Payment modernisation across key resident services

A policy review by the Residents, Education & Environmental Services Policy Overview Committee

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Chairman's Foreword

On behalf of the Residents, Education and Environmental Services Policy Overview Committee, I am pleased to present this report detailing how the London Borough of Hillingdon is working to modernise and refresh its payment options for residents.

The Committee set out to first understand how residents currently paid for their services. Secondly, the Committee sought to understand the back-office technology and infrastructure that underpinned these payments, together with the Council's plans for payment modernisation. Finally, the Committee was eager to explore new technologies and how these could be used to improve the payment process for Hillingdon residents moving forward.

In the course of the review, the Committee was apprised of the many payment technologies now being developed to meet the changing needs of consumers. It quickly became apparent that Hillingdon Council would need to move quickly to meet these changing needs, and this report makes several recommendations aimed at ensuring that both back-office and public-facing payment infrastructures are sufficiently robust to support how people wish to pay, both now and in the future. At the same time, the user experience was always in the forefront of the Committee's mind, with ease of use and the provision of varied payment options felt to be paramount to any recommended actions.

I would like to take this opportunity to thank those officers and volunteers who have given up their time to help the Committee in reviewing this topic, and commend them for their continued hard work to improve the ways in which the residents of Hillingdon pay for their services.

Councillor Wayne Bridges

Chairman, Residents, Education and Environmental Services Policy Overview Committee

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Our recommendations to Cabinet

Through the witnesses and evidence received during the detailed review by the Committee, Members have concluded / recommended the following to Cabinet:

1	**That Cabinet note the Committee's conclusion that there are a variety of ways in which residents can choose to pay for Council services, in person or online, noting that whilst further modernisation is required in certain areas, the Council is bringing forward plans to improve payment options and technology, as part of its digital and broader service transformation plans.**
2	**In respect of residents' and non-residents paying for parking, which was a key focus of the review, the Committee welcomed the planned £1m investment within the 2019/20 budget for modernising payment machines and, based on its review's findings, recommends to Cabinet the roll-out in 2019 of new integrated cash and card parking payment terminals that are also compatible with the HillingdonFirst Resident Card.**
3	**The Committee welcomes the investment within the 2019/20 budget in respect of ICT transformation, along with the development of a new digital roadmap and recommends that Cabinet:** **a) Endorse the planned website upgrades to provide residents with clearer and more intuitive ways to pay for Council services;** **b) Agree the introduction of a new single sign-on account for residents to access a variety of Council services and make their payments online with ease;** **c) Agree that while digital online payments will be the preferred method for receiving future payments, that the Council continues to support residents who prefer to pay by cash;** **d) Takes into consideration the emerging payment technologies set out in its report, which residents in the future may wish to utilise.**

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Introduction to the Committee's review

Residents in the London Borough of Hillingdon enjoy access to a wide range of valued services provided by the Council. Some they use daily, whilst others they use on an occasional basis. The Committee reviewed a number of key service areas within its remit as part of its review, noting that any resultant recommendations could potentially be applied across other service areas.

At the start of its review, the Committee wished to better understand how residents and other users currently paid for key council services and how the Council was set up to receive and process these payments. From the outset, the user / resident experience was at the forefront of the Committee's thinking. This was particularly the case regarding the modernisation of how residents and other motorists pay for the parking in the Council's car parks, given the high volume of daily interaction with the Council.

Regarding changing user habits and the ever-rapid availability and adoption of new technologies, it became apparent to the Committee that residents expected quick, secure and intuitive online payments, and the Council would need to work to ensure that the infrastructure, both internal and public facing, was robust enough to support these expectations in the near future.

In addition, the Committee explored what new technologies were coming to market or being developed that may change how residents pay for services in the future. The Committee felt this would provide a useful steer for the Council in shaping its technology and payment methods in the medium to long-term.

Whilst the Committee recognised the potential for the leveraging of new technology and processes to improve payment services, it was mindful of the importance of retaining, where possible, the traditional 'cash' option for those residents who did not have access to or confidence in modern ways of paying for services.

The Committee heard evidence from key service areas and the Council's transformation lead, along with private sector experts and case studies from other organisations innovating in this area. The Committee's recommendations tie in neatly with and help progress investment plans by the Cabinet, particularly in the area of parking and online payments.

How residents pay for key services now

Following agreement of the review's Terms of Reference, which are set out on page 26, the Committee first sought to gain an in-depth understanding of how residents were currently making payments to the Council, for a selection of key services.

Annette Reeves - Finance Manager, Paul Richards - Head of Green Spaces, Sport and Culture, and Roy Clark - Parking Services Manager, provided the Committee with information to set a baseline of current payment methods for some of the key services residents use.

Card, Cheque & Cash

The Committee was informed that residents can currently pay for over 50 Council services by credit or debit card, using a variety of methods including touchtone, internet, MOTO (over the phone), and chip and pin (which includes contactless card payments).

In addition, the Council accepts contactless payments (including Apple Pay) at 19 sites, detailed in Appendix A. Seven of these sites use standalone chip and pin devices.

Members were advised that the Council saw a 3.5% increase in card payments between 2016/2017 and 2017/2018 (279,000 transactions increasing to 289,000). For the 2018/19 financial year, this is estimated to rise to 322,000; an increase of 10%.

Card payments can be taken on the street, at one off events, or on the customers' doorstep, through the use of Smart Mobile, an app by CAPITA. Payment is taken using a bluetooth device, and a receipt can be emailed or printed using a bluetooth printer.

