

**UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF VIRGINIA
ALEXANDRIA DIVISION**

UNITED STATES, *et al.*,

Plaintiffs,

vs.

GOOGLE LLC,

Defendant.

No. 1:23-cv-00108-LMB-JFA

GOOGLE LLC'S POST-TRIAL REMEDIES BRIEF

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INTRODUCTION

Plaintiffs bear the “heavy burden” of proving that the Court should order their “radical,” “extreme,” and “severe” divestiture proposals, as opposed to Google’s thoughtfully designed remedies. This is a burden that simply cannot be met on this record: All of Plaintiffs’ fact witnesses testified that, if followed, Google’s remedies would restore competition; their lead technical expert testified that the Google engineers understand the products better than he does; and their lead economist testified, under questioning by the Court, that if behavioral remedies were well-crafted and enforced, divestiture would not be needed.

Google’s remedies were designed based on the guidance of engineers intimately familiar with the products at issue and crafted to ensure access, choice, neutrality, and accountability. The remedies are tailored to the Court’s liability opinion while minimizing harm to consumers and the ad tech ecosystem. And Google has now revised its proposed remedies to address newly voiced concerns, like transparency, to demonstrate Google’s commitment to compliance. What’s more, Plaintiffs agree that the integrations Google proposes are restorative, having proposed similar concepts themselves.

Plaintiffs, by contrast, demand legally unprecedented and unsupported divestitures,¹ based on the wishes of commercially motivated stakeholders with no engineering background. Plaintiffs’ remedies would impose forced migrations and breaking changes on critical infrastructure for no incremental benefit to consumers or competition, while impermissibly taking a competitor off the field of competition. And they are technically and commercially unworkable, defended by a single software engineering expert who spent only 15 hours

¹ Plaintiffs’ proposed “open-source auction” (“OSA”) is a “de facto divestiture and therefore should be analyzed as a structural remedy.” *Massachusetts v. Microsoft Corp.* (“*Microsoft III*”), 373 F.3d 1199, 1228-31 (D.C. Cir. 2004) (proposal to “disclose and license all source code for all Browser software” was like divestiture). Plaintiffs acknowledged as much, referring to the OSA as “divestiture of DFP’s ultimate market power.” 9/22 AM 14:23-15:22.

reviewing source code, but inexplicably failed to review source code related to the integration of AdX and DFP, and a “commercial feasibility” expert who reviewed no evidence from this case.

Plaintiffs fail to recognize that at 55 million bid requests per second, this is technology that absolutely has to keep working for consumers. Add to that the virtually existential risks posed to small and medium businesses like WikiHow, which were unrebutted by Plaintiffs’ large publisher witnesses; the changes to competition in the ad tech ecosystem already underway courtesy of AI; the decline of open-web display advertising (“OWDA”) and rise of streaming, retail, and in-app ads; and the significant impact on all ad tech consumers served by AdX and DFP, including for transactions well beyond OWDA. The consequences of a Court order that does not work would be enormous.

As the Court recognized, Plaintiffs’ only real rationale for seeking divestiture is a lack of trust that Google will comply with this Court’s order. Antitrust law precludes structural remedies—including, of course, structural remedies that necessarily interfere with markets beyond those the Court found—on that basis. Google is committed to following the Court’s order, as further evinced by its updated proposal that specifies numerous anti-circumvention measures; sets forth a longer monitoring period; provides the Monitoring Trustee the data, technology, and employee access needed to show trust; and offers a data-sharing proposal that would give publishers transparency into DFP’s “final logic” without the damage and unworkability of Plaintiffs’ open-source auction proposal. And Google has already met and conferred at length with Plaintiffs regarding the monitor selection process and will continue to work collaboratively to jointly propose a monitor selection process. Moreover, the justice system itself addresses concerns about trust. As the Court put it, Google would sit under not just one, but two, Swords of Damocles: the Court’s order and numerous private lawsuits seeking

billions of dollars. The distrust of Google by a few large publishers and competitors is not a lever to bypass well-settled antitrust principles, preemptively dismiss a monitoring trustee's efficacy, or second-guess the Court's ability to enforce its order.

Based on the trial record and Google's commitments, Plaintiffs' requests for divestiture must be rejected in favor of robust behavioral remedies and strong enforcement provisions.

ARGUMENT²

I. Under Antitrust Law, the Purpose of Remedies Is To Restore Competition.

"It is the duty of the district court, upon finding a violation of the antitrust laws, to redress the violation and restore competition." *United States v. Google LLC* ("*Search*"), 2025 WL 2523010, at *29 (D.D.C. Sept. 2, 2025). The district court's power to craft a remedy is "not without limits." *Id.* at *31. An appropriate remedy redresses harm to competition "by restoring conditions in which the competitive process is revived and any number of competitors may flourish (or not) based upon the merits of their offerings." *Microsoft III*, 373 F.3d at 1231. Antitrust remedies are directed at restoring competition, not aiding particular competitors. *Brooke Grp. Ltd. v. Brown & Williamson Tobacco Corp.*, 509 U.S. 209, 224 (1993); *see also* 10/1 AM 115:3-22 (Lerner).

When fashioning an antitrust remedy, "caution is key." *NCAA v. Alston*, 594 U.S. 69, 106 (2021); *Search*, 2025 WL 2523010, at *2, *31 ("courts must approach the task of crafting remedies with a healthy dose of humility"). Caution is particularly warranted where "the court must be sensitive to remedies that risk substantially stifling technological innovation." *Search*, 2025 WL 2523010, at *31; *New York v. Microsoft* ("*Microsoft II*"), 224 F. Supp. 2d 76, 158 (D.D.C. 2002). Those concerns are especially acute in rapidly evolving technology industries,

² Google incorporates by reference relevant arguments previously made in its pre-trial briefs at Dkts. 1431, 1434, 1674-1, and 1761. The absence from this filing of an argument previously made does not waive or forfeit that argument.

where five or six years “seems like an eternity.” *U.S. v. Microsoft Corp.* (“*Microsoft I*”), 253 F.3d 34, 49 (D.C. Cir. 2001).

The goal of antitrust is not to eradicate monopolies. Contrary to Plaintiffs’ argument that termination of monopolies is a “remedy objective,” Pls.’ Demo. A at 5, antitrust law takes a very different approach. As the Supreme Court wrote in 2004: “The mere possession of monopoly power, and the concomitant charging of monopoly prices, is not only not unlawful; it is an important element of the free-market system.” *Verizon Commc’ns Inc. v. Law Offs. of Curtis V. Trinko*, 540 U.S. 398, 407 (2004). Plaintiffs’ remedies directed at all monopoly power fail to distinguish between monopoly power arising from anticompetitive and lawful conduct.³

Plaintiffs must show behavioral remedies will be ineffective and show significant causal connection. To seek structural remedies that terminate a monopoly, Plaintiffs bear a “heavy” burden to make at least two showings. *Search*, 2025 WL 2523010, at *57. *First*, that “behavioral remedies will be ineffective without the immediate divestiture.” *Id.* at *55. “Equitable relief in an antitrust case should not embody harsh measures when less severe ones will do.” *Microsoft II*, 224 F. Supp. 2d at 100.

Second, to support divestiture, Plaintiffs must show there is a “significant causal connection” between unlawful conduct and the creation or maintenance of monopoly power. *Search*, 2025 WL 2523010, at *31, *35, *55. At the remedies stage, that is a “heightened” threshold: “liability findings” that “support a strong inference” the unlawful conduct “significantly contributed to maintaining” “monopoly power” are not sufficient. *Id.* at *55. In *Search*, for example, it was not enough that the court had “already determined” “that Google’s

³ Even in Plaintiffs’ cited case, *United Shoe*, the Supreme Court did not require the district court to order divestiture. 391 U.S. 244, 251-52 (1968). Plaintiffs’ current position is also at odds with the Department of Justice’s own position in *Search*, where it disclaimed the intent to seek remedies to eliminate the illegal monopoly. *Search*, 2025 WL 2523010, at *29 n.3.

exclusive distribution agreements significantly contributed to the maintenance of its monopoly power.” *Id.* at *37, *55. So too here, where it is not enough that the Court held at liability that the AdX-DFP tie “contributed significantly to the maintenance or creation of monopoly power.” *Op.* at 97. The “court’s task is to discern between conduct that maintains a monopoly through anticompetitive acts as distinct from growth or development as a consequence of a superior product, business acumen, or historic accident.” *Search*, 2025 WL 2523010, at *55. In *Search*, “ample evidence” established that lawful conduct, including “quality, consistent innovations, investment in human capital, strategic foresight, and brand recognition,” “played an important role” in the monopoly. *Id.* The court concluded that “wisdom counsels against adopting radical structural relief” like divestiture—even with its liability findings about causation and even though the lawful conduct could still “in some sense” “be traced back” to unlawful conduct. *Id.*

Contrary to Plaintiffs’ suggestion, Dkt. 1760 at 41-42, the goal of denying a defendant the “fruits” of its violations is not a short-cut around Plaintiffs’ burden to show a “significant causal connection.”⁴ Plaintiffs selectively quote the 1947 case *International Salt*, but there, “despite the language regarding ‘relinquishment’ of illegally obtained ‘fruits,’ the remedy” “did not mandate a divestiture of the defendant’s assets,” “but merely regulated the terms pursuant to which the defendant could engage in its business.” *Microsoft II*, 224 F. Supp. 2d at 108.

Divestiture is the most extreme remedy. Among remedies, divestiture is the “most severe,” “extreme,” and “radical,” *Ginsburg v. InBev NV/SA*, 623 F.3d 1229, 1235-36 (8th Cir. 2010); *Search*, 2025 WL 2523010, at *35, *57, and “is imposed only with great caution, in part because its long-term efficacy is rarely certain,” *Microsoft I*, 253 F.3d at 80. Across over a

⁴ The requirement for “a significant causal connection” governs regardless whether the conduct contributed to the “creation or maintenance of the market power.” *Microsoft I*, 253 F.3d at 106; see also *Int’l Salt Co. v. U.S.*, 332 U.S. 392, 396 (1947) (*Int’l Salt* involved conduct that tended to “create a monopoly”); but see *U.S. v. Grinnell Corp.*, 384 U.S. 563, 576 n.7 (1966) (language Plaintiffs cited to argue otherwise, Dkt. 1760 at 29, refers to liability standard, not remedies).

century, divestiture has been ordered in a narrow set of cases—“violations whose heart is intercorporate combination and control” (such as an unlawful merger, acquisition, or conspiracy). *U.S. v. E.I. du Pont de Nemours & Co.*, 366 U.S. 316, 328-29 (1961); *Search*, 2025 WL 2523010, at *30.

No court has awarded divestiture where, as here, the gravamen of the violation was not unlawful “intercorporate combination or control,” but an unlawful tie among products. Dkt. 1674-1 at 9-10.⁵ Across four pre-trial filings, Plaintiffs have failed to identify any such case. The four cases Plaintiffs invoked and misquoted in their September 19 filing are inapposite, and did not order divestiture of a tightly integrated technology asset:

- In *Crescent Amusement*, “the vice of this undertaking was the combination of several exhibitors in a plan of concerted action.” 323 U.S. 173, 183-84 (1944); *see also id.* at 188-89 (requiring divestiture of defendants’ ownership interests in each other). Plaintiffs’ quoted language about the “chief weapons” of the conspiracy supported an injunction preventing certain agreements. *Id.* at 188.
- *Schine Chain* involved a conspiracy among exhibitors “pooling their entire circuit buying power” and distributors, 334 U.S. 110, 114-16 (1948), and remanded to the district court to analyze which assets were unlawfully acquired, *id.* at 128-30. Plaintiffs’ quoted language about “an otherwise lawful device [that] may be used as a weapon” referred to agreements lawful under local law but unlawful under antitrust law. *Id.* at 119.
- In *International Boxing*, the “great evil” was “the combination that Wirtz and Norris caused and created by joining up with Madison Square Garden,” which led to “concerted efforts and action.” 358 U.S. 242, 256-57 (1959).
- In *United Shoe*, the Supreme Court remanded remedies to the district court because the district court had misunderstood whether a previous Supreme Court case precluded it from modifying its prior order; the Supreme Court did not require the district court to order divestiture, noting that a district court can also consider “means less drastic than immediate” divestiture. 391 U.S. 244, 247-48, 250-52 (1968).

