NO. _____

In the
# Supreme Court of the United States

REALTIME DATA, LLC D/B/A IXO,
*Petitioner*,

v.

FORTINET, INC., et al.,
*Respondents*.

*On Petition for Writ of Certiorari to the United States Court of Appeals for the Federal Circuit*

## PETITION FOR WRIT OF CERTIORARI

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## QUESTIONS PRESENTED

Section 101 of the Patent Act of 1952, 35 U.S.C. § 1 *et seq*., provides that "any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof," is eligible for a patent. 35 U.S.C. § 101. This Court issued a trio of decisions relating to Section 101 between 2010 and 2014, culminating in the Court's decision in *Alice Corp. Pty. Ltd. v. CLS Bank Int'l,* 573 U.S. 208 (2014). There, the Court held, among other things, that abstract ideas are not patentable under Section 101. *Id*. at 217. Petitioner Realtime Data LLC, d/b/a IXO ("Realtime") holds multiple patents relating to improvements in the functioning of computer systems through novel uses of data compression techniques. Seven such patents, comprising 211 individual patent claims, were before the Federal Circuit, which held that all 211 claims of all seven patents were ineligible for patent protection under the Court-created exception to Section 101 for abstract ideas. The question presented in this case is as follows:

Whether the claimed inventions are ineligible for patent protection under the abstract-idea exception to Section 101.

## PARTIES TO THE PROCEEDING

The Petitioner is Realtime Data LLC d/b/a IXO, Appellant below.

The Respondents are Fortinet, Inc., Reduxio Systems, Inc., Quest Software, Inc., Ctera Networks, Ltd., Aryaka Networks, Inc., Open Text, Inc., Mongodb Inc., Egnyte, Inc., Panzura, Inc., and Spectra Logic Corporation, Defendants-Appellees below.

Array Networks Inc., Nimbus Data, Inc., were Defendants below.

## RULE 29.6 STATEMENT

Petitioner Realtime Data LLC d/b/a IXO does not have a parent entity, is not publicly traded, and no publicly-held company owns 10% or more of Petitioner's stock/equity.

## STATEMENT OF RELATED PROCEEDINGS

This case arises from and is related to the following proceedings:

United States Court of Appeals (Federal Circuit):

*Realtime Data, LLC v. Array Networks Inc.,* CAFC No. 2021-2251

*Realtime Data, LLC v. Spectra Logic Corporation*, CAFC No. 2021-2291

United States District Court:

*Realtime Data, LLC v. Array Networks Inc.,* D. Del., Case No. 17-cv-00800-CFC

*Realtime Data, LLC v. Spectra Logic Corp.*, D. Del., Case No. 17-cv-00925-CFC.

*Realtime Data, LLC v. MongoDB, Inc.,* D. Del. Case No. 19-492-CFC

*Realtime Data, LLC v. Open Text, Inc.*, D. Del Case No. 19-394-CFC

*Realtime Data, LLC v. Nimbus Data, Inc.*, D. Del. Case No. 19-279-CFC

*Realtime Data, LLC v. Egnyte, Inc.*, D. Del. Case No. 20-1498-CFC

*Realtime Data, LLC v. Reduxio Systems, Inc.,* D. Del. Case No. 17-1676 CFC

*Realtime Data, LLC v. Fortinet, Inc.*, D. Del. Case No. 17-1635-CFC

*Realtime Data, LLC v. Aryaka, Inc.*,
D. Del. Case No. 18-2062-CFC

*Realtime Data, LLC v. CTERA Networks, Inc.*,
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*Realtime Data, LLC v. Panzura, Inc.*,
D. Del. Case No. 18-1200-CFC

*Realtime Data, LLC v. Quest Software, Inc.*,
D. Del. Case No. 18-1964-CFC

*Realtime Data, LLC v. Acronis, Inc.*,
D. Mass. Case No. 1:17-cv-012279-IT

*Realtime Data, LLC v. Fujitsu America, Inc.*,
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## PETITION FOR WRIT OF CERTIORARI

Since this Court's 2014 decision in *Alice Corp. Pty Ltd. v. CLS Bank Int'l*, there has been an explosion of findings that patent claims are ineligible under Section 101 of the patent act. In 2009, the last full year before the first of this Court's recent decisions regarding Section 101, *Bilski v. Kappos*, 561 U.S. 593 (2010), there were approximately eight district court decisions holding patents ineligible under Section 101. By 2016, the second full year after this Court's *Alice* decision, that number had grown more than eleven-fold to approximately ninety district court decisions finding claims of one or more patents ineligible under Section 101. The vast majority of these new Section 101 holdings were based on the abstract idea exception created by the Court to Section 101 – a judge-made exception to the language of a Congressional enactment. One key underpinning of this Court's Section 101 cases was the Court's reliance on older cases, such as *O'Reilly v. Morse*, 56 U.S. 62 (1853), that a single patent claim invalid as too broad, often without actually referencing the standard for patent eligibility.

