

*In the*  
**United States Court of Appeals**  
*For the*  
**Ninth Circuit**

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EPIC GAMES, INC.,  
*Plaintiff, Counter-Defendant — Appellant, Cross-Appellee,*

v.

APPLE, INC.,  
*Defendant, Counter-Claimant — Appellee, Cross-Appellant.*

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*Appeal from a Decision of the United States District Court for the Northern District of California,  
No. 4:20-cv-05640-YGR · Honorable Yvonne Gonzalez Rogers*

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**BRIEF OF *AMICUS CURIAE* COMPUTER & COMMUNICATIONS  
INDUSTRY ASSOCIATION IN SUPPORT OF DEFENDANT,  
COUNTER-CLAIMANT — APPELLEE, CROSS-APPELLANT**

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## **RULE 26.1 DISCLOSURE STATEMENT**

These representations are made in order that the judges of this Court may evaluate possible disqualification or recusal.

The Computer & Communications Industry Association (“CCIA”) is a trade association operating as a 501(c)(6) non-profit, non-stock corporation organized under the laws of Virginia. CCIA has no parent corporation and no publicly held corporation owns 10% or more of its stock.

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## INTEREST OF *AMICUS CURIAE*

*Amicus curiae* CCIA is a trade association that represents companies offering information and communications technology products and services. It submits this brief pursuant to Fed. R. App. P. 29 in support of the District Court’s approach to the definition of the relevant product market. This brief explains that digital markets, such as app stores, are multi-sided, meaning that they serve multiple, interrelated sets of customers. As such, digital markets face competitive pressure that benefits consumers by constraining price, ensuring high quality, and stimulating innovation.

Both parties to this appeal have granted “blanket consent to the filing of *amicus curiae* briefs in support of either party or no party, provided the *amicus curiae* brief is timely and otherwise complies with the Federal Rules of Appellate Procedure and this Court’s local rules.” ECF 33.

CCIA represents more than twenty-five large, medium-sized, and small companies offering high-technology products and services, including computer hardware and software, electronic commerce, telecommunications, and Internet products and services. For 50 years, CCIA has promoted open markets, open systems, and open networks. CCIA members employ more than 1.6 million workers, invest more than \$100 billion in research and development, and contribute trillions of dollars in productivity to the global economy. A list of CCIA members is available at <https://www.ccianet.org/members>.

CCIA submits this brief to draw attention to the importance of undertaking a nuanced rule-of-reason analysis of multi-sided business models. Positions advanced by Plaintiff-Appellant and some of its *amici* here embrace an analytical framework in antitrust cases that ignores the significant differences between firms with one set of customers (“one-sided firms”) and firms that have multiple, interrelated sets of customers (“multi-sided firms”) such as many of CCIA’s members. These members offer everything from diverse virtual marketplaces to real-world services. Because positions that Plaintiff-Appellant and some of its *amici* advocate do not account for the competitive realities many of its members face, CCIA urges this Court to adopt the District Court’s rationale for defining the relevant product market as “two-sided” and explains why courts applying the rule of reason must consider constraints on all sides of a multi-sided firm to assess whether a plaintiff has made out a *prima facie* case of anticompetitive conduct.

#### **STATEMENT OF *AMICUS CURIAE***

This brief was authored and funded entirely by CCIA. No person or party other than CCIA contributed to the creation, filing, or service of this brief. Defendant-Appellee Apple is a member of CCIA but has not provided or promised any financial support for this brief.

## SUMMARY OF ARGUMENT

The District Court correctly employed “two-sided”<sup>1</sup> analysis in defining the relevant product market as “*digital mobile gaming transactions*.” Rule 52 Order After Trial on the Merits at 1, 56-57 (Sept. 10, 2021) (“*Rule 52 Order*”) (ER4, 59-60) (emphasis in original). Digital markets—like app stores—serve two or more groups of consumers. These distinct groups, or “sides”, consume digital markets differently, because they seek to use them for very different purposes, *e.g.*, a place to sell wares versus a place to be entertained. Firms operating in such multi-sided markets must make decisions about price and output in response to this differentiated but interrelated demand, and therefore are not subject to the same assumptions—the ability to set prices and determine output unilaterally—as single-sided firms. Properly defining the relevant market in such multi-sided ecosystems prevents “false positives” in antitrust analysis that overlook the procompetitive, pro-consumer effects of a market constrained by multi-sided demand.

