

Why the UK's Victorian canals rely on IT

Liquid assets

By [Mark Chillingworth](#) | Published: 10:20 GMT, 26 January 10 | [CIO UK](#)

Unlike the canals and rivers it manages, where the water ebbs and flows, British Waterways has a clear direction to secure the future of its network which could see this important part of the nation's heritage transfer away from direct state control to become a 'National Trust' for the waterways.

In his 22-year career, head of ICT Richard Walsh has helped shape many of the organisational changes at British Waterways. IT, together with outsourcing and managed services, has a key role in making British Waterways a progressive organisation that's ready to ensure a further 200 years of waterway history.

[British Waterways](#) is responsible for 2200 miles of canals and rivers across England, Wales and Scotland. Canals were originally built for an entirely commercial reason: the transportation of freight. In the years following World War Two the waterways fell into disrepair and became a byword for industrial decline and social neglect, but today, [under the guidance](#) of British Waterways, that has all changed.

[Canals](#) are open spaces that form a watery thread to our national history and public space. They have become a national treasure visited by some 11 million people each year. Their role is diverse - from leisure and tourism, biodiversity and conservation to water supply, regeneration, flood alleviation and even the generation of hydroelectricity.

[Constant engineering](#), care and attention are required to keep the soaring aqueducts, 200-year-old tunnels and more than- 90 reservoirs operational. In addition to grant funding from the government, the organisation's revenue sources include a property endowment of waterside land and buildings and a vibrant leisure industry which includes 33,000 boats - more than at the height of the Industrial Revolution.

"They are the catalyst for regenerating areas," says Walsh of the social role of canals. He describes the body as being very diverse, which is reflected in the staff employed ranging from ecologists, through to property specialists and the full spectrum of engineers, right through to lock keepers.

British Waterways has 1500 PC users and uses 130 handheld devices for data collection. A thousand users access the SAP platform that the organisation sails by and Walsh has an IT budget of £6m.

National network

Soon after Walsh joined British Waterways the organisation was decentralised following a strategy review. "It was needed at the time to re-energise [British Waterways] and make it a lot more commercial," he says looking back to the 1980s. "It was extremely successful. It got lots of energy into waterways, integrated all the business strategies and played a part in reinstating the waterways network."

A quarter of a century later, times have changed; British Waterways has progressed and a number of functions are being centralised. Chief executive Robin Evans has called for the body to maintain investment in the waterways themselves and reduce spending elsewhere, and with £10m to be trimmed from costs, IT efficiency has a role to play in meeting Evans's demands.

"This restructure is about making sure we are as efficient as we can be, and to concentrate our expertise on taking the business forward," he says.

It has not been a project without some pain and Walsh's team has had to lose three members of staff. IT is changing in the restructure and will provide more focus on its geographic information systems (GIS) with the specialists moving into Walsh's remit having previously reported to on-the-ground operational managers.

"This gives us the opportunity to really push forward on GIS development," he says of the core information platform British Waterways uses. British Waterways has also begun digitising its paper-based records as part of a workflow automation project for administration. "Administrative activities like timesheets and expenses do not add value to the organisation. The more we can automate, the quicker, easier and cheaper it will be." Use of handheld devices has also given computer access to field-based staff, improving efficiency for activities such as asset inspections.

"There are a lot of people here that feel a real affection for the waterway network. The people here are very loyal and they stay because they want to stay," he says.

"GIS is very successful for us and it has helped bring our IT systems to life," says Walsh. The GIS is linked to the business-wide SAP platform which covers thousands of assets including locks, culverts, sluices and bridges that are up to 200 years old. Walsh says that when the systems review was undertaken in 2001, SAP was the only ERP system capable of dealing with such a complex set of business requirements from asset management to property to billing to payroll and HR.

Previously, Waterways had a CODA accounts system and a set of bespoke tools, but today everything is managed through SAP, from project management to "keeping water in the track" British Waterways-speak for keeping the canals flowing.

[With SAP](#) acting as the channel for all information management, Walsh set about ensuring that all IT was supported by the very best people possible, and that has meant a large degree of outsourcing. Logica was drafted in for the integration of SAP and continues to manage it as part of a 10-year contract.

This was followed by moving to a managed services deal for the PC estate within the organisation, and Walsh completed the second round of PC managed services outsourcing in 2009, signing a deal with [SCC](#).

Unlike many IT companies of comparable size, SCC remains a privately owned corporation still in the hands of founder Sir Peter Rigby who began his career in IT coding and went on to set up the consultancy.

During 2010 the entire PC estate will be [upgraded to Windows 7](#) from XP. The decision to embark on a second-generation outsourcing project came about as a result of the need to transform and improve the services delivered by technology, in addition to ensuring our operating costs are as low as they possibly could be.

"We don't need or want to own our hardware," says Walsh. "We have to respond to pressure for the smartest, fastest and greenest solutions, delivered when and where they are needed, at a predictable cost. This requires us to be more flexible in how we deliver systems to our people and in extending the opportunities for remote working.

"We wanted a genuine collaboration with an organisation that both understands our culture and will help achieve service transformation, supported by the best available SLAs."

British Waterways stated in the tender details that it required a new fleet of PCs in the second year of the contract to meet its own environmental targets. The "painless" transition from Fujitsu to SCC was completed in just three months.

Walsh signed up for a fully managed and hosted service that includes the support and maintenance of the PC infrastructure, desktop support, datacentre server hosting, an ISO 20000-certified service desk, Microsoft application support and network [security](#).

British Waterways is a public corporation similar to the [BBC](#) and receives grants from the [Scottish Government](#) and [Defra](#), the department responsible for farming and rural affairs. The organisation has for a number of years been reducing its dependency on the government and Walsh explains that the aim is to become a third-sector organisation such as a trust.

Walsh has been with British Waterways for over two decades now, and has led the IT function for 10 years, a long IT leadership tenure, even in the public sector. Like many of his colleagues, he says the attraction is the canals themselves and the ever changing nature of the organisation. "I stayed on as it's very interesting, you get to do so many different things."

Going with the flow

Walsh explains that British Waterways allows its staff to move freely about the organisation. Walsh himself has moved from working as a senior finance manager to managing a number of national projects including implementing the CODA systems, setting up a treasury shared service centre and managing a regeneration project. His background as a qualified accountant allows Walsh to sail between IT and social projects easily, but one thing that is clear, is that no matter the role, Walsh is passionate about the waterways of Britain.

As I leave, I remark that I often travel on the West Coast Mainline rail route which hugs the [Grand Union Canal](#) between London and Birmingham; Walsh recounts the entwined history of ownership between the canal and the rail line, happy to share his love for this often overlooked tranquil silvery thread of our national landscape.