⁵ Plaintiffs suggest that cases in which corporations combined or conspired with each other are applicable because Google is, in essence, conspiring with itself when it integrates its own technology products. Dkt. 1760 at 13 n.3. That position has no support in the case law, and conflicts with the law that, for purposes of the antitrust laws, a corporation cannot conspire with itself. *Copperweld Corp. v. Independence Tube Corp.*, 467 U.S. 752, 777 (1984); *Oksanen v. Page Memorial Hosp.*, 945 F.2d 696, 699 (4th Cir. 1991).

No case cited by either party, or any divestiture known in the economics literature, 9/24 AM 128:7-129:5 (Lee), has ordered the sale of an entire business or elimination of a competitor from a relevant market. ”Divestiture” cases have concerned only “partial” divestiture of a subset of assets and permitted continued competition in the market. *E.g.*, *Grinnell*, 384 U.S. at 578-79; *Schine Chain*, 334 U.S. at 126-27, 130; *Crescent Amusement*, 323 U.S. at 188-89.⁶ As the *Microsoft* court concluded, nothing in the case law “indicates that an antitrust violator should be subject to an outright denial of the ability to continue to do business and to compete with other participants in the market and in other markets.” *Microsoft II*, 224 F. Supp. 2d at 108; *see also Williams v. Estates LLC*, 2022 WL 1809464, at *12 (M.D.N.C. 2022), *aff’d in part, dismissed in part*, 2024 WL 4490636 (4th Cir. 2024) (blanket prohibition on participation has “the potential to disserve the public interest by removing potential participants in the public foreclosure market”).

Remedies must be tailored to liability findings. Remedies must be “tailored to fit the wrong creating the occasion for the remedy.” *Microsoft I*, 253 F.3d at 107; *Search*, 2025 WL 2523010, at *56. Though it may be “tempting to view” remedies “as a means by which to curtail” “conduct in a wide array of new markets, antitrust law does not authorize this Court to regulate the conduct of an antitrust violator in areas bearing little relation to the violation.” *Microsoft II*, 224 F. Supp. 2d at 134 (citing *Zenith Radio Corp. v. Hazeltine Research, Inc.*, 395 U.S. 100, 133 (1969); *U.S. v. Bausch & Lomb Optical Co.*, 321 U.S. 707, 726 (1944)).

Remedies are preceded by a liability phase that applies an “arduous,” “rigorous four-part test” for anticompetitive conduct for a reason. *Microsoft II*, 224 F. Supp. 2d at 174, 192. Alleged conduct “must be subjected” to that “rigorous” test before “the Court can find that”

⁶ *Ford Motor Co.* does not support Plaintiffs’ request because, in that case, the defendant had never competed in the relevant market prior to the unlawful acquisition; it was enjoined only from using its brand name in a manufacturing market in which it was the major customer; and entering the market would have taken five to eight years. 405 U.S. 562, 565-66, 575-78 (1972).

“conduct violates antitrust law and demands a remedy.” *Id.* at 174. After a court has made the requisite finding of anticompetitive conduct, it is no longer “at liberty to remedy new ‘bad’ conduct,” such as additional “conduct that other industry participants find objectionable.” *Id.* at 128, 146-47, 192. It would be “inappropriate now, during the remedy phase of this proceeding, for the Court to consider and evaluate for anticompetitive effect new allegations.” *Id.* at 146-47.

Remedies therefore must relate to “acts actually found to be illegal”; to the extent they exceed that conduct, “the restrictions” must still be “closely related to the anticompetitive conduct.” *Microsoft II*, 224 F. Supp. 2d at 107, 110; *Zenith Radio*, 395 U.S. at 132 (remedies must regulate only conduct that is “of the same type or class” as those that violated the antitrust laws). They cannot be awarded on the basis of “conduct for which no liability was ascribed,” or “new conduct which bears a mere tangential similarity to such previously identified conduct.” *Id.* at 146; *Search*, 2025 WL 2523010, at *102 (courts “cannot” “restrain future violations of the antitrust laws that are not related to the unlawful acts”).

Plaintiffs contravene these principles by proposing a novel objective of creating “a high likelihood of preventing future monopolization.” 9/24 AM 19:2-16 (Lee). “Plaintiffs seek to eliminate the abilities and incentives that made that illegal conduct possible.” Dkt. 1760 at 2. **This is not the law.** Plaintiffs’ standard comes not from any case but from their own economist. 9/24 AM 19:17-20:8, 21:4-18, 72:24-73:8 (Lee). Targeting “abilities and incentives” would target nearly all conduct foundational to a capitalist system, including pro-competitive innovation. A court is simply “not at liberty to enjoin all future violations of the antitrust laws, however unrelated to violations found by the court,” *U.S. v. Microsoft*, 56 F.3d 1448, 1460 (1995) (emphasis added), or to award “full feasible relief against the monopolist to create maximum competition,” *Microsoft I*, 253 F.3d at 106; *see also* 10/1 AM 92:5-97:17 (Lerner);

10/1 PM 112:10-114:7, 127:22-128:6 (Lerner); 10/2 PM 16:8-17:22 (Lerner).

Under Plaintiffs’ novel “Lee standard,” divestiture would be necessary in every tying case because the tying defendant would always maintain products in adjacent markets and thus retain the “abilities and incentives” that created the original tie. 9/22 AM 10:24-11:8 (Plaintiffs arguing to eliminate “motive and means to recreate the ties”). In reality, courts in tying cases have not ordered divestiture of either the tying or tied product. *E.g., Int’l Salt*, 332 U.S. at 399 n.7, 401 (requiring the defendant to “offer to lease or sell or license the use of” its salt machines “on non-discriminatory terms and conditions”—not to divest the machines); *Image Tech. Servs. Inc. v. Eastman Kodak Co.*, 125 F.3d 1195, 1224 (9th Cir. 1997) (“requiring Kodak to sell all parts to all ISOs at reasonable prices” instead of divestiture).

Remedies must minimize risk of harm. Antitrust remedies must cause “as little injury as possible to the interest of the general public” and afford “proper regard” to relevant interests. *United States v. Am. Tobacco Co.*, 221 U.S. 106, 185 (1911). It is the Court’s obligation to “consider the harms that might befall other market actors” from a remedy. *Search*, 2025 WL 2523010, at *60. Risk of harm should be a weighty concern: even if the Court “cannot predict” harms “to any degree of certainty,” if “the risk” of such harms “is far from small,” that “is reason enough not to proceed with the remedy.” *Id.*; *see also* 10/1 AM 98:8-101:13, 102:6-24, 103:20-107:10 (Lerner). To minimize harm, courts, which “are neither economic nor industry experts,” *Alston*, 594 U.S. at 102, should avoid undertaking to “redesign products” themselves, *Microsoft II*, 224 F. Supp. 2d at 158; *Microsoft III*, 373 F.3d at 1210. Courts and antitrust experts recognize that divestiture creates particular risk of harm and unintended consequences if an integrated entity would need to be dismembered into parts. *Microsoft I*, 253 F.3d at 106; Areeda & Hovenkamp § 653i; Herbert Hovenkamp, *Antitrust and Platform Monopoly*, 130 Yale L.J.

1952, 2016 & n.281 (2021); 10/1 AM 108:12-110:8 (Lerner); *see also Search*, 2025 WL 2523010, at *56 (Chrome divestiture would be “incredibly messy and highly risky”).

Remedies should not regulate worldwide. AdX and DFP operate worldwide. 9/29 AM 70:7-9 (Sheffer); 9/29 PM 22:5-21 (Levitte); 9/29 PM 90:16-22 (Berntson). A United States court should not impose an injunction that would operate outside the nation’s borders. Order, *In re Google Play Store Antitrust Litig.*, No. 20-cv-05671 (N.D. Cal. Oct. 7, 2024), Dkt. 701 at 7-8 (limiting injunction to U.S. where geographic market was worldwide, citing international comity principles in *Mujica v. AirScan Inc.*, 771 F.3d 580, 598 (9th Cir. 2014)).

II. Google’s Proposed Behavioral Remedies Respond to the Court’s Liability Findings and Go Further To Restore Competition While Minimizing Harm to Consumers.

The Court’s liability opinion centered on four anticompetitive acts: the AdX-DFP tie, “First Look,” “Last Look,” and Unified Pricing Rules. Op. at 86, 98-101. Google carefully crafted remedies that resolve these issues and then go much further to restore competition—all while maintaining customer choice and quality, and minimizing harm and disruption to consumers. 9/25 PM 89:8-90:15 (Craycroft).

A. Google Proposes To Give Rivals Equal Access to AdX Real-Time Bids.

At the liability stage, Plaintiffs’ witnesses’ central complaint was that publishers are forced to use DFP because they cannot access AdX real-time bids using other ad servers. Dkt. 1431 at 17-18 (collecting testimony); Op. at 92; 9/24 AM 131:22-133:20 (Lee). Google proposes to address the tie by eliminating any contractual and policy tie between AdX and DFP. PFJ ¶ III(2). Google also proposes to go further by building new technological integrations “providing access to AdX demand”—which includes AdWords demand—“independent of which ad server you’re using” via direct integrations with rivals and Prebid auctions. 9/25 PM 89:8-92:4 (Craycroft); PFJ ¶¶ III(1)(a)-(b)(1) .

To address concerns identified at trial, Google has updated its PFJ to formalize its commitment to ensuring these integrations are effective in breaking the tie and restoring competition on the merits among ad servers. Google will provide rival ad servers and Prebid access to AdX real-time bids for “all indirect demand.” 9/25 PM 93:15-22 (Craycroft); PFJ ¶ VI.OO (expanding Qualifying Open Web Display Inventory to both Open Auction and Private Auction). In addition, AdX will not “bid differently” through DFP, Prebid, and rival ad servers. 9/25 PM 94:3-8, 143:17-24 (Craycroft). Google commits not to vary the AdX revenue share, introduce additional latency, reduce the frequency with which it responds to bid requests, or reduce the information transmitted by AdX based on whether a publisher is using DFP, a non-Google ad server, or Prebid. PFJ ¶¶ III(1)(c)-(f), III(10); 9/25 PM 92:19-93:9 (Craycroft). And Google will provide the monitor with the information necessary to verify these commitments. 9/25 PM 93:1-9, 94:9-12 (Craycroft).

Google also proposes to assist publishers in switching away from DFP by reducing the friction of publisher migration and providing rival ad servers with the data needed to offer analytics and optimizations. 9/25 PM 95:25-96:23 (Craycroft); *see also* 9/23 AM 21:15-22:1 (Avery). Google proposes to provide publishers with historical and configuration data from DFP, as well as ongoing AdX bid data if the publisher chooses to use AdX with a rival ad server. PFJ ¶¶ III(1)(g)-(h). In addition, Google commits to providing reasonable support to rival ad servers and Prebid servers in order to ensure publishers are able to retain data while switching ad servers and effectively utilize the newly proposed integrations. PFJ ¶¶ III(1)(a), III(1)(b)(1), III(1)(g)(2), III(1)(h), III(3)(b)-(c).

