No. 19-

IN THE

Supreme Court of the United States

CISCO SYSTEMS, INC.,

Petitioner,

v.

SRI INTERNATIONAL, INC.,

Respondent.

ON PETITION FOR A WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT

PETITION FOR A WRIT OF CERTIORARI

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QUESTION PRESENTED

35 U.S.C. § 101 provides that a patent may be obtained for "any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof." However, this Court has held that § 101 "'contains an important implicit exception: Laws of nature, natural phenomena, and abstract ideas are not patentable.'" *Alice Corp. Pty. Ltd.* v. *CLS Bank Int'l*, 573 U.S. 208, 216 (2014).

Respondent SRI owns two patents that are both directed to a "computer-automated method" of collecting and analyzing data in a computer network to detect suspicious activity.

The question presented is:

Whether patent claims that recite only the abstract idea of collecting and analyzing data are patent-ineligible under 35 U.S.C. § 101 and *Alice*.

CORPORATE DISCLOSURE STATEMENT

Petitioner Cisco Systems, Inc. has no parent corporation. To the best of Cisco's knowledge and belief, and based on public filings with the Securities and Exchange Commission, as of November 8, 2019, no publicly held corporation owns 10% or more of Cisco's stock.

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Cisco Systems, Inc. ("Cisco") respectfully petitions for a writ of certiorari to review the judgment of the United States Court of Appeals for the Federal Circuit in this case.

OPINIONS BELOW

The court of appeals' order denying rehearing en banc (App. 3a-4a) is unreported but is available at 773 F. App'x 1090. The opinion of the court of appeals as modified on panel rehearing (App. 5a-35a) is reported at 930 F.3d 1295. The district court's opinion denying Cisco's motion for summary judgment of invalidity under 35 U.S.C. § 101 (App. 37a-84a) is reported at 179 F. Supp. 3d 339.

JURISDICTION

A divided panel of the court of appeals issued its initial published decision on March 29, 2019. In response to Cisco's timely filed petition for panel rehearing and rehearing en banc, the panel issued a modified opinion on July 12, 2019. App. 1a-2a, 5a-35a. The panel and en banc court otherwise denied the petition. App. 3a-4a. On September 18, 2019, the Chief Justice extended the time for filing a petition for writ of certiorari to and including November 8, 2019. This Court has jurisdiction under 28 U.S.C. § 1254(1).

STATUTORY PROVISION INVOLVED

35 U.S.C. § 101 provides that "[w]hoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title."

INTRODUCTION

A basic tenant of patent law is that "'an idea … itself is not patentable.'" *Alice Corp. Pty. Ltd.* v. *CLS Bank Int'l*, 573 U.S. 208, 218 (2014). For example, standalone abstract concepts like mathematical formulas, computer algorithms, and "longstanding commercial practice[s]" may not be protected under patent law. *Id.* at 216, 220. The reason for this longstanding rule is straightforward: allowing an individual to claim a monopoly over an abstract idea would remove the "basic tools of scientific and technological work" from the public domain, thus hindering the type of inventive creation that patent law is meant to promote. *See Association for Molecular Pathology* v. *Myriad Genetics, Inc.*, 569 U.S. 576, 589-590 (2013).

A necessary corollary of this rule is that an abstract idea does not become patentable simply because the drafter "implements [the] principle in some specific fashion," *Parker* v. *Flook*, 437 U.S. 584, 593 (1978), such as via "a computerized method for using a mathematical formula," *Alice*, 573 U.S. at 222. In other words, "the prohibition against patenting abstract ideas 'cannot be circumvented by attempting to limit the use of the idea to a particular technological environment.'" *Bilski* v. *Kappos*, 561 U.S. 593, 610-611 (2010). Accordingly, this Court has held that "the mere recitation of a generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention." *Alice*, 573 U.S. at 223.

Relying on these principles, the Federal Circuit has repeatedly held that the basic act of collecting and analyzing data in conjunction with a generic computer system—without more—is unpatentable. Previously, the Federal Circuit has even recognized that limiting collecting and analyzing data to a particular context, such as a power grid, does not transform that act into patentable subject matter. *See Electric Power Grp., LLC* v. *Alstom S.A.*, 830 F.3d 1350, 1353-1354 (Fed. Cir. 2016).

