

**IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF COLUMBIA**

UNITED STATES OF AMERICA, *et al.*,

Plaintiffs,

v.

GOOGLE LLC,

Defendant.

Case No. 1:20-cv-03010-APM

HON. AMIT P. MEHTA

[REDACTED]

STATE OF COLORADO, *et al.*,

Plaintiffs,

v.

GOOGLE LLC,

Defendant.

Case No. 1:20-cv-03715-APM

HON. AMIT P. MEHTA

[REDACTED]

**PLAINTIFFS' REMEDIES POST-TRIAL BRIEF**

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**ABBREVIATIONS**

GenAI	Generative Artificial Intelligence
GSE	General Search Engine
ISA	Information Services Agreement (for Apple)
KPI	Key Performance Indicators
MADA	Mobile Application Distribution Agreement (for Android)
OEM	Original Equipment Manufacturer
PFOF	Proposed Finding Of Fact
RSA	Revenue Share Agreement
SQR	Search Query Reports



## INTRODUCTION

Since the passage of the Sherman Act in 1890, each generation of American consumers has faced a market behemoth in the emerging products of their time—corporations that used different business tactics to harness monopoly power, block rivals from competing, thwart innovation, and dampen consumer choice. The Standard Oil Company and the American Tobacco Company were two of the original post-industrial revolution monopolists, the dissolutions of which paved the way for competitive markets and, consequently, the effective beginning of antitrust enforcement in the United States. *See generally Standard Oil Co. of New Jersey v. United States*, 221 U.S. 1 (1911); *United States v. American Tobacco Co.*, 221 U.S. 116 (1911).

A technological revolution later, the cycle repeated. In the 1980s, the Department of Justice successfully broke up AT&T's control of the telecommunications industry, "crucial in business affairs, in providing information to citizenry, and in the simple conduct of daily life." *United States v. AT&T*, 552 F. Supp. 131, 165 (D.D.C. 1983). The advent of the personal computer again required enforcement of the Sherman Act to protect competition for American consumers. In the early 2000s, Microsoft stagnated the software industry by exercising a "grand strategy" that included the payments of "vast sums of money" to preload web browsers to protect its operating system monopoly. *United States v. Microsoft Corp.*, 87 F. Supp. 2d 30, 43–44 (D.D.C. 2000), *rev'd in part on other grounds*, 253 F.3d 34 (D.C. Cir. 2001). As the Court is aware, it took years of litigation, trial, a remedial period, and a Technical Committee to pry open the market that Microsoft foreclosed for so many years—paving the way for new companies such as Google.

Over 100 years after the enactment of the Sherman Act, American consumers encountered a new emerging technology—internet general search engines. Although its products were novel, Google followed the same playbook that monopolists have used for over a century: exercise monopoly power to block rivals from competing, thwart innovation, and dampen consumer choice. Google, through its stranglehold on the ecosystem, is the gateway for how Americans retrieve information on the internet. Having already found that Google used its monopolies to impede competition in general search services and the related general search text advertising, the Court now faces the challenging task of restoring competition to the monopolized markets.

We are at an inflection point. Two years ago, during the liability trial in this case, generative artificial intelligence (“GenAI”) was a glimmer of an idea that had yet to take hold of the American public. Now GenAI offers the possibility of the next digital frontier, if given the opportunity and time to emerge. It is thus critical to extend remedies to GenAI to allow this new technology to rise or fall outside the shadow of Google’s search monopoly. All parties recognize that GenAI technology could present an evolution for search competition. But nothing is guaranteed. The next generation of American consumers cannot afford to miss this opportunity, which they will if future competition in this emerging, dynamic, and innovative product space is foreclosed by Google’s anticompetitive playbook.

The evidentiary hearing on remedies demonstrated how Plaintiffs’ remedies will future-proof competition from Google’s repeated anticompetitive conduct. Plaintiffs seek to end Google’s payments to Apple, its Android partners, and browser partners, payments that freeze the ecosystem. Unless Google’s vast payments are eliminated, Google will likely win each search distribution opportunity, given the tremendous advantages it has accrued from over 10

years of monopoly maintenance. *See, e.g.*, PFOF ¶ 375. Plaintiffs also seek to open a critical access point for search engines via divestiture: the Chrome browser. Next, Plaintiffs seek to remediate the fruits of Google’s anticompetitive conduct: the accumulation of data for more than a decade that has caused the quality disparity as well as the harmed market incentives. Without these comprehensive remedies, Google will continue to deny its rivals the key scale inputs necessary to compete going forward.

Google ignores the gravamen of the Court’s liability findings, proposing only narrow limits on its ability to seek certain default exclusives from partners. Google’s proposed remedies are intended to and would maintain the status quo. If Google can continue to pay distribution partners—including Apple—for search defaults, it will almost certainly win, given the quality of its product (built through illegal monopoly maintenance) and significant monetization advantage (an advantage that will only increase should Google continue paying for defaults). Google does not propose any data or syndication remedies, ensuring that its rivals continue to be denied the scale needed to improve and compete. In sum, Google has not offered a serious remedies proposal that will restore competition. History has shown that a comprehensive remedies framework is required to secure competition for today’s generation of American consumers as well as the generation of tomorrow.

## LEGAL FRAMEWORK

### **I. The Court Has Wide Latitude In Selecting Remedies To Achieve *Microsoft III*’s Objectives**

The Court has the “duty” and “inescapable responsibility” to decree effective relief, *United States v. United Shoe Mach. Corp.*, 391 U.S. 244, 250 (1968), lest this suit become “a futile exercise.” *United States v. E.I. du Pont de Nemours & Co.*, 366 U.S. 316, 323 (1961). Indeed, the relief here “must be effective to redress the violations and to restore competition.”

*Ford Motor Co. v. United States*, 405 U.S. 562, 573 (1972) (internal quotations omitted). The Court should craft a “comprehensive” remedy sufficient to restore competition. *New York v. Microsoft Corp.*, 531 F. Supp. 2d 141, 170 (D.D.C. 2008) (*New York II*); *see also In re Google Play Store Antitrust Litig.*, 20-cv-05671-JD, 2024 WL 4438249, at \*8 (N.D. Cal. Oct. 7, 2024) (quoting *Nat’l Soc. of Pro. Eng’rs v. United States*, 435 U.S. 679, 698 (1978) (“The standard against which the order must be judged is whether the relief represents a reasonable method of eliminating the consequences of illegal conduct.”)).

**A. *Microsoft III* Establishes Four Remedial Objectives**

A remedies decree in a Section 2 case “must seek” to accomplish four objectives. *United States v. Microsoft Corp.*, 253 F.3d 34, 103 (D.C. Cir. 2001) (en banc) (*Microsoft III*); *see also United States v. Glaxo Grp. Ltd.*, 410 U.S. 52, 64 (1973) (holding that “[t]he District Court should have ordered [more aggressive] remedies” that were “necessary to assure the relief will be effective”). The Court has “large discretion to fit the decree to the special needs of the individual case. *Massachusetts v. Microsoft Corp.*, 373 F.3d 1199, 1207 (D.C. Cir. 2004) (quoting *Ford*, 405 U.S. at 573) (internal quotations omitted).

First, the decree should “unfetter a market from anticompetitive conduct.” *Microsoft III*, 253 F.3d at 103 (quoting *Ford*, 405 U.S. at 577). The court must, at minimum, enjoin Google from engaging in the practices found unlawful. *See, e.g., In re NCAA Athletic Grant-in-Aid Cap Antitrust Litig.*, 958 F.3d 1239, 1264 (9th Cir. 2020), *aff’d sub nom. NCAA v. Alston*, 594 U.S. 69 (2021). Courts should also take appropriate additional steps to “eliminate its consequences,” *Nat’l Soc.*, 435 U.S. at 697, and “pry open [the market] to competition.” *Ford*, 405 U.S. at 578 (quoting *Int’l Salt Co. v. United States*, 332 U.S. 392, 401 (1947), *abrogated by Illinois Tool Works Inc. v. Indep. Ink, Inc.*, (internal quotations omitted)); *see also Massachusetts*, 373 F.3d at 1218 (endorsing a remedy designed to “facilitat[e] the entry of competitors into a market from

which Microsoft’s unlawful conduct previously excluded them”); *Massachusetts*, 373 F.3d at 1231 (concluding that “restoring conditions in which the competitive process is revived” is an appropriate remedial objective); *United States v. Microsoft Corp.*, 231 F. Supp. 2d 144, 193 (D.D.C. 2002) (internal quotations omitted) (“[T]he disclosure and licensing of intellectual property serves primarily to unfetter the market from the effects of Microsoft’s illegal conduct, rather than redress the very particular exclusionary conduct.”).

*Second*, the decree should “deny to the defendant the fruits of its statutory violation.” *Microsoft III*, 253 F.3d at 103 (quoting *United Shoe*, 391 U.S. at 250). A principal fruit of Google’s Section 2 violations is its “freedom from . . . a threat to its monopoly.” *Massachusetts*, 373 F.3d at 1233; *cf. Schine Chain Theatres v. United States*, 334 U.S. 110, 128 (1948) (holding that, if a remedy leaves intact defendants’ “empires,” they “retain the full dividends of their monopolistic practices”), *overruled on other grounds by Copperweld Corp. v. Indep. Tube Corp.*, 467 U.S. 752 (1984). Additional fruits include competitive advantages attributable to the anticompetitive conduct, as well as monopoly profits and other ill-gotten gains. *See, e.g., Int’l Boxing Club of N.Y., Inc. v. United States*, 358 U.S. 242, 255–56 (1959) (concluding stock acquired pursuant to an illegal conspiracy was “the fruit of the illegal activity” and “one of the instruments” of the conspiracy); *In re Google Play Store*, 2024 WL 4438249, at \*6 (holding “unfairly enhanced network effects” were “ill-gotten gains”).

*Third*, a decree should “ensure that there remain no practices likely to result in monopolization in the future.” *Microsoft III*, 253 F.3d at 103 (quoting *United Shoe*, 391 U.S. at 250). Accordingly, a court should make “every effort to protect against conduct that is the same type or class” as unlawful acts which the court has found to have been committed. *New York v. Microsoft Corp.*, 224 F. Supp. 2d 76, 189 (D.D.C. 2002) (*New York I*) (citing *Zenith Radio Corp.*

*v. Hazeltine Rsch., Inc.*, 395 U.S. 100, 132 (1969)). And a court may prohibit “untraveled roads” to the anticompetitive end, including “methods more subtle and informed, and more difficult to prove, than those which, in the first place, win a market.” *Int’l Salt*, 332 U.S. at 400; *Massachusetts*, 373 F.3d at 1216 (noting that a remedy should “avoid a recurrence of the violation” before discussing disclosure of APIs and communications protocols).

*Fourth, Microsoft III* suggests that a remedy “must seek to . . . terminate the illegal monopoly.” 253 F.3d at 103 (quoting *United Shoe*, 391 U.S. at 250); *see also United States v. Grinnell Corp.*, 384 U.S. 563, 577 (1966). Google argues that terminating the illegal monopoly is inappropriate in this matter. Def. Pre-Rem. Tr. Br., ECF No. 1215, at 3. The Court need not resolve this issue because the three other remedial objectives require Plaintiffs’ remedies over Google’s.

## **B. Effective Relief Requires A Comprehensive And Unitary Framework**

A decree that fails to provide effective relief will leave Plaintiffs with having “won a lawsuit and lost a cause.” *Int’l Salt*, 332 U.S. at 401. Accordingly, a remedy for a longstanding course of anticompetitive conduct requires a “comprehensive” “unitary framework” to restore competition and prevent future monopolization with provisions “intended to complement and reinforce each other.” *See New York II*, 531 F. Supp. 2d at 170.

The Court has “large discretion,” *Int’l Salt*, 332 U.S. at 400–01, to select “a reasonable method” of achieving the four remedial objectives, *Massachusetts*, 373 F.3d at 1216; *see also Ford*, 405 U.S. at 578 (A court should make “a reasonable judgment on the means needed to restore and encourage competition adversely affected by the acquisition.”). And since “the Government has successfully borne the considerable burden of establishing a violation of law, all doubts as to the remedy are to be resolved in its favor.” *du Pont*, 366 U.S. at 334. In appropriate circumstances, a court may take even “drastic measures” to restore competition. *United States v.*

*Bausch & Lomb Optical Co.*, 321 U.S. 707, 726 (1944). To be sure, the Court should exercise “a healthy dose of judicial humility” and “must be mindful” of its “limitations.” *NCAA v. Alston*, 594 U.S. 69, 106–07 (2021). But, in the end, it remains the Court’s “duty” to “make the remedy as effective as possible.” *United States v. Nat’l Lead Co.*, 332 U.S. 319, 334 (1947).

### **C. The Court Is Not Bound By The Narrow Limits Of The Proven Violation**

It is “unquestionable . . . that the Court may address conduct beyond the precise parameters of that found to violate the antitrust laws” to remediate the unlawful conduct’s effects in the market. *New York I*, 224 F. Supp. 2d. at 107–08. The Supreme Court has repeatedly acknowledged that sometimes “relief, to be effective, must go beyond the narrow limits of the proven violation.” *Int’l Boxing*, 358 U.S. at 262 (quoting *United States v. U.S. Gypsum Co.*, 340 U.S. 76, 89–90 (1950)); see also *Nat’l Soc.*, 435 U.S. at 698; *Int’l Salt*, 332 U.S. at 401.

A remedy may not only prohibit “acts which are of the same type or class as [the] unlawful acts,” *Zenith*, 395 U.S. at 132, but also “range broadly through practices connected with acts actually found to be illegal.” *Gypsum*, 340 U.S. at 88–89. “[A] defendant may be restricted in its business so as to force a relinquishment of the fruits of the anticompetitive conduct.” *New York I*, 224 F. Supp. 2d. at 108. Restrictions may extend to “legal conduct which, by its relation to the illegal and anticompetitive conduct, perpetuates the antitrust violat[ion].” *Id.* at 108. The Court may also order “forward-looking provisions” that require or prevent conduct that “played no role in [the] holding [that the defendant] violated the antitrust laws,” but that advance the objectives of the remedy. *Massachusetts*, 373 F.3d at 1215; *New York I*, 224 F. Supp. 2d at 171–72.

### **D. Divestiture Is An Appropriate Form Of Antitrust Relief**

Divestiture “is a common form of relief in successful antitrust prosecutions: it is indeed ‘the most important of antitrust remedies.’” *Microsoft III*, 253 F.3d at 105 (quoting *du Pont*, 366

U.S. at 331)). Divestiture can serve to unfetter the market, deny the defendant the fruits of its violation, terminate the monopoly, or prevent its recurrence. *See, e.g., Schine*, 334 U.S. at 128–29; *United States v. Crescent Amusement Co.*, 323 U.S. 173, 189 (1944). Although “divestiture is a remedy that is imposed only with great caution,” *Microsoft III*, 253 F.3d at 80, it may be a “necessary” means “to restore workable competition in the market.” *United Shoe*, 391 U.S. at 251–52; *see also Int’l Boxing*, 358 U.S. at 258 (concluding that divestiture was “the only effective means at hand by which competition . . . might be restored”).

Relief “is not limited to prohibition of the proven means by which the evil was accomplished, but may range broadly through practices connected with acts actually found to be illegal” and “[a]cts entirely proper when viewed alone.” *Gypsum*, 340 U.S. at 88–89. Even where an asset was lawfully acquired and not utilized as part of the anticompetitive scheme, divestiture can still be an appropriate remedy. *See, e.g., Schine*, 334 U.S. at 128–29 (noting that whether assets were lawfully acquired is just “the starting point for determining to what extent divestiture should be ordered”); *Crescent*, 323 U.S. at 189–90 (divestiture not “restricted” to “the fruits of the conspiracy” and can provide “effective assurance” against a recurrence of the violation).

## **II. The Evidence And This Court’s Findings Establish The Causation Needed For Plaintiffs’ Remedies**

Google’s conduct caused significant, long-running harm to competition. Under any plausible reading of the D.C. Circuit’s causation standard, the evidence and the Court’s findings regarding Google’s unlawful monopolization easily satisfy that standard.

### **A. Google’s Conduct And Its Monopoly Have A Significant Causal Connection**

Evidence from both the liability and remedial phases clearly indicate that Google’s anticompetitive conduct and its monopoly have a significant causal connection.



Based on evidence presented in the liability phase, this Court held that Google’s conduct has (1) foreclosed a substantial portion of both relevant markets, thereby “impair[ing] rivals’ opportunities to compete,” (2) “den[ied] rivals access to user queries, or scale, needed to effectively compete,” (3) “reduced the incentive to invest and innovate in search,” and (4) required rivals to “distribute their GSEs through less efficient” means. Mem. Op. at 226, 236, 264. Practical manifestations of this impaired competition were numerous, as Google’s conduct has:

- “constrained the query volumes of its rivals, thereby inoculating Google against any genuine competitive threat,” Mem. Op. at 234;
- “unquestionably” “contribut[ed] to keeping Apple on the sidelines of search,” Mem. Op. at 242;
- “limited . . . [rivals’] ability to reinvest in quality improvements (both as to search and general search text ads),” Mem. Op. at 264;
- “ensure[d] that advertisers w[ould] continue to spend 90% of their text ad dollars with Google, regardless of increases in prices or decreases in quality,” Mem. Op. at 264–65;
- contributed to Neeva’s exit from the market, Mem. Op. at 237; and
- contributed to Microsoft’s refraining from “additional investment” in Bing, Mem. Op. at 239.

Given these harms to competition, the Court repeatedly concluded that Google’s conduct contributed significantly and substantially to Google’s monopoly power. Mem. Op. at 202 (“The result [of Google’s unlawful conduct] is that consumer use of rival GSEs has been kept below the critical levels necessary to pose a threat to Google’s monopoly. The exclusive distribution agreements thus have significantly contributed to Google’s ability to maintain its highly durable monopoly.” (citation omitted)); *id.* at 216 (“[Google’s] agreements ‘clearly have a significant effect in preserving [Google’s] monopoly.’”); *id.* at 234 (“The exclusive distribution agreements have substantially contributed to . . . anticompetitive market conditions.”); *id.* at 237 (“[Google’s

agreements have] contributed significantly to [a] lack of new investment.”); *id.* at 265 (“Google’s exclusive distribution agreements substantially contribute to maintaining its monopoly in the general search text advertising market . . .”).<sup>1</sup>

Accordingly, the existing record from liability and this Court’s findings already establish a significant causal connection between Google’s conduct and its monopoly. If needed, the Court can expand these findings based on evidence presented in both the liability and remedies phases. *See* Pls. Liab. PFOF, ECF No. 897, ¶¶ 1067–1192; Pls. Liab. RPFOF, ECF No. 898, ¶¶ 2309–2480; PFOF ¶¶ 242, 246.

**B. The Significant Casual Connection Between Google’s Conduct And The Maintenance Of Its Monopolies Justifies Plaintiffs’ Remedies Under Any Plausible Causation Standard**

The parties disagree on the precise contours of the D.C. Circuit’s causation standard, but under any plausible interpretation, after a finding of liability, no remedy necessitates more than a clearer indication of a significant causal connection between the conduct and the monopoly.