Google’s proposals will restore competition among ad servers. 10/1 AM 139:15-140:4 (Lerner). All of Plaintiffs’ publisher witnesses agreed that providing access to AdX real-time

bids outside DFP would give them the freedom to switch away from DFP. 9/22 AM 54:14-23 (Whitmore); 9/22 PM 22:17-21 (Whitmore) (publishers would “investigate” alternatives); 10/3 PM 19:9-16, 25:18-26:7 (Layser) (providing AdX real-time bids outside DFP could break the AdX-DFP tie and would “give publishers the option to switch ad servers if they wanted”); 10/6 AM 53:13-23 (Wheatland); **App. A.**⁷ And all of Plaintiffs’ rival ad server witnesses identified equal access to AdX real-time bids as the “key thing” to enable them “to compete in the publisher ad server market.” 9/23 AM 10:21-11:9, 41:4-12 (Avery); 9/29 AM 14:10-25, 15:18-16:10, 29:8-21 (Creput) (“the solution is to impose on Google the obligation” to provide AdX real-time bids to rivals); *see also* 9/23 PM 7:22-8:7, 46:4-13 (Friedman) (access to AdX real-time bids is the “biggest impediment to competition”); 9/23 AM 86:7-87:5 (Lambert); **App. A.** This access will allow rivals to gain customers, scale, and data, and further optimize and improve their own products. 9/25 PM 96:6-23 (Craycroft); 10/3 PM 25:21-26:7 (Layser); 9/24 AM 96:7-16 (Lee) (sharing AdX real-time bids would, “importantly,” provide access “to AdWords demand”). Increased competition in the ad server market will in turn drive competition in the ad exchange market. 9/24 AM 47:24-49:3 (Lee); 10/1 AM 139:4-14 (Lerner).

B. Google Proposes To Enable Publishers to Put Prebid Between AdX and DFP.

Google proposes to enjoin “First Look,” “Last Look,” and UPR, which were found to have anticompetitive effect in the ad exchange market. PFJ ¶¶ III(3)-(4); 9/25 PM 96:24-97:13, 103:5-13 (Craycroft). And Google’s proposal does not stop there. In addition to the proposed AdX-Prebid integration, Google proposes to create a server-to-server integration between DFP and Prebid, PFJ ¶ III(3)(b), that will enable DFP publishers to choose to route all indirect

⁷ Attached are three Appendices compiling trial testimony: **App. A**, that Google’s proposal to share AdX real-time bids will restore competition; **App. B**, that Google’s proposed Prebid integrations will restore competition; and **App. C**, that Plaintiffs’ witnesses believe Google’s proposal is insufficient because they do not trust Google to comply with behavioral remedies.

demand, including AdX, through Prebid. 9/25 PM 91:20-92:14 (Craycroft). Prebid, not DFP, would run the “single head-to-head clearing auction” selecting among all indirect demand, including AdX. *Id.* at 91:20-92:14, 94:23-95:11, 97:18-24 (Craycroft).⁸ Taken together, those proposals will enforce DFP’s neutrality between AdX and other exchanges by allowing publishers to put Prebid between AdX and DFP. *Id.* at 89:8-90:15, 97:14-17 (Craycroft).

Here, too, Google designed its proposals to treat its own tools and the Prebid integrations equally. 9/25 PM 93:16-22, 98:16-99:6 (Craycroft). Google will not introduce additional latency and will pass the same information to non-Google ad exchanges or Prebid that AdX passes to buying tools. PFJ ¶¶ III(3)(b), III(9). And, in order to prevent publishers from making simultaneous or sequential calls to AdX from DFP, Google will build tools that enable them to make a mutually exclusive choice to call AdX either from Prebid Server or directly from DFP. PFJ ¶ III(1)(b)(2); 9/25 PM 98:9-100:1, 141:9-18 (Craycroft). In addition, Google has proposed to extend the monitoring period to six years. 9/25 PM 105:13-22 (Craycroft). Google also commits to making available to the monitor source code, data, documentation, and more needed for the monitor to verify compliance with the Court’s order. PFJ ¶ IV.B(5)

Google’s proposals will be effective in restoring competition among ad exchanges. Just ending UPR would, based on the calculations of Plaintiffs’ liability expert Dr. Simcoe, drive AdX’s take rate down from 20% to 16.6% (or lower). 10/1 AM 133:13-134:9, 137:9-138:7 (Lerner); Lerner DX-12 (16.6% is lower than multiple other exchanges’ take rates); 10/2 PM 30:23-32:8 (Lerner); *see also* 9/30 PM 21:23-22:2 (Goel). Because Prebid sits outside Google’s control, putting Prebid between AdX and DFP would prevent Google from favoring AdX. 9/25

⁸ Google will even give publishers the choice to route direct transactions called Programmatic Guaranteed (“PG”) and Preferred Deals (“PD”) through Prebid (even though witnesses were unsure whether Prebid can support PG and PD). 9/25 PM 101:24-102:12, 137:23-138:10 (Craycroft); 9/22 AM 123:17-19 (Whitmore). Publishers will be able to run all programmatic demand through the Prebid auction. PFJ ¶ III(3)(c); 9/29 AM 94:10-20, 94:21-95:21 (Sheffer).

PM 92:15-18 (Craycroft).⁹

All of Plaintiffs' fact witnesses testified about the benefits of the Prebid auction, which include restoring fair competition among exchanges and giving publishers transparency and control. **App. B.** All of Plaintiffs' ad exchange witnesses acknowledged that a single Prebid auction in which AdX competes against other exchanges would be a "hyper-competitive" "fair fight and a fair auction," where AdX would "relinquish any advantage" that it "might benefit from today" and is "at parity" with other exchanges. 9/22 PM 57:10-20, 59:24-60:4, 69:10-17, 148:4-149:8 (Casale); 9/30 PM 39:17-22, 44:9-46:21 (Goel) (would "significantly enhance competition"). Plaintiffs' buy-side witnesses agreed that the Prebid auction would be "a great way of leveling a playing field." 9/23 AM 139:4-16, 147:4-148:4 (Lambert); 9/23 PM 46:18-47:8 (Friedman) (would level "at least 80 percent" of the playing field); 9/23 PM 106:21-107:3 (Dederick); *see also* 9/23 AM 46:9-47:4 (Avery); 9/26 149:8-150:24 (Racic); 9/29 PM 27:19-28:12 (Creput). Plaintiffs' publisher witnesses agreed that the Prebid auction would put control in publishers' hands and outside Google. 9/22 PM 18:11-18, 20:1-14 (Whitmore) (Google cannot "put their thumb" on the Prebid auction); 10/3 PM 20:12-22, 25:18-26:7 (Layser) ("Prebid enables the publisher to take back control of its ad tech stack"). Publishers would gain full "transparency" into Prebid's selection among ad exchanges, including "how pricing works" and "how the auction works." 9/25 PM 92:5-14 (Craycroft); 9/22 PM 12:3-5 (Whitmore) (Prebid auctions "have the level of transparency" a publisher is seeking); 10/3 PM 36:5-37:8 (Layser) (Prebid offers a "360-degree view" into indirect demand); PRX-103 at 3. And in Prebid, publishers control the analysis and implementation of auction optimizations. 9/25 PM 92:5-14 (Craycroft); 9/26 33:10-34:25 (Racic); 10/6 AM 22:5-10 (Wheatland).

⁹ Publishers who want to ensure that AdX is not favored can also choose to switch rival ad servers entirely and/or shut off AdX within DFP, 10/6 AM 55:10-24 (Wheatland).

Once Google’s proposals are implemented, AdX will lose share to rival ad exchanges “fairly rapidly.” 10/1 AM 124:20-125:17, 129:4-13 (Lerner); 10/2 PM 28:7-16 (Lerner). Andrew Casale of Index Exchange agreed that AdX will be competing in a “hyper-competitive” Prebid auction where “businesses can quickly shift from one exchange to another,” leading to lower exchange take rates and higher publisher revenues. 9/22 PM 148:4-149:8 (Casale). Exchange shares shift especially quickly because buying tools and publishers multi-home.¹⁰ For example, the share of DFP impressions won by header bidding in the US has grown from 25% in 2019 to 58% today. RDTX-914; *see also* RDTX-894; 10/1 AM 127:8-129:13 (Lerner). Likewise, AdX’s market position based on worldwide impressions has been driven down to 42% today. RDTX-891; 10/1 AM 125:18-127:7 (Lerner). Goel of PubMatic wrote about the potential for remedies to catalyze change in ad exchange competition, telling investors—without assuming structural remedies—that “a significant portion of Google’s 60 percent market share will be up for grabs in 2026.” 9/30 PM 61:11-64:20 (Goel); RDTX-854 at 5.

Google’s proposals will both restore competition in the exchange market and, in turn, benefit competition in the ad server market. 10/1 AM 138:20-139:3 (Lerner). Plaintiffs’ expert Prof. Lee agreed that the Prebid integrations will have competitive benefits in both the ad exchange and ad server markets. 9/24 AM 44:21-45:12, 49:4-12, 96:7-97:4, 98:10-99:17 (Lee).

C. Google Has Designed Proposals That Minimize Harm.

Unlike Plaintiffs’ proposals, Google’s proposals are designed (by the engineers closest to the products) to work as a technical matter, and Google has pushed to ensure they can be completed within one year.¹¹ 9/25 PM 104:5-20 (Craycroft); 9/29 PM 42:20-43:6 (Levitte) (no

¹⁰ RDTX-892; RDTX-893A; RDTX-913; 10/1 AM 129:21-132:1, 132:22-133:11 (Lerner); 9/22 AM 127:7-13 (Whitmore); 10/1 PM 21:25-22:11 (Douglas).

¹¹ The only exceptions are expanding the DFP-Prebid Server integration to include PG and PD transactions (15 months) and AdX providing equivalent information to all buying tools (18

“breaking changes”); 10/2 PM 85:3-16 (Nieh); *see also* 9/23 AM 148:8-11 (Lambert) (“best thing” would be getting “all the features that Google is offering today with the least amount of disruption”); 9/22 PM 130:11-15 (Casale) (behavioral remedies can offer faster relief). Google’s proposals “build incremental improvements to existing infrastructure” that is “already running at scale.” 9/25 PM 89:4-90:20, 95:12-22 (Craycroft). As a result, the proposals minimize “technical risk” and enable Google—and publishers—to focus on innovation to publishers’ benefit. *Id.* at 89:4-90:20, 95:12-22 (Craycroft); Craycroft DX-1.

Google’s proposals also maximize publisher choice over which technology they use, a principle contained in Prebid’s code of conduct. 9/26 126:16-22, 129:14-22 (Racic). Google’s proposals will not force customers to migrate to new tools or shut down familiar ones—unlike Plaintiffs’ proposals, which would force publishers and advertisers to migrate to new infrastructure with “large degrees of uncertainty about” equal “or consistent performance.” 9/25 PM 104:5-20 (Craycroft); 10/1 PM 35:19-36:8, 79:10-24 (Douglas) (service disruptions are “really, really stressful”); 9/22 PM 33:4-11 (Whitmore); 9/23 AM 156:5-157:10 (Lambert) (outage for just a day would cause advertisers “extreme” pain).

III. Plaintiffs’ Proposals Should Be Rejected Because They Are Unnecessary and Harmful.

Even though Plaintiffs’ witnesses testified that Google’s behavioral remedies, if followed, will restore competition, Plaintiffs further demand legally unsupported structural remedies that have been described as “incoherent,” “naively unrealistic,” “very risky,” and likely to cause harm to consumers and competition. 9/25 PM 114:3-115:20, 122:19-123:2 (Craycroft); 9/29 PM 50:5-51:1 (Levitte); 10/1 AM 140:5-22 (Lerner).

Plaintiffs’ remedies would break apart complex technological tools currently operating at _____ months), both of which fall outside the core integrations required to restore competition based on the liability opinion.

staggering scale to serve ads within milliseconds—each day, 600 billion ad requests and 5 trillion bid requests operate on 1 million proprietary servers, 10/2 PM 85:17-86:6, 87:2-88:16 (Nieh). Even in the best case scenario, Plaintiffs would force disruptions, migrations, extra costs, and unintended consequences on customers, especially small publishers who often lack dedicated ad operations teams. Plaintiffs’ ill-conceived proposal even contains baked-in outages: the old AdX and DFP cannot be shut down before customers are migrated, 9/25 AM 100:1-24 (Weissman), yet Plaintiffs propose shutting down the old AdX and DFP up to 1 year and 9 months before all customers are migrated, 9/25 PM 120:6-19 (Craycroft); 9/29 PM 128:22-129:24 (Berntson). Caution is key for any remedy, but especially where negative consequences would threaten the lifeblood of many businesses worldwide.

