

## Travelling in the right direction

### **Cubic has emerged as a mainstream supplier of technology to support public transport systems, requiring a specialised field service operation**

*Technology provider Cubic's inroads into the railway sector*

Having established itself as a global supplier of technology and equipment to facilitate public transport - including the highly successfully Oyster card, employed within London's fully-integrated public transport ticketing system - Cubic has also developed a field service support operation to meet the needs of its clients. While many field service providers employ engineers that work in a variety of environments, the majority of operations are carried out above ground. The Cubic service operation, however, requires some of its engineers to attend calls at London Underground stations, with no access to communication networks for hours at a time in some cases. The company also has to balance this with the requirements with the rest of its UK – and international – network of field-based staff.

Mike Gosling is in charge of the company's management information systems, whose responsibilities also incorporate the role of team leader of IT business systems. He has worked for the company for over nineteen years, allowing him to gain an in-depth understanding of its business processes and its requirements in meeting customer expectations. "The company is very customer service focused," he stated, "we know how important customer service is. And after recent acquisitions, we're now the world's largest mass-transit revenue collection company, with offices all over the world. The project we're most known for in the UK is the Oyster card." The company also works with mainland train service providers, supplying similar technology to allow customer access to stations and facilities throughout the country, requiring further support from its team of engineers.

It has recently achieved ITSO accreditation for its contact card technology, which will allow the company to offer Oyster-type facilities to any region. Further cause for celebration was recently announced by Cubic, following the award of a contract to provide an integrated ticketing solution to the city of Sydney, Australia.

"I think every major city in the world with a transport infrastructure is moving in this direction," said Gosling. "And one of things Cubic prides itself on is the fact we provide solutions that meet the customers' requirements." His role within the company involves the maintenance of the mobile communications and service management systems, ensuring they operate at maximum efficiency and are kept up to date. Further to this, he is also responsible for all business management solutions, from HR to document management. His team includes systems developers and training personnel involved in a constant effort to improve the various solutions and keep both staff and clients up to date with their use.

"We've recently developed dashboards for Transport for London (TfL), to provide them with access to real-time information on their preventative maintenance calls," said Gosling. "It's nothing ground breaking, but it's another example of how Cubic goes out of its way to help customers." As a result of this initiative, TfL is now able to log on the web portal and quickly assess how every London Underground station is performing, he explained. "If you look at the calls themselves, it actually gives you the call reference number in our corrective maintenance system and the current real-time status of that." Further to this, the company is also developing other solutions for clients, including self-service facilities.

Behind Cubic's ability to react promptly to customer requirements and feed real-time information back from the field lies a sophisticated operation based on three main systems. It uses the Metrix service management solution to log service calls, configure work flow and identify work required, in addition to information on parts and logistics. This works alongside Pervasic's mobile communications data handling system, which was designed to match the company's needs, something that Gosling was particularly impressed with. The third component in Cubic's triumvirate of software management systems is the 360 Scheduling automated field resource management solution. The latter has been specifically configured to manage engineers who travel by vehicle, or, in the case of those servicing London Underground facilities, by public transport. Field staff working on the underground are obviously unable to carry spares, Gosling stated, so the company has developed an efficient logistics operation to deliver components to the required location to enable SLA requirements to be met.

The Cubic field service operation deals with approximately 400 calls per day, 80% of which are organised automatically. The company's field resource control (FRC) team now handles the remaining 20% of calls, reacting to exceptions to the normal routine requirements. This figure has been seen to improve in favour of more automatically scheduled operations as staff continue to become more expert in using the technology. "I have to form a partnership with these people," said Gosling, "they have to trust me and I have to trust them. We have to work as a team to get the system moving forward.

"We wanted to make the footprint of mobile comms as light as possible," he continued. "Prior to going live we spoke to the engineers, team managers and field resource controllers about how jobs should be managed. What we're particularly proud of is that when we first went live, we only had to make minor teaks to the process. We pretty much

got it right first time.” One of the main indicators of the team’s success has been the ease with which engineers have adapted to the use of mobile communications. Even those with no prior experience have been able to follow the process on their PDAs to complete the various necessary stages and provide essential real-time updates to job progression.

“We dedicated a lot of time to working with engineers, listening to their issues and concerns and making sure their comments were acted upon,” said Gosling. This is also an ongoing process, with one team member regularly spending time with engineers and reporting back on the issues they encounter. This information is used to introduce further refinements that are designed to further aid user acceptance, in addition to extending the benefits to company and clients. “At the end of the day, I sit behind a desk,” he continued. “Although I used to be an engineer, what I think happens and what actually happens are never the same.”

Having implemented mobile communications in the summer of 2008, Gosling stated that the company had achieved its aims of increasing its capacity to extend its operations without increasing staff numbers. He was also highly complimentary toward the way the company’s engineers had embraced the new working practices. “The engineers want to go out and do a good day’s work,” he stated. “Sometimes I think that, whilst we did quite well with the old system, some of the engineers were perhaps frustrated by having to call in data and doing things that broke their day up. We’ve got a lot of engineers out there who have worked for the company a long while and have embraced this technology.”

Knowing that mobile communications and automatic scheduling would involve different requirements and issues, the company chose to implement the latter in May 2009. This was done on a gradual basis, starting with Cubic’s national rail contracts and gradually introducing others into the process. Describing the project as requiring a mixture of maths, physics and technology, Gosling nevertheless stated his experience with automatic scheduling had been enjoyable, though very demanding. ‘There is a huge learning curve and, although this is a strange thing to say, it’s brutal the way it schedules because it works on absolutely solid, fixed parameters. There are soft constraints, but once it makes its mind up it will do it.’ He describes the only way to succeed is to have a completely clear idea of how the company works and all details of its field service requirements.

Further tips on the elements required for successful adoption of new technology included the necessity of management support, combined with the setting of realistic, achievable targets. Gosling also stated that effective support from systems suppliers was also essential. He remained highly complementary of both Pervasic and 360 Scheduling, both of which had made considerable effort to ensure the success of the initial implementation and had followed this with high levels of support.

Having achieved its aim of increasing the capacity of its field support operation with no additional investment in resources, Cubic continues to look at ways to implement further efficiencies, working with staff and customers alike to maintain the balance between operational efficiency and revenue generation.