Interpreting *Microsoft III*, the district court in *New York v. Microsoft* described a proportional causation standard, under which the “quantum of proof” for causation depends on the severity of the remedy. *New York I*, 224 F. Supp. 2d at 97. At opening argument, Google

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<sup>1</sup> Google may wrongly argue that comparable findings in *Microsoft III* failed to establish the necessary causation for remedies beyond a narrow injunction. First, Microsoft’s (and now Google’s) economic expert, Dr. Kevin Murphy, made this same failed argument more than two decades ago. *See New York I*, 224 F. Supp. 2d at 151 (rejecting Dr. Murphy’s causation analysis as incapable of “be[ing] reconciled logically with significant portions of the appellate court’s opinion”). Second, this Court’s findings are stronger than those in *Microsoft III*—even when using similar wording—because *Microsoft III* involved conduct that targeted out-of-market products where the potential to compete with the monopoly one day could be known only by inference. *Microsoft III* 253 F.3d at 53–54 (emphasizing how middleware could not—and would not in the foreseeable future—serve as a reasonable substitute for an operating system); *id.* at 79 (recognizing the nature of the plaintiffs’ claims brought “added uncertainty [to causation], inasmuch as nascent threats are merely *potential* substitutes”). Google’s conduct, by contrast, undermined actual, in-market competition.

endorsed this standard. Rem. Tr. 69:6–18. Under this standard, an injunction against the anticompetitive conduct is always available, but more severe remedies necessitate “a clearer indication of a significant causal connection between the conduct and the creation or maintenance of the market power.” *New York I*, 224 F. Supp. 2d at 102 (emphasis and internal quotations omitted). Put simply, this standard requires “a proportionality between the strength of the evidence of the causal connection and the severity of the remedy.” *Id.* The Court “must assess the strength of the causation evidence that established liability and tailor the relief accordingly.” *Id.*

The D.C. Circuit’s subsequent opinion in *Massachusetts* suggests instead that only certain structural remedies require a clearer indication of significant causal connection, while all other remedies require no additional causation beyond what was required for liability. As *Massachusetts* explained, *Microsoft III* “singled out” structural remedies for the heightened causation test. *See Massachusetts*, 373 F.3d at 1207–34;<sup>2</sup> *see also Microsoft III*, 253 F.3d at 105 (indicating that the “implicit findings of causal connection” in the district court’s liability

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<sup>2</sup> *Accord Microsoft III* 253 F.3d at 80 (“Absent some measure of confidence that there has been an actual loss to competition that needs to be restored, wisdom counsels against adopting radical *structural relief*.” (emphasis added)); *id.* at 106 (“[S]tructural relief . . . ‘requires a clearer indication of a significant causal connection . . . .’” (cleaned up and emphasis added) (quoting Phillip E. Areeda et al., *Antitrust Law: An Analysis of Antitrust Principles and Their Application* ¶ 653bc, at 91–92 (rev. ed. 1996))); *Massachusetts*, 373 F.3d at 1230 (“Our instruction to the district court was to consider on remand whether *divestiture* was an appropriate remedy in light of the ‘causal connection’ . . . . *Structural relief*, we cautioned, . . . ‘requires a clearer indication of a significant causal connection between the conduct and creation or maintenance of market power.’” (emphasis added) (quoting *Microsoft III*, 253 F.3d at 106)); *id.* at 1231 (“The district court did not abuse its discretion by insisting that an analogous form of *structural relief*—namely, *divesting* Microsoft of much of the value of its intellectual property—likewise meets the test of causation.” (emphasis added)); *id.* at 1233 (“[T]he district court properly refused to impose that *structural remedy* without finding a significant causal connection . . . .” (emphasis added)).

analysis would have supported the district court’s order of “sweeping equitable relief” if those findings had been able to “withstand appellate scrutiny”).

This Court need not settle this debate. Under either standard, the evidence presented during both the liability and remedies phases of this litigation wholly supports Plaintiffs’ remedies. *See supra* Legal Framework § II.A. Indeed, as this Court found, Google maintained its monopoly by directly excluding competitors in the relevant market—a material difference from *Microsoft III* where the Court found only exclusion of nascent threats—which renders clearer the causation of Google’s enhanced monopoly power. *Cf. Massachusetts*, 373 F.3d at 1228 (endorsing the district court’s finding that “the causal link [was] insufficient to warrant a structural remedy” when “the theory of liability . . . was directed at Microsoft’s unlawful response to cross-platform applications, not operating systems” (cleaned up)); *id.* at 1229 (“[T]he fruit of Microsoft’s unlawful conduct was not the harm particular competitors may have suffered but rather Microsoft’s freedom from platform threats posed by makers of rival middleware.”).

### **C. Google Would Stretch The Causation Standard Beyond Judicial Recognition**

Google overreads the causation discussion in these cases by (1) suggesting a requirement of but-for causation and (2) demanding but-for causation for essentially all of Plaintiffs’ remedies. *Microsoft III* and *Massachusetts* disprove each of these arguments.

First, Google misconstrues *Microsoft III*’s heightened causation standard to demand clear but-for causation. To the contrary, the heightened standard requires only a “clearer *indication* of a *significant* causal connection” between the anticompetitive conduct and the maintenance of monopoly than the inference of harm to competition drawn in *Microsoft III* from exclusion of middleware threats outside the relevant market. *Microsoft III*, 253 F.3d at 106 (emphasis altered and internal quotations omitted). Put simply, an indication of significant causation need not be but-for causation that the conduct was the cause of the monopoly altogether. *Massachusetts*, 373

F.3d at 1233 (indicating that “the district court properly . . . [looked for] a significant causal connection” rather than “applying a ‘stringent but-for test’ of causation”); *Microsoft III*, 253 F.3d at 80 (paraphrasing the heightened causation standard as requiring only “some measure of confidence”); Areeda et al., *Antitrust Law* ¶ 338a2 (5th ed. 2022) (explaining that a violation can be a “‘substantial’ cause” of an effect “even if other factors amounted in the aggregate to a more substantial cause”).

The “significant” causation standard is appropriate given the recognized impracticality of but-for causation in Section 2 matters. *Microsoft III*, 253 F.3d at 79 (“[N]either plaintiffs nor the court can confidently reconstruct . . . a world absent the defendant’s exclusionary conduct.”); *see also* Areeda et al., *Antitrust Law* ¶ 803a (“[A] strong interest in containing or eroding substantial market power long held is a reasonable ground for throwing the benefit of any doubt about effects against the monopolist.”).

Second, pushing *Microsoft III* to an illogical extreme, Google argues that the heightened causation standard applies to every remedy other than an injunction against the exclusionary conduct. Def. Pre-Rem. Tr. Br., ECF No. 1215, at 5 (“Absent such causation, the antitrust defendant’s unlawful behavior should be remedied by ‘an injunction against continuation of that conduct.’” (quoting *Microsoft III*, 253 F.3d at 106)). In this way, Google flouts the proportionality standard it elsewhere accepts, Rem. Tr. 69:6–18, placing all other remedies at the far end of the spectrum.

Google’s argument also rests on quoting *Microsoft III* out of context. The quoted text from *Microsoft III* is part of instructions for the district court to follow “[o]n remand . . . [when considering] whether the use of the *structural remedy of divestiture* is appropriate.” 253 F.3d at 105 (emphasis added). Thus, the quotation Google cites explains how this Court should analyze a

proposed structural remedy but is inapplicable when the Court analyzes proposed behavioral remedies. *See New York*, 224 F. Supp. 2d at 102 (“[I]n Parts II.C and V.F . . . [,] the appellate court was largely concerned . . . with the propriety of a structural remedy of dissolution. Because Plaintiffs have not persisted in their request for a structural remedy of dissolution, for the most part, this Court examines the existing causal connection through a different lens than that anticipated and addressed by the appellate court.”).

### **FACTUAL BACKGROUND**

The Court is well versed in the factual record from liability, which Plaintiffs do not restate here. *See generally* Mem. Op.; Pls. Liability Post-Trial Brief, ECF No. 820, at 2–9. Since the liability trial, there have been two important developments that will inevitably impact the Court’s remedies determination. First, Google has begun executing new revenue share agreements (RSAs) with its distribution partners, including Apple, that continue to pay for defaults and preinstallation. Second, GenAI has become a dynamic, fast-evolving space with a direct impact on search and vice versa: GenAI relies on search as a critical input for factuality; GenAI is a potential threat to general search; and GenAI products can serve as search access points. Seizing on this critical inflection point, Google has begun executing distribution agreements for Gemini that are similar to the search distribution agreements that the Court found unlawful in its liability opinion and will continue to do so absent the Court’s intervention.

#### **I. Google’s Latest Revenue Share Agreements Still Allow Google To Pay For Defaults**

Since the liability trial, Google has made only modest changes to its RSAs. Google continues to pay for defaults and preinstallation, albeit on an access point by access point basis. *See* PFOF ¶¶ 286, 411. For example, Google’s VP of Global Partnerships Peter Fitzgerald testified that Google and Samsung executed a new RSA consistent with this approach just days before his testimony. PFOF ¶ 288; *see also* PFOF ¶ 286. Google similarly entered into new

RSAs with Verizon, AT&T, and Motorola that conform to Google’s proposed remedy. PFOF ¶¶ 290, 293; *see also* PFOF ¶ 286. What remains true of all these agreements is that distributors maximize the money they receive from Google by setting Google as the default on all search access points and are incentivized to send as much traffic as possible to Google via these access points. PFOF ¶ 286.

These changes do not go far enough to remedy the harm from Google’s anticompetitive distribution agreements. Instead, Google’s latest RSA iterations mirror its proposed remedies, which merely preserve the status quo given that they do not account for the fact that due to Google’s significant monetization and choice friction, Google is likely to win most—if not all—defaults. *See, e.g.*, Argument §§ I.A.1, VI.

## **II. GenAI, Including The Gemini App, Has Become An Important Part Of Search**

In addition to Google’s continued use of defaults and preinstallation in Search, GenAI has emerged as a search access point since the liability trial, a fact the Court should factor into its remedies decision. Google has incorporated artificial intelligence technologies for more than a decade across its most important products, including Search, PFOF ¶ 113, and as Mr. Pichai testified, Google intends to make AI “a deeper part of the Search experience,” PFOF ¶ 149. The evidentiary record also confirms that GenAI benefits from Search, making clear GenAI (and its distribution) is a necessary component in assessing how to future-proof the remedy in this case. *See, e.g.*, PFOF ¶¶ 119–20, 256–57.

GenAI is a type of artificial intelligence that creates new content including text, images, code, classifications, and other media using machine learning models. PFOF ¶ 62. A GenAI Product is any application, software, service, feature, tool, functionality, or product that involves or makes use of GenAI capabilities or models. PFOF ¶ 63. It can include GenAI search access points. PFOF ¶ 63. GenAI Products frequently include links to web sources—a core part of the

Google Search experience—when responding to informational queries. PFOF ¶¶ 93, 150. They retrieve these links from search engines. PFOF ¶ 93. To satisfy commercial use cases, GenAI applications must have web information retrieval capabilities. PFOF ¶ 97. For example, at trial, Google’s then-VP and General Manager for the Gemini App, Sissie Hsiao, acknowledged that commercial queries would need to be grounded in a search index or through search providers to satisfy commercial queries. PFOF ¶ 97.

Since the liability trial, Google has been bringing its state-of-the-art Gemini models directly into Search. PFOF ¶ 125. In 2024, Google incorporated AI Overviews, a GenAI search feature built on a Gemini model, into the Google Search product. PFOF ¶ 129. AI Overviews has been widely successful, reaching many of Search’s users and driving Search’s query volume higher. PFOF ¶ 135. Today, 1.5 billion Search users interact with AI through AI Overviews. PFOF ¶ 140. Indeed, as of today, AI Overviews triggers on [REDACTED] of searches on Google. PFOF ¶ 138. AI Overviews is not Google’s only GenAI feature. In early 2025, Google introduced “AI Mode” into Search. PFOF ¶ 148. In AI Mode, users are asking questions twice as long as before. PFOF ¶ 148. AI Mode is currently an experimental feature available as a tab in Google Search, but Mr. Pichai testified that he expects it to become a deeper part of the Search experience over time. PFOF ¶ 149.

Google has also unveiled the Gemini App. GenAI assistant apps in the market rely upon web information, web indices, and ranking signals to satisfy user needs. PFOF ¶ 96. Nick Fox, head of Google Search, believes the Gemini App qualifies as a search access point if a user can issue a query to Google Search through the Gemini App, PFOF ¶ 260, which is how it works today. The Gemini App currently provides a means for users to run Search queries and access a Google search results page, all from within the Gemini App, PFOF ¶ 259. Google recognizes



that incorporating GenAI into Search expands Google’s user base and queries. PFOF ¶ 128. Mr. Pichai believes the Gemini App will expand overall Search use. PFOF ¶ 174. Google also hopes to monetize the Gemini App and plans to experiment with ads in the Gemini App in the future. PFOF ¶¶ 103–04. As Ms. Reid, VP of Search confirmed at trial, the introduction of AI is “creating new access points” and Google is actively “exploring new entry points” for Search. PFOF ¶ 257.

In addition to the emergence and growth of the Gemini App as a search access point, Google has unveiled other new search entry points since the liability trial. For example, Circle to Search is a feature on mobile devices that allows a user to circle a portion of the mobile display showing something of interest to the user and execute a search. PFOF ¶¶ 279, 282. It then returns a results page in response to a query. PFOF ¶¶ 281–82. The evidence from the remedies trial established the intersection of GenAI and Search that supports including the evolving technology into the Court’s final order on remedies.

### **III. Google’s New Gemini Distribution Agreements Follow A Similar Playbook To What The Court Held Was Unlawful For Search**

With the emergence of GenAI, it is no surprise that Google has begun entering into distribution agreements for the Gemini App. When it first contemplated a distribution strategy, Google initially sought to secure Gemini App distribution with OEMs through preinstallation, placement, and exclusivity. PFOF ¶ 295. But Google recognized in June 2024 that inclusion of Gemini in the MADA/RSA may be challenged, and that the company may need to spend \$ [REDACTED] billion to secure Gemini on Android. PFOF ¶ 298. As a result, Google instead decided to establish standalone deals with Samsung and other OEMs, agreements that included Assistant

upgrades to Gemini, strategic partnerships, and “dedicated OS-level contextual entry points.”<sup>3</sup> PFOF ¶ 300. Notably, Google considered long-press placement access, the Hotword, and placement of the Gemini App and widget on the home screen as “key levers” to negotiate with partners. PFOF ¶ 301.

At trial, Mr. Fitzgerald discussed the company’s Gemini Commercial Agreement with Samsung, under which Samsung receives payments only on “Gemini Qualified Devices” that meet preinstallation, placement, default, and usage requirements. PFOF ¶ 306. In exchange, Google pays Samsung fixed, revenue share, and bounty payments. PFOF ¶ 310. Samsung receives up to \$ [REDACTED] million a month in fixed payments if its Gemini Qualified Devices meet certain Gemini App usage levels, or “Key Performance Indicators” (“KPIs”). PFOF ¶ 311. Google’s fixed monthly payments to Samsung could go down “if certain KPIs weren’t met.” PFOF ¶ 312. Samsung also receives a bounty payment, up to [REDACTED] per device for premium devices sold in the United States, for activation of Gemini Qualified Devices. PFOF ¶ 313. Finally, Samsung receives [REDACTED]% of both Net Gemini Ad Revenue and Net Gemini Subscription Revenue per month. PFOF ¶ 314. Google’s effort to pay millions for the distribution of the Gemini App—amounts which far exceed the present revenue generated by the product’s subscription revenue, PFOF ¶¶ 173, 311—is a transparent effort by Google to secure distribution for the next generation of search access points.

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<sup>3</sup> Before entering standalone deals, Google contemplated more comprehensive changes to its distribution practices that would combine Gemini, Search, and Chrome. In particular, Google considered executing the Android Commercial Incentive Agreement (“ACIA”), which would combine preinstallation and exclusivity of Search, Chrome, and GenAI products, including the Gemini App, Circle to Search, and AICore, in exchange for revenue share payments. PFOF ¶¶ 296–97. Google paused its exploration of the ACIA following this Court’s liability opinion. PFOF ¶ 299.

Google has entered into Gemini agreements with other distributors as well. For example, in June 2024, Google entered into an agreement with Motorola to preload and place the Gemini App on the Default Home Screen on certain devices. PFOF ¶ 317. In exchange, Google pays Motorola a bounty for Gemini App subscriptions. PFOF ¶ 318. For its part, Verizon has an agreement with Google in which Verizon offers its customers a perk that includes Google One and Gemini Advanced at a significant discount versus what a customer would pay directly to Google. PFOF ¶ 52. Notably, Verizon had internal discussions about including Gemini as a search access point under the RSA so that Verizon could earn search ad revenue through Gemini in the future. PFOF ¶ 267. Despite Verizon's attempts, Gemini is not included as a search access point under the RSA. PFOF ¶ 267. Similarly, AT&T wanted to make the Gemini App a search access point as part of the 2024 revenue share extension, but Google told it to wait. PFOF ¶ 266. These carriers saw the potential for Gemini to be a search access point that generates search ad revenue in the future and therefore a product susceptible to the same kind of exclusionary conduct that Google has employed in the past. The very familiar contracting behavior detailed above supports Plaintiffs' request to include the Gemini App as part of their proposed remedies.

## **ARGUMENT**

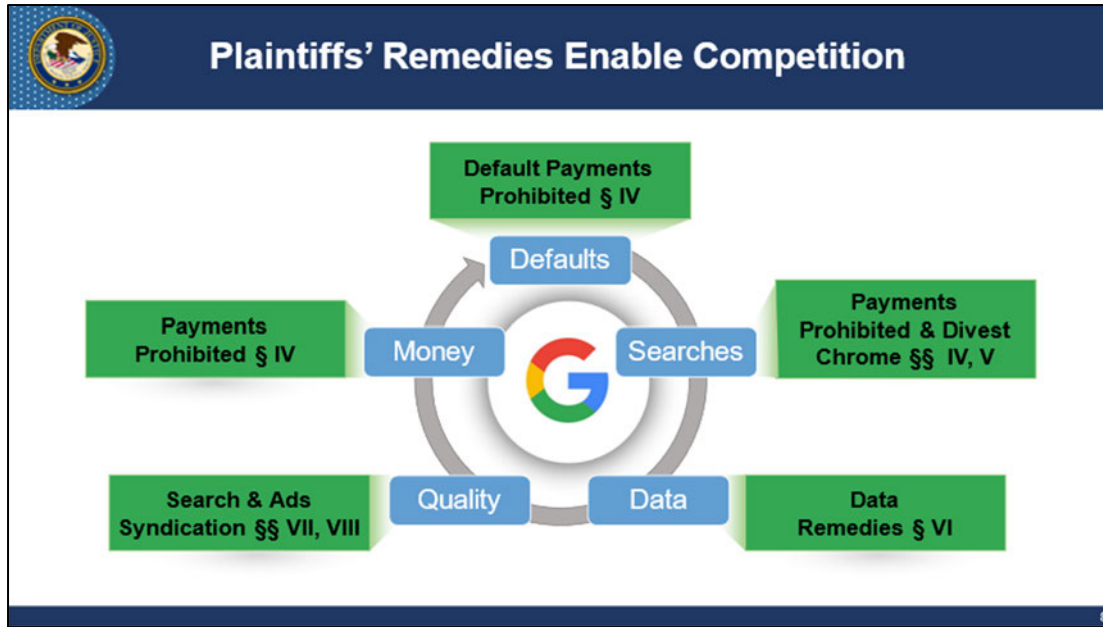
### **I. Plaintiffs' Core Remedies Work Together To Reduce Barriers To Entry, Restore Competition, And Increase Market-Wide Incentives To Invest And Innovate**

In response to the extensive factual record in this case from both liability and remedies, as well as the Court's detailed liability opinion, Plaintiffs' proposed remedy package has three core elements: (1) distribution restrictions, (2) a Chrome divestiture, and (3) data sharing and syndication requirements. Together these remedies "unfetter [the] market from anticompetitive

conduct,” “deny [Google] the fruits of its statutory violation,”<sup>4</sup> and “ensure that there remain no practices likely to result in monopolization in the future.” *Microsoft III*, 253 F.3d at 103. Each of these contribute to unfreezing the ecosystem by lowering the barriers to entry that this Court identified—scale, distribution, brand, and high capital costs. *See, e.g.*, Mem. Op. at 157–61 (identifying barriers in general search), 189–90 (identifying barriers in general search text advertising), 202 (“The exclusive distribution agreements thus have significantly contributed to Google’s ability to maintain its highly durable monopoly.”), 234 (“Google’s distribution agreements have constrained the query volumes of its rivals, thereby inoculating Google against any genuine competitive threat.”), 236 (“The distribution agreements . . . have reduced the incentive to invest and innovate in search.”), 264 (Google’s contracts required rivals to “distribute their GSEs through less efficient” means); PFOF ¶¶ 220–22, 254. And each provides competitors an on-ramp to the search feedback loop that powers competition and innovation in the monopolized markets:

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<sup>4</sup> Many fruits of Google’s violations will persist even after Google’s exclusive dealing ends. Most notably, the harms identified by the Court ensure that Google faces fewer, lower-quality, lower-monetizing, and less-popular rivals than it otherwise would. *See supra* Legal Framework § II.A.