A. AdX Divestiture Should Be Rejected.

As explained, *supra* pp. 5-7, Plaintiffs’ proposal to excise Google from the ad exchange market for indirect OWDA, and prohibit it from re-entering for 10 years, would be legally unprecedented. Far from meeting their burden with respect to AdX divestiture, Plaintiffs have failed to demonstrate structural remedies are necessary and to rebut substantial evidence of technical and commercial unworkability and risk of severe consumer harm. Each failure is sufficient basis, standing alone, to reject this proposal. *Search*, 2025 WL 2523010, at *55-*57.

The same reasons require rejection of Plaintiffs’ proposal for a contingent DFP Remainder divestiture to be decided almost a decade after the Court’s final judgment, Google’s Opening at 16 (timeline based on Plaintiffs’ proposal), that would also eliminate Google as a competitor in a relevant market. As noted below, the arguments laid out for AdX divestiture apply in equal measure to DFP Remainder divestiture.

1. Plaintiffs Failed To Show AdX Divestiture Is Necessary.

First, Plaintiffs failed to show Google’s proposed “behavioral remedies will be

ineffective.” *Search*, 2025 WL 2523010, at *55. Their witnesses uniformly testified that the reason Google’s proposal would be insufficient is Google cannot be trusted to comply so long as Google has “incentives” to monopolize. 9/24 AM 69:15-72:8; **App. C**.¹² Plaintiffs’ economics expert even agreed that behavioral remedies would be sufficient if he could be confident “Google would actually act in complete good faith and follow an injunction.” 9/24 AM 71:4-72:7 (Lee).

The testimony of rivals and longtime critics that they do not trust Google to retain the “ability and incentives” to monopolize cannot justify any divestiture.¹³ *Supra* pp. 7-9. In *Microsoft*, the D.C. Circuit reversed the district court’s initial divestiture order that was based on a conclusion that “Microsoft has proved untrustworthy in the past.” *Microsoft I*, 253 F.3d at 103 (noting the order “nowhere” discussed relevant remedies objectives). On remand, the court again rejected the argument that more drastic remedies were necessary on the basis that “Microsoft intends in the future” to interfere with competition. *Microsoft II*, 224 F. Supp. 2d at 173-74 & n.76, 181 (“Generally, courts presume that parties will adhere to orders of the Court”). In *Search*, Judge Mehta rejected Plaintiffs’ arguments that divestiture was necessary because, absent divestiture, “Google will be incentivized to continue to use” Chrome and Android “to preference Google Search and other Google products.” 2025 WL 2523010, at *57; Pls.’ Remedies Post-Trial Br., *Search*, No. 20-cv-3010 (D.D.C. May 29, 2025), Dkt. 1372 at 21.

Plaintiffs’ argument also discounts the ability of this Court to enforce its orders. Where

¹² 9/22 AM 59:13-60:1 88:16-89:5, 111:9-17 (Whitmore); 9/22 PM 76:18-77:7 (Casale); 9/23 AM 13:1-12, 41:18-42:15, 43:24-44:1 (Avery); 9/23 PM 17:24-18:19, 30:25-31:12 (Friedman); 9/23 PM 108:19-109:10 (Dederick); 9/29 PM 44:12-23 (Creput); 9/30 PM 10:2-14, 47:2-48:10, 104:19-105:5, 106:14-107:3, 129:20-130:15 (Goel); 10/3 AM 36:19-20, 39:7-40:18, 42:24-43:10 (Layser); 10/6 AM 43:24-45:1 (Wheatland).

¹³ The accusation that Google cannot be trusted to comply with this Court’s order is factually baseless. In the French Competition Authority case resolved via settlement agreement, any sanctions imposed for Google’s violation or breach would be publicly reported, and there have been no such public reports. 9/29 AM 9:2-10:24. Even Goel of PubMatic had to agree that Google “would be very likely to comply with the court order.” 9/30 PM 130:16-131:17 (Goel).

the concern is “trust,” or “incentives,” effective monitoring and court oversight—not eliminating a competitor—is the appropriate and time-tested judicial tool.¹⁴ Google’s proposals are administrable: “Existing infrastructure with incremental modifications is very easy to reason about” because it is “very easy to write down precisely what it will do” and “inspect what’s happening.” 9/25 PM 104:21-105:12 (Craycroft). By contrast, Plaintiffs propose massive and lengthy technical projects rife with “tremendous ambiguity” that would demand “constant negotiation,” ultimately subject to the Court’s supervision. *Id.* (Craycroft).

Plaintiffs’ economics expert offered the opinion that the AdX divestiture would have competitive benefits based on a speculative, unsupported assumption that AdX divestiture would cause AdWords to share its OWDA bids with non-Google exchanges more often than it currently does. 9/24 AM 25:17-26:7, 30:15-24, 32:12-18, 111:11-112:18 (Lee) (offering comparisons to demand-side platforms as the basis for his opinion). All evidence (and common sense) is to the contrary. AdX divestiture is equally or more likely to cause open-web display publishers to lose access to AdWords demand, not gain it (as they would under Google’s proposal). *Infra* § III.A.5.

Second, Plaintiffs failed to show a “significant causal connection” between unlawful conduct and Google’s creation or maintenance of AdX’s monopoly power. *Search*, 2025 WL 2523010, at *30-*31, *55. The Court found that a “primary source of Google’s monopoly power in the ad exchange market is AdWords’ uniquely large and diverse array of advertising demand” “of mostly small and medium-sized advertisers,” which “Google has been able to amass” “in large part due to the dominance of Search.” *Op.* at 96; *see also* 10/1 AM 119:2-22 (Lerner); 9/22 PM 47:10-25 (Casale); 9/23 PM 123:21-124:24 (Dederick) (Google’s success in Search was

¹⁴ Even were it applicable (which it is not), Plaintiffs’ quoted language about a “proclivity” to anticompetitive conduct justified a behavioral injunction, not divestiture. *Paramount Pictures*, 334 U.S. at 147; *see also U.S. v. Aluminum Co. of Am.*, 91 F. Supp. 333, 343, 416 (S.D.N.Y. 1950) (Plaintiffs’ cited case about “a tendency to recidivism” also rejecting divestiture).

“critical” to AdX and DFP’s monopoly power).

In other words, AdX’s monopoly power derives from Google’s success in Search and AdWords, both of which are lawful sources of power. Judge Mehta found “ample evidence that lawful conduct played an important role” in Google’s success in Search, such that there was not a sufficient causal connection to justify divestiture. *Search*, 2025 WL 2523010, at *55. That same Google success in Search became a foundation of the monopoly power found by this Court, *Op.* at 96, counseling the same conclusion in this case as in *Search*. As to AdWords, the Court did not find that AdWords participates in any relevant market, *Op.* at 59-60, and therefore could not have found that AdWords possesses monopoly power or engaged in anticompetitive conduct. 10/1 AM 120:12-23 (Lerner); 10/1 PM 126:10-17 (Lerner); 10/2 PM 16:25-17:3 (Lerner); *see also* 9/24 AM 125:18-126:5 (Lee).¹⁵

The Court also explicitly found that the DoubleClick and Admeld acquisitions, through which Google acquired DFP and AdX and made “the AdX value proposition more compelling,” were lawful. *Op.* at 87-90. AdX’s monopoly power is further attributable to Google’s multi-billion dollar, lawful investments in “many, many innovations.” 9/29 PM 19:24-21:3 (Levitte); 9/22 PM 146:1-147:2 (Casale) (AdX is “well built” and “feature-rich”); 9/22 AM 127:24-129:17 (Whitmore) (AdX is a “top tier exchange”); 9/23 AM 81:15-82:5 (Lambert) (“Number 1 ad exchange”); 10/1 PM 16:14-17:5, 20:9-13, 22:12-24:2, 33:15-34:13 (Douglas).¹⁶

¹⁵ At trial, Plaintiffs suggested that the Court found Google anticompetitively “leveraged” AdWords. 9/24 AM 54:13-23 (Lee). Even if a “leveraging” claim were cognizable, “a plaintiff asserting such a claim would have to prove that the defendant possessed monopoly power” in the market being leveraged, here AdWords. *Advanced Health-Care Servs., Inc. v. Radford Community Hosp.*, 910 F.2d 139, 149 (4th Cir. 1990). Plaintiffs did not.

¹⁶ The same analysis applies to DFP, whose monopoly power is attributable to the lawful DoubleClick acquisition, *Op.* at 87-90; Search and AdWords demand; and innovations. 9/22 PM 146:25-147:2 (Casale); 9/29 AM 66:24-70:1 (Sheffer); 9/29 PM 19:24-21:3 (Levitte); 9/29 PM 105:12-106:20 (Berntson); 10/1 PM 16:14-17:5, 19:2-20:13 (Douglas).

On this record, Plaintiffs have not met either of their burdens to show divestiture is necessary.

2. Plaintiffs' AdX Divestiture Proposal Is Technically Unworkable and Would Result in a Worse Product.

Divestiture requiring migration of AdX outside Google proprietary infrastructure would be of unprecedented complexity and may never succeed (and even in the best case, would take at the very minimum five years).¹⁷ The same analysis applies to any technical divestiture of DFP Remainder. 10/2 PM 76:1-17 (Nieh); 9/29 PM 51:2-13 (Levitte). In *Search*, Judge Mehta rejected divestiture in light of the same concerns testified to by the same technical expert, Prof. Nieh. 2025 WL 2523010, at *56-*57; 10/3 PM 89:5-23 (Nieh) (Chrome, AdX, and DFP divestitures all face “common underlying challenges”).

One key challenge is that AdX would need to be ripped out of Google's proprietary core infrastructure. AdX is knitted together with over 100 million lines of code in Google's proprietary infrastructure (referenced to as “dependencies”), 9/29 PM 95:10-96:24 (Berntson); 10/2 AM 20:21-21:8, 26:19-27:8, 36:16-23 (Adkins), 10/2 PM 108:21-109:15 (Nieh), that represent 27 years of Google's investment and provide support across Google's products, 10/2 AM 19:14-22, 20:11-20, 21:9-22, 22:8-24:13, 27:9-11, 27:25-28:10, 36:10-15, 57:22-58:7 (Adkins). Divestiture would require replacing those “dependencies,” 9/25 AM 105:13-22 (Weissman); 9/26 PM 244:4-11 (Bjedov), which would be “an enormous amount of work” (including rewriting entire systems) because the dependencies are one-of-a-kind, “breakthrough” systems designed to scale and customized for, among other things, ad tech.¹⁸

¹⁷ 10/2 PM 76:1-17, 76:25-77:7 (Nieh) (divested product may never achieve equivalent functionality); 9/29 PM 116:11-17, 122:18-123:8, 126:11-21 (Berntson); 9/30 AM 44:6-45:2 (Berntson); 9/29 PM 23:15-24:2 (Levitte).

¹⁸ 10/2 PM 107:3-108:10, 109:16-111:2, 111:10-113:2, 120:14-22 (Nieh); 10/3 PM 155:19-156:1 (Nieh); 9/29 PM 99:17-102:22, 112:17-114:11, 121:15-122:11 (Berntson); 9/30 AM 45:12-46:12, 62:19-64:12 (Berntson); 10/2 AM 22:2-7, 40:16-42:16 (Adkins); 9/25 PM 129:24-131:6 (Weissman).

