

Views sought: Access to Near Field Communication functionality on Apple’s mobile platform

Overview

1. In October 2025, we designated Apple as having Strategic Market Status (**SMS**) in the provision of its mobile platform. This enables us to take targeted and proportionate measures to tackle conduct that could undermine fair competition or exploit people and businesses.
2. A key strategic priority for the Competition and Markets Authority (**CMA**) is to unlock greater innovation and investment, supporting more choice for people and businesses and enabling growth across the UK economy. One way we can do this in the context of mobile platforms, as set out in our Roadmap,¹ is to open up access to Near Field Communication (**NFC**) on Apple smartphones.² This would enable fintechs and other developers to support contactless transactions from within their own iOS apps.³ This work is particularly important to the UK given the Government’s Industrial Strategy, our strong fintech sector and the potential for contactless transactions for future use cases such as account-to-account (**A2A**) payments,⁴ digital identity and digital keys.
3. We believe that setting out our current thinking and seeking views from stakeholders as we progress our work will ensure that the design of any potential intervention effectively promotes innovation and competition.
4. Therefore, in this paper we briefly set out our objective to drive innovation and competition in making contactless transactions in the UK and the current issues around NFC access on iOS as we understand them. We are seeking responses and evidence on two specific design elements relating to:
 - (a) the technical method by which NFC access should be provided; and

¹ [Apple Roadmap](#), 23 July 2025.

² By NFC access we mean access to the necessary software and hardware on Apple mobile devices to enable contactless transactions directly within apps.

³ By contactless transactions we mean the use of NFC on a mobile device to make payments or for other purposes such as proving your identity or unlocking a vehicle.

⁴ Account-to-account payments move money directly from a payer’s bank account to a payee’s bank account without the need for intermediaries, such as debit cards. In the future this could look like in-store retail payments made using NFC and Open Banking.

- (b) the price charged for such access.
5. Responses will inform measures that we expect to bring forward for consultation in Autumn 2026.
 6. We are grateful for the extensive stakeholder engagement to date, which has informed this paper and our wider ongoing work.

Objective of our work

7. NFC is a set of protocols that enable short-range wireless communication, often used in mobile devices, for example, when tapping a phone on a payment terminal. Digital wallets are apps that allow users to store payment information or other credentials, such as digital keys, securely on their mobile devices. They allow users to perform transactions with their phones, such as making payments or proving their identity without needing to carry physical cards or other documents.
8. NFC access⁵ is necessary for third parties seeking to offer contactless transactions. Most contactless transactions currently relate to card-based payments through digital wallets. The use of mobile devices to make card-based payments continues to grow. In 2024, more than half (57%) of UK adults reported being registered for at least one mobile payment service, compared to 42% in 2023.⁶ Half of all UK adults also used mobile contactless payments regularly⁷ and more than half of 18 to 24 year olds used a mobile or digital wallet as their main form of payment.⁸
9. Opening up NFC access could support innovation and competition in key areas of wider policy and regulatory interest, particularly:
 - (a) **Alternative payment methods:** NFC access could drive consumer usage of alternative payment methods such as A2A payments, digital currency and stablecoins.⁹ This could allow alternative payment methods to more effectively compete with card payments, a key Government priority outlined in the National Payments Vision;¹⁰

⁵ NFC access can be used both by apps similar to Apple Wallet which offer a wide range of features, or by single purpose apps, such a digital car key app.

⁶ UK Finance Limited, 'UK Payment Markets 2025', 1 October 2025.

⁷ UK Finance Limited, 'UK Payment Markets 2025', 1 October 2025.

⁸ FCA, 'Financial Lives 2024 survey, Payments', May 2025.

⁹ Stablecoins are a type of digital asset that are backed by a specified asset, often a country's currency, and can be used for payments.

¹⁰ See HM Treasury, 'National Payments Vision', 14 November 2024 - the government's vision for bolstering the UK's payments sector to deliver economic growth.

