



**ACCC Digital Platforms Services Inquiry**

**September 2023 Report on “the expanding ecosystems of digital  
platform service providers” (DPSI 7)**

**Google’s Response to ACCC Issues Paper**

**21 April 2023**

## INTRODUCTION

1. Google provides this submission on the ACCC's Issues Paper for its September 2023 report on "the expanding ecosystem of digital platform service providers".
2. Digital platform ecosystems—which are often made up of the interrelated products and services of not one but multiple companies—provide consumers with wide-ranging benefits and convenience, while promoting consumer choice and competition among a diverse group of technology offerings.
3. We welcome the opportunity to share more details about the significant competition and consumer benefits associated with our ecosystems.
4. First, we explain how we understand the term "ecosystem" in the context of our business. We see inherent benefits arising from vigorous and innovative competition between digital platform providers through the development of their products and rival ecosystems.
5. Second, by reference to Google's products and services, we provide observations on the general themes in the Issues Paper. We believe there are consumer advantages from our products working well together. This consumer advantage is further enhanced by significant interoperability with third party devices, services and apps. We believe our approach and business model can be distinguished from others in this regard.
6. Third, we provide information about our policies on data collection and use, and the tools we provide users to understand and control the extent of that data collection and use.
7. Finally, given the two focus areas identified in the Issues Paper, we provide further information on:
  - our smart home devices, explaining their interoperability with third party devices, services and apps, the clear trend towards increasing interoperability under open standards, and our limited collection and use of data; and
  - our consumer cloud storage services, explaining the ease of data portability for users, our clear and low pricing, and our limited use of consumers' stored data.

8. Overwhelmingly, consumers derive clear and substantive value from digital ecosystems and the competition they foster. In considering the topics raised in the Issues Paper, the ACCC should ensure that those concrete benefits are not weighed against merely potential or speculative harms.<sup>1</sup>

## DIGITAL PLATFORM ECOSYSTEMS BENEFIT CONSUMERS

### How we understand the concept of an “ecosystem”

9. As an initial matter, it is helpful to share our understanding of the term “ecosystem”.
10. As the ACCC acknowledges, the term can be defined and used in various ways.<sup>2</sup> In the Issues Paper, the ACCC defines an “ecosystem” as encompassing “*the wide range of interrelated products and services...offered by a single or related group of companies*”.<sup>3</sup> The ACCC describes our “ecosystem” as comprising all or most of our offerings, including search, search advertising, automotive, wearable operating systems, mobile applications, education, health and smart devices, and our investments in AI.<sup>4</sup>
11. We offer two important observations regarding the nature of digital platform ecosystems that should inform the ACCC’s consideration of their competitive effects:
  - First, we do not regard our entire suite of products and services as forming a single ecosystem. Rather than introducing products or services into a closed system to support and enhance the existing ecosystem, we offer a diverse mix of products and services based on our understanding of consumer needs and preferences.
  - Second, the various digital ecosystems in which we offer our products and services are not limited to our own products and services. Unlike other companies that operate closed systems, our products are generally designed to interact with a broad array of devices, services, and apps offered by many other firms. Accordingly, we think of the various digital ecosystems in which we offer products more broadly, as a set of devices and services that interact or interoperate with and complement each other, regardless of the device manufacturer or service provider. We support significant interaction and

---

<sup>1</sup> Contrast questions 7, 10, and 11 in the ACCC, ‘Digital Platform Services Inquiry - September 2023 Report on the expanding ecosystem of digital platform service providers’ (8 March 2023) (**Issues Paper**). See also questions 19, 20, 29, and 30.

<sup>2</sup> Issues Paper, 2: “*there are various ways to define an ecosystem...*”.

<sup>3</sup> Issues Paper, 2.

<sup>4</sup> Issues Paper, 4.

interoperability in the ecosystems we develop and foster, because we consider that others' innovative offerings can complement our own.

### **There is vigorous rivalry between digital platforms' consumer-facing ecosystems**

12. We consider that digital platforms compete vigorously with each other, including at the level of their various rival ecosystems — for example, the Google home smart device ecosystem competes with the smart home device ecosystems of Apple and Amazon.
13. This competition is one factor that drives significant investment in innovation by digital platforms.<sup>5</sup> Our parent, Alphabet, and other technology companies have been consistently ranked by Boston Consulting Group as some of the most innovative companies in the world.<sup>6</sup> During the fiscal year 2020, Alphabet spent US\$27.57 billion on R&D, which is equivalent to 15.1% of its revenue. R&D spending more than doubled since fiscal year 2016.<sup>7</sup> We and other large digital platforms “*have delivered tremendous breakthrough and disruptive innovations delivering substantial benefits to society*”.<sup>8</sup> In December 2020, it was estimated that the annual economic value presented by Google's products and services was worth AU\$39 billion for Australian businesses, and AU\$14 billion for Australian consumers.<sup>9</sup>
14. Of course, not every innovation is successful, even for the largest technology companies. For example, in September 2022 we announced that our consumer gaming service Stadia hadn't gained sufficient traction with users, and was to be shut down.<sup>10</sup>
15. The ecosystems developed by technology companies also enable and encourage other more traditional sectors to innovate. For example, advancements in streaming, connectivity and operating system technologies have led to smart TVs from Sony, LG, Samsung and others (as well as streaming devices from digital platforms such as Amazon's Fire TV Stick, Google's Chromecast and AppleTV). These devices facilitate

---

<sup>5</sup> Google's Response to the ACCC's Discussion Paper, Annex Q.1.1 (8 April 2022); <https://www.accc.gov.au/system/files/DPB%20-%20DPSI%20-%20September%202022%20report%20-%20Submission%20-%20Google%20-%20Public.pdf>.

<sup>6</sup> BCG, '16 Years of the Most Innovative Companies';

<https://www.bcg.com/publications/most-innovative-companies-historical-rankings/>.

<sup>7</sup> Prableen Bajpai, 'Which Companies Spend the Most in Research and Development (R&D)?' (21 June 2021);

<https://www.nasdaq.com/articles/which-companies-spend-the-most-in-research-and-development-rd-2021-06-21>.

<sup>8</sup> David Deller et al, 'Competition and Innovation in Digital Markets' (April 2021), 13;

[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/1003985/uae-ccp-report\\_1\\_.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1003985/uae-ccp-report_1_.pdf).

<sup>9</sup> AlphaBeta, 'Google's Economic Impact in Australia' (December 2020), 5;

<https://alphabeta.com/wp-content/uploads/2020/12/googles-economic-impact-in-australia-2020.pdf>.