In this case, however, a two-judge majority diverged from the basic rules laid down in cases like *Alice* and *Electric Power*, and upheld the validity of patent claims that merely describe collecting and analyzing data to detect suspicious activity on a computer network. App. 32a-35a (Lourie, J., dissenting). As Judge Lourie explained in dissent, the majority's opinion is impossible to square "with the claims in *Electric Power*," which were "hardly distinguishable." *Id.*

The majority's decision creates a significant intra-circuit split within the Federal Circuit—the only appellate court that reviews patent rulings. Allowing two competing, published decisions on whether gathering and analyzing data constitutes an abstract idea to stand will breed confusion at all levels of the patent system.

In addition, the majority decision here cannot be reconciled with *Alice* and the rest of this Court's abstract idea doctrine. At their core, the asserted patent claims describe a concept that is as old as routine police work—monitoring an area for suspicious activity and reporting in on a regular basis to a superior who is looking at the bigger picture. Nothing in the patents-in-suit provides an inventive concept sufficient to transform the underlying abstract idea into patentable subject matter. And the distinctions relied upon by the majority decision to uphold the patents' validity—that the claimed abstract ideas may improve the functionality of a computer system and solve a purportedly important problem—have already been rejected by this Court's longstanding precedent.

Correcting the panel's retreat from *Alice*'s holding is particularly important because the kind of technology at issue in this case—computer networks—is thoroughly interwoven into modern society, controlling everything from power grids to smartphones to the international banking system. A holding that the basic concept of collecting and analyzing data is patentable would grant a monopoly on some of the basic "building blocks" that allow computer networks to grow, *see Alice*, 573 U.S. at 216, hindering innovation across a vast number of important sectors of the American economy.

This case is an excellent vehicle to take up the question presented and clarify that an abstract idea like

collecting and analyzing data—standing alone—is not patentable simply because it purports to improve computer functioning or solve a technological problem. The question is cleanly presented, and resolving the question in Cisco's favor would end the litigation. Moreover, the question presented will not benefit from further consideration in the Federal Circuit, as that court has declined to take the question presented en banc despite Judge Lourie's well-reasoned dissent. App. 32a-35a.

The petition for certiorari should be granted.[1]

STATEMENT

A. The Technology

Computer networks are interconnected systems for sharing information. The connections allow users to easily access information, but they also make the networks susceptible to attacks from computer viruses and other security threats. To protect against such attacks, an entire industry has developed to design techniques for monitoring computer networks for suspicious activity—e.g., a password being incorrectly entered multiple times in rapid succession. *See* CAJA 1459. A computer

[1] The pending petition for certiorari in *Trading Technologies International, Inc.* v. *IBG LLC*, No. 19-353, argues for *narrowing* the scope of what constitutes an abstract idea. Cisco believes both that such an approach would be incorrect and that this case is a better vehicle for clarifying the scope of the abstract idea doctrine. Still, Cisco respectfully requests that—if this Court is inclined to grant review in *Trading Technologies*—the Court grant review here as well in order to have the benefit of two different factual scenarios that raise the same basic legal issue. *See, e.g.*, *Halo Elecs., Inc.* v. *Pulse Elecs., Inc.*, 136 S. Ct. 1923, 1931 (2016) (granting review of two different petitions, each raising an issue regarding the award of enhanced patent damages).

that tracks network activity (called a network "monitor") can—like a police officer patrolling her normal beat—detect such patterns of suspicious activity and generate an alert so that a network administrator may address it. CAJA 5005-5007, 5019.

Some security threats to a network, however, may only be detected with information from multiple sources. For example, a hacker may try logging in to several computers in the same network. CAJA 5018. If the number of login attempts for each computer is below the threshold to trigger an alert, it may be difficult to detect such an attack by looking at only a single entry point to the network. CAJA 5018-5019. Similarly, a single police officer might not be able to detect the work of a serial criminal or a significant surge in gang activity if she works alone.

By the 1990s, techniques were developed to detect this kind of multi-pronged attack. *E.g.*, CAJA 5016-5026. For example, rather than relying on a single monitor, network security systems used multiple monitors at different locations to report suspicious activity to yet another monitor, which collected and evaluated that information. CAJA 5018, 2618-2619. Much like the members of a police department pooling information to give to a superior for analysis, this practice allows a network security system to recognize broader patterns of threatening activity.