Credit card/debit cards are currently accepted at a number of external sites, including:

- The Rural Activities Centre
- Haste Hill Golf Course
- Ruislip Golf Course
- Uxbridge Golf Course
- The Battle of Britain Bunker and Visitor Centre

- Hillingdon Theatres
- Adult and Community Learning centres
- Cedars and Grainges multi-storey car parks

The Council's Leisure Centre Operators, GLL and Fusion, all take card payments.

The Committee was advised that libraries are predominately cash only, due to their current payment systems, and payments include library fines, refreshments, stationery, reading glasses, and room hire. Residents can pay online, but using a number of different systems, depending on the service they require. The resident 'journey' and experience of paying may be different in each case. Examples are set out in the table below.

Members were informed that payments online were sometimes through a mix of portals accessed through the Council's main website www.hillingdon.gov.uk. These were essentially different ICT systems that were linked to. Members were keen to discuss what the Council does to ensure a seamless experience online, despite the different systems in play. Some examples of the different online payment portals for key resident services are shown in Table 1 below:

Table 1 - example portals for paying online

https://services.hillingdon.gov.uk/ e.g. music fees, special collections, parking Generally, where a resident is paying for something like music lessons, they are taken seamlessly to a separate system within the Council website which requires them to enter a reference etc. to continue to make the payment.	Hillingdon Self Service (Range of Services to make payment)
https://ukparking.dashcardservices.com/hilldash/customer/login.aspx	Parking Permits
https://hillingdonparking.apcoa.co.uk/	Parking PCN
https://enrol-hillingdon.tribalhosted.co.uk/	Adult Learning
https://www.hillingdon.gov.uk/bookasiteinspection	Building Control
https://hillingdon.learningpool.com/login/index.php	Training Courses

Members noted that Golf courses do not provide residents with the ability to pay by cheque, and cash is often preferred, particularly for pay and play green fees. In addition to the playing fees, the three Council-run courses have small shops on site, which sell golf equipment, as well as snacks and drinks. At the Council's Rural Activity Garden Centre, cash is the most popular payment method, though paying through card readers is available.

The Committee was advised that sites such as the adult learning centres or Breakspear Crematorium have a computer-based point of sale system that is linked to the CAPITA income management system. In addition, sites such as golf courses allow for payments to be made through electronic tills with pre-programmed buttons, alongside card payments via chip and pin.

The Crematorium functions as a hub for payments from cemeteries, and for burial and grave monuments, and allows for payment by cheques from funeral directors and the public at large.

Members noted that the Council also accepts cash and cheque payments at various sites across the Borough. A cash-only kiosk in the Civic Centre reception area allows residents to pay for Council Tax, Rates, Rents, Parking fines, Litter fines and Social Services debtors. Broadly, cash payments are the most time intensive and therefore expensive for officers to process. This includes the time taken to collect cash from the various sites. Card payments are comparatively quicker and cheaper to process, though it is recognised that some card providers charge more premium processing charges.

The Committee appreciated that residents of Hillingdon also have access to the HillingdonFirst Card and noted that it was a discount / advantage card and not a payment card. However, the Council does have specific resident payment cards for a small number of service users, e.g. Council Tax. Given the prevalence of Oyster Cards for travelling in London and personal debit/credit cards that can be used for contactless payments (including travel), the Committee considered that it did not make economic sense to consider universal payments cards within smaller local authority boundary areas.

With most Council services online, there are now only a small and declining number of service areas, e.g. blue badges, where there is currently no modern or online payment method. IT colleagues are reviewing the feasibility of introducing payments via PayPal, though officers are mindful that a cash option should be retained.

Parking Services

At the outset of the review, payments for parking services were identified as a key area of focus for the Committee. As residents and visitors to the Borough are regularly required to pay for their parking, the Committee was enthused by the potential modernisation of these payments to improve the regular user experience.

The Committee was advised that the Council's Parking Services receives a number of payments for parking services, including permits, suspensions, Penalty Charge Notices and payments for parking in on-street parking bays and within the Council's car parks.

Members noted that payments for parking permits average £234k per annum and payments can be made online through a third party payment provider, by cheque or postal order, or by telephone. As all permit and visitor voucher applications are received by post, cash payments are not encouraged. However, on occasions cash is received by post, and in such instances, the cash is banked as normal. Additional visitor vouchers can be purchased at Hillingdon libraries. A newly introduced parking ticket system allows motorists to view CCTV footage, and pay or appeal fines, online.

Members were advised that payments for parking bay charge suspensions and waivers to park on yellow lines during essential works average £116k per annum. Payments for parking suspensions/waivers can be made by cheque or payment card over the telephone. For Penalty Charge Notices (PCNs), the Council received a total of £3.4m per year on average. Payments for PCNs can be made online via a third party supplier, by an automated telephone service or by cheque or postal order.

The Committee noted that the two multi-storey car parks in Uxbridge (Cedars and Grainges car parks) operated a barrier control system with Pay on Foot machines. The machines accepted banknotes, coins or contactless credit/debit cards. The average income from the car parks was £981k per annum.

Members were informed that the majority of other parking charges are received via Pay and display (P&D) machines, which account for a total of £1.9m per annum. The Council currently operated 252 Pay and display machines, that provide cheaper parking rates to residents that use their HillingdonFirst card. Use of these sites was predominantly short stay (i.e. ½ - 2 hours), and 75% of all payments are at the cheaper HillingdonFirst rate.

Members were advised that whilst Hillingdon's Pay and Display machines currently accepted coins only, any new machines could incorporate advances in technology that allows for cashless options via credit or debit cards, while also retaining the ability to use HillingdonFirst cards.

The Committee noted that the current system allowed machines to report faults, allowed for changes to electronic messaging on the machine, and also would report the amount of money within each machine to Council officers. Machines in parking hotspots have their money collected numerous times per week, and machines that only collect low levels of income are collected on a regular basis.