<sup>10</sup> Google Blog, 'A message about Stadia and our long term streaming strategy' (22 September 2022);

<https://blog.google/products/stadia/message-on-stadia-streaming-strategy/>.

consumer access to a wide range of third-party content and offer increasingly advanced connectivity.<sup>11</sup>

16. Consumers ultimately benefit from this innovation. Those benefits often accrue either in the form of superior integrations across products, leading to more useful products and services across the entire ecosystem, or in entirely new areas and use cases.
17. There are other broad dimensions of competition between technology companies which drive innovation. For example, competition in the realm of artificial intelligence is translating into innovations to search, productivity software, and a host of consumer applications.<sup>12</sup>

### **Our well-integrated product suites benefit consumers**

18. Even adopting a narrow focus on only our suites of products and services as suggested by the Issues Paper definition of “ecosystem” (that is, setting aside all the other products and services that we interconnect with) reveals clear benefits to consumers.
19. We have created a variety of product suites that each offer consumers a seamless and well-integrated experience. Our technologies are useful, secure, and constantly being improved.
20. For example, as described in the subsequent sections of this submission:
  - Google’s consumer cloud productivity suite (of which our consumer cloud storage offerings are an important component) allows users to synchronise, store, retrieve, and share files across multiple devices, locations and users.<sup>13</sup> Users’ files are securely encrypted, protected from the risk of data loss, and are well-protected from malware, spam, ransomware, or phishing. Importantly, Google’s productivity suite facilitates collaboration and sharing amongst friends

---

<sup>11</sup> Alan Wolk, ‘A New Generation of Smart TVs is Changing the Way We Watch TV’, *Forbes* (15 September 2021); <https://www.forbes.com/sites/alanwolk/2021/09/15/the-tv-dongle-is-about-to-go-the-way-of-the-8-track/?sh=4752254e7c5a>.

<sup>12</sup> See Google Blog, ‘Building the most open and innovative AI ecosystem’ (15 March 2023); <https://cloud.google.com/blog/products/ai-machine-learning/building-an-open-generative-ai-partner-ecosystem> Google Blog, ‘A new era for AI and Google Workspace’ (15 March 2023); <https://workspace.google.com/blog/product-announcements/generative-ai> Sundar Pichai, ‘An important next step on our AI journey’ (6 February 2023); <https://blog.google/technology/ai/bard-google-ai-search-updates/>

<sup>13</sup> See for example Google Drive, ‘Overview’; [https://www.google.com/drive/..](https://www.google.com/drive/)

and family, either for free or at low cost (depending on the user's needs).<sup>14</sup> That represents a significant innovation over prior, non-cloud productivity software.

- Similarly, Google's technology enables its smart device product suite to work seamlessly together. For example, the Google Home app enables users to see all their smart devices, organise them into rooms, and manage their settings remotely from a single app. A Google Nest Hub can instantly play media on a Google Chromecast or Nest smart speaker in another room.

### **Consumers derive further benefits from our broad, multi-firm ecosystems**

21. We have long distinguished ourselves from other technology companies through our commitment to open-source software and interoperable products that integrate with other technologies.
22. Our Android ecosystem is one example of how broad, multi-firm ecosystems can foster competition, benefitting all involved and enhancing the consumer experience.<sup>15</sup>
  - Google developed Android as a free, open-source, and customisable mobile platform. Android represents an alternative to closed, walled-garden models like Apple and proprietary environments like Windows—the two leading operating systems in Australia.
  - The Android ecosystem is made up of a wide range of offerings from device manufacturers (including those who have developed their own variations of our operating system) and app developers, made possible by our open-source Android operating system.
  - Android has led to an explosion in hardware and software innovation—and therefore, competition and consumer choice. Nearly 1,300 brands have produced over 24,000 distinct Android devices, powered by over 1 million apps

---

<sup>14</sup> See for example:  
Google Drive, 'Pricing';  
<https://www.google.com/drive/#pricing>,  
Google One, 'Plans';  
<https://one.google.com/about/plans>.

<sup>15</sup> As explained in our Android FAQs, Google started the Android project in response to our own experiences launching mobile apps. We wanted to make sure there would always be an open platform available for carriers, OEMs, and developers to use to make their innovative ideas a reality. We also wanted to avoid any central point of failure, so no single industry player could restrict or control the innovations of any other. Our single most important goal with AOSP is to make sure that open source Android software is implemented as widely and compatibly as possible, to everyone's benefit. See: Android Source, 'Frequently Asked Questions' (2 February 2023);  
<https://source.android.com/docs/setup/about/faqs>.

from countless developers in Australia and the world.<sup>16</sup> Android provides consumers more ways and opportunities to access cloud-based software services, such as online media streaming.

- The Android ecosystem is characterised by vigorous competition across every lateral, resulting in continuous innovation and improvement, strong competition on price and quality, as well as competition with rival mobile ecosystems including that offered by Apple.<sup>17</sup>

23. Our approach further promotes innovation by enabling third-party firms to build upon existing, interoperable technologies to serve consumers in new and imaginative ways. Where possible, interoperability — including via industry standards — can provide consumers with greater choices across devices, services and related apps; those choices in turn can promote competition among providers, amplifying consumer benefits.

24. We acknowledge that designing technologies, products and services to integrate with third party offerings can increase cost and complexity. There are circumstances in which interoperability may be limited by considerations such as technical barriers, security and user privacy, or the simple reality that providing multiple options for a single functionality may not be particularly valued by or useful for consumers.

25. However, we have observed that the business models and practices of others in adjacent areas have sometimes sought to prioritise system integration over interoperability to the detriment of their customers and competition.

26. For example, we strongly advocated for the adoption of the Rich Communication Services (**RCS**) standard in mobile messaging, and supported it on the Android operating system as do most carriers and over 500 Android device manufacturers. By comparison, Apple continues to only permit its proprietary iMessaging technology for mobile messaging on iOS devices, which provides a poor user experience when

---

<sup>16</sup> Android, 'Android is for everyone';  
<https://www.android.com/everyone/>.

More than two million developers use Google Play to reach more than 2.5 billion users in 190 countries. See: GoogleBlog, 'How to sustain a safe, thriving app and game ecosystem' (10 December 2021);  
<https://blog.google/outreach-initiatives/public-policy/how-sustain-safe-thriving-app-and-game-ecosystem/>.  
In 2022, there were 255 billion app downloads globally, reflecting a 82% increase since 2016, See: Statista, 'Number of mobile app downloads worldwide from 2016 to 2022' (January 2023);  
<https://www.statista.com/statistics/271644/worldwide-free-and-paid-mobile-app-store-downloads/>.