B. The Patents

As relevant here, Respondent SRI International, Inc. ("SRI") owns two patents that describe essentially the same type of network security discussed above. *See* U.S. Patent Nos. 6,484,203 ("the '203 patent") and 6,711,615 ("the '615 patent"). In short, the asserted

claims of the patents describe a method of monitoring a computer network, under which multiple monitors analyze network traffic for suspicious activity and report that activity to one or more "hierarchical monitors" that receive and analyze that data. CAJA 197-198, 218.

There is no dispute that hierarchical network monitoring—and, indeed, all elements of the asserted claims—were well known before the patents were filed. CAJA 1542-1544, 1553-1555 (named inventor testifying, for example, that using "hierarchical network monitors" was previously known and that "detecting suspicious network activity based on analysis of network traffic data … was not a new concept"). The patents also make clear that the claimed invention does not require any specialized hardware, and can be carried out using "customary" computer components. CAJA 217 (14:50-57); App. 34a-35a (Lourie, J., dissenting) ("The specification further makes clear that the claims only rely on generic computer components, including a computer, memory, processor, and mass storage device.").

SRI has nevertheless tried to characterize its claims as a "very specific" way of performing hierarchical network monitoring. CAJA 1543-1544. This assertion is not borne out by the asserted claims themselves, which recite the abstract idea of analyzing information to generate reports of suspicious activity on a computer network. For example, representative claim 1 of the '615 patent states:

> A computer-automated method of hierarchical event monitoring and analysis within an enterprise network comprising:
>
> deploying a plurality of network monitors in the enterprise network;

> detecting, by the network monitors, suspicious network activity based on analysis of network traffic data selected from the following categories: {network packet data transfer commands, network packet data transfer errors, network packet data volume, network connection requests, network connection denials, error codes included in a network packet, network connection acknowledgments, and network packets indicative of well-known network-service protocols};
>
> generating, by the monitors, reports of said suspicious activity; and
>
> automatically receiving and integrating the reports of suspicious activity, by one or more hierarchical monitors.

CAJA 218 (15:2-21).

Notably, the asserted claims do not identify any requirement for *how* the "plurality of network monitors" detect suspicious activity. Nor do they contain details regarding what those network monitors do with that information other than "generating … reports" and "automatically receiving and integrating the reports." As SRI's counsel summarized the patents-in-suit during closing argument, they merely claim:

> Software and/or hardware that can collect, analyze and/or respond to data. What kind of software? Doesn't matter. What kind of hardware? Doesn't matter. How does it have to collect the data? I mean, obviously, it has to come from network traffic. That's not disput-

> ed. Beyond that, does it have to collect it in a special way? Doesn't matter.

CAJA 2934-2935.

C. The Proceedings Below

SRI filed this lawsuit in the District of Delaware in September 2013. After years of litigation, the district court rejected Cisco's motion for summary judgment of invalidity under 35 U.S.C. § 101 just three weeks before trial. *See* App. 37a-84a.[2]

The district court applied the framework laid out in *Alice*, considering first whether the claims are "directed to" an abstract idea and, if so, whether the claims nevertheless include an "inventive concept" that "is 'sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the ineligible concept itself.'" *Alice*, 573 U.S. at 217-218; *see also* App. 44a-45a.

As to the first step, the district court recognized that "computer-implemented patents generally involve abstract ideas" because "computer software comprises a set of instructions." App. 46a. Still, it held that the asserted claims at issue went beyond an abstract idea, as they were "'necessarily rooted in computer technology to overcome a problem specifically arising in the realm of networks.'" App. 51a. On step two, the district court concluded that the claims contained ade-

[2] As the Federal Circuit panel later noted, it is undisputed that patent eligibility in this case is a "purely legal question." App. 11a n.5. Accordingly, this case does not implicate the Federal Circuit doctrine holding that summary judgment on a § 101 issue is inappropriate when there are disputed issues of fact. *See, e.g.*, *Berkheimer* v. *HP Inc.*, 881 F.3d 1360 (Fed. Cir. 2018), *petition for cert. filed*, No. 18-415 (U.S. Sept. 28, 2018).

quate detail to "sufficiently delineate 'how' the method is performed to 'improve the functioning of the computer itself,' thereby providing an inventive concept." App. 51a-52a. The court, however, did not point to anything in the patents that actually explains how the data must be collected or analyzed.