Past migrations demonstrate the complexity and uncertainty of replacing dependencies.¹⁹ The “far simpler” partial migration of Netflix’s mail-order DVD business to Amazon Web Services took 7 years. 9/26 286:5-15 (Bjedov); 10/2 PM 66:23-68:24 (Nieh); 10/3 PM 100:2-5 (Nieh). Migration of DoubleClick to Google infrastructure took 7 years; migration of one AdX and DFP dependency took 5 years; migration of one Gmail dependency took 8 years; and migration of LinkedIn to Microsoft’s public cloud was abandoned after 4 years. 10/2 PM 77:8-79:16 (Nieh); 9/26 288:25-289:9 (Bjedov); 9/29 PM 102:23-104:10 (Berntson).

Plaintiffs’ proposed divestiture would result in a worse product along any number of dimensions, including latency, security, and user privacy. 10/2 PM 76:1-17, 80:7-13 (Nieh); 9/29 PM 116:18-117:14, 122:12-17 (Berntson); 10/2 AM 56:15-58:7, 67:16-69:2 (Adkins); 9/25 PM 112:17-23 (Craycroft). Meanwhile, there would be increased risk of bugs, outages, and loss of functionality. 9/29 PM 107:21-110:5, 124:3-125:23, 149:4-150:15 (Berntson).

Plaintiffs failed to support their proposed technical divestiture. Prof. Weissman—upon whom Plaintiffs’ entire technical case relies—reviewed source code for just 15 hours and failed to review highly relevant source code, including a folder containing over 42,000 files reflecting the integration of AdX and DFP. 9/25 AM 22:18-23:7 (Weissman); 9/25 PM 13:25-14:24, 16:1-15 (Weissman); 10/2 PM 93:11-96:24 (Nieh); 10/3 PM 83:1-84:4 (Nieh). Prof. Weissman did not offer any opinion on the time required for divestiture, or whether it would be “hard or easy.” 9/24 PM 129:10-14 (Weissman); 9/25 AM 93:14-94:1 (Weissman). For around

¹⁹ Moving to a public cloud provider like Google Cloud Platform (“GCP”) would not solve the challenge of replacing dependencies and would harm consumers. 10/2 PM 56:19-59:7 (Nieh). Public clouds are fundamentally different from proprietary infrastructure and offer worse latency, higher cost, and less functionality. *Id.* at 56:19-59:7, 63:25-65:13 (Nieh). Ad tech industry witnesses described public clouds as expensive and charging like a “tollbooth” on every transaction an exchange processes (even if the exchange does not win). 9/22 PM 122:23-123:25 (Casale); 9/30 PM 114:9-115:8 (Goel). Migrating to GCP would pose the same challenges, as GCP is a public cloud and does not provide access to Google’s internal infrastructure. 10/2 PM 56:19-59:7, 66:12-18 (Nieh); 10/2 AM 38:3-40:15, 45:9-20, 47:21-53:9 (Adkins).

two-thirds of the dependencies Prof. Nieh identified, Prof. Weissman did not investigate if AdX or DFP relies upon those dependencies, much less identify replacements. 9/25 AM 108:16-109:12, 113:13-118:25 (Weissman); Weissman DX-1; 10/2 PM 109:2-15 (Nieh).

As to Dr. Bjedov, she has never been a software engineer, lacks “hands-on experience writing code,” and based her opinions on migrations within Facebook and Netflix’s partial migration when it was a mail-order DVD business. 9/15/25 Hr’g Tr. at 13:6-15:4; 9/26 160:3-17, 185:15-186:2, 204:11-15, 245:25-246:5, 246:21-24, 250:10-18, 251:1-252:5, 257:9-14, 292:17-25 (Bjedov). Dr. Bjedov’s “methodology” of not looking at a single line of code in this case to come up with a precise divestiture timeline (down to the month) is “completely unrealistic.” 9/29 PM 110:23-112:10, 126:24-128:14 (Berntson); 10/2 PM 79:22-80:6 (Nieh).

Plaintiffs’ experts admitted that Google engineers know the products and infrastructure better than they do. 9/25 PM 29:8-11, 35:23-36:4 (Weissman); 9/24 PM 84:10-85:18 (Crisci). And the Google engineer who knows the system best, Dr. Berntson, testified that divestiture would be “more complex than anything I have done” in 10 years of working in ad tech and would take longer than 5 years. 9/29 PM 116:11-17, 126:11-17 (Berntson).

Nor do Google’s analyses of a business divestiture of AdX support Plaintiffs’ case.²⁰ Google’s analyses did not assume an end product comparable to the existing AdX, and included a “transitional period” subject to the “very explicit acknowledgment” that the length of time required was unknowable in advance because it would depend on the buyer. 9/25 PM 81:5-82:10 (Craycroft); 9/29 PM 34:4-35:19, 56:5-16 (Levitte); 9/30 AM 53:6-11, 56:17-57:16 (Berntson). In a business divestiture, Google would not perform any software migration because it would not transfer any “operational technology,” only customer contracts, patent licenses, revenue, the

²⁰ The documents analyzed a business divestiture of only a subset of transactions AdX supports, Open Auction and Private Auction. 9/25 PM 59:20-23, 60:9-11, 60:19-61:24 (Craycroft); 9/29 PM 31:8-22 (Levitte); 9/30 AM 48:9-22 (Berntson).

business, and “reference source code.”²¹ 9/25 PM 62:8-22, 64:10-20, 107:6-108:1 (Craycroft); PRX-50 at -298. The analysis of “technical work” in Google’s documents was limited to scoping the creation of assets like non-operational “reference source code” and assistance in customer migration. 9/25 PM 61:7-17, 64:21-65:2 (Craycroft); 9/30 AM 93:7-21 (Wolf).

Even a business divestiture of AdX would present many of the same problems as Plaintiffs’ proposed technical divestiture, including the technical challenges of rebuilding on a different infrastructure and migrating customers, as well as harmful effects from giving AdX to an unknown buyer and potentially eliminating the differentiated AdX as a competitor. 9/25 PM 107:6-109:13, 115:23-116:12, 117:16-118:8 (Craycroft); 9/29 PM 42:4-9 (Levitte). The Court would have no control over the quality of what the acquirer builds, including whether the acquirer attempts to replicate feature parity or even builds a functioning ad exchange. 9/25 PM 69:21-23, 107:6-108:14, 109:3-13 (Craycroft). If the acquirer did not replicate the functionalities and performance of AdX, “users are likely to suffer.” 10/3 PM 54:10-55:24 (Nieh).

3. Plaintiffs’ Proposed AdX Divestiture Is Commercially Unworkable.

Any kind of AdX divestiture is “commercially speculative and fraught with execution risk” relating to uncertainties about customers, employee attrition, IP, and hardware, which “deters buyer engagement.” 10/1 AM 10:8-25, 11:12-12:18, 13:3-14:22, 16:16-17:1, 17:6-18:20, 21:2-27:7, 32:24-33:15, 34:12-38:1, 80:23-81:22 (Goodwin).²² Forced divestitures have failed even in the context of merger enforcement where the FTC or DOJ is involved in buyer approval.

²¹ Reference source code would be an “instruction manual” to rebuild AdX, but would not be functional because the Google infrastructure dependencies necessary to run AdX would be deleted without replacement. 9/25 PM 63:10-25, 64:15-20, 77:1-78:1 (Craycroft); 9/29 PM 27:2-5, 32:20-33:23, 67:19-25, 68:19-23, 69:17-70:2 (Levitte).

²² DFP Remainder divestiture would be subject to the same commercial unworkability problems, exacerbated by Plaintiffs’ proposal that DFP Remainder be divested to multiple buyers. 10/1 AM 10:8-25, 20:1-23 (Goodwin).

Id. at 27:24-34:11 (Goodwin). Mr. Crisci, Plaintiffs’ purported “commercial feasibility” expert, offered an opinion cabined solely to whether there would be “initial buyer interest”—not whether divestiture would succeed. 9/24 PM 68:17-69:10, 71:6-10, 81:19-23 (Crisci). Mr. Crisci reviewed no evidence from this case (despite stating otherwise in his report) and knew little about AdX, DFP, or ad tech. *Id.* at 65:8-67:18, 67:24-68:16, 72:7-22, 74:4-13, 91:12-14 (Crisci).

Plaintiffs failed to identify a single viable acquirer who could successfully complete the transaction and maintain AdX’s quality and global footprint. Large tech companies would raise regulatory concerns and would not be strategically aligned with the acquisition; small and mid-tier buyers would lack financial and operational capacity; and private equity would not be interested given operational uncertainties and the time horizon. 10/1 AM 40:4-46:9, 75:9-77:7, 77:25-80:9, 82:720 (Goodwin); RDTX-444 at 17-18, 24-25. Of the three witnesses who testified they might be interested in buying AdX, none would commit to buying, none evidenced the ability to close such a transaction, and all are existing players who would consolidate the market. Index Exchange’s stated goal was to consolidate the ad exchange market, eliminate a competitor, and become the largest exchange; in any event, Casale’s testimony failed to show Index as a capable buyer. 9/22 PM 95:7-15, 96:4-16, 131:23-25, 150:8-25, 151:13-17 (Casale). PubMatic CEO Goel did not have “enough information about AdX as an entity to know if we would be interested in bidding on it or not.” 9/30 PM 24:14-25:4, 90:8-93:19 (Goel). Kevel is building an ad exchange for the first time with 5-6 engineers, and does not know whether it could maintain the features of AdX. 9/23 AM 29:24-30:4, 52:23-53:15, 54:3-6. 55:10-18 (Avery).²³

4. Plaintiffs Risk Innumerable Unintended Consequences with an Unknown Acquirer.

AdX needs a “good steward to make sure that it’s healthy enough” to “remain in the

²³ Kevel also has not demonstrated the ability to support DFP’s scale; it transacts 100 times fewer ad requests per day than DFP does. 9/23 AM 8:13-17, 37:1-16 (Avery); 10/2 PM 86:11-17 (Nieh).

ecosystem,” but apart from Google, no steward was identified. 9/22 PM 20:21-25 (Whitmore); 9/23 AM 89:22-90:12 (Lambert); 9/24 AM 95:19-24 (Lee); 9/30 PM 96:15-97:8 (Goel). No one knows “who an acquirer would be,” “what the acquirer would do,” or “what the market will look like by the time the acquirer gets the system.”²⁴ The same is true for DFP. 9/23 PM 13:24-14:10, 48:24-49:7 (Friedman); 9/24 AM 94:8-95:8 (Lee); 10/3 PM 35:23-36:4 (Layser).

Prof. Nieh was the only technical expert who presumed that the divested product needs to be as close as possible to equivalent to the current product and minimize customer disruption. 10/2 PM 69:6-13, 70:1-71:5 (Nieh). Prof. Weissman admitted he does not know if performance of a divested product would match Google’s or if that would matter to the buyer. 9/25 AM 70:18-71:14, 99:2-9, 99:19-24 (Weissman). Dr. Bjedov recognized she “certainly” could not say whether quality would degrade. 9/26 276:6-277:19 (Bjedov); 10/3 PM 143:2-13 (Nieh).²⁵ But for customers of AdX, preserving the quality matters. *Infra* § III.A.5.

The behavioral remedies that everyone agrees will, if followed, restore competition are certain only under Google’s remedy. The Court would have no control over what an unknown buyer would do. 9/24 AM 94:8-96:6 (Lee); 9/23 AM 99:7-100:4 (Lambert). The acquirer (*e.g.*, private equity or anyone whose priority is cash flow) could also choose to invest less in OWDA, and may be incentivized to do so given the industry trend of growth in non-OWDA. 9/25 PM 113:22-115:20 (Craycroft); 9/29 AM 70:14-74:4 (Sheffer); 9/24 PM 77:19-23 (Crisci); 9/26 87:4-18 (Racic). Big tech acquirers with their own technology assets—like Oracle, which has TikTok—would raise the question “what new problem are you creating in terms of the resulting

²⁴ 10/3 AM 15:3-16:5 (Layser) (the Court’s question); 10/1 PM 31:21-33:14, 39:25-40:19 (Douglas); 9/22 PM 127:16-25 (Casale); 9/23 AM 113:16-114:17, 136:1-12 (Lambert); 9/30 PM 96:21-97:2 (Goel); 9/30 AM 61:18-62:17 (Berntson).

