



Digital Platform Services Inquiry – September 2023 Report on the expanding ecosystems of digital platform service providers

Issues Paper

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1. The expanding ecosystems of digital platform service providers

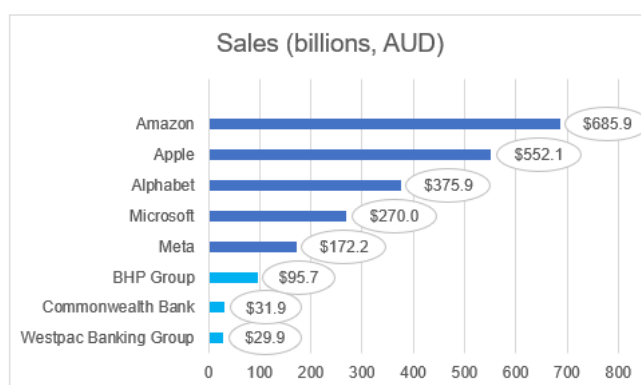
In Australia, as in other jurisdictions, the significance of digital platforms has had increasing recognition, both for individuals and the broader economy. Large providers of digital platform services have continued to expand into a vast array of interrelated products and services outside of their initial or core offerings, becoming an integral part of modern society. This was accelerated during the COVID-19 pandemic as more consumers and businesses went online and we became more dependent on large digital platforms to facilitate everyday tasks. Large providers of digital platform services are ubiquitous – we use their services to speak with our friends and family, for work and play, to learn, we pay with them, we meet partners on them, and we wear their devices.

The Australian Competition and Consumer Commission (ACCC) in its seventh report of the Digital Platform Services Inquiry (the Inquiry) is therefore examining the expanding ecosystems of providers of digital platform services, including those of Alphabet (Google), Amazon, Apple, Meta (Facebook) and Microsoft. The Report will closely examine the extensive web of interconnected products and services of digital platform service providers and the extent to which this may have increased the risk of competition issues and consumer harms in Australia.

While there are various ways to define an ecosystem, for the purpose of this Report we consider the term “digital platform ecosystem” to encompass the wide range of interrelated products and services - whether interrelated through technical interoperability or by commercial practices such as bundling - offered by a single or related group of companies. For example, smartphone devices that interoperate with and control smart home devices supplied by the same digital platform service provider. It can also include the data collected through new gaming, education and wearable offerings that may be relevant to other digital platform service offerings, such as internet search engine services.

Alphabet, Amazon, Apple, Meta and Microsoft are five of the largest technology companies in the world.² Each firm is larger than Australia’s biggest companies (see Figure 1 below). They have each built extensive digital platform ecosystems of interrelated and interconnected services, often in data-intensive sectors, expanding their reach and impact on both the global and Australian economy.

Figure 1: Global sales of largest digital platforms vs. largest Australian firms (May 2021 to April 2022).¹



¹ Forbes, [Global 2000 \(2022\)](#). Forbes Global 2000 figures are based on the most recent 12 months of financial data available to Forbes on 22 April 2022. Converted from AUD to USD based on 1 USD to 1.46 AUD on 22 February 2023.

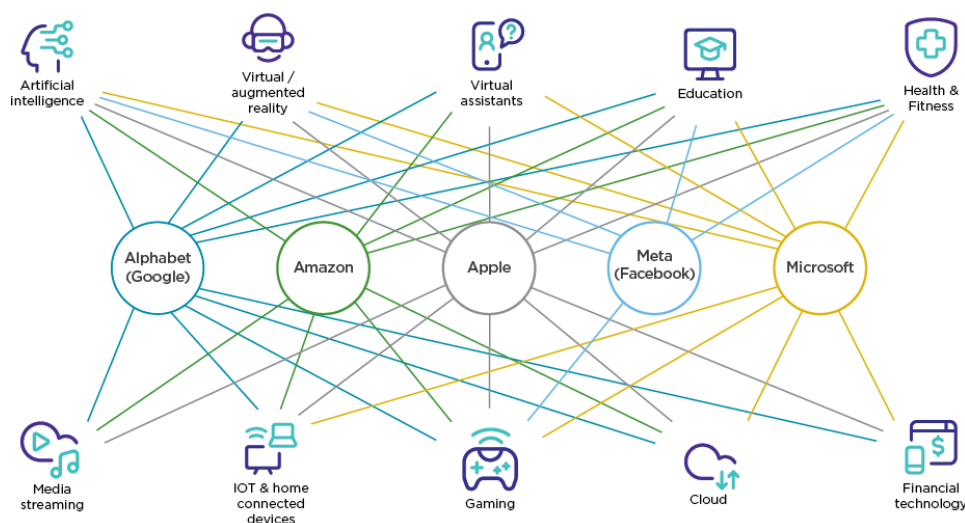
In the time since the data in Figure 1 was collated, despite some reports of slightly reduced earnings in Q4 2022 for some digital platforms,² each has also continued to generate significant revenues. For fiscal year 2022, Alphabet reported earnings of US\$283b,³ Amazon reported earnings of US\$514b,⁴ Apple reported earnings of US\$394b,⁵ Microsoft reported earnings of US\$198b⁶ and Meta reported earnings of US\$116b.⁷ The digital platform services offered by these firms are critically important to Australian consumers and businesses and are major drivers of productivity growth in the Australian economy.⁸

