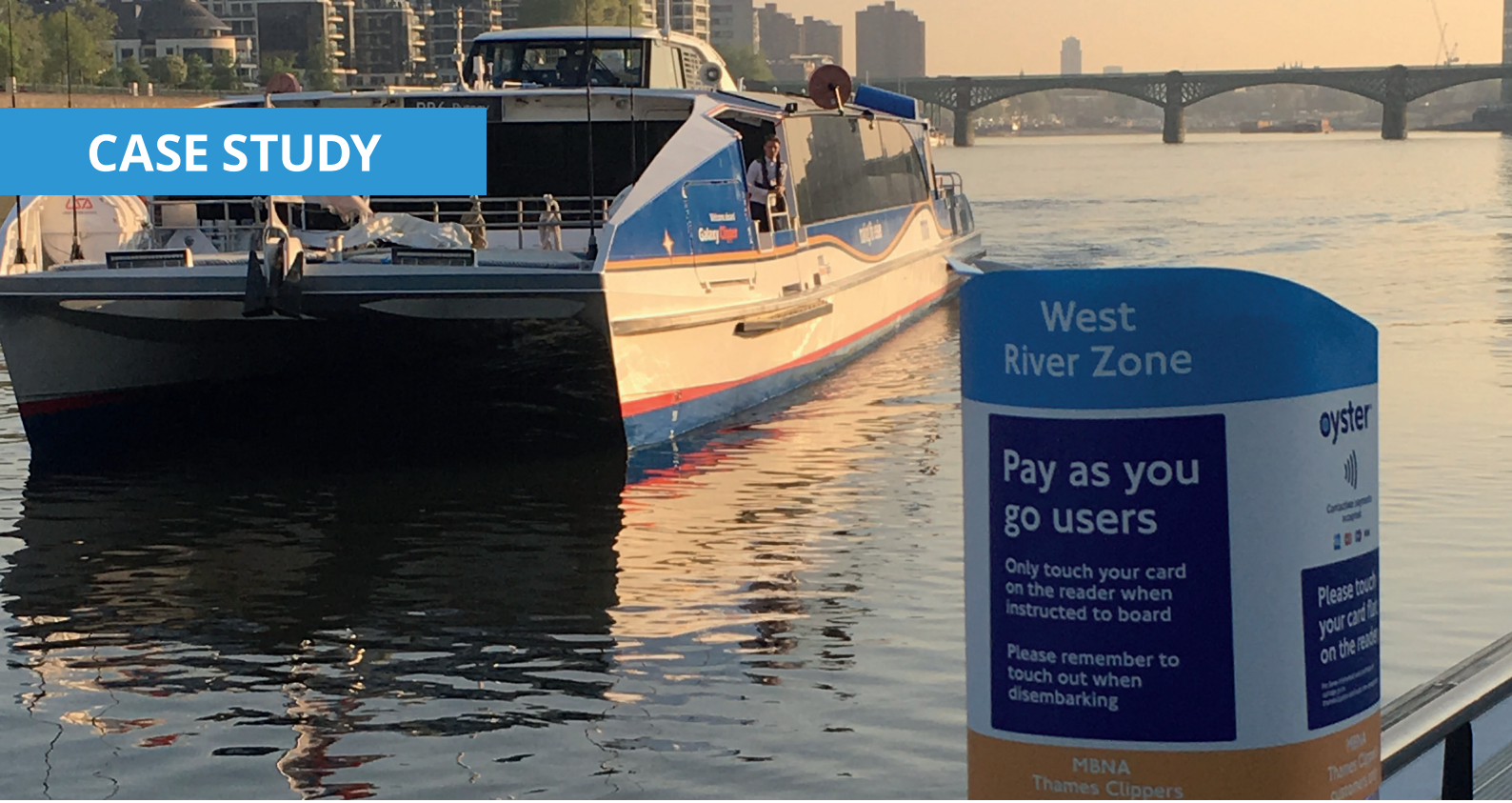


CASE STUDY



Bringing London's River Bus Payments Up to Speed

With Transport for London and Cubic Transportation Systems

The Challenge

To create a new and familiar contactless payment solution to encourage London's commuters to use the River Bus, a service operated by MBNA Thames Clippers.

The Westbase.io Solution

Westbase.io provided the Sierra Wireless AirLink device and Panorama LPMM antenna for:

- + Persistent and reliable 4G cellular connectivity
- + Remote monitoring, management and troubleshooting
- + Long life-span of the AirLink device matches that of the payment validator unit
- + Secure and PCI compliant
- + Distribution support and services that met the client's needs
- + Easy and rapid deployment

The Results

- + 76 new contactless payment validators have been rolled out to over 20 piers to-date
- + London's River Bus has seen an improved pre-boarding experience and flow of passenger traffic due to the instant nature of the contactless and Oyster card payments
- + Around one half of River Bus passengers now use either Oyster or Contactless to pay as you go
- + Remote management and monitoring capabilities mean the live environment can be sustained easily by Cubic Transportation, as well as ensuring low operational costs

Transport for London: The End Customer



London's transport system is unique with its iconic and globally recognised red double-decker buses, black cabs and Tube trains. On a single day in London more than 31 million journeys are made across the transport network. Delivering the vital transport infrastructure is Transport for London (TfL) - the integrated transport authority responsible for delivering the Mayor of London's strategy and commitments on transport.