²⁵ Plaintiffs’ other experts assumed there would be no significant technical challenges to continued product functionality. 9/24 AM 23:7-18, 77:18-78:9, 78:17-79:12, 79:14-17 (Lee); 9/24 PM 38:8-16, 69:19-71:1 (Crisci).

combination.” 9/25 PM 113:22-115:20 (Craycroft); 9/23 PM 48:16-18, 49:2-7 (Friedman). Or the acquirer could operate with an increased cost structure because it lacks the efficiencies associated with integration or moves to a public cloud.^{26,27} Even the small sample set of Plaintiffs’ own witnesses could not agree on who a good buyer would be or how many would be needed. *Compare* 9/23 AM 48:12-20 (Avery) (AdX and DFP “should be divested together”), *with* 9/22 PM 72:4-15 (Casale) (AdX and DFP “absolutely have to go to separate buyers”).

5. Plaintiffs’ Proposed AdX Divestiture Would Harm Publishers, Advertisers, Users, and Competition.

Any form of AdX divestiture would harm participants in the ecosystem, including because it would consolidate the market and cause open-web publishers to lose access to AdWords demand. A DFP Remainder divestiture would cause many of the same harms.

Consolidation of the exchange market. If the acquirer is an existing exchange, AdX divestiture would accelerate the trend of consolidation in the ad exchange market. 9/25 PM 115:23-116:12 (Craycroft); 9/22 PM 96:4-13, 105:15-19, 106:6-107:6, 112:13-113:17 (Casale); 9/23 AM 63:12-25 (Avery); 9/30 PM 94:15-95:2 (Goel). Reducing consumer choice is antithetical to antitrust law, and witnesses agreed that it is better for advertisers and publishers to have more quality exchanges from which to choose. 9/22 PM 56:23-57:5 (Casale); 9/23 PM 67:8-10 (Lambert).

²⁶ 10/1 PM 81:17-84:6, 84:15-85:11, 85:19-87:25, 91:11-92:9, 93:3-94:12 (Lerner); RDTX-900A; RDTX-926A; RDTX-970A; 10/2 PM 29:14-3:22 (Lerner); 9/24 AM 121:20-122:4 (Lee); *supra* p. 22 n.19.

²⁷ Unlike any other ad server, DFP is currently free for small and medium-sized publishers and extremely inexpensive for paying publishers. 9/23 AM 49:19-20, 52:1-4 (Avery); 9/29 AM 99:5-15 (Sheffer); 10/1 PM 35:2-18, 62:11-18 (Douglas); RDTX-895; RDTX-967; 10/1 PM 88:7-91:10 (Lerner); 9/24 PM 25:2-5 (Lee). There is no guarantee a buyer would be able to maintain—or be interested in maintaining—free ad serving. 10/1 PM 90:22-91:10 (Lerner); 9/22 AM 76:7-19 (Whitmore). James Avery of Kevel testified that a DFP buyer, including Kevel, could not afford to offer free services unless it had an ad exchange. 9/23 AM 49:11-18 (Avery).

Consolidation would cause publishers and advertisers to lose AdX's differentiated value. 9/25 PM 116:6-12 (Craycroft); 9/29 PM 6:24-8:1 (Sheffer). Elizabeth Douglas of WikiHow, who has been working first-hand with ad tech tools at a small publisher for over 16 years, confirmed that "removing AdX as a competitor" "scares" her: "There's just no SSP that I trust as much as Google, in particular with the consistency that Google pays us every month and supports us with our problems and tries, in my opinion, to create great experiences on the web alongside us." 10/1 PM 6:24-7:1, 31:21-32:19, 39:25-40:19, 78:21-79:6 (Douglas). In her experience, AdX's quality differs from other exchanges, which serve more bad ads than AdX does; have failed to pay WikiHow for advertising; and may not offer the same support. *Id.* at 22:12-24:2, 31:21-32:19, 33:15-34:13 (Douglas). Google Ad Manager also offers a "really easy to use" interface for monetization without "a full-time ad person." *Id.* at 16:14-17:5 (Douglas).

Accelerating the decline of OWDA. OWDA has been in steady decline for years. Since 2019, OWDA impressions purchased by advertisers through AdWords have been cut in half, as advertisers purchase more impressions on owned-and-operated ("O&O") inventory like YouTube.²⁸ It is undisputed that other ad formats like retail media, streaming, native, audio, and AI chats are the important growth areas for advertiser spend.²⁹ If Google were forced to exit the market for ad exchanges for indirect ODWA, Google would be incentivized to invest in the other channels and formats where it can continue to operate, where advertiser demand is higher, and

²⁸ RDTX-1224 (Jayaram DX-1); 9/30 AM 113:6-115:3 (Jayaram); *see also* RDTX-901; PRX-141; PRX-142; 10/1 AM 146:12-147:9 (Lerner); 9/25 PM 87:10-21 (Craycroft); 10/1 AM 38:2-39:3 (Goodwin).

²⁹ 9/22 PM 93:12-18, 94:11-13, 101:23-102:10, 103:20-22 (Casale); 9/23 AM 132:12-133:13 (Lambert); 9/23 PM 67:12-69:7, 70:8-10 (Lambert); RDTX-690 at 4, 12, 15; 9/30 PM 16:2-17:3, 29:9-30:7, 112:6-113:9 (Goel); 9/24 PM 39:18-40:11 (Crisci); PRX-183 at 6-7, 9.

where end-user attention is increasingly spent.³⁰

Moreover, any type of AdX divestiture would cause AdWords advertisers' return on investment ("ROI") to decrease only on OWDA because Google's buying tools would lose the benefits of an integrated ad tech stack for OWDA, leading to higher latency, increased likelihood of spam and fraud, increased costs, and more.³¹ Those losses in ROI would cause AdWords advertisers to shift more spend to non-OWDA, including to Google's O&O properties,³² in a process increasingly automated by AI.³³ Open-web publishers would then lose access to AdWords' "unique demand," which they claim they use AdX to reach, Op. at 81. 9/30 AM 117:21-118:18 (Jayaram). As ad monetization decreases, unless bolstered by subscription or other revenue sources, content quality may too; a decline in publishers' inventory quality would cause advertiser ROI to decrease even more on OWDA, which would accelerate the cycle. *Id.* at 118:20-119:3 (Jayaram).³⁴

Interference in direct and non-OWDA markets. Plaintiffs propose that Google provide to an acquirer the entirety of AdX even though only around half of AdX's transactions

³⁰ RDTX-898; RDTX-899; RDTX-901; 10/1 AM 140:23-141:10, 146:12-147:17 (Lerner); PRX-141; PRX-142; 10/2 PM 33:25-34:9 (Lerner); *see also* 9/25 PM 86:4-87:4 (Craycroft); 9/23 PM 135:4-8 (Dederick).

³¹ 9/30 AM 102:19-111:21, 115:11-116:4, 119:17-121:5, 129:24-130:20, 131:7-16, 133:2-13 (Jayaram); 9/25 PM 117:16-118:8 (Craycroft); 10/1 PM 94:13-25 (Lerner); *cf.* 9/22 PM 54:14-25 (Casale); 9/30 PM 30:8-31:11 (Goel).

³² 9/30 AM 116:5-117:20 (Jayaram); 9/24 AM 107:5-108:5 (Lee). Nothing in Plaintiffs' proposal prevents AdWords advertisers from shifting spend to other ad formats and channels; nor have Plaintiffs analyzed what incentives AdWords advertisers would have to shift spend. 9/24 AM 108:11-17, 110:21-111:9, 112:7-18 (Lee) (AdWords incentives tied to "where customers derive value").

³³ 9/30 AM 116:22-117:20 (Jayaram); 9/23 PM 34:24-37:17 (Friedman); 9/23 PM 65:17-20 (Lambert); 9/24 PM 40:25-41:7 (Crisci).

³⁴ DFP Remainder divestiture would cause AdWords advertisers' ROI on OWDA to degrade even further and therefore exacerbate the same cycle. 9/30 AM 112:4-17 (Jayaram).

are in indirect OWDA.³⁵ Divestiture thus would impermissibly interfere with ordinary competition in direct transactions and non-OWDA, such as in-app, retail, and streaming ads, where Google is not a dominant player. 9/22 PM 100:16-21, 100:25-101:22 (Casale); 9/23 PM 42:20-43:4 (Friedman).³⁶ In addition, disruptions like bugs and outages would affect all AdX customers, including ones who do not use it to transact OWDA. 9/29 AM 76:20-77:19 (Sheffer).

Publisher and advertiser disruptions. Divestiture would force publishers to devote time, ad operations, and engineering resources to testing and migrating to new, separated products after previously using one integrated offering. 9/29 AM 70:18-74:4, 76:5-19 (Sheffer); 9/29 PM 30:10-31:4 (Levitte); 9/29 PM 122:18-125:23, 145:11-146:1 (Berntson). That work would particularly burden smaller publishers. 9/29 AM 60:17-62:3, 62:11-25, 74:5-75:22 (Sheffer).³⁷ For example, WikiHow, a “big small publisher,” operates with just the CEO, COO, and 1 engineer running ad operations within their much larger job responsibilities. 10/1 PM 15:13-19, 38:1-6 (Douglas). During a time of immense technological change, it is of paramount importance that small publishers can prioritize content creation while maintaining stable advertising revenue—not expend precious resources to test, learn, troubleshoot, and migrate to new products. *Id.* at 79:10-24 (Douglas). Plaintiffs’ rebuttal witnesses, Laysen and Wheatland,

³⁵ 9/24 AM 102:15-19 (Lee); RDTX-898; 10/1 AM 141:24-142:9 (Lerner); 9/25 PM 113:6-16 (Craycroft); 9/29 PM 21:12-22:4, 24:23-25:1 (Levitte); *cf.* PRX-132. Similarly, Plaintiffs propose contingent divestiture of the entirety of DFP Remainder even though DFP transacts more than OWDA. RDTX-899; 10/1 AM 143:8-144:6 (Lerner).

³⁶ Plaintiffs also seek to divest AdX’s ability to transact PG and PD transactions, 9/29 PM 30:10-31:4 (Levitte), which are types of direct deals that were not part of Plaintiffs’ liability case based on a market for ad exchanges transacting indirect OWDA. Dkt. 120 ¶ 290; RDTX-1220; 9/24 PM 27:17-28:3 (Lee); 9/22 AM 116:13-117:8 (Whitmore); 9/22 PM 9:20-23 (Whitmore); 9/22 PM 141:16-19, 141:25-142:10, 143:6-18 (Casale).

³⁷ If a DFP Remainder divestiture were ordered, forced migration of a publisher ad server would be enormously disruptive to publishers. *Op.* at 74-75; 5/2/25 Hr’g Tr. at 5:22-6:17; 9/29 AM 98:1-99:4 (Sheffer); 10/1 PM 95:1-11 (Lerner); 9/22 AM 75:21-76:6 (Whitmore).

did not rebut Ms. Douglas’s testimony about the particular harms small publishers would suffer; at large publishers, they enjoyed far greater ad operations and technical support of up to over 100 ad operations employees. 10/3 PM 17:18-18:21 (Layser); 10/6 AM 49:20-50:14, 51:15-52:15, 52:16-53:6 (Wheatland); *see also* 9/22 AM 43:24-44:4 (Whitmore). AdX divestiture would also cause “real” “pain” and “mental anguish” to advertisers, who would lose benefits of the integrated Google ad tech stack. 9/23 AM 91:17-92:11, 136:19-137:17, 137:24-138:7 (Lambert).

