Parking systems enter the electronic age

The technology that supports innovative payment schemes for parking is developing at a rapid rate, says John Elliott, Head of Public Sector Practice, Consult Hyperion. *Could cashless convenience soon be a reality for car drivers everywhere and make life a lot easier for local authorities at the same time?*

With high-tech solutions now making life more convenient in so many different ways, it seems absurd that people are still waiting for tickets, hunting for coins in glove boxes and trekking over to old-fashioned payment machines when they need to park – especially when much more attractive solutions are now possible. The good news is that the cashless revolution is gathering pace, which means that the traditional methods of paying for parking are rapidly being replaced by more convenient options, such as card payment and pay-by-phone.

The former is largely being made possible by technology known as Near Field Communication (NFC), a short-range wireless connectivity technology standard designed for intuitive, simple, and safe communication between electronic devices. Best known for its use within London's Oyster Card scheme, NFC communication is enabled by bringing two NFC-compatible devices within a few centimetres of one another.

Consumers are already smitten with the idea of simply waving an NFC-enabled card to get on the Tube and, increasingly, to buy a coffee or to pay for their shopping, thanks to the Barclaycard OnePulse card which features contactless payment and an Oyster card. Even Fast-food restaurant chain, McDonald's**,** is getting in on the act and announced in January that it will roll out contactless payments in all of its 1,200 UK stores by the end of October. So, why shouldn't car parks offer this same convenience? After all, there are real benefits for the car park owners (often Borough councils and local authorities) as well: they'll have less cash to manage, reduced risk of theft, and an interactive channel to communicate directly with customers and its local community/residents.

For all of these reasons, NFC technology can offer a user-friendly way of paying for parking without any coins or tickets. Instead, drivers could simply touch an NFC-enabled bank card, parking season ticket or mobile phone to a meter: with no slots, such

meters would be inexpensive to maintain, and less attractive to thief's and vandalism due to no, or very little cash being collected, and since the meter could obtain the customer's detail in the "tap and go", it could send reminders and receipts. Alternatively, credits could be purchased in advance, to support a Pay As You Go pre-payment model instead. Either way, by using NFC in this way, parking operators and councils can eliminate queues at payment machines and even develop "smart" parking meters that can communicate with drivers wirelessly.

At the same time, other "cashless" services are now letting people charge their parking to a credit or debit card by making just a short telephone call. The benefits of this approach are also clear - drivers don't need to hunt for change, and if they're delayed or running late, they can simply call back and extend their stay. Not only that, but parking-by-phone also means that business users no longer need to worry about printing and saving receipts, since all of the details needed for expense claims are available online whenever they are needed. I use RingGo, for example, and for me printing out one expense receipt at the end of the month instead of trying to remember tickets is a major, major benefit.

At Consult Hyperion, we've been involved in numerous NFC-related studies, both in the UK and abroad. In Singapore we worked with the Government and planners to help devise what their national NFC infrastructure might be in terms of how NFC would connect public transport ticketing, parking and even access to Government services. Here in the UK, working closely with the Department for Transport (DfT), bus operators and local councils we conducted trials and studies into using NFC enabled phones as a more convenient and cheap ticket inspection devices. The technology worked well and consumers and bus drivers liked using tickets in this way, and we also learned that by working closely together, local authorities and bus operators could both save money and improve the services to passengers - as detailed in a report put together with Detica for the DfT which looked at the cost-benefit of a national smart ticketing infrastructure. With passengers able to buy tickets in advance using their phones from wherever they were this enabled much faster boarding and a more reliable on time service.

Technologically speaking, all of these solutions are possible right now, and the latest developments in this area are already providing a secure, transparent environment that makes these payment methods possible. As a result, consumers will increasingly be able to use their mobile phones to pay for their parking – and many other things – quickly and easily, without having to carry cash (or even credit cards) everywhere they go. Quite simply, it is a modern solution for the modern world.