Personal online communication services

A discussion document

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Contents

Section

1. Overview

Summary

In September 2022 we published our approach to digital markets in the communications sector, where we announced a programme of work to examine how digital markets are working for UK consumers and businesses.[1]

As the UK's converged communications regulator, we consider it to be important to take a high-level look at competition and consumer issues in the personal online communications services (OCS) sector and its impact on traditional calling and messaging markets.

This work aims to increase our knowledge and understanding of these services, and to provide evidence-based thinking, through the lens of our existing competition and consumer protection duties in telecommunications markets. We note that this work is therefore specific in its focus and explicitly does not look at issues covered under the online safety regime.[2]

OCS include standalone apps and websites which provide private messaging and calling services as their primary functions, such as WhatsApp, iMessage and Snapchat. Messaging and calling functionalities have also increasingly been incorporated into online platforms with a broader offering, including social media platforms such as Instagram and X, and gaming and dating apps. In practice, as some services expand in scope over time (for example, where OCS apps add social features or payment capabilities), the distinction between OCS, social media and other types of services may become blurred.

Within this broad range of OCS, our focus is mainly on services used for private and general-purpose communications, which are widely used, and are therefore more 'telecoms-like' in nature.

We found that OCS are increasingly important to meeting everyone's communication needs. OCS are in many cases valued more highly by consumers and citizens than traditional telecoms services, such as text messaging or phone calls. Around two thirds of consumers aged 16-44 state that they would rather go without mobile phone calls for 24 hours than go without their favourite messaging apps.

This popularity appears to be driven by OCS delivering clear benefits for users, including being free of charge for consumers, easy to access and download, and offering a wide range of enhanced functionality, from typing indicators to easy sharing of photos and video. Our research confirmed that users have a positive view of different aspects of these services.

[1] Ofcom, Digital Markets in the communication sector, September 2022

[2] Ofcom will soon take on new powers to regulate OCS under the online safety regime and so online harms are out of scope for this document.

We have considered the extent and nature of competition in personal OCS, looking at the outcomes of the competitive process for consumers at this point in time, and whether there may be some potential risks to benefits for consumers in future.[3]

Our findings show that the nature of OCS - which are set up to only allow users to message other people who are on the same service - creates network effects, which can confer an advantage to larger platforms, acting as a barrier to entry and expansion for newer or smaller platforms who may struggle to attract users. However, these effects are mitigated to some degree by user tendencies to make use of a number of OCS at the same time, using different apps for different features, audiences or nature of communication, which can support a degree of contestability.

We found that WhatsApp, and Meta's OCS as a whole, hold a strong competitive position, and the large user bases of these services mean the network effects may dampen competitive pressure to some degree. However, we observe broadly positive outcomes for users at this point in time, with little evidence of significant harm from competition issues. But we also note the features and monetisation strategies of OCS are evolving, which could affect competition and outcomes in future.

We have also conducted a high-level assessment of potential consumer protection issues, mainly through the lens of our existing consumer protection duties in telecoms. We have not found evidence of significant problems at present, although it is possible, given the fast-paced nature of OCS, that issues emerge in the future for example, on customer service standards and expectations. The main areas of risk we have identified relate to the misuse of messaging apps by scammers and fraudsters, and the sharing of illegal or harmful content, which will be covered by the forthcoming online safety regime and therefore not discussed in detail in this document. We also did not consider any other harms to consumers that may arise from the content of these services, which will also be covered by the online safety regime.

Next steps

Given our findings so far, and recognising OCS can evolve rapidly, we will continue to monitor developments in the sector, in case new concerns arise in the future as OCS features, usage and business models evolve. We will also monitor the evolution of regulation in the European Union as interoperability requirements on some large OCS are implemented next year. As part of this work, we will also continue to liaise with the Competition and Markets Authority (CMA) as it prepares to implement the proposed new digital markets regime.

[3] Our competition analysis in this paper looks at personal OCS separately from other features of the ecosystems that they operate in. For example, we do not examine the competition issues relating to the interactions of OCS with mobile ecosystems more widely (the Apple or Android ecosystems) and we do not assess OCS interactions with social media and online advertising markets.

2. Introduction and background

Introduction

2.1 As the UK's converged communications regulator, we consider it important to take a high-level look at competition and consumer issues in the personal online communications services (OCS) sector and its impact on traditional calling and messaging markets.

2.2 In this section we set out the background to our work in digital markets for communication services, the scope of this document and a number of areas of relevant context, such as the evolving legislative framework for regulating digital markets in the UK and relevant regulatory developments in the European Union (EU).

2.3 This section then moves on to consider how the way people communicate has been changing, including the growth of online communication services (OCS) for messaging and for making audio or video calls, and how consumers' use of traditional telecoms services, such as Short Message Service (SMS)/text messages and traditional voice calls, has declined over recent years.

2.4 The rest of this document then covers:

- **OCS features and usage (Section 3):** explains the main features of the largest OCS and the reach of the most popular apps, as well as how consumers use and choose their OCS;
- **OCS business models (Section 4):** looks at monetisation strategies of the main providers as well as considering potential future developments;
- **Competition between OCS (Section 5):** looks at the nature of competition, product differentiation, competitive incentives and consumer outcomes for personal OCS; and
- **Consumer protection (Section 6):** considers the extent to which the use of personal OCS may give rise to harm for consumers.

Ofcom's work on digital markets

2.5 We published our approach to digital markets in the communications sector in September 2022[4], where we announced a programme of work to examine how digital markets are working for consumers, investment and innovation.

2.6 As one of the areas of focus, we committed to assessing competition and consumer issues in the market for OCS and their impact on traditional calling and messaging markets. As well as looking at whether developments in OCS may also impact on our duties relating to competition, consumer protection, access to essential services and securing end to end connectivity.

[4] Ofcom, 2022: Digital markets in the communications sector': Ofcom's approach to competition and consumer issues in internet-based communications markets

Scope of our work on online communication services

2.7 OCS are applications that provide an over-the-top (OTT) messaging service on a user's device. They could be websites or standalone applications, very commonly used on mobile devices, that provide communications in the form of text-based messaging and/or voice or video calls to a closed number of participants.[5]

2.8 The scope of OCS is potentially very wide. For example, OCS could include a variety of different services and apps where private personal communication is the primary functionality (e.g. WhatsApp, iMessage and Snapchat) as well as services that incorporate instant messaging as part of a broader social media platform (e.g. Facebook and Instagram).

2.9 For this assessment our primary focus is on general-purpose personal online communications that enable messaging and voice/video calling between consumers, rather than online communications for a more specific purpose, for example on dating or gaming apps. We also consider email to be out of scope for this piece of work.

2.10 We are considering OCS that are not dependent on a number, like a lot of traditional telephony services. This means that, although many of these services require the user to provide a mobile number on sign-up, the messages and audio/video calls themselves are not routed using the number itself. These communications are also made over the internet, rather than conveyed via phone networks. Typically, OCS are 'walled garden' services and can only be used to communicate with other users of the same service or messaging app.

2.11 OCS are used by both consumers and businesses. Services aimed primarily at businesses include Microsoft Teams, Zoom and Slack. Issues around business OCS are considered out of scope for this discussion document. We note that the European Commission opened an investigation into potential anti-competitive practices by Microsoft regarding Teams in July 2023 following a complaint made by Slack Technologies Inc in 2020.[6] We will monitor developments in this case.

2.12 This discussion paper is a light touch assessment that examines a range of consumer and competition issues in the personal OCS sector, using research and the latest available market intelligence.

2.13 Explicitly **out of scope** for this work is the forthcoming online safety regime and any further information in respect to how that regime may impact on OCS (e.g. around encryption of OCS services). Our competition analysis in this paper also looks at consumers' use of OCS separately from wider ecosystem competition issues. We do not seek to explicitly assess the potential competition implications of OCS in relation to mobile ecosystems (i.e. for Apple and Android), social media or online advertising, though we do appreciate these are likely to be considerations in any broader assessment.

[5] OCS are distinct from electronic communications services as defined by section 32 of the Communications Act 2003.

[6] European Commission, 2023: Commission opens investigation of practices by Microsoft (europa.eu)

Ofcom powers in online communication services

2.14 Ofcom's principal duties are to further the interests of citizens in relation to communications matters and of consumers in relevant markets, where appropriate by promoting competition.

2.15 While we do not have powers to put in place ex-ante rules on OCS for consumer protection or competition reasons, we are a converged regulator with a number of powers that are relevant to digital communications markets.

2.16 As a competition regulator, if we consider it necessary, we can undertake market studies or launch an investigation under the Competition Act for abuse of dominance or anti-competitive agreements. We also have concurrent consumer protection powers in the case of unfair contractual terms or commercial practices, or if consumer law was being broken. In these cases, we could take enforcement action to protect consumers and remedy the infringements.

Digital markets and online harms framework

2.17 Online communication services are one of a number of digital services that will be subject to an evolving regulatory framework in the coming months and years.

2.18 On 25 April 2023, the Government published the Digital Markets, Competition and Consumers Bill, which is currently undergoing Parliamentary scrutiny.[7] This Bill establishes a new pro-competition regime for digital markets and empowers the CMA to designate firms providing digital activities with strategic market status (SMS). Firms designated with SMS will be required to comply with conduct requirements to manage the effects of market power. The CMA may also apply pro-competitive interventions to tackle the root causes of an SMS firm's market power. The Bill also contains measures to further support effective cooperation between the CMA and Ofcom in relation to communications matters. We will continue to cooperate with the CMA, along with the other relevant regulators, on the CMA's implementation of the new pro-competition regime for digital markets.

2.19 In 2022 the Government introduced the Online Safety Bill.[8] This followed the Government designating Ofcom as the 'online harms' regulator[9] to take on new responsibilities to protect children and vulnerable people when using online services in 2020. The Bill sets out legislation to protect children and adults online, placing new duties on online services to protect UK users by assessing and responding to risks of harm, and gives new powers to Ofcom to regulate these services. Ofcom's core duty under the Bill is to adequately protect citizens from harm by ensuring online services make appropriate use of systems and processes to keep users safe. The parliamentary process for the Bill was concluded on 19 September 2023 and it is expected to pass into law in the coming weeks. Shortly after this has happened, we will publish for consultation our first draft guidance for risk assessments

[7] The relevant parliamentary materials, including drafts of the DMCC Bill are available on the UK Parliament website: https://bills.parliament.uk/bills/3453 (accessed 14 September 2023).
[8] UK Parliament website, September 2023: Online Safety Bill - Government Bill
[9] Ofcom, 2020: Ofcom to regulate harmful content online - Ofcom

and Codes of Practice[10] covering illegal content, which will assist services in understanding how they can comply with their duties under the new legislation.

European Union context

2.20 Other international markets have put in place legislation to regulate OCS. The EU has adopted the Digital Markets Act (DMA) to ensure contestability and fairness in digital markets.[11] It sets out compliance obligations that apply to large online platforms that are designated as "gatekeepers" with respect to providing specific core platform services such as online search engines, online social networking services and cloud computing services.

2.21 DMA Recital 64 states that "the lack of interoperability allows gatekeepers that provide number-independent interpersonal communications services to benefit from strong network effects, which contributes to the weakening of contestability".[12] To address this, under DMA Article 7, designated gatekeepers that provide number independent interpersonal communication services will be required to enable interoperability with third-party services, upon request.

2.22 Initially, the requirements will apply to one-to-one messaging and sharing of files such as images and videos. Within two years of designation, requirements will extend to group messaging and file-sharing, while audio and video calls are required to be made interoperable within four years of designation.

2.23 In September 2023, the European Commission designated six gatekeepers: Alphabet, Amazon, Apple, ByteDance, Meta and Microsoft. Of the services provided by gatekeepers, 22 of these were designated as core platform services, which included Meta's WhatsApp and Messenger as OCS, as well as Facebook, Instagram, TikTok and LinkedIn as social networks. The six gatekeepers will have six months from designation (i.e. March 2024) to ensure full compliance with the DMA obligations for each of their designated core platform services.[13]

2.24 In addition, the European Commission has also opened a market investigation to further assess whether Apple's iMessage should be designated a core platform service. This was in response to Apple putting forward a 'sufficiently substantiated' rebuttal arguing that although iMessage met all the relevant thresholds to be designated as a core platform service, that the service does not satisfy the gatekeeper requirements due to the circumstances in which the service operates. The investigation should be completed within a maximum of five months.[14]

2.25 At the time of writing, there is still uncertainty around various aspects of the practical implementation of DMA Article 7, as well as the likely extent of adoption by online communication providers and the implications for users inside and outside of the EU. (See section 5 for more on interoperability.)

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[10] Ofcom, 2022: Online Safety Bill: Ofcom's roadmap to regulation
[11] European Commission, 2022: About the Digital Markets Act
[12] Official Journal of the European Union, 2022: Regulation (EU) 2022/1925 Of the European Parliament and of the Council of 14 September 2022 and amending Directives (EU) 2019/1937 and (EU) 2020/1828 (Digital Markets Act).
[13] European Commission, 2023 press release: Digital Markets Act: Commission designates six gatekeepers
[14] Ibid.

How people communicate is changing

2.26 This section sets out important context from the trends in people's use of communication services over recent years. We look at how the use of online communication services has significantly increased over the last ten years and how the use of traditional communication services (such as SMS or voice calls) has declined.

2.27 The following sections refer to several sources of evidence including research and market intelligence collected as part of Ofcom's ongoing data collection programme. For the purposes of this study on OCS, we also commissioned consumer research that was run by YouGov in March 2023 ('*our OCS research*'). Most of the analysis discussed in further sections is based on this OCS research. We also refer briefly to a separate survey ('*our resilience research*'), also undertaken by YouGov in 2023, that was commissioned to inform a separate Ofcom study on consumers' attitudes to network resilience.

Online messaging is increasingly important to consumers and message volumes far outweigh traditional SMS volumes

2.28 OCS are popular and are widely used across all age groups.

2.29 Our Adults' Media Literacy Tracker 2022 research found that 95% of UK internet users aged 16+ used an online communications service for making voice/ video calls or sending messages.[15] With 94% of internet users aged 55-64, and 81% aged 65+ using these services. Ofcom's Children's and Parents' Media Literacy Tracker 2022 also found that 82% of children aged 5-15 used an OCS for making voice/video calls or sending messages.[16]

2.30 This widespread popularity has led to a large increase in the number of OCS messages sent. The number of traditional text messages[17] (SMS and MMS[18]) has also fallen over recent years.

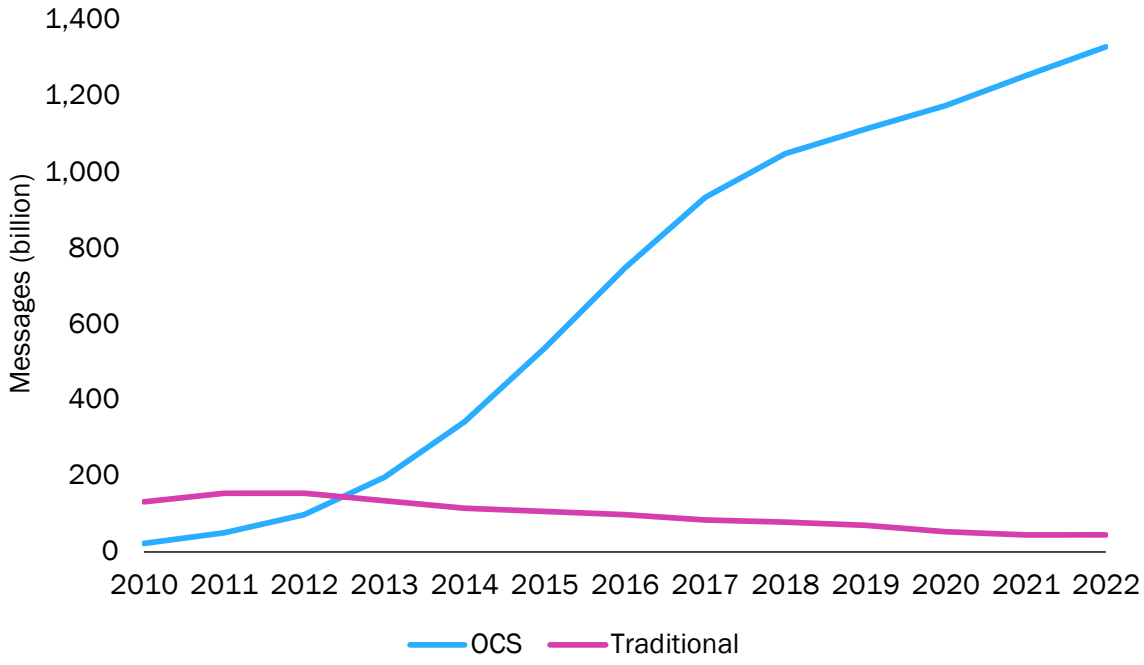
[15] Ofcom, 2022: Media Literacy data tables (page 47)

[16] Ofcom, 2022: Childrens' Media Literacy Tracker 2022 (Wave 1 + Wave 2 data tables, page 46)

[17] Analysys Mason data.

[18] Multimedia Messaging Service.

Figure 2.1: Person to person messaging volumes in the UK by traditional[19] and OCS[20] (outturn)



Source: Analysys Mason

2.31 The number of online messages sent in the UK has increased from approximately 100 billion messages a year in 2012 to over 1,300 billion messages a year in 2022.

2.32 Over the same time period, total outgoing SMS and MMS messages in the UK had fallen to around 36 billion a year in 2022, having peaked at around 151 billion per year in 2012.[21]

2.33 However, the use of SMS remains prevalent for businesses and public sector organisations to contact consumers for certain purposes, such as delivery notifications, appointment reminders or security notifications. [22] (Business-to-consumer messaging is discussed further in Section 4 as part of OCS business models.)

The use of OCS for audio and video calls is also growing but traditional voice calls remain popular

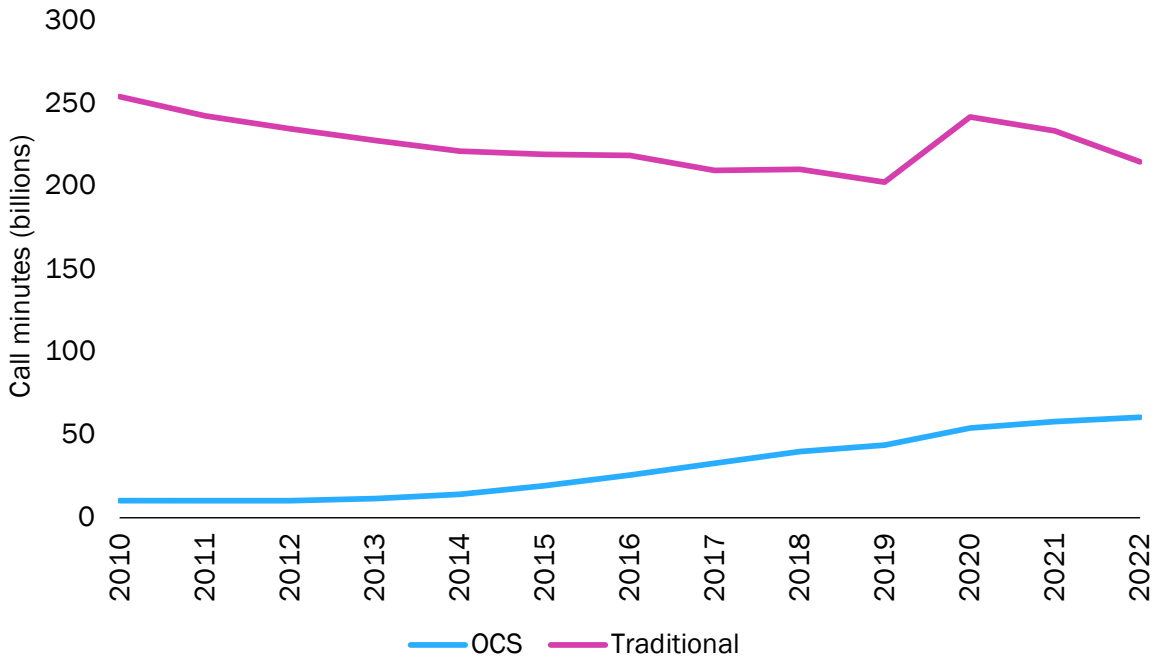
2.34 There also appears to be a growing trend to make audio or voice calls using online communications services. Data from Analysys Mason set out in Figure 2.2 below show a steady increase in call minutes on OCS services, but also shows that call minutes on traditional services (landline and mobile) remain high.

