

DIGITAL REGULATION PROJECT

Pay for Half: A Better Remedy for Google Search

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Executive Summary

In September 2025, Judge Amit Mehta issued the long-awaited remedies opinion in the *United States v. Google* search case, in which he had previously held that Google illegally maintained its monopoly in general search services. At the heart of that monopoly were Google’s multi-billion-dollar payments to distributors—Apple, Samsung, Mozilla, and

² Author affiliations and disclosures appear as an appendix, *infra*.

others—to lock in Google Search as the default on nearly every mobile device and across much of the desktop browser market. Yet despite identifying these payments as the central anticompetitive conduct, Judge Mehta declined to ban them. Concerned about windfall profits to Google, harm to channel partners, and consumer disruption, he allowed Google to continue paying for default placement subject only to minimal restrictions. The result, by the court’s own acknowledgment, is a remedy that may leave in place the very forces that have made the search ecosystem “exceptionally resistant to change.” Liability has been established, but the conduct that produced it can continue largely unchecked.

The case is now on appeal, and the judge’s remedy opinion already contemplates the possibility of revisiting the idea of a payment ban. To meet that moment when it comes, this paper proposes a targeted adjustment to the remedy that we call “Pay for Half.” Rather than ban Google’s default-placement payments outright, the court should cap them. We recommend up to a 50% market share cap—Google may pay channel partners on no more than half of the devices in any product line—paired with a payment cap (equivalent to a 40% revenue share) that limits how much Google can pay per device and forecloses obvious circumvention. Finally, to prevent discriminatory market segmentation, the devices eligible for Google payments would be randomly assigned within product lines.

In all, Pay for Half creates an immediate distribution channel for competitors, including emerging AI-powered entrants, and it responds to the concerns Judge Mehta raised: channel partners retain meaningful payments, OEMs design the user experience for their customers, and Google itself continues to compete for distribution. But it does so while the remedy opens at least half of the market to rivals on day one—the competitive condition that Judge Mehta’s own liability findings require.

I. Introduction

On September 2, 2025, US District Court Judge Amit Mehta issued a remedy opinion that many in the tech industry had been waiting on for more than 15 years: a ruling about how to rectify Google’s maintenance of its illegal monopoly in online search.³ The most consequential aspect of the opinion is that the remedies the judge ordered will not meaningfully address the conduct at the center of the case: Google paying distributors such as Apple, Samsung, and Mozilla tens of billions of dollars per year to lock in Google Search as the default on nearly every mobile phone and across much of the desktop browser market. The reasoning leading to Judge Mehta’s earlier liability ruling,⁴ his analysis of the nature of the search market, and his evaluation of the market forces at play should have resulted in a set of remedies that are designed to effectively open the search market to competition. Unfortunately, Judge Mehta’s remedy is not designed to accomplish that.

Should there be an opportunity to revisit this inadequate remedy on appeal—as we believe there should be—there will be a need to craft an effective remedy in its stead. In this paper, we offer a straightforward adjustment to the existing remedy that comports with all of the Judge’s findings, analysis, and rulings. This proposal, which we colloquially refer to as “Pay for Half,” would allow Google to pay for privileged status (such as default position) for Google search on a portion of mobile devices. The remedy would allow the court to prevent

³ *United States v. Google LLC*, No. 20-CV-3010 (APM), 2025 WL 2523010 (D.D.C. Sept. 2, 2025). (Henceforth *Remedy*.)

⁴ *United States, et al. v. Google LLC*, No. 20-cv-3010; 20-cv-3015, Memorandum Opinion (D.D.C. Aug. 5, 2024). (Henceforth *Liability*.)

some of the potential short-term harms to distributors about which Judge Mehta expressed concern, while at the same time immediately opening the market to competition. This paper describes how the remedy would work in such a way that fosters and restores competition, prevents Google from profiting from its exclusionary conduct, and increases consumer welfare.

The paper proceeds in two parts: in Section II, we review the case history, the basis for the liability ruling, the construction of remedy ruling, and the mismatch between the two opinions. In Section III, we propose the Pay for Half remedy. Section IV covers the implementation of Pay for Half, including implications for the Technical Committee and additional considerations. Section V concludes.

II. The Court's Rulings on Liability and Remedies

a. Case History in Brief

In October 2020, the US Department of Justice (DOJ) (along with eleven state attorneys general) sued Google for illegally maintaining a monopoly in the markets for general search, search advertising, and general search text advertising through exclusive contracts for default placement on mobile devices and desktop browsers.⁵ Nearly four years later, in August 2024, Judge Mehta issued his liability ruling, which held that Google was liable for illegal monopolization in general search services and general search text advertising. In September 2025, Judge Mehta issued his remedy opinion in the case. The remedies that Judge Mehta ordered addressed some of the conduct that was the basis for his liability finding, but they do not prevent Google from continuing the conduct that caused, and maintains, the company's monopolization of the general search engine (GSE) market.

Heading into the Google search monopolization trial in 2024, Google held 95% of the general search market on mobile and had held a similar share for a decade.⁶ Evidence showed the company maintained its hold on this market through payments to channel partners, original equipment manufacturers (OEMs), browsers, and carriers. Google paid Apple annually up to \$20 billion to make Google search the exclusive default at all search access points on Apple's operating systems. Each company benefitted from the arrangement: Google maintained its monopoly and Apple got a share of the monopoly rents, which helped to compensate Apple for staying out of the search market.

Google used a similar strategy to prevent potential search competitors from reaching Google Android users, but it used its control of the Android operating system in addition to payments. Independent device makers must license a mobile operating system, and Google's Android OS is the only meaningful option. Therefore, Google has tremendous market power over device makers and can require that Google search and Chrome be defaults in addition to sharing search revenue with OEMs that make Google search an exclusive default.