This Issues Paper seeks views on the impact of the expanding ecosystems of providers of digital platform services on Australian consumers and businesses, including the increased risk of potential competition and consumer issues. The Report will consider smart home devices and consumer cloud storage services as examples of the expansion of digital platform service providers into products and services that relate to their other digital platform services.

The ACCC will submit its report to the Treasurer by 30 September 2023 (the Report).

Significant investments and acquisitions have seen these large providers of digital platform services expand into different sectors and technologies. These include, as shown in Figure 2 below: smart home devices, cloud storage and computing, artificial intelligence, virtual and augmented reality, education technology, health devices and services, financial technology, gaming, media streaming and others.

Figure 2: Selection of the different sectors and technologies Alphabet, Amazon, Apple, Meta and Microsoft have expanded into in Australia over the past decade.



² CNN, [Apple, Amazon and Google post earnings that disappoint](#), 3 February 2023.

³ Alphabet, [Alphabet Announces Fourth Quarter and Fiscal Year 2022 Results](#), 2 February 2023. The reported comparable periods for fiscal year ending 31 December 2022.

⁴ Amazon, [Amazon.com Announces Fourth Quarter Results](#), 2 February 2023. Amazon reports on net sales. The reported comparable periods for fiscal year ending 31 December 2022.

⁵ Apple, [Apple Reports Fourth-Quarter Results](#), 27 October 2022. The reported comparable periods for fiscal year ending 24 September 2022.

⁶ Microsoft, [Annual Report 2022](#), 28 July 2022. The reported comparable periods for year ending 31 July 2022.

⁷ Meta, [Meta reports fourth quarter and full year 2022 results](#), 1 February 2023. The reported comparable periods for fiscal year ending 31 December 2022.

⁸ ACCC, [Digital Platform Services Inquiry Fifth Interim Report](#), 11 November 2022, p 29.

The ACCC has observed over the past decade the following examples of the expanding ecosystems of the largest providers of digital platform services in Australia:

- Alphabet has expanded from general search and search advertising services into developing and offering mobile, automotive, and wearable operating systems. Alphabet offers an increasingly wide range of desktop and mobile applications, including through its mobile app store (Google Play). More recently, Alphabet has entered sectors including education, health and smart devices and is making significant investments in artificial intelligence.⁹
- Amazon has expanded from its origins as an online marketplace for books to the now expansive online electronic marketplace and has become a significant provider of cloud infrastructure and services through Amazon Web Services (AWS). It has also invested in sectors such as health, gaming, virtual assistant technology, smart devices, media streaming and more.¹⁰
- Apple has expanded from a supplier of personal computing devices and operating systems to a key distributor of mobile apps through the Apple App Store and online private messaging services. In recent years, Apple has also expanded its music and video streaming businesses and has invested in payment, education and health services.¹¹
- Meta has expanded from its beginnings as a social media service and supplier of online private messaging services to other services including Facebook Marketplace, Facebook Shops and more recently heavily investing in augmented and virtual reality hardware and applications.¹²
- Microsoft is active in general search with its search service Bing, and offers Windows operating system and productivity suite (Microsoft Office). It is also active in professional networking (LinkedIn) and gaming (with the Xbox gaming console and related services). Microsoft has also expanded into cloud infrastructure and services with Microsoft Azure and is investing in technologies such as artificial intelligence and supercomputing.¹³

These examples demonstrate the reach of these providers of digital platform services in Australia and the growing suite of digital platform products and services used by Australians daily.

For the purpose of this Report, the ACCC will explore the expansion of certain digital platform service providers into the provision of smart home devices and consumer cloud storage services as examples that demonstrate the expansion into other services and products that interrelate with their digital platform services. While the Report will also consider expansion into other sectors, shown at Figure 2, these examples will provide us the opportunity to demonstrate the impact of the expanding ecosystems in greater detail.

⁹ Google, [An important next step on our AI journey](#), accessed 9 February 2023.

¹⁰ Amazon, [AWS launches Healthcare Accelerator in Australia and New Zealand focused on delivering innovation for an ageing population](#), 8 November 2022.

¹¹ Apple, [Apple celebrates a groundbreaking year in entertainment](#), 10 January 2023.

¹² Meta, [Meta's Progress in Augmented and Virtual Reality](#), 19 December 2022. Meta, [Economic Opportunities in the Metaverse: A Policy Approach](#), 2 December 2022.