[19] Analysys Mason definition: The number of SMS messages sent in a given period – that is, SMS messages from person to person, or from person to machine (for example, for voting purposes), but not from application to person (for example, text message dentist appointment reminder). Includes premium-rate SMS, MMS messages, and messages through an operator IP-based application.
[20] Analysys Mason definition: The number of outgoing messages generated by users of over-the-top IP-based messaging services on smartphones, PC and laptops.
[21] Ofcom, 2023: Communications Market Report 2023 – Interactive data (slide 4 of 'Telecoms and Networks')
[22] Ofcom, 2023: Letter from Ofcom to mobile network operators, 25 September 2023. Letter signalling our to monitor the market for wholesale SMS termination and its impact on the retail business messaging as a whole.

2.35 There has been a notable decline in traditional *fixed* voice usage over the last decade. The number of outgoing calls from landlines totalled 32 billion minutes in 2022, a significant fall from the number recorded for 2012, 103 billion minutes.[23]

2.36 Within the decline of total traditional call minutes, the number of *mobile* call minutes over the last decade has increased. Total outgoing call minutes from mobile phones was 170 billion minutes in 2022, up from 132 billion minutes in 2012 but down from a peak of nearly 190 billion in 2020 (with a temporary increase in usage as a result of the Covid-19 pandemic).

Figure 2.2: Call minutes in the UK over traditional (landline[24] and mobile[25]) and OCS[26] (outturn)



Source: Analysys Mason

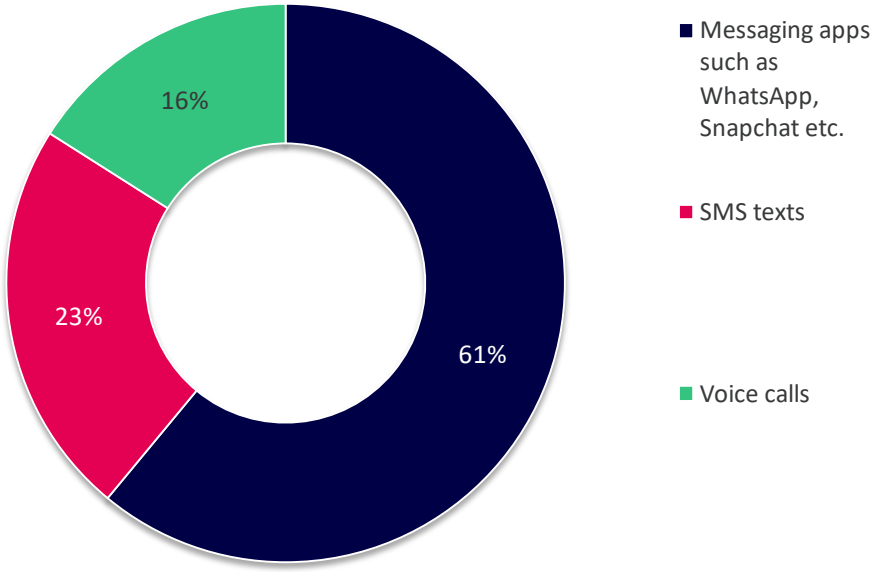
[23] Ofcom, 2023: Communications Market Report 2023 – Interactive data (slide 2 of 'Telecoms and Networks')
[24] Analysys Mason definition: The number of minutes originating on a fixed network. This includes traffic generated by customers using narrowband and VoBB services. It excludes dial-up internet calls. Analysys Mason calculates fixed voice traffic is calculated based on the data reported by Ofcom and own estimates for traffic generated by VoBB calls.
[25] Analysys Mason definition: The number of operator-billed minutes (circuit-switched and IP) originated on mobile networks in a given market; includes traffic generated by customers of service providers using the networks.
[26] Analysys Mason definition: The number of outgoing minutes generated by users of over-the-top VoIP services on smartphones, tablets, PCs or laptops.

In many instances OCS are consumers' preferred method of communication

2.37 Our resilience research suggests that OCS are not only popular, but they also appear to be the 'stated' preferred method of communication when using a mobile phone.[27]

2.38 For example, 61% of mobile phone users who used OCS on their mobile in addition to voice calls and/or texts, expressed a preference for using online messaging apps such as WhatsApp and Snapchat to contact other people (such as friends and family).[28] This compares to 23% of these users who prefer using SMS to contact other people, and 16% whose preference is to make a mobile voice call.[29]

Figure 2.3: Preferred communication method when using a mobile device



Source: Ofcom Resilience Research 2023. Q3: What type of communication method do you prefer to use to contact other people on your mobile? Base: All who use voice calls and/or SMS in addition to messaging apps on their mobile (2071)

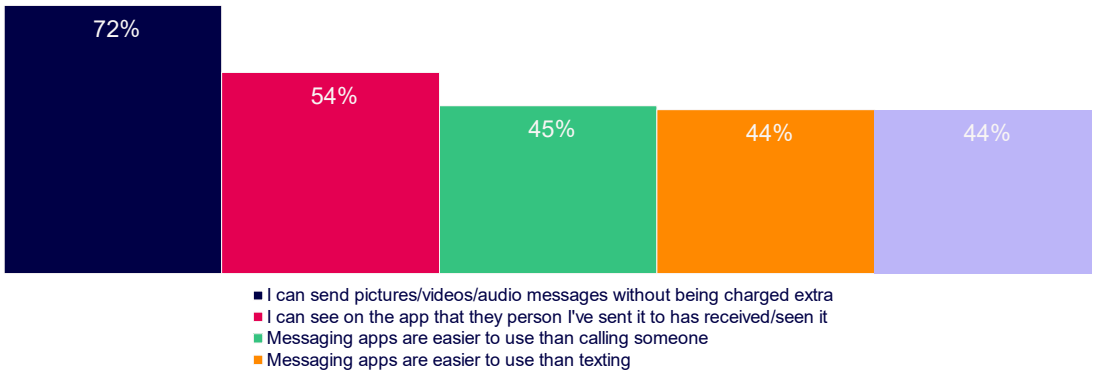
2.39 These preferences tend to differ by age group. For example, the preference for using online messaging apps increases to around 75% for 25-34 year and 35–44-year-olds. While the greater proportion (42%) of the over 75s cohort preferred to use voice calls, they appeared to have more of a preference for online messaging (32%), than for sending SMS messages (25%).[30]

2.40 The preference for using online communications services appears to be driven by usage costs and product features. 72% of those who preferred to use online communications

[27] This question does not include an option of using landline to make calls, just services available on their mobile device.
[28] The survey was limited to preferences when contacting other people, and doesn't include preferences when contacting businesses or other organisations.
[29] Q3 2023 Resilience research
[30] Q6 2023 Resilience research

services over SMS/ voice calls indicated that this was due to the ability to send pictures/ videos and audio messages without incurring additional charges. 54% of this group expressed a preference for online communications services as they can see if the recipient of a message has received it/seen it.[31]

Figure 2.4: Reasons for preference of messaging apps over SMS/voice calls



Source: Ofcom Resilience Research 2023. Q4: Why do you prefer to use messaging apps rather than texts or voice calls on your mobile? Base: All who prefer to use messaging apps to voice calls or texts on their mobile (1248)

2.41 Messaging apps also appear to be the method of communication that users would be least willing to go without if they had to forgo one service for 24 hours. When presented with this hypothetical scenario, a majority of adult users in our research sample (58%) expressed a preference to go without mobile calls rather than go without their online messaging app (33%). The percentage of users who said they would prefer to go without mobile calls rises to 74% in the 35-44 year old cohort. It is only in the over 55s cohort, where users would rather go without a messaging app (47%, compared to 43% who would prefer to forgo mobile phone calls).[32]

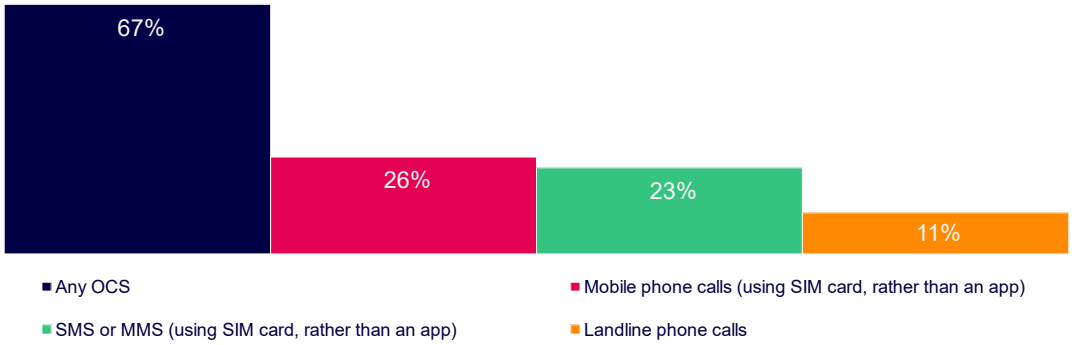
Online communications services also tend to be used more frequently than traditional communications services

2.42 OCS also appear to be more regularly used than more traditional communications services. Out of those respondents who had used an OCS in the last three months, 67% indicated that they did so on a daily basis.[33] The proportion of respondents indicating use of an OCS on a daily basis rises to 82% among those in the 35-44 year-old age cohort.

2.43 In contrast, more traditional forms of communications appear to be used less frequently. For example, among those who have used SMS or MMS in the previous 3 months, only 23% said that they do so on a daily basis. And just over a quarter, of people who had made mobile calls in the last three months, did so on a daily basis. (See Figure 2.5)

[31] Q4 2023 Q3 Resilience research
[32] Q4 2023 OCS research
[33] Q2 2023 OCS research

Figure 2.5: Proportion of respondents that have used the service in previous 3 months do so on a daily basis



Source: Ofcom OCS Research 2023. Q2: Still thinking about the past three months (i.e. since December 2022)...How frequently have you used each of the following communication services to send messages / make calls for personal purposes (i.e. not work related)? (Please select the option that best applies in each row) Base: All UK Adults 16+ who have used this communication service in past 3 months for personal use (651-1265)

OCS also appear to be popular for international calls

2.44 OCS tend to provide voice or video calling to any international location over the internet in the same way as calling any contact using the app, and without any additional charges.

2.45 Our market data also shows there has been a significant reduction in the number of traditional international voice calls being made. The number of international call minutes made from UK mobile networks fell from 8 billion a year in 2013 to 2 billion a year in 2022. The number of international call minutes made from fixed networks also fell from 5 billion a year to 1 billion a year over the same period.[34]

[34]Ofcom, 2023: Communications Market Report 2023 – Interactive data (slide 4 of 'Telecoms and Networks')

3. OCS features and usage

A range of providers offer OCS, with Meta's WhatsApp and Messenger being the most popular among UK users.

The majority of OCS providers offer similar core communication functions (such as messaging, calling and file sharing) but they also differ across other aspects such as group size limits, options for messages to disappear or be deleted, and integration of audio-visual features (e.g. emojis and GIFs).

Consumers can access a large number of different OCS, but the majority of consumer usage is focused on a much smaller set of services. Our OCS research shows that WhatsApp is the most popular service, followed by Messenger, Instagram Direct Messenger and Apple's iMessage and FaceTime apps. Snapchat is relatively popular among younger users, as is direct messaging via Instagram and TikTok.

Consumers will choose between different messaging apps based on a number of factors. Our OCS research show that the most important factor is the ability to communicate with friends, family and wider social contacts. Other factors such as being free of charge to consumers, and the ease of use / convenience are also important for driving consumer choice. Consumers will also tend to use multiple OCS in parallel with this tendency being higher among younger users than older users.

Introduction

3.1 This section covers:

a) An overview of OCS features in general and features of selected services;
b) The relative popularity of different OCS providers; and
c) A discussion on how consumers choose and use their OCS apps.

Overview of different OCS and their features

3.2 The majority of popular OCS include similar core communication functionalities, such as messaging, file sharing, voice calling and video calling, on a one-to-one basis or within groups of contacts.[35] As part of these core functionalities, certain features have become common across many services, such as delivery and read receipts, typing indicators and voice messages. However, the core functionalities offered by different services do differ in some aspects, for example group size limits, file size limits, options for messages to disappear or be deleted, and integration of additional audio-visual features (e.g. proprietary emojis, GIFs, stickers, augmented reality filters or customisable video backgrounds).

3.3 Table 1 provides some illustrative and non-exhaustive examples, showing how a selection of services differ across core messaging and calling functionalities.

[35] As outlined further below, there are exceptions, such as Apple's iMessage (which enables messaging but not calling) and FaceTime (which enables calling but not messaging).

Table 1: Examples of messaging and calling features across a selection of OCS

	WhatsApp	Messenger	Instagram	iMessage & Facetime	Snapchat	Telegram
Messaging group size limit	1,024 members	250 members	250 members	32 Apple ID members	100 members	200,000 members
Messaging end-to-end encryption	Always encrypted	Can be activated optionally (supported within smartphone app, not via browser)	Can be activated optionally	Always encrypted (unless messaging non-Apple users, in which case SMS is used)	Images are encrypted while text messages are not	Can be activated optionally[36]
Disappearing messages	Option to set messages to disappear after 24 hours, 7 days or 90 days	Disappearing messages using a timer are gradually being introduced	Disappearing messages not supported. Disappearing photos / videos can be sent	Self-destructing messages supported via a third-party iMessage app	First app to popularise disappearing messages	Self-destruct timer (any length) for messages in "secret chats"
Video call participant limit	Up to 32 participants	Up to 8 participants	Up to 50 participants	Up to 32 participants	Up to 15 participants	Up to 30 participants
Media size limits	16MB size limit for videos; 2GB for documents	25 MB size limit	Not specified	Not specified	60 second video limit (6 x 10 second videos)	2GB size limit

Source: Ofcom analysis of publicly available information as of August 2023. Note that some features are subject to frequent change and some information published by providers was found to be ambiguous, so Ofcom does not guarantee the accuracy of this information, which is provided for illustrative purposes only.

3.4 Table 1 only provides a snapshot of differences in selected messaging and calling functionalities. OCS have increasingly expanded the features offered. In 2020 the consultancy WIK Consult identified 35 features across a wide range of OCS apps, with each service on average having ten of these.[37] Other aspects in which services can differ include privacy and security, entertainment features, social features and general look-and-feel. Below we provide a high-level overview of a selection of services based on publicly available information; the purpose is to provide examples of additional features rather than a comprehensive description of each service.

3.5 Meta-owned **WhatsApp** is primarily focused on messaging and calling functionalities. Nevertheless, the scope of the WhatsApp has expanded over time, with messaging augmented with functionalities such as location sharing and polls, while recently introduced features such as Communities and Channels bear some similarities to social networking features, as they allow coordination of large groups and enable one-to-many communication.[38] WhatsApp has also introduced several visual features over time, such as stickers, GIFs and emoji reactions.

[36] End-to-end encryption is not available for group chats.
[37] WIK Consult, August 2022, Interoperability regulations for digital services - Impact on competition, innovation and digital sovereignty especially for platform and communication services.
[38] Note that Channels are not yet available in the UK.

3.6 By contrast, Meta's **Messenger** and **Instagram** provide messaging and calling functionalities within a broader social networking platform.[39] Given the nature of these platforms, they generally provide a more extensive range of visual, social or entertainment features, such as playing games or watching shows with friends on Messenger, or augmented reality lenses on Messenger and Instagram.

3.7 Apple provides two OCS, **iMessage** (for messaging) and **Facetime** (for calling). These are preinstalled on Apple devices but cannot be installed on Android devices. iMessage integrates SMS and online messaging functionality in a single app, reverting to SMS when messages are sent and received from non-Apple users. Various aesthetic and entertainment features can be found on the iMessage app, such as message effects, handwritten messages and games. Some of these are accessed through an integrated apps bar within iMessage, which allows consumers to integrate easily other Apple or third-party apps with iMessage (such as Giphy, Spotify or Google Maps).

3.8 **Google** offers an app, Messages, that enables both SMS and online messaging, similarly to Apple's iMessage. It is pre-installed on most Android phones but cannot be installed on Apple devices. Google emphasises app features such as voice message transcription, reminders and YouTube integration.[40] Other Google apps include Google Chat (for messaging) and Google Meet (for audio or video calls), while Meet's calling functionality is also integrated within Google's popular email app, Gmail.

3.9 **Snapchat** is differentiated by its emphasis of visual, rather than text-based, communication. It is known for features such as disappearing messages, photo-sharing and audiovisual "stories" that disappear after 24 hours. It includes various entertainment and social features, allowing both private communications and public sharing of content. Features include augmented reality filters and lenses (including some sponsored by brands), 'Snap Maps' showing friends' locations and when they were last active, a 'Best Friends' feature highlighting most frequently contacted users, and a chatbot called 'My AI' which can answer trivia questions or provide advice.

3.10 **Telegram** was initially distinctive due to the ability to use a single account across multiple phones, as well as other devices (other apps, such as WhatsApp, have since introduced equivalent capabilities). Other features offered by Telegram include one-to-many communications as part of Channels, file transfer for relatively large files and group chats with large numbers of participants.

3.11 Other apps such as **Teams** and **Zoom** primarily target enterprises, but they are also used by some consumers, often for video calls. As part of this, they offer audio-visual features such as customisable backgrounds, avatars and background noise suppression.

3.12 Services also differ in the approaches taken to less overt aspects, such as privacy and security. Some illustrative and non-exhaustive examples are provided below.

a) The personal data collected by different services varies. Some apps emphasise their privacy-focused approach, such as Signal which 'is designed to never collect or store any sensitive information'.[41] Apple's Messages app does collect personal data such as the

[39] In Messenger's case, these functionalities can be accessed in a standalone app separately from the Facebook app, whereas Instagram's direct messaging and calling functionalities are found within the same app as its wider social networking functionalities.
[40] Google, October 2022, 10 new reasons to love Messages by Google.
[41] Signal, May 2018, Signal Terms & Privacy Policy.

user's telephone number and email address, [42] but does not collect any usage data (for example, data about calls made and messages sent), which some other apps do collect. The Messenger app may collect various types of personal data, including user content, usage data and location, for purposes such as advertising, personalisation and analytics.[43]

b) End-to-end encryption has become common across services and prevents access to the content of communications by the service provider or other third parties. However, some apps (such as Messenger and Telegram) do not apply it by default and require user opt-in,[44][45] or they do not apply it to all functionalities.[46] Where apps back up messages in the cloud, some apps do not apply encryption to backups by default.[47]

c) Various other potentially privacy- or security-enhancing features exist across apps. For example: some apps allow chats to be protected by an additional password or biometric scanning, such as WhatsApp's "Chat Lock" feature; Signal allows for users to hide call logs from the device's call history and to mask the Signal app icon, for example by replacing it with a news or weather icon; Telegram has an option for users to hide their phone numbers in favour of a username.[48]

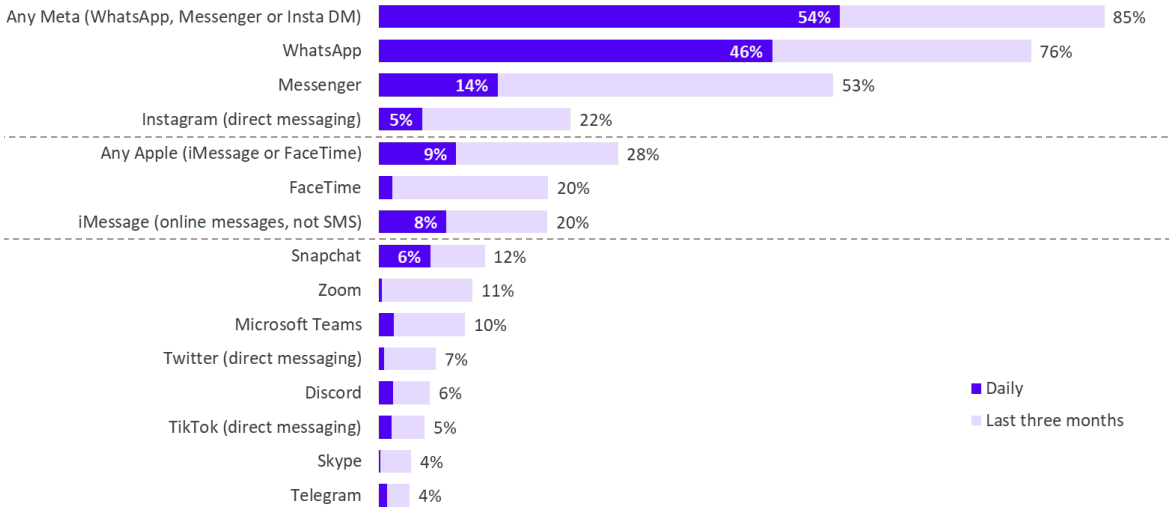
Popularity of different OCS providers

3.13 There are many OCS available to consumers. The aforementioned analysis by WIK Consult in 2020 identified 180 services (including consumer- and business-focused services) and stated that this may not capture all OCS.[49] However, the majority of consumer usage is focused on a much smaller set of services.

