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**Android Divestiture and a Roadmap from AT&T**

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## Introduction

Seventeen years ago, Google purchased Android in a deal that one Google executive deemed Google's "best deal ever."<sup>1</sup> At the time, the acquisition was so low-key that it was reported by BusinessWeek Online and CNET in 2007,<sup>2</sup> *two years* after it occurred. The price was estimated at just \$50 million.<sup>3</sup>

The promise of Android was an open-source operating system (OS), available to a variety of manufacturers. Android's founders thought the lack of a viable open-source OS for mobile devices was a major market gap and set out to fill it. When they sold the project, they chose Google in part because of Google's promises about accessibility. Google planned to give away the product to carriers for free, with a plan to help the carriers make money: Google and the carriers would form a partnership and share revenue from search. This would help the product grow and realize the Android founders' vision of creating an open environment for smartphone manufacturers.<sup>4</sup>

Seventeen years later, the results of the Android founders' open-source vision are a decidedly mixed bag. Android has taken off: phones running Android dominate the OS market, with an estimated 87% of smartphones worldwide running Android, and over 40% of phones in the U.S.<sup>5</sup> However, Google has increasingly used its dominant status for ends that are decidedly

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<sup>1</sup> Owen Thomas, *Google Exec: Android Was "Best Deal Ever,"* VENTUREBEAT (Oct. 27, 2010), <https://venturebeat.com/2010/10/27/google-exec-android-was-best-deal-ever/>.

<sup>2</sup> Stefanie Olsen, *Google Buys Android*, CNET, <https://www.cnet.com/culture/google-buys-android/> (last visited May 18, 2022).

<sup>3</sup> Thomas, *supra* note 1.

<sup>4</sup> Chet Haase, *Excerpt: How Google Bought Android—According to Folks in the Room*, ARS TECHNICA, <https://arstechnica.com/information-technology/2021/08/excerpt-the-history-of-android-as-written-by-a-longtime-android-developer/> (last visited May 18, 2022).

<sup>5</sup> Jason Cohen, *IOS More Popular in Japan and US, Android Dominates in China and India*, PCMAG, <https://www.pcmag.com/news/ios-more-popular-in-japan-and-us-android-dominates-in-china-and-india> (last visited May 18, 2022).

counter to the open vision originally espoused. In 2018, Google's antitrust violations led to a \$5 billion fine by the EU for Android-related, anti-competitive infractions committed by Google.

First, the EU found that Google illegally tied its search and browser apps by forcing device manufacturers to pre-install a variety of apps as a bundle to obtain any of the individual apps. In practice, this forces companies to take all the Google apps as a condition of using Android, because the Play Store is a must-have app that is necessary to the functioning of the platform. In order to access Google Play, Google also required Android device manufacturers to set these Google apps as the default options. Status quo bias allowed Google to retain its dominant position and remain in position to collect the significant resulting ad revenue.

Second, the EU found that Google conditioned revenue sharing payments on the exclusive pre-installation of Google Search. This was an ironic twist; Android's founders thought that Google's ability to share revenue because of its search engine was an excellent way to spread the ideal of an open-source platform. However, it was also a way for Google to exert influence and control once it obtained a dominant market position. Third, Google used anti-competitive tactics to prevent device manufacturers from using any alternate version of Android that was not approved by Google. This tactic is known as anti-forking agreements. Again, they accomplished this by pairing this restriction with the use of Google's proprietary apps.<sup>6</sup> In October 2020, the U.S. Department of Justice filed a complaint against Google<sup>7</sup>, alleging many of the same violations, including its use of anti-forking agreements based on tying apps,<sup>8</sup>

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<sup>6</sup> South Korea also fined Google over its anti-forking agreements in 2021. See Jon Porter, *Google Found Guilty of Restricting Android Forks in South Korea, Fined \$177 Million*, THE VERGE, <https://www.theverge.com/2021/9/14/22673202/google-south-korea-android-fork-fine-anti-fragmentation-agreement-antitrust> (last visited May 18, 2022).