Since *Alice*, the Federal Circuit has issued many divided and frequently inconsistent rulings attempting to apply the abstract idea exception. The ruling below in this case was a divided ruling with a significant and substantive dissent. Many other rulings have been similarly divided, and a review of cases from the Federal Circuit reflects significant inconsistency in applying the abstract idea exception. Indeed, the District Court that granted motions to dismiss in the instant case has written that the

Federal Circuit's Section 101 caselaw "is, to use the word of various Federal Circuit judges, 'fraught,' 'incoherent,' 'unclear, inconsistent[.] . . . and confusing,' and 'indeterminate and often lead[ing] to arbitrary results.'" *CareDx, Inc. v. Natera, Inc.*, 563 F. Supp.3d 329, 337 (D.Del 2021) (citing *Athena Diagnostics, Inc. v. Mayo Collaborative Svc's., LLC,* 927 F.3d 1333, 1337 (Fed. Cir. 2019) (denying rehearing *en banc*) (Hughes, J, concurring); *Interval Licensing LLC v. AOL, Inc.*, 896 F.3d 1335, 1348 (Fed. Cir. 2018) (Plager, J., concurring in part and dissenting in part); *The State of Patent Eligibility in America, Part I: Hearing Before the Subcomm. On Intellectual Property of the S. Comm. On the Judiciary*, 116th Cong. 2 at 2 (2019) (remarks of retired Federal Circuit Chief Judge Paul Michel); *Smart Sys. Innovations, LLC v. Chicago Transit Auth.*, 873 F.3d 1364, 1377 (Fed. Cir. 2017) (Linn, J., dissenting in part and concurring in part); *Berkheimer v. HP Inc.*, 890 F.3d 1369, 1374 (Fed. Cir. 2018) (Lourie, J., concurring in the denial of rehearing *en banc*)). Numerous commentators, including multiple former Patent Office Directors, have echoed these sentiments. *See, e.g.,* Daryl Lim, *The Influence of Alice*, 105 Minn. L. Rev. Headnotes 345, 346 (2021); James Nurton, *Iancu Calls on Federal Circuit to Fix Section 101 Problem*, IP Watchdog (May 2, 2019); David Kappos, *State of Patent Eligibility, Part I* at 1-2.

Many have called for this Court to revisit its Section 101 decisions, particularly to clarify the abstract idea exception to Section 101 patent eligibility. In *Mayo*, the Court articulated a two-step framework for analyzing eligibility under Section 101,

holding that a court must first determine whether the claims are directed to a patent-ineligible concept, such as an abstract idea, and second to determine whether the claim contains additional elements to transform its nature into a patent-eligible claim. *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, at 77-80 (2012). In *Alice*, this Court addressed a claim directed to intermediated settlement of transactions and analogized the claims to those directed to risk hedging at issue in the Court's *Bilski decision*. *Alice*, 573 U.S. at 219-220 (citing *Bilski v. Kappos*, 561 U.S. 593 at 599, 611(2010)). But in *Alice*, this Court expressly avoided providing meaningful definition to the abstract idea category. *Alice*, 573 U.S. at 221. This choice has led to much of the difficulty for the Federal Circuit and the District Courts – they have no coherent standard by which to identify patent claims directed to an abstract idea. Too often, the lower courts have resorted to conflating claims that are perceived to be "broad" or to seem "too simple" with abstract ideas.

This case crystalizes the amorphous nature of the judge-made abstract idea exception to Section 101. The numerous patent claims at issue in this case are directed to many different technological innovations for improving the functioning of computer systems and computer networks through novel uses of digital data compression technology, including combining known compression techniques in new ways to improve computer system functioning. The case came to the Federal Circuit twice, and the two panels did not even agree on what would be a fair characterization of what idea the claims were directed

to, much less how to determine whether such an idea was an unpatentable abstract idea. All patent claims, at bottom, must claim ideas that someone could subjectively characterize as abstract. Law students are taught that in understanding intellectual property concepts, copyright protects the expression of an idea, but not the idea itself, but that patent law protects ideas, where that idea is for a new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof.

In struggling to apply the amorphous abstract-idea exception, the Federal Circuit has overlayed the concept of enablement – a completely separate requirement for patent claims – onto the Section 101 analysis. *See* 35 U.S.C. § 112. The opinion below repeatedly faults the patent claims at issue for not explaining "how" the improvements in computer systems are achieved by the elements recited in the claims – a question clearly rooted in enablement. The Court, for example, agreed with the district court's finding that the claims "do not teach how to address" challenges discussed in the patents. App.24. In dissent, Judge Newman correctly pointed out that the Federal Circuit's Section 101 jurisprudence has long improperly conflated the Section 101 eligibility analysis with the Section 112 enablement analysis. App.38-42. Judge Newman made the same point in the Federal Circuit's *en banc* consideration of *Alice* before the case reached this Court. *CLS Bank Intern. v. Alice Corp. Pty. Ltd.*, 717 F.3d 1269, 1321-1327 (2013) (Newman, J., concurring in part and dissenting in part).