Payment technologies in use

The Committee wished to explore the back-office systems that underpin resident payments, to understand how payments are processed internally, and what technology was in place to support this processing. The Council's Finance Manager, Annette Reeves, provided the Committee with further detail to support this enquiry.

The Committee was informed that, since 2010, the Council has used a number of modules from a payment service provider (PSP), CAPITA. Services procured from CAPITA include an income management system, a cash receipting system, and payment modules. The payment modules accept card payments online, via touchtone (automated telephone payments), via the Council's contact centre, and by chip and pin. These modules integrate with the CAPITA Income Management system, which generates export files for the General Ledger and other client systems. The CAPITA income management system provides for a large volume of income to be posted automatically into the general ledger and into client systems.

The contract with CAPITA is due to expire in April 2020. At this point, officers will review potential alternate providers. However, the current maintenance cost of £16k per annum under the existing contract is small in comparison to a more costly initial set up.

A breakdown of method of payments for a sample of key services is shown in Appendix B.

The Committee noted that, in support of online and other resident payment methods, the Council used a number of service based systems, which in some cases then links up with a payment system, e.g. CAPITA payments. For most services, residents are not able to track any payments they make through anything other than their own financial records. Residents are often also required to enter all their information again, each time they use a particular system (unless they have enabled their own auto-fill via their computer).

Members were informed that key services (like Theatres for their ticketing) operate outside of any Council systems entirely, buying into more suitable national ticketing type systems.

The Committee was advised that the Council has piloted a tablet EPOS (Electronic Point of Sale) till solution in the Registrars' office. This solution integrates with the Council's CAPITA Income Management system and is an alternative for the stand-alone chip and pin devices. The Council also uses other third party Payment Service providers (PSPs) for Parking Penalty Charge Notices, for online theatre ticket purchases and for the Cedars and Grainges car parks pay on foot facilities.

The Committee was informed that all PSPs used by the Council are fully PCI DSS (Payment Card industry Data Security Standard) compliant. The Council uses a Qualified Security Assessor

(QSA) to report its own PCIDSS compliance annually.

Members noted that some services provide for card payments through portals, which connect to the CAPITA web payment page on the Council's website. For example, almost 100% of the card income for Planning is via their website portal.

Cash and cheques received at the Civic Centre are processed in the cashiers office using the CAPITA cash receipting module. Outstations that bank cash and cheques complete online banking slips using CAPITA e-returns. The Council's security carrier contractor collects from 29 outstations and the Civic Centre, details of which are set out in Appendix C.

Cash collections currently cost £15 per collection (this excludes car parking).

Table 2 below shows the cost of processing different methods of payment. The cost of processing cash and cheques does not include the employee cost of processing or the cost of collection. Card charges are made up of three elements; the Merchant Services Providers' transaction charge, the Scheme fee (imposed by Mastercard and Visa), the Interchange fee (the fee paid by the retailer's bank to the cardholder's bank). Interchange fee levels vary depending on the type of card and its associated risk.

Table 2 - processing costs per transaction type

Method of Payment	Cost per transaction	Cost of processing a £20 payment
Direct Debit	£0.01	£0.01
Cheque	£0.06	£0.06
Bulk cash (cash collected)	Free under current contract	Free
Card Payment	£0.05 + minimum of 0.46% of payment value	£0.14 (minimum)

The Committee was advised that, in a bid to standardise payment pages in the public sector, the Government have launched their own payment platform which provides the software and part of the Payment Services Provider function. However, GOV.uk does not currently integrate with CAPITA.

Modernising the way residents pay

Following the establishment of a baseline for how residents currently paid for their services, and the systems that supported those payments, the Committee agreed to learn of the Council's plans to improve payment options for residents.

The Committee decided to focus on three key areas in this regard, where it felt modernisation could have the highest impact and benefit for residents and other users:

1. Parking payments
2. Online / website payments
3. Libraries

Parking payments

At the outset of the review, parking payments were identified as a key focus for the Committee. The Council's Parking Services Manager, Roy Clark, provided the Committee with suggestions on how parking payments could be improved.

The Committee were reminded that the majority of Hillingdon's car parks and on-street parking bays currently require motorists to pay cash into a Pay and display (P&D) machine. However, advances in technology, as well as changing expectations from a more technology-savvy user base, have provided the Council with the opportunity to make improvements by replacing the current Pay and Display (P&D) machines with more modern equivalents that allow for a variety of payment options. These include:

- P&D machines with cash-only facilities and a card payment system available through a mobile phone system (under this system coin-only machines would remain and a separate mobile phone payment system would also be introduced).

- P&D machines with a card-only payment system fitted to the machine (under this system only a payment card reader would be available at the machines - there would be no coin payment option available).

- P&D machines with cash **and** card payment facilities fitted to the machine (under this option motorists could pay with coins at the machine and there would also be a payment card reader fitted to the machine).

- P&D machines with cash **and** card payment facilities fitted to the machine, **and** an additional card payment system available through a mobile phone system (under this option motorists could pay with coins at the machine and there would also be a payment card reader fitted to the machine. There would also be a separate mobile phone payment system available).

Members were informed that the introduction of cashless machines would reduce the risk of theft from the P&D machines. In addition to improving the range of options and ease of payments for motorists, cashless parking systems provide a cost benefit to the Council as there is less cash to collect, count and bank. The introduction of a mobile phone system would also reduce the wear and tear on the machines, resulting in a longer term of life and less of a requirement for maintenance.

