

NetChoice Comment for the Record: National Telecommunications and Information Administration, Request for Comments on Competition in the Mobile App Ecosystem, May 23, 2022

NetChoice is a trade association of leading internet businesses that promotes the value, convenience, and choice that internet business models provide American consumers. Our mission is to make the internet safe for free enterprise and for free expression. We also work to promote the integrity and availability of the internet on a global stage, and are engaged on issues in the states, in Washington, D.C., and in international internet governance organizations.

Introduction

The National Telecommunications and Information Administration (NTIA) is seeking comments on competition in the Mobile App Ecosystem following President Biden's Executive Order on Competition issued in 2021 and related to its work developing a report on the topic. As the agency notes, the mobile app market is an increasingly prosperous industry employing millions of Americans as well as a source of great innovation.

Our comments suggest several of the questions posed by the agency but in general we seek to highlight:

- The continued innovation and competitiveness of the industry;
- The breadth of the market and the diversity of apps and app platforms;
- The intersection of mobile app market policy with other issues such as content moderation;
- The need for clearly defined and agreed upon terms and definitions;
- The threats to developers, consumers, and the marketplace if the government engages in a heavy-handed injection into the operation of the marketplaces;
- The importance of putting the interests of consumers ahead of corporations when looking at competition enforcement.

With that in mind, we would like to provide the agency with the following input regarding its request for comments.

1. Measuring the Competitiveness of the App Ecosystem

Despite current debates, the competitiveness of the app ecosystem should continue to be measured using existing consumer welfare standards. In fact, recent court cases¹ have shown that both the legal system and existing competition law are up to the challenge of deciding matters involving app stores. Again, existing approaches to competition policy are flexible enough to evolving technologies including multisided markets such as the app ecosystem.² The NTIA and competition authorities should avoid basing measures or presumptions about the competitiveness of a market based either on the number of players or perceived concentration. This is particularly true in a complicated market such as the app ecosystem where there is not only competition from other app-based platforms but also from other methods of distribution such as traditional software.

The failure or success of an app just as with any business is typically defined as revenue exceeding costs; however, the specifics of what “success” looks like are dependent on a wide array of factors separate from their method of distribution. The “success” or “failure” of any individual app or segment of apps should not be considered relevant to the competitiveness of the app ecosystem unless there is direct evidence of anti-competitive behavior.

Most measures of “success” or “failure” are relative to the specific app and its customer base. For example, an app may seek to serve a community with specific disabilities or unique needs, meaning the entire relevant consumer base may be rather small. In other cases an app may improve an existing product or service and acquisition and integration into a larger company may be the best way to achieve success. Even “failures” can provide entrepreneurs and innovators with important information about what types of products and services consumers desire. Because of the wide array apps, audiences, and purposes, there is not a one-size-fits all definition of success or failure.

In sum, context matters in protecting consumers—which the consumer welfare standard recognizes.

¹ Epic Games v. Apple, 20-cv-05640-YGR (N.D. Cal. Sep 10, 2021).

² See Joe Kennedy, *Why Internet Platforms Don't Need Special Regulation*, Information Technology and Innovation Foundation (Oct. 15, 2015), <https://itif.org/publications/2015/10/19/why-internet-platforms-dont-need-special-regulation> .

2. Omissions in a narrow definition of mobile app ecosystem

Apps are just one way that developers may choose to reach consumers with their products, but even the app market extends beyond just those apps available on tablets and smartphones. With this in mind any considerations of the mobile app ecosystem should be cautious not to exclude other apps such as those used on gaming consoles or laptops that often compete head-to-head with those on tablets or smartphones.

Many proposals or discussions about competition in the app ecosystem either expressly or implicitly omit these other devices³, but this does not accurately reflect either the consumer experience or the reality of the market. In fact, some gaming consoles like the Nintendo Switch and traditional computer laptops meet many of the same features around portability and app access or limitations as smartphones and tablets.