This Court should re-engage with Section 101 to clarify that, as Judge Newman has explained, Section 101 is a coarse filter that should not supplant the separate statutory doctrines of novelty, non-obviousness, enablement, definiteness and the like. Last term, this Court made clear that much of the underpinning of this Court's abstract idea jurisprudence was simply wrong. In cases like *Bilski* and *Alice,* this Court suggested that cases like *Morse* were grounded in a bar on patenting abstract ideas. But in *Amgen, Inc. v. Sanofi*, the Court reexamined *Morse* and made clear that its invalidity finding was grounded in enablement, not patent eligibility. *Amgen, Inc. v. Sanofi*, 598 U.S. 594, 605-607 (2023).

In light of the Court revisiting the underpinning of its Section 101 cases, the Court should now clarify the narrow scope of the abstract idea exception to the broad statutory mandate that all inventions of *any* new or useful process, machine, manufacture, or composition of matter are eligible for patent protection, but only if they comply with the other statutory requirements. This case presents an excellent vehicle to address these concerns because it highlights the excessive importation of separate doctrines, such as enablement, into the Section 101 analysis. It provides an opportunity for the Court to clarify and provide sorely needed guidance to the Federal Circuit on the proper metes and bounds of the court-created abstract idea exception to Section 101.

## OPINIONS BELOW

The opinion of the Federal Circuit and accompanying dissent is available at 2023 WL 4924814 (Fed. Cir. 2023) and reproduced at App.1-42. The District Court's decision is reproduced at App.43-71 (after amendment of the complaint) and at App.72-126 (granting motion to dismiss with leave to amend). The prior Federal Circuit decision and concurrence in the same matter is available at 831 Fed.Appx. 492 (2020) and reproduced at App.127-148. The District Court decision that was reviewed in the first Federal Circuit appeal in this matter was not reflected in a written decision, but rather rendered based solely on the record at a motion hearing. The transcript of that hearing is reproduced at App.149-202.

## JURISDICTION

The Federal Circuit issued its decision in this matter on August 2, 2023. This Court has jurisdiction pursuant to 28 U.S.C. § 1254.

## CONSTITUTIONAL AND STATUTORY PROVISIONS INVOLVED

Section 101 of the Patent Act, 35 U.S.C. § 101 provides that "Whoever 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."

## STATEMENT OF THE CASE

### A. Realtime's Patented Improvements To Computer Functioning

Computers use and store information in the form of binary digital data – strings of 1s and 0s. Over time, the data that computers process and store has become larger and larger as more complex information is stored and transmitted in digital form – such as detailed photographs, feature-length movies, and complex documents often embedding other content within them. The individual 1s and 0s of digital data are referred to as bits. One byte of data is made up of 8 bits. Thus, one megabyte (MB) is one million bytes of data storage and one gigabyte (GB) is one billion bytes of data storage. In the early 1990s, a personal computer might have a total storage capacity of 100 megabytes (MB) of data or less. Today, personal computers often have 500, 1000, or more gigabytes (GB) of data storage.

As the data that computers had to store and transmit grew ever larger, this created potential problems for computer systems. In storing and retrieving data, the larger the amount to be stored, the longer it would take to actually store the information onto the computer medium (such as a hard disk drive) that would actually hold the bits. Computer systems also often need to transfer data from one computer to another over computer networks. These transfer systems often have bandwidth limitations restricting the volume of data that can be transmitted over a communication channel in a given unit of time. These large volumes of data create problems for computer

systems in two dimensions: volume and time. The volume dimension refers to the space or capacity needed to store information. Naturally, the larger a computer file might be, the more storage space it might take up. The time dimension refers to the time it takes to store or transmit a block of computer data. Unsurprisingly, a larger file with more data takes longer to store or to transfer over a communication channel than a smaller file.

Prior to the inventions of Realtime's patents, techniques had been developed for something called data compression – representing the computer data using fewer bits. There were two broad categories of data compression: lossless and lossy compression. Lossless compression, as the name implies, is a way to compress the data so that it can be reconstructed without losing any of the original information. Lossy compression instead uses techniques that compress data with some of the original information content lost. Examples of lossless compression include techniques such as "dictionary" compression, where strings of data that might be repeated in larger block of data are represented with some smaller pointer to a "dictionary" where the longer string represented by the pointer can be retrieved during reconstruction (decompression) of compressed data. An example of lossy compression familiar to some is the JPEG compression algorithm that is commonly used to store digital photographs. While the compressed file can reproduce a digital image that appears complete, not all of the raw data captured by the camera is stored in the file.

Before Realtime's inventions, data compression was used to address the volume dimension of the data storage issue. Compression could reduce the volume of data to be stored on a system, but it was generally understood that actually performing the compression took time, and the primary goal in using data compression was to find the particular compression technique that would shrink the data to the smallest possible volume (regardless of the time needed to perform the compression) in order to conserve storage resources. In many instances the systems would use a single form of data compression for all types of data, even though different compression techniques were often better suited to different types of data.

Realtime's inventors devised entirely new ways for computer systems to use data compression. At a high level, these inventions involved using not just one, but multiple data compression techniques to compress data and to use compression in line with storing or transmitting data in order to improve the functioning of the computer systems in the time dimension. Realtime recognized that "optimal" or "maximal' compression of data could be very time consuming because the algorithm to perform the compression was very computationally complex. But an algorithm that might have achieved a slightly lower compression ratio (the ratio of the size of the compressed data to the original data) could likely operate faster even though the size reduction might be less. While the compression of data might take some time, the time to store or transmit the data would be less (because the amount stored or transmitted would be smaller). Realtime recognized that compression

techniques could be combined in a way that would reduce the total time the store or transmit the information. For example, the time to compress data and then store the compressed data could be less than the time needed to store the data without any compression.