¹³ Microsoft, [From Hot Wheels to handling content: How brands are using Microsoft AI to be more productive and imaginative](#), 12 October 2022.

Expansion strategies of digital platform service providers and the impact on competition

Alphabet, Amazon, Apple, Meta and Microsoft have expanded their respective digital platform ecosystems through several expansion strategies. These strategies include organic growth, affiliations and partnerships with other companies, and strategic acquisitions. Digital platform service providers also have different approaches as to how open or closed their ecosystems are and the level of interoperability with third party products and services.

There have been several strategic acquisitions by large digital platforms, many involving nascent or potential competitors. Between 1987 and 2020, Alphabet, Amazon, Apple, Meta and Microsoft collectively acquired around 825 companies.¹⁴ These acquisitions have enabled digital platforms to expand into related markets, often accelerating their entry and expansion. We have also observed digital platform service providers leveraging existing positions in certain products and services, such as user data and significant user bases, to offer new and improved products and services. For example, we have observed Meta using its social media user base to expand into online shopping and dating.¹⁵ Digital platform service providers have also partnered with or affiliated with other companies to develop or deliver new or improved products. The ACCC has observed some cases of certain digital platform service providers replicating features of competitors or new entrants. New entrants may consider entering by initially offering a complementary or differentiated product to what is offered by existing digital platform service providers. In response, large providers of digital platform services can replicate their rivals' innovative features by testing those features with an established user base.

The Report will consider these and other expansion strategies, the extent they have been used by large providers of digital platform services and what impacts they may have had on competition and consumers.

The role of data in expanding digital platform ecosystems

Alphabet, Amazon, Apple, Meta and Microsoft operate in data-driven markets. The ACCC is interested in understanding the role of data in digital platform service providers' expansion strategies. The Report will consider the extent to which providers of digital platform services may use the data they collect across their ecosystem. The ACCC will consider whether and how the type of data collected from the expanded offering may be used to enhance another digital platform service within a digital platform service providers' ecosystem. For example, how the data collected from Google Nest may relate to other Alphabet offerings, such as its internet search engine services. Conversely, this could also include using the data collected from providing core digital platform services in new sectors.

The Report will seek to examine the role of data within the expansion strategies of digital platform service providers.

Leveraging behaviours to lock-in users and limit competition from actual and potential competitors

The ACCC has previously noted that certain digital platform service providers have the ability and incentive to leverage their market power across their services, which can harm

¹⁴ G Parker et al, [Platform mergers and antitrust](#), 2021, p 5-6.

¹⁵ Meta, [Facebook Dating](#) and [Meta shopping](#), accessed 3 March 2023.

competition where it prevents or inhibits rivals from competing on their merits.¹⁶ Alphabet, Amazon, Apple, Meta and Microsoft each have expansive ecosystems with advantages of scope through supplying multiple related services. This creates advantages by facilitating the sharing and combining data across services, leveraging existing user bases across services and/or lowering average costs.¹⁷ While the expansion into related or complementary products and services can benefit users, competition issues may arise where certain digital platforms have the ability and incentive to leverage market power across their services and engage in behaviours that prevent or inhibit rivals' ability to effectively compete.¹⁸

For example, for a smaller or potential rival to effectively compete and offer an attractive alternative it may have to provide a similar range of services as the large digital platform service providers that benefits from advantages of scope. These barriers may be reinforced when digital platforms restrict interoperability, make their services incompatible or create a less seamless experience with other services outside their own ecosystem. Other behaviours that have "lock-in" effects on consumers and creating switching costs can also protect digital platforms ecosystems from competition.

There are several types of conduct that large digital platform service providers can engage in to leverage their market power across their services and to limit competitive threats, including:

- Bundling, where a supplier only offers 2 products or services as a package, or for a lower price if the 2 products or services are purchased together.¹⁹
- Tying, where the provision of one service is conditional on the provision of another service.²⁰
- Self-preferencing, where a platform gives preferential treatment to its own products and services when they compete with products and services provided by third parties using the platform. This could include providing first-party apps with superior access to data.²¹
- Pre-installation arrangements and default setting, where an agreement between two parties allows for a product or service to be pre-installed or set as a default on another product or service.²²

The ACCC acknowledges that these practices do not always harm competition and can sometimes be pro-competitive. For example, where self-preferencing leads to greater competition between ecosystems by improving a platform for consumers.²³ However, they can also be harmful to competition where they prevent or inhibit rivals' ability to effectively compete.

The Report will consider the extent of any anti-competitive conduct that has resulted from the expanding ecosystems of providers of digital platform services.

¹⁶ ACCC, [Digital Advertising Services Inquiry Final Report](#), 28 September 2021, p 15.