- (b) **Digital identity services:** NFC access could support consumer adoption of digital identity services.¹¹ This would allow consumers to more easily prove their identity in person, for example when buying age-restricted products, like alcohol.¹² The Office for Digital Identities and Attributes (**OfDIA**) and the Cabinet Office published a Roadmap¹³ and Consultation¹⁴ outlining their ambition for developing the digital identity sector in the UK to 2030, explicitly referencing the importance of proving identity for retail, in-person payments;
 - (c) **Other use cases:** There is also increasing interest in NFC being used across a wider range of use cases, such as for use with loyalty cards, student IDs, car and hotel keys and corporate badges.
10. In summary, our potential intervention in NFC access will be designed to unlock opportunities and drive benefits for UK businesses and consumers through bolstering innovation and competition in making contactless transactions, for both payment and non-payment use cases. This will drive economic growth in the UK as the top-ranking investment destination in Europe for fintech, accounting for 11% of the global industry.¹⁵
 11. As we undertake this work, we are engaging closely with other UK regulators, including the FCA, the PSR and the Bank of England, to draw on their expertise on the issues we are considering.
 12. The benefits could be realised by a potential intervention to ensure that developers can access NFC on fair and reasonable terms, giving them opportunities to develop innovative products and services for the ultimate benefit of UK consumers, who will have a wider choice of high-quality products and services.

Questions for stakeholders

- (a) **What are the innovations or potential use cases that could utilise NFC access on iOS that you consider most important for UK**

¹¹ A digital identity is a digital representation of identity information like name, date of birth, residency status etc. which can also include biometric identification (photo, face scan) that can be used instead of physical documents to prove who you are or certain aspects of your identity (eg to verify age to a third party).

¹² Office for Digital Identities and Attributes, '[Progress towards enabling the use of digital verification services for alcohol sales in England and Wales](#)', 7 January 2026.

¹³ GOV.UK Campaign, '[A roadmap for modern digital government](#)'.

¹⁴ Cabinet Office, '[Making public services work for you with your digital identity](#)', 28 April 2026.

¹⁵ Business.gov.uk, '[Fintech](#)'.

economic growth? In answering this question, please provide evidence supporting your views.

The identified issues

13. The CMA found that Apple has SMS in the provision of its mobile platform due to its substantial and entrenched market power and position of strategic significance in the provision of its mobile platform (**SMS Decision**).¹⁶ We explained in our SMS Decision that operating system-level functionalities, including access to key hardware for contactless transactions, play an intermediary role between hardware and software and fall within the scope of the designation, whilst Apple’s own digital wallet (Apple Pay/Wallet) does not.¹⁷
14. Apple controls access to the software and hardware needed to enable NFC on its mobile devices through its mobile platform and has historically restricted third parties from accessing NFC on its smartphones in the UK, reserving this access exclusively to Apple Pay/Wallet.¹⁸ This means that businesses were not able to innovate and provide new associated services, while consumers had no choice of alternative products or services to make contactless transactions beyond Apple Pay/Wallet.
15. In order for developers to support contactless transactions directly within their apps on iOS, there are currently two technical approaches:¹⁹
 - (a) Using Host-based Card Emulation (**HCE**), which involves storing sensitive information in secure cloud storage off-device and sending a limited number of one-time use ‘tokens’ to the device to be used for transactions.
 - (b) Using a Secure Element (**SE**), which is a dedicated high-security chip that is embedded into the device itself. It is isolated from the main device hardware, stores all the sensitive data and manages the communication over NFC.

¹⁶ [Final Decision report](#), 22 October 2025.

¹⁷ [Final Decision report](#), 22 October 2025, paragraphs 4.41 and 4.42.

¹⁸ Apple Wallet allows users to store and use credentials on their iPhone and Apple Watch devices. Apple Pay is a solution which lets users make payments in shops, within apps and on the web using cards from their banks. For the purposes of this paper, we use Apple Wallet to mean using Apple Wallet to make an in-person contactless transaction over NFC for non-payment use cases and say Apple Pay to mean the technical platform on iPhone that allows users to store payment credentials on Apple devices and make mobile instore payments.