<sup>7</sup> Complaint, *United States, State of Arkansas, State of Florida, State of Georgia, State of Indiana, Commonwealth of Kentucky, State of Louisiana, State of Mississippi, State of Missouri, State of Montana, State of South Carolina and State of Texas v. Google LLC* (Oct. 20, 2020) [hereinafter DOJ Complaint].

<sup>8</sup> *Id.* ¶ 54.

bundling of apps to access any apps,<sup>9</sup> and conditioning revenue sharing on being the preset default search engine.<sup>10</sup> That suit is still pending, allegedly due to the DOJ's lack of monetary resources.<sup>11</sup>

Taken together, the EU's findings and the DOJ's complaint show that Google has used a combination of its dominance in the search and online advertising markets and the mobile operating system market, via Android, to stifle competition and the promise of Android as an open-source product. This paper envisions divestiture as a remedy to those harms. While any court which finds wrongdoing on the part of Google in the OS space has a variety of options, this paper uses the famous breakup of the Bell System in the early 1980s as a model. We go through the history of the divestment and discuss how it can serve as a legal precedent for the divestiture of Android by Google. Then, we briefly discuss what the specifics of such a divestiture would look like, including what must be divested alongside Android or required of Google for the new entity to create a new company that can succeed independently.

### **I. AT&T as a Precedent**

Prior to divestiture, the Bell System was a vertically-integrated monopoly designed to deliver end-to-end telephone communications service to its customers. The Bell System was composed of three primary components.: (1) Local service provided by the local Bell operating companies (BOCs), which also acted as the service interface with customers; (2) Long-distance service to both telephone companies and their customers provided by Long Lines Division of the American Telephone & Telegraph Company (AT&T); and (3) Telephone instruments,

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<sup>9</sup> *Id.* ¶ 55.

<sup>10</sup> *Id.* ¶ 56.

<sup>11</sup> See, e.g., Leah Nysten, *Potential DOJ Suits Against Apple and Google Delayed Amid Budget Woes*, Politico (Dec. 23, 2021), <https://www.politico.com/news/2021/12/23/apple-google-doj-delay-526072#:~:text=Google%20and%20Apple%20probes%3A%20The,over%20its%20online%20search%20business.>

transmission equipment, and switching equipment, which were owned and directed by AT&T, Western Electric Company (WECO), and necessary for operating companies and Long Lines, .

In 1974, the Department of Justice filed an antitrust complaint against AT&T.<sup>12</sup> The DOJ contended that, by maintaining control of local exchange, long-distance, and equipment, the Bell System had created a “triple-bottleneck” in order to monopolize the United States’s telecommunications industry.<sup>13</sup> Among the Department of Justice’s allegations against AT&T was the contention that AT&T had illegally refused to provide competitors with local interconnection service.<sup>14</sup> One of the Bell System’s “customer premises” requirements, for example, permitted the hook-up of a long-distance competitor only if hook-up occurred within the confines of the customer’s premises.<sup>15</sup> As a consequence of AT&T’s anticompetitive practices, the DOJ claimed: “(1) [D]efendants have achieved and are maintaining a monopoly of telecommunications service and equipment; (2) [C]ompetition in these areas has been restrained; and (3) [P]urchasers of telecommunications service and equipment have been denied the benefits of a free and competitive market.”<sup>16</sup>

According to the DOJ, AT&T’s actions were a violation of Section Two of the Sherman Act.<sup>17</sup> The DOJ sought several forms of divestiture: “[D]ivestiture by AT&T of all Western Electric stock; the separation of some or all of the Long Lines Department of AT&T from the Bell Operating Companies; the divestiture by Western Electric of its manufacturing and other

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<sup>12</sup> *United States v. American Telephone & Telegraph Co.*, 461 F. Supp. 1314, 1318 (D.D.C. 1978).

<sup>13</sup> *See Hearings on H.R. 13015 Before the Subcomm. on Communications of the House Comm. on Interstate & Foreign Commerce*, 95th Cong., 2d Sess. 748 (1978) (testimony of Assistant Attorney General for Antitrust John H. Shenefield).

