# Anglian Water Leverages Utility GIS Solutions for Better Network Management

## Anglian Water
*United Kingdom*

Climate change, population growth, supply security, and regulatory requirements are among the many challenges facing today's water utility providers. One company leveraging enterprise information to address these evolving challenges is Anglian Water.

Serving more than 6 million domestic and commercial customers, Anglian Water is the largest water and wastewater company by geography in England and Wales, managing 1.2 billion liters of water each day through 113,000 kilometers of pipe.

"Anglian Water is located in one of the country's flattest and driest regions, where population growth has increased by 20% over the last 20 years," said Tony Hubbard, tactical operations manager with Anglian Water's Operations Management Center. "On top of that, the water industry is one of the most tightly regulated and monitored sectors in the U.K. and E.U."

To responsibly manage the region's water resources and infrastructure amid population growth and stringent regulations, Anglian Water recognized it needed an enterprise information architecture that would modernize its IT environment for asset and spatial data, easily integrate with other back-office systems, and streamline field operations. Anglian Water also needed a solution that would help improve its business operations – ensuring better service delivery and customer satisfaction.

## Creating a Single, Modern Environment

For Anglian Water, having a robust and scalable system that would serve as a definitive source of reliable, location-based information was critical to connecting and sharing data with users and systems across its organization.

Working closely with Hexagon's Safety & Infrastructure division, Anglian Water implemented a single environment for its network asset and geospatial data. Powered by Hexagon's network model management software and advanced water networks GIS add-on, Anglian Water has an advanced water and wastewater infrastructure management system that features a highly accurate network model of all the distribution assets of the system, including water mains and sewers, storage reservoirs, pumps, pipelines, valves and meters, and more.

With the Hexagon system in place, Anglian Water can conduct planning and engineering analysis; design work orders; and manage mapping, asset, and maintenance records. The system provides a consistent view of data and applies appropriate software tools at all access points, which empowers employees to make decisions that improve operations and customer service.

A water utility-specific, commercial off-the-shelf solution, the add-on provides all the functionality needed to efficiently manage and operate the company's water

facility network. Based on industry best practices and focused on regulatory compliance, it enables faster network design and documentation, better data currency, streamlined workflows, and enterprise application integration.

"Hexagon's technology has given us a state-of-the-art infrastructure management solution at the center of our IT architecture," said Hubbard. "The system is tightly integrated with our SAP environment to maximum the business value of our network asset and geospatial data."

## Transforming Information into Business Value

To take full advantage of its investment, Anglian Water wanted decision-makers and operations personnel to have easy access to utility network and asset data. Working closely with Hexagon, Anglian Water developed the Visual Intelligence Programme to bring utility information together and present it in a geographic context for better decision-making.

This web-based solution supports the daily work of call center operators, operations managers, and asset planners. The solution provides a common operating picture of the network for call center personnel, giving them service outage information for customers, a single view of job assignments, alarms and notifications, work order information for field crews, and more.

The Visual Intelligence Programme was part of a business transformation process that created the Operations Management Centre, which has helped Anglian Water increase its visibility into day-to-day activities, better understand asset performance and risks, and identify opportunities to improve customer service. Anglian Water has also reduced and better managed incidents, such as outages, bursting pipes, and contamination threats, by visualizing its assets on the map and enabling a more intelligent response.

"The infrastructure we inherited is very old, and before we developed the program with Hexagon, our incident management and operation processes were very manual, through word of mouth and people using flip charts," said Hubbard. "Now we have a one-stop shop for operations, giving us map-based views of assets across the network, which truly helps us manage and respond to incidents as quickly as possible."

According to Anglian Water's annual performance reports, the program is working. More than 94% of its customers self-report that they are satisfied with their service.

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"Our customer satisfaction score is 4.72 out of a possible 5, making us #1 of 10 utilities in the U.K.," said Hubbard.

## Making Field Operations More Efficient

To further extend its enterprise GIS capabilities, Anglian Water initiated an innovative mobile strategy that integrated SAP's Unwired Platform and Afaria mobile app with Hexagon's solution for accessing the master facility model. Much more than a mobile GIS application, the integration created a hybrid application that links work orders with map-based views of network data to enable more efficient management of field operations.

A key benefit of the solution is the intelligent spatial black-lining capability of the system, which makes it quicker and easier for Anglian Water to update utility network records. This process eliminates hand-offs and re-digitizing of previous workflows, facilitating continuous improvement in the quality of network data through product validation.

With the Hexagon client on ruggedized laptops, field crews can open a job on a map and view one year of asset history. Field crews can locate detailed geospatial information, including pipe length, circumference, and other factors, based on the asset number. Then, they can redline changes onto the map itself and submit that information back to the operations center to keep asset and network databases up to date.

Being able to quickly and accurately capture mandatory information has driven two specific benefits for Anglian Water. First, there's an accurate database that reflects the cause of the service call, location, and resolution. Second, there's a mechanism for pinpointing and reporting properties impacted by severe flooding to the appropriate regulators.

"By implementing mobile work orders, our operational field force is more efficient and productive," said Hubbard. "It has also eliminated manual data entry processes, which are time-consuming and prone to error – making the network data much more current and accurate."

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Tactical Operations Manager
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Hexagon is a global leader in sensor, software and autonomous solutions. We are putting data to work to boost efficiency, productivity and quality across industrial, manufacturing, infrastructure, safety and mobility applications. Our technologies are shaping urban and production ecosystems to become increasingly connected and autonomous — ensuring a scalable, sustainable future.

Hexagon's Safety & Infrastructure division provides software for smart and safe cities, improving the performance, efficiency and resilience of vital services.

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