PXRD001 at 8.

The distribution remedies will give rivals the opportunity to compete for search defaults that were previously foreclosed by Google's exclusive contracts, *see infra* Argument § I.A.5, and the Chrome divestiture will make one of the most important search access points contestable, *see infra* Argument § I.B.4. No longer locked out of distribution, rivals and entrants will have greater incentives to invest because they will have a path to users and advertisers. The syndication remedies will provide a bridge to help rivals and entrants provide high-quality search and ads to users in the short term, *see infra* Argument § I.C.1, while the data sharing remedies, together with the scale acquired through distribution deals, will give them the necessary ingredients to not only improve the quality of their existing services but also create new search features and other innovations in the medium to long term, *see infra* Argument § I.C.2.

“When ‘a monopolist’s actions are designed to prevent one or more new or potential competitors from gaining a foothold in the market by exclusionary . . . conduct, its success in that goal is not only injurious to the potential competitor but also to competition in general.’”

Mem. Op. at 234 (quoting *LePage's Inc. v. 3M*, 324 F.3d 141, 159 (3rd Cir. 2003)). This Court has emphasized the absence of meaningful entry in general search over the past fifteen (now sixteen) years despite the prospect of “earn[ing] outsized profits” from competing against Google. Mem. Op. at 237. Today, when the prospects for competition are busy being born, *see supra* Factual Background § II, remedies should “nurture” the “forces of competition,” *see Ford*, 405 U.S. at 578, and “den[y] [Google] the ability again to limit a nascent threat to its [search] monopoly.” *See Massachusetts*, 373 F.3d at 1233. Encouraging entry can best be accomplished by adoption of the full set of Plaintiffs’ remedies, which work comprehensively to lower barriers heightened by Google’s unlawful conduct. PFOF ¶ 254.

The presence of a real competitive threat will, in turn, increase Google’s own incentives to invest and innovate. Although Google will not be able to pay for search distribution during the remedial period, it can still compete for users. *See infra* Argument § I.A.6. At the end of the remedial period, all market participants will be poised to compete on a level playing field without restriction. *Massachusetts*, 373 F.3d at 1231 (noting that remedies “must be addressed to the harm to competition, not the harm visited upon a competitor” and remedies are effective when they “restor[e] conditions in which the competitive process is revived and any number of competitors may flourish (or not) based upon the merits of their offerings”); *see also United States v. AT&T Co.*, 552 F. Supp. 131, 172 (D.D.C. 1982) (“With the removal by the decree of all these burdens on competition, the number of firms entering the interexchange market is thus likely to increase.”).

#### **A. The Proposed Distribution Remedies Will Create Competition For Defaults**

As this Court found, “[Google’s] exclusive distribution agreements thus have significantly contributed to Google’s ability to maintain its highly durable monopoly.” Mem. Op. at 202. It is, therefore, a natural starting point for the remedy to end the anticompetitive contracts

found by the Court to be exclusionary. *Ford*, 405 U.S. at 577–78; *see also In re NCAA*, 958 F.3d at 1264. Section IV of Plaintiffs’ proposed remedy prohibits Google from entering into exclusive default agreements with distributors and from conditioning access to the Google Play Store or any other Google product or service on an agreement to distribute Google Search. However, merely ending Google’s unlawful conduct will not “restore and encourage the competition” in the relevant markets, *Ford*, 405 U.S. at 578, nor will it “ensure that there remain no practices likely to result in monopolization in the future,” *Microsoft III*, 253 F.3d at 103.

Just as in liability, the remedy hearing record establishes the importance of distribution. As Mr. Turley of OpenAI explained, “the amount of friction that you have in getting to [the] product is very, very important,” and “the more people use [ChatGPT], especially for niche things, the more we’re able to improve [it].” PFOF ¶ 335. Dimitry Shevelenko, co-founder and Chief Business Officer of Perplexity, estimated that the great majority of his focus is on obtaining distribution deals with OEMs and carriers. PFOF ¶ 184.

### **1. Payment Bans Are Necessary To Prevent Google From Perpetuating The Anticompetitive Effects Of Its Unlawful Conduct**

To ensure Google cannot continue insulating itself from competition, the remedy must prevent Google from using “the fruits of its statutory violation” to lock rivals out of the competitive process. *Microsoft III*, 253 F.3d at 103. This requires prohibiting Google from paying third parties for search defaults, preinstallation, premium placement, or preferential treatment of any kind during the remedial period.<sup>5</sup> Permitting Google to make such payments

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<sup>5</sup> Section IV of Plaintiffs’ proposed remedy accomplishes this in two primary ways. Sections IV.A and IV.B prohibit Google from making payments to third parties to set Google Search as the default on any Search Access Point or for preinstallation, placement, or default status for any Search Access Point, Pls. RPFJ §§ IV.A–B. Section IV.E prohibits Google from making any payments to third parties that are calculated based on the usage of or revenue generated by Google Search, Pls. RPFJ § IV.E.

would perpetuate the effects of Google’s antitrust violation going forward. *See New York I*, 224 F. Supp. 2d at 108–09.

A remedy that allows Google to pay for defaults in any form will maintain the status quo. *See* PFOF ¶¶ 372–73, 426, 433. As Plaintiffs’ economic expert Dr. Chipty explained, if Google is allowed to continue paying for distribution, Google will likely win all significant default deals because of its monetization advantage. PFOF ¶¶ 372–74. Even Google’s expert, Dr. Murphy, concedes that, if allowed, “Google likely, in the very short run, and probably in the medium-to-longer run, is going to outbid [rivals] because [Google has] better monetization.” PFOF ¶ 375. Indeed, [REDACTED] and Motorola both indicated that to preinstall Copilot and Bing, they would need Microsoft to make them offers comparable to what they get with Google from the RSA. PFOF ¶ 427. Similarly, [REDACTED] sought to negotiate distribution deals with Perplexity, but did not want to put themselves in a position of breaching the RSA. PFOF ¶ 340. Another consequence of allowing Google to continue paying for defaults is that Apple will continue to be disincentivized from entering search or sponsoring the entrance or expansion of another GSE firm. PFOF ¶ 411. Under such circumstances, competition cannot be expected to meaningfully increase in a reasonable timeframe. PFOF ¶¶ 372–73, 433–34. Thus, the payment bans are not aimed at “weak[ening] [Google’s] competitive position,” *New York I*, 224 F. Supp. 2d at 109, but instead are necessary to “ensure that there remain no practices likely to result in monopolization in the future.” *Microsoft III*, 253 F.3d at 103; *see also United States v. Google LLC*, No. 25-5016, 2025 WL 880552, at \*3 (D.C. Cir. Mar. 21, 2025) (concluding that, given the district court’s findings, “it was quite likely that plaintiffs would pursue an order enjoining revenue sharing between Google and Apple (and not just such payments as they were tied to the ISA provision protecting Google’s default placement)”).



The experiences of OpenAI and Perplexity support this conclusion. Mr. Shevelenko explained that challengers like Perplexity cannot hope to “directly replace [Google] dollar for dollar” given Google’s monetization advantage. PFOF ¶ 427. In the shadow of this litigation, Perplexity was able to strike a preinstallation deal with Motorola, but this deal only provides for the Perplexity app to be preinstalled on the plus-one screen without default status, while Google’s Gemini App is preinstalled on the default home screen. PFOF ¶ 342. And Perplexity was only able to make a deal with Motorola because this lawsuit placed pressure on Google and created opportunities with distributors. PFOF ¶ 342. Motorola confirms it feared retaliation from Google if it worked with rivals. PFOF ¶¶ 420–21.<sup>6</sup> OpenAI described being locked out of mobile distribution by Google as an “existential fear.” PFOF ¶ 264. On Android, Mr. Turley explained that distribution discussions with Android OEMs stalled because the OEMs believed OpenAI could not pay them as much money as Google, telling OpenAI it would need to offer “significantly more money and that [OpenAI] couldn’t compete on any other grounds.” PFOF ¶ 428. After concluding it had no hope of meaningful distribution on Android, OpenAI took a [REDACTED] with Apple that resulted in [REDACTED] distribution that [REDACTED]. PFOF ¶¶ 332–33, 410, 431.

Despite Google’s contention to the contrary and the concerns of some *amici*,<sup>7</sup> prohibiting Google from paying its Search partners during the remedial period will, in the long run, make

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<sup>6</sup> While Motorola has filed a brief disputing current concerns about retaliation, the Court should not rely on self-serving advocacy that purports to dispute the evidentiary record. Brief of Motorola Mobility, LLC, ECF No. 1335 at 19 (May 12, 2025).

<sup>7</sup> Plaintiffs address the merits of individual amicus filings only where particularly relevant. Many of the briefs supporting Google disclose obvious financial bias because they receive direct financial support from Google. *See, e.g.*, Brief of Chamber of Progress and Computer & Communications Industry Association as Amicus Curiae Supporting Google LLC, ECF No. 1329, at 1 (May 12, 2025) (“Amici receive financial support from a large number of donors, including general support from Google.”); Brief of Amicus Curiae the Center for Cybersecurity

distributors and users better off because, ultimately, market-wide competition will increase. Motorola testified that, without “a viable option to recoup what [it] receive[s] from Google today,” Motorola does not “have much leverage to negotiate against Google.” PFOF ¶¶ 359, 361; *see also* PFOF ¶ 426 (AT&T has “limited negotiating power” in discussions with Google.). Even Apple’s SVP of Services, Eddy Cue, testified that Apple “do[es not] really have a choice today” apart from Google. PFOF ¶ 407. Although distributors may see a decrease in payments in the short term, in the long term, payments are likely to increase in response to greater competitive rivalry.<sup>8</sup> PFOF ¶¶ 925–26.

## 2. The Distribution Remedies Must Prevent Google From Conditioning Access To The Play Store And Other Google Products On Search Distribution

As the Court previously found, under the MADA, Google conditioned its “must-have” Play Store on the exclusive distribution of the Google Search App, the Google Search Widget, and Chrome. Mem. Op. at 210–12 (citing FOF ¶¶ 351–54, 356, 359–61). Plaintiffs’ proposed remedy enjoins Google from repeating this exclusionary conduct that conditions the Play Store or other Google products and services in the future. Pls. RPFJ, ECF No. 1184-1, § IV.D (Pls. RPFJ). Without such restrictions, Google’s control over critical Android mobile apps and services, such as the Play Store and Google Maps, remain a lever that Google can use to foreclose competition in the relevant markets. For example, Francois Laflamme, Chief

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Policy and Law, ECF No. 1331, at 1 n.2 (May 9, 2025) (“Google has supported initiatives carried out by the Center . . . .”); Brief of Anthropic PBC, Engine Advocacy, and Technet as Amici Curiae, ECF No. 1325 at 2 (May 12, 2025) (“Google LLC . . . ha[s] ownership interests of 10% or more in Anthropic PBC. Engine Advocacy receives funding from Google.”).

<sup>8</sup> Google is required to offer Android OEMs and carriers an option to display choice screens on their existing devices that were subject to the unlawful contracts. Pls. RPFJ § IX.A. *If* the distributor accepts (they are not required to), Google must make fixed monthly payments to the distributor for the life of the device or one year, whichever is shorter. *Id.* For more discussion of choice screens, *see infra* Argument §§ I.A.4, I.B.5.

Marketing and Strategy Officer at Motorola, testified that Motorola has no alternative to some Google Mobile Services and is concerned that Google could take away Motorola's access to those services if Motorola works with Google's GSE rivals. PFOF ¶¶ 420–21, 424. Similarly, Mr. Shevelenko explained that, from a rival's perspective, the MADA locks up distribution by requiring OEMs to take the full suite of Google apps: "if you use one Google product, you have to use all of them." PFOF ¶ 417; *see also* PFOF ¶ 425 (describing OpenAI's similar view).

Freeing OEMs from these restrictive practices and ensuring Google does not engage in similar conduct will help open competition for distribution.

### **3. Gemini Should Be Covered By The Distribution Remedies To Prevent Circumvention**

Remedies should also treat Gemini like any other search access point to ensure that "there remain no practices likely to result in monopolization in the future[.]" *Microsoft III*, 253 F.3d at 103. Although GenAI is not general search today, PFOF ¶ 107, Gemini has become a search access point, *see supra* Factual Background § II. Gemini may also become a substitute for general search in the future, as some in the industry already expect. PFOF ¶ 268. To that end, some distribution partners have requested Gemini be covered as a search access point under the RSA. PFOF ¶ 265.

It is telling that Google has already begun to distribute Gemini much like it distributed Chrome, the Google Search App, and the Google Search Widget. PFOF ¶ 295. As Dr. Chipty explained and the record of Google's negotiations with distributors demonstrates, Google will certainly look for alternative means of distributing Google Search and maintaining its monopoly once remedies go into effect. PFOF ¶¶ 266–67, 272, 275–78. Given Gemini's emerging role as a search access point and dependence on general search, the distribution remedies must cover

Gemini to ensure “there remain no practices likely to result in monopolization in the future.”

*Microsoft III*, 253 F.3d at 103; *see also* PFOF ¶¶ 93–96, 162–64, 256, 259.

#### **4. Requiring Choice Screens In Limited Circumstances Will Help Restore Competition**

Certain choice screens are also required for an effective, durable remedy. Choice screens in certain circumstances will help reduce consumer bias in favor of Google acquired through its unlawful monopolization of general search, both in search applications and search engines. PFOF ¶ 906. Plaintiffs’ proposed remedies—which include choice screens for Google search access points on existing non-Apple, third-party devices, for search access points on Google devices, and for search engines on Google browsers (including, currently, Chrome)—accomplish several *Microsoft III* objectives, including unfettering the markets from Google’s illegal monopolization, depriving Google of the fruits of its violations by informing users of the competitive choices for GSEs, and limiting Google’s ability to continue its anticompetitive distribution agreements. Pls. RPFJ §§ IX.A–C; *Microsoft III*, 253 F.3d at 103.

Under Plaintiffs’ proposed remedies, choice screens would be available for both search access points and the default search on a given access point. Pls. RPFJ § IX.D. Choice screens are necessary for existing Android devices because Google has already locked up those search access points, PFOF ¶¶ 416, 892, 897, 906–08, and for access points such as the Google Search Widget, it would be challenging for a rival to enter and compete on existing devices, PFOF ¶¶ 894–96, 907. Choice screens for Pixel are necessary because, if Google is restricted on all other Android devices, it could create misaligned incentives for continuing support of the open Android ecosystem Google itself touts. *See* PFOF ¶¶ 574–75, 910, 917.

However, choice screens alone are not sufficient to restore competition. PFOF ¶ 907. Instead, the effectiveness of choice screens will depend on other factors, including: (1) the other

remedies enacted that will increase the quality and distribution of other search engines; and (2) the choice screen architecture. PFOF ¶¶ 900, 913, 916. As Prof. Antonio Rangel explained, “[Choice screens] . . . by themselves, even if the choice architecture is well designed, . . . will be unlikely . . . [to be] sufficient to fully undo the persistent Google default biases.” PFOF ¶ 912.

Further, it will take time for any remedy—including choice screens—to overcome consumers’ substantial default bias favoring Google. PFOF ¶¶ 896, 907, 914–16. The default bias effect has been even larger with Google search because of the additional third-party distribution channels Google locked up with its enticing RSAs, resulting in much higher choice friction. PFOF ¶¶ 892, 896, 914–15.

The effectiveness of choice screens will depend heavily on the choice architecture: no option should be set as a default; options should be listed in a random manner; consumers should have easily useful and accessible information about the different options; the choice screens should avoid fear messaging; consumers should be required to scroll through so they see the full set of options before making a selection; and the number of clicks should be minimized. PFOF ¶ 900. The Technical Committee must include a behavioral expert to provide input into the choice architecture to ensure the choice screen design comports with these best practices. PFOF ¶ 901, 958.

Ultimately, a properly designed choice screen will enhance the effectiveness of other remedies designed to improve the quality and distribution of other search engines and help to restore competition.

##### **5. The Distribution Remedies Will Open Competition For Search Defaults, Increasing Rivals’ Incentives To Invest And Innovate**

The Court found that Google’s exclusionary contracts foreclosed roughly 50% of the general search services market by query volume, and that this foreclosure “contributed

significantly to the lack of new investment” in general search, as well as investment and innovation by existing firms. Mem. Op. at 222, 237–42. Plaintiffs’ distribution remedies, Pls. RPFJ §§ IV, V.B, ensure rivals are no longer foreclosed. With a “genuine opportunity for . . . default distribution deal[s]” finally open to them, rival GSEs will have the incentive to “invest the substantial sums required to enhance [their] search product[s].” Mem. Op. at 239.

By preventing Google from using the quality and monetization advantage that it accrued during the period in which it engaged in unlawful conduct, the payments ban will ignite competition between existing rivals and entrants to secure the default positions that Google had locked up for so many years. Pls. RPFJ §§ IV.A–B, IV.E; *see also* PFOF §§ V.C–D, V.G. The other distribution remedies will ensure that Google does not repeat the MADA playbook, continue to benefit from its past exclusive contracts, or use its first-party products and services to perpetuate its hold on general search. Pls. RPFJ §§ IV, V.B; PFOF ¶ 417. With these remedies in place, distributors’ incentives will change—they will be significantly more likely to enter deals with rivals that can pay for the default position, without being overbid by Google. PFOF ¶ 344, 346–47. Assuming defaults would instead go to rivals, Dr. Chipty estimates that under current competitive conditions, the payment bans would potentially shift roughly 31% of U.S. queries from away Google. PFOF ¶¶ 352–53. This 31% of U.S. queries, which had been shielded from competition due to Google’s contracts, would now be available for current rivals and potential entrants to compete for. PFOF ¶¶ 352–53, 356. As OpenAI’s Mr. Turley explained, distribution is critical to improving ChatGPT: “the more people use our product, especially for niche things, the more we’re able to improve [it].” PFOF ¶ 335.

## 6. The Threat Of Competition Will Increase Google's Incentives To Invest And Innovate

Facing real competition for the first time in years, Google will be incentivized to increase its existing levels of investment and innovation. PFOF ¶¶ 935. This Court noted that “Google has not sat still despite its dominant market share,” and this “penchant for innovation is consistent with the behavior of a monopolist.” Mem. Op. at 247 (citing *Microsoft III*, 253 F.3d at 57). But, as Dr. Chipty explained, even if Plaintiffs’ remedies are imposed, Google will have incentives to invest and innovate when it faces the threat of true rivalry. PFOF ¶¶ 858, 935.

Google’s complaints about being locked out of competition and innovation boil down to complaining about not being able to maintain the advantages Google has gained through illegal conduct. With competition restored among Google and its rivals, it can use its enormous monetization, scale, and brand awareness along with a variety of other means to compete. First, Google can continue to innovate. PFOF ¶¶ 436, 442, 858. Dr. Chipty estimates that, even with the distribution remedies and Chrome divestiture in place, Google would still retain roughly 51% of U.S. queries, giving it ample incentive to continue innovating to compete to maintain or increase market share. PFOF ¶¶ 352, 439, 442. Second, Google could pay for advertising of Google Search or search access points in app stores, on TV, or in display ads. Pls. RPFJ § IV.G.1; PFOF ¶¶ 435–36.<sup>9</sup> Third, Google could provide payments or other value directly to consumers for using Google Search or Google search access points. PFOF ¶¶ 436, 439, 442. Several other GSEs do just this. Microsoft Bing and Brave offer consumers rewards that can be

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<sup>9</sup> Section IV.G.1 explicitly states that “Google may pay a third-party to show ads for Search Access Points in an app store, and for offering a Search Access Point in an app store,” subject to certain restrictions. Without stating so explicitly, Plaintiffs’ remedies also permit Google to pay for other types of advertising so long as the payments comply with Section IV.E of Plaintiffs’ remedies.

redeemed for money or goods, PFOF ¶ 440, and Ecosia plants trees for each search a consumer runs on its GSE, PFOF ¶¶ 441. Fourth, Google could continue to send users promotional reminders on other Google properties such as Gmail and YouTube. PFOF ¶ 436.