These arrangements block new entrants and potential rivals in search. One of the central findings of the liability trial (long known in the economics discipline) is that consumers stick with a default choice even when taking just 30 seconds to adjust the settings on their device would give them a different search engine. Default status is therefore economically valuable

⁵ *United States v. Google LLC*, No. 1:20-cv-03010 (D.D.C. Oct. 20, 2020).

⁶ *Liability* at 156.

and, were it available, would be the best way for entering search engines to gain customers on some devices. But Google’s exclusive contracts made it impossible for a rival to obtain a share of Android devices for its own default status, and virtually impossible for a rival search entrant to outbid Google for the default position on iOS. Rivals therefore could not get access to compete for the millions of Apple users. And Apple itself had little incentive to develop its own search engine to compete when instead it was able to share in Google’s profits.

b. Liability Ruling

After a nine-week bench trial and discovery that included the production of petabytes of Google data,⁷ Judge Mehta’s liability ruling was based on four determinations: (1) The relevant product markets are those for general search services and general search text advertising; (2) Google has monopoly power in both those markets, based on Google’s 90% market share for searches on desktop and 95% for searches on mobile devices; (3) Google’s agreements with Apple, Mozilla, and Android have “exclusive and anticompetitive effects”; and (4) the agreements do not have procompetitive justifications.

The monopolization finding depended upon a causal link between Google’s payments and the lack of competition in the markets for general search services and search text advertising. Notably, Judge Mehta found that Google’s agreements with Apple, Mozilla, and Android were, in practice, exclusionary, even though a consumer has the technical ability to change the default setting to another search engine. Because these contracts establish Google as the default search engine, as such they are *de facto* exclusive dealing agreements.

Judge Mehta determined that Google had “no true competitor” in the markets for general search and search text advertising.⁸ He noted that Google’s market share in general search increased from 80% to 90% over the course of the past fifteen years, while the number of potential competitors shrank: Bing’s market share decreased from 11% to 6%; Yahoo as of 2024 held just 2.5%. Some entrants such as Neeva were no longer operating as a general search engine, and others like DuckDuckGo were similarly small players (DuckDuckGo had a 2.1% market share at the time of the liability opinion).⁹

Judge Mehta then found a causal link between the default agreements and the lack of new entrants in search – what he deemed the “market stasis.”¹⁰ He declined to require that the government prove exactly how many and what types of search engines would have entered absent the conduct (“but for” causation), instead finding enough evidence that Google’s payments to Apple, Mozilla and Android for default placement had both the purpose and effect of preventing other GSEs from entering the market and eliminating the incentive for firms to develop their own GSEs. The agreements “froze” the search ecosystem,¹¹ granting Google the default position on browsers and devices, monopoly profits from its advertisements, and data mined from users that in turn increased its search engine’s dominance. Judge Mehta highlighted the inability of any new entrants to “‘buy their way into’ the market, let alone ante up for default placement.”¹² While the payments help channel

⁷ *Liability* at 3-4.

⁸ *Remedy* at 5.

⁹ *Liability* at 200. DDG and Neeva are the only two notable market entrants in the last 15 years. Each attempted to innovate—DDG on privacy and Neeva through a subscription-based model—but found only limited success (DDG) or left the market altogether (Neeva). *Liability* at 237.

¹⁰ *Liability* at 200.

¹¹ *Liability* at 206.

¹² *Liability* at 251.

partners like Apple by providing them with revenue, they harm consumers by disincentivizing the channel partner from developing its own search engine or encouraging a third-party search engine to enter. Apple, for example, is able to earn about 20% of all of its operative profit from Google for doing nothing but granting it the default position on its operating systems and its web browser, Safari.

c. Remedy Ruling

A year after finding Google liable, Judge Mehta ordered remedies that generally fail to address the competitive harms he identified. Remedies for violations of Section 2 of the Sherman Act should “unfetter a market from anticompetitive conduct, . . . terminate the illegal monopoly, deny to the defendant the fruits of its statutory violation, and ensure that there remain no practices likely to result in monopolization in the future.”¹³ In the liability decision, Judge Mehta determined that the massive scope of Google’s default agreements froze the market for search. Given this finding, the remedies, at bottom, should restrict the breadth of Google’s agreements that pay for distribution.¹⁴

However, the remedies as ordered do not prevent Google from continuing to enter into the agreements that allow it to continue monopolizing the search market. Under the remedy, Judge Mehta ordered some restrictions on these payments, but, for example, nothing in the decision prevents Google from paying for a default position on all of a channel partner’s devices. If Google continues to obtain a 100% share of default positions, it is very likely to maintain its monopoly position in search.

The remedies opinion acknowledges that the decision to allow default payments to continue may continue to hamstring competition in the market:

“The court well recognizes what eschewing a payment ban may mean for competition. Due to Google’s massive financial advantage and its superior monetization, distributors will be incentivized to stick with Google because it can pay more, thus leaving in place the very forces that ‘effectively [have made] the ecosystem exceptionally resist[ant] to change.’”¹⁵

With this sentence, Judge Mehta admits that his remedy may not be remedial. Judge Mehta justifies his decision to decline to address these dangers by citing some of Google’s arguments that he rejected in the liabilities phase.

First, Judge Mehta stated that Google should retain the ability to pay for default placement because Google Search is the “best,” and consumers would be alienated if they are given a different default.¹⁶ But, as Judge Mehta also acknowledges, his logic is not foolproof because consumers can still decide to switch: “The evidence presented at the remedial hearing identified yet another way in which default placement matters: it limits users’ exposure to alternatives, leading them to underestimate the quality of rival products[.] During the liability phase, the court found that ‘Bing’s search quality on desktop measures up to Google’s’ and that switching on mobile is more challenging than on desktop.”¹⁷

¹³ *United States v. Microsoft Corp.*, 253 F.3d 34, (D.C. Cir. 2001)

¹⁴ We are concerned here about the continuation of Google’s essentially unconstrained ability to pay for default status and share search revenue. The full remedy is much broader than this single issue, and we do not attempt to cover it entirely. Payments, though, is of particular significance as it is currently under appellate review.