Prior to Realtime's inventions, computer systems did not use compression to improve the overall storage or transmission time for data. Compression was only used to reduce the storage volume of data and often configured in ways that were very time consuming. One aspect of Realtime's inventions was to improve the time performance and efficiency of data compression by using different types of data compression for different types of data. Realtime recognized that different types of data were more efficiently compressed by different compression techniques, but that it was often difficult to identify the right compressor for different data types. In particular, Realtime noted that simply trying to use the file extension or descriptor (like .doc for a Microsoft Word document or .pdf for an Adobe Acrobat file) was not a good way for identifying the best compression technique because the variety of different file types was constantly changing and it was not feasible to have a system that could recognize all of the different file types. Instead, Realtime found that analyzing the actual content of individual blocks of data as they were processed (such as for storage or transmission) was a better way to determine an appropriate data compression technique. Realtime also discovered that using a compression approach that had, for example, one type of compression used

for data recognized to be particularly suited to that type of compression, and another, more general-purpose compression technique used for other types of data could lead to improved system performance.

Realtime invented new processes for data compression using combinations of data compression configured in novel ways to improve the performance of computer systems. Such novel technological processes are exactly the type of inventions suited for protection by a patent. These are not simply long-known business methods (like the patents at issue in *Bilski* and *Alice*). They are technological innovations designed to improve the functioning of computer systems.

Realtime has obtained many patents on its innovations in the use of digital data compression. In this case, seven patents were at issue: U.S. Patent Nos. 9,054,728; 8,933,825; 8,717,203; 9,116,908; 7,415,530; 10,019,458; and 9,667,751. The seven patents come from three separate underlying patent families, each with its own specification. Collectively, the patents contain 211 individual patent claims. Some independent claims include:

> 18. A method comprising:
>
> associating at least one encoder to each one of a plurality of parameters or attributes of data;
>
> analyzing data within a data block to determine whether a parameter or

attribute of the data within the data block is identified for the data block;

wherein the analyzing of the data within the data block to identify a parameter or

attribute of the data excludes analyzing based only on a descriptor that is indicative

of the parameter or attribute of the data within the data block;

identifying a first parameter or attribute of the data of the data block;

compressing, if the first parameter or attribute of the data is the same as one of

the plurality of parameter or attributes of the data, the data block with the at least

one encoder associated with the one of the plurality of parameters or attributes of the

data that is the same as the first parameter or attribute of the data to provide a

compressed data block; and

compressing, if the first parameter or attribute of the data is not the same as one

of the plurality of parameters or attributes of the data, the data block with a default

encoder to provide the compressed data block.

'825 patent at claim 18.

9. A method for accelerating data storage comprising:

analyzing a first data block to determine a parameter of the first data block;

applying a first encoder associated with the determined parameter of the first data

block to create a first encoded, data block wherein the first encoder utilizes a lossless

dictionary compression technique;

analyzing a second data block to determine a parameter of the second data block;

applying a second encoder associated with the determined parameter of the second

data block to create a second encoded data block, wherein the second encoder utilizes

a lossless compression technique different than the lossless dictionary compression

technique; and

storing the first and second encoded data blocks on a memory device, wherein

encoding and storage of the first encoded data block occur faster than the first data

block is able to be stored on the memory device in unencoded form.

'458 patent at claim 9.

> 25. A system for compressing data comprising:
>
> a data server implemented on one or more processors and one or more memory systems and configured to:
>
> analyze content of a data block to identify a parameter, attribute, or value of the data block that excludes analysis based solely on reading a descriptor;
>
> select an encoder associated with the identified parameter, attribute, or value;
>
> compress data in the data block with the selected encoder to produce a compressed data block, wherein the compression utilizes a state machine; and
>
> wherein the time of the compressing the data block and the storing the compressed data block is less than the time of storing the data in uncompressed form.

'751 patent at claim 25.

As noted above, the patents collectively contain more than 200 claims directed to Realtime's inventions. These are quintessentially claims directed to new and useful processes, machines, manufactures, or compositions of matter.

### B. Proceedings Below

In 2017, Realtime initiated suits against various entities in the Eastern District of Texas. Magistrate Judge Love evaluated two motions to

dismiss directed at some of the same patents-in-suit that were asserted in Delaware, as well as other related patents. Judge Love issued a detailed report and recommendation to deny those motions, finding that the claims of Realtime's patents were not directed to abstract ideas and thus not invalid under Section 101. One of the cases considered by Magistrate Judge Love was subsequently transferred to the District of Massachusetts, where the judge considering the case adopted Judge Love's report and recommendation. Another case remained in the Eastern District of Texas, where the District Judge also adopted Judge Love's report and recommendation.