The jury ultimately found both that Cisco had infringed the asserted patents and that the patents were not invalid. CAJA 104-111. The jury awarded SRI nearly $24 million in damages. CAJA 111.

On appeal, a divided panel of the Federal Circuit affirmed the district court's § 101 ruling. The panel majority (Judge Stoll, joined by Judge O'Malley) acknowledged that the claims merely "recite[] using network monitors to detect suspicious network activity …, generating reports of that suspicious activity, and integrating those reports using hierarchical monitors." App. 13a. Nevertheless, the majority concluded that these generic steps were "an improvement in computer network technology" that "solve[s] a specific problem in the realm of computer networks"—i.e., "providing a network defense system that monitors network traffic in real-time to automatically detect large-scale attacks." *Id.* Based on that understanding, the majority held that the claims are not directed to an abstract idea under *Alice* step one and declined to address *Alice* step two. App. 12a-15a. Like the district court, the panel majority notably did not identify anything in the asserted claims that identifies how data must be collected or analyzed.

Judge Lourie dissented. He explained that the claims at issue are "clearly abstract," as they "recite nothing more than deploying network monitors, detecting suspicious network activity, and generating and

handling reports." App. 32a, 34a. The claims do not, for example, describe a "specific technique … for improving network security" or even "a specific way of enabling a computer to monitor network activity." App. 34a-35a (emphasis omitted). At bottom, Judge Lourie noted, the claims "differ very little from the claims [found invalid] in *Electric Power*," in that they "merely describe[] selecting information … for collection, analysis, and display." App. 32a-33a. He would have held that these claims, in which a "computer is used as a tool, and no improvement in computer technology is shown or claimed," are barred under both *Electric Power* and *Alice*. App. 34a-35a.

Cisco filed a timely petition for panel rehearing or rehearing en banc. While the Federal Circuit called for a response, neither the panel nor the en banc court decided to rehear the § 101 issue. This petition for certiorari followed.

REASONS FOR GRANTING THE PETITION

Because the Federal Circuit is the only court of appeals with jurisdiction over patent issues, it "is virtually impossible" for there to be a circuit split on the interpretation of the Patent Act. *See* Stephenson, Note, *Federal Circuit Case Selection at the Supreme Court: An Empirical Analysis*, 102 Georgetown L.J. 271, 272 (2013). Accordingly, this Court has relied on unique metrics when assessing whether a petition challenging a Federal Circuit decision merits review. In particular, this Court has historically relied upon the presence of "intracircuit conflict"—as indicated by "dissents from panel opinions," *id.* at 286—and/or a risk of the entrenchment of an erroneous view of patent law, *see* Golden, *The Supreme Court as "Prime Percolator*," 56 UCLA L. Rev. 657, 705 (2009).

This case presents both of these indicia. *First*, as Judge Lourie's powerful dissent establishes, the panel majority's ruling opens up a significant intra-circuit split over whether the abstract idea of collecting and analyzing data is patentable. *Second*, the ruling below will, unless reversed, broaden the scope of patentability to include abstract ideas implemented on a generic computer, in direct contravention of *Alice* and its predecessor decisions.

I. THE FEDERAL CIRCUIT'S DECISION CREATES AN INTRA-CIRCUIT SPLIT OVER THE SCOPE OF 35 U.S.C. § 101

A. The decision below warrants review because it conflicts with years of Federal Circuit precedent holding that a patent that simply collects and analyzes data is invalid. As the Federal Circuit explained shortly after *Alice* was decided, the concept of "collecting data" "is undisputedly well-known" and, "[i]ndeed, humans have always performed th[is] function." *Content Extraction & Transmission LLC* v. *Wells Fargo Bank, N.A.*, 776 F.3d 1343, 1347 (Fed. Cir. 2014). Thus, for example, the claimed step of "'obtaining information'" connected with an online credit card transaction "can be performed by a human who simply reads records of Internet card transactions from a preexisting database." *CyberSource Corp.* v. *Retail Decisions, Inc.*, 654 F.3d 1366, 1372 (Fed. Cir. 2011).