¹⁵ *Remedy* at 127.

¹⁶ *Remedy* at 120-121.

¹⁷ *Remedy* at 84, n.5.

Judge Mehta also cites his concern that if Google is prevented from paying for default status, then Google search will simply get default status for free – thus denying revenue to the channel partners it previously compensated and allowing Google to benefit even more from its anticompetitive behavior.¹⁸ First, this understates the agency and underestimates the incentives of those channel partners. Second, the way the monopolist shares out its monopoly profit does not provide a reason to keep an anticompetitive status quo: As Judge Mehta held, Google’s payments for default position were anticompetitive because they “froze” the market and hindered innovation and entry of viable competitors. Thus, Judge Mehta’s remedies ruling allows anticompetitive conduct (payments) to continue for the very reason they were found anticompetitive in the first place.

In his remedies opinion, Judge Mehta also concluded that preventing Google from paying for default status would harm the companies that it paid for the default status, thereby weakening competition in the browser market, and making phones more expensive.¹⁹ However, in the liability phase, his own opinion found that Google had offered no persuasive evidence for the argument that its payments reduce the cost of phones and increase competition in the browser market. Despite this finding, Judge Mehta concludes he should sacrifice the welfare of consumers in the general search market – those who are the reason for bringing an antitrust case and who were harmed by the illegal actions of the defendant – to maintain the profits of third parties with whom the monopolist has been sharing its monopoly profit. He explains that “[remedies] must consider the harms that might befall other market actors, even if that means, as here, forgoing a remedy that could help restore competition.”²⁰

Despite his fears about leaving in place Google’s ability to pay for default status, Judge Mehta’s remedies decision rests on his “hopes” about generative AI: “GenAI products that pose a threat to the primacy of traditional internet search[...]give the court hope that Google will not simply outbid competitors for distribution if superior products emerge.”²¹ He does not explain, however, why the emergence of AI makes Google’s payments less anticompetitive. In particular, the AI firms disrupting search will need to enter the market as well, perhaps by offering exciting new functionality, and Google’s continuing payments are likely to form an entry barrier for those AI providers. Payments from Google going forward seem just as likely to be able to exclude rivals in AI as they did rivals in search.

Fortunately, while leaving payments unconstrained is a major flaw in the original remedy decision, it is easily fixed on appeal or at the judge’s own action. Indeed, the remedy opinion states that the court is “prepared to revisit a payment ban...if competition is not substantially restored...”²² In what follows, we describe how our proposal addresses both Google’s anticompetitive conduct and the court’s fears about the impact of ending Google’s payments to channel partners.

III. Pay for Half: A Better Remedy

In light of the court’s findings, what should a remedy in general search look like? It certainly should attempt to satisfy the first two requirements of an antitrust remedy: stop the anticompetitive conduct and restore the lost competition. Such remedies can be either

¹⁸ *Remedy* at 121.

¹⁹ *Remedy* at 123-125.

²⁰ *Remedy* at 123-126.

²¹ *Remedy* at 127-128.

²² *Remedy* at 128.

structural, behavioral, or both, depending on what is needed to ensure a competitive market in the future.

First, remedies should improve *future* competition in search by ensuring that Google cannot write contracts that effectively preclude new rivals' access to customers (via exclusive use clauses, default positions, favorable preinstallation or similar means). Second, remedies should improve competition in the current market structure by enabling current and nascent competitors to overcome some of the barriers Google built using its past illegal conduct. If Google has more data and brand-recognition due to past illegal behavior, it will, unsurprisingly, have a larger current market share, which in turn will allow it to monetize user queries better via targeted ads, and to pay more for default positions, preinstallations, preferential device placements, or exclusive positioning going forward. Without disruption, the ability to pay a channel partner more money than any nascent rival will continue to block entry and competition.

While a full ban on Google revenue sharing could be an appropriate remedy to create the incentive and opportunity for rival search engine entry, the transition could create some costs. The immediate effect of a ban would be to deliver to Google an enormous windfall profit which it could spend on advertising to induce users to switch to Google, undermining the efficacy of rival defaults.

The solution to the transition problem is to allow Google to continue to pay for a share of the market, but to limit that share. When channel partners realize that Google cannot buy a significant part of their traffic, they will be incentivized to find a rival to pay for that traffic, and this will create a place for entry by rivals.

Under the Pay for Half remedy, Google would be permitted to continue to pay a channel partner search revenue on up to half of devices (50%) in each of a channel partner's product lines (the market share cap). The market share cap would be paired with a limit on the size of the payment (the payment cap). The market share cap provides a strong incentive to channel partners to attract and select another search engine from which they can earn money on the remaining half of devices in each product line.

To smooth the path to new, more exciting benefits or more generous payments from a different set of search providers, our proposal continues to allow some Google payments but restricts the type and size of Google's payments to channel partners in such a way as to induce a rapid increase in competition in search. Knowing that channel partners are seeking out new search engines will facilitate entry and competition. Notably, the remedy opinion identifies AI entrants as promising challengers to Google's monopoly, as the search market responds to changing technology.²³ If so, giving them a point of entry into the market will enable them to develop products that will be able to compete quickly with Google head-on, increasing benefits to channel partners and consumers in relatively short order.

Limiting Google's payments only partially will protect channel partners' revenues because they will have the assurance of a known Google payment in addition to novel and different offers from search engine competitors. The payment cap limits the obvious circumvention

²³ Since this case was first filed in 2020, new technologies including consumer-facing large language models have emerged around general search. We continue to refer to this market as the search market throughout, recognizing that technological changes have created at least some opportunity for new players to enter and compete in the market if Google's monopolization is halted.

possibility, namely if Google were to formally pay double the revenue share for half of the devices in a product line, while implicitly agreeing with the channel partner to not promote a rival search engine.