Realtime brought the suits underlying this appeal against a number of entities for infringement of various of the seven patents beginning in 2017 in the District of Delaware. The cases were consolidated for pretrial proceedings. In 2018 and 2019, the various defendants filed motions to dismiss under Fed. R. Civ. P. 12(b)(6), asserting that the patents-in-suit were invalid under Section 101. On July 19, 2019, the District Court held a joint hearing on all of those motions. At the conclusion of the hearing, which focused almost entirely on only one patent claim, the District Court ruled orally from the bench that all of the claims of the five patents at issue at that time were invalid under Section 101 and denied Realtime's request for leave to amend its complaints. The District Court did not issue any written decision. The District Court's step one analysis of identifying an abstract idea to which the patent claims were directed was merely summarized on a patent-by-patent (not claim by claim) basis stating, for example, "With

respect to the '728 patent, I think a fair description of what it is is choosing a compression method based on the data type." App.195. The District Court made similarly over-simplified statements about each of the patents at issue and then merely said "These are abstract ideas." *Id.*

Realtime appealed that ruling, which the Federal Circuit vacated and remanded. The Federal Circuit, in an opinion by Judge O'Malley, held that the District Court's "short analysis" was "insufficient to facilitate meaningful appellate review." The Federal Circuit noted four specific shortcomings in the District Court's analysis:

> (1) the colloquy between the court and Realtime indicates an apparently improper focus on factual questions that are unsuitable for resolution at the pleading stage and a failure to evaluate the claims as a whole;
> (2) to the extent the district court purported to resolve the "directed to" question of *Alice* step 1, its process is unclear and its conclusion questionable;
> (3) the court did not address or even acknowledge Judge Love's lengthy written opinions, which were adopted by two district courts, addressing the precise question faced by the court; and
> (4) although, as the district court requested, Realtime identified *Visual Memory LLC v. NVIDIA Corp.*, 867 F.3d 1253 (Fed. Cir. 2017), as the case most analogous to this one and directed the court to our decisions in *Enfish, LLC v. Microsoft Corp.*, 822 F.3d

> 1327 (Fed. Cir. 2016), and *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245 (Fed. Cir. 2014), the district court failed to address or distinguish those cases.

App.137-141.

The Federal Circuit also questioned the District Court's characterizations that "the claims are, to use the '728 patent as an example, merely 'choosing a compression method based on the data type.'" App.139. The Federal Circuit went on to note that it "appears . . . that the district court improperly equated the presence of an abstract idea with the conclusion that the claims are directed to such an idea." *Id*. It ultimately vacated the District Court's ruling and remanded, further cautioning the District Court that a blanket denial of leave to amend was also rarely appropriate. App.142.

Circuit Judge Taranto issued a concurring opinion in which he also criticized the District Court for oversimplifying the claims. He observed that Realtime's claims "on their face and understood in light of the specifications, purport to solve engineering problems in the transfer of data." App.147. He also directed the District Court to consider a number of relevant Federal Circuit decisions upholding patent claims as not invalid under Section 101. App.147-148.

On remand, the District Court issued substantively the same ruling, in lengthier, written form. For example, in addressing the '728 patent, the District Court once again ruled that "The #728 patent is directed to systems and a method that compress

data based on the characteristics of the data to be compressed." App.101. This discussion was virtually identical to the formulation that the Federal Circuit criticized as oversimplified and incorrect both in Judge O'Malley's majority opinion (at App.139), and in Judge Taranto's concurring opinion (at App.145). Judge O'Malley, for example, pointed out that this very description "seems to miss that the claims expressly achieve this result in certain ways, involving examining data blocks and not relying just on a descriptor." App.139. Judge Taranto's concurrence had stated that this characterization "disregards claim language requiring that the identification of data type rely on examination of data blocks and not on a file extension or comparable descriptor of the data type." App.145. Thus, on remand, the District Court re-adopted the very same oversimplified analysis that the Federal Circuit cautioned was incorrect in the first appeal of this matter. The District Court offered similarly oversimplified characterizations of every patent-in-suit.

One might expect that when the same case was appealed again to the Federal Circuit with the same reasoning that the Court had already criticized as oversimplified and incorrect, the Federal Circuit would now reverse the District Court's ruling. Remarkably, however, the Federal Circuit reached the opposite result in the second appeal in this matter. The only change in the interim was the retirement of Circuit Judge O'Malley who authored the majority opinion in the original appeal. The remainder of the panel on the first appeal was Circuit Judge Newman and Circuit Judge Taranto. When the case returned

to the Federal Circuit, Judge O'Malley was replaced on the panel by Circuit Judge Reyna. Judge Reyna authored the decision of the court in the second appeal affirming the District Court's decision. Judge Reyna noted that the District Court found, for example, that all claims of the '728 patent are directed to "compressing data based on the content of that data." App.22. Judge Reyna's majority opinion made no mention of the fact that the Federal Circuit previously ruled that this description was overbroad and improperly oversimplified the claims. Instead, the opinion agreed with the District Court that "the claims do not disclose the 'how' – 'how to engineer an improved system,' how to 'analyze data,' or how to achieve the claimed 'efficiency benefits.'" App.24.