Similarly, the analysis of data—without more—is a form of "mental process" that a human being could perform, given sufficient time. *See, e.g.*, *Bancorp Servs., LLC* v. *Sun Life Assurance Co.*, 687 F.3d 1266, 1278 (Fed. Cir. 2012) ("'permitting a solution to be achieved more quickly'" than a "person making calculations or computations" is still an abstract idea); *In re TLI*

Commc'ns LLC Patent Litig., 823 F.3d 607, 613 (Fed. Cir. 2016) (claimed step of "recognizing certain data within the collected data set" is an abstract idea).

The Federal Circuit combined these two principles in *Electric Power Group, LLC* v. *Alstom S.A.*, 830 F.3d 1350 (Fed. Cir. 2016). There, the asserted claims described "systems and methods for performing real-time performance monitoring of an electric power grid by collecting data from multiple data sources, analyzing the data, and displaying the results." *Id.* at 1351. In other words, the patents merely claimed "gathering and analyzing information of a specified content … and not any particular assertedly inventive technology for preforming those functions." *Id.* at 1354.

As the *Electric Power* court explained, both steps were "within the realm of abstract ideas." 830 F.3d at 1353-1354. Because information "is an intangible," the mere act of collecting it—even "when limited to particular content (which does not change its character as information)"—is inherently abstract. *Id.* at 1353. And the act of "analyzing information by steps people go through in their minds, or by mathematical algorithms … [are] essentially mental processes within the abstract-idea category." *Id.* at 1354.

Importantly, the *Electric Power* court followed A*lice* in drawing a careful line between patents that claim "computer-functionality improvements" and those that merely use "existing computers as tools in aid of processes focused on 'abstract ideas.'" 830 F.3d at 1354. Because the patents at issue did not present "a specific improvement" such as a "particular database technique" to improve computer functioning, they were better thought of as using generic computers as tools. *Id.* The court accordingly held that the asserted claims

"fail to meet the standard for patent eligibility under § 101." *Id.* at 1356.

The Federal Circuit has reaffirmed the *Electric Power* rule on several occasions. In *FairWarning IP, LLC* v. *Iatric Systems, Inc.*, 839 F.3d 1089 (Fed. Cir. 2016), for example, the asserted claims described recording user access to an individual's personal health information and reviewing the access data to detect misuse, *id.* at 1091-1092. In other words, the claims were "directed to collecting and analyzing information" for the purpose of ferreting out misconduct. *Id.* at 1094. Because the claims merely "implement[ed] an old practice in a new environment"—relying on the same tactics that "humans in analogous situations detecting fraud have asked for decades, if not centuries"—they were directed to an abstract idea. *Id.* at 1094-1095.

Similarly, in *Intellectual Ventures I LLC* v. *Capital One Financial Corp.*, 850 F.3d 1332 (Fed. Cir. 2017), one of the patents-in-suit described allowing a user to view and update documents written in a particular computer language, *id.* at 1339. At bottom, the Federal Circuit concluded, the patent was directed to an abstract idea because it merely claimed the "collection, display, and manipulation of data." *Id.* at 1340.

B. As Judge Lourie explained in his dissent, this case is "hardly distinguishable" from *Electric Power* and its progeny. App. 34a. As with the claims at issue in that case, the asserted "claims here recite nothing more than deploying network monitors, detecting suspicious network activity, and generating and handling reports." *Id.* Moreover, Judge Lourie observed, the claims fail to provide any new technique for implementing these abstract ideas—for example, they do not list any "specific means" for detecting suspicious activity or

describe a "specific technique" for "improving computer network security." *Id.*; *see supra* pp. 10-11.