<sup>14</sup> *U.S. v. AT&T* at 1318.

<sup>15</sup> *Id.*

<sup>16</sup> *Id.*

<sup>17</sup> *Id.* at 1317.

assets sufficient to insure competition in the manufacture and sales of telecommunications equipment.”<sup>18</sup>

After lengthy litigation, the DOJ and AT&T eventually agreed on the terms of a consent decree. In 1983, the court approved their proposed decree, including divestiture, and ordered only a few modifications.<sup>19</sup> The court justified its support of divestiture as a remedy for several reasons. First, the court found that AT&T “dominated” almost every part of the American telecommunications industry.<sup>20</sup> Thus, “[a]ccording to credible evidence, this integrated structure has enabled AT&T for many years to undermine the efforts of competitors seeking to enter the telecommunications market.”<sup>21</sup> Second, the court found that AT&T’s control of local telephone service was “key to the Bell System’s power to impede competition.”<sup>22</sup> AT&T’s control of this local monopoly, the court explained, had prevented competing long-distance carriers and competing equipment manufacturers from gaining access to the local network, thereby disadvantaging them.<sup>23</sup> Allegedly, AT&T was also using the profits it earned from its local monopoly to subsidize its long distance and equipment businesses, in which it was competing with others.<sup>24</sup> A divestiture, the court concluded, would “sever the relationship between this local monopoly and the other, competitive segments of AT&T, and it [would] thus ensure certainly better than could any other type of relief that the practices which allegedly have lain heavy on

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<sup>18</sup> *Id.*

<sup>19</sup> *United States v. American Tel. and Tel. Co.*, 552 F. Supp. 131 (D.D.C. 1983).

<sup>20</sup> *Id.* at 222.

<sup>21</sup> *Id.*

<sup>22</sup> *Id.* at 223.

<sup>23</sup> *Id.*

<sup>24</sup> *Id.*

the telecommunications industry will not recur.”<sup>25</sup> Despite the costliness of the divestiture, it is “widely considered to be a ‘successful divestiture.’”<sup>26</sup>

## II. Application to Google

According to a 2020 DOJ complaint against Google, the company uses Android to employ anticompetitive strategies similar to those utilized by AT&T pre-divestiture. First, despite the original vision of Android as an open-source operating system available to a variety of manufacturers, Google has stopped manufacturers from freely using Android.<sup>27</sup> Namely, it “requires Android device manufacturers that want to preinstall Google’s proprietary apps to sign an anti-forking agreement; these agreements set strict limits on the manufacturers’ ability to sell Android devices that do not comply with Google’s technical and design standards.”<sup>28</sup> However, in order to receive access to these apps and interfaces, Android device manufacturers must do more than sign the anti-forking agreement. They must also “contractually agree to (1) take a bundle of other Google apps, (2) make certain apps undeletable, and (3) give Google the most valuable and important real estate on the default home screen.”<sup>29</sup>

Finally, Google, like AT&T, uses part of its profits to cement its monopoly in other areas:

Google provides a share of its search advertising revenue to Android device manufacturers, mobile phone carriers, competing browsers, and Apple; in exchange, Google becomes the preset default general search engine for the most important search access points on a computer or mobile device. As a practical matter, users rarely switch the preset default general search engine. In many cases, the agreements relating to mobile devices go even further, expressly prohibiting (1) the preinstallation of any rival general search services, and (2) the setting of other defaults to rival general search engines. This means that Google is the only preset default search provider preinstalled on the device.<sup>30</sup>

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<sup>25</sup> *Id.* at 224.

<sup>26</sup> See Maham Usman, *Breaking Up Big Tech: Lessons from AT&T*, U. Penn. L. Rev. 523, 533 (2021) (quoting Brian Naylor, *Could the Old AT&T Break-Up Offer Lessons for Big Tech Today?*, NPR (June 26, 2019, 5:56 PM), <https://www.npr.org/2019/06/26/736344175/could-the-old-at-t-break-upoffer-lessons-for-big-tech-today>).

<sup>27</sup> DOJ Complaint at 18.