Circuit Judge Newman dissented from this decision. She explained that this case and the issues raised by the majority should properly be considered under the enablement framework of Section 112 of the patent act, and not the patent eligibility framework of Section 101. App.39. She pointed out that the majority's application of Section 101 in this case continued an improper enlargement of the judicially-created exception to Section 101's test for patent eligibility that unnecessarily trampled on the enablement doctrine. *Id.* She went on to explain the historical diversion from the proper application of Section 101 and noted the extensive confusion that the doctrine has created. App.39-41.

Thus, over Judge Newman's dissent, and apparently owing to little more than the change in personnel at the Federal Circuit, the Court reached a ruling facially inconsistent with its own prior

statements in the same case about the proper application of Section 101 principles.

## REASONS FOR GRANTING THE PETITION

### A. THE COURT SHOULD GRANT CERTIORARI TO CLARIFY THE ABSTRACT IDEA EXCEPTION TO SECTION 101

#### 1. This Court's Decisions Left Open The Question Of What Constitutes An Abstract Idea Or How To Identify One

This Court chose not to explain the contours of what constitutes a patent ineligible abstract idea in its *Alice* decision, stating "we need not labor to delimit the precise contours of the 'abstract ideas' category in this case." *Alice*, 573 U.S. at 221. Unfortunately, the Court's decision to leave such further explanation to the Federal Circuit has resulted in a confused and inconsistent hash of decisions that are often difficult or impossible to reconcile with one another. More importantly, those decisions have failed to heed this Court's caution to "tread carefully in construing this exclusionary principle lest it swallow all of patent law." *Id.* at 217. Instead, the Federal Circuit has wildly expanded this judge-made exception to the statutory rule enacted by Congress so that numerous patented technological inventions are wiped away every year by the Federal Circuit and the District Courts.

### 2. The Federal Circuit's Decisions Lack Any Coherent Link To The Factual Underpinnings Of This Court's Abstract Idea Decisions

In *Alice*, this Court considered patent claims drawn to "a fundamental economic practice long prevalent in our system of commerce." *Alice*, 573 U.S. at 219 (internal quotations omitted). The Court noted that the claims at issue in *Alice* were like those considered in *Bilski* in that respect. *Id.* Since then, the court-created "abstract idea" exception to the language of Section 101 has been expanded to hold that numerous technological innovations are purportedly abstract ideas, including an improved digital camera (*Yu v. Apple*, 1 F.4th 1040 (Fed. Cir. 2021)), an improved garage-door opener (*Chamberlain Grp., Inc. v. Techtronic Indus. Co.*, 935 F.3d 1341 (2019)), an improved electric vehicle charging station (*Charge-Point, Inc. v. SemaConnect, Inc.*, 920 F.3d 759 (2019), and the improved systems for using data compression to improve computer system functioning at issue in the instant case. Quite simply, the Federal Circuit has used this Court's decisions in *Alice* and *Bilski* to run roughshod over the property rights of numerous patent-holders and so widely expanded the court-made exception to the actual text of Congress' enactment of Section 101 as to make that text a virtually dead letter.

### 3. The Ambiguity Of The Judge-Created Exceptions To Section 101 Results In An Intra-Circuit Split At The Federal Circuit

The Federal Circuit is, of course, the only appellate court to consider cases addressing Section 101 or its contours. But the Federal Circuit can hardly be said to have a consensus on how to resolve these issues. There are wide splits in reasoning and application of Section 101 that would be a clear circuit split if arising in different courts of appeal. The Federal Circuit's inconsistent approach to Section 101 has led to multiple dissents, including in the instant case. In dissenting from the Federal Circuit's invalidation of multiple IBM patents for improved computer systems for managing geo-location information and improved graphical interfaces for such systems, Circuit Judge Stoll noted that the court's majority ignored the factual allegations about the nature of improvements reflected in the pleadings at the dismissal stage and improperly failed to acknowledge the technical nature of the computer improvements recited in various claims. *International Business Machines Corp. v. Zillow Group, Inc.*, 50 F.4th 1371, 1383-85 (Fed. Cir. 2022). Circuit Judge Newman dissented from the Federal Circuit's Section 101 decisions in this case, in the *Yu* case noted above, and in *Ericsson Inc. v. TCL Communication Technology*, 955 F.3d 1317, 1331-39 (Fed. Cir. 2020), *cert. denied*, 141 S.Ct. 2624 (2021).

The Federal Circuit has issued numerous Section 101 decisions that cannot credibly be reconciled with one another. For example, in 2016 the