Disruption during change. Divestiture would interfere with competition and innovation for years,³⁸ with consequences impossible to predict given rapid technology and market changes. The growing supply-path optimization (“SPO”) trend, 9/23 PM 127:19-128:1 (Dederick); 9/30 PM 110:25-112:4 (Goel); 9/26 143:17-19 (Racic), is blurring the distinction between exchanges and demand-side platforms. 9/30 PM 70:21-71:17, 111:21-23 (Goel); RDTX-854 at 2. Exchanges as stand-alone entities “are likely not needed for very long”; AdX may be “irrelevant” or “obsolete” in 7 years. 9/23 PM 21:10-12, 30:1-9, 44:11-21 (Friedman). It would hardly be cautious to order an invasive and risky divestiture of a tool that may become “irrelevant” soon after. Even worse is doing so based on monopolization of a declining ad format.

On top of all of this, AI is fundamentally changing how publishers monetize and ad tech tools work. 9/29 AM 110:2-112:6 (Sheffer); 9/25 PM 87:25-88:23 (Craycroft); PRX-183 at 10. AI is already shifting ad consumption away from OWDA to new content like AI chat interfaces and new ad formats like AI-customized native ads.³⁹ And AI is accelerating advertisers’ ability to shift spend based on user attention. 9/23 PM 34:24-37:17 (Friedman); 9/23 PM 131:7-20,

³⁸ Even Plaintiffs’ timeline contemplates that AdX divestiture would take 3.5 to 5.5 years. Google’s Opening at 16 (timeline of Plaintiffs’ proposal).

³⁹ 9/29 AM 112:7-113:17 (Sheffer); 9/23 PM 64:3-15, 64:18-65:20 (Lambert); 9/23 PM 80:20-81:12 (Dederick); 9/30 PM 66:10-21, 67:6-68:18, 69:6-21, 70:15-20, 77:18-78:13 (Goel); 10/3 PM 32:19-33:2 (Layser); 9/23 PM 39:8-40:5, 41:3-13 (Friedman); 9/23 PM 132:6-11 (Dederick); 10/1 PM 28:25-31:10 (Douglas).

132:12-133:1 (Dederick); 9/30 AM 116:22-117:20 (Jayaram). Publishers are already leveraging AI to create new user experiences and novel ad formats. 9/29 AM 101:19-110:1 (Sheffer).

Plaintiffs' witnesses implausibly claimed that ad exchanges (and ad servers) are the only technology not being altered by AI, but when confronted with their public statements, they had to acknowledge that AI is in fact changing that competition.⁴⁰ AI-powered curation is a "full-blown industry movement" that will fundamentally change how the market transacts, is anticipated to be "bigger than header bidding," and can benefit "the entire exchange." 9/22 PM 114:9-115:4, 117:5-118:5, 119:13-23, 120:20-122:19 (Casale). PubMatic is already competing against other exchanges on the basis of AI, referring to AI as an "enablement technology or foundational technology, like electricity," that facilitates competition. 9/30 PM 71:18-76:17, 77:20-78:21, 80:19-81:6, 83:25-86:20, 87:16-90:7 (Goel); RDTX-854 at 4-5; RDTX-1223 at 1-2.

Such rapid changes make it "beyond the capacity of this Court, counsel, or any witness to craft a remedy" today that "will be appropriately tailored to the needs of a rapidly changing industry," further cautioning against the imposition of a risky remedy that will take numerous years to implement. *Microsoft II*, 224 F. Supp. 2d at 184.

B. Plaintiffs' "Open-Source Auction" Proposal Should Be Rejected.

Plaintiffs' proposal to open-source the "final auction logic" in DFP is not tailored to the liability findings; not necessary in light of Google's proposals that will give transparency to publishers about how DFP's "final logic" works and control over a "final auction" via Prebid; and would harm the ecosystem.

1. Plaintiffs' "Open-Source Auction" Proposal Is Not Tailored to the Court's Liability Findings.

⁴⁰ AI is also already changing how ad servers compete. 9/29 AM 38:14-16, 39:1-16 (Creput). Under Plaintiffs' proposal, any DFP Remainder divestiture would occur almost a decade or more in the future, when the technology will likely be unrecognizable.

First, while Plaintiffs insisted non-OWDA be excluded from their liability case, Plaintiffs' OSA proposal is not limited to OWDA. 9/24 AM 102:4-14 (Lee); 9/29 PM 49:7-14 (Levitte); 9/29 PM 133:25-135:23 (Berntson).

Second, "final auction logic," a newly devised term never discussed until remedies, is a "remarkable feat of semantic gymnastics" in pursuit of expanded remedies. *Microsoft II*, 224 F. Supp. 2d at 137; *see also* 9/29 PM 133:20-24, 151:7-14 (Berntson).⁴¹ It includes functionalities that make up the "heart and soul" of DFP, are not "final," and are not part of the "auction." 9/29 AM 78:10-79:10, 83:22-85:2, 86:11-87:19, 87:23-88:10 (Sheffer); 9/29 PM 36:6-37:11 (Levitte); 9/29 PM 129:25-137:13 (Berntson); 9/25 PM 72:5-9, 109:14-110:15, 120:20-121:23 (Craycroft). The Court made no findings about the "final auction logic" functionalities, which include the selection between direct and indirect deals like EDA, which Plaintiffs did not allege was anticompetitive, 9/24 AM 92:12-25, 93:21-94:7 (Lee), and multi-slot auctions, which are not used for OWDA, 9/25 PM 120:20-121:23 (Craycroft). In any event, any allegations would not have succeeded; the "final auction logic" is not used to discriminate in favor of AdX. 9/29 PM 79:22-24, 83:20-21, 86:3-10, 87:20-22, 88:11-13 (Sheffer). Publishers make the choices in DFP that dictate how the so-called "final auction logic" works. 9/30 AM 26:5-27:14 (Berntson); 9/22 PM 17:14-18:10 (Whitmore); 9/29 AM 80:5-83:21, 85:3-86:2 (Sheffer).

Third, the "transparency" motivation for open-sourcing DFP code is not rooted in any liability finding of anticompetitive conduct. The Court would have had no evidence on which to base such a finding. During the liability phase, no expert opined that DFP's "final auction logic" was non-transparent or harmed competition in a relevant market. Plaintiffs' OSA proposal asks

⁴¹ "Final auction logic" is not an industry term. 9/26 89:8-18 (Racic); 9/29 AM 77:23-78:2, 79:11-15 (Sheffer). When asked to interpret it, witnesses offered definitions that diverged from Plaintiffs'. 9/22 AM 65:11-23 (Whitmore); 9/22 PM 62:7-15 (Casale); 9/23 AM 96:14-97:6 (Lambert); 9/23 PM 50:24-51:24 (Friedman); 9/23 PM 116:17-117:21 (Dederick); 9/26 50:5-13 (Racic); 9/29 PM 36:6-37:11 (Levitte); 9/29 PM 129:25-130:20 (Berntson).

the Court to impose an open-source business model on functionality that is unrelated to the Court's liability findings or any restoring of competition in a relevant market. Such a proposal attempting to litigate a new liability theory poses a real danger of unintended harms.

Remedies are not an opportunity for Plaintiffs to regulate conduct never raised (or won) at liability. In *Microsoft*, the court rejected similar arguments the plaintiffs made for “the disclosure of vast amounts of technical information” based on allegations of “bad” acts beyond the liability findings. *Microsoft II*, 224 F. Supp. 2d at 144. Allegations “standing alone and unconnected to specific liability findings cannot be utilized to justify specific remedial provisions.” *Id.* at 138; *see also id.* at 138-39 (remedies on this basis would “ignore the careful admonition” that “conduct cannot be condemned as exclusionary” “unless there has been a showing that the monopolist’s conduct” “harms competition”). Plaintiffs’ OSA proposal, like the one in *Microsoft*, should be rejected as “inapposite to the narrow task at hand.” *Id.* at 147.

2. Plaintiffs Failed To Show the “Open-Source Auction” Is Necessary.

Forced open-sourcing is recognized by the law as *de facto* divestiture, thus subject to the same legal standard as divestiture. *Microsoft III*, 373 F.3d at 1231. Plaintiffs’ OSA proposal must be rejected because Google’s proposal is sufficient to address Plaintiffs’ concerns. Plaintiffs’ witnesses testified that they want the OSA so that they can gain transparency into DFP.⁴² In response, Google engineers crafted a proposal to make available to publishers data and technical documentation explaining how DFP’s “final logic” works. PFJ ¶ III(5); 9/29 PM

⁴² 9/22 AM 66:18-67:4, 70:5-13 (Whitmore); 9/22 PM 59:6-16, 62:24-63:12, 76:18-77:7 (Casale); 9/23 AM 116:23-117:11 (Lambert); 9/30 PM 42:14-43:11 (Goel); 10/3 AM 43:11-23 (Layser); 10/6 AM 18:1-21 (Wheatland).

Plaintiffs’ economics expert claimed that the OSA is necessary to lower barriers to entry for ad servers. 9/24 AM 45:13-46:17 (Lee). But Plaintiffs did not show that the engineering of the “final auction logic” is a hurdle to entry in the ad server market, or that any non-DFP ad server would make use of the proposed OSA. *See* 9/23 AM 25:18-20 (Avery) (OSA would “not directly” help Kevel’s customers).

143:12-145:10, 151:7-152:10 (Berntson); 9/30 AM 9:14-10:15 (Berntson).⁴³ Publishers can use this information to “validate whether or not DFP is doing the right thing in this process of selecting an ad to serve.” 9/29 PM 144:24-145:10 (Berntson).

Google proposes not only to make DFP’s “final logic” transparent, but also to give publishers the option of a “final auction” that runs entirely outside of Google’s control via Prebid. Google’s remedies are what Plaintiffs’ witnesses, including Racic of Prebid, testified are needed. 9/26 50:5-13, 81:6-83:20, 84:15-85:2, 122:17-123:23, 124:20-25 (Racic) (the OSA should run “basic auction mechanics” selecting among indirect deals, exclusive of direct deals, and should not take on ad server functionalities).⁴⁴ If a publisher chooses to use the Prebid auction as a clearinghouse auction, DFP will not perform any “final auction” after the Prebid auction—achieving the goal for the “OSA” Racic articulated in his testimony. 9/26 48:5-50:4, 82:12-83:20 (Racic); 9/25 PM 111:9-112:5 (Craycroft); 9/29 AM 94:21-95:19 (Sheffer).

Plaintiffs have not shown that Google’s proposals are insufficient to address the concerns animating their OSA proposal. Their first witness testified that “absent the tie and absent the black box,” “competition will increase” in the “ad exchange market as well as the publisher ad server market.” 9/22 PM 24:18-22, 25:10-15 (Whitmore); *see also* 9/22 PM 126:5-10 (Casale) (previously stating Google “running the business in a radically transparent way” could solve the problem). Google’s proposals achieve transparency (again, a concern not based on any liability finding) without introducing enormous questions of workability, 10/6 AM 80:14-19 (Nieh), and is usable by publishers of all sizes, 9/30 AM 9:14-10:15, 29:5-30:1 (Berntson).

⁴³ Google disagrees that anything in the Court’s liability findings supports this enormous change to how DFP (or any ad server) has always worked. 9/29 PM 143:14-144:23 (Berntson).

⁴⁴ It is unsurprising that Racic testified to a different understanding of the term “final auction logic” than Plaintiffs’ definition, given that Racic did not discuss with Plaintiffs what specific features Plaintiffs considered to be part of the “final auction logic.” 9/26 89:19-90:6 (Racic).

3. Plaintiffs’ “Open-Source Auction” Proposal Would Harm Consumers and Competition.

Plaintiffs’ OSA proposal must be rejected because it would cause predictable and unpredictable harm to participants in the ad tech ecosystem. The OSA proposal would also stifle innovation by diverting resources and reducing Google’s and marketwide incentives to innovate. 9/29 PM 50:5-51:1 (Levitte); 10/1 PM 97:18-99:2 (Lerner).