With regard to the remedy opinion's concerns about the consequences of a full payments ban, the Pay for Half remedy would address these concerns consistent with the findings in the liability decision: Google will still be allowed to pay for default status, but only for a portion of the market. As Judge Mehta recognizes, "Google's unlawful agreements allowed it to capitalize on two powerful forces within the general search services market: default bias and network effects." (Remedies page 83). The Pay for Half remedy solves both of these problems: at least half of devices in each product line will be opened to the option of a different search default, and the entrants who contract for privileged status on these devices will build their own network effects. The Pay for Half remedy permits half of the Google default payments, even though such payments are the central problem in the liability decision. Partial payments protect those channel partners who continue to want them, satisfying Judge Mehta who was afraid they would be harmed.

Pay for Half provides competitors the space to enter and compete and grow their businesses so that there is more competition in search going forward. By promoting entry, this solution does not abandon the principles of remedy design: restoring competition and preventing the monopolist from continuing to benefit from the fruits of its exclusionary conduct.²⁴

IV. Operationalizing Pay for Half

There are three main components of the Pay for Half remedy:

1. **Market share cap.** Cap the share of the market that Google can contract for (i.e., the percentage of the devices in each product line in which Google can share search revenues, including in exchange for privileged status on said devices). We suggest a 50% market share cap. Google cannot share revenue or other compensation to channel partners for searches conducted on any other devices.
2. **Payment cap.** In order to prevent tacit agreements to negate the remedy, cap the total share of search revenue that Google can provide to channel partners for a device. We suggest a 40% payment cap. The Technical Committee can adjust this figure if necessary. To the extent that the parties pay on some other basis than a share of search revenue, the dollar amounts involved will be converted to render them comparable so the Technical Committee can assess compliance.
3. **Random assignment.** In order to prevent Google from contracting for payments on a disproportionate share of the devices that yield the most per-device search revenue, require that any share of a product line for which Google does enter a contract for payments (including in exchange for privileged status) on one or more SAPs be assigned randomly on devices within that product line.

Section IV(f)(ii) separately discusses contracts with independent browsers where such browsers have no influence over the assignment of privileged status on devices.

We discuss each of these three components in greater detail below, after a brief section on definitions used throughout. Section IV(e) addresses what the Technical Committee will

²⁴ *Remedy* at 121 ("In addition, as discussed, revenues are a 'fruit' of Google's exclusionary conduct.").

require to monitor compliance with the remedy and address any problems. As with any remedy, there are a number of additional questions parties might ask in the course of remedy design. While we have included the essentials of what the court need order in Sections IV(a)-(e), Section IV(f) addresses a few questions parties may raise with guidance for the Technical Committee on appropriate considerations and responses.

a. Definitions

The following terms are used throughout this section. Wherever possible, we follow the court's definition.

General Search Engine (GSE): As defined in the court's final judgement, "'General Search Engine' or 'GSE' means software or a service that produces links to websites and other relevant information in response to a user query or prompt and that seeks to fulfill a broad array of informational needs."²⁵

Device: As defined in the Final Judgment, "'Device' or 'device' means any single smartphone, tablet, laptop, or desktop, excluding any device on which the ChromeOS operating system or a successor to the ChromeOS operating system is installed. For clarity, any two devices are different devices, even if they are the same make and model (e.g., two Samsung Galaxy S25s are two devices; two Apple iPhone 16 Pros are two devices)."²⁶

Search access point: As defined in the court's final judgment, "'Search Access Point' means any software, application, interface, digital product, or service where a user can enter a query or prompt and, in response to at least some user queries or prompts, receive (or be directed to a place to receive) a response that includes information from a GSE, including links to websites. Search Access Points include OS-level Search Access Points, browsers (including Search Access Points within browsers such as browser address bars), search apps, and GenAI Products that can retrieve and display information from a GSE, including links to websites."²⁷

Channel partner: A party that contracts with GSE(s) for privileged status on search access points that it controls. Device manufacturers have the most control over the settings of a device, including defaults and preinstallations/configurations, and are thus our primary concern. There have been periods where carriers (e.g., Verizon, AT&T) have had more control of device configurations as well, and the remedy will apply to them as well, particularly in cases where they control/influence device configuration relevant to search and/or receive search-related payments or other consideration from Google. We treat independent browsers separately in Section IV(f)(ii) below, as they currently have no substantial influence over the assignment of privileged status on devices.

Privileged status: We use this term to encapsulate all of the different ways that a channel partner can make a user more likely to use a certain GSE through device configuration and user interface. In the Final Judgment, the court identified "distribution, preload, placement, display, use, or license" of a search engine all as factors upon which Google could not

²⁵ United States v. Google LLC, No. 1:20-cv-03010-APM, Final Judgment, slip op. at 31 (D.D.C. Dec. 5, 2025), ECF No. 1462.

²⁶ United States v. Google LLC, No. 1:20-cv-03010-APM, Final Judgment, slip op. at 30 (D.D.C. Dec. 5, 2025), ECF No. 1462.

²⁷ United States v. Google LLC, No. 1:20-cv-03010-APM, Final Judgment, slip op. at 33 (D.D.C. Dec. 5, 2025), ECF No. 1462.

condition its agreements.²⁸ Any favorable treatment of a GSE over competitors in any of these dimensions constitutes privileged status. Common versions of such status discussed in the proceedings include preinstallation, default, and exclusivity. Note that a given device can have only one default at any search access point, but it can have different defaults at different search access points. Additionally, a channel partner could create different defaults on different devices, or models of device.²⁹

Google-privileged device: A device for which a channel partner has contracted with Google to receive search-related payments or other consideration from Google, whether or not in return for privileged status to Google on one or more search access points on the device. A device is considered a Google-privileged device regardless of whether the user of the device changes the default search engine to a non-Google GSE, deletes Google apps, or otherwise changes the device's search engine configurations to use a non-Google GSE.