Notably, the panel majority did not identify any real way of distinguishing this case from *Electric Power*. The majority asserted generally that this case involved a "specific technique" for improving the functionality of computers (rather than simply using a computer as a tool), but it did not identify precisely how that specific technique went beyond the abstract idea of collecting and analyzing data. App. 12a. The majority also suggested that the asserted claims were patentable because they seek to improve a network's ability "to automatically detect large-scale attacks." App. 13a. But nothing in the patents' claims actually requires any improvement in a computer network or its security—merely collecting and analyzing data is enough. *See supra* pp. 6-9. Even if such an improvement were claimed, the *Electric Power* court rejected exactly this argument, noting that "result-focused" claims that are directed to achieving a particular outcome (here, network security) rather than a particular method of achieving that outcome cannot survive scrutiny under this Court's § 101 case law. *See* 830 F.3d at 1356.

C. This Court's review is necessary to resolve the burgeoning intra-circuit split over whether collecting and analyzing data is patentable. The panel majority was well aware of the *Electric Power* decision when it issued its ruling, but (incorrectly) believed it to be distinguishable for the reasons discussed above. App. 13a-14a. And the en banc Federal Circuit declined the opportunity to take up the issue when Cisco filed a petition for rehearing in this case.

Absent this Court's intervention, then, the conflict between *Electric Power* and this case will continue to

generate confusion at multiple levels of the patent system.

First, at the Federal Circuit, it will permit individual panels to choose whether to follow the *Electric Power* rule (i.e., collecting and analyzing data, without more, is always an abstract idea) or the results-oriented rule crafted by the majority in this case. This, in turn, would make the outcome in any given case depend solely on the identity of the panel and raise important questions of fundamental fairness for similarly situated litigants.

Second, it will place the imprimatur of the Federal Circuit on patents that claim nothing more than the basic "moving of information." App. 34a (Lourie, J., dissenting). This will breed confusion in the district courts and at the Patent Office, which will be required to parse the non-existent distinctions between decisions like *Electric Power* on the one hand and this case on the other in deciding whether a given patent is invalid.

Confusion has already begun to set in. Just last month, the Patent Office issued new guidance to patent examiners and the general public that tried to draw a line between the claims disallowed under *Electric Power* and the claims allowed under this case. *See* PTO, *October 2019 Update: Subject Matter Eligibility* 7 (Oct. 17, 2019).[3] The Patent Office's good-faith effort to provide applicants with some direction on complicated § 101 issues is, as a general matter, important to maximizing predictability in patent examinations. The only guiding principle that the Patent Office was able to

[3] *Available at* https://www.uspto.gov/sites/default/files/documents/peg_oct_2019_update.pdf.

marshal as it relates to the question presented, however, is that the *Electric Power* rule applies when claims "contain limitations that can practically be performed in the human mind," while the majority's rule in this case applies when claims "cannot be practically performed in the human mind." *Id.*

The Patent Office's distinction demonstrates the confusion caused by the majority's decision. Both the patent claims here and those at issue in *Electric Power* involved using computers to assist in the process of collecting and analyzing data. As the *Electric Power* panel pointed out, the mere act of using an "off-the-shelf, conventional computer, network, and display technology" does not transform an abstract idea into patentable subject matter. 830 F.3d at 1355. Tellingly, the panel majority here relied on an entirely different—but still erroneous—ground in its strained attempt to differentiate *Electric Power*. App. 14a (contending that *Electric Power* involved the use of a computer as a tool rather than an improvement to the functionality of computers).

In effect, the Patent Office has created an entirely new doctrinal distinction in its difficult bid to make sense of the ruling in this case. Forcing the Patent Office to make this kind of case-by-case delineation—especially when rooted in distinctions that the Federal Circuit itself has not drawn—is neither sustainable nor desirable. This Court should grant review to lay down a clear rule that the Patent Office, the district courts, and the Federal Circuit can easily apply. *See, e.g.*, *Berkheimer* v. *HP, Inc.*, 890 F.3d 1369, 1376 (Fed. Cir. 2018) (Lourie, J., concurring in denial of rehearing en banc) ("Resolution of patent-eligibility issues [under § 101] requires higher intervention, hopefully with ideas reflective of the best thinking that can be brought to

bear on the subject."), *petition for cert. filed*, No. 18-415 (U.S. Sept. 28, 2018).