3.14 Estimated usage rates for popular OCS in the UK are illustrated in Figure 3.1 below. Note that usage rates presented in this section are drawn from our OCS research, which asked about the usage of messaging and calling functionalities for personal purposes only. This evidence may not be directly comparable with results from other Ofcom or third-party research, for example where other research may also capture usage for work purposes, or usage of other functionalities available on some platforms (e.g. viewing content, sharing posts or commenting publicly).

[42] The Messages app enables online messaging (referred to as 'iMessage') as well as SMS messaging.
[43] Meta, June 2023, Privacy Policy.
[44] Telegram stated that its default service (Cloud Chats) is a client-server/server-client encrypted service which allows users to back-up and access their messages from its cloud service. Telegram also offers a fully end-to-end encrypted service (Secret Chats) where messages cannot be backed up. Telegram FAQ.
[45] Meta is planning to enable end-to-end encryption for all one-to-one friends and family chats on Messenger by the end of this year. Expanding Testing for End-to-end Encryption on Messenger.
[46] For example, some of Meta's services such as community chats for Facebook groups, and chats with business / professional accounts do not support end-to-end encryption. What end-to-end encryption on Messenger means and how it works.
[47] Tech Policy Press, June 2023, What is Secure? Analysis of Popular Messaging Apps.
[48] In this case, a user could be found by others via the username, but the phone number would not be visible to others.
[49] WIK Consult, August 2022, Interoperability regulations for digital services - Impact on competition, innovation and digital sovereignty especially for platform and communication services.

Figure 3.1: Usage of services for personal messaging or calling purposes (% UK adults (16+))



Source: 2023 OCS research. Analysis of responses to Q1 (usage in the last 3 months) and Q2 (daily). Base: UK Adults 16+ (2128).

3.15 **Meta's** WhatsApp is the most popular OCS app in the UK (as in many other countries in Europe). Our OCS research found that 76% of UK adults used WhatsApp in the last three months for personal purposes. The second and third most popular services, Messenger and Instagram Direct Messenger, were used by 53% and 22% of UK adults respectively.[50] WhatsApp is also used more frequently than other services; 46% of UK adults report using it daily, whereas the next highest daily usage rate is 14% for Messenger.[51] Around two in three OCS users state that WhatsApp is their main service.[52]

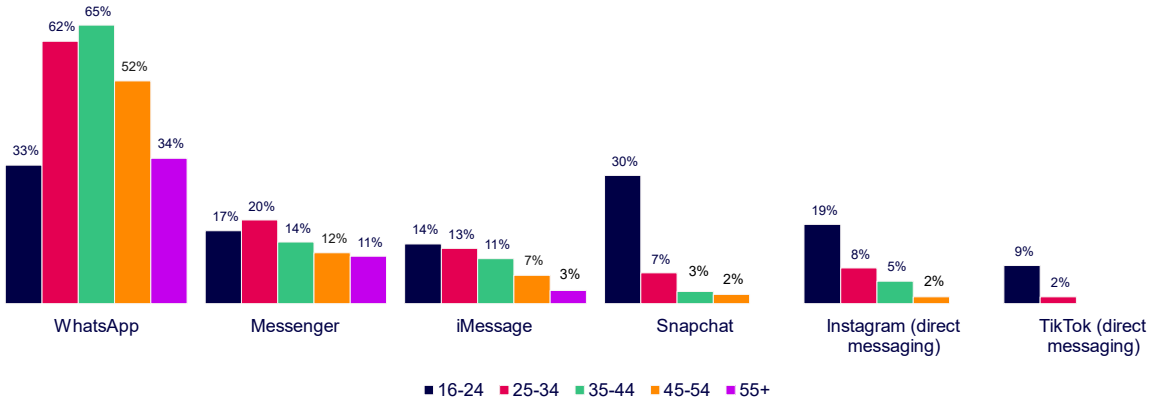
3.16 Given the popularity of each of Meta's three apps individually, around 85% of UK adults report having used at least one Meta app for messaging or calling in the last three months, and 54% daily.[53] Among OCS users, 84% identify one of these three apps as their main service.[54]

3.17 Our OCS research indicates that **Apple's** services – iMessage and FaceTime – are the next most popular OCS in the UK after Meta's services. These are available on iPhones,[55] which represent more than half of all active smartphones in the UK.[56] Our OCS research found that 28% of UK adults report using either iMessage or FaceTime in the last three months.[57][58] Reported usage of either app drops to 9% at a daily frequency.[59]

[50] Q1 2023 OCS research.
[51] Q2 2023 OCS research.
[52] Q3 2023 OCS research.
[53] Q1 2023 OCS research.
[54] Q3 2023 OCS research.
[55] These apps are also available on other Apple devices.
[56] CMA, June 2022, Mobile ecosystems - Market study final report.
[57] Q1 2023 OCS research.
[58] Note that, with respect to Apple and Google's proprietary messaging apps which combine SMS and online messaging functionalities, respondents were asked about usage for the purpose of sending online messages specifically. Given that SMS and online messages are sent within the same app in practice, the accuracy of this self-reported usage data is dependent on users' own awareness of the types of messages being sent.
[59] Q1 2023 OCS research.

3.18 **Snapchat** is the next most widely used service. It is particularly popular amongst 16-24 year-olds. Almost half of this group report using Snapchat for messaging or calling in the last three months, and almost a third daily, which is similar to WhatsApp's daily usage rate for these younger users (see Figure 3.2 below). As well as Snapchat, the usage of other apps such as Instagram and TikTok for private communication is strongly skewed towards younger consumers.

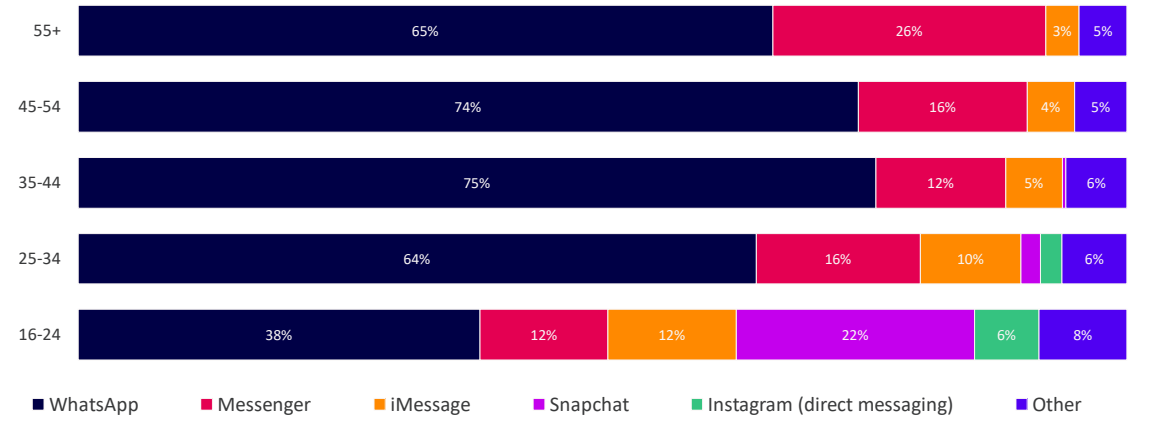
Figure 3.2: Daily usage of selected services for personal messaging or calling purposes (% of different age cohorts)



Source: 2023 OCS Research. Analysis of 'daily' responses at Q2: How frequently have you used each of the following communication services to send messages / make calls for personal purposes (i.e. not work related)? Base: UK Adults 16+ by age group – 256 / 300 / 359 / 305 / 908.

3.19 Despite Snapchat's popularity among younger users, only 22% of 16-24 year old OCS users identify it as their main service. In contrast, as shown in Figure 3.3 below, 56% of 16-24 year-old OCS users identify a Meta app as their main service and 38% identify WhatsApp specifically.[60]

Figure 3.3: Main service used for online communications (% of OCS users by different age cohorts)



Source: 2023 OCS research. Q3: Which ONE of the following would you describe as your MAIN online communication service for personal use? Base: UK adults 16+ who used OCS in the last 3 months, by age group – 256 / 300 / 359 / 305 / 908.

[60] Percentages here represent the proportion of 16-24 year olds that have used an OCS app in the last three months.

3.20 Various other services are used by a minority of consumers and relatively infrequently, on average. Microsoft Teams and Zoom are respectively used by around one in ten consumers (based on last three months) for personal purposes, predominantly for video calls rather than messaging.[61,62] Usage of these apps for personal purposes grew rapidly during the pandemic but appears to have stabilised since then.[63] Social media platforms such as TikTok and Twitter include private chat functionalities that are used by 5% and 7% of UK adults respectively in the last three months.[64] Other services may target specific interest groups, such as Discord, which is used by 6% of UK adults (last three months) and is relatively popular among frequent gamers.[65,66] Other messaging apps, such as Telegram, Signal and Google's app (Messages, Meet and Chat), have lower reported usage rates, at 4%, 2% and 2% respectively in the last three months.[67,68]

3.21 The popularity of Meta's apps has endured over time. For example, data presented in Ofcom's 2016 Communications Market Report already identified Messenger and WhatsApp as the most popular messaging apps, with reach equal to 64% and 47% of the UK mobile population respectively, as compared to 20% for Snapchat.[69] In recent years, evidence suggests that relative usage rates of different OCS have remained fairly stable, with WhatsApp potentially having seen greater increases in usage than rival apps.[70]

3.22 The popularity of Meta's apps is also not limited to the UK. Research across 12 EU countries found that, in every country, either WhatsApp or Messenger was the most popular messaging app.[71]

[61] Q1 2023 OCS research.
[62] Note that as well as Teams, Microsoft provides online communication services through Skype, though its usage has fallen as many users have transitioned from Skype to Teams.
[63] Ofcom, June 2021, Online Nation.
[64] Q1 2023 OCS research.
[65] Q1 2023 OCS research.
[66] Ofcom, June 2022, Online Nation.
[67] Q1 2023 OCS research.
[68] As noted previously, Apple's iMessage and Google's Messages enable SMS and online messages within the same app, so the accuracy of this self-reported usage data is dependent on users' own awareness of the types of messages being sent. Awareness and usage of Google Message could increase in the future as consumers upgrade their handsets, with more Android handsets shipping with Google Messages as a pre-installed and default app in recent years. Google Messages, with RCS in tow, is now Samsung's default messaging app in the US.
[69] Reach estimates were based on comScore data on unique audiences of selected messaging apps as a percentage of total mobile audience. Ofcom, 2016, Communications Market Report 2016.
[70] For example, data from Ofcom's Adult Media Literacy surveys shows that, from Summer 2021 (W1 2021 research 17 June-19 July 2021) to Autumn 2022 (Wave 2 2022 research 18 October-10 November), WhatsApp was the app that saw the greatest increase in usage, from 72% to 80%. Separate research by Analysys Mason estimates that WhatsApp saw a larger percentage-point largest increase in consumer take-up between 2019 and 2022 than other popular OCS. Analysys Mason, April 2023, Communication platforms: consumer survey.
[71] PPMi report for BEREC, 2021, Analysing EU consumer perceptions and behaviour on digital platforms for communication.

How consumers use and choose their online communication services

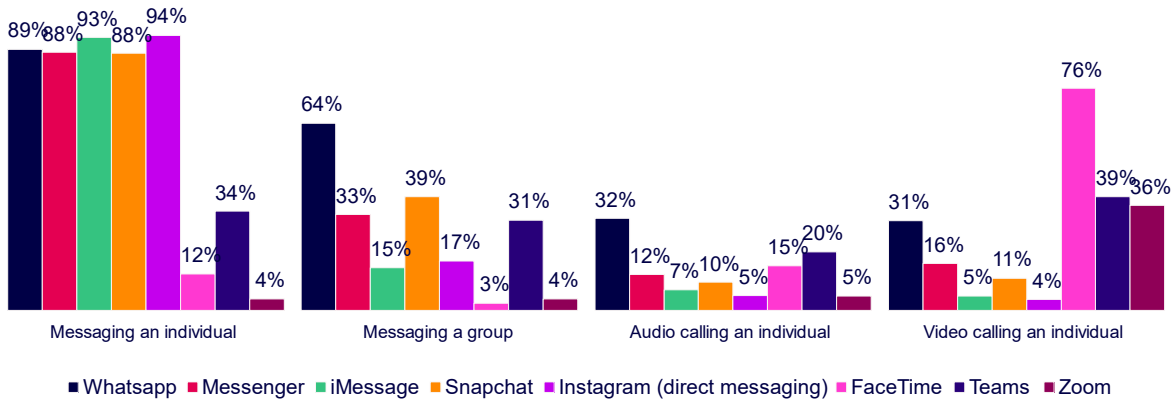
3.23 This section provides an overview of:

a) How consumers use OCS;
b) Which factors users report as important when choosing a service;
c) User behaviours and attitudes to changing their main OCS; and
d) How users rate their OCS.

Consumers use OCS for 1-2-1 messaging but groups chat and other features are also popular

3.24 Our OCS research suggests that the most popular activity among consumers was messaging other people.[72] In general, approximately 90% of users of each popular OCS app used it to 'message another individual', with the exception of OCS that are primarily or exclusively focused on calling (e.g. FaceTime, Zoom).[73]

Figure 3.4: Use cases identified by respondents on selected OCS apps (% of OCS users by app)



Source: 2023 OCS research. Q5: For what purpose(s) do you use each of the following online communication services for personal use? Base: users of each app in the last 3 months – WhatsApp 1631 / Messenger 1130 / iMessage 410 / Snapchat 244 / Instagram (direct messaging) 460 / FaceTime 422 / Microsoft Teams 213 / Zoom 239. Note that respondent use cases were self-reported in our OCS research and as such are likely to include some misattribution, due to reliance on ability to accurately recall and match activities with services used.

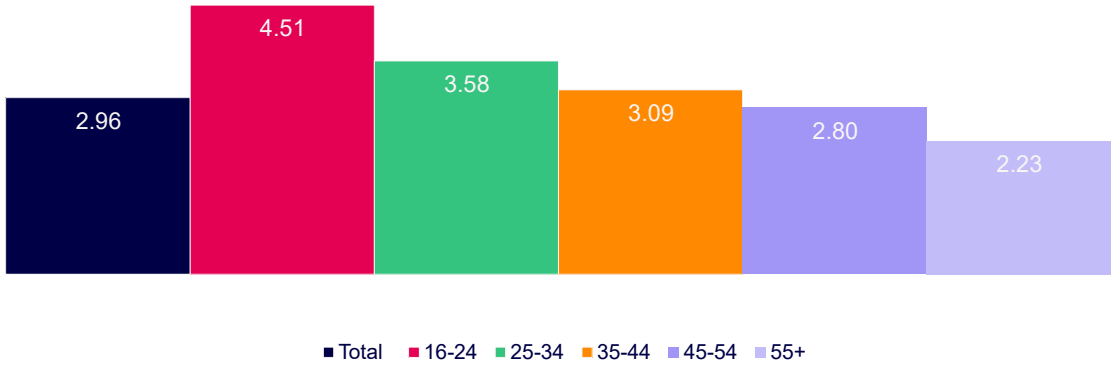
3.25 For most OCS apps, the second most popular activity was 'group messaging'. Group messaging is generally less widely used than 'messaging an individual' and there were variations in the popularity of this activity across different platforms. For example, 64% of WhatsApp customers indicated that they use the service to 'message a group', but this is less popular among iMessage users (15%).

[72] Our OCS research is intended to only include activities relating to online messaging and calling functionalities for personal purposes. We have not sought to collect data on their other activities, such as business or social media use.
[73] Q5 2023 OCS research.

Multi-homing is a notable feature of OCS usage

3.26 Our OCS research suggests that users tend to 'multihome', or use several OCS apps in parallel, with an average UK adult OCS user reporting 3 different OCS in the last 3 months.[74] The degree of multihoming varies across different age cohorts as younger cohorts appear to use more apps simultaneously (16-24-year-old OCS users report an average of 4.5 OCS in the last 3 months) than older users (over 55-year-old OCS report an average of 2.2 OCS in the last 3 months).

Figure 3.5: Number of OCS apps used in previous 3 months (total by different age cohorts)



Source: 2023 OCS research. Analysis of responses to Q1 (usage in the last 3 months). Base: UK Adult OCS Users 16+ (1883).

3.27 Multihoming is less extensive among users when considering daily or weekly usage. For example, an average UK adult OCS user only uses 2 OCS apps once a week and one OCS app daily.[75] We discuss the possible reasons why consumers use fewer OCSs for daily activities in Section 5.

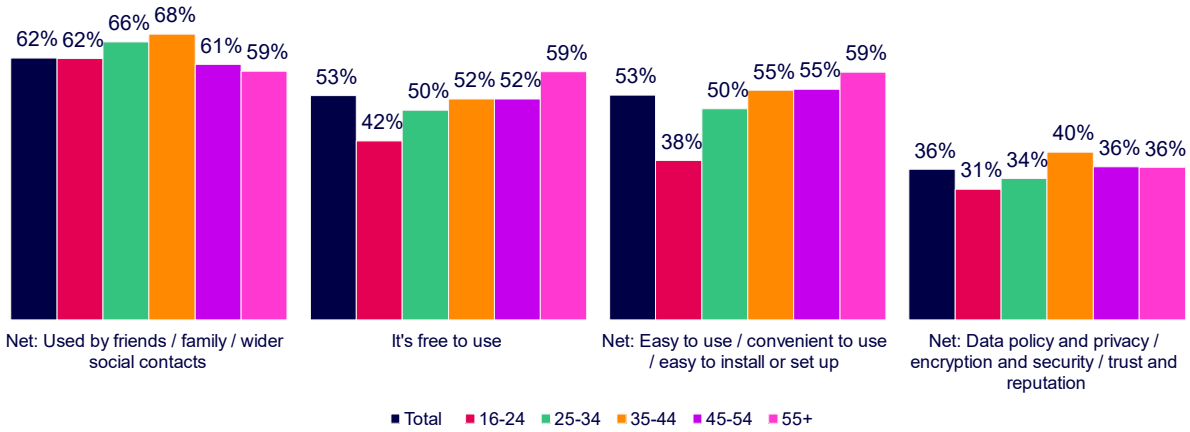
When choosing which OCS to use, consumers particularly value the ability to reach specific contacts such as family or friends

3.28 Our OCS research suggests that the ability to reach contacts is the most important factor that drives consumer choice (62% rated 'used by friends/ family/ wider social contacts' as important). Respondents also rated the ability to access the service for free (53%) and 'ease of use/ convenience' (53%) as important factors.[76]

3.29 It is noticeable that younger cohorts appeared to place less importance on OCS being free or that it was easy /convenient to use, compared to older cohorts. The reasons for this were not captured by our OCS research but it could be that "digital natives" are more likely to take for granted that online services are free of charge to consumers and easy to use, compared to older users who may have more experience of using and paying for traditional communication services (i.e. voice calls and SMS).

[74] Q1 2023 OCS research. Services used in last 3 months (5571/1879=2.96).
[75] Calculated using OCS users only. The average OCS user using services on a weekly basis (3894/1879=2.07) and daily basis (1904/1879=1.01).
[76] Q6 2023 OCS research.

Figure 3.6: Most important factors for choosing a service (% UK adults (16+))



Source: 2023 OCS research. Q6: Which THREE, if any, of the following factors are MOST important to you when considering which online communication service to use for personal use? Base: UK Adults 16+ (2128).

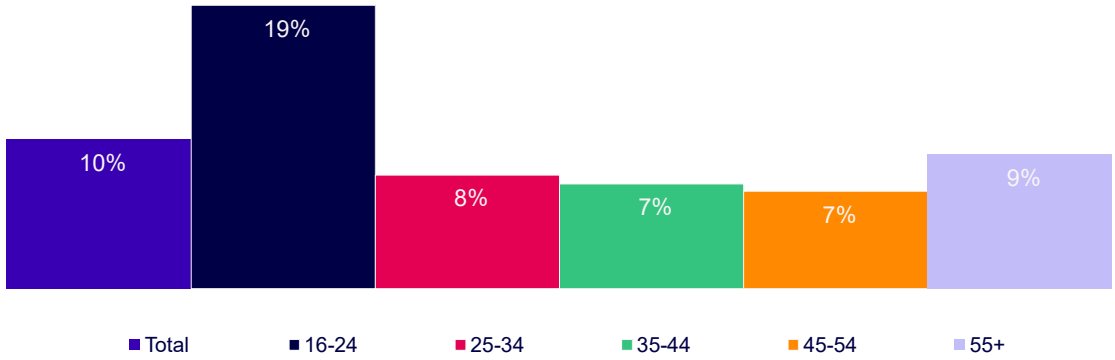
3.30 Our OCS research also found that aspects such as 'data policy and privacy', 'encryption/ security/ trust reputation' were not as important to consumers as being able to contact others on the same platform when considering which service to use. However, this does not necessarily mean that consumers do not value these features. We discuss this further in Section 5 in the context of competitive dynamics.