Open device: A device on which a channel partner has not contracted with Google for a share of search revenue or other consideration (including in exchange for privileged status on any search access point on the device). A device is considered an open device regardless of whether the user of the device changes the default search engine to Google on any search access point, deletes competitor search apps, or otherwise changes the device's search engine configurations to use Google. The channel partner is prohibited from receiving any payment or other consideration from Google for Google searches conducted on open devices.

b. Market Share Cap

i. Calculating the Market Share Cap

The market share cap would operate as follows:

- The court would prohibit Google from contracting with a channel partner to provide payment or other consideration to the channel partner, including in exchange for privileged status, on more than 50% of the devices in any given product line.
- The contract between Google and the channel partner would require one or both parties to ensure that for each of its product lines covered by a contract with Google for payment or other consideration, the channel partner receives payment or consideration from Google on no more than 50% of the devices in the product line.

To effectuate this, channel partners would need to assign up to 50% of devices in a given product line to be Google-privileged devices, and the remainder to be open devices. Achieving a maximum of a 50% allocation of Google-privileged devices in any product line would entail adjustments on two categories of devices:

- **Existing devices.** For product lines where Google currently has exclusive default or other privileged status, channel partners would need to conduct a one-time designation of Google-privileged device on 50% of devices in the product line to

²⁸ United States v. Google LLC, No. 1:20-cv-03010-APM, Final Judgment, slip op. at 2 (D.D.C. Dec. 5, 2025), ECF No. 1462.

²⁹ United States v. Google LLC, No. 1:20-cv-03010-APM, Final Judgment, slip op. at 33 (D.D.C. Dec. 5, 2025), ECF No. 1462.

bring the existing device base for that product line into compliance with the market share cap.

- **New devices.** The channel partner would likely choose to sell new devices with different privilege statuses to ensure the market share cap is respected as consumers purchase new devices.

The selection of which devices are assigned to be Google-privileged devices needs to occur on a randomized basis, as explained in Section IV(d).

The market share cap is a cap on devices per product line, not on search query volume. Using devices as the unit of measure is the simplest method to provide an actionable metric. While the court relied on total search query volume to determine Google's market share, such a measure would be difficult to enforce directly, as it would require regular knowledge of search query volume shares that could reveal sensitive personal and business information and complex arithmetic to determine how to cap payments and over what time period. Devices per product line provide a simple proxy for market access. Privileged status information about each device is information that channel partners know and store directly.

Per the definition above, a device is considered a Google-privileged device if Google has offered payments or other consideration, including in exchange for privileged status, on any search access point on the device. In the past, Google's contracts with OEMs required it to be the default search engine at all major search access points on a device.³⁰ In addition, Google also compensated OEMs for preinstallations of Google apps in non-default positions. For example, Samsung phones come with their own default browser, the Samsung Internet Browser, that defaults to Google Search. However, Samsung also preinstalled Chrome on its phones, and, in fact, the vast majority of Samsung users say Chrome is the browser they use.³¹ In part because of Google's strong brand, any privileged status on a device may cause users to choose Google, even when other GSEs also have some privileged status on the same device.³² For this reason, any device covered by a Google contract for payment or other consideration, including in exchange for privileged status, is a Google-privileged device.

Of course, channel partners are and remain free to install any apps or features they choose on their devices—including Google apps or features. However, any contract with Google will be subject to the 50% cap on Google-privileged devices in the covered product line. In turn, Google may not share any search revenue (or make any other payments) with channel partners for searches on open devices, even if the user of an open device chooses to use Google search. This limit ensures that channel partners have the incentive to encourage users to try alternate GSEs. This incentive occurs because any user of an open device will not generate any revenue for the channel partner when they use Google search. In addition, Google must be prohibited from prompting users to switch to Google through the many other channels Google controls (Chrome, YouTube, Gmail, Play Store, Maps, Photos, etc.).

³⁰ *Liability* at 204, 205, 208, 211.

³¹ Despite Samsung Browser starting as a default, under six percent of Samsung users say they use it. YouGov. (2024, April 10). *US: The connection between browser usage and smartphone ownership*. <https://yougov.com/en-us/articles/49102-us-the-connection-between-browser-usage-and-smartphone-ownership>.

³² The court notes that defaults are weakened by brand power and that Google enjoys strong brand power. *Liability* at 159-160, 208.

ii. Existing Devices

Channel partners may choose their own methods for bringing existing devices in each covered product line into compliance with the 50% market share cap, subject to the randomization requirement below (Section d). For example, a channel partner could choose to leave Google's search defaults as-is across an entire product line and simply stop getting paid by Google for 50% of those devices. If the channel partner enters into a contract for privileged status or revenue sharing with one or more competitors, it would have more options. The channel partner could provide an incentive to its users to switch their search defaults to such a competitor. Or it could simply switch search defaults or privileged status on devices covered by the competitor contract when it carries out scheduled OS updates.

In the case of a forced switch, the mechanisms of device privilege assignment can be left to channel partners to handle as they normally do with software updates. However, these changes should be specified in their contracts with Google so they can be shared with the court and Technical Committee, which should have the power to prohibit Google's cooperation with a noncompliant proposal.