II. THE FEDERAL CIRCUIT'S DECISION IS INCORRECT AND CANNOT BE SQUARED WITH *ALICE* OR THIS COURT'S LONGSTANDING PRECEDENT

Even if it had not created an intra-circuit split, the panel majority's ruling would still warrant this Court's review because it is impossible to square with the basic principles laid out in *Alice* and its predecessors. It cannot be the case that an abstract idea like collecting and analyzing data transforms into patentable subject matter simply because it purportedly improves computer functioning or solves an existing problem.

As the *Alice* Court explained, this Court has long held that "'simply implementing a mathematical principle'" like an algorithm "'on a physical machine, namely a computer, is not a patentable application of that principle.'" *Alice Corp. Pty. Ltd.* v. *CLS Bank Int'l*, 573 U.S. 208, 222 (2014) (quoting *Mayo Collaborative Servs.* v. *Prometheus Labs., Inc.*, 556 U.S. 66, 84 (2012)). Rather, the patent claims must improve on an "existing technological process" in a manner that does not rely solely on "generic computer implementation." *Id.* at 223-224. A contrary rule would allow a patent applicant to claim "any principle of the physical or social sciences by reciting a computer system configured to implement the relevant concept," making "the determination of patent eligibility 'depend simply on the draftsman's art.'" *Id.* at 224.

Under the *Alice* standard, the patents-in-suit are invalid. They claim only the abstract idea of collecting and analyzing data to detect suspicious activity that would not be captured by a single observer. This is no

different from a city's police force monitoring ongoing criminal behavior and pooling data to be alert to large-scale dangers, like a serial arsonist or a string of bank robberies. *See supra* pp. 5-6.

The majority's attempt to circumvent the abstract nature of the asserted claims is nothing short of an end-run around *Alice*. The majority seemed to rely on two basic points to justify why the patents in this case are not directed to unpatentable subject matter, neither of which withstands scrutiny.

First, the majority stated that *Alice* is distinguishable because the patent claims asserted in this case improve the functionality of a computer, as opposed to simply using a computer as a tool to implement an existing idea. App. 14a. *Alice* did recognize in passing that claims "purport[ing] to improve the functioning of the computer itself" might provide an inventive concept sufficient to be patent-eligible. 573 U.S. at 225. But nothing in the claims at issue here actually requires such an improvement. *See supra* pp. 6-9. Even if they did, *Alice* nowhere suggests that an abstract idea that improves computer functioning—without more—is patentable. Rather, the Court was merely pointing out that a novel technique or application springing from an abstract idea might be patentable. This is clarified in the very next sentence of the opinion, which indicates that the Court was referring to a "'*specific or limiting recitation* of … improved computer technology.'" *Alice*, 573 U.S. at 225 (emphasis added). The *Alice* Court also cited the United States' *amicus* brief for the "improve the functioning" point, and that filing similarly states that "[t]he ultimate inquiry [under § 101] is whether the claims are directed to an innovation in computing or other technical fields *instead of* to an abstract method."

U.S. Amicus Br. 28-29, *Alice*, No. 13-298 (U.S. Feb. 26, 2014) (emphasis added).[4]

Indeed, *Alice* could not have permissibly adopted the majority's distinction without overruling this Court's longstanding precedent. In *Gottschalk* v. *Benson*, 409 U.S. 63 (1972), for example, this Court concluded that a patent claiming an algorithm that created a streamlined method for processing data on a computer was invalid. *Id.* at 64, 71-73, *see also Alice*, 573 U.S. at 218 (discussing *Benson*). The only real "practical application" for the patent, the Court noted, was "in connection with a digital computer," and permitting the patent to be enforced would "wholly pre-empt the [underlying] mathematical formula and in practical effect would be a patent on the algorithm itself." *Benson*, 409 U.S. at 71-72. Under the panel majority's test, however, the *Benson* algorithm would be patentable despite its abstract nature because it improved computer functioning.[5]

Second, the panel majority relied on the fact that the asserted claims were intended to "solve a specific problem in the realm of computer networks"—namely, "iden-

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[4] *Available at* https://www.americanbar.org/content/dam/aba/publications/supreme_court_preview/briefs-v3/13-298_resp_amcu_usa.authcheckdam.pdf (last visited Nov. 8, 2019).