### ARGUMENT

#### **I. ANTITRUST ANALYSIS, PARTICULARLY MARKET DEFINITION, MUST REFLECT COMPETITIVE REALITIES OF MULTI-SIDED MARKETS.**

Antitrust analysis requires careful attention to “the economic reality of the

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<sup>1</sup> These markets are described as “two-sided” or “multi-sided.” *See, e.g.*, Jean-Charles Rochet and Jean Tirole, *Two-sided Markets: A Progress Report*, 37 *The RAND Journal of Economics*, at 645 (2006).

market at issue,” *Eastman Kodak Co. v. Image Tech. Servs., Inc.*, 504 U.S. 451, 467 (1992), in “the context of the particular industry” at issue. *United States v. Sealy*, 388 U.S. 350, 359 (1967). Courts seeking to determine whether “the challenged restraint has a substantial anticompetitive effect that harms consumers in the relevant market,” *Ohio v. American Express Co.*, 138 S. Ct. 2274, 2284 (2018) (“*Amex*”) (internal citation omitted), must account for all of the competitive constraints at work. And where a firm “offers different products or services to two different groups who both depend on the platform to intermediate between them,” *id.* at 2280, proper antitrust analysis will “[e]valuat[e] both sides of a two-sided transaction platform ... to accurately assess competition.” *Id.* at 2287.

Companies at the leading edge of technological innovation, including many of CCIA’s members, have harnessed technologies to serve multiple, interrelated sets of customers and offer valuable products and services to businesses and consumers alike. Indeed, this case highlights the wide range of business models that could be thought of as “multi-sided,” from Internet search engines, to video game platforms, to shopping malls—each with its own economic dynamics.

Yet the most commonly used analytical tools in antitrust were developed to analyze single-sided markets; they may fail to account for the “actual market realities,” *Kodak*, 504 U.S. at 466, of many multi-sided firms. These shortcomings raise the risk of overlooking the significant constraints that multi-sided firms face

and, accordingly, finding anticompetitive conduct where none exists. Such “false positives” by regulators and courts deter innovation and hinder consumer welfare.

Because many multi-sided firms generate value by facilitating transactions among their various customer sets, the demand for the services that a multi-sided firm offers to any one “side” depends not only on the characteristics of those services, but also on the demand for the services offered to the other sides. *See, e.g.,* Lapo Filistrucchi *et al.*, *Market Definition in Two-Sided Markets: Theory and Practice*, 10 J. Competition L. & Econ. 293, 296-97 (2014). Thus, such firms must not only cater to the individual needs of their various customers, but also manage the interrelationships between those needs. *See* SER124 ¶ 28.

These effects can upset assumptions that ordinarily hold for single-sided firms. For example, prices that a multi-sided firm charges to each side vary in relation to the aggregate variable cost of providing products or services to customers on various sides of the market and not only with the marginal cost of one product (as they would in a single-sided market). And because increasing the customer base on one side of the market may make participation more valuable to participants on the other sides, price increases that stimulate participation may actually result in an *increase* in consumer welfare.

The Supreme Court has stressed the importance of looking “closely [at] the economic reality of the market at issue,” especially when examining the

“responsiveness of the sales of one product to price changes of the other.” *Kodak*, 504 U.S. at 467 (internal quotation marks omitted). It has rejected simplifying “presumptions” that paper over “actual market realities.” *Id.* at 466-467. That multi-sided markets are complex is not a reason to subject multi-sided firms to a one-sided-firm analysis divorced from the economic realities they face. “[C]ompetition cannot be accurately assessed by looking at only one side of the platform in isolation.” *Amex*, 138 S. Ct. at 2287.