The Committee noted that the P&D machines have an expected working life expectancy of 10 years, and that many are now at the end of that life and will need replacement. However, there would be significant financial implications to replacing, or updating, machines to incorporate new technology. Estimated costs for the various replacement options are set out in table 3, below:

Table 3 - Estimated replacement costs for new parking payment machines:

		Machine Type	
	No. Of Machines	**Cash Only - £3,400 per machine**	**Cash & Integrated Card Reader - £4,125 per machine**
2019/20	137	£465,800	£565,125
2020/21	50	£170,000	£206,250
2021/22	45	£153,000	£185,625
2022/23	20	£68,000	£82,500
	252	**£856,800**	**£1,039,500**

The Committee was advised that a mobile telephone/card payment system could also operate independently of existing P&D machines and that this could provide an additional payment option to motorists. The cost to implement such a system would total an estimated £10k, with ongoing annual expenditure of circa £3,500. Approval to proceed with a tender to introduce a mobile telephone parking system, including an app, is currently being considered.

Members noted that any mobile phone system would include a smartphone app, allowing motorists to call and pay for parking via telephone, or via registration through the app.

Smartphone apps have the added benefit of storing payment details, car registrations and most used parking sites, as well as providing the option for virtual permits and visitor vouchers. Safeguarding options for single use of tickets, time allocations and similar, can be implemented dependant on how the system is configured. A recent refresh of parking equipment for wardens means that there is no need to replace current handheld devices.

The Committee were pleased that the Council's 2019/20 budget made provision for investing in new parking payment machines, which could include the replacement of Pay and Display machines in line with the options presented presented to the Committee above.

Online payments

The Committee was cognisant that today's modern world was one of interconnectedness and freedom to access information and make payments via the internet. Smartphones with the ability to access the web are almost ubiquitous, and for many, the first interaction they will have with their local authority is via their council's website. Online payments are fast becoming the preferred payment option for many, and a robust, easy to use and secure website is key to enabling residents to pay for their council services with confidence. Jim Marsh, Transformation Manager, advised the Committee on the Council's plans to refresh the website to better enable residents to easily make payments in confidence.

Members were informed that, as part of the Council's digital transformation project, the website is to be updated. The new website's payment options will be designed to mitigate residents' current issues with online payments, which include a lack of signposting towards payments upon logging onto the site, uncertainty over whether their payment has been successful, as well as a lack of confidence in using microsites or third party sites which do not display Hillingdon branding. The refreshed website will be designed to reduce the number of 'clicks' required to make a payment, and will include payment guidance and confirmation of a successful transaction.

Members noted that currently, approximately 70% of contact from Hillingdon residents to the Council is via the telephone. Email, website and face-to-face contact accounts for the remaining 30%. The aim is to have these figures reversed, with 70% of contact via the website moving forward. Officers understand that a subset of Hillingdon residents are either unwilling or unable to use online tools, and so telephone contact options will remain for those residents, alongside the ability to talk to an officer should an issue be too complicated to be addressed online.

Only 47% of the current webforms on the website have payment functionality. 15% of webforms provide an online payment option. 6.4% of current transactions result in a payment. Market challenges to the adoption of technology for payments with local authorities include General Data Protection Regulation (GDPR), and the second Payment Services Directive (PSD2). Whilst

there are strong commercial benefits to increasing online payments, it was accepted by Members that a cash option should remain in most circumstances, noting that the preferences of residents would ultimately inform the payment solutions made available.

The Committee was informed that for the age 60+ demographic, use of tablets has increased, often to the exclusion of desktop computer use. In comparison, ages 15-17 more often use their mobile telephone handsets to conduct online transactions. Direct Debits are the most cost-effective method of payment for Councils to process, though many residents are choosing to use credit cards, which provide rewards such as cashback, air miles etc. Mature payment methods include card payments via the web, as well as direct debits. Open Banking is in its formative stages, whilst crypto currency is being discussed but is not likely to be a preference for residents.

Members were advised that in the public sector, telephone calls remain the preference of residents overall. However, automated solutions would provide efficiency and cost benefits, and alternatives include web chats, automatic payments, and continuous payments. Online payments reduce risk and overhead, such as postage and paper costs. Web chats had been seen to provide significant efficiencies, allowing a customer service representative to manage up to 7 customers at once through multiple chats, versus a single customer via phone or face to face.

For card payments, integrated solutions offer efficiency and flexibility, while bank terminals are quick to deploy and have a low technical overhead. Payments via smartphone, such as via Apple Pay, were often limited to a maximum £30 transaction, though higher value transactions were now becoming more common.

A proposed MyAccount for Hillingdon, with single sign-in, would allow residents to manage multiple payments, including those of relatives and dependants (following application of the appropriate security checks).

Digital Transformation plans for the Council currently included:

- Re-designed templates, navigation, and new 'Home Page' for Smartphones
- Branding on all portals/microsites, with payment functionality
- Improved page layouts, e-form structure, and links
- A consistent style, plain language, and minimal use of PDF attachments
- 3 click navigation based on the highest volume customer journeys
- Integrated and consolidated microsites
- Developing a new MyAccount with more services, with a Single Sign On and (potentially) shopping trolley for payments
- A service access process re-design with integrated webforms for the high demand services (Housing, Waste, Adult Social Care)

The Committee noted that approval was granted in February 2019 for the provision of Web services and software upgrades to support the Council's Digital Transformation plan. It is expected that initial costs for the website / online services refresh will total circa £280k in the first year, though this will, in effect, be 'pump-priming' for an overall improvement with expected

savings and efficiencies totalling approximately £800k in the first year. In the second year, expenditure costs are expected to be in the region of £50-100k, while third year expenditure will be nil. Returns in the second and third year are expected to be approximately £2.4m, presenting significant transformational savings for the Council.

Libraries

As previously noted, payments taken at Hillingdon's libraries are currently cash only.