Cubic Transportation Systems: The Delivery Partner

Cubic Transportation Systems, part of Cubic Corporation, is a leading integrator of payment and information technology and services for intelligent travel solutions. With a global presence in nearly 60 countries, Cubic employs approximately 8,000 people and helps serve over 38 million people daily in major markets around the world.

Creating a New Payment Solution to Encourage Commuters to Choose the River Bus

To reduce the squeeze on the city's buses and trains, the Mayor of London wanted to increase the number of passengers using the river as a daily means of commuting. The River Bus project was a result of this vision and by the end of 2014, with investment in new routes, infrastructure and fleet expansion, River Bus passenger numbers had increased to 3.8 million.

Crucial to maintaining and building on this success was improving ticket payment options though – namely, introducing services familiar to London public transport, i.e. Oyster Pay as You Go (PAYG) and contactless payments.



Buying tickets for river travel was not plain sailing.

The old system used by the River Bus was slow, inconvenient and unfamiliar to passengers. Without the option of Transport for London's universal payment system, the legacy system was underused by regular commuters. Also driving change was the existing payment system reaching its life expectancy and being unable to expand with the planned growth of the River Bus network.

Transport for London therefore undertook a project with Cubic Transportation Systems to design and introduce a new instant payment solution which had contactless and Oyster card readers, known as validators, installed on piers served by MBNA Thames Clippers' River Bus.

Using mobile technology, the validators would work by the customer touching the reader with their Oyster card or contactless card; using the same "touch in, touch out" process that's been familiar to London commuters for many years.

The Considerations

In developing the right card reader/validator solution, Cubic needed to create one that was:



Wireless and Secure

The location of the piers meant LAN communications were not readily available so the validator required 4G LTE for all bi-directional communications to the terminal, including payments; this meant it had to be secure and PCI compliant.



Reliable with a Long Lifespan

The validator was designed with a 5-year life cycle, so it was essential that the chosen connectivity solution matched this, as updating the 4G solution in life would incur operational costs.

Meeting the Solution Requirements

After reviewing the options, Cubic selected a Sierra Wireless AirLink device to fulfil the 4G connectivity requirement of their new validator. Meeting each of the outlined requirements, it was the perfect solution and its SNMP (simple network management protocol) capabilities meant it could even integrate directly with Cubic's existing management systems with ease.

The Sierra Wireless AirLink is a reliable, secure 4G LTE gateway designed to connect the distributed enterprise. A cost-effective solution, it provides robust broadband connectivity to support a high volume of electronic transactions. The Sierra unit's fall-back to 3G/2G connectivity, when 4G coverage isn't available, ensures that it can always connect – even in more remote locations.

"To encourage use of the familiar Oyster and contactless payments for River Bus journeys, we had to create a device that was efficient, secure and reliable. The connectivity provided by the Sierra Wireless device delivered on all of these; our testing and the results seen since the rollout have more than proved it to be the right choice."

- Curtis Wheaton, Senior Project Manager, Cubic Transportation Systems

In addition to supplying the router, Westbase.io also specified and delivered the Panorama LPMM antenna. Featuring MiMo LTE and a low-profile housing, the LPMM ensured a high quality connection without interfering with the design of the validator.

Rolling Out the New Payment System

Using the AirLink device to provide the essential connectivity, Cubic took their new payment system solution through multiple testing phases during its development. TFL then formally tested the solution, including installing the new validators on several River Bus piers in the "live" environment. Once the new solution proved to be successful it was rolled out to the remaining piers.

Westbase.io, with its unrivalled knowledge in 4G IP networking, assisted Cubic during their development of the system for London River Bus, and provided essential technical support. This ensured firmware updates made during development went smoothly and that the final solution was a success.



Success Today, and Plans to Expand Tomorrow

Running for over a year, the new ticket validators on River Bus piers have shown the payment system to be both highly successful and reliable:

- + The new validators have been rolled out to over 20 piers with 76 active validators in use, and plans to now extend the solution even further.
- + Improved efficiency and flow of passenger traffic on the River Buses.
- + Increased use of the London River Bus Oyster and contactless payment system, by both regular commuters and tourists, with a significantly improved pre-boarding experience.
- + Reduced operational costs due to remote management and monitoring capabilities, and direct integration into the existing TfL management system.

With a payment solution that can be managed remotely, a secure network to protect financial data, and reliable connectivity to provide uninterrupted transactions, the future of London's River Bus travel looks set to be a continued triumph.

"The new payment solution for River Bus services would not have been possible without reliable, secure connectivity. We are proud to have supported Cubic in the successful roll out of the new contactless system and helped deliver on the Mayor's vision for making river transport a regular choice for commuters."

- Chris Kerslake, Senior Account Director at Westbase.io

If you have any questions about this case study, or the solution and products involved, then please contact Westbase.io:



+44 (0) 1291 430 567



hello@Westbase.io



westbase.io