But beyond focusing on only mobility, many consumers are already multihoming for apps and app marketplaces and as a result limiting to only “mobile” devices does not necessarily reflect the reality of the experience. In fact, some apps such as Microsoft’s Office suite of products may be available on a wide array of devices both mobile and desktop. Similarly entertainment app stores like Roku may only be available on a single device, but clearly are in competition with not only AppleTV or Xbox but an array of mobile entertainment streaming options and vice versa.

With this in mind any findings must cover all devices to a similar standard. Closed systems for apps are not limited to mobile devices such as smartphones and tablets. SmartTVs have closed systems that result in ability or inability to load certain apps. Xbox, Playstation, and Nintendo consoles are all closed systems that prevent side-loading and require use of an app store typically preloaded by the device manufacturer.

4. Web-Based Apps and “Middleware”

Any considerations of competition in the app ecosystem should consider the full array of options available to developers and consumers when it comes to accessing and distributing apps. This means it should consider the type of web-based distribution described in question 4 as an equal and competitive alternative to platform based distribution like app stores. In other words, examination of the app ecosystem should include all apps regardless of their method of distribution.

³See, e.g., Open App Markets Act, S. 2710, 117th Cong. § 2 (2022).

While it is true that many app developers choose to distribute their apps via app stores, method of distribution is a business decision that is based on a variety of factors including costs, ability to connect with consumers, payment options and more.⁴ Still, in some cases, a developer may find the requirements of an app store do not support their desired vision for their product and choose to pursue other methods of distribution to reach their target market.

5. Startups in the App Ecosystem

As this question notes, many of the players in the app store ecosystem are small. Notably, much of the complaints about “fairness” come not from these small players, but from those few giants that have been remarkably successful and are no longer satisfied with the terms of their agreement with app store distribution platforms.⁵

In fact, the current app store ecosystem provides a great deal of benefits to startups and small players. Many app stores are able to provide a level of certainty around vetting apps for minimum security standards providing both consumers and app developers with trust for new apps.⁶ Additionally, many of these features are consumer friendly such as “ask to buy” features that help parents avoid surprise bills from their children’s in-app purchases.

Consumer decisions around what apps to use and how to access them are complicated and multifaceted. The weight consumers place on different elements such as privacy or security may vary from consumer to consumer and revealed preferences may be different than expressed preferences.⁷

When it comes to the impact of security, the framing of this question seems to have the real underlying issue reversed. The issue is not that current app ecosystem policies are keeping more secure apps out, but rather that changes under the guise

⁴ See *The Symbiotic Relationship Between App Developers and Platforms: A Ten Year Retrospective*, ACT The App Association, https://actonline.org/wp-content/uploads/2018_ACT-App-Store-Ten-Year-Retro-Doc.pdf (last visited May 20, 2022)

⁵ See *Epic Games v. Apple*, 20-cv-05640-YGR (N.D. Cal. Sep 10, 2021) at *22-23.

⁶ See Shane Tews & Patrick Hedger, *Congress is Putting Attacking Big Tech Ahead of Protecting Americans*, Real Clear Policy, May 2, 2022 ,https://www.realclearpolicy.com/articles/2022/05/02/congress_is_putting_attacking_big_tech_ahead_of_protecting_americans_829953.html/

⁷ See Alec Stapp, *Against Privacy Fundamentalism*, Niskanen Center (Nov. 19, 2018), <https://www.niskanencenter.org/against-privacy-fundamentalism-in-the-united-states/>.

of “improving competition” may make it easier for bad actors and less secure options to enter the app ecosystem.⁸

9. Interoperability

In the app environment, the term “interoperability” has multiple meanings. To provide clear analysis into this subject, the NTIA must first create clear definitions of terms.

For example, one such use of “interoperability” would mean that Apps created on one platform will automatically work on another – think programs created for Microsoft’s Xbox automatically working on Sony’s Playstation. But of course this doesn’t happen due to differences in hardware architecture and operating system code. There are some coding platforms that do allow for easier, but still complicated, porting of programs from one system to another, but even those ultimately require developers to operate in a specific coding sandbox and may prevent optimization and other features.