¹⁹ Under either of these technical approaches, the apps would be emulating a smartcard, which are physical cards with embedded chips often used for access control. Examples include payments cards, SIM cards, national IDs and corporate IDs/keys.

16. In July 2024, the European Commission (**EC**) accepted legally binding commitments from Apple to provide NFC access for free, using HCE, within the EEA.²⁰ Since the commitments were accepted, multiple apps have launched in Europe using NFC including from PayPal, Curve and Klarna.
17. The Android operating system supports NFC access through both HCE and SE for contactless transactions. HCE is most commonly used, including by Google Wallet and Samsung Pay. Many Android mobile devices also have a secure element chip, including on Google Pixel and some Samsung smartphones. While less common, SE is used by some Android apps for contactless transactions, for example Samsung Wallet uses SE for car keys whilst using HCE for payments.²¹ Compared to iOS devices, we have heard fewer concerns from developers about access to NFC on Android, which is available through both HCE and SE.
18. As noted above, historically Apple did not allow access to the NFC chip on iOS, through either HCE or SE. However, in October 2024, Apple launched the 'NFC & SE Platform' in the UK and other jurisdictions,²² enabling developers to access NFC on its iOS devices and to use this contactless functionality within their own apps, subject to accepting certain terms and conditions, which includes paying Apple a fee.
19. Although Apple's NFC & SE Platform has the potential to increase choice for consumers in the products or services made available using NFC, in the 18 months since it has launched, we have not seen new products or services launch in the UK. This suggests that the barriers to using this platform are high. Third-party developers do not appear to have the ability or incentive to invest in building products and services that use NFC capabilities on iOS devices in the UK and that may compete with Apple. Ultimately, this means consumers have fewer choices available to them than they would in a more competitive market.
20. The main reasons why new products or services have not yet launched in the UK on Apple's NFC & SE Platform that we have heard from stakeholders include:

²⁰ The EC investigated Apple's control of the NFC on iOS and accepted legally binding commitments from Apple in July 2024 to address the competition concerns identified under Article 102 TFEU. See '[Commission accepts commitments by Apple opening access to 'tap and go' technology on iPhones](#)', 11 July 2024.

²¹ Google Developer Page, Android Security and Privacy, '[Android Ready SE](#)'; Android Developer Page, '[Host-based card emulation overview](#)'; Google Pay Help, '[How to get Google Pay on your phone](#)'; Samsung Newsroom, '[Unlock a new Experience: Galaxy Users Can Now Use Secure Digital Key With the Genesis GV60](#)', 30 September 2021; Southern Security, '[Samsung Pay FAQ](#)'; and Samsung, '[Use a Digital Key with Samsung Wallet](#)', 14 April 2026.

²² Apple Developer Page, '[NFC & SE Platform for secure contactless transactions](#)'.

- (a) Using the platform is not commercially viable due to high access fees;
- (b) Divergence between technical approaches for iOS across jurisdictions (between HCE and SE)²³ means there are fewer opportunities for third parties to scale, particularly where they have already developed products and services in the EEA using HCE technology;
- (c) Similarly, divergence between Android and iOS technical approaches (primarily HCE and SE respectively) means that to scale across both platforms, developers would need to support both HCE and SE, increasing costs and development time.