Not technically workable. Plaintiffs’ OSA proposal would not work as a technical and engineering matter, 9/29 PM 50:5-51:1 (Levitte); 9/29 PM 137:14-139:1, 143:8-10 (Berntson), and constitute “a single point of failure” for ad serving, 9/29 PM 43:19-44:17, 48:4-25 (Levitte); *see also* 9/30 PM 120:7-17 (Goel).

In order for the OSA to run separately from DFP (as Plaintiffs’ expert testified it would, 9/25 AM 29:9-21, 31:10-21, 32:24-33:8 (Weissman); Pls.’ Demo. H), just providing the OSA the data needed to run one of the OSA’s functionalities, EDA, would require transmitting sensitive data about all of a publisher’s direct deals and all bids submitted for that publisher in the last seven days. 9/29 PM 139:6-140:14 (Berntson). And the pre-processing of data required for EDA to occur in a separate OSA would add 15 to 45 minutes for just one ad request—which is not feasible in display ad serving. *Id.* at 140:15-141:24 (Berntson); 9/30 AM 11:4-13:1 (Berntson); 10/1 PM 36:14-37:4, 37:14-25 (Douglas); 10/2 PM 81:8-82:4 (Nieh).⁴⁵

Plaintiffs did not rebut Dr. Berntson’s and Prof. Nieh’s explanations for why the OSA would not work. Nor can Plaintiffs rely on Google internal analyses, which did not scope anything resembling Plaintiffs’ OSA or “final auction logic.” 9/30 AM 49:1-10 (Berntson); 9/25 PM 110:16-111:8, 122:9-14 (Craycroft); 10/3 PM 55:25-56:18 (Nieh). Rather, the documents analyzed open-sourcing of the final selection among direct obligations and indirect bids (after

⁴⁵ Building even this unworkable version of the OSA would still require replacing dependencies, 9/25 AM 29:9-21, 31:10-21, 32:24-33:8 (Weissman), and take years, on par with the largest migrations Dr. Berntson has overseen at Google. 9/29 PM 117:20-118:6 (Berntson).

they have been solicited and received by DFP), which would not have included the optimizations Plaintiffs list in their definition of “final auction logic.” 9/29 PM 39:13-41:22, 61:9-62:7, 77:11-18 (Levitte); 9/25 PM 73:6-19, 110:16-111:8, 121:24-122:14 (Craycroft).⁴⁶

Plaintiffs’ rebuttal witness from the Daily Mail (who has no engineering experience, 10/6 AM 47:18-49:7 (Wheatland)), presented for the first time an unsupported theory that the OSA could work because it would “run basically in the same way that the final auction logic runs today,” *i.e.*, inside DFP on Google infrastructure. *Id.* at 9:17-10:12, 12:9-13:2, 18:1-21, 58:7-23 (Wheatland). In Wheatland’s mind, the “only difference” would be that the OSA code would be viewable online. *Id.* at 18:1-21 (Wheatland). According to him, that code could be uploaded back into DFP in “different modules” so that publishers could “plug and play,” *id.* at 9:17-10:12, 14:7-14, 21:19-22:4 (Wheatland), but he offered no details as to how this could be done.

Wheatland’s ideas are unsupported by evidence, including any testimony by Plaintiffs’ experts. *See* 9/25 AM 29:9-21 (Weissman); Plaintiffs’ Demos. E, H; 9/26 PM 171:8-18 (Bjedov) (same definition of OSA as Prof. Weissman); 10/6 AM 76:21-78:18 (Nieh). According to the only technical expert to testify about it, the concept makes no sense from an engineering standpoint. 10/6 AM 76:21-78:18 (Nieh). If DFP’s “final auction logic” code is not modified, it would not be usable outside of DFP. 10/6 AM 79:5-80:11 (Nieh). And even that code could not be re-uploaded into DFP as modules without creating security and workability problems. *Id.* at 76:21-78:18 (Nieh). If the DFP “final auction logic” code must still be modified to be “separate” from DFP or work outside Google, the same data and dependencies problems would exist. 9/30 AM 13:6-14:25 (Berntson); 10/6 AM 76:21-78:18 (Nieh). The Court should reject this unvetted

⁴⁶ Even that much narrower “open-source auction” was anticipated to take at least 4 years. 9/29 PM 43:13-44:17 (Levitte); 9/25 PM 82:18-83:4 (Craycroft). The product team did not come up with the concept and did not believe it was an improvement, as it would still subject publishers to costs and friction. 9/29 PM 41:23-42:9 (Levitte); 9/25 PM 111:9-112:5 (Craycroft).

and unsupported proposal posited in rebuttal by a biased, non-engineer fact witness.

Higher publisher costs and forced outage. Under Plaintiffs’ proposal, even if an entity like Prebid were to administer or host the OSA code, that host would not be running the auction. 9/26 119:14-122:3 (Racic); 10/6 AM 13:16-20 (Wheatland). DFP publishers, who would be forced to use the OSA, would therefore need to either integrate with, test, and run the new OSA themselves, or pay a service provider to (which, for smaller publishers, may be prohibitively expensive).⁴⁷ Plaintiffs also propose that publishers have just 30 days to do all this work, or contract with a service provider to do all this work, before the existing “final auction logic” is disabled. Because 30 days is not enough time for the significant work required, publishers would inevitably lose the “final auction logic” for their DFP impressions after 30 days. 9/29 PM 49:7-21 (Levitte); 9/25 PM 124:1-25 (Craycroft). Even after migration, instead of receiving automatic code upgrades from Google, publishers would have to assess code updates, decide whether to update, and implement the code updates. 9/26 108:7-111:6 (Racic); 9/29 AM 97:8-25 (Sheffer). Those burdens would fall upon all DFP customers, including thousands who do not use DFP for indirect transactions at all. 9/29 AM 80:5-83:8, 91:25-92:17 (Sheffer).

A new untested product. Remedies that introduce novel products never tested in the market can create “very significant risk and significant potential for unintended consequences.” 10/1 AM 115:23-116:18, 123:10-20 (Lerner); 10/1 PM 121:4-17 (Lerner); 10/2 PM 20:12-21:8 (Lerner). Not a single witness was aware of any other ad server that has open sourced or separated its “final auction logic.” *E.g.*, 9/22 PM 133:16-19 (Casale); 9/24 AM 88:15-24 (Lee); 9/30 PM 110:11-18 (Goel); 9/29 PM 38:4-8 (Levitte). The Court should reject Plaintiffs’ invitation to create a novel product; a remedy should “stop short of any measure which will”

⁴⁷ 9/25 PM 109:14-110:15 (Craycroft); 9/26 20:14-21:9, 113:25-116:16, 121:12-14 (Racic); 9/29 PM 47:14-48:3, 49:22-50:4, 52:22-53:6 (Levitte); 9/22 PM 137:14-138:12 (Casale); 10/1 PM 38:7-15, 39:17-24 (Douglas); 10/3 PM 32:8-12 (Layser); 9/29 AM 88:21-91:24 (Sheffer).

“require the substantial redesign” of products. *Microsoft II*, 224 F. Supp. 2d at 194.

Unknown administrator risks unintended consequences. Plaintiffs make the radical suggestion that control over the decision-making logic for every ad served by DFP be in the hands of an unidentified third party. If the administrator is ineffective (or worse, a bad actor), the Court would have no control over the maintenance, security, or decision-making logic of the OSA. *See* 10/2 AM 53:22-55:3 (Adkins); 9/25 PM 6:18-20 (Weissman).

Some of Plaintiffs’ fact witnesses identified Prebid as one, and possibly the only, contender to administer the OSA. 9/22 PM 63:20-64:3 (Casale); 9/26 52:22-25, 90:14-22 (Racic). Prebid has limited engineering resources, with fewer than 10 full-time engineers, and volunteers that include college students. 9/26 19:7-18, 91:10-24, 95:23-96:10 (Racic). That small group would be responsible for changing the code that affects every single DFP impression (*i.e.*, 8 million ad requests a second, 10/2 PM 85:17-24 (Nieh)), including updating security protocols and complying with privacy laws. 9/26 92:23-93:3, 99:4-11 (Racic). A Prebid-administered OSA would increase security risks. PRX-122; 10/2 AM 55:4-56:13 (Adkins); 9/26 55:23-57:11 (Racic). The administration of the OSA would also increase the risk of competitor collusion, 9/22 PM 135:12-136:21, 137:4-13 (Casale), with a majority of voting members of Prebid’s Board and Prebid’s committee that would be responsible for the OSA consisting of Google’s competitors, 9/26 102:8-103:15, 106:3-24, 136:17-137:1 (Racic); RDTX-1221; RDTX-1222.

C. Plaintiffs’ Proposed Behavioral Remedies Should Be Rejected.

Plaintiffs’ proposed buy-side behavioral remedies are not tailored to the liability findings because the Court did not find a relevant market in buy-side tools; in addition, Plaintiffs did not even allege that DV360 competes in any relevant market. *Op.* at 54, 59-60, 100 n.29. The Court therefore could not have found market power or anticompetitive conduct by AdWords or DV360.

Regulating Google’s buying tools would therefore disrupt competitive conditions among buying tools, including Meta, Amazon, and TikTok, that would have existed absent any anticompetitive conduct.⁴⁸ Competitor buying tools already compete via SPO, 9/22 AM 81:16-82:2 (Whitmore); 9/23 PM 44:22-45:18 (Friedman); 9/23 PM 65:21-66:7 (Lambert); 9/23 PM 127:19-128:1 (Dederick), and using first-party data, 9/23 PM 58:25-59:21, 60:14-16, 61:13-23 (Lambert); 9/25 PM 129:11-130:14 (Craycroft), but Plaintiffs seek to prohibit only Google’s tools from doing so.⁴⁹ Google disagrees that remedies concerning AdWords and DV360 are proper, 10/2 PM 18:17-19:5 (Lerner), but has agreed to clarified versions of Plaintiffs’ buy-side behavioral remedies proposals that preserve Google’s ability to maximize ROI for advertiser customers. PFJ ¶¶ III(6)-(8); 9/25 PM 130:23-131:4 (Craycroft).⁵⁰

Plaintiffs also proposed a disgorgement provision, but the Sherman Act does not contain explicit authority for seeking disgorgement in a civil suit. *See* 15 U.S.C. §§ 4, 15a; *cf.* *AMG Capital Mgmt., LLC v. FTC*, 593 U.S. 67, 70 (2021) (FTC Act does not authorize FTC to seek disgorgement). Plaintiffs proposed general prohibitions against circumvention and retaliation that parallel the ones rejected in *Search* and should be rejected here, too. 2025 WL 2523010, at *98-*100. And Plaintiffs proposed a legal and ethical compliance program for which they set forth no evidence or argument.

⁴⁸ 10/1 AM 123:21-124:2 (Lerner); 10/1 PM 101:20-105:17, 111:17-115:22, 143:23-144:6 (Lerner); RDTX-954; RDTX-955; 9/30 AM 138:9-15 (Jayaram); 9/23 PM 115:19-116:2, 116:12-16 (Dederick).

⁴⁹ Google does not agree to limit AdWords and DV360 from integrating directly with Prebid, which would be “an anomalous competitive disadvantage.” 9/25 PM 125:20-126:25 (Craycroft); 10/1 PM 101:20-102:10 (Lerner).

⁵⁰ A blanket non-discrimination provision would be dangerous because it would incent interoperation with all exchanges the same way, risking customer harm. 9/25 PM 127:1-128:14 (Craycroft). To deliver advertiser ROI, buying tools are expected to “discriminate” among exchanges to some extent because exchange quality varies. 9/23 AM 108:16-109:3 (Lambert); 9/23 PM 66:8-20, 61:24-62:9, 67:1-5, 71:21-72:9 (Lambert); 9/23 PM 117:22-119:8 (Dederick).

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