



# Case study

## Anglian Water Create a Platform for Business Growth with ClickSoftware

### Background

Anglian Water, part of the AWG Group, is located in the east of England and serves the needs of around six million industrial, commercial and domestic customers. It is geographically the largest water company within England and Wales stretching across some 27,500 square kilometres from the Humber in the north to the Thames in the south, from Daventry in the west across to the East Coast.

Anglian Water's primary focus is to provide high quality drinking water and wastewater services with a total commitment to sustainable development.

### The Challenge

Anglian Water is facing some tough regional challenges in both the near and long-term. Whilst its area is low-lying and could be susceptible to flooding, it paradoxically has one of the lowest levels of rainfall in the UK. Thus Anglian Water's existing infrastructure has to be robust and rigorously maintained.

There are also demographic pressures on the company; one million new homes are due to be built in the region within 25 years, including new towns of up to 10,000 properties. This will require Anglian Water to embark on a long-term scheme of work to create the infrastructure that will provide and dispose of water for the new homes. On top of these wider challenges, Anglian Water also operates within guidelines agreed with of the Office of Water Services (OFWAT) and need to comply with efficiency and cost standards for the five-year regulatory period which began in April 2005.

This all signifies the need to rigorously maintain and expand the existing infrastructure with the requisite meticulous planning of field resource to complete the works. Unfortunately the structure and manual systems employed by Anglian Water for this purpose were inefficient and prone to error.

The engineers in the field were divided into small units of between 6-30 people known as Work Centres. Work Centres are responsible for six process areas for their geographical region:

- Clean water treatment
- Network Distribution
- Waste water collection
- Waste water treatment plants
- Mechanical & Electrical maintenance
- Metering

On top of their day-to-day jobs, field engineers from Work Centres were expected to contact regional schedulers at the end of the day with progress reports. This was a frustrating process, with staff often having significant waiting time before getting through to the relevant scheduling centres.

Using schedulers in different regions operating disparate systems resulted in a lack of visibility of the company's overall resources against demand. Management could therefore not accurately predict resource requirements for repair, future new build and maintenance projects.

Given these issues it was unsurprising that over time the levels of service to customers had dropped dramatically from 93 percent in 1995/96 to 53 percent in 2003/04. Due to a lack of information available to call centre staff and a perception that customer service needed to be improved, an independent survey rated Anglian Water contact centre performance at just two out of ten.

## The Solution

Anglian Water prioritised an improvement in service quality and a drive to increase levels of efficiency. Their ultimate aim was to be ranked as "Leading the Industry". One of the key components towards this change was the centralisation of operations into the Operational Management Centre (OMC) which would be responsible for the maintenance and assets of the business.



Core to the OMC would be a new scheduling system that would provide visibility of all field operations in one place. Simon White, Business Readiness Manager at Anglian Water explains the rationale, *"We needed a lot more clarity on what field engineers did and where they did it. We needed to improve customer service by reacting very quickly to customers' needs. We needed to make sure we had the right staff available at the right time at the right place."*

Because of the pivotal role the scheduling and dispatch solution would play in shaping Anglian Water's business, the selection process was rigorous. To really test the three shortlisted vendors they were each provided with a package of known work and were asked to pass it through their individual systems and then present the results.

ClickSoftware was one of two vendors that produced similarly impressive scheduling solutions from Anglian Water's real data. Crucially ClickSoftware also demonstrated an intuitive interface and the consensus amongst Anglian Water's scheduling workforce was that it was something they could work with immediately.

Moreover the end-to-end capability of ClickSoftware to schedule engineers, analyse work trends, forecast future demand and plan resources accordingly, also impressed. Anglian Water duly purchased ClickSchedule, ClickAnalyze, ClickForecast and ClickPlan to be used by 170 back-office staff to schedule 1180 field engineers on more than one million jobs a year.

*"The scheduling system itself had to be world class and after an extensive evaluation of products on the market, it was obvious that the value of ClickSoftware's suite approach would drive enormous benefits both now and into the future."* said David Cooke, Director of Water Services at Anglian Water. *"An important benefit was ClickSoftware's versatility in handling demand, from short-cycle meter reading all the way through long-cycle, project-style maintenance work. We needed a solution that could help us better forecast our demand over time and properly plan to have the right number of engineers on hand."*

## The Implementation

The desire to realise benefits in the current regulatory period drove aggressive implementation timescales and ClickSoftware immersed themselves in the business. In January 2005 tri-partite business process re-engineering workshops kicked off the project comprising of Anglian Water, their IT partner Computer Sciences Corporation (CSC) and ClickSoftware. Over the next four months ClickSoftware's role was to provide domain expertise on best practice scheduling for utilities. For ClickSoftware's consultants it provided an appreciation of the wider objectives beyond scheduling.