<sup>17</sup> For how the Android ecosystem contributes to greater competition, innovation, and choice, see: ACCC, 'ACCC Digital Platform Services Inquiry - March 2021 Report into App Marketplaces: Google Submission in Response to the ACCC's Issues Paper' (19 October 2020), 2-3;  
[https://www.accc.gov.au/system/files/Google%20%2819%20October%202020%29\\_0.pdf](https://www.accc.gov.au/system/files/Google%20%2819%20October%202020%29_0.pdf).

communicating with Android mobile devices (including no end-to-end encryption, low quality media, and no read receipts or typing indicators).<sup>18</sup> If Apple were to upgrade from SMS and MMS to RCS, messaging between Apple and Android phones would be more secure and user-friendly.

27. In the enterprise cloud sector, certain providers are leveraging their positions in non-cloud markets to gain advantages in the cloud market to the detriment of competition and ultimately customers. Such practices include: licensing restrictions which prevent or deter customers from deploying their previously purchased software licences on rival cloud infrastructure; the withholding of critical software updates where customers choose to deploy software on rival infrastructure; limitations imposed on technical interoperability of rival cloud services with their must-have products; and tying and bundling of cloud products to their existing dominant non-cloud products.
28. The result of these practices by certain enterprise cloud providers is less user choice, higher costs, lower quality (including in security) and stunted innovation with customers effectively prevented from selecting their preferred provider on the merits. Overseas regulators have launched investigations into these practices.<sup>19</sup> We encourage the ACCC to examine the extent to which similar concerns arise in the enterprise cloud sector in Australia.<sup>20</sup>

### **Our ecosystems and products do not “lock-in” consumers or collect excessive data**

29. The potential concerns contemplated in the Issues Paper around consumer “lock in” and opaque or excessive data collection do not arise with our smart home devices or consumer cloud storage offerings, or our products and services generally.

---

<sup>18</sup> Android, ‘What are green text bubbles?’;

<https://www.android.com/get-the-message/#green-bubbles-faq-heading>.

We note that over the top (OTT) messaging apps are available on iPhone.

<sup>19</sup> We are aware of actual or pending investigations into enterprise Cloud by the European Commission following several formal complaints. See:

Politico, ‘Microsoft set to face EU antitrust probe over video calls’ (25 January 2023);

<https://www.politico.eu/article/microsoft-european-union-antitrust-video-calls-software-giant/>.

The UK regulator Ofcom recently published an interim report as part of its market study into cloud services. Ofcom and the CMA are considering the most appropriate way forward on these issues. See:

Ofcom, ‘Ofcom proposes to refer UK cloud market for investigation’ (5 April 2023);

<https://www.ofcom.org.uk/news-centre/2023/ofcom-proposes-to-refer-uk-cloud-market-for-investigation>.

Ofcom, ‘Consultation: Proposal to make a market investigation reference into the supply of public cloud infrastructure services in the UK’ (5 April 2023);

<https://www.ofcom.org.uk/consultations-and-statements/category-2/cloud-infrastructure-market-investigation-reference>.

<sup>20</sup> Reuters has reported on our position. See:

Reuters, ‘Exclusive: Google says Microsoft cloud practices are anti-competitive’;

<https://www.reuters.com/technology/google-says-microsofts-cloud-practices-anti-competitive-slams-deals-with-rivals-2023-03-30/>.



30. Our ecosystems, products and services are in general highly interoperable. We believe that they have been successful because consumers find them high-quality, easy to use and helpful — not because of any unique data or other advantages arising from our broader business, or any consumer “lock in”.
31. Foreclosure concerns are highly unlikely to arise where consumers commonly (or can readily) multi-home<sup>21</sup> and/or switch. Recent empirical studies show the importance of regulators and policy makers in digital markets investigating the *actual* levels of multi-homing and switching by consumers, rather than assuming an absence of any substantial multi-homing or switching.<sup>22</sup>
32. In many digital markets, it is common for users to multi-home on multiple platforms, to make decisions to cease using a platform, or to change default settings.<sup>23</sup> For example, an empirical survey of over 11,000 consumers from ten countries (including Australia) in five continents concluded that:<sup>24</sup>
- multi-homing is reportedly practised by the majority of consumers in every survey country for search engines, communications/messaging, online marketplaces/ecommerce platforms, and all survey countries bar one (France) for social/professional networking;
  - nearly 40% of consumers surveyed reportedly made a decision to stop using a platform in the last two years; and
  - the majority of platform users in every survey country reported changing all the default settings that they were asked about at some level of frequency.
33. Furthermore, where consumers do not multi-home, regulators should examine the extent to which consumers consider that a particular provider offers high-quality products, rather than assuming any concerns about consumer “lock in” or “inertia”.
34. Some data collection is necessary to provide our products, services and useful incremental functionality. We have clear policies regarding data collection and use (including where we do and do not use data for advertising purposes).<sup>25</sup>

---

<sup>21</sup> By multi-home, we mean using multiple products or services provided by different digital platforms, such as both Amazon and Google smart home devices.

<sup>22</sup> Pinar Akman, ‘A Web of Paradoxes: Empirical Evidence on Online Platform Users and Implications for Competition and Regulation in Digital Markets’ (29 March 2021), 43;

[https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3835280](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3835280).

<sup>23</sup> *Ibid*, 35, section IV a.

<sup>24</sup> *Ibid*, 2, 36-38.

<sup>25</sup> Google Privacy & Terms, ‘Privacy Policy’, (15 December 2022);

35. We also provide users with tools to understand and control the extent of that data collection and use.<sup>26</sup> In particular, users can:

- access and delete activity data related to our services and devices through the My Activity page;<sup>27</sup>
- access and control data related to their use of Google Services through the Google Dashboard;<sup>28</sup>
- access and manage account information through My Account;<sup>29</sup>
- access, control, or delete device-specific data through in-app controls for the Google Home or Google Nest apps; and
- manage their privacy settings, monitor and delete collected data, and opt out of ad personalisation, through our Privacy Controls.<sup>30</sup>

36. We set out further detail on these issues in the context of our smart home devices and consumer cloud storage offerings below.