For example, multi-sided firms are constrained by the availability of substitute products. But pricing and output decisions in a multi-sided market may also be subject to constraints that arise from the phenomenon of interrelated demand among multiple sides of the platforms. These constraints—no less than the availability of reasonable substitutes—limit a firm’s ability to unilaterally raise prices or reduce output. *See* SER142 ¶¶102-103.

In addition, multi-sided firms can face competition from other multi-sided firms as well as from single-sided firms that serve one side of the multi-sided firm’s market. Competition among multi-sided firms can magnify the effects of a price increase even further as attrition from the first firm enhances the attractiveness of the competing firm. A hypothetical monopolist test that looks only at one side of the market when considering competing firms could therefore significantly underestimate the competitive constraints at play. *Market Definition in Two-Sided*

*Markets*, 10 J. Competition L. & Econ. at 296-297; *see also* SER135-36 ¶¶ 79-82.

Multi-sidedness also has implications for common measures of market power. *See* SER143 ¶¶ 108-109. Take the example of pricing above marginal cost. Because prices in perfectly competitive one-sided markets will tend toward marginal cost, courts sometimes define market power as “the power to charge a price above cost” and maintain a profit. *In re Brand Name Prescription Drugs Antitrust Litig.*, 186 F.3d 781, 783 (7th Cir. 1999); *see also E. Food Servs., Inc. v. Pontifical Catholic Univ. Servs. Ass’n*, 357 F.3d 1, 6 (1st Cir. 2004). But comparing price and marginal cost on just one side of a multi-sided firm is a poor gauge of market power. Prices in multi-sided markets vary with the marginal costs of the firm as a whole ***on all sides of the market***. *See* Julian Wright, *One-sided Logic in Two-sided Markets*, 3 Rev. Network Econ. 44, 47-48 (2004).

Likewise, offering prices below marginal cost to one set of customers is not necessarily evidence of predatory pricing. The canonical test of predatory pricing requires proof “that the prices complained of are below an appropriate measure of [the defendant’s] costs” and that “the [defendant] ha[s] a dangerous probability of recouping its investment in below-cost prices.” *Weyerhaeuser Co. v. Ross-Simmons Hardwood Lumber Co.*, 549 U.S. 312, 318-319 (2007) (alterations omitted) (quoting *Brooke Group Ltd. v. Brown & Williamson Tobacco Corp.*, 509 U.S. 209, 222, 224 (1993)). That test makes little sense, however, when a firm is

effectively “selling” to one side of the market the ability to reach users on the other side. Take the example of a restaurant-reservation booking site: it might allow consumers to use the site free of charge in order to stimulate demand, while charging restaurants fees to secure reservations. Both sides of that market plainly benefit. But under traditional, single-sided antitrust analysis, the booking site might be accused of price predation. Appropriate analysis for such a firm looks to both—or all—sides of the market it serves in order truly to assess the overall impact that its conduct has on its ecosystem. *See* SER146 ¶ 188, SER148 ¶¶ 127-28.

When analyzing the competitive constraints impacting app stores, all sides of the multi-sided business model should be accounted for, in order to consider “the economic reality of the market at issue” as the Supreme Court instructs courts to do. *Kodak*, 504 U.S. at 467. Here, the District Court correctly applied multi-sided market analysis for defining the relevant market.

## **II. NETWORK EFFECTS IN MULTI-SIDED MARKETS SHOULD NOT BE PRESUMED TO CREATE MARKET POWER.**

In multi-sided markets, network effects may be at work, but their impact may be diminished by interrelated demand from multiple sets of consumers. The District Court recognized the indirect network effects at work in Apple’s App Store platform, *see Rule 52 Order* at 111, 115, 138 (ER114, 118, 141). *Amicus* CCIA provides further explication as to why network effects do not necessarily result in the same outcomes in multi-sided markets as they do in single-sided markets.