Another potential definition of “interoperability” would apply to the ability of applications to access device hardware and software components. For example, can an application access a camera application or parts of system memory. Oftentimes hardware manufacturers will specifically prevent applications from accessing core software components for security and device corruption purposes.

And a third, but not finally, potential definition of “interoperability” would apply to the interaction between pieces of software. For example, the ability to convert an Adobe Photoshop file into another format for image processing. It could also apply to an application exposing itself to third-part modification software. This helps protect sensitive parts of hardware from being accessed by bad actors, like computer chips holding user biometric data or mobile payment devices.

As is evident, each of these different definitions of “interoperability” come with their own benefits and threats and must be analyzed in ways that provide maximum safety and security for the end-user if that is what the developer wants.

But regardless, it is also clear that the free market is driving developers to design and make available their programs on many, sometimes competitive, devices.

⁸ See Shane Tews, *Mobile Security Risks Are at an All-Time High*, Real Clear Policy, Aug. 8, 2021, https://www.realclearpolicy.com/articles/2021/08/18/mobile_security_risks_are_at_an_all-time_high_790399.html.

At the same time, platform holders and hardware manufacturers are constantly working with App developers to make it easier to dream, design, and build their apps. Consider the conferences like Google's I/O, Apple's WWDC, and Microsoft's Build all geared to making it easier for the developer community to create. This is not necessarily a philanthropic move by these businesses, but a financial one as these businesses know that the more apps they have the more attractive their products are to consumers. In essence, it's a win-win-win ecosystem, where developers, platform holders, and consumers are all winning by having increased choice, competition, and access.

The most popular apps on both Android and iOS as well as on Xbox and Playstation are either the same or overlap. Take for example, Spotify. This top App is available on all four of these platforms. Spotify has made data portability for their app cloud-based – where the same login, password, and preferences are synced across all devices, even on laptops. The same is true for all ten of the 2021 top apps⁹: TikTok, Instagram, Facebook, WhatsApp, Telegram, Snapchat, Zoom, Messenger, CapCut, and Spotify as well as the most popular video games in 2021 like Fortnite, League of Legends, Roblox, and Minecraft.¹⁰ This is because app developers know that by making their app more available on more services, they will have more users.

What this shows is that if there is a barrier to switching operating systems, the App ecosystem is not the primary switching cost. These clear data points also shows that it is the free market that is providing consumers the access and choice they want, not government regulation or decisions by platform holders or manufacturers.

One of the most dangerous actions the NTIA could take would be to interject government into a working ecosystem. As mentioned above, today's App ecosystem is a win-win-win ecosystem, where developers, platform holders, and consumers are all winning by having increased choice, competition, and access. Forced interoperability, *i.e.*, access to secured parts of a device, creates safety and security threats for consumers. This will in-turn discourage consumers from using these systems and discourage consumers from experimenting with lesser known developers for fear of security and privacy concerns. Likewise, forced "interoperability" of code between different hardware or applications will result in

⁹ John Koetsier, *Top 10 Most Downloaded Apps and Games of 2021: TikTok, Telegram Big Winners*, Forbes, Dec. 27, 2021, <https://www.forbes.com/sites/johnkoetsier/2021/12/27/top-10-most-downloaded-apps-and-games-of-2021-tiktok-telegram-big-winners/?sh=4307ef123a1f>.

¹⁰ *Most Played Games in 2021, Ranked by Peak Concurrent Players*, Twinfinite (Dec. 18, 2021), <https://twinfinite.net/2021/12/most-played-games-in-2020-ranked-by-peak-concurrent-players/>.

less optimized applications which means a slower, more power consuming, and overall degraded consumer experience.

13. Pre-installation and default apps

Many of the basic features that consumers expect on their smartphones and tablets include email clients, web browsers, one or more app stores, a calculator, and even a flashlight. Consumers seem to prefer a ready to go product. For those who prefer a service other than the one that comes pre-loaded, other choices are typically either presented or only a few clicks away. This is particularly true for those most popular and hotly debated options such as web browsers or app stores themselves.