**B. The Chrome Divestiture Remedy Opens Competition To A Critical Search Access Point**

Chrome is an important search access point that “significantly narrows the available channels of distribution and thus disincentivizes the emergence of new competition.” Mem. Op. at 159. Google has leveraged Chrome in its scheme to unlawfully maintain its monopolies. PFOF ¶¶ 447–64. No facts support Google’s continued use of Chrome to maintain its monopolies.

**1. Divestiture Will Make The Chrome Default Contestable For The First Time, An Indispensable Step Towards Unfreezing The Ecosystem**

As the Court recognized in its opinion, 20% of all searches nationwide are derived from user-downloaded Chrome, a “market reality that *compounds* the effect of [Google’s] default search agreements.” Mem. Op. at 228 (citing FOF ¶ 63) (emphasis added); *see also id.* at 210 (Chrome’s mandated preinstallation on Android phones was key to why the MADAs are exclusive.); *id.* at 128 FOF ¶ 382 (Samsung RSA Chrome hotseat requirement). Chrome’s popularity has “fortified” Google’s search dominance on the Windows operating system. *Id.* at 33 FOF ¶ 83. The remedies proceeding illustrated *why and how* Chrome compounded the effect of Google’s unlawful conduct, and how Chrome’s divestiture can help remedy that conduct.

Chrome is a critical search access point, explaining why Google has used it to unlawfully maintain its monopolies. Chrome is the dominant web browser, now accounting for about 40% of U.S. web traffic on mobile devices. PFOF ¶ 447. Its usage dwarfs its competitors on every major operating system other than iOS (where it is the largest browser other than the preinstalled default, Safari). PFOF ¶ 466; Mem. Op. at 9 FOF ¶ 9 (iOS defaults to Safari). And even on its



weakest platform, iOS, Chrome is growing rapidly, increasing its usership by 21% from 2023 to 2024. PFOF ¶ 467. In total, Chrome has over four billion monthly active users worldwide, PFOF ¶ 466, and is available on every major operating system and device type. PFOF ¶¶ 468, 474. Google describes Chrome as a “critical endpoint” that drives value by expanding Google’s reach and preventing disintermediation. PFOF ¶¶ 449, 462.

With this immense usage comes substantial financial benefits for Google. In 2023, more than [REDACTED] billion of search revenue flowed through Chrome browsers, or [REDACTED] of all indirect revenue that Google attributes to Chrome. PFOF ¶ 474. Of that, approximately \$[REDACTED] billion was organic search revenue, i.e., revenue from user-downloaded Chrome and not through distribution deals, nearly [REDACTED] of which was driven by the United States alone. PFOF ¶ 475. “[A] disproportionate amount of value” comes from Windows Chrome users, where nearly all Chrome is user-downloaded. PFOF ¶ 476. And Google recognizes its Chrome default as a tool to maintain search share if it loses its default status on other search access points. *See* PFOF ¶ 462.

Today, Google’s rivals cannot meaningfully contest Chrome’s connection to Search. Chrome is the default browser on every Android device sold in the United States. Mem. Op. at 210. For user-downloaded Chrome, Google sets itself as the default search engine. *Id.* at 25 FOF ¶ 63. Google is set as the default on 92% of Windows Chrome browsers, 95% of Mac Chrome browsers, 98% of Android Chrome browsers, and more than 99% of iOS Chrome browsers. PFOF ¶ 459.

The centrality of Chrome to Google’s monopolies will only grow as Google continues to integrate GenAI into all its products. *See* Factual Background at § II. Already, Google recognizes that Chrome is a “key distribution channel for Search *and* assistive technologies, including the Gemini [A]pp.” PFOF ¶¶ 447, 450 (emphasis added). Google recognizes the power that Chrome

has over users' experiences, describing it as Google's Virtual Operating System. PFOF ¶ 452. The Chrome Omnibox, Chrome's integrated experience for navigating the web and conducting queries, is perhaps the single most critical search access point and one of Chrome's most popular features. PFOF ¶ 447.

The evidence at trial also demonstrated how Google is repeating its exclusionary playbook with Gemini in Chrome. Today, Gemini is the only preloaded GenAI application in Chrome, PFOF ¶ 555, meaning that it is the only GenAI tool that can be accessed from the Omnibox by default. Just like with search defaults, users can manually set other options, but the process is cumbersome. PFOF ¶ 557. The choice friction that makes search defaults so powerful, *see* Mem. Op. at 229, applies similarly to Gemini in Chrome, as Google knows well. Rick Osterloh, Google's Senior Vice President who oversees Chrome, put it aptly: "In the future when you use AI, where do you start? I'd be surprised if not [C]hrome as that's what they'[re] use[d] to. What is the [entry point] experience? Right now, its Search in the [O]mnibox." PFOF ¶ 553.

Google's plans for Chrome and GenAI further cement its vital role in maintaining its illegal monopoly. In Google's view, the coming wave of AI agents will "revolutionize how people interact with and build for the web." PFOF ¶ 556. Google plans to "deeply integrate" AI capabilities, including the Gemini App, into Chrome, to drive "awareness and usage." PFOF ¶ 549. True to form, Google plans to make Gemini the "primary agent" in Chrome, prioritizing its integration above Gemini's rivals. PFOF ¶ 557. These rivals will be limited to integration into Chrome through its Extensions capability, PFOF ¶ 558, not prime default availability in the Omnibox. Google has also directly integrated its Search technologies into the Chrome browsers with Google Lens, its recently released visual search tool, which is only available if Google is set as a user's default search engine. PFOF ¶¶ 551–52.

In sum, divesting Chrome will open a critical, contestable access point to rivals with the aim of counteracting the anticompetitive effects of Google’s durable monopolies. And until Chrome is divested, Google, if allowed, would be expected to continue setting itself as the default search engine on the browser. Mem. Op. at 159 (“It is also a realit[y] of control that Google is the sole default on Chrome.” (internal quotation marks omitted)). The Court should require choice screens on Chrome until divestment to immediately foment competition on the most important search access point that Google controls. PFOF ¶ 920. *See, e.g., United States v. Microsoft Corp.*, 231 F. Supp. 2d 144, 193 (D.D.C. 2002).

## **2. Divestiture Of Chrome Is A Legally Permissible And Imperative Remedy**

The law supports divestiture in this case. A dominant firm’s control over distribution is “perhaps the most critical barrier to entry.” Mem. Op. at 158 (citing *S. Pac. Commc’ns Co. v. AT&T*, 740 F.2d 980, 1002 (D.C. Cir. 1984)) (cleaned up). To that end, Chrome divestiture would “lower distribution barriers” because rivals would be able to compete for the Chrome default, something that’s “not been historically possible.” PFOF ¶ 455. Making the default for user-downloaded Chrome contestable, on its own, would likely result in at least a 7% share shift away from Google in the general search market, if not more. PFOF ¶ 457. Importantly, the vast majority of this share shift would come from mobile devices, where winning defaults is particularly important and where Google currently receives nineteen times as many queries as all its rivals combined. Mem. Op. at 230; PFOF ¶ 352. This share shift also does not account for any increase in rivals’ quality resulting from the data and syndication remedies. PFOF ¶ 352. In this way, divestiture is “a means to . . . open [the] market.” *United States v. Pullman Co.*, 53 F. Supp. 908, 908 (E.D. Pa. 1944).

Divesting Chrome will also prevent Google from using Chrome as a tool to unfairly advantage its search product. During the pendency of this litigation, as explained above, Google has changed Chrome in ways that will slow the restoration of the competitive process in the monopolized markets. PFOF ¶ 461. Divestitures are particularly appropriate where, as is the case here, there are many ways that the defendant might “improper[ly] influence” a remedies effectuation. *du Pont*, 366 U.S. at 334.

Finally, divesting Chrome deprives Google of the fruits of its monopolies. *See Massachusetts*, 373 F.3d at 1233. As the Court has already held, Google stifled the emergence of a rival general search engine keeping potential rivals “below the critical levels necessary to pose a threat to Google’s monopoly.” Mem. Op. at 202; *see also* PFOF ¶ 473. Making Chrome’s default contestable will create essential opportunities for rivals to reach that critical level.

Another key fruit was Google’s ability to enjoy the supracompetitive prices derived for “unfairly enhanced . . . network effects.” *In re Google Play Store Antitrust Litig.*, No. 20-cv-05671, 2024 WL 4438249, at \*6 (N.D. Cal. Oct. 7, 2024). These enhanced network effects allowed Google to charge supracompetitive prices for text advertisements. Mem. Op. at 259. Those increased prices applied not just to the queries that Google protected through its exclusive contracts, but also the queries from user-downloaded Chrome. Again, divestiture of Chrome is the only sure way to “undo the consequence of Google’s ill-gotten gains.” *In re Google Play Store Antitrust Litig.*, No. 20-cv-05671, 2024 WL 4438249, at \*6 (N.D. Cal. Oct. 7, 2024).

The divestiture of Chrome is not only a permissible remedy within this Court’s discretion, but also an imperative one needed to effectuate the Court’s “duty” and “inescapable responsibility” to decree effective relief. *United Shoe*, 391 U.S. at 250; *see Ford*, 405 U.S. at 573 (requiring that relief “must be effective to redress the violations and to restore competition”).

*United Shoe* illustrates why divestiture is required. There, the district court found that the defendant “retain[ed] control of the shoe machinery industry” through leasing arrangements, patent acquisitions, and other practices. *United States v. United Shoe Mach. Corp.*, 110 F. Supp. 295, 344–45 (D. Mass. 1953). Ten years after the entry of the initial decree, the United States requested an amendment to require that the defendant be reconstituted as two competing companies. *United Shoe*, 391 U.S. at 247, 251. The Supreme Court vacated the district court’s denial of the government’s request. *United Shoe*, 391 U.S. at 247, 252. The Court explained that if the decree had not “extirpate[d] practices that have caused or *may hereafter cause* monopolization” additional relief was necessary and within the Court’s “duty” to order. *Id.* at 251–52. On remand, the district court ordered a divestiture of shoe-machine assets. *United States v. United Shoe Mach. Corp.*, 1969 Trade Cas. Rep. (CCH) ¶ 72,688, 1969 WL 210230 (D. Mass. Feb. 20, 1969).

Here, the record *already* establishes that Chrome’s divestiture, combined with Plaintiffs’ other remedies, is needed to restore competition. *Cf. United States v. AT&T Co.*, 552 F. Supp. 131, 165–66 (D.D.C. 1982) (approving a divestiture which made it “impossible, or at least unprofitable” for the monopolist to continue engaging in exclusionary practices).

### **3. Chrome Can Be Divested**

Further, Chrome can be feasibly divested through established corporate practices, and the strong benefits to competition from divesting Chrome will increase opportunities for rivals. The feasibility and viability of divestiture is a fact-specific inquiry which must be decided “[d]epending on the evidence.” *Microsoft III*, 253 F.3d at 106. The evidence shows that Chrome can be divested both as a matter of corporate governance and as a technical issue.

First, as a matter of finance and corporate governance, Chrome can be feasibly and viably divested. As Plaintiffs’ divestiture expert, Mr. Locala, explained, the practice of technology

mergers and acquisitions has advanced significantly in the 25 years since *Microsoft III*. There are now well-established procedures and practices that firms employ to execute even the most complicated of divestiture transactions. PFOF ¶ 510. That includes Chrome, notwithstanding the fact that it is not a standalone business today. At the same time, Chrome is managed by a distinct team within Google. PFOF ¶¶ 517–18. As Mr. Locala explained, companies regularly divest similarly situated businesses and products with the use of transition services agreements. PFOF ¶¶ 513, 520–21.

As to viability, there is also no doubt about Chrome’s ability to drive significant revenue as a standalone product. Google currently generates value through Chrome by using it as a distribution channel for its products, primarily its search product. PFOF ¶ 474. Billions of search and display ad revenues flow through Chrome. PFOF ¶ 474. Potential Chrome buyers—three of whom expressed their interest at trial—will see these opportunities, as well as the monetization paths trod by other browsers. PFOF ¶¶ 465, 478. Potential buyers also explore new options for monetization, including partnerships with existing developers or developing their own GenAI products. PFOF ¶ 465. All these revenue opportunities compare favorably to Chrome’s annual costs of development. PFOF ¶ 544. Taken together, these avenues for revenue make a divested Chrome particularly viable and will further incentivize potential buyers to overcome any complexities in the transaction.

The viability of the proposed divestiture is further boosted by the restrictions on Google’s participation in the browser market during the remedial period. The Supreme Court has explained that a “divested company needs time so it can obtain a foothold in the industry,” and line-of-business restrictions are “designed to give the divested plant an opportunity to establish its competitive position.” *Ford*, 405 U.S. at 575. Mr. Locala explained that the line-of-business

restrictions in Plaintiffs’ proposed decree will help ensure the viability of a divested Chrome. PFOF ¶ 482.

Second, Chrome can be divested as a technical matter. It is readily separable from Google’s backend services. As Professor Mickens explained, Google has designed Chrome such that it is decouplable from Google’s backend servers and services. PFOF ¶ 491. As compared to similar software applications, it does not have an unusually high number of connections to Google backend services. PFOF ¶ 490. And divested Chrome could even continue to rely on those services, a widespread practice amongst software-as-a-service providers. PFOF ¶ 502. To the extent that post-divestiture Chrome differs from what Google offers today, there is no evidence to suggest that it will be *worse*. Google itself has described competition amongst browsers today as “increasingly strong.” PFOF ¶ 481. The evidence strongly suggests that post-divestiture Chrome will be kept on its toes by the competitive process. PFOF ¶¶ 469, 483. A divestiture buyer’s efforts to improve Chrome may exceed Google’s own. PFOF ¶¶ 544, 546, 548. In this way, the divestiture of Chrome accords with a bedrock goal of the antitrust laws: protecting competition, not competitors. *See Brown Shoe Co. v. United States*, 370 U.S. 294, 320 (1962).

Third, the evidence from market participants demonstrates the case for Chrome’s divestiture. *See FTC v. Tronox Ltd.*, 332 F. Supp. 3d 187, 198 (D.D.C. 2018) (quoting *United States v. H & R Block, Inc.*, 833 F. Supp. 2d 36, 53 (D.D.C. 2011)) (“[E]conomic actors usually have accurate perceptions of economic realities.”). Senior executives from OpenAI, Perplexity, and Yahoo all testified that they would be interested in placing serious acquisition bids for Chrome. PFOF ¶ 478. Multiple GenAI firms testified that securing distribution relationships with an independent Chrome would be mutually beneficial and could lead to new, innovative browser

integrations. PFOF ¶ 465. It is no accident that two of those firms are leading GenAI competitors, because AI is a “huge technology shift” that is “creating new opportunities for new entrants that just wouldn’t exist otherwise.” PFOF ¶ 178. Google’s own expert recognized that there is ample capital available to this new generation of competitors. PFOF ¶ 444.

In sum, divesting Chrome is necessary and achievable. And the benefits to competition will increase the decree’s overall effectiveness. *See Utah Pub. Serv. Comm’n v. El Paso Nat. Gas Co.*, 395 U.S. 464, 471–72 (1969) (“[T]he pinch on private interests is not relevant to fashioning an antitrust decree, as the public interest is our sole concern.”).

### **C. Plaintiffs’ Data And Syndication Remedies Deny Google The Fruits Of Its Violation And Expedite Rivals’ Ability To Compete And Innovate**

The data and syndication remedies play a critical role in prying open competition in the general search and general search text advertising markets. The syndication remedies will provide a bridge to help rivals and entrants compete with high-quality search and ads in the short term, while the data sharing will provide necessary ingredients to not only improve the quality of their existing services but also create new search features and other innovations in the medium to long term. Without these measures, rivals and entrants will not be able to close the gap created by Google’s unlawful conduct in a reasonable, or perhaps any, timeframe.

#### **1. Syndication Will Facilitate Quality And Monetization Improvements In The Short Term**

Plaintiffs’ proposed search and text ad syndication remedies in Sections VII and VIII.E deny Google the fruits of its unlawful conduct. *Microsoft III*, 253 F.3d at 103. Syndication will enable rivals and entrants that are approved as “Qualified Competitors” to (1) backfill organic results and ads with Google to provide higher-quality services to consumers, advertisers, and distributors in the short term, and (2) accelerate their research and development of new features and products. PFOF ¶¶ 739–40, 742, 804. Unlike commercial syndication arrangements, the



syndication provisions in Plaintiffs’ proposal are designed to help rivals and entrants create independent offerings over the course of the remedial period. Syndication is made available only to “Qualified Competitors” that “make[] a sufficient showing . . . of a plan to invest and compete” in the monopolized markets. Pls. RPFJ § III.U. In the case of search syndication, this is accomplished through mandatory tapering, Pls. RPFJ § VII.C.2; in the case of ads syndication, this is accomplished through pricing, Pls. RPFJ § VIII.E. *See infra* Section I.C.4.

Section VII.A of Plaintiffs’ proposed remedy requires Google to make certain search information and data available via an API, a method of syndication already employed by Google for existing syndication arrangements. PFOF ¶¶ 755, 772. Requiring Google to offer search syndication services at marginal cost, Pls. RPFJ § VII.A, prevents Google from pricing syndication so high that rivals and entrants are disincentivized or unable to make use of it. *Cf.* PFOF ¶ 745. Each of these components will help a rival provide a better-quality product. *See, e.g.,* PFOF ¶ 748 (local data will help minimize rage-quit queries). The text ads syndication provision requires Google to make text ads syndication available to Qualified Competitors on financial terms no worse than those offered to current or future ads syndicators. Pls. RPFJ § VIII.E.

Using data to develop high-quality general search and text advertising services takes time, meaning that rivals and entrants need syndication services to meaningfully compete in the short run. PFOF ¶ 739. As OpenAI’s Nick Turley explained, even with full access to Google’s data, it would take OpenAI at least five years to even determine whether answering 100% of user queries with its own index is achievable. PFOF ¶ 739. Syndication is necessary to close the gap in the short term, while rivals and entrants learn how to improve their quality using the data they obtain from the data sharing remedies, *see infra* Argument § I.C.2, and distribution agreements,

*see supra* Argument § I.A. Search syndication would help “immediately improve the quality of the product” and “close the gap.” PFOF ¶ 739. Similarly, text ads syndication will help firms overcome the “cold start problem” and build their own offerings. PFOF ¶¶ 801, 806. Requiring Google to offer text ads syndication “would provide a built-in business model” for new search entrants, “enabling new businesses and existing ones to enter the market successfully.” PFOF ¶ 809; *see also* PFOF ¶ 805.

In this way, syndication is a critical complement to Plaintiffs’ proposed distribution remedies, which likely will lead to distributors setting GSEs other than Google as the default on search access points. *See supra* Argument § I.A. For years, Google’s exclusive contracts deprived rivals of scale, reduced their incentives and ability to invest, and reduced incentives to enter general search. Mem. Op. at 214–42, 258–65. Without access to syndication, rivals and entrants will struggle to close the quality and monetization gaps, making them less competitive and increasing the likelihood that distributors and consumers will receive lower quality products and lower payments in exchange for distribution or usage. PFOF ¶¶ 739–40, 850.

Syndication will also help rivals and entrants accelerate improving their own search and ad services. Mr. Turley explained that syndication will help OpenAI “indirectly by accelerating [its] own research and development.” PFOF ¶ 740. For example, Section VII.E requires Google to permit Qualified Competitors to submit synthetic search queries,<sup>10</sup> which will help competitors improve their ranking algorithms. PFOF ¶ 749. Also, because Qualified Competitors can use the data to improve their own systems, they can use syndication to help them move

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<sup>10</sup> Synthetic queries are created by the competitor, not users. PFOF ¶ 751. Google has allowed its syndication partners to issue synthetic queries in the ordinary course of business. PFOF ¶ 750.

toward independence, e.g., by building their own indices, PFOF ¶ 739, and differentiating from rivals, PFOF ¶ 746.