Direct network effects are present when the utility that a user derives from consumption of the good increases with the number of other agents consuming the good. *See, e.g.,* Michael L. Katz & Carl Shapiro, *Network Externalities, Competition, and Compatibility*, 75 Am. Econ. Rev. 424, 424 (1985). Importantly, this dynamic is likely to produce consumer benefits as the value and usefulness of the network increases in parallel with the number of network participants. Network growth creates, therefore, pro-competitive benefits for consumers.

Indirect network effects exist where the value of a two-sided platform to one group of participants depends on how many members of a different group participate. *Amex*, 138 S. Ct. at 2280-81. In multi-sided markets, due to the indirect network effects between the customer groups, an increase in concentration may increase welfare even if it increases market power. Thus, to determine the impact on market power of a multi-sided platform, one must take into account the interrelated effects on all customer groups served by the platform. *E.g.,* OECD Competition Committee, *Two-Sided Markets*, DAF/COMP (2009) 20, 14.

Indirect network effects in multi-sided platforms will influence not only price levels, but price structures, too. Multi-sidedness and network effects, therefore, challenge the traditional application of relevant market definition theory, including the hypothetical monopolist test, in measuring market power. *See, e.g.,* Iakovos

Sarmas, *Market Definition for Two-Sided Platforms: Why Ohio v. American Express Co. Matters for the Big Tech*, 19 Fla. St. Univ. Bus. Rev. 199, 203 (2020).

As the District Court recognized, the Apple App Store is a multi-sided business model, which may make competitive effects difficult to evaluate. *See Rule 52 Order* at 94 (ER97). In multi-sided business models, an anticompetitive price or restriction on one side may well reflect a competitive equilibrium on the other side. *Id.* at 94-95 (ER97-98). Thus, as the District Court noted, the experts in this case agreed that competitive effects can be determined only after carefully considering all interrelated sides of the business model, including any indirect network effects. *Id.*

Even where network effects are competitively significant, they contain within them the key to the erosion of market power and the continuing incentive to compete aggressively on the dimensions that matter to consumers. This is because of “reverse network effects,” where the increasing size of a network can make it less valuable, leading to the departure of important subsets of users and the wider collapse of the network. Because of these indirect network effects, the Court in *Amex* reasoned, “two-sided platforms cannot raise prices on one side without risking a feedback loop of declining demand.” *Amex*, 138 S. Ct. at 2285.

Strong network effects can lead to the loss of market position as rapidly as any viral user growth. *See, e.g.*, David S. Evans & Richard Schmalensee, *Why*

*Winner-Takes-All Thinking Doesn't Apply to the Platform Economy*, Harvard Business Review (2016), 2. This creates an opportunity for challengers seeking to dislodge incumbents. “Experience also shows us that network effects can also work in reverse, and destroy value with explosive speed,” *id.*, as seen for example in shopping malls and social networks.

Therefore, network effects may tip toward *or* against multi-sided platforms, and they should not be presumed to create market power.

## CONCLUSION

For all these reasons, the Court should adopt the District Court’s application of multi-sided market analysis for defining the relevant market in this litigation.

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**CERTIFICATE OF COMPLIANCE**

In compliance with Fed. R. App. P. 29(a)(4), I certify that according to the word-count function of Microsoft Word, the foregoing *amicus curiae* brief contains 2,408 words, which is less than one-half the number of words that Fed. R. Civ. P. 32(a)(7) generally affords to a party for its principal brief.

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**CERTIFICATE OF SERVICE**

I certify that on March 31, 2022, the foregoing brief *Amicus Curiae* was filed with the Clerk of the U.S. Court of Appeals for the Ninth Circuit via CM/ECF. I further certify that the foregoing brief *Amicus Curiae* was served electronically via CM/ECF on all parties' counsel who have appeared and are registered in the CM/ECF system.

/s/Stephanie A. Joyce \_\_\_\_\_  
Stephanie A. Joyce, Esq.

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