The Committee was advised that the Council is currently looking to implement a new Library Management System for 2019, with the aim to include a new payment approach that includes cards. Printers and copiers that the public use will also be reviewed in order to also take card payments and other payment services, such as PayPal or ApplePay.

New electronic point of sale technology, previously trialled within the Registrars department, is to be introduced to libraries. The new system will be able to sync with the existing library management system, and a project with Corporate ICT is progressing on this.

Future direction and innovation in payments

The Committee was mindful of the pace of technological change and the preparedness of the Council over the medium to long-term.

It sought to learn more about how the public would choose to pay for their services in the future, as well as the new and emerging technologies to support changing payment preferences.

As user habits change and technology improves, the ways in which users pay for goods and services has changed significantly in recent years, making it both simpler and quicker to make payments. Trends driving these changes include advancements in technology; competition and collaboration between emerging and already existing companies, and an environment of regulation that is conducive to innovation. Trends indicate that cash will not feature as much in financial transactions in the future, with more people using contactless cards and smartphones to make purchases. In the UK, 57% of people report using less cash than they did a year ago, with 47% of Britons carrying less than £5 on their person.

Members noted that, although the role of cash is still significant, alternative ways of making payments are becoming more popular. These methods include debit and credit cards, contactless payments, smartphones and other new innovative methods. Whilst not all of these new payment methods may be directly applicable to the London Borough of Hillingdon, they do provide an insight into the global trends driving the future of payments. The most popular of these alternatives is currently debit and credit cards. Payments UK initially predicted the use of cards to exceed cash by 2020, however, it was later reported that the last quarter of 2017 saw the use of the debit card overtake cash as the most frequently used payment method for the first time. The use of cash is only expected to fall in upcoming years, to just 16% of all transactions by 2027.

Despite the reduction in cash payments, forecasts do not yet predict a cash-free society to be the future. The role of cash still remains important to many people and the complete elimination of cash would therefore not be beneficial. Instead, it is important to retain a range of available methods for people to make transactions and enhance customer experience overall. Traditional methods of payment have been adapted to suit the changing expectations that people now have, with one example being contactless payments using a bank card.

Contactless payment

The Committee was advised that existing cards in circulation have been adapted to enable people to make contactless payments, which are quicker and more convenient than using chip and pin. Currently, 78% of debit cards and 62% of credit cards are contactless enabled, with this only set to rise. In addition to this, the card industry has committed to making all bank-issued payment terminals capable of accepting contactless payments by 2020. The commitment from the industry, as well as people feeling more secure with making contactless payments, has resulted in a surge in the use of contactless methods to make payments.

Members noted that it is not only the younger generation using this method to make payments; over half of people aged 65 and over are using a contactless card. This is because the contactless card is able to balance the speed and convenience people expect when making a payment with the security offered by chip and pin payments. Additional security features for contactless cards include a £30 limit in any transaction, and occasionally having to enter the pin number to verify the user as the cardholder. The combination of convenience and security means people are increasingly comfortable with making contactless payments, with demand for the payment limit to be increased to allow larger transactions.

Smartphone payment

The Committee noted that debit and credit cards are not the only way to make contactless payments. Many smartphones have the capability of making contactless payments, with 30% of people reporting having used their smartphone to make payments. In the UK, 87% of people either own or have ready access to a smartphone, up from 52% in 2012. With the expectation that transactions are convenient and quick, and smartphones becoming an integral part of daily life, they are likely to feature prominently in the future landscape of making payments. The general public even recognise this, with 52% believing they'll mainly be paying for goods and services using their phone in just 5 years' time. This marks a potential change in user habits, with users now recognising and becoming increasingly comfortable with the idea of using smartphones to make transactions.

In addition to being used to make contactless payments, smartphones are also used to make payments online, within apps and through the use of a digital wallet. Smartphones have Near Field Communication Technology, which means that when it is held near a payment reader, the transaction is completed. The capability to complete transactions, as well as connecting people to each other, makes the smartphone the ideal device to lead into the future of payments.

Members were advised that companies such as Apple and Samsung are leading the way in the production and usage of their devices, with the majority of people owning a device made by either one of these two manufacturers. However, while the phones produced by Apple and Samsung have the capability to make these transactions, not all payment readers do. Businesses are recognising the change in user habits and have introduced payment readers with the capability of accepting payments from Apple Pay and other mobile wallets.

Trends suggest that contactless payments and the use of smartphones are the immediate future; however, other technological advancements have led to new innovative ways to make payments.

These methods have the potential to become as popular as contactless payments and are beginning to be used and accepted by people in ever greater numbers.

Biometric payments

The Committee was advised that the use of biometrics is a recent addition to the payment landscape. To make a payment using biometrics, the user is identified using biometric authentication, such as fingerprint, iris or facial recognition, which then authorizes the sale. Making a payment using biometrics is both quick and simple, much like contactless cards and smartphones, however there are additional qualities that make biometrics stand out as a future method of making payments. These include not having a requirement to remember a pin or password, thereby increasing security and convenience for the user.

People have adjusted to the idea of using biometrics to make payments, with 63% reporting they would be happy to use biometrics to authorise a payment in-store and 61% being comfortable with doing so online. However, users remain discomfited by certain types of biometrics. For example, while 69% would be comfortable with finger scanning, just 24% would be comfortable with facial recognition.

Members noted that these figures suggest a positive shift in general opinion towards the use of biometrics and companies such as Apple, Google and Amazon are largely responsible for this. The products these companies sell have normalised the use of biometrics in daily life, by using them for simple tasks such as unlocking a phone. The exposure people have to these technologies every day makes it easier to potentially transition to biometric payment methods, with people feeling more comfortable using biometrics to conduct their financial transactions.