court held that patent claims "directed to an improvement in computer functionality" are not directed to an abstract idea and thus patent eligible. *Enfish LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335 (Fed. Cir. 2016). There, the court upheld patent claims directed to a self-referential table for a computer database. One line of cases followed this rationale, upholding patent claims directed to: improved computer memory systems (*Visual Memory LLC v. NVIDIA Corp.*, 867 F.3d 1253 (Fed. Cir. 2017)); behavior-based virus scans (*Finjan, Inc. v. Blue Coat Sys., Inc.*, 879 F.3d 1299 (Fed. Cir. 2018)); methods for making websites easier to navigate on small-screen devices (*Core Wireless Licensing v. LG Elecs., Inc.*, 880 F.3d 1356 (Fed. Cir. 2018)); and methods for navigating through three-dimensional electronic spreadsheets (*Data Engine Techs. LLC v. Google LLC*, 906 F.3d 999 (Fed. Cir. 2018)). But another line of cases from Federal Circuit panels holds similar patent claims that are also directed to improvements in computer functionality to be directed to abstract ideas and patent ineligible. For example, the court has invalidated as patent ineligible claims to: methods for improving the creation and searching of computer databases (*Intellectual Ventures I LLC v. Erie Indemnity Co.,* 850 F.3d 1315 (Fed. Cir. 2017)); a system for improving security access to mobile communications systems (*Ericsson Inc. v. TCS Communication Technology Holdings Ltd.*, 955 F.3d 1317 (Fed. Cir. 2020)); and a content identification system for improving the ability to locate and distribute data in a computer networks (*PersonalWeb Technologies LLC v. Google LLC*, 8 F.4th 1310 (Fed. Cir. 2021)). These cases cannot be reconciled in any

principled fashion. They are in tension. If they came from two different courts of appeal, there would be a clear circuit split ripe for this Court's resolution.

The Federal Circuit's disunion on Section 101 issues is perhaps best encapsulated in the court's denial of a petition for *en banc* consideration in *American Axle & Mfg. v. Neapco Holdings LLC* 966 F.3d 1347 (Fed. Cir. 2020) (denying rehearing *en banc*).[1] There, the court considered a patent claim for an improved method for manufacturing a shaft assembly of a driveline system. *Id.* at 1359-60. That petition for *en banc* consideration (which was denied) yielded no fewer than six separate opinions – two concurring in the denial of rehearing *en banc*, and four dissenting. Ten of the twelve Federal Circuit Judges considering the petition joined one or more of these six opinions. It seems that no issue more sharply divides the Federal Circuit than Section 101. The situation cries out for clarification from this Court.

#### 4. This Court Has Now Corrected The Incorrect Factual Underpinning Of The Improper Expansion Of Section 101

Many of the Federal Circuit decisions that most egregiously expand the judge-made exception to the statutory contours of Section 101 rely heavily on this Court's *Morse* decision. Notably, for example, both concurring opinions supporting the invalidation

[1] While the ruling at issue in *American Axle* involved the "law of nature" judicially-created exception to Section 101 and not the "abstract idea" exception, the case nonetheless highlights the fractured nature of Section 101 jurisprudence at the Federal Circuit.

decision in denying *en banc* consideration in *American Axle* cite *Morse* in the very first paragraph. *American Axle*, 966 F.3d at 1348-49, 1352-53. They make clear that at least a majority of the Federal Circuit rely on this Court's 1853 decision as the underpinning for their Section 101 jurisprudence.

But this Court made clear in the last term that *Morse* cannot provide support for any 101 jurisprudence, much less the massive overreach of the Federal Circuit in expanding the scope of the judge-made exception to the clear Congressional enactment in Section 101. To appreciate this shift, a brief discussion of *Morse* is warranted. That case involved a challenge to Samuel Morse's patent on his invention of the telegraph. *O'Reilly v. Morse*, 56 U.S. (15 How.) 62 (1853). Morse's patent contained eight claimed inventions. The Court held that the first seven were "not subject to exception." *Id.* The Court did, however, hold the eighth claim in Morse's patent invalid. *Id.*

The issues regarding the first seven claims involved rejected assertions of prior invention by others. The eighth claim of Morse's patent recited "I do not propose to limit myself to the specific machinery, or parts of machinery, described in the foregoing specification and claims; the essence of my invention being the use of the motive power of the electric or galvanic current, which I call electro-magnetism, however developed, for making or printing intelligible characters, letters, or signs at any distances, being a new application of that power, of which I claim to be the first inventor or discoverer." *Id.* at 112. In considering this claim, the Court noted

that Morse "claims the exclusive right to every improvement where the motive power is the electric or galvanic current, and the result is the marking or printing intelligible characters, signs, or letters at a distance." *Id.* The Court further explained:

> "But Professor Morse has not discovered, that the electric or galvanic current will always print at a distance, no matter what may be the form of the machinery or mechanical contrivances through which it passes. . . . And it is the high praise of Professor Morse, that he has been able, by a new combination of known powers, of which electro-magnetism is one, to discover a method by which intelligible marks or signs may be printed at a distance. And for the method or process thus discovered, he is entitled to a patent. But he has not discovered that the electro-magnetic current, used as a motive power, in any other method, and with any other combination, will do as well."

*Id.* at 117 (emphasis added).

The Court went on to consider whether Morse's patent claim ran afoul of any portion of the patent act on which patent rights rest. It noted that sixth section of the patent act in force at the time required that before receiving a patent an inventor "shall deliver a written description of his invention or discovery, 'and of the manner and process of making, constructing, using, and compounding the same,' in such exact terms at [sic] to enable any person skilled in the art or science to which it appertains, or with which it is most nearly connected, to make, construct, compound, and

use the same." *Id.* at 118. The Court explained that "whether the Telegraph is regarded as an art or machine, the manner and process of making or using it must be set forth in exact terms." *Id.*

In rejecting Morse's eighth claim, the Court stated:

> "Indeed, if the eighth claim of the patentee can be maintained, there was no necessity for any specification, further than to say that he had discovered that, by using the motive power of electro-magnetism, he could print intelligible characters at any distance. . . . Yet this claim can derive no aid from the specification filed. It is outside of it, and the patentee claims beyond it."