Key issues we are seeking views on

- 21. We are continuing to work on the full design of any potential intervention to ensure fair and reasonable NFC access on iOS. Any requirements that we may decide to pursue will be subject to a statutory consultation, including a full effectiveness and proportionality assessment in accordance with the Digital Markets, Competition and Consumers Act 2024 and taking account of our digital markets competition regime guidance.
- 22. To inform our work, we are seeking views on specific design elements of any potential intervention around how Apple provides NFC access on iOS devices in the UK. These include the technical approach and how Apple should set prices for access.²⁴

Technical approach options

- 23. As set out above, there are two technical solutions for providing NFC access. From engaging with stakeholders to date, we have learned that developers' preferences between these technologies differ depending on their specific circumstances. In particular:
 - (a) **Technical differences:** Some developers have a preference for SE or HCE on technical grounds, including due to differing views on the user experience, scalability, operational resilience and offline capability offering of these two technologies;
 - (b) **Existing offers:** Some developers have told us they would prefer an HCE solution due to the lower costs of entry that a consistent EEA / UK and

²³ Apple has now started to provide access to its NFC & SE Platform for Government ID use, including to third parties, in the EU, alongside HCE for payments and other non-payment use cases. Apple Developer Page, '[NFC & SE Platform for secure contactless transactions](#)'.

²⁴ Apple's non-price terms are also under review but they are not covered in this paper.

iOS / Android approach would facilitate. This would also extend to maintenance costs. Other developers, particularly those who have not yet built solutions in other jurisdictions or on Android, may not face the same cost of entry trade-offs between HCE and SE.

24. The evidence base is mixed on whether different use cases are better aligned to either technology. Currently, the majority of transactions that use NFC relate to card payments, and either technology can accommodate these types of transactions. Other, so far less common, existing use cases include loyalty cards, corporate badges and boarding passes, all of which are accommodated on either technology. From our evidence gathering, the only current use case which we understand to be aligned to one technology over another, is digital car keys, where a common industry standard²⁵ requires the use of SE. Furthermore, new and future use cases are emerging and may result in technical preferences for SE or HCE. For example, there are regulatory and industry considerations ongoing in respect of A2A payments, digital pound and stablecoins which may set standards that could require access via either SE, HCE or both.²⁶
25. Based on engagement with stakeholders that have differing preferences and priorities, it appears unlikely that there will be a clear convergence towards one technology over the other across all use cases in the foreseeable future.
26. A potential intervention could, in principle, ensure Apple provides NFC access to third parties:
 - a) Via a single technology: either SE or HCE; or
 - b) Via both HCE and SE.
27. Our starting point is to ensure that any potential intervention would be effective in promoting innovation and competition in contactless transactions for both payment and non-payment use cases. This means choosing a design that does not limit the potential deployment of contactless services either now or in the future. We set out our current thinking on the possible approaches below.

Single technology approach

28. A risk with a single technology approach to NFC access on iOS is that it could unduly influence the emergence of a specific technical solution for future use

²⁵ Car Connectivity Consortium, '[Digital Key V3.1.4 & V4.1.0 Specification Download](#)'.

²⁶ See for example HM Treasury, '[National Payments Vision](#)', 14 November 2024.

cases. As noted above, our ambition with any potential intervention is to enable innovation and to do so in a way that accommodates all future and evolving use cases. We are gathering feedback on whether a single technology approach could potentially impact choice for developers and/or the range and extent of innovation we are seeking to unlock.

29. On Android, by contrast, both the HCE and SE technology are available to developers in the UK to choose between on certain devices.²⁷
30. Depending on the choice of technology, there are also specific trade-offs and potential limitations to deployment which we outline below:

Requiring HCE only

31. Our understanding is that HCE can technically accommodate all current use cases. However, HCE has features which could potentially limit its application for some uses or in some circumstances: currently, due to their reliance on secure cloud storage of sensitive details, users can generally only use an HCE contactless app to make a finite number of offline transactions and then require a brief online connection before further usage. This makes it less well suited in some circumstances. For example, the industry standard for digital car keys requires SE, and the standards body highlight its offline capability.²⁸
32. Access to HCE is not currently available on iOS in the UK. However, it is available in the EEA, where we have seen the launch of new products and services for users. We have also seen a larger ecosystem of suppliers and technical outsourcing services emerge for HCE than SE, which can help developers develop products and services more quickly.²⁹ We expect this would make translating solutions to the UK more straightforward for developers, particularly for those that have already developed HCE solutions in the EEA. Similarly, developers that already use HCE on Android may find it easier to develop solutions for HCE on iOS.
33. Given Apple already supports HCE in the EEA, we would expect extending this technology to the UK and providing access on fair and reasonable terms³⁰

²⁷ Third parties' access to the SE on Android mobile devices varies by original equipment manufacturer (OEM) and device model, as not all devices have an SE and OEMs control access. However, Android supports third party access to SE where available, and directly provides HCE as part of the OS.