This is nothing new to the technology sector. Home computers often have pre-installed software like Microsoft Outlook which comes preinstalled on Windows 11. Dell Computers often have pre-installed software from third-parties as part of contract agreements. Smart TVs have pre-installed applications installed such as Netflix. And video game consoles often have default software pre-installed like Edge which comes preinstalled on Xbox. All the above examples also have default App stores that come pre-installed. Yet this has not prevented the seamless movement from PC to Mac or Samsung TVs to TCL or Xbox to Playstation. These decade-old technologies show that the existence of pre-installed and default apps and app stores are not significant barriers to switching.

The same is true for smartphones and tablets. There are rather low switching costs for consumers who prefer to use a different product that comes pre-installed on a device and rather low burdens to do so. Samsung devices, for example, typically come with multiple app stores pre-installed. Other devices may only have one option pre-installed, but settings features or downloads make it rather easy for a consumer to change the option.

Decisions about what to pre-load should also be considered for its pro-consumer aspects. It should not be presumed that an app is popular merely because it is “preloaded” when often apps may be pre-loaded on the basis of consumer demands and expectations.

15. Alternative App Stores in the App Store Ecosystem

The app stores available to consumers on their devices is typically far broader than the operating system based “duopoly” that is often portrayed. As mentioned above, many Android operating system based devices such as Samsung phones and Amazon Kindle Fires come pre-loaded with multiple app stores.

Consumers make many choices when deciding what devices to use. Many consumers also engage in “multi-homing” where they may access different apps on different devices to serve different purposes. For example, a consumer may find that the entertainment options on Xbox serve his or her entertainment needs, value the security of the more closed iOS system on an iPhone for a smartphone, and find that a Kindle Fire provides flexibility for reading and entertainment on the go. As a result, many consumers are using multiple app stores depending on the device and category they are seeking.

Alternative app stores including those found on gaming consoles and within games often function much the same way as those app stores on smartphones. This includes the limitations and charges for third party apps within them. For example, Epic’s own in-game store engages in similar charges and restrictions as the behavior it complains about Apple and Google engaging in.¹¹ Microsoft notably exempts its own Xbox ecosystem from its “developer principles” of its other app stores – treating it more akin to an app store found on a phone than something different.

For developers, which and how many app stores to offer their product in is often a business decision. Some may choose an exclusive approach, while others may find it best to attract customers through the greatest number of app stores. In choosing the distribution channel, developers and consumers are determining the various trade-offs they may be willing to make.

This often comes up in the debate around sideloading. Apple’s iOS and certain other systems have prevented sideloading in an effort to create a more secure system including Microsoft’s Xbox, Sony’s Playstation, and Nintendo’s Switch. Other players such as Google’s Android operating system allow users the opportunity to sideload and have more flexibility. Consumers and developers may make choices as a result about how they value flexibility versus security.

16. App Stores versus Desktop

In general products have moved to a more app based model regardless of if they are operating on a traditional desktop or a mobile device. As a result, in many ways, this question presents an outdated dichotomy.

App stores provide benefits to both consumers and developers. For consumers, they provide convenience and trust that an app has met certain requirements or

¹¹ See Chris Kerr, *Here’s Why the Epic Games Store Takes a 12 Percent Revenue Cut From Devs*, Game Developer (Apr. 23, 2019), <https://www.gamedeveloper.com/business/here-s-why-the-epic-games-store-takes-a-12-percent-revenue-cut-from-devs>.

standards around issues such as security. They also provide a single location for consumers to see the wide-range of apps available for any given need. For developers, app stores have lowered costs associated with the traditional software distribution compared to the older retail model that was focused on PCs.¹² Additionally, for newer and smaller players, distribution via app store can provide developers with consumer trust more quickly than individual distribution may.

Still the traditional and direct download options are available to both consumers and developers. In some cases, this option may provide the best way to solve unique problems or reach a unique subset of consumers. App stores have provided an additional beneficial choice for both consumers and software developers.