## **2. Index And User-Side Data Sharing Will Facilitate Long Term Competition And Innovation**

Plaintiffs’ index and user-side data sharing remedies will provide rivals access to scale-dependent inputs necessary to build a high-quality search engine. As the Court observed, “Google deploys user data to, among other things, crawl additional websites, expand the index, re-rank the SERP, and improve the “freshness” of results.” Mem. Op. at 230. The evidentiary hearing demonstrated that, despite advances in large language models, this conclusion remains unchanged. PFOF ¶¶ 614, 843–44. Rivals today face a critical scale gap with Google, and as a result, they lack the data inputs to perform scale-dependent functions. PFOF ¶¶ 816, 839. Plaintiffs’ remedies will provide access to these inputs, through Section VI.C.’s User-Side Data access provision and Section VI.A’s Google Search Index and Knowledge Graph access provisions.

### **a) Index Sharing Remedies**

Plaintiffs propose providing periodic access to certain data related to Google’s indices. First, with respect to Google’s web index, Plaintiffs have requested that Google periodically share data related to each webpage in Google’s Search Index. Pls. RPFJ §§ VI.A.1–3. Specifically, Plaintiffs propose that Google share the following types of information related to the webpages in its index: (a) a notation sufficient to denote the documents Google considers to be duplicates; (b) information related to frequency with which Google crawls the webpage; (c) a device-type flag for the webpage (e.g., whether a page is set up to display on a phone or a laptop); and (d) three static signals about the webpage (quality, spam, and popularity).

This information is meant to allow rivals to overcome the scale barrier and quickly build their own competitive index. PFOF ¶¶ 592, 596, 599. One, data related to duplicates will help rivals significantly focus their crawling and web content processing efforts. PFOF ¶ 596 (deduplication can “reduce the [REDACTED] links” on the web “to [REDACTED]”). Two, knowing Google’s crawl schedule allows rival to overcome the scale gap that enables Google to determine which sites to crawl, the frequency with which to crawl them, and where to store them within the larger index. PFOF ¶¶ 580, 596. Three, knowing if a webpage is built for mobile will allow rivals to close the mobile scale quality gap by allowing rivals to focus on mobile friendly websites. PFOF ¶ 596. Four, the static signals will allow competitors to focus their efforts on crawling high quality, popular content first. PFOF ¶ 596.

Second, Plaintiffs propose providing periodic access to data Google uses to build its Knowledge Graph. Pls. RPFJ § VI.A.4. Google’s Knowledge Graph contains data from many sources, including webpages and its Geo Index. PFOF ¶¶ 585–87, 589. This information is meant to allow rivals to overcome Google’s scale advantage in obtaining content to build its Knowledge Graph. PFOF ¶ 591. Due to Google’s scale, publishers are incentivized to permit Google to crawl web content, while blocking rival’s web crawlers.<sup>11</sup> PFOF ¶ 581. Similarly, Google’s Geo Index benefits from users being incentivized to create content for Google,

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<sup>11</sup> Plaintiffs’ remedies address Google’s advantage with respect to publisher content in Section VI.B. Plaintiffs’ remedies limit the publisher opt-out options to search indexing or GenAI training. However, in Plaintiffs’ initial PFJ, the publisher opt-out also included retrieval augmented generation (RAG) and AI generated content (e.g., AI Overviews). Based on the record from the remedies hearing, Plaintiffs are now supportive of a reverting to a broader opt-out that includes RAG, as contemplated in the initial PFJ. These same opt-out remedies are identified in the amicus brief submitted by the News Media Alliance (ECF No. 1284-1 at § III.F).

including information about businesses such as locations, hours, or even richer data such as restaurant menus. PFOF ¶¶ 588, 589.

Plaintiffs’ Search Index sharing remedies will accelerate the development of rival search indexes and facilitate innovation in the provision of general search services. PFOF ¶ 599.

OpenAI’s Head of Product Nick Turley, for example, explained that being provided with sufficient tools to build an index would aid OpenAI “in the medium run” by allowing it to “own [its] own destiny and not just partner for real-time information but build a great high-quality index . . . that can serve [its] product over time.” PFOF ¶ 739. However, to be successful, Qualified Competitors will need to invest in significant hardware and infrastructure to crawl, retrieve and process content from the web to create an inverted index. PFOF ¶ 597. Similarly, Qualified Competitors will have to invest in their own technology to transform these data into a Knowledge Graph. PFOF ¶ 591. Plaintiffs’ remedies will use the fruits of Google’s monopoly to encourage investment, innovation, and competition.

#### **b) User-Side Data Sharing Remedies**

“At every stage of the search process, user data is a critical input that directly improves quality.” Mem. Op. at 35 FOF ¶ 90; PFOF ¶¶ 408, 614, 621, 623, 625, 713, 715–17. As such, Plaintiffs propose providing access—on a periodic basis—to three sets of user-side data: (1) the user-side data used to build Glue; (2) the user-side data used to build RankEmbed; and (3) the user-side data used to train GenAI models used in Search. RPFJ § V.C.1–3; *see* Areeda et al., *Antitrust Law* ¶ 653i2 (promoting data sharing remedies in matters involving “technologies such as search engines that depend on large amounts of user data”).

User data at scale—including clicks, queries, and user location—train and refine many of the search signals that ranking algorithms use to identify high quality search results. PFOF ¶ 623. Google’s user data at scale gives it an advantage in building powerful signals that can be used to

retrieve useful results. PFOF ¶¶ 639–40. Plaintiffs propose that Google share two of the datasets it uses to build powerful search signals, and the dataset it uses to train its own search feature, AI Overviews.

First, Glue is, essentially, a “super query log” used to create search signals based on users’ interactions with the whole SERP. PFOF ¶ 622. Glue works by aggregating *13 months* of users’ interactions on displayed results to create a “count-based” signal regarding the usefulness of the item. PFOF ¶¶ 622, 630, 639–40. Second, RankEmbed is a deep learning system that is trained on user data to predict the relevance of a document. PFOF ¶ 633. “Although . . . less dependent on user data, [it was] designed with user data and continue[s] to be trained on it, albeit using less volume.” Mem. Op. at 37 FOF ¶ 98; PFOF ¶ 633. Third, Google uses user data to fine tune the MAGIT model that powers AI Overviews which is tuned to be more factual. PFOF ¶¶ 85, 137.

User data enables search engines to improve every step of a general search engine. Mem. Op. at 35–39 FOF ¶¶ 91–106 (discussing how user data improves crawling, indexing, query understanding, ranking, and retrieval); PFOF ¶¶ 582, 614, 621, 623. As such, sharing the user-side data employed to build two important ranking systems in Google Search will allow rivals to improve the quality of their own products to effectively compete with Google. PFOF ¶¶ 614, 640. Similarly, Google’s GenAI Search products benefit from Google’s access to high quality search data, and allowing rivals to access this data will level the playing field. PFOF ¶¶ 69, 71, 133. Rivals, however, will still need to dedicate significant resources to build their own search signals and ranking algorithms, and LLMs that leverage this data. PFOF ¶¶ 850, 855–57. As explained by Google’s information retrieval expert, Dr. James Allen, the ranking function of “Glue itself is not being revealed, it’s the data used to construct Glue.” PFOF ¶ 624.

### 3. Safeguards Can And Will Ensure That Privacy Is Protected

Plaintiffs’ data sharing and syndication remedies will further safeguard privacy under a two-party privacy protection regime. *See* Pls. RPFJ §§ VI.D and VI.F<sup>12</sup> (guiding the administration of data sharing for User-Side Data and Ads Data, respectively). First, using ordinary-course techniques, Google must remove any Personally Identifiable Information (PII) contained in the datasets. Second, the data may be shared once privacy safeguards are in place, in consultation with the Technical Committee.

There is no dispute that it is possible to share the proposed data in a way that sufficiently safeguards user privacy. As Plaintiffs’ privacy expert, Dr. David Evans, explained: “the data that is at issue in the proposed remedy can be safely shared by Google in a way that assures privacy while providing utility.” PFOF ¶ 656 (assessing the data in Section VI). Google’s privacy expert, Dr. Chris Culnane, agreed. PFOF ¶ 656 (assessing the data in Sections VI and VIII).

Safeguarding privacy requires sufficiently ensuring that sensitive information about individuals is not disclosed. PFOF ¶ 663. To do this, privacy experts make use of (1) formal privacy definitions and (2) privacy-enhancing techniques. PFOF ¶¶ 661, 663. There are hundreds of formal privacy definitions, which—when satisfied—mathematically ensure that privacy will be protected. PFOF ¶ 661. Privacy-enhancing techniques (PETs) are mechanisms that can be used to satisfy formal privacy definitions to ensure privacy is protected when data is released. PFOF ¶ 663. These formal privacy definitions and PETs are well-accepted by privacy experts

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<sup>12</sup> Section VI.F applies to the “data specified in Paragraph VI.E.” VI.E. includes “any data made available via the APIs required under Sections VII and VIII.” Plaintiffs intend appropriate privacy safeguards to apply to all data released under Plaintiffs’ remedies, including data released pursuant to Section VIII. Indeed, the United States has a significant interest in ensuring that an appropriate balance between privacy and utility is reached. Plaintiffs would support any necessary modifications to Plaintiffs’ remedies to make clearer that an appropriate balance must be reached.

and routinely applied by Google itself, as well as others in the industry and government entities, when releasing sensitive data.<sup>13</sup> PFOF ¶¶ 680, 687–88, 689–90.

PETs generally fall into three categories: those that add noise to data to distort specific data values, meant to satisfy differential privacy; those that add frequency bounds to data, meant to satisfy k-anonymity; and those that encrypt data but enable usage of that data. PFOF ¶ 670. Multiple formal privacy definitions and various combinations of PETs may be used to ensure that privacy is sufficiently protected. PFOF ¶¶ 656, 665, 669.

Applying PETs, however, can reduce the utility of the data that is shared. Just as there is some tradeoff between privacy and search quality at Google, there is also an inherent tradeoff between utility and privacy in a data release. Mem. Op. at 156; PFOF ¶¶ 666–67. It is critical that a Technical Committee be employed to balance privacy against utility. Considering only the privacy side of the tradeoff will lead to the release of “useless” data, as Google did under the DMA. PFOF ¶ 695 (releasing less than 1% of user queries and associated user-side data). Correctly determining the appropriate PETs to apply to a data release requires a disinterested party (i.e., not Google) with an understanding of both the properties of the data and the intended use case for the data. PFOF ¶ 666. This way, the objective of maximizing utility while maintaining an acceptable level of privacy may be satisfied. PFOF ¶ 667.

#### **4. Plaintiffs’ Syndication, Index, And Data Remedies Will Preserve Incentives To Innovate**

Several safeguards ensure Plaintiffs’ syndication, index, and data remedies preserve both rivals’ and Google’s incentives to innovate.

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<sup>13</sup> As stated in the amicus brief submitted by the Federal Trade Commission, Plaintiffs’ “RPFJ accounts for [privacy] considerations by including terms that are consistent with those that the Commission includes in its own privacy and data security orders.” Brief of the Federal Trade Commission as Amicus Curiae in Support of Plaintiffs, ECF No. 1286-1, at 2.



First, the syndication, index, and data remedies contain countless built-in protections against free riding:

- The syndication, index, and data remedies are available only if the prospective licensee “makes a sufficient showing . . . of a plan to invest and compete in the GSE and/or Search Text Ads markets.” Pls. RPFJ § III.U.
- The syndication, index, and data remedies all end eventually, Pls. RPFJ § XII, meaning that licensees must develop independence in preparation for that time, *see* PFOF ¶ 740.
- Although the syndication remedies provide important scale-dependent results and features, many critical features of a SERP, such as hotels, flights, AI overviews, and non-text ads, are absent, meaning syndication licensees will still need to invest considerable effort to have a marketable product. Pls. RPFJ §§ VII.A, VIII.E.
- The syndication remedies permit “Google [to] take reasonable steps to protect its brand [and] its reputation.” Pls. RPFJ §§ VII.B, VIII.E.
- Search syndication licensees start with the ability to syndicate a “significant” proportion—not all—of their queries and will receive a “declin[ing]” proportion over time. Pls. RPFJ § VII.C.2. Similarly, the synthetic-query syndication remedy requires Plaintiffs in consultation with the Technical Committee to set a “maximum number of allowable synthetic queries” for licensees. Pls. RPFJ § VII.E.
- Search syndication comes “with an expectation that licensees will become independent of Google over time through investment in their own search capabilities,” and licensee “must submit to the TC audits of syndication frequency,” which can monitor the growth of the licensee’s independence. Pls. RPFJ §§ VII.C.2–3.
- The ad syndication remedies allow Google to price the services at any (non-discriminatory) rate Google chooses, which ensures both that Google can generate a profit from its innovation and that rivals have a financial incentive to gain independence. Pls. RPFJ § VIII.E.
- Licensees will need time to make use of the index and data remedies, especially since they are shared only “on a periodic basis,” Pls. RPFJ §§ VI.A, VI.C, meaning any free rider will perpetually lag behind Google’s latest advancements, PFOF ¶ 739.
- The index and data remedies provide enough data for rivals to improve their own products but too little data for rivals to reverse engineer Google’s innovation. PFOF §§ VI.A, VII.C; PFOF ¶ 727.

Second, contrary to Google’s suggestion, potential free riding is merely one factor influencing investment and innovation. Many other market incentives will push Google and rivals to innovate, even if some free riding exists:

- With the data and syndication remedies in place, Google’s rivals will have a significantly greater ability to innovate. This increased ability effectively reduces the cost of innovation and thereby encourages it. PFOF ¶¶ 641–64, 725–26.
- With the distribution remedies in place, the longstanding innovation harm created by Google’s conduct will finally end. Mem. Op. at 236–48; PFOF ¶¶ 927, 931, 934.
- To win distribution and users, Google’s rivals will need to differentiate themselves from each other and Google, particularly if copying Google is easy. PFOF ¶¶ 851, 859, 930, 932, 948.
- Lastly, Google must also innovate to avoid being left behind by innovative rivals and to keep one step ahead of anyone trying to copy. PFOF ¶¶ 858, 934–35; *see also* Mem. Op. at 247 (discussing “a clear example of Google responding” to BingChat).

In sum, Google and its rivals will have strong incentives to invest and innovate under Plaintiffs’ remedies.

## 5. Plaintiffs’ Data And Syndication Remedies Are Not Structural

Plaintiffs’ data sharing and syndication remedies are not structural remedies, contrary to Google’s claims. Def. Pre-Rem. Tr. Br., ECF No. 1215, at 8–9 (quoting *Massachusetts*, 373 F.3d at 1228). Plaintiffs’ remedies are distinct in several key aspects from the remedies proposed in the remedies phase of *Microsoft* which would have required Microsoft to disclose and license all of its browser source code for free. *New York I*, 224 F. Supp. 2d at 241.

First, Plaintiffs’ proposed data sharing does not permanently transfer any rights. The open-source license in *New York I* was for a “royalty-free, perpetual right” to “use, modify, and distribute without limitation” Microsoft’s source code. ECF No. 332, *New York I*, Case No. 1:98-cv-01233-CKK at 19 (D.D.C. Mar. 4, 2002). These permanent, irrevocable terms would have vitiated Internet Explorer (IE) of all its value to Microsoft. *See New York I*, 224 F. Supp. 2d at

176. Unlike the open-source license proposal in *Microsoft*, the data sharing and syndication remedies proposed by Plaintiffs are limited to the period of the judgment. Pls. RPFJ §§ VI.A, VI.C, VI.E., XII.

Second, Plaintiffs’ proposed remedies require Google to share data from users and other third parties and to provide services to Qualified Competitors. This is *not* Google’s source code, PFOF ¶ 847, and the remedies do not require disclosure of Google’s raw intellectual property or “confiscate” any property from Google. *Massachusetts*, 373 F.3d at 1230 (discussing the proposed remedy in *New York I*); Pls. RPFJ §§ III.A III.BB, VI.A, VI.C, VI.E, VII.A, VII.E, VIII.E. Additionally, the data and the syndication are not “free.” Google would be compensated for its marginal costs in providing the data and the Search Syndication License, and Qualified Competitors would pay non-discriminatory rates for Search Text Ad Syndication. Pls. RPFJ §§ VI.A, VI.C, VI.E, VII.A, VII.E, VIII.E. Further, Google’s claim that Plaintiffs’ data sharing remedies may result in reverse engineering or other intellectual property loss is inconsistent with the fact that Google already shares much of the same data when Google can either earn significant revenue or it suits Google’s business goal of growing search queries. PFOF ¶¶ 593–94, 752, 764, 773, 782, 813.

Finally, the proposed data sharing and syndication remedies would deny Google fruits of its violation. Google accumulated an immense data scale advantage due to its anticompetitive conduct. Mem. Op. at 226 (Google’s distribution agreements have “den[ied] rivals access to user queries, or scale, needed to effectively compete” and have “given Google access to scale that its rivals cannot match.”); *see also id.* at 258–59. The syndication remedies are likewise directed at fruits of Google’s violation in that Google’s quality in search and texts ads derives in part from Google’s unlawfully acquired scale advantages. *Id.* at 230.

Google ignores these differences, instead making unfounded claims that Plaintiffs’ remedies would allow Qualified Competitors to expropriate Google’s intellectual property and allow “cloning” of its products. Def. Pre-Rem. Tr. Br., ECF No. 1215, at 8–9. Market participants, Plaintiffs’ experts, and even Google’s relevant expert all agree that Qualified Competitors will not be able to reverse engineer and replicate or clone Google Search. PFOF ¶¶ 727, 848–49, 853.

Further, Plaintiffs’ proposed remedies are carefully crafted to incentivize Qualified Competitors to innovate and differentiate themselves from Google. PFOF ¶¶ 724–25, 808, 851–52. For example, a firm cannot avail itself of the data sharing and syndication remedies unless it makes “a sufficient showing to the Plaintiffs, in consultation with the Technical Committee, of a plan to invest and compete” in the relevant markets. Pls. RPFJ §§ III.U, VI.A, VI.C, VI.E, VII.A, VII.E, VIII.E. Additionally, the amount of data provided through the Search Syndication License will decline over the term of the decree so that “licensees will become independent of Google over time through investment in their own search capacities.” Pls. RPFJ § VII.C.2. As DuckDuckGo CEO Gabriel Weinberg summarized, the possibility of reverse engineering is “extremely far-fetched,” and it is not “a good business strategy to just copy the competitor” because, in this space, “you need to distinguish yourself with [a] different user experience and ranking.” PFOF ¶ 859.

#### **D. National Security Is The Purview Of The Executive Branch, Not Google**

Any divestiture of Chrome would be carried out in a manner consistent with the national security of the United States. The Court should reject Google’s spurious claim—raised only at the eleventh hour—that it is somehow uniquely situated to protect both user data and Chrome from purported and amorphous national security threats.

First, national security is within the sole purview of the Plaintiffs United States—not Google, a publicly traded company with fiduciary accountability to its shareholders. *See* PFOF ¶ 533. It is “well-established that the judiciary owes some measure of deference to the executive in cases implicating national security, a uniquely executive purview.” *Center for Nat. Sec. Studies v. DOJ*, 331 F.3d 918, 926–27 (D.C. Cir. 2003) (citing *Zadvydas v. Davis*, 533 U.S. 678, 696 (2001) (noting “heightened deference to the judgments of the political branches with respect to national security”); *Dep’t of the Navy v. Egan*, 484 U.S. 518, 530 (1988) (“[C]ourts traditionally have been reluctant to intrude upon the authority of the executive in military and national security affairs”)). At trial, CEO Sundar Pichai and VP of Security Engineering Heather Adkins both acknowledged that they do not speak for the United States on issues of national security. PFOF ¶ 533. The matter should end there.

Plaintiffs’ proposed remedies—which leave any national security concerns in the sole purview of the United States—are consistent with this fundamental principle. Under their proposed remedies, the United States will determine whether a potential divestiture buyer presents national security risks.<sup>14</sup> Pls. RPFJ, § V.A. In sum, the United States can and will address national security implications related to this case.