Simon White was impressed by the approach of all members of the workshop, *"At the workshops you wouldn't have been able to tell who were from ClickSoftware, who were from CSC and who were from Anglian Water, it was a real joined-up team approach"*.

One of the outputs of the workshop was an agreement on the build of all solutions within an agreed timetable. An initial design and testing phase was worked upon to smooth the progress of the future live implementation. This ran from June to October 2005 and involved several stages:

1. The initial tranche involved creating a detailed design specification for ClickSchedule, planning where it would integrate with other critical applications such as SAP HR (Human Resources), SAP ALM (Asset Lifecycle Management) and SAP MAU (Mobile Asset for Utilities).
2. Next the user interface in ClickSchedule was configured to include custom forms, scheduling logic, agent alerts and workflow.
3. Customisations were then developed for Anglian Water. Many of these were deemed so useful that following consultation with the ClickSoftware user group, they were incorporated as a standard component in future versions of the ClickSchedule product.
4. Integration and Quality Assurance followed and the results reinforced ClickSoftware's reputation as a robust application, with unusually for such a large project, hardly any issues identified.
5. ClickSchedule was then delivered onsite where the customer was given the opportunity for an end-to-end walk-through of the system. This included testing the full functionality between SAP HR, SAP ALM and SAP MAU to ensure seamless integration.

A successful live pilot from November to December 2005 paved the way for ClickSchedule to be rolled out Work Centre by Work Centre from January to November 2006.

## The Results

The implementation of the entire suite of ClickSoftware's solutions has paid handsome dividends. ClickSoftware now supports Anglian Water's key operational processes providing reactive and planned repair and maintenance to the organisations vast operational water and wastewater infrastructure. Departments that previously worked in silos now work in collaboration and have access to the same customer and asset data across the organisation, regardless of the department.



ClickForecast is used to understand the likelihood of future demand on resources associated with reactive work (such as blocked pipes). ClickPlan then grabs this information and the future maintenance work that is forecasted in SAP and compares it against information held in ClickSchedule. ClickPlan can then compare existing and future work against resources and illustrates shortages and excesses.

The benefits are compelling; a clear, single view of the real-time situation has empowered schedulers to reduce the work backlog by 95 percent in some process areas and thereby reduce dispatch times and improve service. Better utilisation of internal resource has also resulted in Anglian Water increasing available capacity and significantly reducing reliance on third party outsourcing partners that deal with work such as leakage detection.

Anglian Water applied the full envelope of ClickSchedule's capabilities, employing full automation, optimisation and real-time updates on field resource availability. It is also integrated into SAP HR which feeds calendar availability sickness and training information into ClickSchedule. By combining the capabilities of the HR and scheduling systems, Anglian Water has reduced costs associated with administration and contributed toward an 11 percent reduction in expensive overtime.

Chris Boucher, Chief information Officer at Anglian Water highlights further pay-back, "By Integrating SAP & ClickSoftware and centralising our operational scheduling functions, we have radically changed the way we work at Anglian Water. The real-time visibility of a customer's history coupled with a consistent approach to managing our workloads has not only provided better customer service, but also more proactive and sustainable management of our assets."

The way staff work has completely changed - working in the field has become easier. When they start in the morning they have no need to visit a depot or headquarters, they simply log-on to the tough book to get their first assignment of the day. David Cooke, Director of Water Services, Anglian Water, "ClickSoftware has been a great enabler, sending out work electronically rather than via the phone or paper is one example of this."

ClickSchedule automates the scheduling of field staff, optimising which field engineers go to which jobs with far greater efficiency than manual systems are able to do with a work force of such size. Schedules are now based upon many complex variables such as an engineer's location, skill set, current job and the tools they carry with them. The upshot is that they spend more time maintaining or repairing assets as average travel per job is down 24 percent. David Cooke again, "We have also eliminated technicians arriving on the job with the wrong skills, tools or materials because of better planning, scheduling and deployment."

The project as a whole has supported the businesses focus of "service" "compliance" and "value" – underpinned by maximum operational efficiency. David Cooke emphasises the benefits, "What we have learnt through this exercise is that the cost of good service is less than the cost of bad service."

## The Future

To Anglian Water ClickSoftware is not just tactical scheduling software but a tool that will help drive the future success of the business. David Cooke highlights the strategic benefits, "Using the ClickSoftware Suite we can drill down into information that will allow us to prepare a case to justify the maintenance activity, asset investments and operating costs needed to run the business in the next five year regulatory cycle."

## The Benefits

- Increased Service levels by 33 percent
- Reduced average travel per job by 24 percent
- Decreased the works backlog by 95 percent in some process areas
- Decreased Overtime by 11 percent
- 99.7 percent waste water compliance



For more information on Anglian Water visit  
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