manpower are provided pure, plentiful water now and for the future. With a focus on improving operational efficiency, Opelika Utilities began taking a closer look into potential revenue issues and how to find solutions that would help the utility increase revenue more efficiently.

The Challenge

While many water utilities are concerned about water loss due to leaky pipes, losses of this kind at Opelika are well under acceptable industry standards. Instead, Opelika's primary concern revolves around nonoperational water meters known as dead meters. If water meters are not working, customers cannot be properly billed for their usage. This results in lost revenue for the water utility. Identifying these dead meters is a time-consuming process. Every month, one staff member would spend at least eight hours sifting through a report of 14,000 meter readings to find those that are potentially nonoperational. This meticulous process led to information loss and an estimated revenue loss of $150,000 annually.

Opelika needed a modernized method for reviewing and analyzing meter readings, sharing results with stakeholders, and automatically generating work orders to review nonoperational meters.



"Insights, for me, is power. We can take data very quickly, make a map, then deliver it to an end user, executive, decision-maker, or someone in the community."

Alan Lee
Opelika Utilities

The Partner

Opelika worked with Esri partner GISinc using Insights for ArcGIS to identify dead meters as well as operational trends with meter manufacturers and issues with specific meters installed in new developments.

The Solution

To identify dead meters, Opelika selected Insights for ArcGIS, a web-based, data analytics workbench that allows users to quickly analyze data even if location information is limited. Because Insights is so easy to use, everyone at Opelika—from the water technician in the field to the chairman of the board—can take advantage of its capabilities.

"I'm not a computer programmer. I have never done a Python script," said Alan Lee, a capital projects manager with Opelika Utilities. "I wanted to be able to take something out of the box, import data into [it], and analyze [the data]."

Lee imported all relevant data sourced from Opelika's billing department into Insights for ArcGIS. The imported data included Opelika's work orders and data from the utility's supervisory control and data acquisition (SCADA) system. He used Insights for ArcGIS to perform quick analysis, produce illustrative maps and charts, and share that information with managerial staff. Because Insights for ArcGIS is able to record workflows, Lee is able to rerun his analysis monthly.

The Results

Using Insights for ArcGIS, Opelika identified hundreds of dead meters and enough water loss to merit a net gain of $25,000 per month in revenue. Lee and others within the organization report that Insights for ArcGIS is extremely easy to use. They simply compile the necessary data, do a little bit of cleanup on it, and feed it into Insights to get answers right away.

"With Insights, we were able to compile our data and have answers within a minute or two," Lee said. "We learned not only about water loss but also consumption data. Looking at where we are selling water helps us operate our system more efficiently."

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