Second, the Court should summarily reject Google’s “too big to fail” argument that it is uniquely capable of protecting user data and keeping the Chrome browser secure. Setting aside the logical leaps necessary to reach that inference, Google’s scare tactics take a page from the same playbook that AT&T wrote during its own breakup. *See United States v. AT&T*, 552 F. Supp. 131 (D.D.C. 1983). At the height of the Cold War’s technology race against the USSR and

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<sup>14</sup> The United States in its sole purview will assess whether any Qualified Competitor that receives data under the data sharing remedies poses any national security risk to the United States. Pls. RPFJ, § III.U.

with the support of the Department of Defense (unlike Google, whose claims are supported only by Google), AT&T argued that its breakup would harm national security. *See* Jake Kobrick, *The Breakup of “Ma Bell”*: United States v. AT&T, FEDERAL JUDICIAL CENTER, <https://www.fjc.gov/history/spotlight-judicial-history/breakup-ma-bell> (last visited May 16, 2025). The opposite was true: the break-up of AT&T unleashed innovation, forming the foundation of the internet and advanced communication today. *Id.*

Google’s argument runs counter to the facts, as shown at trial, that all tech companies must work to protect data, and Google is not uniquely situated or capable of doing so. PFOF ¶¶ 535, 539–540, 706–7. Mr. Pichai testified that Google is not the only U.S. company capable of providing data security to its users or preventing data breaches. PFOF ¶¶ 706–07. Mr. Pichai further confirmed that Google is not the only U.S. company capable of running a browser. PFOF ¶ 487. As to any future qualified competitor or divestiture buyer (currently unknown), Ms. Adkins confirmed it was nearly impossible for Google to verify the people, processes, and technologies of another company. PFOF ¶ 531.

Ms. Adkins also acknowledged that Google has experienced data breaches and relies on approximately 30–40 external vendors to bolster its cybersecurity. PFOF ¶¶ 535, 541. Notably, Google uses close to 19,000 third-party open-source software packages, including Chrome. PFOF ¶ 541. Google’s use of third-party vendors creates cybersecurity risk given that Google cannot make ultimate decisions about changes to third-party software in Google’s software supply chain. PFOF ¶ 541. Indeed, in 2024, Google ranked similarly to peers such as Microsoft and Apple on a third-party evaluation of cybersecurity posture. PFOF ¶ 537. And many of the advancements in cybersecurity are derived from industry collaboration, standard-setting, and

information sharing—undercutting Google’s assumption that it is superior in the area of cybersecurity. PFOF ¶ 539.

In the face of clear facts and law against it, Google pivoted to deflection and distraction. The Court should reject Google’s effort to evade antitrust enforcement under the guise of “national security” and to supplant the United States’s considered judgment with the judgment of a private, corporate actor that has been found liable for illegal conduct.

## **II. Additional Remedies Bolster The Restoration Of Competition**

### **A. The Ad Transparency And Control Remedies**

#### **1. Visibility And Transparency**

Sections VIII.A and VIII.C of Plaintiffs’ remedies proposal would require Google to provide advertisers with specific, granular performance-related data for their ads (and only their ads) and would bar Google from restricting advertisers from exporting the data for use in in-house or non-Google third party tools.

Section VIII.A addresses Search Query Reports (“SQRs”). During liability, the Court found Google degraded SQR quality, thereby “diminish[ing] advertisers’ ability to tailor their ad strategy.” Mem. Op. at 263–64; PFOF ¶ 860. At root, Section VIII.A seeks to require Google to provide advertisers with granular, impression-level information about the performance of their own advertisements. PFOF ¶ 862. Google already includes impression-level data containing most of the metrics that Section VIII.A seeks in its SQRs but does so at a level of aggregation that prevents meaningful use of that data. PFOF ¶ 862. Section VIII.A also provides a mechanism whereby new metrics can be included in SQRs—a necessary addition, given that Google continues to omit necessary information for new text ads formats from its SQRs. PFOF ¶¶ 865–67.

Trial testimony shows implementing Section VIII.A would not just mitigate the harm identified by this Court, Mem. Op. at 95, 263–64, but would also foment competition by increasing advertisers’ ability to optimize between search platforms—reducing the friction that disincentivizes advertisers from shifting spend between search platforms, and encouraging budget shifting. PFOF ¶¶ 875–76. Section VIII.A would thus have the salutary effect of not just eradicating harm to advertisers but also spurring competition by permitting informed spend shift—not just to Bing, but also to entrants. PFOF ¶¶ 875–76. Larger advertisers could take advantage of this increased visibility using in-house tools, while small- to medium-sized businesses could access third-party tool providers. PFOF ¶ 873.

Section VIII.C complements Section VIII.A by permitting export of relevant performance data in unaggregated form, including not just search ads, but other ad formats as well. As an initial matter, all such data stems from advertisers’ own ad spend and ad campaigns. PFOF ¶ 869. Currently available data is aggregated at a level that prevents independent analysis and Google’s restrictions prevent independent analysis using non-Google tools. PFOF ¶ 873.

Google sought to elicit testimony that disclosing unaggregated query information would lead to an unacceptable privacy risk. The Court rejected a similar justification at liability, Mem. Op. at 94–95, and non-Google advertising witnesses at both liability and remedies universally rejected Google’s privacy justification for withholding the data,<sup>15</sup> PFOF ¶¶ 868, 877. If the Court has any concern with privacy risks associated with the sharing of advertising data with Qualified Competitors, Plaintiffs are supportive of adding appropriate privacy protections to this data set. *See supra* page 44 n.11.

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<sup>15</sup> Plaintiffs seek to safeguard user privacy. *See* Pls. RPFJ §§ VI.D, VI.F.



## 2. Exact Match

Section VIII.B seeks to require Google to provide a “true exact match” option when selecting the keyword match type for a particular keyword. PFOF ¶ 879. The Court recognized that Google’s search ads product has degraded in part because advertisers can no longer access a true exact match option, which the Court observed “created thicker auctions at the expense of advertiser control.” Mem. Op. at 263–64; PFOF ¶ 878. Section VIII.B largely seeks to redress this harm. Google resists Section VIII.B by claiming the rise of autobidding obviates the need for it, but autobidding and keyword matching play dramatically different roles—keywords focus on what ads should be matched to what queries, while autobidding focuses on what advertisers’ bids should be. PFOF ¶¶ 877, 880–81. Google also claims that reinstating the true exact match option would lead to an unacceptably high burden but presents no ordinary-course evidence suggesting any of Google’s changes to its matching options were motivated by a desire to conserve resources or otherwise substantiating this claim.

## 3. Auction Disclosures

The Court described Google’s monopoly pricing practices in its liability opinion, noting the “only apparent constraint on Google’s pricing decisions are potential advertiser outcry and bad publicity.” Mem. Op. at 260; *see also* PFOF ¶ 885. Section VIII.D thus seeks to make visible Google’s changes to its auction rules, enabling advertisers both to respond to auction changes and recognize when Google adjusts its pricing knobs to increase search text ad prices. PFOF ¶¶ 885–86. While Google claims advertisers do not consider its auction’s rules when bidding on ads, trial testimony firmly established that advertisers base their bidding choices on the auction rules, and when auction rules change, advertisers respond to those changes. PFOF ¶ 887. And, counter to Google’s claims, experimentation does not eliminate the need for Section VIII.D. At each step—determining a starting point and determining a response to results—the decision can

be different when auction rules change. PFOF ¶ 888. The same is true for autobidding: advertisers need to provide autobidding programs with inputs, which will be different if the rules of the auction are different. PFOF ¶¶ 888–89.

Finally, Section VIII.D would not be burdensome: during the liability trial, then-head of ads Jerry Dischler stated the changes required to be disclosed would be a “fraction” of the approximately 200 auction experiments Google conducts yearly. PFOF ¶ 891.

### **B. Colorado Plaintiffs’ Public Education Fund Remedy**

The public education remedy proposed by Colorado Plaintiffs will lower informational and entry barriers and bolster other remedies, thereby helping to “ensure that there remain no practices likely to result in monopolization in the future” and “facilitat[e] the entry of competitors.” *Microsoft III*, 253 F.3d at 103; *Massachusetts*, 373 F.3d at 1218.

The Court previously held that Google maintains its monopolies due in part to user habit and inertia. As a direct result of Google’s longstanding default agreements, many users are “habituated” to using Google Search and are “unlikely to deviate from it.” Mem. Op. at 27 FOF ¶ 67. Consequently, inertia and habit—rather than active choice and preference—drive “the vast majority of individual searches.” *Id.* at 26–27 FOF ¶¶ 66–7. In addition, “[m]any users do not know that there is a default search engine, what it is, or that it can be changed.” *Id.* at 27 FOF ¶ 68. Thus, “[e]ven users who are not in this habitual mode and [] try to change the default will get frustrated and stop the process if there is ‘choice friction.’” *Id.* at 27–8 FOF ¶ 69. The remedies hearing confirmed that habit and inertia persist in protecting Google’s monopolies. PFOF ¶ 964. For example, Mr. Turley of OpenAI explained that “most people don’t even think about what search engine to use,” and Mr. Weinberg of DuckDuckGo testified that “people aren’t . . . thinking about alternatives” and do not “even realize that they can switch or . . . are able to.” PFOF ¶ 966.

The Court also held that Google’s superior brand recognition—arising from Google’s anticompetitive agreements and resulting scale-driven quality advantages—is a “significant barrier[] that protect[s] Google’s market dominance in general search.” Mem. Op. at 157, 159–60, 208. That is because the Google “brand is synonymous with search” and “Google’s brand recognition also provides its distribution partners with a powerful incentive to retain Google as the default GSE.” *Id.* at 1, 48, 160. The entry barrier posed by brand recognition likewise remains to this day. PFOF ¶ 968.

The public education remedy directly addresses the habit, inertia, and brand recognition barriers. It does this in two ways. First, it would provide needed information to users to aid informed, active search engine choice rather than habitual, passive searching. Second, on the Technical Committee’s recommendation, it could provide short-term incentive payments to encourage users to experience other search engines, again in furtherance of informed, active search engine choice.

Public Information: A basic economic principle is that “providing more information will tend to help people make better decisions.” PFOF ¶ 969. As Prof. Luca explained, a public education campaign is an efficient way to disseminate relevant information on a large scale, thereby empowering people to make informed decisions, particularly when there are existing informational barriers or new information. PFOF ¶ 970. The public education remedy could reduce users’ reliance on habit and inertia in their search engine usage by informing them about the outcome of this litigation, the remedies imposed, the availability of alternate search engines with distinct features, and how to select and use an alternate search engine.<sup>16</sup> PFOF ¶¶ 972–73.

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<sup>16</sup> Google claims that the true purpose of the public education remedy is to shift shares rather than educate users. Not so. As stated in Plaintiffs’ remedies, the public education remedy and the information and incentives it would provide are solely intended “to best advance the ability of

Witnesses from DuckDuckGo and Yahoo confirmed that this public information campaign would help them overcome informational barriers and attract users. PFOF ¶ 976.

Providing information about alternate search engines is particularly important because search engines are multidimensional, meaning they have distinct characteristics that may appeal to different users. For example, whereas Google promotes itself as the “the world’s most used search engine,” DuckDuckGo highlights that it has “fewer ads” and “never tracks you,” Microsoft highlights that it is “powered by ChatGPT,” and Ecosia highlights that it “plant[s] trees as you search.” PFOF ¶ 973. Notably, evidence shows that users underestimate the quality of non-Google search engines due to lack of experience—meaning users often *think* they prefer Google but revise their beliefs after trying other search engines. PFOF ¶ 984. Providing public information about alternate search engines will thus encourage users to experience other search engines that may better align with their preferences. Such information will be particularly useful following the Court’s imposition of remedies, after which users will likely encounter new defaults, new choice screens, changes in search engine quality and features, and potentially new entrants. PFOF ¶ 972.

Incentive Payments: Search engines are experience goods, meaning their quality can only be fully assessed through use. PFOF ¶ 977. Providing short-term incentive payments to use non-Google search engines would encourage users to experience those search engines, overcome lack of familiarity, and permit more accurate assessments of quality and preference. PFOF ¶¶ 979–85. Such payments would complement the public information component of this remedy, insofar as

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consumers to make informed choices.” Pls. RPFJ § IX.E; *see also* PFOF ¶¶ 972, 986–90. As even Google’s expert Prof. Israel acknowledged, “giving customers more information can help them evaluate better options.” PFOF ¶ 969. To the extent the public education remedy or any other remedy results in rivals gaining market share, that would simply be the result of improved competition.

certain information about search engines can only be gained through experience. PFOF ¶ 981. As Prof. Luca explained, a recent academic study found that users tend to have an improved perception of Bing’s quality after trying it—even without imposition of any other remedies. PFOF ¶ 984. The authors observed this effect regardless of whether the incentive payment was \$1, \$10 or \$25, and regardless of whether the participants were directed to switch their default to Bing for two days or fourteen days. PFOF ¶¶ 982–84. Plaintiffs’ remedies would direct the Technical Committee to further test the design and implementation of incentive payments, which the record shows would reduce barriers and promote informed user choice. That would be followed by recommendations to Colorado Plaintiffs and to the Court.

Bolstering Other Remedies: The public education remedy would also make other remedies imposed by the Court more effective. For example, Plaintiffs seek distribution, data sharing, and data syndication remedies that are intended to open competition for search defaults, increase market-wide incentives to invest and innovate, and encourage new entry. *Supra* Argument § I. All of these remedies will be improved if users are informed that the Court has imposed the remedies and that they may soon encounter new search options and innovations. PFOF ¶ 972. In addition, the public education remedy would make choice screens more effective, in the limited circumstances in which Plaintiffs have proposed them, by providing information about using choice screens and the different choices that users will encounter when they subsequently encounter a choice screen. *See* PFOF ¶ 893. The public education remedy would also incentivize and encourage additional private marketing efforts by rivals. PFOF ¶ 975. This public information, along with incentive payments, would spur users to try other search engines as they grow and improve, further driving scale and rivals’ incentives to invest and differentiate.

Implementation: Prof. Luca also described the process by which the Technical Committee can study different implementations of the public education remedy and make design and funding recommendations to Colorado Plaintiffs and the Court. PFOF ¶ 986. The Technical Committee’s work would entail a short period of pilot testing, evaluating content, channel, and salience of the public information component and amount, duration, and targeting of the incentive payment component. PFOF ¶¶ 987–89. This testing can use established empirical tools and common practices for marketing campaign design. PFOF ¶ 988. The Technical Committee can also recommend a funding level for the public education remedy, which may be comparable to, or lower than, what Google currently spends to market (and improve brand recognition of) its Search product. PFOF ¶ 990.

### **C. Contingent Remedies**

#### **1. Contingent Android Divestiture**

Section V.C of Plaintiffs’ remedies provides for additional, contingent relief if certain preconditions are satisfied. It does this in two ways. First, it states that if the remedies imposed “prove insufficient to serve their intended purposes of restoring competition or if Google attempts to or is successful in circumventing these remedies,” then the Court may in its discretion “impose additional structural relief, including the divestiture of Android.” Pls. RPFJ § V.C. Second, it allows Plaintiffs five years after entry of judgment to seek the divestiture of Android upon a showing by the preponderance of the evidence that “either or both monopolized markets have not experienced a substantial increase in competition.” *Id.* Upon that showing, Google “shall divest Android” unless it can show “by a preponderance of the evidence that its ownership or control of Android did not significantly contribute to the lack of a substantial increase in competition.” *Id.*

These provisions follow from the Court’s role in ensuring compliance with its remedial order and deterring circumvention, as well as its inherent authority to revisit and modify a remedial order if it fails to achieve its intended objective. *United Shoe*, 391 U.S. at 251 (the Court has the “clear” power to “modify the [remedial] decree so as to assure the complete extirpation of the illegal monopoly”). Section V.C serves those purposes by expressly establishing now a future process to ensure the final judgment effectively accomplishes its fundamental purpose and Google is sufficiently disincentivized not to seek to circumvent the final judgment. By establishing a process now, these provisions will both deter avoidance or circumvention of the other remedies, while establishing a process to be used, if ever needed. *Cf. United States v. Paramount Pictures*, 334 U.S. 131, 148 (1948) (“[T]hose who have shown such a marked proclivity for unlawful conduct are in no position to complain that they carry the burden of showing that their future clearances come within the law.”); *see also Ball v. Paramount Pictures*, 176 F.2d 426, 428 (3d Cir. 1949) (explaining operation of forward-looking decree).

Absent strong deterrent and anti-circumvention measures, Google is incentivized to continue to use Android to preference Google Search and other Google products. Indeed, Google currently earns billions of dollars a year from Search revenue from Android devices and billions of dollars in revenue from the Play Store on Android devices. Google Search represents approximately █% of the profit margin Google earns from Android devices. PFOF ¶ 574. That revenue provides strong incentives for Google to use Android to preference Search and to protect (and grow) these profits. In addition to the essential behavioral restrictions designed to combat Google’s ability to anticompetitively act on these incentive, laid out in Section V.B of Plaintiffs’

remedies, the contingent structural relief provisions in Plaintiffs' remedies are designed to re-align Google's *incentives* with the competitive process by providing a deterrent effect.

Plaintiffs need this deterrent all the more because they face significant information asymmetries in ensuring that Google will fully comply with the imposed remedies. Section V.C would be a necessary backstop to disincentivize attempts at circumvention and ensure that the monopolized markets enjoy a substantial increase in competition.

The contingent nature of Section V.C properly balances these considerations. It allows Google to retain control of Android and will never trigger if—as expected—the final judgment achieves its goal of enhancing competition and Google does not circumvent it.

## **2. Contingent Ad Syndication**

The text ads syndication remedy in Section VIII.E of Plaintiffs' proposed remedy is an important step toward remedying the anticompetitive conduct. *See supra* Argument § I.C. However, this provision, while significant, does not guarantee effective price competition. Given the Court's findings regarding Google's ability to raise prices above competitive levels, the contingent ad syndication provided for in Section VII.D acts as an appropriate failsafe. It ensures that if the initial remedy proves insufficient to restore robust competition (particularly, price competition), the structure of the Final Judgment will adapt accordingly. Unlike Section VIII.E, which applies immediately, the contingent relief is triggered only if, five years after entry of the Final Judgment, Plaintiffs demonstrate by a preponderance of the evidence that either or both monopolized markets have not experienced a substantial increase in competition. If triggered, the provision requires Google to provide a syndication license at no more than the marginal cost of the service, thus ensuring that pricing cannot reflect the history of monopoly-driven, supracompetitive pricing. *See* Mem. Op. at 259, ¶¶ 243–67, 629–37, 652–76.



### **III. Anti-Circumvention, Anti-Retaliation, And Administrative Remedies**

The trial record confirms the need for anti-circumvention, anti-retaliation, and administrative remedies. First, and as detailed below, fact and expert witnesses testified that Google could circumvent the Court’s final remedy or retaliate against distributors who do not set Google as a default if sufficient safeguards are not in place. Second, as in *United States v. Microsoft*, a Technical Committee is necessary to ensure compliance and to administer aspects of the remedy that require subject matter expertise, such as data privacy considerations.

#### **A. Anti-Circumvention And Anti-Retaliation Remedies Are Necessary To Prevent Google From Undermining The Remedies**

The best predictor of future behavior is past behavior. The Court has already found that Google has unlawfully engaged in anticompetitive conduct to maintain its monopoly. Absent concrete remedies to prevent Google from repeating its monopolist playbook, Google is likely to repeat it again in the future. For this reason, Plaintiffs also propose remedies in Sections X.E–F that aim to restore competition by preventing Google from retaliating against anyone for competing against it, and that also ensure that Google cannot circumvent the Court’s remedies by other means.

The trial record of Google’s past and current conduct confirms that anti-retaliation and anti-circumvention measures are necessary. Dmitry Shevelenko of Perplexity testified that he himself appeared before this Court only under subpoena because his company “feared retribution from Google.” PFOF ¶ 421. In vivid terms, he described how Google uses its monopoly to operate like a “mob boss” and how its payments for defaults give it the power of holding “a gun to [the] head” of OEMs and carriers. PFOF ¶ 421. That fear prevents “true freedom” in the marketplace, PFOF ¶ 443, so that OEMs and carriers are frightened about retaliation from

Google for negotiating with nascent competitors—and even fearful about placing those concerns in writing. PFOF ¶ 421.