²⁸ Car Connectivity Consortium, '[CCC Digital Key – The Future of Vehicle Access](#)' whitepaper.

²⁹ For example, Thales, Giesecke+Devrient and DejaMobile offer HCE solutions. See Thales, '[Digital wallets](#)'; Giesecke+Devrient, '[HCE-Wallet Solution for Banks](#)'; and DejaMobile, '[Facilitating Integration to Samsung Pay](#)'.

³⁰ See pricing section, paragraph 44 onwards.

could mean the implementation period and implementation costs would be relatively limited.

34. On the other hand, the technical limitations around offline use, coupled with a real-world example where an industry standard requires SE (in the form of digital car keys), raises risks that an HCE-only intervention might not be sufficient to foster wide innovation across different use cases, both now and in the future.
35. A proposed HCE-only intervention would not require Apple to continue to maintain its current NFC & SE Platform in the UK which could result in Apple using a different technology (ie SE) to all other developers on iOS for contactless transactions.

Requiring SE only

36. It is our understanding that SE can technically accommodate all current use cases. Because SE is already available on Apple's platform in the UK, the implementation period for any obligation on Apple in relation to the provision of access to SE on fair and reasonable terms³¹ would likely be short. We would also expect that implementation costs to Apple would be limited given the technological solution is already in place in the UK.
37. It is also possible that factors, such as the capability to make transactions without online connectivity, may lead to a preference for SE over HCE for some developers or for some use cases. Apple has now started to provide access to its NFC & SE Platform for Government ID use, including to third parties, in the EU, alongside HCE for payments and other non-payment use cases.³²
38. However, despite SE being available to developers in the UK, we have not seen new products or services launch using Apple's NFC & SE Platform in the UK. There is also a risk that developers who have HCE solutions already developed in the EEA or on Android, for example in payments, would find it more commercially challenging to develop SE solutions on iOS for those same use cases. The need to develop an SE solution could also mean delayed entry for these developers and therefore delay our objective to unlock innovation.

³¹ See pricing section, paragraph 44 onwards.

³² Apple Developer Page, '[NFC & SE Platform for secure contactless transactions](#)'.

39. Any SE-only solution would have to address any barriers to entry that are currently limiting uptake, including in respect of pricing and existing terms and conditions of access.

Dual technology approach

40. Ensuring access to both SE and HCE would accommodate all current use cases and expected future use cases while providing developers with the choice between technologies based on their own preferences and needs.
41. However, providing both technical solutions in the UK, with the associated maintenance and investment requirements, would very likely be more costly (in particular for Apple) than only providing one technology.
42. Assessing whether such an approach would be appropriate would require a careful assessment of the associated costs and benefits.

Questions for stakeholders

43. In answering the following questions, please provide evidence supporting your views to help us consider any proposed intervention on the above technology options:
- (a) **If NFC access were provided via a single technology approach, subject to appropriate terms and conditions (including pricing):**
- (i) **For HCE-only and SE-only respectively, would this allow you to invest and innovate, and what barriers might remain (eg technical, commercial or otherwise)?**
- (ii) **To the best of your knowledge, how long would it take you to launch a new product or service using HCE in the UK and separately using SE in the UK?**
- (iii) **To the best of your knowledge, and to the extent not already provided, what estimated costs would you incur to launch a new product or service in the UK:**
- **Using HCE?**
 - **Using SE?**
- (b) **If NFC access were provided via a dual technology approach, subject to appropriate terms and conditions (including pricing) on each:**