## SMART HOME TECHNOLOGIES

### Our smart home products

37. We offer smart home devices under the Google Nest and Chromecast brands, including smart displays, smart speakers, streaming devices, Wi-Fi routers, smoke detectors, smart cameras, and smart doorbells:<sup>31</sup>

- **Displays.** Nest Hub and Nest Hub Max (formerly, Google Home Hub).

---

<https://policies.google.com/privacy?gl=au>.

Google Safety Centre, 'Google Ads Data and Privacy';

<https://safety.google/privacy/ads-and-data/>.

Google Safety Centre, 'Data Practices & Transparency';

<https://safety.google/privacy/data/>.

<sup>26</sup> See:

Google's Response to the ACCC's Discussion Paper, Annex Q.9 (8 April 2022);

<https://www.accc.gov.au/system/files/DPB%20-%20DPSI%20-%20September%202022%20report%20-%20Submission%20-%20Google%20-%20Public.pdf>.

<sup>27</sup> Google My Activity, 'My Google activity';

<https://myactivity.google.com/myactivity>.

<sup>28</sup> Google Account, 'Google Dashboard';

<http://myaccount.google.com/dashboard>.

<sup>29</sup> Google Account, 'My Account';

<http://myaccount.google.com>.

<sup>30</sup> Google Safety Centre, 'Privacy Controls'

<https://safety.google/privacy/privacy-controls/>.

<sup>31</sup> Google Store, 'Smart Home';

[https://store.google.com/au/category/connected\\_home?hl=en-GB](https://store.google.com/au/category/connected_home?hl=en-GB).

- **Speakers.** Nest Audio and Nest Mini (formerly, Google Home and Home Mini).
  - **Streaming.** Chromecast.
  - **Security and other.** Nest Wi-Fi (formerly, Google WiFi), Nest Protect (smoke and carbon-monoxide alarms), Nest Cam and Nest Doorbell.
38. These products are set up using the Google Home App, after which the user can interact with the device using a variety of means. These include direct interaction via a Google or third party app on a mobile device or tablet, in some cases interaction via another smart home device, or via Google Assistant (where the device has that functionality).
39. Our technology enables our smart device product suite to work seamlessly together. For example:
- The Google Home app enables users to see all their Nest devices, organise them into rooms, and manage their settings remotely from a single app.
  - A Google Nest Hub can instantly play media on a Google Chromecast or Nest smart speaker in another room.
40. Our technology also interacts to a significant extent with a wide variety of third party devices, which enables consumers to mix and match various devices, services and apps to suit their individual preferences. For example:
- A consumer can use a Nest Hub to control the lighting from third-party smart bulbs.
  - A consumer can use a Nest Hub to stream media from their Spotify service to third party smart speakers, or to a Google Chromecast device connected to a traditional, non-smart TV.
  - A consumer can use an iPhone to stream media on a Google Chromecast, from their Spotify service, Netflix service or any other app that offers the “Google Cast” functionality.
  - A consumer can use an Alexa Show smart display to view the live feed from a Google Nest Cam or various third party security cameras.

41. The examples above illustrate the flexibility that consumers enjoy when interacting with our smart home devices, which can also act as a substitute or complement for traditional products in some cases.
42. Further, a consumer does not need to purchase any particular product type to benefit from that connectivity: for example, a smart speaker can be used with a smart display acting as a hub, or as a stand-alone device. Our smart home devices are typically sold individually, and not as part of a bundle or with any ongoing paid subscription.
43. As described further below, the trend in smart devices is towards increasing interoperability (including as between ecosystems) through open standards.

**The smart home device sector is highly competitive, globally and in Australia**

Existing competition

44. As the European Commission noted in 2017, the smart home sector “*is characterised by the presence of a multitude of players, and new companies keep developing products... competition between players [in smart home devices] remains fierce in the field with the multitude of potential categories involved.*”<sup>32</sup>
45. A significant number of competitors collectively offer a multitude of smart home solutions, appliances, and devices. There are a large number of alternatives to Google’s products available to users. Globally, competitors include well established brands, many of which are present in Australia, such as those set out below.

Smart Device Type	Suppliers present in Australia
Speakers	Amazon, Apple, Bang & Olufsen, Bose, Bowers & Wilkins, Denon, Edifier, Harman Kardon, JBL, LG Electronics, Jensen, Sonos, Sony, Teac, Tivoli Audio, Yamaha
Streaming	Amazon, Apple, Nvidia, Roku
TVs	Blaupunkt, Engalon, Ffalcon, Hisense, Kogan, LG Electronics, Loewe, Panasonic, Roku, Samsung, Sharp, Sony, TCL

<sup>32</sup> European Commission, ‘Digital Transformation Monitor: Smart Home: Technologies with a standard battle’ (September 2017), 2, 3; <https://ati.ec.europa.eu/sites/default/files/2020-06/Smart%20Home-%20Technologies%20with%20a%20standard%20battle%20%28v1%29.pdf>.

Smart Device Type	Suppliers present in Australia
Home Security (camera, doorbell, etc) and other	ADT, Apple HomeKit, Aqara, Arlo, Brilliant, D-Link, Eufy, Eve, Ezviz, iSmartGate, Kangaroo, Ring, Samsung, Smart Life - Smart Living, Swann, TP-Link, Uniden, Wyze, Xiaomi, Yale
Smart Lighting Systems (Note: Google not present)	ADT, Aqara, Brilliant, GE Imagine, IKEA, Laser, Lenovo, Lifx, Meross, Nanoleaf, Phillips, Ring, Sengled, TP-Link, Twinkly, WiZ

46. Competition in the smart home devices sector is not necessarily delineated according to smart home product categories or even limited to smart home devices. For example, our Nest Hub display devices compete with other smart display devices, but they also compete with tablets, smart phones, smart speakers, and TV streaming devices.

47. Smart home devices must also compete with more traditional technologies. For example, smart speakers compete with traditional speakers and sound systems (which may allow for wired or wireless music streaming from another device, or be connected to a smart AV receiver). Smart appliances similarly compete with ordinary appliances. And smart TVs compete with traditional TVs, as well as streaming devices, gaming consoles, and other connectivity solutions.

The smart home devices sector is dynamic, with no material barriers to entry

48. The smart home device sector is expanding, and highly dynamic, and so offers promising opportunities for entry and expansion.<sup>33</sup> Many popular products have only recently become more widely adopted, and many others have yet to become mainstream. There remains considerable room for growth among new and existing competitors.