Channel partners will need to make determinations about how they handle device privilege assignment across their own heterogeneous user bases. One case that requires particular care involves users who made an explicit choice to change their default GSE. In many cases, such users will have purchased a device where Google had default or privileged status based on a contract signed with the channel partner before the injunction is imposed and yet those users switched their search default to a non-Google GSE.³³ Channel partners would likely want to avoid reassigning such devices, because reassigning them would override the users' explicit preference. Our recommendation is to exempt these devices from reassignment, leaving no more than 50% of the remaining devices available for Google-privileged status.

iii. Selecting the Market Share Cap

At the moment of restoring competition to the search market, Google will be able to outbid all entrants because it has the most volume and data and offers an established, low-risk partnership—in part as a result of its past illegal activities.³⁴ Therefore, entrants must be able to compete for a portion of the search market that Google cannot contest.³⁵

In considering how much of the market must be open to competitors, we rely on the court's finding that in general search, economies of scale are critical.³⁶ At a minimum, therefore, an entrant must be able to match Google's scale in order to mature into a viable competitor. Limiting Google to paying for privileged status on no more than 50% of the devices in each product line would therefore be a maximum starting point; only a single rival could secure as much scale as Google itself on a device product line.

³³ There may also be some users whose device defaulted to a different GSE and switched to Google. This case appears most likely on personal computers with Windows OS on which users downloaded the Chrome browser and changed to Google Search from Bing.

³⁴ We assume throughout that Google will bid on any contract for which it is eligible, as it has a strong incentive to remain default on as many devices as it can. That incentive combined with Google's current dominance and all it entails (see above factors) means that Google will retain the incentive and ability to *outbid* all rivals.

³⁵ By compete, we mean sign a contract with an OEM for default status on all search access points (Search access points) in exchange for some form of payment, traditionally a share of revenues on search advertising.

³⁶ *Liability* at 157.

For simplicity, we discuss a 50% market share cap throughout this document. If the court wanted instead to open a greater share of the market, it could set a lower market share cap at 33% (or 25%, 20%, etc.) which would correspond to 3 equal sized competitors (or four or five). A lower cap may be superior for two reasons. First, it would open the market to greater entry from multiple at-scale competitors. As covered above, the remedies decision expresses the hope that leading (or emerging) AI/LLM companies will compete with Google in search. Evidence from the current market suggests that search can sustain multiple competitors at high quality.³⁷ The 50% cap may be too high a share to reserve for Google, and lowering it could allow for greater sustained competition between high-quality GSEs. Secondly, we can anticipate that some device owners will manually switch back to Google after getting an open device. To the extent users do this, the competitor will benefit from a lower share than its contract indicates. To ensure even one competitor can compete at the same scale as Google, the share they can contract for may need to be larger.

c. Payment Cap

The market share cap is the central mechanism for opening the market to competition. However, a second important lever is how much Google is allowed to pay within its market share. Instituting a market share cap alone without an accompanying payment cap would create the possibility of Google “overpaying” in short-term contracts on the tacit understanding that a channel partner would refrain from contracting with competitors for privileged status (or voluntarily retain privileged status for Google) on the 50% of devices in a product line where the channel partner can no longer be paid by Google.

For example, instead of paying Apple 36% of search revenue on 100% of iOS devices today, Google could offer to pay Apple 72% of search revenue on 50% of iOS devices. This would be a simple way for Apple to continue to get paid the same amount by Google without opening the market to search competitors. In effect, Google would be negotiating for the whole market despite only officially contracting for payments in half of it.

To solve this problem, Google should be capped on its total search payments on a device at 40% of search revenue on the device. The starting revenue cap is set just above the share Google offered Apple, its most powerful channel partner, and therefore far above what Google offered to many other channel partners. We do not think the cap will be initially binding in the sense that it causes lower payments for Google-privileged devices to, e.g., Verizon.

A second advantage of this requirement is that it gives the court a straightforward method for adjusting the remedy (upon the advice of the Technical Committee) if competition fails to materialize. Lowering the revenue cap provides a simple way to increase the incentive for channel partners to contract with other GSEs in response to real-world uptake.

The Technical Committee could evaluate the market on a semiannual basis to determine whether entry is occurring. If rival GSEs continue to be locked out, the Technical Committee could recommend for the court’s approval a decrease in the payment cap to stimulate entry. We suggest an automatic five percentage point decrease in the payment cap each half-year in the absence of increased competition. For the first year, agreements for entry between

³⁷ The court found that while Bing holds around 20% of the PC market, it returns searches of comparable quality to Google on PCs, suggesting that the market could include more than two competitors. *Liability* at para. 127.

channel partners and rival GSEs should suffice as evidence that competitors are not locked out. In the second and third years, substantial realized user uptake of rival GSEs would be necessary to demonstrate competition. By the injunction's third year under this calculus, the 40% cap could then be halved to 20%. Similarly, in the unlikely scenario that Google is unable to conclude any contracts with channel partners for privileged status, the Technical Committee could recommend for the court's approval that the payment cap be adjusted upwards by 5% instead.

d. Random Assignment

i. Motivation for Random Assignment

Even with the market share cap and payment cap in place, a remaining way for Google to retain its dominance would be to ensure its search engine is the default for the most valuable users. If Google can maintain its privileged status on the devices of the most valuable users, entrants will suffer.

Although granular evidence is not available publicly, there are some important indicators of differential user value to GSEs. Apple device owners, for example, are more valuable than Android users as a total category.³⁸ Other factors may also be important such as age (working-age people may have higher demand for advertised goods and services). That said, while higher-income consumers are on average more valuable to GSEs because they have more spending power, search advertising runs the gamut of users.

When this remedy is first imposed, Google's advertisements will still be the most valuable in the marketplace in part because of its monopoly in search. If channel partners are free to choose which devices remain Google-privileged devices and which ones get assigned to be open devices, they will have a strong incentive to retain the most valuable users on Google-privileged devices (because Google will initially be able to offer more revenue per search from advertising sales than any other GSE). The resulting assignment would leave entrants vying for privileged status on the least valuable users' devices, building in a disadvantage that could compound further over time (since Google will have more revenue to invest in search and advertising, etc.). Because would-be entrants could foresee such an imbalance, the greatest likelihood is simply that they will not take the risk of entering.

ii. Operationalizing Random Assignment

In order to prevent such an imbalance and provide sufficient incentives for entry, channel partners must choose which devices will be Google-privileged devices at random. The randomized assignment must be applied within each product line both to existing devices and new devices. This randomization should take place (1) at the point of sale of a device and (2) within each product line.