Most respondents remained with the same messaging app, but the research suggested younger users more likely to move to another OCS

3.31 Recognising that many consumers do multi-home, our OCS research captured which service each respondent considered to be their 'main' service, and whether this had changed in the last 12 months. The data suggests that most respondents in the sample did not change their 'main' OCS app in the last 12 months. In total 10% of OCS users in our OCS research changed their main service while 86% did not change. These rates are generally consistent across most age cohorts. The exception appears to be users in the younger age cohorts, who are more than twice as likely to change (19%), than other age cohorts.[77]

[77] Q10 2023 OCS research.

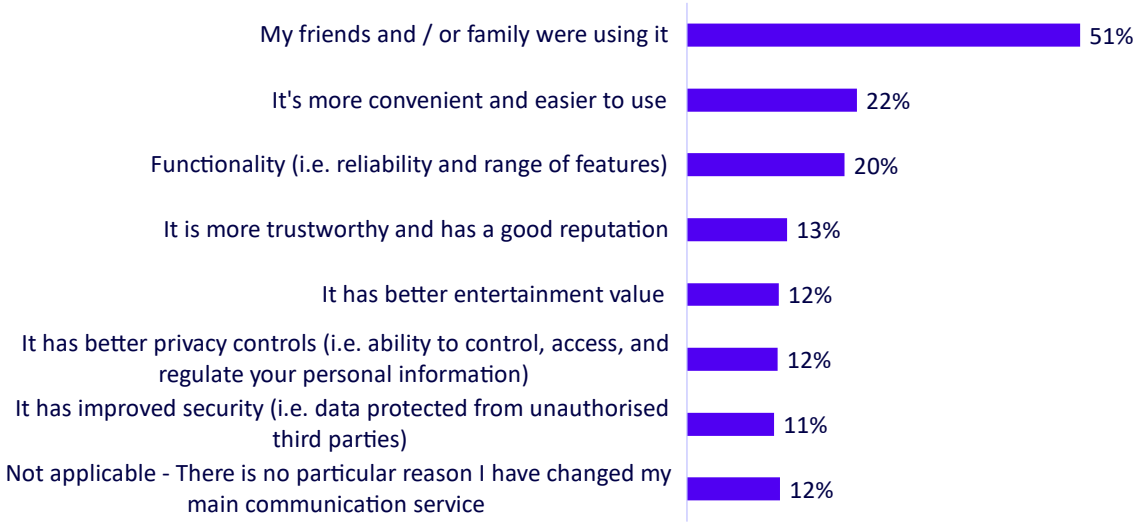
Figure 3.7: Change of main service in the previous 12 months (% of users by different age cohorts)



Source: 2023 OCS research. Q10: You said that the main online communications service you use is [Main OCS]. Thinking back to 12 months ago (i.e. March 2022)....Were you using a different main online communication service then, compared to what you are using now? Base: UK Adult OCS Users 16+ (1883).

3.32 For those users that indicated they that did change their main service in the previous 12 months, the most important factor driving that decision appears to be because their friends and family were using the new OCS (51%). Other factors included ease of use/convenience (22%) and functionality (20%).[78]

Figure 3.8: Reasons for changing main service (% of respondents that changed their main service over the last 12 months)



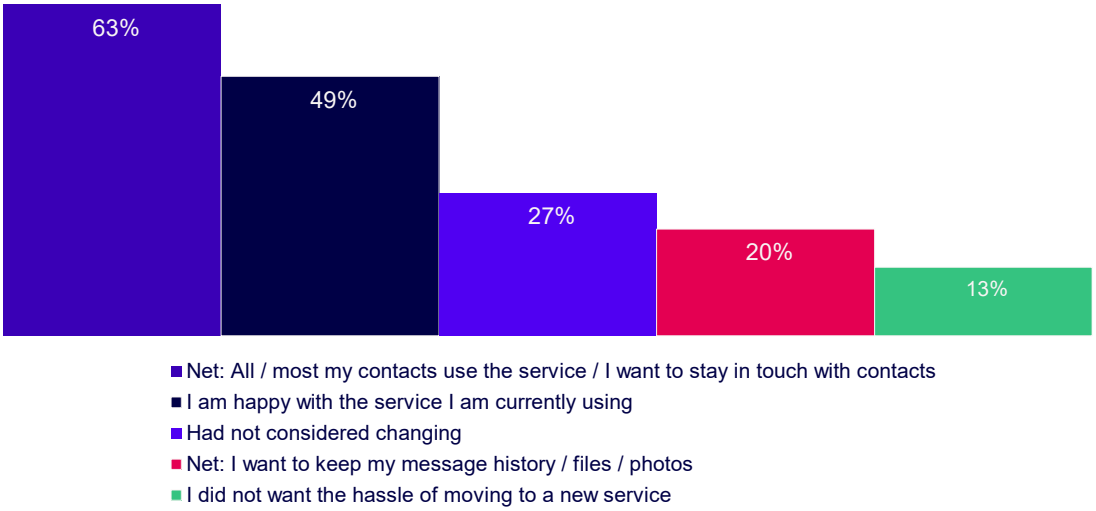
*Source: 2023 OCS research. Q11: Which, if any, of the following is the **MAIN** reason you have changed your main online communication service to in the past 12 months? Base: UK Adult OCS Users 16+ that had changed their main OCS in the past 12 months (178).*

3.33 For those users who did not change their main service in the previous 12 months, the main reasons for staying were related to staying in touch with their existing contacts. Around half

[78] Q11 2023 OCS research.

of respondents also report being happy with their current service as a reason, while one in two refer to wanting to retain their existing messages or photos.[79]

Figure 3.9: Reasons for users staying with their main OCS (% of respondents that did not change their main service over the last 12 months) [80]



*Source: 2023 OCS research. Q12: You said you have been using [Main OCS] as your main online communication service for the past 12 months. Which, if any, of the following is the **MAIN** reason you have continued using as your main online communication service? Base: UK Adult OCS Users 16+ that had not changed their main OCS in the past 12 months (1620).*

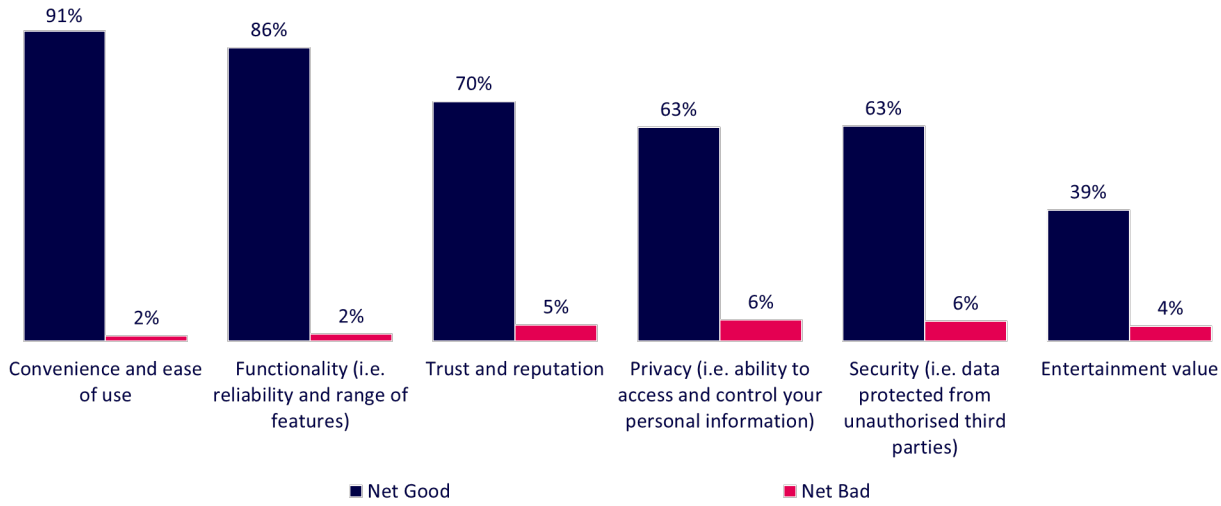
Overall, consumers express a high degree of positive ratings on a range of service aspects

3.34 The majority of respondents expressed positive ratings of their main service across a range of different aspects.[81] Ratings of 'very good' or 'quite good' are particularly prevalent in relation to convenience and ease of use (91% of OCS users rated this as very good or quite good), but other aspects such as trust/reputation, security and privacy are also rated positively by a majority of respondents.

3.35 Entertainment value scored less well, though that might be expected for OCS applications that are mainly used to communicate with contacts. The evidence on main factors for choosing an OCS suggests this is not a particularly important factor for OCS users (1%).[82]

[79] Q12 2023 OCS research.
[80] Respondents were presented with some other options but they tended to generate less popular responses including, '*no particular reason to switch*' (6%) and '*not aware of other services to switch to*' (3%).
[81] Q7 2023 OCS research.
[82] Q6 2023 OCS research.

Figure 3.10: Net user ratings of OCS across several aspects (% of UK Adults (16+) who used OCS in last 3 months)



Source: 2023 OCS research. Q7: How good or bad do you think [Main OCS] is on the following aspects? Base: UK Adult OCS Users 16+ (1883).

4.OCS business models

OCS apps typically generate revenue directly from businesses but may also generate value by increasing the appeal of a wider ecosystem. Monetisation strategies are still evolving, with areas such as business-to-consumer messaging targeted for further growth.

OCS are typically provided at no monetary cost to consumers but may generate revenue from businesses that wish to advertise or communicate with their customers. Apart from this, they can also contribute towards revenue generation by increasing the appeal of the wider ecosystem. For instance, social media platforms (e.g. Facebook) include messaging functionality that may complement other features, while mobile ecosystems include proprietary apps that are not available to users outside of the ecosystem (e.g. Apple's iMessage and FaceTime).

Business models, app features and monetisation strategies are likely to evolve further. In particular, the usage of OCS for business-to-consumer communications is a potential growth area, and some services are expanding in scope, to include a wider range of features (e.g. social and audiovisual features, or new functionalities such as payments).

Introduction

4.1 This section covers:

a) The different business models of OCS providers, summarised in general terms and then described for specific providers; and
b) Emerging trends that may result in business models evolving over time.

Business models of personal OCS providers

4.2 OCS rely on a range of strategies to generate revenue. These include directly charging consumers or businesses that use the service, or more indirectly leveraging the appeal and usage of its core messaging / calling functionalities as part of a wider ecosystem of products and services. This section will first discuss these monetisation strategies at a high level, before summarising the business models of a range of popular providers in the UK.

Overview of monetisation strategies

While some services charge consumers for additional features, a more prevalent approach is to charge businesses wishing to advertise or communicate with consumers

4.3 A few providers offer a paid premium subscription version on top of a standard version provided free of charge to consumers, offering features such as longer call durations,

custom emojis and premium stickers. Some also make additional features, such as avatar items, available to consumers for one-off purchase.[83]

4.4 Rather than charging consumers, a more prevalent monetisation strategy is to directly generate revenue from businesses, in exchange for access to the consumer user base for purposes such as advertising and business-to-consumer messaging.

4.5 In terms of business messaging services, OCS can facilitate both application-to-person (A2P) messaging from businesses to consumers, as well as two-way person-to-person (P2P) conversations between businesses and consumers. For P2P conversations, OCS enable consumers to communicate with agents representing the business via messages and/or calls, for purposes such as customer service and product enquiries. For A2P conversations, OCS can send automated messages from an application (including chatbots) to customers such as reminders on appointments, security notifications and sales confirmations. To support their business-to-consumer messaging services, Meta and Google have introduced "click to message" ads on their online advertising networks, for example allowing users to start a conversation with businesses on WhatsApp by clicking on an ad seen on Facebook.

4.6 In terms of advertising, most providers do not display any adverts within their communication service, though there are exceptions (such as Messenger and Telegram as discussed further below). Where messaging functionality is incorporated within a broader social media platform, advertising tends to be displayed as part of the social media functionality (e.g. ads displayed on a news feed) rather than as part of the messaging functionality.

Apart from directly generating revenue, some providers generate value by increasing the appeal of a wider ecosystem

4.7 Providers often offer OCS functionality as an add-on to wider services and ecosystems, which may increase the appeal of those services and ecosystems. Specific business models vary, so we provide a short discussion for two examples below in relation to social media platforms and mobile ecosystems.

4.8 Social media platforms typically include OCS functionality, allowing users to communicate privately in parallel to viewing content and using social media functionalities. This can support the wider monetisation efforts of the social platform – typically through advertising – if it increases overall appeal, user engagement and time spent within an app.

4.9 Social media platforms may also have opportunities to combine data collected through user interaction with OCS functionalities with information collected through use of social media functions, to better target adverts at their users. Any such practices are subject to the privacy policy of each service, technical measures adopted by the service (e.g. end-to-end encryption), and subject to requirements from rules in the UK General Data Protection Regulation, such as principles relating to purpose limitation and data minimisation.[84] For example, Meta has stated that its Messenger app may use data related to user purchases, location, contacts, browsing and other usage data for the purposes of third-party

[83] This includes where the provider sells additional features directly via in-app purchases (e.g. Messenger and Snapchat discussed further below), or where the provider makes available additional features from third-party developers and charges commission on these purchases (e.g. Apple discussed further below).
[84] ICO, A guide to the data protection principles.

advertising;[85] however, it states that the content of messages is not used for ad targeting.[86] In any case, where messages are end-to-end encrypted, providers would not be able to access the content of messages for any monetisation purposes; on the other hand, use of social media features and engagement with public content may generally be more conducive to generating user data that enables profiling and targeting.[87]

4.10 Providers of leading mobile ecosystems (i.e. Apple and Google) also offer proprietary OCS.[88] Where these apps are only accessible by users of the respective mobile ecosystem, they may contribute to the appeal of the ecosystems and associated devices, to the extent that users value those services.

Monetisation strategies used by popular providers

4.11 We have provided an overview of the general monetisation strategies above; below we discuss monetisation strategies for a range of providers in more detail, based on information available in the public domain. This is for the purpose of illustrating the diverse business and monetisation strategies adopted by different providers, but it does not necessarily capture all relevant strategies or activities.

Meta

4.12 **WhatsApp** generates revenue by providing an API-based "Business platform" to medium and large businesses. This service is designed to allow businesses to communicate with consumers at scale and to also allow businesses to integrate WhatsApp within their systems in order to automate their communication processes (e.g. WhatsApp can be used to send payment authentication responses and order updates to consumers).[89][90] Meta also plans to allow businesses using WhatsApp to subscribe to Meta Verified, providing business authentication with a verified badge, impersonation protection, access to account support, and features to help the business stand out.[91]

4.13 With respect to advertising, WhatsApp's UK privacy policy states that it does not intend to display third-party banner ads on the app and the policy does not include any sharing of personal data with other Meta companies for targeted advertising purposes.[92] WhatsApp does however complement Meta's wider advertising operations by enabling conversations between businesses and consumers via "click-to-message" ads placed by businesses on Facebook and Instagram. Meta stated that the interactions between consumers and

[85] See App Privacy information on Messenger within the App Store.
[86] Messenger, Privacy and safety.
[87] For a discussion of the role of data in the context of digital advertising on online platforms, see CMA, July 2020, Online platforms and digital advertising market study Appendix F: the role of data in digital advertising.
[88] Apple manufactures its own devices that run on its iOS operating system. Google also manufactures some of its own devices that run on its Android operating system but mostly licences out its Android operating system to other mobile device manufacturers such as Samsung.
[89] WhatsApp, Business Platform.
[90] WhatsApp's pricing for the Business Platform will depend on the conversation type. These conversation types include: (i) marketing conversations – offers, promos and product recommendations; (ii) utility conversations – transaction and post-purchase support; (iii) authentication – provision of one-time authentication passcodes; and (iv) service conversations – resolving customer enquiries. WhatsApp, Business Platform Pricing.
[91] Meta, September 2023, Expanding Meta Verified to Businesses.
[92] WhatsApp, January 2021, WhatsApp Privacy Policy.

businesses via "click-to-WhatsApp" have grown significantly over time, with daily ad revenue from these ads growing at more than 80% year-on-year globally as of Q2 2023.[93]

4.14 WhatsApp also generates revenue from features launched in other countries but not currently available in the UK. For instance, WhatsApp charges a fee for businesses in Brazil that receive a payment via WhatsApp's in-app payment system.[94]

4.15 **Messenger** and **Instagram Direct** are provided as part of Facebook's and Instagram's wider social media platforms.[95] The OCS functionalities may support monetisation of the social media platforms if they increase appeal and/or engagement from users.

4.16 In terms of direct monetisation strategies, Messenger generates revenue through the placement of advertisements and sponsored messages within the Messenger app.[96] It also makes add-ons available to consumers for one-off purchase (e.g. avatar items).[97]

4.17 Messenger and Instagram also enable businesses to communicate with their consumers[98] and to use click-to-message ads as described previously.[99]

Apple

4.18 As discussed above, Apple offers iMessage and Facetime as part of its wider pool of proprietary apps that are exclusively available on its devices. This may contribute to the appeal of Apple devices, which generate most of Apple's revenue through sales to consumers.[100] For example, a WIK Consult report for the German Federal Network Agency stated that "*In the American market in particular, in addition to simple and integrated handling across the operating system, the exclusive character of the company's own messaging service is also actively promoted for the decision to buy iPhone hardware*".[101] However, these effects may be less pronounced in the UK market than in the American market, due to the popularity of OCS such as WhatsApp that are available on both Apple and Android devices.[102]

4.19 Apple also generates some revenue from its OCS by charging a commission on the purchase of third-party in-app features, such as stickers and emojis.[103]

4.20 For businesses-to-consumer messaging services, Apple offers a "Business Chat" service that enables users to initiate conversations with businesses[104] and it also allows businesses,

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[93] Meta, July 2023, Second Quarter 2023 Results Conference Call.
[94] TechCrunch, June 2020, WhatsApp finally launches payments starting in Brazil.
[95] In Messenger's case, these functionalities can be accessed in a standalone app separately from the Facebook app, whereas Instagram's direct messaging and calling functionalities are found within the same app as its wider social media functionalities.
[96] Facebook, Messenger Ads: Advertise & Extend your Reach on Messenger.
[97] See App Store information on in-app purchases on Messenger.
[98] For more information see Meta, Grow your business with conversations on Messenger and Meta, Instagram Direct: Build personal relationships with your customers and grow your business with Instagram messaging.
[99] Meta, September 2022, How to use messaging tools to communicate with customers.
[100] Apple earns the vast majority of its revenue from selling devices (especially iPhones). For example, device sales accounted for roughly 80% of Apple's total revenue in 2021. CMA, June 2022, Mobile ecosystems - Market study final report.
[101] WIK Consult study for the Federal Network Agency, August 2022, Interoperability regulations for digital services - Impact on competition, innovation and digital sovereignty especially for platform and communication services.
[102] Interoperability, including with respect to mobile ecosystems, is discussed briefly in Section 5.
[103] Apple, Use iMessage apps on your iPhone and iPad.
[104] Apple, Business Chat – A whole new way to talk to companies.

including third party developers, to develop their own apps for the chat service (e.g. virtual assistants).[105] Businesses may manage these services through an approved messaging service provider,[106] with the cost depending on the scope of deployment and the provider used.[107]

Google

4.21 Google also offers a proprietary messaging app (Messages) which may only be installed on Android devices. To the extent that users value the ability to access the app, it may contribute to the appeal of the Android ecosystem overall.

4.22 Google also provides a Business Messages service that allows businesses to communicate with users via Google Search, Maps and ads.[108] Google partners with handset manufacturers and telecom operators to offer business messaging services via Rich Communication Services (RCS). [109]

Snapchat

4.23 Snapchat's core monetisation strategy is through advertising, charging a fee for businesses to place adverts within Stories and Creator / Editorial Content.[110] Ads are not currently displayed within the private chat functionality of the service.