49. That dynamism is especially evident in the continued evolution of new and differentiated use cases, and in the wide array of companies entering the space. As an example of the latter, established providers of technologies like headphones and speakers are moving into the smart home space, introducing premium, high-fidelity

<sup>33</sup> Statista, 'Digital Market Insights: Smart Home - Worldwide'; <https://www.statista.com/outlook/dmo/smart-home/worldwide>.

smart speakers and soundbars that leverage their established brand and audio expertise.<sup>34</sup>

50. Moreover, as this example illustrates, the technical expertise and reputation that empowers firms to succeed in smart devices is not concentrated among major technology companies. Instead, incumbent manufacturers of appliances, security systems, televisions, cameras, and speakers can use their strength in traditional product markets to enter. Conversely, firms without historic experience manufacturing home devices like Apple, Amazon and Google can either compete in the hardware space or augment the hardware offerings of other established brands with their smart home software. All these players offer differentiated products, and so compete along a number of distinct but interdependent axes that play into different firms' respective strengths, including price, quality, hardware and software features, brand, interoperability, support for third-party integration, user friendliness, and security.
51. The smart home device sector has minimal barriers to entry for new competitors. The core characteristic of a smart device is its online connectivity, which can be accomplished by use of affordable and widely available hardware and cloud infrastructure, configured through open standards, protocols, and open-source softwares, as described below. Thanks to increasing interoperability across the entire smart home ecosystem, smart device manufacturers can use the existing ecosystem (be it open-source software, phones, tablets, or smart hubs) to expand their reach and augment their device's functionality. This flexibility illustrates how digital ecosystems, made up of many competing firms' products and services, can promote competition and lower barriers to entry. We expect significant innovation to continue.

### **Our smart home devices and open-source technologies promote interoperability**

52. Users can interact with our smart home devices in a number of ways, depending on the device in question: through the device's own interface, mobile apps on a phone or tablet, voice interaction, or a "hub" display or speaker device. As a result, our devices can interact with (and in some cases be controlled by) a range of other technologies, including third-party applications and devices. Users are able to multi-home according

---

<sup>34</sup> See for example, Bose Smart Speaker 500

[https://www.bose.com.au/en\\_au/products/speakers/smart\\_home/bose-home-speaker-500.html#v=bose\\_home\\_speaker\\_500\\_trip\\_le\\_black\\_auz](https://www.bose.com.au/en_au/products/speakers/smart_home/bose-home-speaker-500.html#v=bose_home_speaker_500_trip_le_black_auz) and Bose Smart Soundbar 900

[https://www.bose.com.au/en\\_au/products/speakers/home\\_theater/bose-smart-soundbar-900.html#v=bose\\_smart\\_soundbar\\_900\\_black\\_auz](https://www.bose.com.au/en_au/products/speakers/home_theater/bose-smart-soundbar-900.html#v=bose_smart_soundbar_900_black_auz).

to their individual preferences, mixing and matching devices and applications developed by unrelated companies.

53. A number of features built into our devices make this interoperability possible. For example:

- **Smart Device Management (SDM) Application Programming Interface (API).** Google runs a Device Access program that enables qualified third-party devices and apps to control or interact with Google's smart home devices via Google's SDM API. For example, users with third-party security systems that implement the API can view and control their Nest cameras and other devices directly from their security providers' apps.
- **Google Cast.** Google's smart home devices (such as Nest smart speakers, the Nest smart displays, and Chromecast) can interact with third-party apps that have incorporated Cast functionality for iOS or Android via the Cast Software Development Kit (SDK). The Google Cast SDK enables users to stream video and audio to a smart home device, such as a smart speaker or Chromecast, via Wi-Fi. The app becomes the remote control to control the media.
- **Bluetooth.** Users can also control a Google smart home device via Bluetooth. For example, the user can connect an iPhone via Bluetooth to a Nest speaker and then control what the speaker plays (for example via the Spotify app).
- **Actions on Google.** Service providers can enable interaction between Google's smart devices and their services via Google Assistant by developing an Action on Google.<sup>35</sup>
- **Alexa Skills.** Google has implemented Alexa Skills in a number of its smart home devices, including Nest cameras and doorbells, to enable control of these devices via Alexa devices that have a display.<sup>36</sup> This allows users to, for example, issue voice commands to an Echo Show to show the feed from a Nest camera.

54. We also provide third-party developers a range of technologies via the Android Open Source Project to promote greater interoperability within the broader smart home

---

<sup>35</sup> Google Assistant, 'Actions on Google':

<https://developers.google.com/assistant>

For developer integration options more generally, see Google Home Developer Centre;

<https://developers.home.google.com/>.

<sup>36</sup> Google Nest Help, 'Control Google Nest products with Amazon Alexa':

<https://support.google.com/googlenest/answer/9325080?hl=en-AU&sjid=9750909697713356644-AP>.

ecosystem. Third-party smart home device manufacturers may licence these technologies at no charge. Manufacturers can licence Android under the open source Apache 2.0 licence, and then incorporate the operating system code in their devices.

### **The broader smart home ecosystem promotes interoperability through the voluntary adoption of standards**

55. Along with building interoperability functionalities directly into our devices and sharing open-source software with other developers, we have participated in the growing development and adoption of global open protocols specific to smart home technologies. Developed voluntarily through standards-setting organisations working with smart home technology companies, these standards foster standardisation and interoperability in the smart home sector.
56. As a starting point, the most important and most widely used standards for smart home devices—whose central function is connectivity—are general connectivity standards such as IP, Wi-Fi, Bluetooth, and cellular network standards, like UMTS.
57. Recent further standardisation efforts of particular importance to smart home devices include:
  - **Thread**, a wireless networking protocol for a secure wireless mesh network that utilises a range of existing open standards to enable product developers and consumers to connect more than 250 devices and components into a low-power, wireless mesh network, promoting scalability, security, and low-energy consumption.<sup>37</sup>

Standard specifications developed by the Thread Group are made publicly available, and we have published an additional open-source reference implementation of Thread known as OpenThread. Thread is backed by hundreds of members, including Amazon, Apple, Samsung and us.
  - Two standards developed by the Connectivity Standards Alliance (formerly Zigbee Alliance), an organisation with at least 500 company members.<sup>38</sup>

---

<sup>37</sup> Thread Group, 'What Is Thread? Overview';  
<https://www.threadgroup.org/What-is-Thread/Overview>.

Thread Group, 'What Is Thread? Benefits';  
<https://www.threadgroup.org/What-is-Thread/Thread-Benefits#certifiedproducts>.