As explained in Section IV(b)(ii), channel partners can choose their own methods for assigning privileged status to individual devices when the remedy comes into force. Regardless of the method they choose, they must select the devices to which Google-privileged status is applied in a given product line at random from the total pool of devices in that product line in the market. Channel partners already maintain individualized data about

³⁸ Salam. (2026, March 31). *Android vs iOS statistics 2026: Users, revenue, and global trends*.

TekRevol. <https://www.tekrevel.com/blogs/android-vs-ios-statistics/>. It is likely that there are also internal divisions in value based on different Android product lines.

each device they sell; the privileged status of each device would become one more data point for them to maintain. Searches conducted from Google-privileged devices would be identified to Google for revenue-sharing purposes in the same way that they are today.

In the mobile ecosystem, new devices are sold through many different retailers and points of sale, both online and in the physical world. Channel partners will need to develop their own methods to ensure that privileged status within each product line is randomly assigned across all the points of sale where their devices are sold. If channel partners pre-configure the privileged status (and, therefore, the search defaults) on devices before they are sold, they will need a method for ensuring that the choice of device privileged status is made at random upon each sale. Or configuration of privileged status may occur during device setup, allowing the channel partner to manage the assignment of privileged status.

Randomization at the point of sale is important to prevent various circumvention tactics, such as assigning factory default privileged status that then creates geographic imbalances with financial significance.

iii. Product Lines Not Covered by Google Contracts

The remedy is only imposed on product lines where Google has a contract for privileged status. Channel partners remain free to enter into contracts with entrants for privileged status that cover entire product lines. In any case, such contracts would by default comport with the market share cap. For example, DuckDuckGo may want to partner with Samsung to release a line of privacy-centric phones, say the Galaxy PR, advertised to users as phones that will not track their every online activity. Such a product could be good for competition in general search. The market share cap continues to apply to all other product lines sold by Samsung.

e. Technical Committee Responsibilities

A key advantage of the Pay for Half remedy is that its efficacy is easy to observe: the level of entry in the market by non-Google GSEs securing privileged status on devices can be measured.

Judge Mehta's remedy ruling requires the creation of a Technical Committee that is responsible for monitoring efficacy and reporting to the court.³⁹ The Technical Committee has already been established and its work is underway.⁴⁰

To support effective implementation of the Pay for Half remedy, the Technical Committee would need access to documents and data that Google can provide. The main documents required are the contracts between Google and its channel partners, which should describe the privileged status being afforded to Google (if any), the mechanisms of randomization, how channel partners handle privileged status on open devices, and agreed payment terms.

In addition to the documents, the committee will require periodic data. First, it will require data on actual usage: how many users are using Google Search on their devices (including a breakdown of which devices are covered by revenue sharing agreements—and with what parties—and which are not), pathways showing a user's process for switching GSEs, and the actual payments between Google and channel partners in whatever form they take. These

³⁹ *Remedy* at 10.

⁴⁰ See e.g., Technical Committee's Status Report, *United States v. Google LLC*, No. 1:20-cv-03010-APM (D.D.C. Feb. 6, 2026), ECF No. 1492.

data should be collected from Google (and as necessary OEMs, browsers, and carriers that contract with Google). Second, the committee will require information on Google's promotional activities, including whether and how it is prompting users to switch in its own and/or third-party applications and platforms on and off devices. This information will be important to the court's understanding of whether Google is attempting to induce user switching to get around user exposure to its rivals.

f. Additional Considerations

Sections (a)-(e) above detail the central components of the remedy that the court need act upon. Of course, the full implementation of the remedy by the parties may raise other decision points on implementation. In what follows, we address a few such possible questions. Our goal is not to be exhaustive but rather to demonstrate that the remedy is suited for the real world—both easily monitored and sufficiently flexible for implementation.

i. Accommodating User Switching

Users must remain free to change their search default settings, as they are today. Evidence in the liability opinion showed that most users do not take advantage of this opportunity.⁴¹ The “stickiness” of defaults is one of the main reasons firms are eager to pay for default status. However, as competition increases, user switching may as well, including because users are assigned different GSEs when they purchase a new handset or update a current one, or through downloading browsers that prompt a change in GSE, among other pathways. As we noted above, the court must set the initial share of the market opened for entry sufficiently high enough to account for some switching.⁴²

Preventing Google payments for users who manually switch their GSE creates incentives for both channel partners and rival search engines to keep users defaulted to non-Google GSEs. A user of an open device who switches their default search engine to Google from another GSE will cost the channel partner search revenues, as Google is prohibited from sharing open device users' search revenues with channel partners. Channel partners may therefore choose to offer promotions for users such as free data storage, or discounted services consumed on the device in exchange for keeping a non-Google GSE as the search default. (Google of course has the incentive to induce switching which is why the Technical Committee should monitor carefully.)

At all times, users' choices should be ultimately determinative. Google's contracts with partners should require all parties to respect users' rights to switch their defaults if they so choose. The preferences of channel partners and Google should not trump users' choices.

⁴¹ United States v. Google LLC, No. 1:20-cv-03010, slip op. at 208 (D.D.C. Aug. 5, 2024). The court also found that mobile ecosystems are less prone to switching than desktops (para. 71).