¹⁷ ACCC, [Digital Platform Services Inquiry Fifth Interim Report](#), 11 November 2022, p 6.

¹⁸ ACCC, [Digital Platform Services Inquiry Fifth Interim Report](#), 11 November 2022, p 41; ACCC, [Digital Advertising Services Inquiry Final Report](#), 28 September 2021, p 15.

¹⁹ ACCC, [Guidelines on misuse of market power](#), August 2018, p 14.

²⁰ There can also be some overlap between self-preferencing and tying. For example, some conduct that is described as self-preferencing could also be described as tying, and vice versa. See OECD, [Abuse of Dominance in Digital Markets](#), December 2020, p 54.

²¹ Referred to in J Cremer, Y de Motjaye and H Schweitzer, [Competition policy for the digital era](#), European Commission Directorate-General for Competition, 20 May 2019, p 7.

²² ACCC, [Digital Platform Services Inquiry Fifth Interim Report](#), 11 November 2022, pp 20, 23.

²³ ACCC, [Digital Platform Services Inquiry Fifth Interim Report](#), 11 November 2022, p 125.

Potential consumer harms arising from the expanding ecosystems of digital platform service providers

Interrelated services and ecosystems can provide important benefits to consumers by creating a more seamless experience, where services and devices within an ecosystem complement or interoperate effectively with each other.²⁴ However, it can also raise issues that may limit choice for consumers or otherwise lead to consumer harms.

The ACCC has outlined below some examples of potential consumer harms that may be exacerbated by the expanding ecosystems of digital platform service providers.

Consumer lock-in and reduced choice

As explained above, the interrelated and interconnected nature of the services supplied by digital platform service providers may benefit consumers. However, some decisions made by digital platforms could prevent consumers from making fully informed and effective choices.

For example, while some consumers may switch to an alternative platform or services, there may be switching costs involved that can contribute to consumer lock-in. Switching can also be limited by factors controlled or influenced by digital platforms. This includes information asymmetries and a lack of transparency that makes it difficult for consumers to compare different products or services, or the use of dark patterns that discourages consumers from switching, such as those that make it difficult to cancel subscriptions.

The decisions made by digital platforms may also exacerbate consumer inertia (where consumers tend to use a particular service or product if they are familiar with it, have experience using it, or if it is the default option available to them).

These factors can prevent consumers from making fully informed choices and can work against consumers' interests to prevent effective consumer choice.²⁵

The Report will consider the extent of practices by digital platforms that impede consumers from making effective and informed decisions. The Report will also examine whether it has also reduced incentives of digital platform service providers to innovate and improve the quality of digital platform products and services available to Australian consumers.

Use of data including problematic data practices and excessive or undisclosed data collection

As large digital platforms expand their ecosystems of digital platform services into new products, sectors or technologies, they may also have increased opportunities to accumulate and utilise the personal data of Australian consumers. The user data collected and used by large providers of digital platform services is valuable in its volume and scope and is primarily first-party data that may not be available to potential rivals.²⁶

The ACCC has previously found that a lack of effective competition, and available alternatives that consumers can easily switch to, can lead consumers to accepting undesirable terms of use.²⁷ These terms may also be provided on a 'take-it-or-leave-it' basis

²⁴ ACCC, [Digital Platform Services Inquiry Fifth Interim Report](#), 11 November 2022, p 33.

²⁵ ACCC, [Digital Platform Services Inquiry Fifth Interim Report - Discussion Paper](#), February 2022, p 52; ACCC, [Report on Search Defaults and Choice Screens](#), 28 October 2021, p 28.

²⁶ ACCC, [Digital Platform Services Inquiry Fifth Interim Report](#), 11 November 2022, p 35.

²⁷ ACCC, [Digital Platform Services Inquiry Fifth Interim Report](#), 11 November 2022, p 44.

across a wide range of interrelated services and lead to the excessive collection of data inconsistent with consumer preferences.

The Report will consider how the expanded ecosystems of large digital platform service providers have impacted the collection and use of personal data of Australian users.

Other potential consumer harms

The ACCC has also previously identified several other potential consumer harms by digital platform service providers that might be continued to be considered in the context of the expanding ecosystems of digital platform service providers. This may include using dark patterns²⁸, such as hidden recurring charges or engaging in other unfair practices in dealings with consumers and small businesses.²⁹

As large digital platforms extend their reach to more Australian consumers through expanded digital platform offerings there may be increased opportunities and incentives to engage in harmful behaviours. The Report will consider the extent of the digital platform service providers' expansion strategies on the potential for these and other consumer harms.