17. App Store “screening” and responses

In engaging with the topics in question 17, the agency should be cautious not intervene in such a way that could force distribution of malicious apps or could negatively impact the speech rights and private content decisions of app stores by forced distribution.

For example, sub-part (a) asks about rejection of “legitimate” apps. However, it is difficult if not impossible to distinguish between “legitimate” app rejections and other rejections without some kind of subjective standard. For example, apps may be rejected due to violation of an agreement, the over collection of data, violation of consumer privacy, security flaws, or explicit content. Many users would expect or desire such rejections; however, an app’s developer may cry foul or bias. In some cases, an app store may have more stringent requirements due to the market it seeks to serve and so not allow certain kinds of content. As with other difficult questions surrounding content moderation, such decisions are protected by the First Amendment.¹³

The agency should be cautious not to consider the only “legitimate” rejections to be those based on security or privacy concerns. To do so would result in significant intervention into private contracts and could compel speech by the private platforms.

¹² See *The Symbiotic Relationship Between App Developers and Platforms: A Ten Year Retrospective*, ACT The App Association, https://actonline.org/wp-content/uploads/2018_ACT-App-Store-Ten-Year-Retro-Doc.pdf (last visited May 20, 2022)

¹³ See *NetChoice v. Paxton*, 1:21-CV-840-RP (W.D. Tex, Dec. 1, 2021) at *12-24.

24. Security concerns and access to other smartphone tools

Many apps function best through the use of other information such as mapping tools using geolocation or photo apps needing access to cameras; however, these requirements can also raise security or privacy concerns about access to other data. The best response is to ensure that consumers are informed in a way that empowers them to make informed decisions about the use of their data and the security of their devices.

This can be done via various levels including on the device, via the app store, or via the app itself. The agency should be cautious not to dictate the terms of agreements about this information or the nature of the user interface. How to best convey this information may vary depending on the nature of the app and the particulars of the information needed. The goal should be to empower consumers and innovators to proceed in a way that adequately reflects their security and privacy preferences not to dictate a one-size-fits-all approach that presumes either anti-competitive animus in preventing access or privacy concerns from allowing it.

26. Existing Governance Impacts on Certain Categories of Apps

Certain categories of apps are already subject to additional requirements and regulations. Notably apps for children are subject to requirements from the Children's Online Privacy Protection Act (COPPA). As a result this can impact the cost of development and the range of apps in the market.¹⁴

Additional privacy regulations or other industry requirements can impact the development of apps and are not only a result of app store requirements. General regulations around privacy would also likely impact app development as has been observed recently with the European Union's General Data Protection Rule (GDPR).¹⁵

27. Fostering a Healthy App Ecosystem

¹⁴ See Jennifer Huddleston, *Want to Keep Kids Safe Online? Don't Just Do Something*, Real Clear Policy, Nov. 16, 2021, https://www.realclearpolicy.com/articles/2021/11/16/want_to_keep_kids_safe_online_dont_just_do_something_803758.html

¹⁵ Benjamin Mueller, *More Evidence Emerges that GDPR has Inflicted Lasting Damage to the EU's Digital Economy*, Center for Data Innovation (May 11, 2022), <https://datainnovation.org/2022/05/more-evidence-emerges-that-the-gdpr-has-inflicted-lasting-damage-to-the-eus-digital-economy/>.

Instead of regulating the existing market at consumers' expense, the focus should be on encouraging further innovation. This can include providing additional training and incentives for app developers and encouraging the underlying skills to bring their ideas to market. It also includes working to remove the regulatory barriers that may make it more difficult to have sufficient infrastructure for apps and app operation.

For example, the government could work to address problems created by supply chains that makes access to CPUs harder and prevents consumers from accessing these devices. Likewise, the government should support the private sector in the further development of improved internet connectivity and deployment of 5G – as the 4G revolution helped spur the app revolution.

Conclusion

The current app ecosystem has created a competitive structure that benefits consumers and developers. Government agencies should be cautious about making unnecessary interventions that could disrupt rather than promote a healthy ecosystem.

Sincerely,

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