⁴² In a study of user search engine preferences on desktops, Alcott, et al (2026) found that of users asked to switch from Google to Bing for two days for a small payment, 46 percent were still using Bing two months later. Hunt Allcott, Juan Camilo Castillo, Matthew Gentzkow, Leon Musolf, and Tobias Salz, “Sources of Market Power in Web Search: Evidence from a Field Experiment,” NBER Working Paper 33410 (2025), 3-5, <https://doi.org/10.3386/w33410>. Firefox's experiment switching from Google to Yahoo as its default search browser also prompted user switching sufficiently substantial for the company to terminate the agreement when the opportunity arose. Ashley Belanger, "Firefox Lost Users During 'Failed' Yahoo Search Deal, Says Mozilla CEO," *Ars Technica*, November 2, 2023, <https://arstechnica.com/tech-policy/2023/11/firefox-lost-users-during-failed-yahoo-search-deal-says-mozilla-ceo/>.

ii. Independent Browsers

Although the Pay for Half remedy focuses on the relationship between Google and its device-manufacturing channel partners, many users access search through an intermediary on their device: a browser.⁴³ Often, a user's choice of browser determines the choice of GSE, as browsers have their own default GSEs.⁴⁴ For the purpose of determining the share of Google-privileged devices within a product line, browsers are considered search access points.

Independent browsers (those neither owned by an OEM or a GSE) are welcome competitors in the browser market and may provide healthy avenues for entrant GSEs to reach new users. However, independent browsers comprise a fraction of browser use (<7% in the United States).⁴⁵ Today, no independent browser is a meaningful standalone gatekeeper to general search (Chrome, Safari and Edge are all owned by other players, and Safari and Edge are essentially only used by users who are defaulted to them on Apple or Microsoft OSs respectively).

In light of their minimal impact on the competitiveness of the search market, the Pay for Half remedy does not apply to contracts between Google and independent browsers. The remedy puts no restraints on independent browsers' ability to contract with Google for payments.

That said, the Technical Committee should monitor for signals that independent browsers are becoming a passthrough method of Google paying other channel partners for search.⁴⁶ Such a method would be obvious: ballooning payments from Google to independent browsers and from independent browsers to OEMs (or carriers). The Technical Committee should be able to observe any such actions through Google's contracts with browser vendors and real-world user behavior (large switching to a previously minor independent browser with a Google search default). In order to ensure the Committee has access to these data, Google should be required to include in any contract it enters for search payments that the independent browser it contracts with is required to inform the Technical Committee every six months what payments the browser makes to the OEM (or carrier). (The browser is not required to disclose that information to Google, as it may be competitively sensitive.) If the independent browser is unwilling to commit to keep the Technical Committee informed, Google may not pay the independent browser.

iii. Evolution of Search and AI

The current search market remains overwhelmingly in the hands of Google.⁴⁷ For the purposes of the litigation, the trial court's definition of general search will continue to stand. However, AI companies are seeking to apply new competitive pressure to general search. One of the key goals of the remedy is to protect and encourage such competitive entry.

⁴³ There may be other intermediaries, but the logic should be similar.

⁴⁴ The above discussion (footnote XX) of Windows users downloading Chrome is an example of switching GSE via switching browser.

⁴⁵ Cloudflare. (2025). *Browser market share: 2025 Q3*. Cloudflare Radar. <https://radar.cloudflare.com/reports/browser-market-share-2025-q3>

⁴⁶ If Google entered into a large revenue sharing contract with Mozilla for default status on Firefox, and Mozilla subsequently entered into a large contract with Samsung to share revenues on searches that users conducted on Firefox on Samsung devices, Samsung may then tacitly encourage users to switch to Firefox, or, effectively, Google. We consider such a scenario to be far-fetched.

⁴⁷ Competition and Markets Authority, *Final Decision: Strategic Market Status Investigation into Google's General Search Services* (London: Competition and Markets Authority, October 10, 2025), figures 5.2-5.4, https://assets.publishing.service.gov.uk/media/68e8b643cf65bd04bad76724/Final_decision_-_strategic_market_status_investigation_into_google_s_general_search_services.pdf.

Opening some share of the market to new entrants allows channel partners to experiment with new forms of search without a complete shock to their revenue base.

However, the entrance of AI engines into search raises additional issues that will be important to monitor going forward. Google must not be allowed to circumvent the remedy restrictions by working around the definitions the court wrote. The technical committee and court will be responsible for ensuring that Google does not engage in such circumvention. More generally, the assured evolution of AI services in search buttresses the importance of the Technical Committee in ensuring an effective remedy. Google has a number of channels through which to continue to leverage its current dominance against entrants depending on how the market develops. The European Commission's ongoing specification decision covering AI services on Android offers but a few examples of Google's levers to maintain dominance.⁴⁸

V. Conclusion

Judge Mehta found that Google's payments for default placement froze the market for general search and entrenched a decade-long monopoly. A remedy faithful to that finding must restrict those payments. The remedy as ordered stops short: Google may still pay for 100% of default positions, effectively preserving the conditions that produced the violation in the first place.

The Pay for Half remedy addresses this problem. By capping both the share of devices Google can contract for and the size of the search-related payments it can make per device, the proposal removes Google's ability to buy its way to exclusivity while protecting the channel-partner revenues and consumer experience about which the court expressed concern. It restores competition immediately, rather than relying on speculation about future AI disruption, and it does so through mechanics that the Technical Committee can readily monitor and adjust as the market evolves.

The Pay for Half remedy is also implementable through the existing posture of the case. The remedy opinion expressly contemplates revisiting the payments question if competition is not substantially restored, and the issue is currently under appeal. Pay for Half offers the court—on remand, on its own motion, or in a future compliance review—a remedy that is consistent with the liability ruling, responsive to the harms the court has acknowledged, and flexible enough to accommodate the evolution of search and AI.

Antitrust remedies are meant to unfetter markets from anticompetitive conduct and to deny monopolists the fruits of their violations. Pay for Half does both. It is a modest adjustment to the court's current order that would deliver the competitive outcomes the law requires and that the general search market has waited more than fifteen years to see.

⁴⁸ European Commission. DMA.100220 – Case Summary – Google Android – Interoperability. Brussels: European Commission, April 27, 2026. https://digital-markets-act.ec.europa.eu/dma100220-consultation-proposed-measures-interoperability-google-android-article-67-dma_en.

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