- (i) **What incremental benefits and/or costs would there be to you over a single-technology option?**
- (ii) **On what basis would you choose whether to invest in solutions for SE, HCE or both in this scenario?**

Pricing of access to NFC

- 44. As mentioned in paragraph 19 above, in the 18 months since Apple has launched its NFC & SE Platform, we have not seen new products or services launch on this platform in the UK. Based on what we have heard from stakeholders, and observed in the market, it is likely that the current fees charged by Apple for NFC access are posing a significant barrier to entry in the UK.
- 45. Irrespective of how access is granted (SE-only, HCE-only, or both), we believe that any potential intervention will only be effective in achieving our objective to unlock innovation by opening up NFC access if the associated fee is set at a level which is fair and reasonable.
- 46. When assessing what price would support an effective intervention, we consider the relevant characteristics of the activity, and the different approaches that could be used to identify a fair and reasonable fee. We outline our thinking on each of these areas below.
- 47. Any intervention would need to be proportionate, including in terms of the level of any fees, which may preclude requiring the provision of services for free unless there is clear justification to support this.

Characteristics of the activity

- 48. The following factors are important when considering potential approaches to pricing NFC access on iOS:
 - (a) First, on the supply-side, Apple is an essential gateway for UK mobile users accessing digital content and services, and for UK businesses (eg banks and other developers) developing and distributing digital content and services which rely on access to NFC. Apple's mobile platform and Apple Pay/Wallet are characterised by network effects (ie their value increases the more end-users and other users (eg developers) are active on these platforms). Apple has attracted a large installed user base, creating strong brand attachment which has resulted in incumbency

advantages for Apple and only limited competitive constraint from rival mobile platforms in competing for end-users;³³

- (b) Second, on the demand-side:
- (i) Diversity of use cases – given the range of different use cases, the value third parties attach to NFC access may vary significantly across different firms;
 - (ii) Future uncertainty – given the nascent markets and unknown possibility for future use cases there may be uncertainty and imperfect information about the potential valuation that third parties might put on NFC access.
49. These features are important in informing our approach to pricing NFC access, particularly to the extent that they differ from other sectors, lead to further complexity and/or may require additional safeguards in the approach we take to pricing, as discussed below.

Possible pricing approaches

50. We want to protect Apple's incentives to invest in operating, maintaining and improving NFC access, and ensure that Apple receives fair remuneration for the services it provides.
51. To determine an effective fee (that is fair and reasonable) for NFC access which would encourage innovation and entry by developers, and also maintain Apple's incentives to invest, the options include:
- (a) An approach based on Apple's costs; or
 - (b) An approach based on the value Apple's services provide to developers; or
 - (c) An approach which links access fees to Apple's own downstream prices.
52. It would also be possible to combine elements of these approaches, particularly the cost- and value-based ones.

Cost-based approach

53. Cost-based approaches are common and well-established under a variety of ex ante and ex post frameworks, with different approaches being used to

³³ [Final Decision report](#), 22 October 2025, paragraphs 1.20a, 1.23, 1.26 and 8.88

support relevant firms to recover a broader or narrower range of costs. We are considering several ways that these approaches could be used in setting NFC access fees:

- (a) A narrow cost-based approach would allow Apple to charge a fee to recover the direct costs of providing NFC access;
- (b) A broader cost-based approach would allow Apple to charge a fee that recovers not only its direct costs, but also an appropriate share of fixed or common costs, ie costs which are not directly linked to the provision of the service, but which are real, unavoidable, and necessary to provide the product or service;
- (c) A cost-plus approach would allow Apple to charge a fee that recovers its costs, as described in the approaches above, as well as allowing for an appropriate return on investment. There are different possible approaches to assessing the appropriate level of return, which would need to reflect the specific circumstances of the case at hand, for example the ex ante risks and innovation incentives.