Perplexity is not the only company that fears retaliation. In designated testimony, [REDACTED] corroborated the fear [REDACTED], PFOF ¶ 359, as did carrier [REDACTED], expressing fear of breaching the RSA if [REDACTED] added Perplexity as an alternative assistant service, PFOF ¶ 340. Executives at Motorola put their fear in writing: “We indicated that we need . . . [c]ommitment from MSFT that they w[ill] back us up (as we would be very exposed to retaliation [from Google]) . . . .” PFOF ¶ 421; *accord* PFOF ¶ 424.

Dr. Chipty underscored the need for an anti-retaliation provision: “[T]o the extent there is or even fear of retaliation, that would just increase the chances that distributors would set Google as the default.” PFOF ¶ 421. She also emphasized the need for an anti-circumvention remedy. PFOF ¶¶ 272, 275–76, 278. Google’s recent and current conduct demonstrates the need for such a remedy, as it has shown that Google modifies its conduct only in response to this Court’s review of its actions.

For example, Peter Fitzgerald testified at trial that Google executed a new RSA with Samsung mere days before this remedies hearing started. PFOF ¶ 288. Notably, the new agreement has a term of only five months, as compared to the four-year term in the prior agreement, suggesting that this agreement is merely a placeholder to a future contractual relationship. PFOF ¶ 288. Similarly, only in the week before trial, Google sent waiver letters to Motorola, Verizon, and AT&T, and proposed new terms to T-Mobile, to loosen their obligations under their RSAs. PFOF ¶ 329. Given the open-ended nature of these contractual dealings, Google’s distribution partners will continue to fear—and for good reason—that Google will retaliate against them for dealing with competitors.

When the Court speaks, Google listens. But in the absence of such guidance, Google is prepared to take its anticompetitive framework that allowed it to freeze the Search ecosystem and expand it to dominate the GenAI space. This is why Dr. Chipty identified GenAI apps as one potential circumvention tool, PFOF ¶¶ 272, 275, 278, and why Google must be stopped from re-running its monopolistic playbook through an anti-circumvention remedy as well.

**B. The Technical Committee Will Ensure The Remedies Are Timely And Properly Administered**

Ongoing administrative oversight of the Court’s judgment is also required. At the conclusion of *United States v. Microsoft*, the district judge observed that the Technical Committee in that case was the “lynchpin in the successful effort.” Hearing Transcript at 29:23–25, 30:1–5, *United States v. Microsoft Corp.*, No. 98-1232 (D.D.C. Apr.27, 2011). Plaintiffs in this case have proposed a provision in the final judgment for a similar Technical Committee. The Technical Committee will have monitoring and advisory authority, with limited investigative authority to perform those primary duties. Pls. RPFJ § X. As the district court put it when approving the *Microsoft* technical committee under the Tunney Act:

[T]he proposed decree appropriately devises a mechanism for the provision of impartial and expert compliance assessment to the parties charged with enforcement. Such assistance, which comes at a cost to Defendant only, can only assist Plaintiffs’ enforcement efforts and should not be viewed as a hindrance or a cause of delay. . . . As the legal interpretation of the decree is properly left to the parties, with ultimate authority resting with the Court, the focus on the technical expertise of the Technical Committee is far from troubling.

*United States v. Microsoft Corp.*, 231 F. Supp. 2d 144, 199 (D.D.C. 2002).

Ultimately, this case implicates extensive conduct and requires complex remedies. The use of a Technical Committee removes the Court from the day-to-day operations of the decree, while maintaining an appropriate supervisory position. In particular, the Technical Committee

will ensure the details of the decree’s implementation and enforcement are done correctly and effectively, in accordance with the principles and requirements identified in the Court’s final judgment. For example, DuckDuckGo’s Gabriel Weinberg explained that a Technical Committee could be used to test the optimal design of choice screens. PFOF ¶¶ 958. It would also prevent Google from using its immense resources to stymie the implementation of the remedy. PFOF ¶ 959.

The Technical Committee will also be critical to ensuring that the remedies are implemented in a way that best balances user privacy and data utility. PFOF ¶¶ 666, 668, 957. This is a highly technical, iterative process that requires expertise in both privacy and security in the form of information retrieval or search engine expertise. PFOF ¶¶ 666, 668. For example, it requires an understanding of the specific use cases sought by the data and the ability to conduct experiments to mathematically measure how well the utility is achieved when applying various combinations of privacy-enhancing techniques to satisfy formal privacy definitions. PFOF ¶¶ 666, 668. The Court can set the rules of the road and the parameters of the remedy and allow technical experts under its auspices and direction to implement them in a thoughtful and informed manner.

### **C. The Investment Notification Requirement**

Sections IV.H and IV.I of Plaintiffs’ remedies require that Google give 30 days’ notice to Plaintiffs before acquiring an interest in or before entering into a new ventures or collaborations with, any company that competes with Google in the general search or general search text ads markets or that controls a search access point or GenAI product. This minimally burdensome provision prevents circumvention of Plaintiffs’ remedies by informing Plaintiffs of transactions related to markets that Google has monopolized and products that serve as critical inputs to these monopolized markets.

Under the Hart-Scott-Rodino Antitrust Improvements Act of 1976, 15 U.S.C. § 18a (the “HSR Act”), parties to a transaction that meet certain thresholds must file notifications to the Federal Trade Commission and the Department of Justice and must observe a waiting period—normally 30 days—before consummating the transaction. Plaintiffs’ remedies extend these obligations to a subset of future transactions not already reportable under the HSR Act, particularly those that are too small to satisfy the current size thresholds, and requires that such notification also be sent to the State Plaintiffs. *See* Pls. RPFJ § IV.I.1. Courts regularly approve such notice provisions in consent decrees with the United States and States resolving antitrust litigation. *See, e.g., United States v. Bayer AG*, 1:18-cv-01241-JEB, 2019 WL 1431903, at \*20 (D.D.C. Feb. 8, 2019) (“Bayer and Monsanto shall not, without providing advance notification to the United States, directly or indirectly acquire a financial interest, including through securities, loan, equity or management interest, in any company that researches, develops, manufactures, or sells digital agricultural products or soybean, cotton, canola, or corn seeds or traits.”); *United States v. Smiths Group PLC*, 17-cv-580-RMC, 2017 WL 3503374 (D.D.C. June 22, 2017), ECF No. 10 at 17–18 (similar notice provision); *Nevada v. Renown Health*, 3:12-cv-00409, 2012 WL 3962657 (D. Nev. Aug. 10, 2012) (similar prior notice provision for Nevada Attorney General).

A prior notification requirement for acquisitions and joint ventures for the general search and general search text ads markets—as well as the search access points through which consumers access these markets—is appropriate. Additionally, this provision specifically addresses acquisitions and investments in GenAI companies. GenAI products are an emerging search access point, as well as a popular feature of existing general search engines. *See supra* Factual Background § II, Argument § I.A.3. Plaintiffs’ remedies ensure that Google may not

circumvent conduct remedies by acquiring—or influencing via investment—small GenAI companies without notifying Plaintiffs of this conduct.

Recognizing the dynamic nature of search technology, the Court may order “forward-looking provisions” that require or prevent conduct even if it “played no role in [the] holding [that the defendant] violated the antitrust laws.” *Massachusetts*, 373 F.3d at 1215. The investment notification provision allows Plaintiffs to intervene before any acquisition or joint venture by Google undercuts the final judgment’s efforts to restore competition.

**D. Self-Preferencing Prohibitions Are Required To Prevent Google From Pursuing New Avenues To Circumvent The Remedies**

The self-preferencing prohibitions in Section V.B are necessary to ensure that “there remain no practices likely to result in monopolization in the future.” *Microsoft III*, 253 F.3d at 103. With the distribution remedies prohibiting many contractual means of distributing Google Search, Google may well turn to self-preferencing, especially with Android, as a substitute.

AICore exhibits the kinds of control Google can exercise over just one product: Android. AICore is a critical Android subsystem that Google designed to manage the loading and operation of on-device LLMs, such as Gemini Nano. PFOF ¶¶ 562, 567–68, 570–71, 573. AICore is also a future means of routing general search queries. PFOF ¶ 572. Yet today, Google has chosen to have AICore support only Google’s on-device AI model, Gemini Nano. PFOF ¶¶ 563, 569. Without success, carriers and OEMs have sought freedom in selecting GenAI products, including on-device AI. PFOF ¶ 566.

AICore is only one recent example. Google has a widespread practice—including during this litigation—of preferencing its own products and services over the competition. *E.g.*, PFOF ¶¶ 551–52 (Chrome self-preferences Google Lens), PFOF ¶¶ 549, 554–55 (Chrome self-preferences Gemini), PFOF ¶ 557 (Google makes switching GSEs in Android difficult and will

further self-preference Gemini in the future), PFOF ¶¶ 560–61 (Google integrated Circle to Search into Android), 917 (Mozilla discussing the self-preferencing challenges it faces with Google and others).

Without a ban on self-preferencing of the kind Plaintiffs have proposed, more self-preferencing in general search is likely to come. The risk is especially high on Android, where Google has a “stronghold” and a significant financial incentive to preference Google Search. PFOF ¶¶ 359, 574–75 (distributing Search is a strategic part of why Android exists).

#### **IV. The Term Of The Remedy Must Be Sufficient To Create A Durable Return To Competition**

In setting a term for the remedy, the Court should look to its mandate to restore competition and the market realities at play. *See New York I*, 224 F. Supp. 2d at 184. Those market realities pull in two directions. On the one hand, Google’s exclusive default contracts deprived the market of a real competitive process for more than ten years. *See, e.g.*, Mem. Op. at 109–10 FOF ¶¶ 314–17 (Apple ISA); 125 FOF ¶ 367 (Verizon RSA); 212 (describing Google’s 2011 RSA exclusivity strategy). On the other hand, as discussed throughout this brief, GenAI is presently transforming all technology markets. *See supra* Factual Background, § II. For example, GenAI “super assistants” products may evolve such that they directly compete with GSEs. PFOF ¶ 739. Whether looking through a lens more general or specific, the evidence suggests that Google’s 3-year proposal is certainly too short. PFOF ¶ 954. Rather, the weight of the evidence strongly suggests Plaintiffs’ 10-year proposal is the better one.

Overcoming the barriers to entry that Google’s conduct unlawfully raised, even with the jumpstart provided by the decree’s data and syndication provisions, will be a significant undertaking. PFOF ¶ 955. New competitors will not only need time to build user bases and otherwise acquire the scale necessary to compete, they will also need assurance on the front end

that the remedies period is sufficiently long to risk making the initial investment. PFOF ¶¶ 850, 945, 950–52. The Court heard estimates from market participants, including Apple, that as many as 20–30 years could be required to build a competing product to Google. PFOF ¶¶ 857. The weight of the economic testimony also supports a remedy greater than five years. PFOF ¶ 954.

Plaintiffs recognize that setting a judgment term is an imprecise art. However, if the 10-year term proves either too short or too long, modification remains an option. Indeed, this Court will retain a “long-established, broad, and flexible” power to modify the final judgment. *New York II*, 531 F. Supp. 2d at 167 (quoting *United States v. Western Electric Co.*, 46 F.3d 1198, 1202 (D.C. Cir. 1995)). But here, because “all doubts about the remedy are to be resolved in the [Plaintiffs’] favor,” the Court should set the term for this remedies decree at 10 years. *United States v. Apple, Inc.*, 791 F.3d 290, 339 (2d Cir. 2015) (internal quotations removed) (citing *du Pont*, 366 U.S. at 334)).

#### **V. Plaintiffs’ Proposed Remedies Comport With Article III And Due Process**

Google’s Article III and due-process objections to Plaintiffs’ remedies are meritless. Plaintiffs’ remedies describe Google’s obligations with as much detail as possible, while leaving technical specifics to be worked out between the parties—with the Technical Committee’s assistance and the Court’s ultimate supervision. That well-established procedure comports with Article III and due process. The Court will determine Google’s obligations when it enters judgment. Plaintiffs are charged with enforcing the judgment, and the Technical Committee will assist Plaintiffs in that function by providing technical input and neutral resolution of technical issues. The D.C. Circuit has approved this “perfectly sensible division of labor.” *Massachusetts*, 373 F.3d at 1244.

Google’s attempt to analogize the technical committee here to the arrangement the D.C. Circuit held improper in *United States v. Microsoft Corp.*, 147 F.3d 935 (D.C. Cir. 1998), misses



the mark. Unlike in *Microsoft*, the Technical Committee will not be constituted under Fed. R. Civ. P. 53 and will not adjudicate disputes. *See id.* at 953–956. The Court will decide any intractable technical disputes and will do so in the first instance. In fact, Technical Committee members cannot be required to provide testimony to the Court. *See* Pls. RFPJ § X.C.3.c. Thus, there is no “improper delegation” to Plaintiffs or the Technical Committee.

Finally, Google’s argument that Plaintiffs’ remedies must exhaustively spell out all details is meritless. Injunctions need only describe their requirements in “reasonable detail,” Fed. R. Civ. P. 65(d)(1)(C), and they do not flunk that test “unless they are so vague that they have no reasonably specific meaning,” *In re NCAA Athletic Grant-in-Aid Cap Antitrust Litig.*, 958 F.3d 1239, 1263 (9th Cir. 2020) (quotation marks and citations omitted). Plaintiffs’ remedies easily clear that bar. Although it leaves technical details to be worked out in implementation, its directives to Google are specific and straightforward. Moreover, Google’s claim that all implementation details must be included in the judgment is misguided. Identifying the best means of implementing many parts of the judgment will require technical expertise that the parties and the Court lack and, in some instances, information that Google alone possesses. *See, e.g., M.G. through Garcia v. Armijo*, 117 F.4th 1230, 1250 (10th Cir. 2024) (omitting specifics in an injunction is warranted “when the information needed to make the order specific in form is known only to the party to be enjoined”) (quotation marks and citations omitted). To that end, a neutral Technical Committee can provide input during implementation that will “maximize the full potential” of the Court’s remedies, *New York II*, 531 F. Supp. 2d at 157, and help “avoid costly and complex litigation” over details the parties may be able to “resolve . . . through cooperation.” *Id.* at 158.

## VI. Google's Proposed Final Judgment Entrenches The Status Quo

The trial record confirms that Google's proposed contract remedies are woefully deficient and unlikely to promote competition. Google argues that its proposal "squarely and directly address[es] the Court's finding regarding Google's distribution agreements." Def. Pre-Rem. Tr. Br., ECF No. 1215, at 2. But Google's myopic focus on individual contract provisions fails entirely to engage with the sum of the Court's liability findings. Taking a light touch with a red pen to a handful of contracts does nothing to bring down the barriers that Google artificially raised for more than a decade. Through its narrowness, Google's proposal spurns the bedrock principles on which the Supreme Court has developed the remedial goals discussed above: "In this type of case we start from the premise that an injunction against future violations is not adequate to protect the public interest . . . . Such a course would make enforcement of the Act a futile thing unless perchance the United States moved in at the incipient stages of the unlawful project." *Schine*, 334 U.S. at 128.

Google's proposal fails on its specifics, too. Google's proposed remedies impose minor contract restrictions that are likely to maintain the status quo. PFOF ¶¶ 372, 378–79, 948, 954–56. Notably, Google's proposed remedies would allow it to continue paying Android partners for defaults, albeit on an access point by access point basis. *See* PFOF ¶¶ 286, 411. For browser companies, including Apple, Google's proposed remedies are even weaker, permitting Google to enter exclusive default agreements—for example, for the standard Safari default on every iPhone—as long as the agreements last no longer than one year at a time. Def. RPFJ §§ III.K–L; PFOF ¶¶ 378–79. As explained, *see supra* Argument § I.A, should Google continue to pay for defaults, search access points will likely remain locked, which in turn will further entrench Google's monopolies while impeding rivals' ability to access users in the short term. PFOF ¶¶ 373–74, 947, 949.

Google further compounds the competitive disadvantage that rivals would continue to face under its limited proposed contract remedies by not proposing any data sharing or syndication remedies. Without these important complementary remedies, rivals would have no hope of improving their offerings through increased scale and quality, which are critical components to winning defaults against Google. *See* PFOF ¶¶ 599, 647, 740. And even if the Court imposes data and syndication remedies, it will take time for rivals to increase quality and overcome Google’s monetization advantage. PFOF ¶¶ 945–46. That timeline will only increase if Google is permitted to pay for defaults. PFOF ¶ 250. Similarly, Google has proposed no ad-specific remedies, despite their need.

Ultimately, if permitted, Google can and will continue to outbid its rivals. In this way, Google’s proposed contract remedies do nothing to deprive Google of the fruits of its violation and even allow Google to continue using those fruits to lock out rivals. If Google’s advantages of monetization and data scale—gained through its illegally monopoly maintenance—remain in place, then the monopolized markets will remain frozen for the foreseeable future. This is antithetical to antitrust enforcement and the purpose of these remedy proceedings.

### **CONCLUSION**

Google has maintained monopolies in general search services and general search text ads in violation of Section 2 of the Sherman Act. To remedy these violations, this Court should enter Plaintiffs’ proposed remedies.

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Abigail A. Slater  
Assistant Attorney General  
U.S. Department of Justice  
Antitrust Division  
950 Pennsylvania Avenue, NW  
Washington, DC 20530

Roger P. Alford  
Principal Deputy Assistant Attorney General  
U.S. Department of Justice  
Antitrust Division  
950 Pennsylvania Avenue, NW  
Washington, DC 20530

Mark H. Hamer  
Deputy Assistant Attorney General  
U.S. Department of Justice  
Antitrust Division  
950 Pennsylvania Avenue, NW  
Washington, DC 20530

Respectfully submitted,

/s/ Karl E. Herrmann  
David E. Dahlquist  
Adam T. Severt  
Sarah M. Bartels (D.C. Bar #1029505)  
R. Cameron Gower  
Ryan T. Karr  
Karl E. Herrmann (D.C. Bar #1022464)  
Veronica N. Onyema (D.C. Bar #979040)  
Catharine S. Wright (D.C. Bar #1019454)  
Diana A. Aguilar Aldape  
Travis R. Chapman (D.C. Bar #90031151)  
Grant Fergusson (D.C. Bar #90004882)  
Kerrie J. Freeborn (D.C. Bar #503143)  
Meagan M. Glynn (D.C. Bar #1738267)  
Ian D. Hoffman  
John J. Hogan  
Elizabeth S. Jensen  
Claire M. Maddox (D.C. Bar #498356)  
Michael G. McLellan (D.C. Bar #489217)  
Keane M. Nowlan (D.C. Bar #90028063)  
Andrew R. Tisinger (D.C. Bar #90018455)  
Sara Trent  
Jennifer A. Wamsley (D.C. Bar #486540)

U.S. Department of Justice  
Antitrust Division  
Technology & Digital Platforms Section  
450 Fifth Street NW, Suite 7100  
Washington, DC 20530  
Telephone: (202) 805-8563  
David.Dahlquist@usdoj.gov  
Adam.Severt@usdoj.gov

*Counsel for Plaintiff*  
*United States of America*

By: /s/ Christopher A. Knight  
James Uthmeier, Attorney General  
R. Scott Palmer, Special Counsel, Complex  
Enforcement Chief, Antitrust Division  
Lee Istrail, Assistant Attorney General  
Christopher A. Knight, Assistant Attorney  
General  
Office of the Attorney General, State of  
Florida  
PL-01 The Capitol  
Tallahassee, Florida 32399  
Lee.Istrail@myfloridalegal.com  
Scott.Palmer@myfloridalegal.com  
Christopher.Knight@myfloridalegal.com

*Counsel for Plaintiff State of Florida*

By: /s/ Diamante Smith  
Ken Paxton, Attorney General  
Brent Webster, First Assistant Attorney  
General  
Ralph Molina, Deputy First Assistant  
Attorney General  
Austin Kinghorn, Deputy Attorney General  
for Civil Litigation  
Diamante Smith, Assistant Attorney  
General, Antitrust Division  
Office of the Attorney General, State of  
Texas  
P.O. Box 12548  
Austin, Texas 78711-2548  
(512) 936-1162  
Diamante.Smith@oag.texas.gov