<sup>28</sup> *Id.*

<sup>29</sup> *Id.* at 19.

<sup>30</sup> *Id.*

Google's anticompetitive tactics resemble the tactics that necessitated AT&T's divestiture. AT&T's monopoly was based on its vertical integration: It provided not only local service but also long-distance service and telephone equipment. Divestiture severed AT&T's monopolist control of these three realms. Similarly, Google's ownership of Android is problematic in part because of its interconnectivity with other realms controlled by Google, including the Google Play Store and Google's search engine. Therefore, divestiture, which would sever Google's control of Android from its control of other related realms, would be an appropriate remedy.

### **III. What Google Would Need to Divest**

Because Android used to be a standalone entity, it is tempting to think that divestiture is as simple as spinning off the Android Open Source Project into its own company and going from there. However, as Android has grown under the Google umbrella, Google has put key features of Android's operability into Google's own proprietary apps and application programming interfaces. This suite is known as Google Mobile Services (GMS).<sup>31</sup> These apps include many that Android users will recognize as pre-installed, core applications of the platform, such as Google Search, Chrome, YouTube, Maps, Photos, Music, Gmail, and Google Drive. Most importantly, GMS includes Google Play (formerly "Android Market" and also known as the "Google Play Store"). Google Play is the official app store for android devices, and necessary for users to download many of the crucial applications for use of the OS in general. Google Play

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<sup>31</sup> Calvin Wankhede, *What Are Google Mobile Services (GMS)?*, ANDROID AUTHORITY, <https://www.androidauthority.com/google-mobile-services-gms-3025963/> (last visited May 18, 2022).



offers about three million apps, and more than 90 percent of apps on Android devices are downloaded through Google Play.<sup>32</sup>

The centrality of these applications to the functioning of Android is, as discussed in the Introduction, core to Google's ability to exercise leverage over manufacturers and to take anti-competitive actions.<sup>33</sup> Thus, any divestiture remedy needs to take into consideration how to deal with GMS and make certain that the new standalone owner of Android can operate.

The recent story of the Amazon Fire phone shows the leverage Android has over manufacturers. Amazon is, of all companies not named Google or Apple, the most capable of investing the money necessary to creating a competing operating system and not giving in to Google's anti-competitive requirements. Amazon chose to run its phone based on a heavily customized version of the Android operating system, meaning Google would not allow users to use Amazon's OS with its core apps. However, Amazon struggled to sell the phone and took a \$170 million charge to wipe out the lost value of its unsold Fire phones just three months after launch.<sup>34</sup> As CNET put it, the lesson was: "Don't be different [from Google's Android suite] (unless you're Apple)."<sup>35</sup> One of the key reasons for Fire's failure was the "small app store," which meant that "developers have to make different versions of their apps specifically for the Fire Phone and Kindle Fire, and many haven't bothered.... Most notably, Amazon's store lacks

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<sup>32</sup> DOJ Complaint ¶ 73. See also Lauren Feiner, *States Bring a New Antitrust Suit against Google over Its Mobile App Store*, CNBC, <https://www.cnbc.com/2021/07/07/states-bring-new-antitrust-suit-against-google-over-google-play.html> (last visited May 18, 2022).

<sup>33</sup> See *supra* Introduction.

<sup>34</sup> Ben Fox Rubin, *Fire Phone One Year Later: Why Amazon's Smartphone Flamed Out*, CNET, <https://www.cnet.com/tech/mobile/fire-phone-one-year-later-why-amazons-smartphone-flamed-out/> (last visited May 18, 2022).

<sup>35</sup> *Id.*

Google's flagship apps, so Fire Phone owners have no easy access to Gmail, YouTube or Google Maps."<sup>36</sup>

If Amazon could not operate outside of Google's anti-competitive requirements, it is clear why the Google's tying strategy is effective for Android. Thus, any standalone that comes out of divestiture must have access to the core functionalities of GMS, or Google will retain too much control. Conceptually, there is a relatively straightforward solution. If Android divestiture includes Google Play, within which GMS is housed, the new company would have all of the required functionality to operate.