Relevant international consideration

Several overseas jurisdictions are closely considering competition and consumer issues relevant to digital platform service providers expanding beyond their core digital platform services, particularly in the context of acquisitions.³⁰ There have also been some targeted studies and global interest by certain competition agencies relevant to digital platform service providers' expanding ecosystems.³¹

However, the ACCC is not aware of reports, inquiries or studies by international regulators that have solely focussed on the expanding digital platform ecosystems of increasing interrelated products and services as an exacerbating source of competitive or consumer harm (in the manner outlined above). The ACCC considers this is an apt time to examine the expansion practices of the large digital platforms and further develop the understanding of the impacts which may result from these expansion practices.

²⁸ Dark patterns refers to the design of user interfaces intended to confuse users, make it difficult for users to express their actual preferences, or manipulate users into taking certain actions.

²⁹ ACCC, <https://www.accc.gov.au/publications/serial-publications/digital-platform-services-inquiry-2020-2025/digital-platform-services-inquiry-september-2022-interim-report-regulatory-reform> Digital Platform Services Inquiry Fifth Interim Report, 11 November 2022, p 44.

³⁰ For example, in February 2023, while the United States Federal Trade Commission announced it will not oppose Amazon's acquisition of primary healthcare provider One Medical, it stated it will monitor for potential harms to competition or misuse of consumer data resulting from the deal. See Reuters, [US will not challenge Amazon.com's plan to buy One Medical, FTC official says](#), 22 February 2023.

³¹ For example, the United Kingdom Competition and Markets Authority market study into mobile ecosystems that considered the interrelationship between mobile operating systems, app stores and web browsers. See United Kingdom Competition and Markets Authority, [Mobile ecosystems market study](#), last updated 10 June 2022. Competition issues arising in relation to digital ecosystems are also a growing area of interest for intergovernmental bodies, in February 2021 the Organisation for Economic Co-operation and Development hosted its third OECD Competition Open Day on the theme "Competition Economics of Digital Ecosystems". See OECD, [Competition economics of digital ecosystems](#), third edition of the OECD Competition Open Day, 24 February 2021. The German competition agency, Bundeskartellamt, has also found Alphabet to have paramount significance for competition across markets, see [Alphabet/Google subject to new abuse control applicable to large digital companies – Bundeskartellamt determines "paramount significance across markets"](#), published 5 January 2022.

Questions for market participants on the expanding ecosystems of digital platform service providers in Australia

- 1) What is the impact of the strategies used by Alphabet, Amazon, Apple, Meta and Microsoft to expand their reach in Australia, such as organic growth and investment, partnerships and affiliations with other companies, and acquisitions?
- 2) What are the differences in approaches in business strategies for these digital platform service providers?
- 3) What are the differences in the level of third party interoperability offered by each of the providers?
- 4) Do Alphabet, Amazon, Apple, Meta and Microsoft hold any unique advantages when entering new sectors or developing new products/services (e.g. by virtue of any data collected in the scope of their core offerings)?
- 5) How successful or unsuccessful have the expansion activities of these providers of digital platform services been?
- 6) What are the key sectors, products and services that these providers of digital platform services have expanded into (or are expanding into) in Australia? Why have they/are they expanding into these sectors?
- 7) What benefits have consumers, businesses and the Australian economy gained from the expansion activities of these providers of digital platform services?
- 8) How has the expansion of these providers of digital platforms services impacted their competitive position, particularly for their core digital platform offerings?
- 9) What extent do these providers of digital platform services use strategies like bundling, tying, self-preferencing or use pre-installation arrangements? To what extent have these practices impacted competition in Australia, such as potentially limiting the ability of rivals to compete?
- 10) What types of other potential competition issues have arisen from these providers of digital platform services expanding their ecosystems?
- 11) What types of potential consumer harms have arisen from these providers of digital platform services expanding their ecosystems?

2. Examples of digital platform service providers' expansion into other products and services

As mentioned above in Section 1, Alphabet, Amazon, Apple, Meta and Microsoft have each expanded into several different sectors and technologies.

The Report will consider the expansion of digital platforms into smart home devices and consumer cloud storage services as examples, to show the relationship between these and other digital platform services provided by digital platforms in Australia. While the Report will also consider expansion into other sectors more generally, these examples will provide the ACCC with the opportunity to demonstrate the impact of these expanding ecosystems in greater detail.

Digital platform service providers' expansion into smart home devices

Smart home devices are devices typically found in the home that can connect to other devices or networks, exchange data and interact with users. Smart home devices include security devices, connected entertainment systems and smart speakers and a range of other connected and voice-activated home appliances or devices. The Report will focus on smart home devices relevant to the largest providers of digital platform services and will not cover wearable devices, including smart watches, fitness trackers and other consumer or industrial Internet of Things (IoT).³²

Demand for smart home devices has rapidly grown in Australia in recent years. More than two-thirds of Australian households were estimated to have at least one smart home device in 2022 and about a quarter of households are estimated to have more than five different types of smart home devices installed.³³ Several of the largest providers of digital platform services have expanded into smart home devices, including:

- Alphabet, and its Google Nest suite of devices, including smart speakers, display hubs, streaming tools such as Chromecast, smart smoke and carbon monoxide alarms, cameras, doorbells and others.³⁴
- Amazon with its Alexa enabled devices such as the Echo smart speakers, Fire TV Stick and smart display devices, as well as smart lights and plugs and security cameras and doorbells.³⁵
- Apple with its HomePod smart speaker,³⁶ Apple TV and other Siri-enabled devices and smart home accessories, such as third party smart light bulbs.³⁷

The ACCC has previously considered the risks associated with voice-activated devices and increased data gathering through IoT devices.³⁸ This Report proposes to examine the relationship between the relevant digital platforms' smart home device offerings and the

³² Other consumer IoT may include connected cars, an online intermediary service or other smart devices not typically used in the home. Industrial IoT may include machine-to-machine learning or other technologies used in a manufacturing or industrial process.

³³ Telsyte, [Matter to drive smart home boom despite economic headwinds](#), 8 November 2022.

³⁴ Google, [Google Nest Suite](#), accessed 8 February 2023.

³⁵ Amazon, [Amazon Smart Home](#), accessed 8 February 2023.

³⁶ Apple, [Apple introduces the new HomePod with breakthrough sound and intelligence](#), 18 January 2023.

³⁷ Apple, [Apple TV Home](#), accessed 8 February 2023.

³⁸ ACCC, [Digital Platforms Inquiry Final Report](#), 26 July 2019, p 510 - 518.

other offerings within their ecosystems. For example, most smart home devices connect to or otherwise interrelate with other digital platform services, such as:

- smartphone devices (such as iPhones and Android devices) to control and interact with the device or enable voice assistant technology
- apps to also control and interact with the device (often accessed by the Apple App Store or Google Play Store)
- search and other functionalities, usually initiated through voice assistant technologies such as Amazon Alexa, Siri and Google Assistant

The Report will consider these relationships, and others, with other services within the ecosystems of digital platform service providers, including any potential competition or consumer issues as outlined above in Section 1.

Questions for market participants on smart home devices

- 12) What types of smart home devices are most widely used in Australian households, including smart speakers, security devices and other smart home appliances?
- 13) Who are the most significant suppliers of smart home devices for Australian consumers? Has this changed over time?
- 14) What are the main reasons for using a smart home device? What are the rates of smart home device usage among Australian consumers, in terms of the number of active users, frequency of use and the amount of data stored? Are these changing over time?
- 15) How do consumers tend to choose their smart home device? What factors do they consider when choosing between different suppliers? To what extent do users use the same supplier for their smart home devices and other interconnected devices (e.g. mobile phone)? To what extent do users use multiple different suppliers for their smart home devices and other interconnected devices?
- 16) What types of consumer data are collected on smart home devices? How is this data used by the digital platform that collected the data? What other products and services is this data being used to provide (including other revenue generating products and services offered by the digital platform that collected the data)? Is any of this data provided to third parties? To what extent do consumers understand the data collection practices when using a smart home device?
- 17) To what extent do smart home devices interoperate with other products or services within a digital platforms' ecosystem (for example, Alphabet's Google Nest products with Google Photos or Apple's smart home devices and its mobile operating system or App Store)?
- 18) To what extent does the experience or functionality of a smart home device differ when used in conjunction with a device provided by a different firm?
- 19) What consumer benefits arise from the provision of smart home devices in Australia by firms which also provide a suite of other products or services?
- 20) What competition and consumer harms may arise from the provision of smart home devices in Australia by firms which also provide a suite of other products or services?

Digital platform service providers' expansion into consumer cloud storage services

Consumer cloud storage services allow consumers to store, manage, organise, and retrieve data in a remote server (the 'cloud') and are primarily intended for personal use.³⁹ Consumers typically use these services to upload and retrieve their data across multiple devices (including phones and computers) and locations. Alphabet, Apple and Microsoft now offer consumer cloud storage services including iCloud, Google Drive and OneDrive respectively which are often used or integrated with other digital platform services within their respective ecosystems. There are also some other providers of consumer cloud storage services, such as Dropbox, pCloud, Sync.com, MEGA and IDrive.

The ACCC will focus on consumer focussed cloud-hosted ready-to-use applications (Software as a Service – SaaS) and not enterprise-oriented cloud services, or broader cloud computing services classified as 'infrastructure as a service' (IaaS) or 'platform as a service' (PaaS).⁴⁰

The use of consumer cloud storage services is increasing.⁴¹ Previously, consumers tended to store digital data on physical devices such as computer hard drives, smartphones and portable hard drives. The use of cloud storage services offers benefits to consumers such as access to synchronised data across devices and locations, facilitating collaboration and sharing between friends and family, access to a larger volume of storage than available on a device, and reducing risks of data loss through automated backing-up. This Report proposes to examine the relationship between the relevant digital platform service providers' consumer cloud storage service and the other offerings within their ecosystems. For example, most consumer cloud storage services are accessed by devices supplied by digital platform service providers, such as smartphones and personal computers, which are also often controlled by first-party operating systems.