54. We will continue to explore whether a well-calibrated cost-plus approach could be an appropriate way to determine a fair and reasonable fee for access to NFC on iOS. In particular, we will seek to understand if it would allow for the efficient entry of competitors to Apple Pay/Wallet, as well as supporting economically viable alternative use cases in both payments and non-payments, all while ensuring that Apple is fairly remunerated for the services it provides. We will assess whether such an approach would achieve our objective of unlocking innovation by developers to the benefit of UK businesses and consumers, while maintaining Apple's incentives to continue to invest and innovate in the software and hardware enabling NFC transactions.

Value-based approach

55. Value-based approaches have been used in a range of regulatory contexts to balance the need to constrain the exploitation of market power while maintaining incentives to invest and innovate, particularly where cost-based benchmarks alone may not always fully capture the contribution of the underlying asset or service.
56. Under a value-based approach, Apple would be allowed to recoup any value that NFC access would provide over and above competing services, assuming a competitive market. That is, the fee Apple charges would not include the value that is merely the result of its substantial and entrenched

market power.³⁴ The fee would also reflect any value that third parties generate for Apple (eg when the presence of these third parties makes Apple's platform more attractive).

57. Although we believe that a value-based approach could, in principle, be informative for determining the level of fees for NFC access, we think that there could be specific challenges (both conceptual and practical) in this context that we would need to explore further:
- (a) Numerous parties have been involved in the development and ongoing deployment of NFC. The technology needed to enable contactless transactions using NFC sits within Apple's hardware and operating system. Apple has developed and built this hardware and software solution (through Apple Pay and Apple Wallet), which are based on standards set by industry bodies, including ISO, NFC forum and GSMA. Card emulation was widely used by a number of digital wallets before Apple Wallet/Pay was launched, including Google Wallet. Secure elements have a long history of use and standards are set by GlobalPlatform. As a result, any definition and subsequent assessment of value would necessarily involve disentangling the incremental contribution of Apple's platform from these wider sources of value;
 - (b) Direct observation of value is effectively impossible, at least on iOS, given Apple has historically restricted NFC access, preventing competition from developing;
 - (c) The diversity of use cases (including both payments and non-payments) will likely result in different levels of value being available to developers depending on the nature of their proposition. The heterogeneity of this activity could therefore result in a complex fee structure, which risks undermining practical use by developers;
 - (d) There is substantial uncertainty around how the use of NFC may evolve and what innovations may become available once access is opened, meaning that forward-looking assessments of value would necessarily be subject to uncertainty. Further, developers' valuations may change over time as new business models develop and mature.
58. We will continue to explore the potential challenges in reliably identifying and defining value in the context of NFC access on iOS, which stem from the underlying characteristics of the technology and activity. If such challenges exist, we will need to consider whether it would be appropriate to rely on value

³⁴ See paragraph 48(a) above.

in this context. Our draft Steering conduct requirement combines both cost-plus and value-based approaches in a way which seeks to mitigate the relevant identified risks in that particular context.³⁵

Linking access fees to downstream prices

59. Another potential way to set prices is by reference to the price of an existing downstream product that Apple supplies using NFC. While this approach may incorporate elements of cost or value discussed above, it represents a distinct overall approach, and we have therefore sought to distinguish it here.
60. In the context of payment use cases in particular, Apple has a downstream product available in the form of Apple Pay. Therefore, it would be possible to use the prices that Apple Pay charges its business customers³⁶ as a reference point for access fees to NFC, eg by setting a standard discount to the prevailing charges on Apple Pay.
61. We recognise there may be some difficulties with this approach in these circumstances, in particular:
 - (a) How to determine the appropriate level of discount to the downstream price, such that competitors are incentivised to enter;
 - (b) How to set prices where no equivalent Apple downstream product exists, including for innovative future use cases;
 - (c) The risk of embedding any market power or ecosystem-related factors that exist in the downstream prices into the access fee; and
 - (d) The potential to miss the beneficial effects of dynamic competition, including where third-party services introduce new or differentiated functionality into their products.
62. We will continue to explore the potential challenges in applying this approach in practice to NFC access on iOS, particularly in the context of unlocking new and innovative product and services.