There are, however, two complications. The first is that Google Play is no longer solely the Android marketplace; it also is the channel through which Google sells multimedia products that are not specific to Android.<sup>37</sup> However, that functionality could easily be cleaved in two during a divestiture, with Google retaining the multimedia business and Android getting the rest of Google Play. The more significant challenge is that Google would likely respond to this threat by moving GMS functionalities in Google Play to other apps. Because of that danger, the court would need to determine what functionalities in GMS are critical to the success of the standalone Android entity. For example, the apps would need to be able to function on the new independent OS without Chrome being a prerequisite. Making the apps on the new OS operable without chrome is technologically easy; there is no reason apps need a browser installed to work. A browser is a requirement on Android only because Google has chosen to embed some of the Android functionality within Chrome. The divestiture of the app store function of Google Play is

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<sup>36</sup> Victor Luckerson, *4 Reasons Amazon's Fire Phone Was a Flop*, TIME, <https://time.com/3536969/amazon-fire-phone-bust/> (last visited May 18, 2022).

<sup>37</sup> *How Google Play Works*, <https://play.google.com/about/howplayworks/> (last visited May 18, 2022).

the key, because it is the gateway access point to the Android ecosystem and has allowed Android to gain the leverage it needs to pull off its tying agreements.

Alternatively, a court could require Google to provide the standalone Android entity with access to its applications, including Google Play, for a period of time. However, this is undesirable for multiple reasons. First, it may require continued court oversight and would present challenges to the standalone entity. Not giving the standalone control over GMS capabilities core to Android's functioning would create a company that lacks control over many aspects of its own OS's function. For a time, the standalone would be able to use those applications to help Android function, but it would eventually have to reinvent its own version of many key features functionality just to retain Android's current operating level. Additionally, recent antitrust cases have shown remedies conditioned on time-limited access agreements can lead to problems later that require structural action by courts.<sup>38</sup> For example, in a high-profile recent case, the Department of Justice allowed a merger of vertically integrated door manufacturers on the condition that the combined entity honor long-term supply agreements for a key input it sold to competitors. After the merger, however, the vertically integrated company used a variety of underhanded and anti-competitive tactics to frustrate sales to the competitor; a court eventually had to order divestiture to create a long-term remedy. If core functions necessary to the function of Android were retained by Google, Google could attempt to undermine Android's success through those levers.

At the same time, forcing Google to provide the standalone Android with full access to GMS would impose requirements on Google which are unnecessary. Outside of Play and apps that embed core functionalities such as Chrome, the new OS should be able to replace other

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<sup>38</sup> *Steves and Sons, Inc. v. JELD-WEN, Inc.*, 988 F.3d 690 (4th Cir. 2021).

functionalities provided in GMS. For example, there are a variety of other browser apps that can provide the service of browsing the web, or apps that provide maps and directions. Additionally, Google would likely allow users to use their applications voluntarily. After all, the point of Google's anti-competitive tying strategy is to force manufacturers to set their applications as the default so users use their apps and Google can collect data and sell ads. If Google lost the ability to use its market dominance and control over Google Play to tie these apps and services to Play, Google would be unlikely to respond by preventing users from the world's largest operating system from using their apps. Google would want as much usage as possible. A better solution is to divest the functionalities of GMS that a committee of experts determines is core to the function of Android while allowing Google to retain the rest and compete just like any other company.

### **Conclusion**

“Break Up Big Tech” has become the mantra and mission of political players as disparate as Elizabeth Warren and Josh Hawley. While divestiture may not always be the best remedy for big tech monopolies,<sup>39</sup> we believe it would be an appropriate remedy for Google and Android. Google's ownership of Android resembles the vertical integration of pre-divestiture AT&T, a successful example of court-ordered divestiture. If anything, Google divesting Android would be a simpler task. It is clear what components of Android must be divested and how. Google must divest GMS, for example, to ensure the functionality of Android. For the foregoing reasons, we hope that an Android divestiture will come to fruition.

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<sup>39</sup> See, e.g., Usman, *supra* note 26.