The Report will consider these relationships, and others, with other services within the ecosystems of digital platform service providers, including any potential competition or consumer issues as outlined above in Section 1.

Questions for market participants on consumer cloud storage

- 21) Who are the most significant suppliers of consumer cloud storage for Australian consumers? Has this changed over time?
- 22) What are the main reasons that consumers use cloud storage? What are the rates of cloud storage usage among Australian consumers, in terms of the number of users, frequency of use and the amount of data stored? Are these changing over time?
- 23) How important is the cost of consumer cloud storage services to consumers in choosing a supplier? How transparent is the pricing of consumer cloud storage services? How do prices and pricing structures of consumer cloud storage services

³⁹ Small business users may also use consumer cloud storage offerings (as an alternative to cloud storage products specifically designed for and marketed towards small businesses).

⁴⁰ Specifically, it will not examine cloud service offerings which provide enterprise clients with virtual servers, storage and networks ("Infrastructure as a Service"), or cloud-hosted platforms for developing, running and managing applications ("Platform as a Service"). The case study will not cover enterprise-oriented cloud services, such as cloud computing platforms and application programming interfaces.

⁴¹ Australian Government Department of Infrastructure, Transport, Regional Development and Communications, Bureau of Communications and Arts Research, [Demand for fixed-line broadband in Australia 2018-2028](#), Working paper, July 2020, accessed 8 February 2023, p 59; and IBISWorld, [Cloud Storage Services in Australia – Key Statistics](#), April 2022, accessed 12 January 2023.

differ between suppliers in Australia?

- 24) What is involved in switching consumer cloud storage providers? How hard or easy is it to migrate data from one provider to another?
- 25) How do consumers choose their cloud storage provider/s? What are the main factors that they consider when choosing between options and suppliers? To what extent do users of a certain device or mobile operating system choose to use cloud storage provided by a) the same firm supplying the device or mobile operating system and b) another firm?
- 26) To what extent do consumers tend to use more than one cloud storage service? And if more than one cloud storage service is used, for what purposes?
- 27) To what extent does the experience or functionality of a cloud storage service differ when used in conjunction with a device provided by a different firm?
- 28) What types of data is collected by firms providing consumer cloud storage? How is this data used or otherwise monetised and how is this communicated to consumers? What other products and services is this data used to provide (including other revenue generating products and services offered by the digital platform that collected the data)? Is any of this data provided to third parties?
- 29) What consumer benefits arise from the provision of consumer cloud storage in Australia by firms which also provide a suite of other products or services?
- 30) What competition and consumer harms may arise from the provision of consumer cloud storage in Australia by firms which also provide a suite of other products or services?

3. Information for submissions

Key dates

The ACCC invites written views from interested stakeholders to be submitted by **5 April 2023**.

This Report will be submitted to the Treasurer by 30 September 2023 and will be made public soon after.⁴²

Responding to the Issues Paper

The ACCC invites written submissions from interested stakeholders. We will also directly contact some market participants to request specific information. Submissions to this Issues Paper should be emailed to digitalmonitoring@acc.gov.au.

We encourage you to provide your views on the issues that are most relevant to you, as well as on any other issues you consider relevant to digital platform ecosystems of services, smart home devices and consumer cloud storage. You do not have to address every question in this Issues Paper and you may discuss issues not covered in the Issues Paper. In preparing your submission, please include as much evidence as is possible to support your views.

Invitation for written submissions

You may provide your submission to the ACCC in the form of a public or confidential submission, noting that the ACCC's Inquiry is a public process and that, in general, submissions will be placed on the ACCC website to allow for public consultation (see section below on Treatment of confidential information). You are encouraged to speak with our team before providing a confidential submission if you have any questions regarding the ACCC's processes for dealing with confidential information.

Written submissions to this Issues Paper should be emailed to digitalmonitoring@acc.gov.au by **5 April 2023**.

Treatment of confidential information

The ACCC invites interested parties, where appropriate, to discuss confidentiality concerns with the ACCC in advance of providing written material. The Inquiry is a public process and feedback (written and oral) will generally be posted on the ACCC website. The *Competition and Consumer Act 2010* (Cth) (CCA) allows interested parties that provide feedback to the Inquiry to make claims for confidentiality in certain circumstances.

The ACCC can accept a claim of confidentiality from a party if the disclosure of information would damage their competitive position, the ACCC is satisfied that the claim is justified, and it is not necessary in the public interest to disclose the information. The ACCC will consult with a party where possible and appropriate prior to publishing any information over which that party has claimed confidentiality.

⁴² Further detail on the Digital Platform Services Inquiry is provided at **Section 4**.