The surges in technological advancement from these large companies, who have successfully integrated biometrics into their products, have pushed other companies, especially banks and card providers, to catch up. In an effort to do so, MasterCard have committed to including finger scanning and facial recognition as options for payments for their customers by April 2019. Including these methods to make payments will allow for a greater level of security, as well as more choice when paying for goods and services.

The Committee was informed that Voice recognition is another innovation within biometrics, with smart assistants such as Alexa, Siri, Google Home and Cortana being used in multiple households throughout the country. These assistants are used to aid people in conducting their everyday tasks, such as adding items to a shopping list or finding directions to a particular location. Although people are comfortable allowing a smart assistant to conduct menial tasks, currently only 18% of people would be comfortable using voice recognition to make a payment. Until the security concerns people have are addressed, there will be a barrier to the widespread acceptance of biometrics and a method of payment.

Self Service / Queue-less payment

Members were advised that self service kiosks were another increasingly useful way to pay for services, with supermarkets, fast-food chains and other companies rolling these out in their stores throughout the world. This allows users to be their own cashier and choose, order and pay

for their own items rather than waiting in a queue at a traditional till operated by a member of staff. While this method does not always avoid a queue, it is a more convenient way for users to pay for a variety of different services or products. The London boroughs of Hackney and Harrow, as well as the Royal Borough of Kensington and Chelsea, have rolled out self service kiosks to pay for services such as Council tax and Rent. Hillingdon has also rolled out its own self-service options for key benefits. These operate during working hours and accept cash and card payments, for the convenience of the user. These kiosks reduce the number of staff required to conduct transactions, however, members of staff remain available, should residents require further assistance.

In an effort to make self service even more efficient, queue-less shopping has been introduced by Amazon. In Seattle, a store was recently opened that allows customers to walk in to the shop, choose the items they wish to purchase and then walk out without having to queue or go through a checkout. All the customer needs is an Amazon account and a smartphone with the Amazon Go app. The customer scans in at the store entrance and cameras track the items picked and put them in a virtual cart until the customer leaves the shop. At this point, the account is charged and a receipt is sent out to the customer to confirm the purchases made. Although this method is not the immediate future, and may not directly apply some of the services offered by local government, it does reveal the direction of travel for new payment methods, and how integrated technology and customer experience are driving innovation in payments.

Payment with the Internet of Things

The commonality between most of the emerging methods of payment is the Internet of Things (IoT). The IoT consists of devices that are connected to the internet, creating a network of communication with other devices. It is expected that by 2020 there will be over 20 billion connected devices around the world. These devices can range from smartphones, to household appliances such as kettles. This network means that devices, and therefore the users of these devices, are more connected than ever before. As a result, this has changed the way payments are made, especially with the rapid development of technology.

Members noted that the IoT has simplified and made transactions more efficient for users by integrating devices used on a daily basis. The use of the smartphone is just one example that allows users to make payments in a more convenient way, whether it be using the contactless ability or ordering via an app. Perhaps most importantly, the IoT has changed the habits of users. Users now expect convenience and to be able to conduct all of their business in one place at the same time. In previous years, consumers have been wary of using smartphones to make transactions, particularly because of security concerns.

However, with the development of the mobile wallet, as well as Apple Pay, which requires the user's fingerprint to verify the transactions, customer habits have changed to favour using smartphones to make payments. The ability of devices to now safely store payment and personal data, alongside their increasing everyday use makes them a strong feature in the future of making payments. The shift towards the IoT is forcing businesses to change the way they accept and make transactions in order to keep up with changing customer habits. Rather than just one dominant method of payment, it is likely that the future will see a combination of methods of

payment, such as a contactless, verified using biometrics.

Payment involving Social Media and Artificial Intelligence

Members noted that the emerging use of social media and Artificial Intelligence (AI) to make payments. In total, 76% of internet users have a social media profile of some type, such as Facebook or Twitter. These profiles allow people to directly interact with other users from any location and at any time. In China, an app called WeChat has become popular, which combines many activities people carry out every day, such as social networking, transferring money, ordering food and booking a GP appointment. Given that the majority of people now have access to smartphones and social media accounts, it would appear a good way to bring various disparate functions together, including payments. Despite this taking off in China, opinion in the UK differs somewhat. It is reported that 75% of people in the UK are not comfortable with using a messenger app to make payments. However despite this data, in November 2017 the UK was chosen as the first country outside of the US to receive a payment option through Facebook Messenger.

Emerging technology such as Chatbots, are a way of improving user payment experience using Artificial Intelligence. A chatbot is a computer program or an artificial intelligence which conducts a conversation via auditory or textual methods. Chatbots are typically used in dialog systems for various practical purposes including customer service or information acquisition.

Members were advised that, while chatbots are still in their infancy, examples of chatbots currently in use include Amazon's Alexa or Apple's Siri. Last year, brands including AirBnB, Evernote, and Spotify started using chatbots on Twitter to provide 24/7 customer service. The goal of these customer support chatbots is to quickly provide answers and address customer complaints, and in doing so make considerable cost savings. The cost to set up a chatbot service is often less than the cost to set up a single call centre, and a good chatbot will be able to resolve 80% of the queries and recognize quickly when the customer needs human intervention. Chatbots are slowly replacing existing 'live chat' services that many companies use with a human employee at the other end of the messaging interface with the user.

The Committee noted that many companies, including banks and credit card providers, are now looking to use chatbots to take payments, and various models are being created, including the storing of payment data in the messaging platform to allow payment with any current payment method, like a credit card or PayPal. This means that users need only share their payment information with a single provider. This method is currently used by Uber, via Facebook Messenger integration.