[5] The panel majority's reasoning rested heavily on *Enfish, LLC* v. *Microsoft Corp.*, 822 F.3d 1327 (Fed. Cir. 2016). *See* App. 12a, 13a, 14a, 15a. But the patent in *Enfish* did not attempt to claim an abstract idea—rather, it claimed a specific type of data structure designed to improve the way a computer stores and retrieves data in memory. 822 F.3d at 1337; *see also Electric Power*, 830 F.3d at 1354 (*Enfish* "focused on … a specific improvement—a particular database technique—in how computers could carry out one of their basic functions of storage and retrieval of data"). And even if *Enfish* could be read to support the majority's position, it cannot be squared with *Benson*.

tifying hackers or potential intruders into the network." App. 12a. But again, nothing in the asserted claims requires solving a network security problem. *See supra* pp. 6-9. Even if they did, the *Alice Court* did not carve out a special exception for abstract ideas that seek to solve an important problem from its blanket rule that the mere recitation of an abstract idea coupled with implementation on a generic computer is not patentable.

Nor could *Alice* have adopted the panel's reasoning, as it conflicts with well-established doctrine. As this Court explained in *Parker* v. *Flook*, 437 U.S. 584 (1978), the mere presence of "post-solution activity, no matter how conventional or obvious in itself, can[not] transform an unpatentable principle into a patentable process." *Id.* at 590; *see also Alice*, 573 U.S. at 222 (discussing *Flook*). The "Pythagorean theorem," this Court pointed out, would not be patentable simply because "a patent application contained a final step indicating that the formula, when solved, could be usefully applied to existing surveying techniques." *Flook*, 437 U.S. at 590. Under the panel majority's test, however, the Pythagorean theorem could be claimed and monetized, so long as the patent's drafter was sufficiently clever in coming up with a new problem that the formula could purportedly resolve.[6]

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[6] The panel majority's reasoning on this point relied on *DDR Holdings, LLC* v. *Hotels.com, LP*, 773 F.3d 1245 (Fed. Cir. 2014). *See* App. 12a, 14a. But, like *Enfish*, that case did not involve an abstract idea—rather, the patent claimed a new way of displaying websites. 773 F.3d at 1257; *see also Electric Power*, 830 F.3d at 1355 ("[T]he claims at issue in *DDR Holdings*" "require[d] an arguably inventive device or technique for displaying information[.]"). And, similar to *Enfish*, even if *DDR Holdings* could be read to support the majority's opinion, it cannot be reconciled with this Court's decision in *Flook*.

In sum, the panel majority has crafted a new rule of patent law that cannot be squared with this Court's precedent—apparently based on a misreading of one sentence in *Alice*. If the majority's ruling is left in place, it will, for the first time, permit abstract ideas to be patented so long as they have the side effect of purportedly improving computer functioning or solving an important problem. This Court should grant review to correct this significant misreading of its case law.

III. This Case Presents An Excellent Vehicle To Reaffirm That Abstract Ideas Are Not Patentable

This case provides a strong, straightforward vehicle to make clear that a patent that claims simply collecting and analyzing data is invalid under § 101.

First, the issue is cleanly presented. If this Court grants review and concludes that the patents at issue are invalid under § 101, the litigation will end. There are no alternative grounds on which the infringement and damages judgment could be affirmed.[7]

Second, the opinion below is published and provides a detailed (although erroneous) analysis supporting its holding. If this case is allowed to stand, however, sub-

[7] The panel majority did not directly address whether the patents-in-suit claim an inventive concept separate from the abstract idea of collecting and analyzing data. App. 15a. As Judge Lourie pointed out in dissent, however, the only possible inventive concept in the patent beyond the underlying abstract idea is the use of a computer and nothing in the patent requires anything other than "off-the-shelf," "generic" computer components. App. 34a-35a. And because the § 101 analysis in this case presents a pure question of law, *see supra* n.2, this Court could resolve the inventive concept question without remanding for additional factual findings.

sequent decisions will likely be unpublished and will contain less reasoning for this Court to review.

Finally, the question presented will not benefit from further percolation in the Federal Circuit. That court has declared the type of claims at issue in this case invalid in several well-reasoned opinions, but deliberately refused to reconsider this particular case en banc. This Court should take the opportunity to correct the panel majority's error before the consequences spread any further.

CONCLUSION

The petition for writ of certiorari should be granted.

Respectfully submitted.

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