

# Rescuing the Launch of the London Cycle Hire Scheme

A show-stopping bug identified, fixed and retested within two days



## An elusive problem

Serco had been awarded the contract to design, build and operate the London cycle hire scheme. This was a flagship project for London's ambitious Mayor, Boris Johnson.

Six months before the scheme was set to go live, testing had indicated the presence of a fundamental problem within payment handling. The problem? It would sometimes charge the wrong card for the hire. Clearly it was one of those defects that would have to be fixed before go live, and so the hunt for the issue began.

Unfortunately, it was one of those awkward intermittent issues that are incredibly hard to locate and diagnose. The development team could not replicate it and could not recognise under what circumstances it occurred.

Without a diagnosis they did not know what they needed to fix.

## Increasing concern

Six months earlier it had been 'just another bug', one more to be fixed ready for launch. As the launch date fast approached and the stubborn bug remained unsolved, it began to gain a higher profile.

At the end of March, Transport for London had announced the scheme would launch on the 30<sup>th</sup> of July. This one bug had the potential to derail the launch date, causing great embarrassment to the Mayor. It had reached a point where senior stakeholders, including the Mayor, were getting daily updates on the, lack of, progress towards a fix.

Desperate times call for desperate measures and so, with one week to go, Transport for London decide to look wider for a solution.

## The search for help

Transport for London had long worked with Test Partners, a leading software accessibility assurance supplier. Test Partners knew this was not their area of expertise and so referred it to Acutest, an independent supplier of test management services. Recognising the technical nature of the challenge, Acutest contacted SQC, knowing that if any team could deliver a rapid solution then it was going to be SQC.



When TfL were launching their new cycle hire scheme, as part of a wider effort to promote cycling in central London, they initially had 12,000 people registered and ready to hire one of the 5,000 bikes that would be available at 315 special docking stations.

The scheme, known by the nickname 'Boris Bikes', was successfully launched without incident on 31<sup>st</sup> July 2010.

The scheme is popular and has grown considerably over the years. Today it includes more than 12,000 bicycles at approximately 750 docking stations in central London, stretching from Hammersmith in the West, to Poplar in the East and from Brixton in the South to Camden Town in the North.

As far as we know, there have been no cases of hire charges being applied to other people's credit or debit cards.

## The right experience

Acutest's choice was based on prior experience of SQC's technical problem solving capabilities. Few teams can bring such a proven capability to bear as rapidly and effectively as SQC.



## A rapid resolution

It took two days for SQC to identify the probable cause of the issue and create the ability to trigger it on demand, allowing Serco to develop a fix.

What was the difference? Why did SQC achieve this in two days when others had been searching for six months?

In this case, SQC's systematic thinking along with the ability to maintain order and direct the work of others, recognising and closing down distractions and side tracks, were key factors.

These, along with broad solid technology knowledge, allowed SQC to shape and direct key tasks that were executed by Serco's engineers.



## The answer

As is often the case with intermittent issues, the problem was occurring when transactions were occurring concurrently. The important steps were recognising this as the 'prime suspect' and organising and overseeing the creation of a 'reliability' routine that exhibited a consistent frequency of occurrence.

Once this had been done, it did not take long for Serco's database engineers to identify an unsafe block of code, which they then changed and so removed the problem.

Why had it not been found before? We can only suggest it is down to experience, differences in approach, breadth of knowledge and determination.



## About Us

SQC Technology was founded by Neil Hudson in 1991, initially as a provider of software testing services. Since our inception the range of services we offer has grown significantly. Our services now range from providing clients with advice and leadership through delivery and assurance work and into technology problem solving.

What sets us apart is our people. We have exceptionally deep expertise and we have been doing this for a very long time. Our people and teams possess both delivery and technical expertise and can work autonomously within a customer's ecosystem.

We have a culture of innovation, looking for, identifying and establishing smarter ways of doing things, with a focus on delivering the best solution for a customer's individual needs. For more information visit [www.sqc.co.uk](http://www.sqc.co.uk).