*Counsel for Plaintiff State of Texas*

By: /s/ Carolyn D. Jeffries  
Rob Bonta, Attorney General  
Paula Blizzard, Senior Assistant Attorney  
General  
Michael Jorgenson, Supervising Deputy  
Attorney General  
Brian Wang, Deputy Attorney General  
Carolyn D. Jeffries, Deputy Attorney  
General (DC Bar No. 1600843)  
Office of the Attorney General

California Department of Justice  
455 Golden Gate Avenue, Suite 11000  
San Francisco, California 94102  
Cari.Jeffries@doj.ca.gov

*Counsel for Plaintiff State of California*

Matthew M. Ford  
Arkansas Bar No. 2013180  
Senior Assistant Attorney General  
Office of the Arkansas Attorney General  
Tim Griffin  
323 Center Street, Suite 200  
Little Rock, AR 72201  
Matthew.Ford@arkansasag.gov

*Counsel for Plaintiff State of Arkansas*

Christopher Carr, Attorney General  
Logan B. Winkles, Deputy Attorney General  
Ronald J. Stay, Jr., Senior Assistant  
Attorney General  
Charles Thimmesch, Senior Assistant  
Attorney General  
Office of the Attorney General, State of  
Georgia  
40 Capitol Square, SW  
Atlanta, Georgia 30334-1300  
cthimmesch@law.georgia.gov

*Counsel for Plaintiff State of Georgia*

Theodore Edward Rokita, Attorney General  
Scott L. Barnhart, Chief Counsel and  
Director, Consumer Protection Division  
Jesse Moore, Deputy Attorney General  
Christi Foust, Deputy Attorney General  
Office of the Attorney General, State of  
Indiana  
Indiana Government Center South, Fifth  
Floor  
302 West Washington Street  
Indianapolis, Indiana 46204  
Jesse.Moore@atg.in.gov

*Counsel for Plaintiff State of Indiana*

Russell Coleman, Attorney General  
J. Christian Lewis, Commissioner of the  
Office of Consumer Protection  
Philip R. Heleringer, Executive Director of  
the Office of Consumer Protection  
Jonathan E. Farmer, Deputy Executive  
Director of the Office of Consumer  
Protection  
Office of the Attorney General,  
Commonwealth of Kentucky  
1024 Capital Center Drive, Suite 200  
Frankfort, Kentucky 40601  
Philip.Heleringer@ky.gov

*Counsel for Plaintiff Commonwealth of  
Kentucky*

Liz Murrill, Attorney General  
Asyl Nachabe, Assistant Attorney General  
Office of the Attorney General, State of  
Louisiana  
Public Protection Division  
1885 North Third St.  
Baton Rouge, Louisiana 70802  
nachabea@ag.louisiana.gov

*Counsel for Plaintiff State of Louisiana*

Dana Nessel, Attorney General  
Scott Mertens, Assistant Attorney General  
Michigan Department of Attorney General  
P.O. Box 30736  
Lansing, Michigan 48909  
MertensS@michigan.gov

*Counsel for Plaintiff State of Michigan*

Michael Schwalbert  
Missouri Bar No. 63229  
Assistant Attorney General  
Consumer Protection Section  
Missouri Attorney General's Office  
815 Olive Street | Suite 200  
Saint Louis, Missouri 63101  
michael.schwalbert@ago.mo.gov  
Phone: 314-340-7888

Fax: 314-340-7981

*Counsel for Plaintiff State of Missouri*

Lynn Fitch, Attorney General  
Crystal Utley Secoy, Assistant Attorney  
General  
Lee Morris, Special Assistant Attorney  
General  
Office of the Attorney General, State of  
Mississippi  
P.O. Box 220  
Jackson, Mississippi 39205  
Crystal.Utley@ago.ms.gov  
Lee.Morris@ago.ms.gov

*Counsel for Plaintiff State of Mississippi*

Anna Schneider  
Special Assistant Attorney General, Senior  
Counsel  
Montana Office of Consumer Protection  
P.O. Box 200151  
Helena, MT. 59602-0150  
Phone: (406) 444-4500  
Fax: 406-442-1894  
Anna.schneider@mt.gov

*Counsel for Plaintiff State of Montana*

Alan Wilson, Attorney General  
W. Jeffrey Young, Chief Deputy Attorney  
General  
C. Havird Jones, Jr., Senior Assistant  
Deputy Attorney General  
Mary Frances Jowers, Assistant Deputy  
Attorney General  
Office of the Attorney General, State of  
South Carolina  
1000 Assembly Street  
Rembert C. Dennis Building  
P.O. Box 11549  
Columbia, South Carolina 29211-1549  
mfjowers@scag.gov

*Counsel for Plaintiff State of South Carolina*

Joshua L. Kaul, Attorney General  
Laura E. McFarlane, Assistant Attorney  
General  
Wisconsin Department of Justice  
17 W. Main St.  
Madison, Wisconsin 53701  
mcfarlanele@doj.state.wi.us

*Counsel for Plaintiff State of Wisconsin*

PHILIP WEISER

Attorney General of Colorado

/s/ Jonathan B. Sallet

Jonathan B. Sallet, DC Bar No. 336198

Steven M. Kaufmann

Elizabeth W. Hereford

Conor J. May

Colorado Office of the Attorney General

1300 Broadway, 7th Floor

Denver, CO 80203

Telephone: (720) 508-6000

E-Mail: Jon.Sallet@coag.gov

Steve.Kaufmann@coag.gov

Elizabeth.Hereford@coag.gov

Conor.May@coag.gov

William F. Cavanaugh, Jr.

PATTERSON BELKNAP WEBB &

TYLER LLP

1133 Avenue of the Americas

New York, NY 10036

Telephone: (212) 336-2793

E-Mail: wfcavanaugh@pbwt.com

*Counsel for Plaintiff State of Colorado*

MIKE HILGERS

Attorney General of Nebraska

Justin C. McCully, Assistant Attorney  
General

Nebraska Department of Justice

Office of the Attorney General

2115 State Capitol

Lincoln, NE 68509

Telephone: (402) 471-9305

E-Mail: Justin.mccully@nebraska.gov

William F. Cavanaugh, Jr.

PATTERSON BELKNAP WEBB &

TYLER LLP

1133 Avenue of the Americas

New York, NY 10036

Telephone: (212) 336-2793

E-Mail: wfcavanaugh@pbwt.com

*Counsel for Plaintiff State of Nebraska*

KRISTIN K. MAYES

Attorney General of Arizona

Robert A. Bernheim, Unit Chief Counsel

Jayne Weber, Senior Litigation Counsel

Arizona Office of the Attorney General

400 West Congress, Ste. S-215

Tucson, Arizona 85701

Telephone: (520) 628-6507

E-Mail: Robert.Bernheim@azag.gov

Jayne.Weber@azag.gov

*Counsel for Plaintiff State of Arizona*

BRENNA BIRD

Attorney General of Iowa

Noah Goerlitz, Assistant Attorney General

Office of the Attorney General of Iowa

1305 E. Walnut St., 2nd Floor

Des Moines, IA 50319

Telephone: (515) 725-1018

E-Mail: Noah.goerlitz@ag.iowa.gov

*Counsel for Plaintiff State of Iowa*

LETITIA JAMES

Attorney General of New York

Elinor R. Hoffmann

Morgan J. Feder

Michael D. Schwartz

Office of the New York State Attorney  
General

28 Liberty Street

New York, NY 10005

Telephone: (212) 416-8513

E-Mail: Elinor.hoffmann@ag.ny.gov

Morgan.feder@ag.ny.gov

Michael.schwartz@ag.ny.gov

*Counsel for Plaintiff State of New York*



JEFF JACKSON  
Attorney General of North Carolina

*Counsel for Plaintiff State of Utah*

Kunal Janak Choksi  
Joshua Daniel Abram  
North Carolina Department of Justice  
114 W. Edenton St.  
Raleigh, NC 27603  
Telephone: (919) 716-6000  
E-Mail: kchoksi@ncdoj.gov  
jabram@ncdoj.gov

TREG TAYLOR  
Attorney General of Alaska

Jeff Pickett  
Senior Assistant Attorney General  
State of Alaska, Department of Law  
Office of the Attorney General  
1031 W. Fourth Avenue, Suite 200  
Anchorage, Alaska 99501  
Telephone: (907) 269-5275  
E-Mail: Jeff.pickett@alaska.gov

*Counsel for Plaintiff State of North Carolina*

*Counsel for Plaintiff State of Alaska*

JONATHAN SKRMETTI  
Attorney General of Tennessee

WILLIAM TONG  
Attorney General of Connecticut

J. David McDowell  
Austin Ostiguy  
Tyler Corcoran  
Office of the Attorney General and  
Reporter  
P.O. Box 20207  
Nashville, TN 37202  
Telephone: (615) 741-8722  
E-Mail: David.McDowell@ag.tn.gov  
austin.ostiguy@ag.tn.gov  
Tyler.Corcoran@ag.tn.gov

Nicole Demers  
Office of the Attorney General of  
Connecticut  
165 Capitol Avenue, Suite 5000  
Hartford, CT 06106  
Telephone: (860) 808-5202  
E-Mail: Nicole.demers@ct.gov

*Counsel for Plaintiff State of Tennessee*

*Counsel for Plaintiff State of Connecticut*

DEREK E. BROWN  
Attorney General of Utah

KATHLEEN JENNINGS  
Attorney General of Delaware

Matthew Michaloski, Assistant Attorney  
General  
Marie W.L. Martin, Deputy Division  
Director  
Utah Office of Attorney General  
160 E 300 S, 5th Floor  
P.O. Box 140811  
Salt Lake City, Utah 84114  
Telephone: (801) 440-9825  
E-Mail: mmichaloski@agutah.gov  
mwmartin@agutah.gov

Michael Andrew Undorf  
Delaware Department of Justice  
Fraud and Consumer Protection Division  
820 N. French St., 5th Floor  
Wilmington, DE 19801  
Telephone: (302) 683-8816  
E-Mail: Michael.undorf@delaware.gov

*Counsel for Plaintiff State of Delaware*

BRIAN SCHWALB  
Attorney General of the District of  
Columbia

Elizabeth Gentry Arthur  
Office of the Attorney General for the  
District of Columbia  
400 6th Street NW  
Washington, DC 20001  
Telephone: (202) 724-6514  
E-Mail: Elizabeth.arthur@dc.gov

*Counsel for Plaintiff District of Columbia*

DOUGLAS MOYLAN  
Attorney General of Guam

Fred Nishihira  
Office of the Attorney General of Guam  
590 S. Marine Corps Drive, Suite 901  
Tamuning, Guam 96913  
Telephone: (671) 475-3324  
E-Mail: fnishihira@oagguam.org

*Counsel for Plaintiff Territory Guam*

ANNE E. LOPEZ  
Attorney General of Hawai'i

Rodney I. Kimura  
Department of the Attorney General, State  
of Hawai'i  
425 Queen Street  
Honolulu, HI 96813  
Telephone (808) 586-1180  
E-Mail: Rodney.i.kimura@hawaii.gov

*Counsel for Plaintiff State of Hawai'i*

RAÚL LABRADOR  
Attorney General of Idaho

John K. Olson  
Office of the Idaho Attorney General  
Consumer Protection Division  
954 W. Jefferson St., 2nd Floor  
P.O. Box 83720  
Boise, ID 83720  
Telephone: (208) 332-3549

E-Mail: John.olson@ag.idaho.gov

*Counsel for Plaintiff State of Idaho*

KWAME RAOUL  
Attorney General of Illinois

Elizabeth Maxeiner  
Brian Yost  
Jennifer Coronel  
Office of the Attorney General of Illinois  
100 W. Randolph St.  
Chicago, IL 60601  
Telephone: (773) 590-7935  
E-Mail: Elizabeth.maxeiner@ilag.gov  
Brian.yost@ilag.gov  
Jennifer.coronel@ilag.gov

*Counsel for Plaintiff State of Illinois*

KRIS W. KOBACH  
Attorney General of Kansas

Lynette R. Bakker  
Kansas Office of the Attorney General  
120 S.W. 10th Avenue, 2nd Floor  
Topeka, KS 66612  
Telephone: (785) 296-3751  
E-Mail: Lynette.bakker@ag.ks.gov

*Counsel for Plaintiff State of Kansas*

AARON M. FREY  
Attorney General of Maine

Christina M. Moylan  
Office of the Attorney General of Maine  
6 State House Station  
August, ME 04333  
Telephone: (207) 626-8800  
E-Mail: Christina.moylan@maine.gov

*Counsel for Plaintiff State of Maine*

ANTHONY G. BROWN  
Attorney General of Maryland

Schonette J. Walker  
Melissa English  
Office of the Attorney General of  
Maryland  
200 St. Paul Place, 19th Floor  
Baltimore, MD 21202  
Telephone: (410) 576-6480  
E-Mail: swalker@oag.state.md.us  
menglish@oag.state.md.us

*Counsel for Plaintiff State of Maryland*

ANDREA CAMPBELL  
Attorney General of Massachusetts

Jennifer E. Greaney  
Office of the Attorney General of  
Massachusetts  
One Ashburton Place, 18th Floor  
Boston, MA 02108  
Telephone: (617) 963-2981  
E-Mail: Jennifer.greaney@mass.gov

*Counsel for Plaintiff Commonwealth of  
Massachusetts*

KEITH ELLISON  
Attorney General of Minnesota

Zach Biesanz  
Senior Enforcement Counsel  
Office of the Minnesota Attorney General  
Antitrust Division  
445 Minnesota Street, Suite 600  
St. Paul, MN 55101  
Telephone: (651) 757-1257  
E-Mail: Zach.biesanz@ag.state.mn.us

*Counsel for Plaintiff State of Minnesota*

AARON D. FORD  
Attorney General of Nevada

Michelle C. Badorine  
Lucas J. Tucker

Nevada Office of the Attorney General  
100 N. Carson Street  
Carson City, NV 89701  
Telephone: (775) 684-1164  
E-Mail: mbadorine@ag.nv.gov  
ltucker@ag.nv.gov

*Counsel for Plaintiff State of Nevada*

JOHN FORMELLA  
Attorney General of New Hampshire

Brandon Garod  
Office of Attorney General of New  
Hampshire  
1 Granite Place South  
Concord, NH 03301  
Telephone: (603) 271-1217  
E-Mail: Brandon.h.garod@doj.nh.gov

*Counsel for Plaintiff State of New  
Hampshire*

MATTHEW PLATKIN  
Attorney General of New Jersey

Yale A. Leber  
Abiola G. Miles  
Deputy Attorneys General  
New Jersey Attorney General's Office  
25 Market Street, P.O. Box 106  
Trenton, NJ 08625  
Telephone: (609) 376-2383  
E-Mail: Yale.Leber@law.njoag.gov  
Abiola.Miles@law.njoag.gov

*Counsel for Plaintiff State of New Jersey*

RAÚL TORREZ  
Attorney General of New Mexico

Judith E. Paquin Cholla Khoury  
Assistant Attorney General  
New Mexico Office of the Attorney  
General  
408 Galisteo St.

Santa Fe, NM 87504  
Telephone: (505) 490-4885  
E-Mail: jpaquin@nmag.gov  
ckhoury@nmag.gov

*Counsel for Plaintiff State of New Mexico*

DREW WRIGLEY  
Attorney General of North Dakota

Elin S. Alm  
Assistant Attorney General  
Consumer Protection and Antitrust  
Division  
Office of the Attorney General of North  
Dakota  
1720 Burlington Drive, Suite C  
Bismarck, ND 58504  
Telephone: (701) 328-5570  
E-Mail: ealm@nd.gov

*Counsel for Plaintiff State of North  
Dakota*

DAVID YOST  
Attorney General of Ohio

Jennifer Pratt  
Beth Ann Finnerty  
Mark Kittel  
Office of the Attorney General of Ohio  
30 E Broad Street, 26<sup>th</sup> Floor  
Columbus, OH 43215  
Telephone: (614) 466-4328  
E-Mail:  
Jennifer.pratt@ohioattorneygeneral.gov  
Beth.finnerty@ohioattorneygeneral.gov  
Mark.kittel@ohioattorneygeneral.gov

*Counsel for Plaintiff State of Ohio*

GENTNER DRUMMOND  
Attorney General of Oklahoma

Robert J. Carlson  
Office of the Oklahoma Attorney General

313 NE 21st Street  
Oklahoma City, OK 73105  
Telephone: (405) 522-1014  
E-Mail: Robert.carlson@oag.ok.gov

*Counsel for Plaintiff State of Oklahoma*

DAN RAYFIELD  
Attorney General of Oregon

Cheryl Hiemstra, Special Assistant  
Attorney General  
Gina Ko, Assistant Attorney General  
Oregon Department of Justice  
1162 Court St. NE  
Salem, OR 97301  
Telephone: (503) 934-4400  
E-Mail: Cheryl.Hiemstra@doj.oregon.gov  
Gina.Ko@doj.oregon.gov

*Counsel for Plaintiff State of Oregon*

DAVID W. SUNDAY, JR.  
Attorney General of Pennsylvania

Tracy W. Wertz  
Joseph S. Betsko  
Pennsylvania Office of Attorney General  
Strawberry Square  
Harrisburg, PA 17120  
Telephone: (717) 787-4530  
E-Mail: jrbetsko@attorneygeneral.gov  
twertz@attorneygeneral.gov

*Counsel for Plaintiff Commonwealth of  
Pennsylvania*

JANET PARRA MERCADO  
Acting Attorney General of Puerto Rico

Guarionex Diaz Martinez  
Assistant Attorney General  
Antitrust Division  
Puerto Rico Department of Justice  
P.O. Box 9020192  
San Juan, Puerto Rico 00902

Telephone: (787) 721-2900, Ext. 1201  
E-Mail: gdiaz@justicia.pr.gov

*Counsel for Plaintiff Territory Puerto Rico*

PETER NERONHA  
Attorney General of Rhode Island

Stephen Provazza  
Rhode Island Office of the Attorney General  
150 South Main Street  
Providence, RI 02903  
Telephone: (401) 274-4400  
E-Mail: SProvazza@riag.ri.gov

*Counsel for Plaintiff State of Rhode Island*

MARTIN J. JACKLEY  
Attorney General of South Dakota

Yvette K. Lafrentz  
Office of the Attorney General of South Dakota  
1302 E. Hwy 14, Suite 1  
Pierre, SD 57501  
Telephone: (605) 773-3215  
E-Mail: Yvette.lafrentz@state.sd.us

*Counsel for Plaintiff State of South Dakota*

CHARITY R. CLARK  
Attorney General of Vermont

Christopher J. Curtis, Assistant Attorney General  
Office of the Attorney General of Vermont  
109 State St.  
Montpelier, VT 05609  
Telephone: (802) 828-3170  
E-Mail: christopher.curtis@vermont.gov  
*Counsel for Plaintiff State of Vermont*

JASON S. MIYARES  
Attorney General of Virginia

Tyler T. Henry  
Office of the Attorney General of Virginia  
202 N. 9th Street  
Richmond, VA 23219  
Telephone: (804) 692-0485  
E-Mail: thenry@oag.state.va.us

*Counsel for Plaintiff State of Virginia*

NICHOLAS W. BROWN  
Attorney General of Washington

Amy N.L. Hanson  
Senior Managing Assistant Attorney General  
800 Fifth Avenue, Suite 2000  
Seattle, WA 98104  
Telephone: (206) 464-5419  
E-Mail: Amy.hanson@atg.wa.gov

*Counsel for Plaintiff State of Washington*

JOHN B. McCUSKEY  
Attorney General of West Virginia

Douglas Lee Davis  
Office of the Attorney General, State of West Virginia  
1900 Kanawha Boulevard East  
Building 6, Suite 401  
P.O. Box 1789  
Charleston, WV 25305  
Telephone: (304) 558-8986  
E-Mail: Douglas.l.davis@wvago.gov

*Counsel for Plaintiff State of West Virginia*

BRIDGET HILL  
Attorney General of Wyoming  
William T. Young  
Wyoming Attorney General's Office  
2320 Capitol Avenue  
Kendrick Building

Cheyenne, WY 82002

Telephone: (307) 777-7847

E-Mail: William.young@wyo.gov

*Counsel for Plaintiff State of Wyoming*