*Id.* at 119-120 (emphasis added). This rejection relies on the nineteenth century analog to what is now Section 112 of the patent act. The Court's discussion that the claim is broader than the support provided in the specification marks the grounding of the decision as enablement, not patent eligibility.

Last term, this Court confirmed exactly this same principle. Specifically, this Court explicitly ruled that *Morse* addressed the enablement requirement of patent law (and not patent eligibility under Section 101). *Amgen, Inc. v. Sanofi*, 598 U.S. 594 (2023). The Court stated: "This Court has addressed the enablement requirement on many prior occasions. See, *e.g.*, . . . *O'Reilly v. Morse* . . . ." *Id.* at 605. The Court went on to discuss the facts of *Morse* in some detail and explain that it was referring to the

invalidation of the eighth claim of Morse's telegraph patent. *Id.* at 606-607. Thus, there can be no doubt now that *Morse* was a case about the enablement requirement. Relying on it as the justification to support an exception to Congress's clear (and broad) statement in Section 101 is clear error. Nevertheless, that is precisely the underpinning on which the Federal Circuit relies to support its decisions invalidating patents under Section 101.

Given this misplaced reliance, it is unsurprising that the Federal Circuit now imposes a quasi-enablement requirement (without any of the rigor of analyzing the factual issues of enablement) on patent claims under Section 101. The Federal Circuit's incorrect approach is particularly improper where, as the *Morse* Court and every subsequent Court to consider issues of enablement recognized, enablement of a claimed invention is an inquiry that looks to the specification to teach how to implement an invention – not to the claims.

### B. THIS CASE PRESENTS AN OPTIMAL VEHICLE TO ADDRESS THE FEDERAL CIRCUIT'S IMPROPER EXPANSION OF SECTION 101

As discussed above, much of the Federal Circuit's improper expansion of a non-statutory exception to Section 101's clear language relies on the false premise that claims that are "too broad" in some subjective and standardless sense are ineligible based on the holding of *Morse*. This error has led much of the Federal Circuit to incorrectly inject aspects of the enablement inquiry into its Section 101 analysis, but

without any of the rigor of actually considering an enablement challenge. In an enablement challenge, evidence can be presented as to whether a person skilled in the relevant art could make or use the claimed invention using the knowledge available in the art coupled with the patent's teaching. *See Amgen* 598 U.S. at 610-612. Such analysis is never a proper subject for a motion to dismiss under Fed. R. Civ. P. 12. The Federal Circuit routinely approves of invalidation of claims (and whole patents or groups of patents as here) under Section 101 at the pleading stage with little to no consideration of any factual issues that might be presented.

This case perfectly exemplifies the Federal Circuit's erroneous approach. Enablement analysis looks at whether an inventor has adequately taught (in the specification) how to make or use a claimed invention. The instant case was decided solely on the basis of Section 101 and patent eligibility (at the pleading stage), yet the word "how" appears no fewer than 23 times in the Federal Circuit's decision. For example, the court stated: "the district court observed, the claims do not disclose the 'how' – 'how to engineer an improved system,' how to 'analyze data,' or how to achieve the claimed 'efficiency benefits.'" App.24.[2] Indeed, the majority opinion summed up its conclusion by stating that "[t]he patents here, by contrast, fail to explain the 'how.'" App.31. The Federal Circuit's incorrect reliance on principles of enablement, not patent eligibility, is evident

[2] The Federal Circuit was not merely reciting the District Court's decision. It began the very next paragraph stating, "We agree." App.24.

throughout the decision. It makes clear that all of this examination of whether the claims themselves show "how" to achieve certain results is part of its inquiry into whether the claims are directed to an abstract idea. Questioning whether the claims themselves teach how to make the claimed invention has no place in determining whether a claim is directed to an abstract idea.

The Federal Circuit's improper reliance on concepts of enablement rather than any coherent focus on patent eligibility was also the basis for the dissent below. Circuit Judge Newman wrote (in the first sentence of her dissent), "This is properly an enablement case." App.39. She went on to explain that this case was not some aberration, but a part of a broad pattern of the Federal Circuit's departure from the proper application of Section 101, and its injection of the separate doctrine of enablement into the Section 101 analysis. *Id.*

This case perfectly exemplifies the Federal Circuit's overreach in applying Section 101. The court invalidated more than 200 claims across seven separate patents on a motion to dismiss at the pleading stage. In doing so, it followed its own incorrect pattern of relying on concepts of enablement, while considering none of the factual issues actually required for an enablement determination. This case cries out for correction and provides an excellent opportunity for the Court to correct the misguided path the Federal Circuit has taken in its approach to patent eligibility under Section 101.

## CONCLUSION

For all of the reasons set forth above, this Court should grant the petition.

Respectfully submitted,

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