4.24 Snapchat has also recently introduced a premium subscription service (Snapchat+) for a monthly fee, offering additional customisation options and early access to new features.[111] At the time of writing, Snapchat+ is only available in a few countries (including the UK) and the take-up of Snapchat's subscription service has reached 4 million subscribers by Q2 2023.[112] Snap (the company that owns Snapchat) has however indicated that advertising is likely to remain the core long-term strategy for Snapchat and that Snapchat+ will not necessarily become a material new revenue source.[113]

4.25 Other in-app purchases are also available to users, including within the chat function, such as Snapstreak Restore (which allows users to restore a lost "Snapstreak" status, which signifies at least three consecutive days of Snaps being exchanged between users).[114]

X

4.26 X (formerly Twitter) provides a direct messaging service at no monetary cost to users as part of its wider social media platform. X does however require users to pay a subscription fee to be verified in order to access certain additional benefits, which includes the ability to send and receive end-to-end encrypted direct messages.[115]

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[105] Apple, Business Chat frequently asked questions.
[106] Apple, September 2023, Messages for Business Accounts.
[107] Apple, Business Chat frequently asked questions.
[108] Google, Business Messages.
[109] This is a text-based communications protocol that is designed to offer additional functionalities on top of SMS / MMS. For example, RCS provides support for end-to-end encryption and does not impose a character limit on messages.
[110] Snapchat, Where Do Snapchat Ads Appear to Your Audience?
[111] Snapchat, Snapchat+
[112] Snapchat, July 2023, Investor Letter Q2 2023.
[113] The Verge, June 2022, Snapchat adds paid subscription with more features for power users.
[114] See in-app purchases on Snapchat within the App Store.
[115] X, About Encrypted Direct Messages.

Telegram

4.27 Telegram is available free of charge but generates revenue through an optional subscription service to users, which offers additional functionalities such as faster download speeds, larger user groups and premium aesthetic features (e.g. stickers).[116] Telegram is also trialling other monetisation approaches such as the introduction of advertising (sponsored messages) within large public groups (over 1000 users).[117]

Signal

4.28 Signal provides services for free on a non-profit basis.[118] It relies on donations and partnerships as well as free support from developers that use open-source software to maintain their service.

Enterprise platforms

4.29 Microsoft Teams, Zoom and Google Meet / Chat provides enterprise communication services that allow users to communicate for work purposes. Microsoft Teams charges a subscription for a standalone service or as part of a wider bundle of Microsoft office products.[119] Google Meet / Chat charges a subscription for its service as part of a wider package of Google Workspace enterprise products (i.e. Gmail, Google Drive, Calendar etc).[120] Zoom charges a subscription for its OCS as part of other offers such as storage and mail services.[121]

4.30 These OCS also offer a limited service to consumers at no monetary cost. For example, Zoom offers a free "Basic" service that includes meetings up to 40 minutes while Microsoft offers a free version of Teams with calls up to 60 minutes. Some also offer a premium personal service that includes additional features and less restrictions (e.g. longer call times).

Emerging trends and potential future developments

4.31 We discuss below some emerging trends and innovation that are affecting different aspects of these services. These developments may result in the business models and monetisation strategies of providers evolving over time.

Artificial Intelligence (AI) may increasingly be integrated into OCS

4.32 The increased use of AI, including large language models, is affecting OCS as well as other online services. For example, Snapchat offers MyAI, a chatbot based on OpenAI's ChatGPT technology, that appears as a pinned chat for all users.[122] Data collected through MyAI is used to provide recommendations and tailor ads. MyAI is further programmed with safeguards to avoid providing violent, hateful or sexually explicit responses, and is blocked from responding to certain topics based on key words.

4.33 Meta has developed its own large language model – Llama followed by Llama 2 – which it plans to integrate across its OCS.[123] In September 2023, Meta announced new AI

[116] Telegram, 700 Million Users and Telegram Premium.
[117] Telegram, Telegram Ad Platform.
[118] Signal, Donate to Signal.
[119] Microsoft, Compare Microsoft Teams Pricing and Plans.
[120] Google, Google Workspace Pricing plans.
[121] Zoom, Plans & Pricing for Zoom One.
[122] Snapchat, What is My AI on Snapchat, and how do I use it?
[123] Meta, Introducing Llama 2 – the next generation of our open source large language model.

experiences including AI stickers and an AI assistant, Meta AI, that can be accessed within chats to provide information or generate images.[124] Further AI features for businesses and creators are planned.

4.34 Google and Microsoft (through its investment in OpenAI) are also leaders in the development of large language models and are integrating AI into their OCS, for example through Google's Magic Compose feature,[125] although other features (such as Microsoft's Copilot for Teams and other apps) are primarily aimed at business purposes.[126] Apple is also reported to be developing conversational AI.[127]

4.35 The increased development of AI-based functionalities is likely to interact with other sectoral trends, for example in relation to business messaging and audio-visual features as mentioned below.

The importance of OCS for business-to-consumer communications is growing

4.36 There is limited evidence on the current scale of business messaging via OCS in the UK, but it does appear likely to be an increasingly important and growing area for providers to monetise their services. For example, Meta has described its paid messaging offerings as 'nascent' but potentially representing 'the next pillar of our business', stating on a Q1 2023 earnings call that the number of businesses using paid messaging on WhatsApp had grown by 40% globally quarter-over-quarter.[128]

4.37 AI could contribute to the appeal and growth of business messaging services. For instance, Meta has stated it expects there to be significant demand for AI agents for business messaging and customer support services.[129]

4.38 OCS could also be used increasingly for A2P messaging (such as reminders and notifications). Currently, SMS accounts for a large majority of such messages, which may reflect its ubiquity and reliability; however, A2P messaging via OCS apps has been estimated to be growing more rapidly. Analysys Mason estimates that the number of A2P messages sent via online messaging in the UK has increased from 1.7 billion in 2018 to 5.4 billion by 2022 in the UK and is forecasted to reach approximately 13 billion by 2027 (but still lower than SMS A2P messages, forecasted to exceed 40 billion by 2027).[130]

OCS may become more similar to social media platforms

4.39 As highlighted already in this section, the distinction between OCS and social media platforms is often blurred. Over time, apps such as Snapchat, Telegram and WhatsApp developed features of a more social nature (e.g. Stories,[131] Channels[132] and Statuses[133] respectively) after the introduction of their core private messaging and calling services.

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[124] Meta, September 2023, Introducing new AI experiences across our family of apps and devices.
[125] Google, Draft RCS messages with Magic Compose.
[126] Microsoft, March 2023, Introducing Microsoft 365 Copilot – your copilot for work.
[127] The Information, September 2023, Apple Boosts Spending to Develop Conversational AI.
[128] Meta, April 2023, First Quarter 2023 results Conference Call.
[129] Meta, April 2023, First Quarter 2023 results Conference Call.
[130] Analysys Mason, February 2023, Application-to-person messaging: worldwide trends and forecasts 2022–2027. Based on the categories 'OTT/non-operator – IP' and 'Operator – IP'.
[131] TechCrunch, October 2013, Snapchat Gets Its Own Timeline With Snapchat Stories, 24-Hour Photo & Video Tales.
[132] Telegram, The Evolution of Telegram.
[133] WhatsApp, February 2017, WhatsApp Status.

4.40 There is some evidence that this trend could continue in the future.[134] For instance, WhatsApp launched Channels globally in September 2023, as a new one-way broadcast tool that allows users and organisations to share updates in the form of texts, photos, videos, stickers and polls.[135] Meta is reportedly considering options for monetisation of Channels, for example through channel subscription fees or by charging channel owners to promote their channels in WhatsApp's directory.[136]

OCS providers are expanding the range of services on top of their core communication functions

4.41 As well as social features, providers are expanding the range of other services and functionalities, such as payment processing, gaming and e-commerce capabilities. In some cases this can be seen as part of a wider trend towards the development of "super-apps" that cater to a wide range of everyday consumer needs (such as the WeChat app in China).[137] Expansion of scope might increase the appeal of OCS – to both consumer and business users – and provide new ways for providers to monetise their services (e.g. charging commission on any transactions within the app).

4.42 An example of this is the increasing integration of payment systems. WhatsApp has introduced an in-app payment interface for users in India and Brazil for users to transfer money to their contacts and to registered businesses.[138] Similarly, Viber has also introduced an in-app wallet feature ("Viber Pay") across a few selected European countries.[139] Apple has incorporated Apple Cash into its messaging service within the US which allows users to request, send and receive money via its messaging service.[140]

4.43 Another example is e-commerce, as some providers have implemented features that allow users to browse and purchase products within the app. WhatsApp introduced an end-to-end shopping experience in India which enables users to browse the JioMart catalog, add products to their carts and pay for services within the app.[141] New functionalities are being introduced to make various in-app experiences and purchases easier on WhatsApp.[142]

4.44 The development and adoption of features such as those mentioned above is currently more prevalent in other countries. It is unknown to what extent consumers within the UK would

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[134] For example, an Analysys Mason report for Ofcom states that 'Other technical and business model innovations for NIICS services include features which blur the lines with social media platforms'. Analysys Mason, April 2022, Digital Comms Value Chains.
A report by Tech Policy Press discusses how 'certain messaging apps aim to be much 'larger' than just a messaging app, even functioning akin to a social media network or platform'. Tech Policy Press, June 2023, What is Secure? Analysis of Popular Messaging Apps.
[135] WhatsApp, June 2023, WhatsApp Channels Are Going Global.
[136] CNBC, September 2023, Meta's WhatsApp is chasing big businesses in effort to finally capitalize on app's popularity.
[137] For example, Grab in Southeast Asia and WeChat in China offer multiple services including communication, payment, transportation and gaming services. The rise of the super-app - The race to build a do-everything platform heats up.
[138] WhatsApp also enabled a limited service in Singapore where users are only able to pay businesses on the app. Learn more about participating countries.
[139] Cyprus, Estonia, Germany, Greece, Lithuania, Slovakia and Slovenia. Viber Pay FAQ.
[140] Apple, Request, send, and receive payments in Messages on iPhone (U.S. only).
[141] Meta, August 2022, Introducing the First End-to-End Shopping Experience on WhatsApp With JioMart in India.
[142] Meta, September 2023, Creating New Experiences for People and Businesses on WhatsApp.

value different types of additional services within apps currently used for online communication.

OCS providers are deploying innovative audio-visual features that could change how people communicate

4.45 OCS providers are investing in innovative features that could be used to support their core communication services, as well as other services. Recently, OCS providers have introduced features such as Zoom's[143] and Team's avatars,[144] which allow users to replace their appearance with a 3D virtual avatar that mimics their head and facial expressions, and Messenger's new AR experience for group video calls.[145] Some audio-visual features are integrating generative AI, for example to enhance the creation of custom avatars.[146]

4.46 New services and devices may enable further innovation. For example:

a) Meta is currently building immersive digital spaces, known as Meta Horizon, which can be accessed using Meta Quest VR headsets.[147] The metaverse could support new ways for users to communicate with each other and with businesses.[148]
b) Apple has announced its Vision Pro headset to allow users to communicate with their contacts and engage in a range of other activities.[149] For example, FaceTime on Vision Pro is expected to allow each participant to appear on a tile within the room and Spatial Audio will then make it appear that the person is located within the room.
c) Google is developing person-to-person communication technology that displays three-dimensional life-size versions of contacts through a screen.[150]

4.47 These developments are nascent and the likely take-up of the relevant devices and services in unclear (including the extent to which they may support consumer and/or enterprise use cases). If widely adopted, these could open up new ways for consumers to communicate and for OCS providers to monetise their services.

[143] Zoom, December 2022, Enabling Avatars for meetings and webinars.
[144] Microsoft, Join a meeting as an avatar in Microsoft Teams.
[145] Meta, October 2021, Introducing AR Experiences for Video Calls on Messenger.
[146] See, for example, TechCrunch, April 2023, TikTok is testing an in-app tool that creates generative AI avatars and Snap, August 2023, Snapchat is developing Dreams.
[147] Meta, What is Meta Horizon?
[148] Meta, What is the metaverse?
[149] Apple, Apple Vision Pro.
[150] Google, May 2021, Project Starline: Feel like you're there, together.

5. Competition between OCS

Meta's OCS – in particular, WhatsApp – hold a strong competitive position and network effects may dampen competitive pressure to some degree. However, we observe broadly positive outcomes for users, with little evidence of significant harm from competition issues at this point in time. We will continue to monitor developments in case new concerns arise in the future, as OCS features, usage and business models evolve.

Our competition analysis focuses on OCS used by consumers. We do not assess potential competition implications of OCS in relation to wider ecosystems or related services, such as mobile ecosystems, social media or online advertising.

The competitive dynamics between OCS are largely driven by two aspects. First, consumers value access to contacts, which creates network effects whereby the value of a service to each user increases with the number of users. Second, consumers may value specific aspects differently, which means that providers may compete across core functionalities and other quality dimensions (such as privacy and security).

Network effects confer an advantage to providers with a larger network, thereby acting as a barrier to entry and expansion for newer or smaller providers who may struggle to attract users. This can mean that some consumers may find it difficult to change their main service, if they would lose access to existing contacts who do not use the alternative service. However, these effects are mitigated to some degree by user tendencies to multi-home across multiple apps for different features, audiences or nature of communication, which can support a degree of contestability.

Our OCS research indicates that Meta's OCS hold a strong competitive position. Where users do multi-home, this is frequently between different Meta apps rather than other providers, though younger users are more likely to use a range of providers. We also observe a range of positive outcomes currently. Consumers can access a wide range of services, which are usually provided free of charge; users rate their services positively; and the evolution of services indicates some level of incentive to improve services, even among providers with a large user base.

Introduction

5.1 This section covers:

a) the nature of the competitive dynamics in OCS;
b) a discussion of how competition and incentives appear to be working in OCS today;
c) potential considerations which could give rise to concerns in the future; and
d) the possibility of interoperability between these services.

Nature of competition between OCS

5.2 In general, where competition is working well, we would expect firms to compete against each other by offering attractive prices, valuable features and high-quality services. In the context of OCS, consumer choices are strongly driven by the ability to access services for

free and indeed most services are free to use.[151] We would therefore expect firms to compete on dimensions of quality and functionality, including by making available various features that consumers view as important and attractive.

5.3 Overall, we expect that competitive dynamics between services would be driven by two related aspects:

a) each service's overall number of users, or in some cases, its popularity amongst certain cohorts of subscribers. As explained below, this influences competitive dynamics due to the role of network effects; and
b) each service's ability to differentiate itself from rivals on various elements of functionality and quality of service, which can allow a provider to increase its number of users or intensity of use.

5.4 While the above factors are generally expected to drive consumer choices and hence the nature of competition, we acknowledge that different consumers might weigh up these considerations differently. We discuss these two aspects in more detail below.

Network effects and multihoming

5.5 Below we discuss the role of network effects in relation to OCS and how this may benefit providers with larger user bases. We then discuss the role of other factors (such as identity-based network effects and multihoming) that could potentially make it easier for services with smaller networks to compete with larger ones.

Strong network effects might confer scale advantages to providers with the largest user bases

5.6 As set out in Section 3, the ability to access contacts plays a significant role in consumer decisions about which service to use. Our OCS research indicates that 62% of users identify access to contacts as one of the most important factors for choosing a service, a finding which is broadly consistent across different demographic groups.[152]

5.7 This suggests that there are strong **direct network effects,** whereby the value that a given user might attach to a platform will increase with the number of users using that platform, as this increases the likelihood that the users are able to find their contacts on the platform.

5.8 These network effects can give rise to a **first-mover or scale advantage**, where users become, to some extent, less willing to divert their usage to smaller platforms. In particular, some users may continue to use a certain service to retain access to their contacts, even if an alternative service offers preferable features or higher quality. This can therefore act as a barrier to entry and expansion, as new entrants or smaller platforms may struggle to attract enough users to grow and compete with larger and more established platforms.

5.9 Our OCS research shows that 10% of OCS users report having changed the service that they identify as their "main" service in the last 12 months.[153] Among UK users who did change

[151] Our OCS research findings regarding the factors that users consider important when choosing a service are set out in Section 3. Relatedly, a study conducted in EU countries found a low willingness to pay for these services. See p.115, PPMi, 2021, Analysing EU consumer perceptions and behaviour on digital platforms for communication.
[152] Q6 2023 OCS research (62% refers to Net: Used by friends / family / wider social contacts).
[153] Q10 2023 OCS research. We note that this is lower than the rate of 19% reported in a similar survey conducted across 12 European countries in 2020, though this would have been affected by the early period of

their main service, the most common reason is that friends or family were using it,[154] suggesting a tendency to divert usage towards services with larger network of users (as any given user's friends or family are more likely to be present on these services than a smaller one, on average). Among respondents who did not change their main service, 63% said this was for reasons related to retaining access to contacts.[155]

5.10 Difficulties in moving usage between service may arise for **group communications**, especially for larger groups. Once a group chat is established on one service, it may be challenging for that chat to move to an alternative service if some group members do not already use the alternative service, since this would require each of those individuals to register with the new service and commit to using it.

5.11 As discussed in Section 3, group communications are popular across many services, particularly for group messaging.[156] Furthermore, group messaging is particularly prevalent on WhatsApp, with 64% of WhatsApp users reporting using the app for group messaging in the past 3 months, as compared to 39% on Snapchat, 33% on Messenger and 15% on iMessage.[157]

5.12 It is also important to note that OCS can be viewed as two-sided platforms, as they often cater to businesses on one side and consumers on the other side (see Section 4 for discussion of business models). This creates **indirect network effects**, where the value of a particular service to users on one side of the platform increases with the number of users on the other side of the platform (and vice versa). This could therefore lead to further **scale advantages**, as services with a large user base of consumers will be more appealing to businesses.

Identity-based network effects can make it easier for providers to target specific user groups

5.13 Users value the ability to reach specific contacts (e.g. family or friends). In other words, network effects are often **identity-based**, where the appeal of a platform depends on the presence of specific individuals or types of users, rather than the overall size of the user base. In this context, providers might have incentives to target specific user groups. Services with a relatively small reach may be able to survive or even expand if they succeed in attracting and retaining specific demographics or niche consumer segments. For example:

a) As described in Section 3, the usage of Snapchat, TikTok and Instagram for messaging and calls is skewed towards younger consumers. This might reflect, among other things, that some younger users are keen to engage primarily with their peers on these apps. Indeed, many young users value the use of multiple apps to separate audiences and types of communication, as discussed below in relation to multihoming.

b) Similarly, some services are targeted at specific interest groups, such as Discord and chat functionalities on PlayStation or Xbox, which are popular among gamers.

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the Covid-19 pandemic, when the market and usage patterns may have been particularly dynamic. See Figure 38, PPMi, 2021, Analysing EU consumer perceptions and behaviour on digital platforms for communication.

[154] Selected by 51% of respondents who changed their main service in the last 12 months. Q11 2023 OCS research.

[155] Q12 2023 OCS research. 63% refers to Net: All/most my contacts use the service / I want to stay in touch with contacts.

[156] Zoom and Teams are primarily used for group video calls.

[157] Q5 2023 OCS research.

c) Where services are widely used in other countries (e.g. WeChat in China or Viber in some Eastern European countries), they may appeal to communities of UK users with ties to those countries.

Multihoming can facilitate entry or expansion of smaller services

5.14 As discussed in Section 3, most OCS users do use multiple services in parallel ("multihoming"). Motivations for multi-homing are often related to identity-based network effects. If a user has specific contacts that only use, or prefer to use, certain apps, then that user may choose to multi-home to communicate with all relevant contacts. Based on our OCS research, 53% of UK adults agree that 'Using multiple communications services is the only way to keep in touch with everyone'.[158]

5.15 The survey also found that some users consider it inconvenient to use multiple communication services (46% of UK adults agree).[159] However, there is also evidence that many users – especially younger ones – find it valuable to use different apps even for similar functionalities, as a way to separate different audiences and nature of communication.[160] This is illustrated by the following examples, drawn from qualitative research carried out for Ofcom in 2020:[161]

a) "*Our group of friends – just the 3 of us – have been known to have 3 different conversations on 3 different platforms at the same time. Each of these conversations is different – it might be a football chat on Twitter, something funny found on Instagram, and a social gathering on Messenger. It makes sense to us because the content is different on each and it's easy to follow that way*." (OCS Native, Male 21)
b) "*I use WhatsApp and Facebook in completely different ways. WhatsApp is every day messaging with family; Messenger is communicating with school groups and sometimes stuff I'm interested in buying*." (OCS Newbie, Female, 52)

5.16 Where different services do vary in terms of features and functionality, this can also enhance users' motivation to multi-home. 45% of UK adults agree that 'Using multiple communications services means I can enjoy a variety of features and benefits'.[162]

5.17 Multihoming could mitigate the scale advantages of the largest platforms that arise due to network effects. The ability to download apps and multi-home at no monetary cost means that users can explore new services without having to stop using their existing services and without losing access to contacts on those services. This could support a degree of contestability, by allowing individual users and cohorts of users to vary their usage of different apps gradually, potentially allowing services with a smaller user base to grow in popularity over time.