<sup>38</sup> Connectivity Standards Alliance, 'About Us';  
<https://csa-iot.org/about/>.



- i. **Zigbee** which is a widely adopted, full-stack interoperability solution for smart devices.<sup>39</sup> Zigbee makes it easier for device manufacturers to build devices that are compatible with devices of other manufacturers by defining a common framework of IP-based networking technologies. Zigbee certified products connect and communicate using the same protocol.
- ii. **Matter** is a new open standard that enables smart devices to interact with one another using a single, standardised protocol.<sup>40</sup> That means any Matter-certified device, offered by any participating developer, is able to interact with every other Matter-certified device, without the need for certification from each individual smart home platform provider. Any Matter-certified hub can control the whole suite of Matter-certified devices, such as smart speakers, streaming devices, kitchen appliances, and security systems.

There are over 280 member companies that support the development of Matter include platform owners such as us, Apple and Amazon, and device manufacturers such as Samsung and LG. Smart home platforms including Amazon Alexa, Apple HomeKit, Google Home, and Samsung SmartThings have already integrated the Matter standard. We have recently brought Matter to Android and to Nest devices capable of supporting the standard.<sup>41</sup>

The implications of Matter for the smart home sector received extensive coverage following the recent annual Consumer Electronics Show 2023 in January 2023.<sup>42</sup>

---

<sup>39</sup> Connectivity Standards Alliance, 'Zigbee';

<https://csa-iot.org/all-solutions/zigbee/>.

<sup>40</sup> Connectivity Standards Alliance, 'Matter';

<https://csa-iot.org/all-solutions/matter/>.

<sup>41</sup> Google Blog, 'Matter is now available on Google Nest and Android devices' (15 December 2022);

<https://blog.google/products/google-nest/matter-general-availability/>.

<sup>42</sup> CNN Underscored, 'Best of CES 2023' (6 January 2023);

<https://edition.cnn.com/cnn-underscored/electronics/best-of-ces-2023>,

Techradar, 'Matter will revolutionize your smart home' (5 November 2022);

<https://www.techradar.com/news/matter-will-revolutionize-your-smart-home-heres-everything-you-need-to-know>,

Techradar, 'The best smart home tech of CES 2023' (6 January 2023);

<https://www.techradar.com/news/the-best-smart-home-tech-of-ces-2023-fresh-ideas-from-samsung-lg-and-more>.

The Verge, 'The Verge Awards at CES 2023' (7 January 2023);

<https://www.theverge.com/23542177/verge-awards-ces-2023-best-tv-laptop-smart-home-car-monitor>.

The Verge, 'Matter's plan to save the smart home' (19 November 2022);

<https://www.theverge.com/22787729/matter-smart-home-standard-apple-amazon-google>,

Forbes, 'CES 2023: Matter — Unlocking The Smart Home' (27 January 2023);

<https://www.forbes.com/sites/moorinsights/2023/01/27/ces-2023-matter---unlocking-the-smart-home/?sh=885e3f329387>.

## **We are clear and transparent about the data collection that occurs through our smart home devices**

58. The Issues Paper inquires about the role of data in digital platform ecosystems, and about smart home technology providers' data collection practices. We are thoughtful about the data collected by our smart home devices and services.<sup>43</sup> And we publish clear and transparent data use policies, explained in more detail below. As outlined in paragraph 35 above, we have also developed a number of tools to empower users to control how their data is collected and used.

59. Our data collection and use depends on the device, and what data the user chooses to provide, but it generally includes the following:

- **Google account information.** Our smart home devices require users to have a Google Account in order to set up their device. We collect the following data to create a Google Account: name, email address, gender, date of birth, account password, phone number and payment information. Some of this data is optional and only collected if the user chooses to provide it. This is outlined in the Google Privacy Policy.<sup>44</sup>
- **Smart home device data.** Our various smart home devices log usage data and may rely on cameras, microphones, and other sensors, as well as cellular, Wi-Fi, and GPS data to enable the user's preferred functionality. We expressly outline what data we collect and how we use that data in a supplemental privacy notice available on our Help Centre,<sup>45</sup> on the Google Home app, and in our published privacy and security commitments.<sup>46</sup>
- **Google Assistant data.** Users can control our (and many third-party) smart home devices through our voice assistant. Google Assistant is built into certain products, and can control others through interconnection to smartphones or other voice-enabled devices. Because Assistant is typically voice-activated, devices must continually process a few seconds of audio to determine whether

---

<sup>43</sup> Google Safety Centre, 'In our products > Nest'; <https://safety.google/nest/>.

<sup>44</sup> Google Privacy & Terms, 'Privacy Policy' (15 December 2022); <https://policies.google.com/privacy>.

<sup>45</sup> Google Nest Help, 'FAQs on privacy: Google Nest' (11 May 2022); [https://support.google.com/googlenest/answer/9415830?hl=en&ref\\_topic=7173611](https://support.google.com/googlenest/answer/9415830?hl=en&ref_topic=7173611).

<sup>46</sup> Google Safety Centre, 'In our products > Nest'; <https://safety.google/nest/>.

a user is attempting to activate the Assistant (for example, by the user saying “Hey Google”). If no activation is detected, we discard the snippet. If the user is in fact interacting with Assistant, the device exits standby mode and sends the request to our servers for processing. This is outlined in our Help Centre.<sup>47</sup>

- **Third party devices and services.** Where a Google smart home device is used to access a third-party application, our ability to collect data is limited by the user's settings and permissions, the third-party service's terms of use and privacy policy, and by any contractual arrangements in place between Google and the third party. As a general matter, we do not collect detailed data from a user's use of third-party services. For example, when a user streams third-party content through Chromecast, we receive the duration of the session and the application being used, but we do not collect data identifying the content being streamed.<sup>48</sup>

### **Our exchange of smart home device data with other services is limited and oriented toward functionality and improving user experience**

60. Our smart home devices are overwhelmingly used for functional actions (such as playing media or turning on lights). These actions may be processed in the cloud or on a smart mobile device but do not generally involve interactions with other Google products or services, such as Google Search.

61. To the extent our devices share data with other services, the exchange of data is limited and supports incremental, cross-service functionality that consumers find useful. For example, at the user's request, Nest and Android TV can access data from Google Photos to enable users to display their personal photographs on their smart home devices.