Alternatively, Chatbots themselves could also be designed to receive payments via a central platform operator using payment data. It would also be possible for chatbots to replace retailer-specific apps, and for these chatbots themselves to contain payment functions. The chatbot would approach customers and offer them a convenient way to pay; this is the concept of 'conversational commerce' via a users' computer, mobile or other smart device. Of course, any chatbot payment system would need to be robust and secure so that residents and customers can make payments in confidence.

Members were advised that the cost to set up a chatbot service depends on the type of chatbot being created. For example, a simple Facebook Messenger Chatbot for a small to medium business would likely cost between £2,500-£4,000, while large enterprises can often pay upwards of £40,000 for such a service. Costs would vary based on the industry, company/organisation size, and requirements of the bot.

This is still in its infancy across the public sector, and Members will be conscious of the wider debate, concerns and also opportunities about moves to automate services, reducing reliance on direct human interface.

Payment modernisation at other Local Authorities

The Committee was apprised of a number of councils who have undertaken reviews of their own payment systems and processes. In many cases, these councils had seen significant improvements to cost savings and efficiencies, as well as engagement with residents. A brief summary is provided below, and further details can be found in a selection of case studies, set out on page 33.

In February 2018, Oxfordshire County Council engaged with Capita to use Capita360, which allows residents to pay for services by credit and debit card over the phone, face-to-face and online. Payments feed into the council's income management system in real-time, allowing staff to easily view recent payments and where necessary, to process any refunds.

As of December 2017, Tewkesbury Borough Council has partnered with the Post Office and PayPoint (an online service that provides a one-stop-shop for customer payments) to enable residents to pay their Council Tax at any PayPoint of Post Office outlet.

Similarly, Swansea Council updated their payment kiosks to include Payment Point touch-screens to pay bills by debit or credit card, cash or cheque. Residents are able to pay regular payments through state-of-the-art machines designed to complement chip and pin terminals across council departments.

Highland Council in Scotland undertook a digital transformation project that included the launch of MyAccount in March 2015 - a single secure account that can be used across multiple public services without the need to constantly present proof of identity, residence and even entitlement.

Bracknell Forest Borough Council have significantly increased the number of residents who interact with their authority via email, and are working towards a single-login system for all council services. Bracknell are also trialling a system of combined citizen/pre-pay cards for some residents who are in receipt of social payments.

The Committee was advised that, in other places, the focus has been more on payment for specific services such as transport. Home to school transport schemes for children have often been hard to manage in terms of payments but by using a smartcard to log journeys it is much easier to quantify and control payments. Warwickshire and Nottingham councils are leaders in this area. Nottingham in particular are very advanced within the area of smart ticketing, and are building a system which will allow residents to pay for local transport through a single payment

portal accessed via SmartConnect.

Regarding parking payments, Reigate and Banstead Council had taken the decision to remove all Pay and Display machines, instead replacing payments for parking with RingGo telephone parking. It was noted that the council had made significant savings due to the removal of machine upkeep and replacement, cash collections and payment processing, and ease of use for motorists has resulted in longer stays and an average transaction value that is 6% higher than the previous six months.

Findings & Conclusions

The Committee was mindful of the need to offer residents a broad suite of easy to use payment methods. While the Committee considered that the Council was providing a number of ways in which residents can pay for their services, it was felt that ease of use and confidence in the available payment options were key to ensuring that the user experience was a positive one moving forward. However, from the evidence provided, it was apparent that some modernisation was required in certain areas, and the Committee was pleased to learn of the Council's plans for digital transformation over the coming years, including the plans to refresh and modernise the Council's website to better signpost available payment options, as well as the provision of a single, secure online login for residents to manage their payments. The Committee was therefore pleased to conclude:

1	**That Cabinet note the Committee's conclusion that there are a variety of ways in which residents can choose to pay for Council services, in person or online, noting that whilst further modernisation is required in certain areas, the Council is bringing forward plans to improve payment options and technology, as part of its digital and broader transformation plans.**

Payments for parking services were identified as a key focus for the Committee at the outset of the review, and evidence received confirmed that the majority of parking payments to the Council are made via the Pay and Display machines located across the Borough. While the Committee was pleased that the machines were enabled to provide cheaper parking rates to users of the HillingdonFirst card, it was felt that there was significant scope to modernise these machines to provide residents with improved payment options, including card payments. In addition, the Committee acknowledged the time and cost savings available to the Council in the event that card payments were prioritised over cash.

However, the Committee were mindful that residents were given the choice to pay by cash, should they wish. The Committee acknowledged that investment for improvements to these machines was set out within the new 2019/20 budget, and felt that the proposed integrated cash and card machines were best suited to meet resident needs for a quick, easy to use, modern machine that allowed for card payments while also retaining a cash option and compatibility with the HillingdonFirst card. On this basis, the Committee recommends:

2	**In respect of residents' and non-residents paying for parking, which was a key focus of the review, the Committee welcomed the planned £1m investment within the 2019/20 budget for modernising payment machines and, based on its review's findings, recommends to Cabinet the roll-out in 2019 of new integrated cash and card parking payment terminals that are also compatible with the HillingdonFirst Resident Card.**

As the public become more comfortable with online payments, and the number of online transactions increases, it is incumbent on the Council to ensure that its payment tools are sufficiently modern and robust. It was agreed that the Council's website and online systems require enhancement to ensure that residents are able to quickly and easily pay for a growing range of services with confidence and ease. In addition, from the evidence received, the Council's overall digital transformation project is aligned with develop the Council's online tools with changing user trends and on this basis the Committee recommends:

3	**The Committee welcomes the investment within the 2019/20 budget in respect of ICT transformation, along with the development of a new digital roadmap and recommends that Cabinet:** **A. Endorse the planned website upgrades to provide residents with clearer and more intuitive ways to pay for Council services;** **B. Agree the introduction of a new single sign-on account for residents to access a variety of Council services and make their payments online with ease;** **C. Agrees that while digital online payments will be the preferred method for receiving future payments, that the Council continues to support residents who prefer to pay by cash;** **D. Takes into consideration the emerging payment technologies set out in its report, which residents may wish to utilise in the future.**

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Terms of Reference of the review

The following Terms of Reference were agreed by the Committee from the outset of the review:

1. To establish the key / most used service areas under the Committee's remit to consider which resident payment areas to review;

2. To better understand the ways residents currently pay for such services;

3. To establish current resident user experience of paying for these services – particularly the convenience, ease and security of how they pay;

4. To gain useable evidence and insight about how residents may wish to pay for services in the future;

5. To understand the systems supporting resident payment methods and what plans the Council has to modernise and streamline technology in this regard and any potential for future savings arising from this;

6. To examine the spectrum of current and emerging digital developments in payment experience and technology in private and public sectors, that could be applied to more widely in local government to a) improve user experience and b) be even more efficient in business operations;

7. To make feasible recommendations to Cabinet from the Committee's findings to enhance the end-user experience paying for services by our residents.

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Witnesses & Committee activity

The Committee received evidence from the following sources and witnesses:

Witness Session 1 – 8 October 2018	Roy Clark - Parking Services Manager
Witness Session 2 – 5 November 2011	Annette Reeves – Finance Manager Paul Richards – Head of Green Spaces
Witness Session 3 - 22 January 2019	Jim Marsh – Transformation Manager Rachel Mason – CAPITA Account Manager Andy Davies – CAPITA Product Director

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References

The following information is provided in order to signpost readers to useful contextual information to this review:

Worldpay Consumer Behaviour and Payments Report 2017

World Cash Report 2018 - G4S

Changing Payments Landscape - Payments UK

UK Payment Markets Summary 2017 - Payments UK

UK Payment Markets Summary 2018 - UK Finance

Device Penetration - Deloitte

MasterCard Biometric Article

Adults' Media Use and Attitudes - Ofcom

Connected Things - Gartner

Pay360 by CAPITA

FaceBook Messenger Payments

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Appendices

APPENDIX A - Sites with terminals integrated with CAPITA, and without integration

Integrated with CAPITA:	**Standalone terminals:**
Council Tax Reception	New Years Green Lane
Breakspear Crematorium	RAGC
Registrars	Ruislip Golf Course
Hayes Early Years	Uxbridge Golf Course
South Ruislip Early Years	Northwood Golf Course
Uxbridge Early Years	Winston Churchill
Brookfield ALC	Compass Theatre
Harlington ALC	Bunker Visitor Centre
Ruislip Manor ALC	
South Ruislip ALC	

APPENDIX B - Breakdown of Payment Methods for a sample of high-use Resident Services

2017/2018	CASH & CHEQUE	CARD	LIBRARIES	BACS	TOTAL
			CASH		
	£	£	£	£	£
PARKING SERVICES					
Car Parks - Pay and display	3,066,717	0	0	0	3,066,717
Parking Waiver	57,570	74,940	0	0	132,510

Resident Permits	36,114	151,412	58,390	0	245,915
ADULT LEARNING CENTRES	44,783	283,926	0	1,424,572	1,753,280
GOLF COURSES	318,934	362,454	0	0	681,388
RURAL ACTIVITIES GARDEN CENTRE	34,039	28,862	191	0	63,093
NEW YEARS GREEN LANE	0	650,903	0	0	650,903
PLANNING	997,973	764,838	0	1,345	1,764,156
BREAKSPEAR CREMATORIUM	1,823,635	205,082	0	377,603	2,406,320
STREET ENFORCEMENT	45,466	173,079	0	0	218,545
(includes £25k cash paid into the kiosk)					
LIBRARIES					
Botwell Green	21,656				21,656
Charville	4,878				4,878
Eastcote	5,438				5,438
Harefield	11,808				11,808

Hayes End	6,311				6,311
Harlington	9,735				9,735
Ickenham	7,882				7,882
Manor Farm	8,914				8,914
Northwood	6,671				6,671
Northwood Hills	7,082				7,082
Oak Farm	19,509				19,509
Ruislip Manor	21,619				21,619
South Ruislip	9,088				9,088
Uxbridge	55,807				55,807
West Drayton	7,223				7,223
Yeading	14,041				14,041
Yiewsley	11,246				11,246
BUNKER	32,461	33,731			66,193

APPENDIX C - Cash Collection Sites

Golf Courses	**Adult Learning Centres**
Ruislip Golf Course	Brookfield ALC
Uxbridge Golf Course	Harlington ALC
Northwood Golf Course	Ruislip Manor ALC
	South Ruislip ALC
Libraries	**Other**
Hayes Library	Civic Centre
Oak Farm Library	Compass Theatre
Eastcote Library	Rural Activities Garden Centre

South Ruislip Library	Queenswalk Resource Centre
Yiewsley Library	Breakspear Crematorium
Manor Farm Library	Bunker Visitor Centre
Ruislip Manor Library	
Harefield Library	
Hayes End Library	
Harlington Library	
Ickenham Library	
Charville Library	
Northwood Hills Library	
Northwood Library	
West Drayton Library	
Yeading Library	
Uxbridge Library	

Case Studies

CAPITA Pay360 - Oxfordshire County Council

Digital Transformation at Highland Council – Myaccount

Cashless Parking via RingGo – Reigate & Banstead