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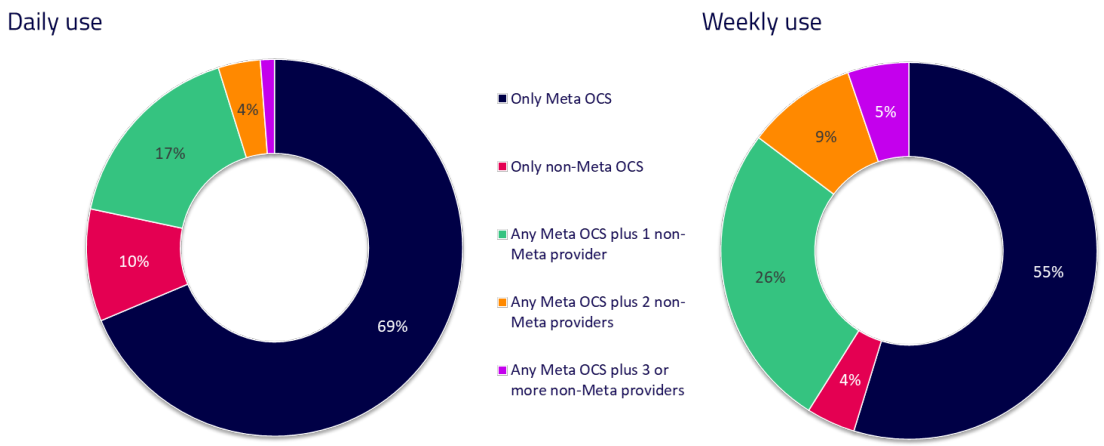
[158] Q14 2023 OCS research.
[159] Q14 2023 OCS research.
[160] Qualitative research conducted for Ofcom in 2020 found that 'Amongst the younger audiences – OCS Natives and Purists – the distinction between the platforms and services is even more nuanced as they use multiple services for similar functions. Similar to the OCS Newbies and Converts, these younger consumers are very clear about why they would choose to use different services for the same activity. The same principle applies - the choice of service is driven by the nature of the communication and the audience they wanted to reach'. Futuresight, July 2020, Online communications services (OCS): qualitative research.
[161] Futuresight, July 2020, Online communications services (OCS): qualitative research.
[162] Q14 2023 OCS research.

Our OCS research shows that Meta's services are the most used, although younger age groups use a wider variety of apps

5.18 From a competition perspective, it is important to consider multihoming at the provider level, as some providers offer multiple services which are unlikely to impose a competitive constraint on one other. The below analysis of our OCS research findings indicates that:

a) Among those who use at least one OCS app on a weekly or daily basis, most users use Meta services only; and
b) Where users do multi-home across both Meta and non-Meta services on a weekly or daily basis, most of those users only use services from Meta and one other provider.[163]

Figure 5.1: Daily and weekly use of Meta and non-Meta OCS (% UK adults (16+) who use at least one OCS app on a daily / weekly basis)

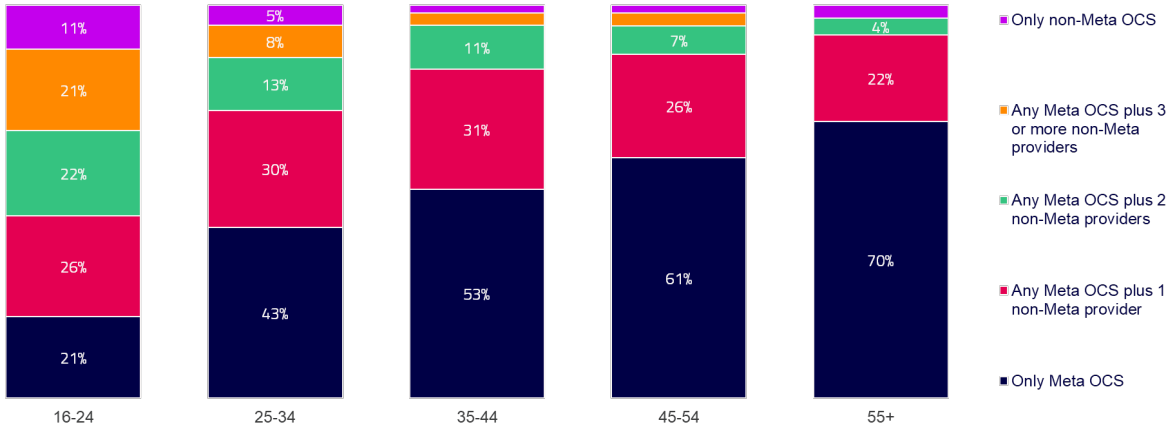


Source: 2023 OCS research. Based on analysis of 'daily' and 'weekly' responses at Q2: How frequently have you used each of the following communication services to send messages / make calls for personal purposes (i.e. not work related)? "Don't know" responses have been excluded. Weighted Bases: weekly OCS users 1754; daily OCS users 1265.

5.19 The extent of multi-homing varies across different user cohorts, particularly by age. While use of Meta's apps is prevalent across all demographics, Figure 5.2 below shows that younger users are more likely to use services from a greater number of other providers, as well as Meta OCS. Younger users are also more likely to change their main service over time (19% of 16-24-year-old OCS users report having changed their main service in the last 12 months, compared to 10% for UK adults overall).[164] However, as noted in Section 3, 56% of 16-24-year-olds still identify a Meta app as their main service and 38% identify WhatsApp specifically.[165]

[163] The same also holds when looking at a broader group of users that used at least one OCS within the last 3 months (even if not daily or weekly).
[164] Q10 2023 OCS research.
[165] Q3 2023 OCS research.

Figure 5.2: Usage of OCS on a weekly basis by provider and age group (% UK adults (16+))



Source: 2023 OCS research. Based on analysis of 'weekly' responses at Q2: How frequently have you used each of the following communication services to send messages / make calls for personal purposes (i.e. not work related)? "Don't know" responses have been excluded. Unweighted Bases: 237 / 278 / 330 / 260 / 649.

Differentiation on quality

5.20 Services differ in terms of the communication functionalities they provide, as well as other aspects such as privacy and security, entertainment features, social features and general look-and-feel. Below we briefly discuss how features have evolved over time and how consumers perceive different aspects of these services.

5.21 It should be noted that quality dimensions, as discussed here, can encompass a broad range of different aspects with varying degrees of importance to consumers. The discussion below is not a comprehensive or exhaustive review of all relevant aspects.

The number of features has increased over time but there appears to be a trend towards feature parity across OCS

5.22 As discussed in Section 3, OCS provide **broadly similar core functions**, including messaging, voice and video calling, between individuals and within groups. Some additional features which were innovative when first launched and which previously acted as points of differentiation have become more common across many of the leading apps. Examples of these include the ability to send photos, videos, voice messages or disappearing messages, or to react to messages with emojis. Consistent with this, an Analysys Mason report for Ofcom identified a trend towards '**feature parity'**, with a suggestion that the scope for quality differentiation has decreased over time and further scope for differentiation is becoming more limited.[166]

5.23 A trend towards feature parity across services does not imply that providers have ceased to improve their services or innovate. The 2020 analysis by consultancy WIK Consult found that the average number of features on OCS apps increased from 8 in 2016 to 10 in 2020.[167] Today, providers continue to introduce new or enhanced features regularly. For instance, WhatsApp introduced Communities in November 2022, which allows users to connect multiple groups together under one umbrella (e.g. school related chat groups)[168] and it

[166] Analysys Mason, 2022, Digital Comms Value Chains.
[167] WIK-Consult, August 2022, Interoperability regulations for digital services.
[168] WhatsApp Blog, November 2022, Communities Now Available!.

enabled users to share HD videos and photos in August 2023,[169] among various other recent updates. As another example, Apple's iOS 17 update introduced a number of new features, such as automatic check-in and live stickers on iMessage and video messages on FaceTime.[170]

5.24 We have observed some instances where WhatsApp has introduced features after similar features became available on other services – this includes emoji reactions, disappearing messages, editable messages, Channels and Status.[171]

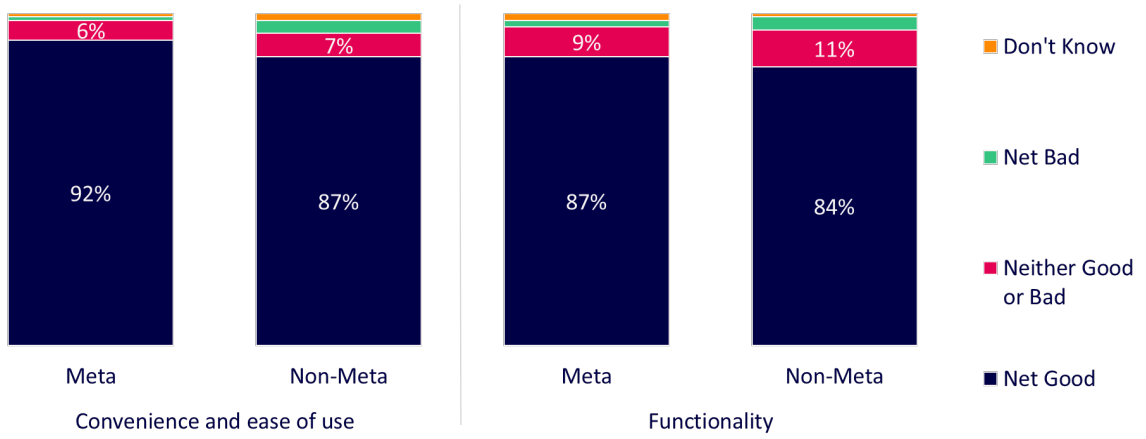
5.25 The above discussion focuses on changes that affect consumers' user experience. Providers are also increasingly rolling out new features that cater to business users. This includes changes designed to appeal to small business users,[172] as well as features that may be more relevant for large enterprises seeking to advertise or deploy business messaging solutions. As discussed in Section 4, some providers may increasingly seek to monetise business use of their services, meaning that innovations and improvements as regards business users are likely to remain an important focus area for providers.

Most consumers have a positive opinion of different aspects of their services

5.26 Overall, as discussed in Section 3, our OCS research shows that most users hold a positive view with the main service used, with a low rate of negative ratings across all demographic groups. In particular, the vast majority of users give positive ratings for the functionality (i.e. reliability and range of features), convenience and ease of use of their main service. In addition, users of Meta OCS appear to provide broadly similar ratings on average as users of other apps.

[169] TechCrunch, 2023, WhatsApp rolls out support for HD video.
[170] Apple, June 2023, iOS 17 makes iPhone more personal and intuitive.
[171] Emoji reactions were introduced in 2022 on WhatsApp and similar features were launched in 2016 on iMessage and 2017 on Messenger. WhatsApp introduced disappearing messages and media in 2021 whereas Snapchat introduced this feature in 2011 and Telegram introduced this feature in 2017. The ability to edit messages was added to WhatsApp in 2023 and existed previously on Telegram and iMessage, for example. WhatsApp introduced Channels in 2023, with Telegram having launched a similar Channels feature in 2015. WhatsApp's Status, launched in 2017, is similar to the Stories feature on Snapchat, launched in 2013.
[172] For instance, in recent years WhatsApp has announced changes to make it easier for small businesses to set up a WhatsApp Business account and to enable small businesses to use the same business account across multiple phones.

Figure 5.3: Perceptions of convenience and functionality (% UK adults (16+) who use a Meta or non-Meta service as their main service)



Source: 2023 OCS research. Q7: How good or bad do you think [main service] is on the following aspects? Bases: Meta 1603; non-Meta 280.

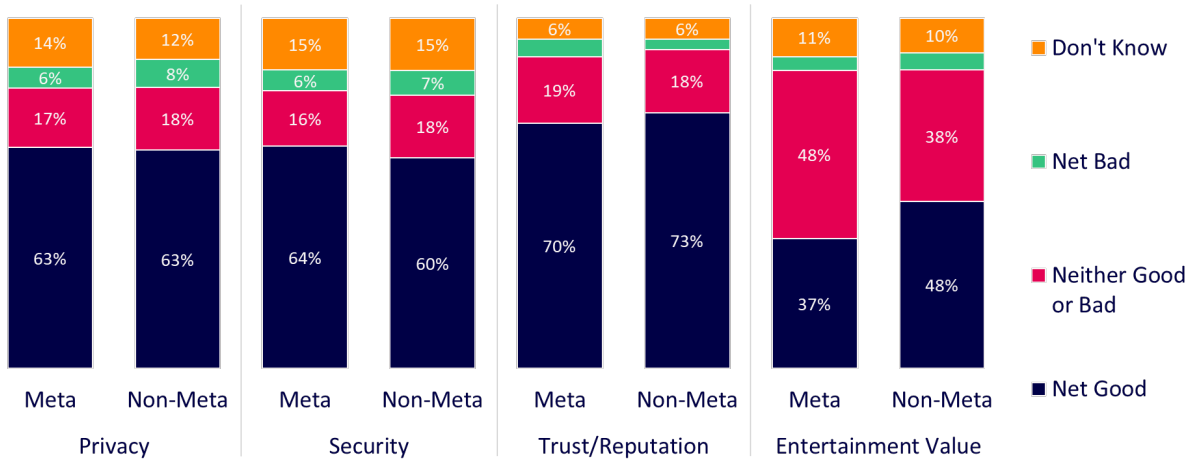
5.27 Beyond functional features, providers may seek to differentiate over other aspects of their services, including less overt aspects. Our OCS research captured consumer opinion with respect to certain aspects, such as privacy, security and entertainment value.

5.28 Our OCS research shows predominantly positive ratings with respect to privacy and security, with mostly "good" ratings for both Meta OCs and others.[173] There are differences in how users perceive Meta's WhatsApp and Messenger apps, with the former seeing significantly higher percentages of "good" ratings on privacy and security.[174] Such differences might reflect consumer understanding of how each service approaches privacy and security (e.g. the use of encryption), but it may also reflect other factors, such as Messenger having a stronger association with the Facebook brand, which has been affected by negative press coverage in relation to privacy in recent years.

[173] Q7 2023 OCS research. This question was asked based on the consumer's main service. As such, a detailed comparison across a broader range of services is not possible due to the small sample of users for some of these services.

[174] For example, 72% of those that identify WhatsApp as their main service provided a "good" rating for security while only 39% provided the same rating for Messenger. Q7 2023 OCS research.

Figure 5.4: Perception of other quality dimensions (% UK adults (16+) who use a Meta or non-Meta service as their main service)



Source: 2023 OCS research. Q7: How good or bad do you think [main service] is on the following aspects? Bases: Meta 1603; non-Meta 280.

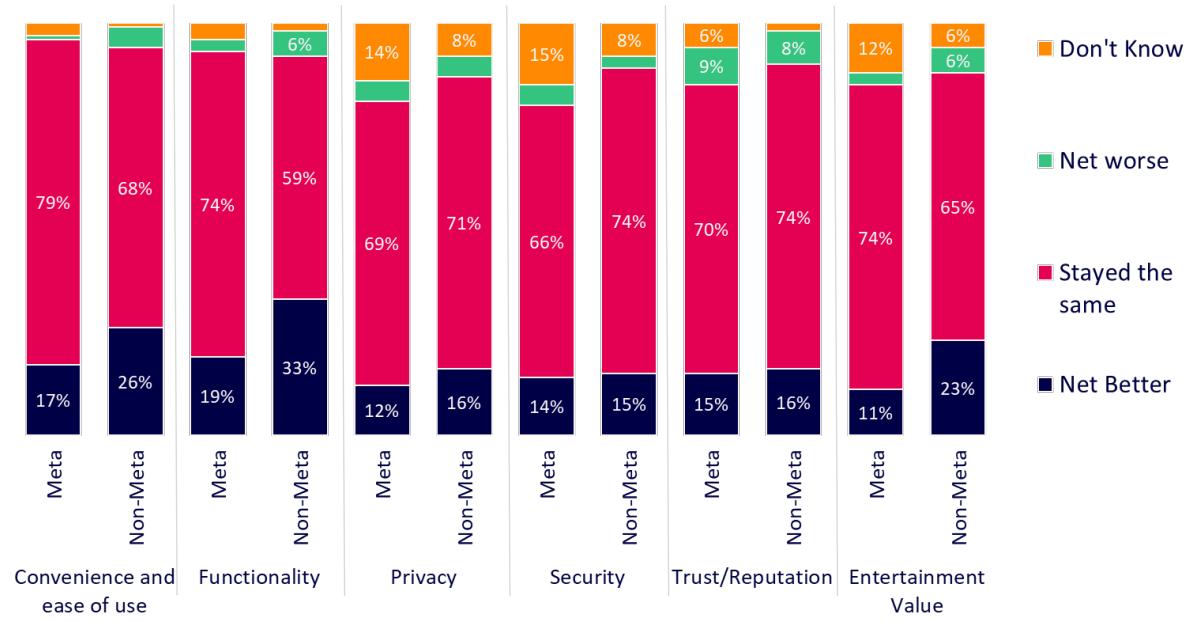
5.29 There is also broad agreement with the statements 'I trust my main service to keep my data secure' and 'My main service provides a safe environment in which to keep in touch with my friends and family', with broadly similar answers with respect to Meta OCS and other OCS.[175]

5.30 Regarding changes over time, some respondents expressed the opinion that their main service has improved over the last 12 months in the aspects discussed above, but the majority expressed the opinion that it has stayed the same.[176] As shown in Figure 5.5 below, there are indications that users of non-Meta apps are somewhat more likely to perceive improvements in convenience and ease of use, functionality and entertainment value than users of Meta apps.

5.31 In practice, providers generally do continue to add or enhance features, including in areas that may be less overt, such as privacy, security or user safety. For instance, WhatsApp has introduced policies to reduce misinformation by slowing the spread of highly forwarded messages and making these easier for users to identify;[177] Messenger has seen encrypted features introduced in recent years and rolled out a new tool in 2020 to identify scammers and notify users about these accounts.[178] Nevertheless, some third parties have argued that more can and should be done by providers with respect to privacy and security measures.[179]

[175] Q14 2023 OCS research. 62% of UK adult OCS users agree with the first statement (62% among users of a Meta service as main service; 66% among users of a non-Meta service as main service). 73% agree with the second statement (74% among users of a Meta service as main service; 68% among users of a non-Meta service as main service).
[176] Q15 2023 OCS research.
[177] WhatsApp, About forwarding limits.
[178] Facebook, 2020, Preventing unwanted contacts and scams in Messenger.
[179] Bundeskartellamt, May 2023, Messenger and video services: Bundeskartellamt on data protection, transparency and interoperability; Tech Policy Press, June 2023, What is secure? An analysis of popular messaging apps.

Figure 5.5: Perception of change in services over the last 12 months (% UK adults (16+) who use a Meta OCS or non-Meta OCS service as their main service)



Source: 2023 OCS research. Q15: To what extent, has your opinion on the following services provided by [main service] become better, or worse, or has it stayed the same? Bases: Meta 1603; non-Meta 280.

Discussion of competitive incentives and implications

5.32 Drawing on the evidence summarised above, in this section we discuss current competitive conditions and incentives, considering how these affect consumer outcomes. We also discuss how the market may evolve and identify some potential future competition considerations.

Competitive position of different providers and extent of contestability

5.33 Below we discuss the competitive position of different providers, including the strong competitive position of Meta's OCS, and the potential implications for rivals' ability to enter or expand.

Meta's OCS hold a strong competitive position, although they face competitive pressure particularly for younger users

5.34 Our OCS research shows that WhatsApp holds the largest reach, while Meta's OCS as a whole hold a strong competitive position. Competitive dynamics do vary across different user segments and younger users tend to multi-home more extensively, with some favouring rival apps such as Snapchat. This suggests that Meta's services face somewhat greater competition over younger users, although the services are still widely and frequently used among this segment.

5.35 We recognise that OCS providers (including Meta) could also face a degree of competitive constraint from traditional telecommunication services such as SMS, MMS and voice calls, which may be seen as substitutes for OCS in some scenarios. We have not assessed the extent of substitutability but we note that, as discussed in Section 2, consumer use of online

messaging services has largely replaced SMS, whereas the use of traditional voice calls remains prevalent, though declining over the long term.