62. We also collect data from smart home devices (often in aggregated form) to provide, improve, and personalise features and services; to support and develop useful smart home device features; to enable functionality with Google and third-party devices and services; and to keep users informed of our products, services, and updates. For

---

<sup>47</sup> Google Nest Help, 'Data security and privacy on devices that work with Assistant'; <https://support.google.com/googlenest/answer/7072285?hl=en-AU#zippy=%2Cwhat-information-does-google-collect-when-i-interact-with-google-assistant>.

<sup>48</sup> Our Help Centre also explains the data that Chromecast does collect. See: Chromecast Help, 'Chromecast Privacy Settings'; <https://support.google.com/chromecast/answer/6076570?hl=en-AU&co=GENIE.Platform%3DAndroid#:~:text=Google%20may%20collect%20system%20activity,and%20domains%20that%20you%20cast>.

example: data collection allows us to determine what queries or features are most popular so we can improve those popular features; device statistics and usage data help improve users' devices' performance and reliability.

63. Users can also interact with some of our smart home devices via Google Assistant.

- The vast majority of user interactions with Assistant entail simple commands such as instructions to play media or productivity actions (e.g., “set a timer”). Those interactions involve no data exchange with other Google services (except as required to execute the requested action).
- Similarly, many of the most common Assistant questions (e.g., “what time is it?” or “what is the weather today?”) are processed using cloud-based Assistant resources (rather than being processed only on the device, or needing to have interaction or data exchange with Google systems that can provide conversational answers.)
- More complex informational queries require Assistant to exchange data with Search, but those requests make up a very small proportion of overall Assistant interactions on our smart devices, and represent an incredibly small proportion of Google Search queries.

64. We generate revenue from our smart home devices through the sale of these devices and by offering premium paid services like Nest Aware.<sup>49</sup> We do not sell user data to third parties. Nest does not itself display advertising on any smart home device, although advertising can appear based on the content being streamed (for example if there is advertising on YouTube or Spotify). We strictly separate device sensor data for privacy purposes and do not use it for advertising.<sup>50</sup> The text of user interactions with our Assistant could be used to personalise user advertisements (if the user has not opted out of ad personalisation), but as discussed above, Assistant is primarily used for productivity applications and factual queries that offer limited commercial value.<sup>51</sup> As

---

<sup>49</sup> Google Store, 'Nest Aware: Unlock more video history with Nest Aware'; [https://store.google.com/au/product/nest\\_aware?hl=en-AU](https://store.google.com/au/product/nest_aware?hl=en-AU).

<sup>50</sup> As set out in our Safety Centre page for Nest: “For all our connected home devices and services, we will keep your video footage, audio recordings and home environment sensor readings separate from advertising, and we won’t use this data for ad personalisation.” See: Google Safety Centre, ‘In our products > Nest’; <https://safety.google/nest/>.

<sup>51</sup> As set out in our Safety Centre page “When you interact with your Assistant, we may use those interactions to inform your interests for ad personalisation. For example, if you ask, ‘Hey Google, what’s the weather like in Hawaii in July?’ we may use the text of that voice interaction (but not the audio recording itself) to show you personalised ads.” See: Google Safety Centre, ‘In our products > Nest’; <https://safety.google/nest/>.

noted in paragraph 35 above, users have the ability to control the ads they see, including opting out of ads personalisation completely.

## CONSUMER CLOUD STORAGE SOLUTIONS

### Our consumer cloud storage offerings

65. All Google Accounts include 15GB of cloud storage capacity at no charge. Consumers can use that cloud storage for various purposes:<sup>52</sup>
- Using **Google Drive**, consumers can store all sorts of files efficiently and retrieve them effortlessly.<sup>53</sup> Drive uses industry-leading encryption and proactive scanning for malware, spam, and ransomware. Because Drive is integrated with Google’s productivity suite (which also includes Google Docs, Sheets and Slides), users can create and edit their documents entirely in the cloud, synchronise their changes across devices in real time, and share the files with friends, family, or colleagues. These services were a profound innovation over traditional productivity software, facilitating real-time collaboration and sharing, access to files from any device in any location.
  - **Google Photos** allows seamless photo and video storage, sharing, and editing.
66. **Google One** is a subscription that provides more cloud storage to use across Google Drive, Gmail and Google Photos, currently for as little as AU\$2.49/month for 100GB of storage.<sup>54</sup> It also includes additional benefits such as the ability to share storage with family members, access to Google experts for support queries, and additional photo editing features in Google Photos. We provide users with transparent pricing information<sup>55</sup> and detailed instructions for changing their subscriptions.<sup>56</sup>
67. Our consumer cloud offerings are well-integrated with each other, and are also designed to interoperate and work well with other services, so that customers can pick and choose the applications that work best for them.

---

<sup>52</sup> Google One Help, 'How your Google storage works';

<https://support.google.com/googleone/answer/9312312?hl=en>.

<sup>53</sup> Google Drive is the file storage part of our Google Workspace productivity suite.

<sup>54</sup> Google One, 'Plans';

<https://one.google.com/about/plans>.

<sup>55</sup> Google Drive Help, 'Buy more Google storage';

[https://support.google.com/drive/answer/2375123?hl=en&ref\\_topic=14940](https://support.google.com/drive/answer/2375123?hl=en&ref_topic=14940);

Google One pricing plans are explained at:

Google One, 'Plans';

<https://one.google.com/about/plans>.

<sup>56</sup> Google One Help, 'Update your Google One plan & troubleshoot upgrade issues',

[https://support.google.com/googleone/answer/9003633?hl=en&ref\\_topic=7576170](https://support.google.com/googleone/answer/9003633?hl=en&ref_topic=7576170).

## **The consumer cloud storage sector is highly competitive, globally and in Australia**

68. There are a multitude of cloud storage services available in Australia that offer an alternative to Google Drive. These include: Microsoft OneDrive, Apple iCloud, Amazon Drive, Dropbox, Samsung Cloud, Tresorit, Nextcloud, Syncthing, MEGA, ownCloud, IPFS, Resilio Sync, Box, Zoolz, IDrive, 4shared, MediaFire, SugarSync, and pCloud. Many of these also provide tools to synchronise and backup files to the cloud.
69. Google Workspace competes with Microsoft Office365, OpenOffice, LibreOffice, Salesforce Quip, and Apple iWork. These competing productivity applications offer different functionality, in distinct forms. For example, Microsoft's Office365 suite, the leader in the category, offers desktop applications as well as mobile and web-based versions, while we offer only a web and mobile application.
70. Cloud storage services such as Dropbox, pCloud, Sync.com and IDrive, that are not part of broader ecosystems (e.g., productivity suites such as Microsoft Office365 or Google Workspace) enjoy widespread adoption, in part because users can so easily synchronise and back up files from a variety of software platforms through these cloud storage services.
71. Google Photos also competes with popular services such as Dropbox, Flickr, OneDrive, Amazon Photos, and iCloud, among others.