³⁵ [The proposed Steering CR](#) is structured such that, when setting the fees for steered transactions, Apple and Google must apply the cost-based, value-based and administrative simplicity principles. This may be done, for example, by taking one of these principles into account and subsequently considering the second principle as a cross check, adjusting the resultant fee downward or upward as applicable.

³⁶ For example, card issuers.

Other considerations

63. We would expect there to be a consistent approach to setting fair and reasonable fees for NFC access whether it be via HCE and/or SE but recognise that this could result in different fees being charged for each, given the differences in the services being provided by Apple and the related costs and/or value.
64. We are also considering the following additional principles that could apply when setting the access fee:
- (a) A principle that ensures the fee level does not create a competitive disadvantage for third parties who, using NFC access, provide the same or similar services (downstream) as Apple.³⁷ We believe this may support incentives to enter and compete with Apple by ensuring access fees do not distort competition for downstream services (see also paragraphs 59-62 above);
 - (b) A principle requiring different fee structures to be offered; eg, options offered would be based on factors such as predicted usage. We think that this choice may support incentives to use NFC as developers can select the fee option which best suits their business model. We also believe that having some choice may be beneficial given the variety of business models developers could enter with;
 - (c) A principle that requires that the fee and fee structure proposed by Apple are clear and easy to understand. We think that this could ensure developers have certainty about the fees they are likely to pay, positively impacting incentives to use NFC.

Questions for stakeholders:

65. In answering the following questions, please provide evidence supporting your views to help us justify any proposed intervention on the above pricing approaches:
- (a) **What are your views on the effectiveness of the potential pricing approaches set out above in achieving our objective to unlock innovation in contactless transactions?**

³⁷ An example of a downstream service is mobile contactless payments. For these payments, Apple charges card issuers when their customers use Apple Pay. If a competing digital wallet provider, or a card issuer developing its own wallet wanted to access NFC functionality on iOS, the principle might require that the NFC access fee should not exceed the fees Apple charges card issuers when their customers use Apple Pay.

- (b) **In your view, are there alternative methods to determine appropriate fees that we should consider and if so, what are they and why?**
- (c) **What cost measure do you consider to be appropriate for setting fees, eg long-run incremental cost (LRIC) plus an appropriate share of common costs or any other?**
- (d) **What rate of return do you consider to be appropriate for setting fees and on which basis should it be determined?**
- (e) **Should the pricing approach incorporate value-based considerations? If yes:**
 - (i) **How should value be defined in the context of NFC access?**
 - (ii) **What reliable methodologies can be used to quantify value?**
- (f) **Should the pricing approach be linked to downstream prices? If yes:**
 - (i) **What discount should be applied to the relevant downstream price?**
 - (ii) **How would this approach or fee level apply to different use cases and business models, including where no downstream Apple product exists?**
- (g) **What are your views on the other principles listed at paragraph 64 above?**
 - (i) **Are there any other principles we should consider?**
- (h) **For any of the pricing approaches and/or other principles, should they be applied in the same way regardless of the technical solution used to grant NFC access?**

Next steps

- 66. Answers to the questions in this paper (or any other relevant evidence in relation to possible interventions on NFC access), should be sent via email to mobileSMS@cma.gov.uk by 5pm on 21 July 2026. Should any aspects of your views be confidential, we ask that you also provide a non-confidential version of your views alongside your response.
- 67. Views will be considered alongside ongoing engagement with stakeholders, ahead of a planned consultation on potential measures in relation to NFC access in the Autumn of 2026.

68. Any non-disclosure agreement a party may have in place with Apple should not prevent them from responding to this paper. Apple has confirmed that it will not use any confidentiality provision with a party to prevent them from responding to this paper.