Consumers have access to a range of different services, although others have a smaller reach than Meta's OCS

5.36 Consumers currently have access to a vast range of OCS (as discussed in Section 3). Many services launched around 10 to 15 years ago and rapidly grew in popularity when they were new.[180] To date, there is no evidence of widespread market exit due to inability of smaller providers to compete. In other words, competitive conditions are not currently preventing a diverse range of providers from continuing to operate.

5.37 However, to date, other providers have not been able to achieve similar levels of reach or usage as Meta's OCS. This has also been the case despite the presence of some conditions that could be favourable for providers to expand their services.

5.38 In particular, we note that some of Meta's rivals could leverage their presence in adjacent markets. Apple and Google may be able to encourage the use of their proprietary OCS across the existing user bases of Apple and Android mobile ecosystems. For example, this could include opportunities to pre-install OCS apps on devices, bundle them with other services (such as the integration of Google's Meet video calling functionality into its Gmail email app) or otherwise promote the use of proprietary services.[181]

5.39 However, usage of Apple's and Google's OCS services remains significantly lower than Meta's OCS.[182] We note that these apps are not available across all devices (e.g. iMessage and Facetime are only available on Apple devices), which constrains the potential user base, compared to the majority of third-party OCS apps that can be used on both Apple and Android devices. This issue is also discussed in paragraphs 5.77 to 5.79 below in the broader context of interoperability.

Competitive conditions make it more challenging for smaller services to compete with the largest services

5.40 In general, we acknowledge that current reach or usage rates do not necessarily imply an enduring competitive position. However, we consider that the market position of services with the largest user bases is less likely to be transitory due to the barriers to entry and expansion that arise from direct network effects.

5.41 As discussed, multihoming can, in principle, maintain a degree of contestability, especially as trying a new app is relatively easy. Nevertheless, evidence indicates that consumers value access to contacts highly and this motivates continued use of existing services. Equally the loss of access to contacts makes it difficult to increase usage of alternative services; this factor is reported more commonly among users of Meta apps, which reflects the wide reach of these apps.[183]

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[180] For example, WhatsApp launched in 2009, Snapchat in 2011, Telegram in 2013 and Signal in 2014.
[181] We have not assessed any such forms of conduct in detail as part of this work.
[182] 70% of respondents that report using iMessage or Facetime in the last 3 months identify a Meta service as their main service. 55% identify WhatsApp specifically. Q3 2023 OCS research.
[183] Q12 2023 OCS research. Among those respondents who consider a Meta service to be their main service and did not change their main service in the last 12 months, 64% stated that they did not change due to all or most of their contacts using their existing service, or wanting to stay in touch with contacts. These reasons were given by 52% of respondents who consider a non-Meta service to be their main service and did not change their main service in the last 12 months.

5.42 Popular services are also usually provided free of charge to consumers (and often ad free). In these circumstances, a new provider may struggle to compete with the existing providers as it does not have the option to enter with aggressive pricing strategies. Instead, it needs to offer services that are clearly superior in terms of quality, or sufficiently differentiated from existing providers to attract at least certain cohorts of users.

5.43 Furthermore, indirect network effects mean that businesses will also likely favour larger platforms for business messaging and advertising purposes, as these will provide the largest pool of consumers. Thus, smaller platforms may find it challenging to build up sufficient scale to effectively compete and generate revenue through businesses.

5.44 Overall, the above factors make it more challenging for providers with smaller user bases to compete with those with large and established user bases. However, this does not imply that competitive pressure is absent or that consumers suffer adverse impacts. Considerations related to consumer outcomes are discussed below.

Consumer outcomes today

5.45 Below we consider the consumer outcomes that have resulted from current competitive conditions. We describe how consumers appear to benefit from good outcomes, despite the possibility of somewhat muted competitive pressures and the likely presence of frictions that can affect consumer understanding of certain aspects of OCS.

We observe a range of good outcomes for consumers in the supply of OCS

5.46 Overall, the supply of these services is delivering clear benefits to consumers:

a) Services are widely accessible and usually free of charge to consumers, providing additional features compared to traditional communication services;
b) Consumers have access to a wide range of apps that offers different features and functionality;
c) Users generally provide positive ratings of their main service's core functionalities, as well as other less overt features such as privacy and security. This applies both to Meta apps and others.

Although competitive conditions may dampen incentives to innovate, providers are still investing in their services and users view these services positively

5.47 In principle, incentives to invest, for providers with larger user bases, may be dampened due to the presence of barriers to entry and expansion, limiting the extent of competitive pressure on these firms to invest in new or improved features. The possible implications for providers with smaller networks are more mixed; they may need to invest to differentiate themselves from others and attract users, but the business case for such investment is more challenging when many users are satisfied with their current service(s) and wish to maintain access to contacts.

5.48 In practice, evidence summarised earlier in this section shows that providers are continuing to add or enhance features regularly, indicating that some level of incentive and ability to invest does exist. WhatsApp itself frequently introduces new features, though the timing of

some changes made suggests that WhatsApp is(at least some of the time) making at least some changes reactively, following innovations launched by its rivals.[184]

5.49 Although only a minority of users in our OCS research expressed an opinion that their main service has improved in the last 12 months, this is not necessarily indicative of a problem. As OCS have evolved significantly over many years, some of the changes made today may naturally be more incremental or subtle in nature. Where certain users primarily use basic or core functionalities and are satisfied with these, they may be less interested in or aware of new features that have been introduced, including where new features are targeted at niche user groups or use cases.

Incentives to compete on certain quality dimensions might also be muted if these are less transparent and understood by consumers

5.50 As set out in Section 3, evidence suggests that dimensions such as privacy, security, attractive design and entertainment value are usually not seen as the most important (top three) motivators of user choice. However, this does not necessarily mean that consumers do not value these quality dimensions, as a significant minority do identify 'good security and encryption' (20%) and 'strong data policy and privacy settings' (11%) as being among the most important factors.

5.51 More generally, quality dimensions may still be valued by users even if not ranked amongst the *most* important factors. For example, consumers may value aspects such as visual design or privacy and security, but if they perceive that those aspects are satisfactory or similar across several OCS apps, they may not identify them as the most important factors that drive the choice between alternative OCS apps.

5.52 Another example of a relevant dimension of quality could be resilience. Our resilience research indicates that consumers on average believe that the acceptable level of resilience for WhatsApp is lower than for traditional telecoms services.[185] However, one in five consumers believe that any WhatsApp outage at all is unacceptable, suggesting that at least some users may place significant value on the service always being available.

5.53 There is a possibility that certain barriers could undermine effective user engagement and choice on some of these quality aspects. These issues are not specific to OCS but can arise in relation to online services more generally. We have not assessed these in depth in relation to OCS but provide an overview below.

5.54 First, there are indications that some of these dimensions can be difficult for consumers to understand and assess. For instance, qualitative research in 2020 suggested that the vast majority of respondents were not aware of what data is stored, nor the security measures provided by their OCS apps.[186] Elsewhere, the recent sector inquiry by Germany's competition authority, Bundeskartellamt, found that the difficulty in understanding data protection practices can be an obstacle for consumers to make informed decisions.[187] With

[184] Consistent with this, an Analysys Mason report for Ofcom stated that 'To date, WhatsApp has been able to offer similar innovative features as rivals, suggesting that the platform is influenced by the offerings of others and users' ability to multi-home, but has been able to keep up'. P83, Analysys Mason, 2022. Digital Comms Value Chains.

[185] For example, 42% believe that the occurrence of two or more outages annually would be unacceptable for WhatsApp, compared to 59%, 55% and 51% who believe this for mobile voice calls, SMS and mobile internet respectively. Q13 YouGov resilience research.

[186] Futuresight, July 2020, Online communications services (OCS): qualitative research..

[187] Bundeskartellamt, 2023, Sector Inquiry – Messenger and Video Services.

regard to other areas, for example resilience, some publicly available information exists (such as media reports of outages) but it appears unlikely that most consumers could easily understand and assess the level of quality provided by different services.

5.55 Second, additional barriers, such as behavioural biases, could further undermine effective user engagement and choice on these aspects, which could contribute to reduced competitive pressure. For example, the "privacy paradox" is a phenomenon whereby consumers state in surveys that they are concerned about privacy but behave in a way that is inconsistent with this stated preference. There are competing views about the extent to which this is the result of "rational" behaviour by consumers (e.g. choosing to place a lower emphasis on privacy due to the high cost of understanding and comparing privacy policies)[188] or cognitive biases that impair effective decisions.[189]

5.56 Ultimately, despite the evidence on barriers and frictions discussed above, we consider that providers remain likely to face a degree of competitive pressure (even in relation to less overt features) and would prefer to minimise any risk of strong adverse reactions, from users or the media. The case study below considers some of these issues based on a real-world example.

Case Study: change in WhatsApp's privacy policy

WhatsApp announced a change to its "terms and privacy" policy in January 2021.[190] This primarily involved an update on how information would be collected from WhatsApp's optional business features and how this will be used across Meta's wider ecosystem. For example, the update covered how Meta will use information from WhatsApp users if they communicate with businesses via its "click-to-message" adverts and if they make a purchase on Facebook's Shop via WhatsApp. WhatsApp stated that this update did not affect the privacy and security of personal communications, which are end-to-end encrypted.[191]

WhatsApp subsequently received considerable negative news coverage and user feedback, although there are suggestions that a large part of this was driven by misinformation or misunderstanding around the nature of the changes.[192] In particular, concerns were expressed about how information from personal conversations would be shared with Facebook, even though the update did not change WhatsApp's policy in this area.

Downloads for other rival OCS apps reportedly increased after the announcement, with Telegram reporting 25 million new users (globally) after 72 hours and Signal reporting 17.8 million additional downloads after 7 days.[193] However, in aggregate it appears that many

[188] A possible driver of this is information asymmetries, where consumers do not have sufficient information or knowledge about privacy issues to make informed choices. Bashir, Hayes, Lambert and Kesan, February 2016, Online privacy and informed consent; The dilemma of information asymmetry.

[189] Examples of possible behavioural biases include: framing, where consumers choose a services based on how it is framed or presented rather than its actual features; anchoring, where consumers base decisions based on the first piece of information they have received rather all of the available information; hyperbolic discounting, which is a tendency to overestimate short-term benefits relative to long-term costs; or the "free effect", which is the overestimation of the benefits of a service when provided free of charge.

[190] WhatsApp, We updated our Terms of Service and Privacy Policy on January 2021.

[191] WhatsApp, About business features.

[192] The Verge, January 2021, WhatsApp clarifies it's not giving all your data to Facebook after surge in Signal and Telegram users.

[193] Reuters, January 2021, Signal sees "unprecedented" growth after WhatsApp controversy.

consumers faced challenges in moving their communication activity from WhatsApp to other apps. According to an academic study, over a quarter of WhatsApp users surveyed across the UK and three other countries – shortly after the changes were announced – reported that they wanted to move at last part of their communication to other apps. However, by the time the changes were implemented a few months later, 74% of this group reported that they failed to do so.[194]

The study found that 'network effects were by far the most common challenges users faced', as 'participants struggled to convince contacts to switch to other apps and change their communication habits to stay there'. Additionally, some users 'struggled with making informed choices of alternative apps and with differences in their design and functionality'.

WhatsApp attempted to address concerns by clarifying the nature of the update in online posts and newspaper adverts, eventually deciding to provide users with more time to understand the change by delaying its implementation to May 2021.[195] This delay may indicate a degree of pressure following the media and consumer reaction to the announcement, although WhatsApp ultimately went ahead with the changes.

Potential competition considerations in the future

5.57 Although we see little evidence of competitive conditions leading to significant consumer harm today, it remains possible that new concerns arise in the future. There may be various relevant considerations or possible sources of harm in the future, not all of which can necessarily be anticipated. Below we briefly discuss some potential future considerations for the evolution of competition, which we expect to have regard to going forward.[196]

5.58 First, if competitive pressure on providers with larger user bases is limited, due to strong network effects, this might eventually lead to poor outcomes for consumers. This could be in the form of lower quality of service (such as excessive or unwanted advertising, sponsored content or spam; or degradation in areas such as resilience to outages), or lower rates of innovation and service improvement (such as in new privacy and security features). In theory, harm might also arise through charging of excessive prices to consumers, although this appears less likely given the prevalence of services available to consumers free of charge, with evidence suggesting low willingness to pay.[197]

5.59 Second, access to a large consumer user base and the existence of strong indirect network effects could confer a significant advantage to providers with the largest use bases in the supply of business-to-consumer online messaging services, which is a possible growth area for monetisation. If other providers are unable to effectively compete in the provision of

[194] Griggio et al, April 2022, Caught in the Network: The Impact of WhatsApp's 2021 Privacy Policy Update on Users' Messaging App Ecosystems.
[195] WhatsApp Blog, Giving more time for our recent update.
[196] It should also be noted that our competition analysis in this paper is focused on the use of OCS for personal purposes and therefore does not cover any potential implications that may arise in other areas such as the supply of business-to-consumer messaging services, online advertising, social media and mobile ecosystems.
[197] PPMi, 2021, Analysing EU consumer perceptions and behaviour on digital platforms for communication.

these services,[198] then this could lead to worse outcomes for business customers in the form of higher prices or lower service quality.[199]

5.60 Third, in situations where OCS interact with related services or a wider ecosystem (e.g. integration within social media platforms or mobile ecosystems), competition between OCS could have wider implications. For example, this could include – but is not necessarily limited to – OCS providers having the ability and incentives to engage in discriminatory or self-preferencing practices, which can distort competition across adjacent markets. As the scope of platforms and ecosystems evolves, the markets potentially affected and the types of conduct that may arise are liable to change.

5.61 Ultimately, any future concern or harm remains highly uncertain. For this reason, we expect to continue to monitor developments in the supply and usage of OCS. This includes any developments on interoperability between services, which we discuss below.

Interoperability of OCS

5.62 Mandated interoperability has been widely discussed as a potential tool to address competition issues in digital markets, including where there are strong network effects. In the European Union (EU), legislation has been introduced to require certain providers of these services to provide interoperability.

5.63 In this context, below we provide an overview of:

a) The meaning of interoperability when applied to OCS;
b) The potential implications of interoperability, in general terms;
c) The approach taken in the EU's Digital Markets Act; and
d) Interoperability considerations in a UK context.

Interoperability would enable cross-app messaging and calling

5.64 Interoperability of different digital services refers to their ability to work together and exchange information. In the context of OCS, interoperability can be understood as the ability of users of one service to communicate with users of another service.

5.65 Currently, popular OCS apps are generally not interoperable. One exception is cross-app messaging between Meta's Instagram and Messenger apps, though this is only available in some countries and not in the UK.[200] There are some "all-in-one" messaging apps (such as Beeper, Franz or All-In-One Messenger) that allow multiple messaging services to be managed from a single app, but these do not enable direct communication between services and require the user to hold an account with each messaging service.

[198] It is possible that, for some business users and use cases, online messaging could be a substitute for other forms of communication, such as SMS-based messaging. Therefore, the evolution of these online services could have competitive implications for other services, such as traditional telecoms services. We have not assessed the potential degree of substitutability across different business communication solutions.
[199] Where indirect network effects exist there is also the potential for feedback loops, to the extent that consumers value the ability to connect with businesses via OCS and therefore prefer a platform that is used by more businesses. In this case, a strong competitive position on the business side of the market could also reinforce a platform's competitive advantage on the consumer side of the market, potentially increasing any scope for worse outcomes among consumers.
[200] Facebook, Cross-app communication on Messenger.

Interoperability could reduce network effects, though there are important trade-offs

5.66 In principle, interoperability has the potential to reduce service-specific network effects. Currently, the presence of other users on a particular service is a major factor influencing consumer usage. If cross-app communication were possible, then the presence of other users on any given service may become a less important consideration. A more level playing field could be created between small and large players, where functionality and quality dimensions have greater influence on consumer decision-making, such that services with innovative features or high-quality service have better prospects for attracting new users.

5.67 In practice, the extent to which interoperability does reduce service-specific network effects may depend on various factors, including which specific features are made interoperable. A narrow set of interoperable features can encourage competing services to differentiate over additional features provided, but those additional features themselves could mean that strong service-specific network effects persist; that is, users prefer on-app communication to cross-app communication due to the extra features offered by the former. On the other hand, a broader set of interoperable features might be more impactful in terms of reducing service-specific network effects, but potentially limits scope for differentiation between services and reduces variety.

5.68 The implications of interoperability for innovation may also be uncertain. In principle, interoperability can foster innovation from smaller services and new entrants by creating a more level playing field – subject to retaining adequate scope for differentiation, as discussed in the previous paragraph. At the same time, interoperability could risk dampening innovation incentives if there is a perceived risk that innovative proprietary functionalities developed by these services could be made interoperable in the future (and therefore available to all services).

5.69 Ultimately, many of the implications of interoperability are dependent on how exactly it is implemented. Below we provide a brief overview of the approach being taken at EU level and the ongoing debate among stakeholders in relation to implementation.

The EU's Digital Markets Act introduces an interoperability requirement

5.70 The Digital Markets Act (DMA) aims to ensure contestability and fairness in digital markets.[201] It applies to large online platforms that are designated as "gatekeepers", providing services such as online search, social networking and operating systems.[202]

5.71 DMA Recital 64 states that 'The lack of interoperability allows gatekeepers that provide number-independent interpersonal communications services to benefit from strong network

[201] Official Journal of the European Union, Regulation (EU) 2022/1925, Recital 7: 'Therefore, the purpose of this Regulation is to contribute to the proper functioning of the internal market by laying down rules to ensure contestability and fairness for the markets in the digital sector in general, and for business users and end users of core platform services provided by gatekeepers in particular'.

[202] Official Journal of the European Union, Regulation (EU) 2022/1925, paragraph 14. The scope of the DMA currently applies to ten services: online intermediation services, online search engines, operating systems, online social networking, video sharing platform services, number-independent interpersonal communication services, cloud computing services, virtual assistants, web browsers and online advertising services, including advertising intermediation services.

effects, which contributes to the weakening of contestability'.[203] To address this, under DMA Article 7, designated gatekeepers that provide OCS will be required to enable interoperability with third-party services, upon request.

5.72 On 6 September, the European Commission announced that Meta is designated as a gatekeeper with respect to WhatsApp and Messenger as number-independent interpersonal communications services, whilst a market investigation would be opened to assess Apple's submissions that iMessage does not qualify for designation.[204]

5.73 Initial requirements due to take effect in 2024 will apply to one-to-one messaging and sharing of files such as images and videos. Then, within two years of designation, requirements will extend to group messaging and file-sharing, while audio and video calls are required to be made interoperable within four years of designation.

5.74 Other OCS providers are free to choose whether to exercise their rights to request interoperability with designated gatekeepers' services. Where a request is made, gatekeepers must comply within specified time limits, enabling interoperability without charge and according to terms set out in a reference offer. End users themselves shall be free to decide whether to use interoperable functionalities.

5.75 Technical aspects of the approach to interoperability are not defined in legislation and could evolve over time. However, the legislation does require that 'The level of security, including the end-to-end encryption, where applicable, that the gatekeeper provides to its own end users shall be preserved across the interoperable services.'[205] Collection and exchange of personal data between providers requesting and providing interoperability must be limited to the minimum necessary for effective interoperability.

5.76 At the time of writing, there is still uncertainty around various aspects of the practical implementation of DMA Article 7, as well as the likely extent of adoption by online communication providers and end users. Stakeholders have highlighted several potential challenges to be addressed, such as: managing the risk of "foot-dragging" by gatekeepers; ensuring that there are sufficient incentives and scope for innovation; maintaining privacy and security standards; and promoting positive outcomes with respect to user experience, consent and control.[206]

Messaging interoperability also interacts with mobile ecosystems

5.77 As noted in Section 3, Apple and Google's proprietary messaging apps are only available on iOS and Android devices respectively. Cross-app communication between these apps is currently only feasible via SMS or MMS and not via online messaging. Therefore, users can only benefit from the full set of features and functionality offered by these apps when they

[203] Official Journal of the European Union, Regulation (EU) 2022/1925.
[204] European Commission, September 2023, Digital Markets Act: Commission designates six gatekeepers.
[205] Official Journal of the European Union, Regulation (EU) 2022/1925, Article 7 (3).
[206] For more information see e.g. Matrix, March 2023, The DMA Stakeholder Workshop: Interoperability between messaging services; BEREC, June 2023, BEREC report on interoperability of Number-Independent Interpersonal Communication Services (NI-ICS); WIK-Consult, August 2022, Interoperability regulations for digital services; Bundeskartellamt, May 2023, Messenger and video services: Bundeskartellamt on data protection, transparency and interoperability; Bundesnetzagentur, December 2021, Bundesnetzagentur publishes discussion paper on interoperability between messaging services.

are exchanging messages with users within the same mobile ecosystem. As such, there is potential for this issue to influence user choices about which mobile ecosystem to use.