## **Our cloud storage and related technologies promote interoperability and consumer choice**

72. As with our smart home technology, we offer highly interoperable cloud products that make it easy for consumers to switch between or work across competing services.
73. For example, users can upload documents created with competing productivity applications to Google Drive and edit them in Google Docs. Conversely, users can transfer files created in Google Docs to other productivity applications. To ensure interoperability across products, Google Docs and Photos files can be downloaded in a variety of formats compatible with other applications.
74. We also promote interoperability and consumer choice by empowering our users (of cloud storage and other services) to make the most of our products and services, while ultimately retaining control over their data. In 2007, we launched the data liberation front, a project within Google to empower our users to easily move their data in and out

of Google. We followed that up with Google Takeout (now called Download Your Data), along with the Data Transfer Project.

- **Download Your Data (formerly, Takeout):** Since 2011, users have been able to use this tool to easily export copies of their cloud data from Gmail, Drive, and Photos and other Google products. Users can choose their preferred data format depending on how they intend to use it. From there, users can readily import their data directly into a wide range of competing cloud storage solutions, like Dropbox, Microsoft OneDrive, and Box, for use in whatever competing productivity applications they prefer. And our users have taken advantage of this tool: as at March 2022 there were on average more than eight million exports per month, and in total more than 400 billion files were exported in 2021 (which had doubled since 2019).<sup>57</sup>
- **Data Transfer Project:** This service was launched in 2018 to make data portability across platforms even easier and more flexible, allowing any two public-facing product interfaces to connect and exchange data. This reduces friction for our users looking to move their data elsewhere, alleviating the inconvenience and complexity that could otherwise frustrate a user’s attempt to move data across platforms that use different formats and architectures. We worked collaboratively with other founding members of this project (Facebook/Meta, Microsoft, and Twitter) to establish the framework for the effort. To promote transparency and standardisation, the project relies on existing and widely-adopted standards wherever possible, and the protocol is open sourced. There are currently 18 contributors to the project, including Apple, and Solid/Inrupt (the open source platform developed to decentralise the internet), Deezer, and Mastodon.
- On 29 March 2023 the **Data Transfer Initiative** was announced,<sup>58</sup> which builds on and extends the work of the Data Transfer Project. It invests dedicated engineering and product resources to the design and implementation of open source data transfer tools, and intends to “*help translate principle to practice, catalyzing greater user agency and empowerment.*”<sup>59</sup>

---

<sup>57</sup> Google Blog, ‘Building data portability to help consumers choose’ (9 March 2022); <https://blog.google/outreach-initiatives/public-policy/building-data-portability-help-consumers-choose/>.

<sup>58</sup> Twitter, Post by ‘Data Transfer Initiative’ (29 March 2023); <https://twitter.com/DTInitiative/status/1640715959471337472?s=20>.

<sup>59</sup> Data Transfer Initiative, ‘About the Data Transfer Initiative’; <https://dtinit.org/>.

## **We are clear and transparent about the limited data collection that occurs through our consumer cloud storage offerings**

75. Users of our consumer cloud storage offerings are required to have a Google Account, for which they must provide certain information (outlined in paragraph 61 above).
76. The contents of a user's files stored on Google Drive are private to the user and are not accessible to anyone else unless the user chooses to share them.<sup>60</sup> Similarly, Google Photos gives users control over who their photos are shared with and how.<sup>61</sup> As noted in our Privacy Policy, Google does not show users personalised ads based on their content from Drive, Gmail, or Photos.<sup>62</sup>
77. Users of our consumer cloud storage offerings also benefit from the general data controls outlined in paragraph 35 above.
78. We have transparent policies about how we use data to help synchronise data across devices, improve the user experience, and to provide other services like spam filtering, virus detection, malware protection, and search functionality.<sup>63</sup> We also use the data we collect to maintain and improve services, including tracking outages or troubleshooting issues that are reported by users, and for analytics and measurement to understand how our services are used.
79. Our consumer cloud storage offerings exchange limited data with other Google consumer-facing services as necessary to provide certain incremental functionalities. The following examples illustrate this:

---

<sup>60</sup> Google Drive Help, 'How Drive protects your privacy & keeps you in control'; <https://support.google.com/drive/answer/10375054>.

Google Drive Help, 'Stop, limit or change sharing'; <https://support.google.com/drive/answer/2494893>.

<sup>61</sup> Google Photos Help, 'How shared album controls give your photos more privacy'; <https://support.google.com/photos/answer/9789702#zippy=%2Chow-shared-albums-work%2Chow-we-protect-your-shared-albums>.

<sup>62</sup> Google Privacy & Terms, 'Privacy Policy', (15 December 2022); <https://policies.google.com/privacy?gl=au>.

<sup>63</sup> Google Drive Help, 'How Drive protects your privacy & keeps you in control'; <https://support.google.com/drive/answer/10375054>.

Google Safety Centre, 'Built in Security'; <https://safety.google/security/built-in-protection/>.

Google Safety Centre, 'Data Practices'; <https://safety.google/privacy/data/>.

Google Safety Centre, 'In our products > photos'; <https://safety.google/photos/>.



- **Google Store**<sup>64</sup> exchanges data with **Google One** to display the Google One membership level and to issue appropriate store credit and rebates.
- At the user's request, **Photos** shares photos with products like **Nest**, **Android TV** and **Google TV** to enable users to pick a photo to visually customise their experience on these services.
- **Drive** may exchange documents, photos and videos with **Blogger** if users elect to upload files in their blogs.

## CONCLUSION

80. We thank the ACCC for the opportunity to share our views on the topics raised by the ACCC's Issues Paper, and provide details about the competition and consumer benefits associated with our smart home technology, consumer cloud storage services, and ecosystems more generally.

81. We stand ready to discuss any of the points we have addressed further, if that would assist the ACCC.

---

<sup>64</sup> Google Store is where Google sells hardware made by or in collaboration with it, such as Google Pixel Watches, Pixel Phones, and Chromecast TV streaming devices. See: Google Store, 'Popular on the Google Store'; <https://store.google.com/au/?hl=en-AU>.