Making a claim of confidentiality

1. So that the ACCC can consider whether the confidentiality claim is justified, you must provide reasons why the information is confidential and why disclosure of the information would damage your competitive position.
2. If you are claiming confidentiality over all of the information in your submission, you must provide reasons why all of the information in your submission is confidential. As the Inquiry is a public process, please consider whether there are any parts of your submission that may be published without damaging your competitive position.
3. If you are claiming confidentiality over a part of the information in your submission, the information over which you claim confidentiality should be provided in a separate document and should be clearly marked as 'confidential' on every relevant page. Alternatively, you may wish to provide (1) a public version for publication on the ACCC website with the confidential information redacted, and (2) a confidential version with all of the confidential information clearly marked.
4. Contact us at digitalmonitoring@acc.gov.au if you have any questions regarding making a submission containing confidential information.

4. Scope of the Inquiry and advice to Government

In December 2019, the Treasurer directed the ACCC to conduct a five year inquiry into markets for the supply of digital platform services. The Inquiry will provide a report to the Treasurer every six months with each report focusing on different digital platform services. The goods and services included in the Treasurer's Direction for the Inquiry are:

- (a) digital platform services
- (b) digital advertising services supplied by digital platform service providers
- (c) data collection, storage, supply, processing and analysis services supplied by:
 - (i) digital platform service providers; or
 - (ii) data brokers.

Services included under the Inquiry definition of digital platform services are:

- (a) internet search engine services (including general search services and specialised search services)
- (b) social media services
- (c) online private messaging services (including text messaging, audio messaging and visual messaging)
- (d) digital content aggregation platform services
- (e) media referral services provided in the course of providing one or more of the services mentioned in paragraphs (a) to (d)
- (f) electronic marketplace services.

As part of the Inquiry, the Treasurer directed that the ACCC take into consideration a number of matters over the duration of the Inquiry, including:

- (a) the intensity of competition in the markets for the supply of digital platform services
- (b) practices of individual suppliers in the markets for digital platform services which may result in consumer harm
- (c) market trends, including innovation and technology change, that may affect the degree of market power, and its durability, held by suppliers of digital platform services
- (d) changes over time in the nature of, characteristics and quality of digital platform services arising from innovation and technological change, and
- (e) developments in markets for the supply of digital platform services outside Australia.

The first six monthly report was provided to the Treasurer on 30 September 2020 and published on 23 October 2020. That report provided an in-depth focus on online private messaging services in Australia. It also updated the ACCC's previous analysis in relation to search and social media platforms and identified competition and consumer issues common across these platforms.

The second six monthly report was provided to the Treasurer on 31 March 2021 and published 28 April 2021. That report focused on mobile app marketplaces and examined issues including the use and sharing of data by apps, the extent of competition between app

providers on Google and Apple's app marketplaces, and the app marketplaces' relationships with consumers.

The third six monthly report was provided to the Treasurer on 30 September 2021 and published 28 October 2021. That report focused on the provision of web browsers and general search services to Australian consumers, and the impact of pre-installation and default arrangements on these service offerings.

The fourth six monthly report was provided to the Treasurer on 31 March 2022 and published on 28 April 2022. That report focused on the provision of general online retail marketplaces to consumers in Australia.

The fifth six monthly report was provided to the Treasurer on 30 September 2022 and published on 11 November 2022. That report considered whether there is a need for a new regulatory framework to address the competition and consumer concerns identified in digital platform services markets to date.

The sixth six monthly report will be provided to the Treasurer by 31 March 2023. This report will focus on the potential competition and consumer issues in the provision of social media services to consumers and businesses in Australia by social media platforms.

Ministerial Direction

The full Ministerial Direction can be found on the [ACCC website](#).

Glossary of terms used

Term	Description
ACCC	Australian Competition and Consumer Commission
CCA	<i>Competition and Consumer Act 2010 (Cth)</i>
Consumer cloud storage	An online service where consumers can store, manage, organise and retrieve digital content
Inquiry	The ACCC Digital Platforms Services Inquiry 2020-2025
Internet of Things (IoT)	The use of internet-connected technology in physical devices that have not traditionally featured such technology, such as cars, household appliances and speakers. This allows these devices to collect, share and make use of data
Report	The report in relation to the expanding ecosystems of providers of digital platform services, which the ACCC will submit to the Treasurer by 30 September 2023
Smart home device	Wireless electronic consumer IoT device found in the home, such as security devices, connected entertainment systems and smart speakers and a range of other connected and voice-activated home appliances that is capable of connecting to other devices or networks, exchanging data with them and operating to some extent interactively and autonomously
Voice assistant	Software accessed via an application or device that uses voice recognition, speech synthesis and natural language processing to perform tasks or services for an individual based on commands or questions. Examples include Google Assistant, Siri and Alexa