5.78 Google has argued that Apple should adopt the Rich Communication Service (RCS) standard used by Google's Messages app to enable cross-app interoperability for online messaging; Google has claimed that this would improve user experience and reduce barriers to switching between mobile ecosystems.[207] To date, Apple has not indicated that it intends to implement such a change. It is not yet known how the interoperability of these services might be affected by the new DMA requirements.

5.79 We note that evidence on UK usage shows that third-party apps, such as WhatsApp and Messenger, are more popular than Apple and Google's apps. These third-party apps are available on both iOS and Android devices. Therefore, the lack of interoperability between Apple and Google messaging apps may not be seen as a material issue by many UK users. Consistent with this, the CMA's Market Study on Mobile Ecosystems considered barriers to switching between mobile ecosystems and stated: 'our survey evidence also found a lack of user concerns regarding the loss of access to Apple's first-party apps. This outcome is UK-focused and could indicate that UK users are accustomed to using alternatives (eg WhatsApp), unlike in other jurisdictions where iMessage or FaceTime may be locking users into iOS.'[208]

Interoperability considerations in a UK context

5.80 Our analysis indicates that network effects do have a strong influence on user behaviour, but also provides mixed evidence with regard to demand for interoperability among UK consumers.[209] Around half of UK adults report that they would prefer to use a single communications service for all calls and messaging, but only a minority agree that cross-app communications should be possible.[210] A third agree that they would use a different service as their main service, if they could still use it to communicate with users of their current main service, with one in ten strongly agreeing. Previously, qualitative research in 2020 suggested that 'Overall, the idea of being able to send messages between different OCS is currently not seen as particularly valuable'.[211]

5.81 We also note that it is not yet known how the DMA requirements may affect usage of services outside of the EU. While the legislation only pertains to services provided to EU users, some stakeholders have argued that the precise interpretation of geographic scope is not yet clear.[212] It is not yet known how providers will implement interoperability, including

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[207] See e.g. https://www.android.com/get-the-message/ and paragraph 8.31, CMA, June 2022, Mobile ecosystems market study final report.

[208] Paragraph 3.117, CMA, June 2022, Mobile ecosystems market study final report. This does not imply that interoperability between Apple and Google messaging apps would be without benefit; the CMA report identifies a possibility that 'there may be wider benefits to the particular case of mandating interoperability between the messaging services used by iMessage and the RCS standard used by Android'. We have not considered this in further detail as part of this discussion paper.

[209] There are similarities with the findings of research carried out elsewhere. See Section 3, Bundesnetzagentur, December 2021, Interoperability between messaging services.

[210] Specifically, 32% agree with the statement 'It should be possible for me to contact anyone using [main online communication service], even if they don't use it' (32% disagree); 36% agree with the statement 'It should be possible for anyone to contact me on [main online communications service], even from other communications service that I do not use' (27% disagree). Q14 2023 OCS research.

[211] P33, Futuresight, July 2020, Online communications services (OCS): qualitative research.

[212] Section 2.2.2, Cerre, November 2022, DMA horizontal and vertical interoperability obligations.

whether they will take a different approach to the treatment of EU and non-EU users and, if so, how those user groups will be defined, identified and affected in practice. Therefore, we cannot yet assess any implications for UK users.

5.82 We intend to monitor developments related to the DMA requirements and we will have regard to any emerging evidence of potential benefits, costs and risks associated with interoperability of these services, as well as implications for UK users. For the avoidance of doubt, we may carry out further work related to interoperability in future where this is consistent with our duties.

6.Consumer protection

As we set out in previous sections, OCS provide users with a number of benefits, and we have not found evidence of significant consumer harm from competition effects currently. In this section, we explore other aspects of consumer protection for OCS users and how developments in OCS may impact on our duties relating to consumer protection and access to the emergency services.

The seamlessness between OCS and traditional communications services creates great services, but also risks for consumers if they unknowingly rely on services where they do not benefit from the same protections they would expect in traditional communications.

Given our role protecting consumers from harm in broadband and mobile, and the growing importance of OCS for meeting consumers' communication needs, we have undertaken a high-level assessment to examine whether there is the potential for consumer harm, and whether the types of protections in place for traditional services may need to be considered for new OCS.

Our high-level assessment suggests that the current features of popular OCS, including no monetary charge to consumers and no set contract period, makes consumer harms from factors such as price rises, unexpected bills, difficulty switching and being tied into a contract, less of a problem for users of these services compared to those of traditional communications services.

In addition, we have considered the clarity and transparency of terms of services as well as the availability of appropriate and effective complaints handling procedures. We have not found evidence that these are currently causing significant problems at this stage.

In relation to emergency calling, although we have found younger users are less familiar with traditional voice calling and dialling numbers, our research suggests the need to dial 999 is widely understood and we do not consider this issue to be a concern in the short or medium term, but we will keep it under review.

We also note that these new services may potentially expose consumers to different types of harm, which are outside the scope of our consumer protection duties in telecoms. These include misuse of personal data, scams carried out over OCS and potential exposure to illegal or harmful content. We have not carried out an extensive assessment of these potential areas of harm given they are already covered either by the work of the Information Commissioner's Office (ICO), by separate work tackling scams involving a number of organisations, or by the forthcoming online safety regime.

Introduction

6.1 Ofcom, as the communications regulator, has a duty to further the interests of consumers and citizens in communications markets. One of the ways we protect consumers is by setting General Conditions (GCs) that apply to the providers of traditional communications services,

like landline, mobile or broadband services, with which they must comply. [213] These rules help to ensure consumers are protected from provider behaviour that may cause harm.

6.2 OCS are not in the scope of Ofcom's GCs. Given the growing importance of OCS, such as WhatsApp, iMessage and Snapchat as communication channels, as described in sections 3 and 4, we have undertaken an initial assessment of whether these services could cause consumer harm, and whether the types of protections in place for traditional services, such as in the areas of billing, switching and complaints handling, may need to be considered for OCS.

6.3 In addition, we have examined some features of OCS that may potentially expose users to different types of harms, such as the misuse of personal data, scams carried out over OCS and potential exposure to illegal or harmful content.

6.4 We have assessed the extent of risk for consumers by considering the features of OCS and gathering evidence from our consumer research, consumer complaints and consumer groups.

Consumer harm of the type we see in traditional comms services appears limited for OCS

6.5 In this section we consider whether OCS users are at risk of harm akin to consumers of traditional communication services in the areas of billing and pricing, 'contracting' and switching services, complaints handling, contract information and access to emergency services.

Billing, contracting and switching

6.6 As discussed throughout this document, popular OCS, such as WhatsApp, Snapchat and Messenger, are currently free to download and use. [214] As such, consumers are not at risk of experiencing harms related to unexpected bills, price rises and other unexpected charges, like they can in traditional communications services. Consistent with this, we have found little evidence of complaints about OCS, particularly on issues with billing or pricing, with the main issue arising concerning scam messages (see section below for more on scams). This could of course change if these services started to charge for the use of their services, but we consider this to be unlikely for the reasons set out in section 5.

6.7 There are also a number of significant differences in the ways consumers 'contract' with providers of OCS for their services, compared to traditional communications services. For example, in traditional communications services consumers typically enter into a contract with a provider for a particular period of time without the ability to exit that contract unless they pay an early termination fee. By contrast, users of OCS do not have to commit to using the service for any length of time and can stop using it at any point and without incurring early termination charges.

6.8 As described in Section 3, users will often have multiple OCS in use at any time, and there is little effort or cost involved for a user to move to using another OCS (notwithstanding networks effects). This multi-homing aspect of OCS means there is no need to switch

[213] Ofcom, General Conditions of Entitlement.
[214] Although Snapchat+ provides additional features for a subscription charge.

between providers and thus avoid some of the harms sometimes associated with switching services in traditional communications, and for which we have put protections in place.

Complaints handling

6.9 In our assessment of consumer protection issues in OCS, we have also examined evidence from our consumer research, consumer complaints sources and consumer groups which suggest little evidence of complaints in relation to the services provided by OCS and that overall consumers are largely satisfied with their OCS (as we set out in more detail in section 3). [215]

6.10 That's not to say there are no issues and consumer websites such as MoneySavingExpert and Trustpilot show that, at least some consumers, experience problems in accessing customer services to help resolve problems, such as being locked out of their OCS accounts.[216] Nevertheless, this is a very small number of consumers in the context of very large numbers of users for the most popular OCS.

6.11 While personal OCS are significantly different from broadband and mobile services, our consumer protection rules in relation to complaints handling provide a useful comparator. For example, General Condition C4 requires communications providers to ensure that their complaints handling procedures are accessible to customers, including those who are disabled and those who are in circumstances that may make them vulnerable. Providers must allow customers to make a complaint in at least three ways: (a) a telephone number which is either a 'free to call' number or a number charged at the equivalent of a geographic call rate; (b) a UK postal address; and (c) either an email address or an internet web page form dedicated to allowing customers to lodge a complaint. These channels must be well publicised, easily accessible, and should not unduly deter customers from making a complaint.

6.12 OCS generally handle complaints via chat functionality or email. While we do not currently have evidence to suggest there is significant or widespread consumer harm caused by OCS providers' approach to complaints handling, it is an important part of the user experience of OCS and it is good practice to ensure the complaints handling process works effectively for all consumers.

Terms of service

6.13 When a user signs up to an OCS, they will be prompted to review and agree to terms of service. These typically cover:

a) who can create an account e.g. age limits and other exclusions
b) how the service can be used e.g. prohibiting use for fraudulent or illegal activities, interference with the operation of the service and infringement of intellectual property rights
c) licence for the OCS to use posted content for the operation of the service
d) The right to remove content that infringes the terms of service
e) the right to terminate a user's account and the associated appeals process

[215] Although it is worth noting that it may be the case that consumers do not think to complain to these channels (i.e. Ofcom and consumer groups like Citizens Advice) when they have complaints about their online comms services.
[216] Money Saving Expert, forum posts featuring WhatsApp. Trustpilot, WhatsApp review page.

f) disclaimers around the reliability, safety and security of the service, including the actions of other users of the service
g) The handling of disputes.

6.14 Alongside the terms of service, OCS often have a separate document describing their privacy policy and the use of personal data (see below).

6.15 Consumers should be informed of the terms and conditions for the services they use. However, our consumer research suggests that only a minority of consumers looked at an OCS, similar to online services in general. For most this is due to their length and complexity, with some distrusting how the information is presented.[217] Our work on Video Sharing Platforms, such as Snapchat,[218] found that terms of service are long (4,903 words for Snapchat) and needed advance reading skills to understand.[219]

6.16 Due to the evolving nature of OCS, the terms of service are updated from time to time and we have found that OCS take different approaches to informing their users of these changes. In principle, it is important that terms of service are made clear and transparent to users at sign up and that users are informed of changes in a timely and accessible way. This is to ensure that users are giving their informed consent to the platform, particularly regarding how the service will use and share a user's personal data (see below).

Access to emergency services

6.17 Given Ofcom's role setting the requirements on access to emergency services for traditional communications services and the growing number of calls made by consumers on OCS, on which emergency calls are not available, we have considered whether this could potentially be a risk to citizens and consumers now or in future. We wanted to assess whether users across age groups understood the need to dial 999 to reach the emergency services or whether some consumers, particularly in younger age groups, who regularly use OCS, may be less aware of the need to make a 999 voice call from their mobile or landline.

6.18 Our research indicates that, at present, dialing 999 to reach emergency services remains widely understood by citizens with 96% of respondents saying they would dial 999 on a landline or mobile service, and only 2% saying they would use WhatsApp to make the call and another 2% saying they would use other messaging apps. However, we do note signs of a generational shift, with some notable differences between age cohorts: we found 4% of 16-24 years olds and 4% of 25-34 year olds reported that WhatsApp would be their main method to contact emergency services, whereas no one in the 55-64 age cohort put WhatsApp for this question. While we do not have evidence that this trend has led to younger groups struggling to contact emergency services, if these trends were to continue they could potentially lead to some risks to consumers and citizens in future. We will continue to monitor this issue as part of our work on access to emergency communications, particularly through our engagement with the UK's 999/112 Liaison Committee.[220]

[217] Ofcom, July 2020, Online Communication Services Qualitative Research 2020.
[218] Like many OCS, Snapchat provides a messaging platform alongside other functionality and enables users to upload and share video content. As such we consider Snapchat to be both an OCS and a VSP.
[219] Ofcom, August 2023, Regulating Video Sharing Platforms, What we have learnt about VSP's user policies,
[220] 999 and 112: the UK's national emergency numbers - GOV.UK (www.gov.uk)

Potential areas of consumer harm outside the scope of our rules for traditional communications services

6.19 Earlier in this section we have assessed whether users of OCS may be exposed to harms that are protected against by our GCs for consumers of traditional telecoms services. In this section we now consider other potential consumer harms that may manifest in OCS given the different features and nature of OCS compared to traditional telecoms services.

6.20 We focus on the use of personal data, the receiving of scam communications and the distribution of harmful content as the key issues. We note that for these areas the relevant regulatory frameworks are either led by another independent regulator (in the case of personal data), or is the responsibility of a number of regulators working together (in the case of tackling scams), or will be covered by the forthcoming online safety regime (which Ofcom will lead). Given this we have not carried out an extensive assessment of these potential areas of harm.

6.21 It should also be noted that a number of the rules we have in place for telecoms services do in some form help to prevent scams,[221] but we have included scams in this section due to its multi-sector nature as well as the inclusion of financial fraud as part of the online safety regime.

Use of personal data

6.22 While OCS generally do not charge customers directly for using their service, they often collect users' personal data. This data is useful for providers and may be particularly valuable where OCS are part of a wider ecosystem of online services provided by the OCS provider. This makes appropriate safeguards around the use of personal data particularly important for the protection of consumers using these services.

6.23 While the personal information provided by users to OCS does not appear to be significantly different to that provided for a range of other online services, there are some considerations for OCS that users should be aware of, and knowledgeable about, to be engaged and empowered to make well informed decisions.

6.24 Consumers generate several types of data when using an OCS. Firstly, the content of the messages themselves is end-to-end encrypted by default for most leading OCS to ensure that only users communicating with each other can access the content of messages shared through the app.[222] A few services only provide optional encryption, or do not apply it all (see section 5 for further detail on different approaches to privacy). In contrast to message content, metadata collected as part of these services, including time and day of usage, frequency and duration, is more commonly used by providers to analyse how the service is being used. Users also provide certain data about themselves when signing up to the service e.g. phone number and email address, and may also allow data such as their contacts to be identified and shared. The extent of data provided and how it is used can vary significantly

[221] Ofcom, Tackling scam calls and texts.

[222] End-to-end encryption is a method of secure communication. The data is encrypted on the sender's system or device, and only the intended recipient can decrypt it, once the data has been transferred, using a decryption key. This prevents third parties from accessing data while it's transferred from one end system to another.

across services, in line with the purpose set out in the terms of service and privacy policy e.g. for operating and providing the service, which consumers may not be fully aware of.

6.25 Consumers must accept the terms of use and privacy policy of an OCS to use the service, which should inform them of the way their personal data will be collected, stored and processed. However, they may be unaware of the extent their personal data is collected and used due to the knowledge asymmetry between the user and the service, and the lack of transparency around often lengthy terms and conditions (see above section on terms of service) and privacy policies, which often describe complicated data practices using complex terms. Our consumer research highlighted concerns around data: 18% of consumers are unsure how their messages are stored and 24% are worried that messaging services might be hacked.

6.26 These issues are wider than OCS with only 13% of adults reporting that they have a good understanding of how their personal information is used by companies and organisations in the UK.[223] Notably, in the same survey, social messaging platforms were rated with the lowest levels of trust and confidence in how they store and use personal information, with the NHS, the police and national government bodies receiving the highest. If OCS do not store the data securely, or if they share it with third parties with poor security, consumers could be at risk of harm from a data breach, leading to, for example, financial loss or anxiety.[224] Consumers may be unaware of these risks if they do not have a good understanding of how their data is being used and understand that different services will have different approaches.

6.27 Other regulators are considering how to promote higher standards of data protection across OCS. For example, the Bundeskartellamt concluded that market competition alone will not be sufficient and recommended greater enforcement of consumer rights and a communication strategy to better inform consumers.[225]

6.28 Data usage and privacy are complex issues for consumers to navigate in the landscape of OCS. The business model of these services, where data plays an important role, is a significantly different approach from the direct monetary charges of the communication providers that we traditionally regulate.

6.29 There is already a well-established framework in place through data protection legislation (such as UK GDPR) and the role of the UK Information Commissioner's Office (ICO) providing guidance and taking enforcement action where necessary, which ensures UK citizens and consumers' rights are appropriately protected when using any services where personal data is disclosed, including to OCS. We will continue to collaborate with ICO as appropriate on data protection issues, both bilaterally and through the Digital Regulation Cooperation Forum.

Scams

6.30 Scams are often complex with multiple steps involved that can cut across a number of sectors. While the use of communication services can be part of a scam, there are a range of organisations that have a role to play in tackling this issue. To ensure more scams are blocked or disrupted we have collaborated closely with law enforcement bodies, other

[223] ICO, June 2021, Information rights strategic plan: trust and confidence.
[224] ICO, research on data protection harms.
[225] Bundeskartellamt, 2023, Sector inquiry - Messenger and Video Services.

regulators, including the ICO, Financial Conduct Authority and Payment Services Regulator, as well as consumer groups and government.[226]

6.31 However, scams remain a significant problem. Our 2022 research into scam calls and texts found that suspected scam attempts affect the vast majority of people in the UK.[227] Our 2022 Online Scams & Fraud research found that nearly nine in ten adult internet users (87%) have encountered content online, which they believed to be a scam or fraud. The most common type of content which fraudsters use to reach potential victims was through a direct message (41%).[228]

6.32 Partly due to a general shift towards online communications and partly because of the work undertaken to disrupt fraudulent messages via more traditional routes like SMS, scammers appear to be evolving their methodologies, and may be shifting towards OCS. Our 2022 research found that 23% of consumers reported receiving a suspicious message through an app on their mobile phone.[229] As OCS focus on person-to-person communications, the scammer often claims to be someone known to the consumer who has lost their phone or is currently travelling. They will often begin by chatting before asking the consumer for personal information or to share money.

6.33 Some developments in the OCS market, with more OCS aiming to move into the market of business to consumer (B2C) communications (see sections 5 and 6), may bring additional challenges. Application to person (A2P) messaging over OCS that enable medium and large businesses to send messages in bulk to customers may provide opportunities for exploitation by scammers (although sending SMS messages in bulk is also already possible). Further, as businesses increasingly use OCS, this may provide scammers the opportunity to impersonate those organisations using OCS for their B2C communications, which would be challenging for consumers to identify as scams. Finally, while we have not seen evidence of this at present, increases in the use of OCS for B2C interactions could potentially lead to increases in spam messages received to personal OCS accounts, which may cause consumers inconvenience or harm.

6.34 We will continue to coordinate and collaborate with partner organisations to tackle scams that use OCS. As part of this work, we jointly monitor emerging scams and fraud tactics, including those using OCS.

6.35 All companies regulated under the Online Safety Act will need to comply with their legal obligations to protect users from illegal and harmful content. This includes OCS. Services will have to set out in their terms of service how they protect individuals from illegal content (including fraudulent content) and consistently implement those terms. They will need to identify the risks associated with online fraud and scams in their risk assessments and put in place proportionate systems and processes to mitigate those risks. For more information on how we are preparing to regulate online safety, see our website.[230]

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[226] Ofcom, February 2022, Tackling scam calls and texts: Ofcom's role and approach.
[227] Ofcom, August 2022, Research supporting scams statements 2022.
[228] Ofcom, March 2023, Online scams and fraud research.
[229] Ofcom, August 2022, Research supporting scams statements 2022. See page 9.
[230] Ofcom, Online Safety – Information for industry.

Online safety and protecting children from harm

6.36 OCS make it easier to find new contacts and to share photos, video and other content, which are features of OCS that consumers value. However, these features do also potentially lead to an increased risk of harm from users being exposed to content that is illegal or harmful, and children may be particularly vulnerable.

6.37 These are important issues for user protection from harm and are central to the online safety regime. The forthcoming online safety regime will give Ofcom a range of powers to help address this issue and ensure that regulated services take appropriate steps to protect users, particularly children. We have published a roadmap to implementation, setting out our phased approach to consulting on the different parts of the online safety regime including age verification, codes of practice and guidance for services to assist them in complying with their duties.[231]

[231] Ofcom, June 2023, Update: how Ofcom is preparing to regulate online safety.