No. 23-

In the Supreme Court of the United States

EOLAS TECHNOLOGIES INCORPORATED, PETITIONER

v.

AMAZON.COM, INC., ET AL., RESPONDENTS

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

PETITION FOR A WRIT OF CERTIORARI

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QUESTIONS PRESENTED

The Federal Circuit found that U.S. Patent No. 9,195,507 (the '507 patent) "describes problems specific to the World Wide Web," "explains how the invention purports to solve them," and recites the solutions to those computer-network problems through "configuration requirements of a World Wide Web browser, World Wide Web pages, and the World Wide Web distributed hypermedia network." Pet. App. 14a-15a. These claims rebuilt the then-nascent Web in a manner that—for the first time—enabled secure and scalable "interactivity with remote objects on a client computer browser using distributed computing." Pet. App. 12a. Yet the Federal Circuit concluded that these claims were not drawn to patent-eligible subject matter because, "[s]imply put, interacting with data objects on the World Wide Web is an abstraction." Pet. App. 15a. The questions presented are:

1. Whether claims drawn to solving specific problems restricting the usefulness of an existing computer-network technology recite patent-eligible subject matter under 35 U.S.C. § 101 and *Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, 573 U.S. 208 (2014).

2. Whether *Alice*'s two-step eligibility analysis under § 101 can properly subsume considerations of conventionality, functional claiming, and specificity of description—which traditionally fall under 35 U.S.C. §§ 102, 103, and 112.

3. Whether the claims of the '507 patent are eligible for patenting under § 101 and *Alice*.

PARTIES TO THE PROCEEDING

Petitioner is Eolas Technologies Incorporated, the plaintiff-appellant below.

Respondents are the defendants-appellees below: Amazon.com, Inc., Google LLC, and Walmart, Inc.

CORPORATE DISCLOSURE STATEMENT

Petitioner Eolas Technologies Incorporated has no parent corporation, and no publicly held corporation owns 10 percent or more of its stock.

RELATED PROCEEDING

The following proceeding is directly related to this case within the meaning of Rule 14.1(b)(iii):

- *Eolas Technologies Incorporated v. Wal-Mart Stores Texas, LLC*, No. 6-17-cv-242 (E.D. Tex.).

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PETITION FOR A WRIT OF CERTIORARI

Petitioner Eolas Technologies Incorporated 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 Federal Circuit's opinion (Pet. App. 1a-22a) is not published in the Federal Reporter but is available at 2024 WL 371959. The opinion of the district court granting summary judgment (Pet. App. 25a-82a) is not published but is available at 2022 WL 20208935.

JURISDICTION

The Federal Circuit entered judgment on February 1, 2024. Eolas timely petitioned for a writ of certiorari on May 1, 2024. This Court has jurisdiction under 28 U.S.C. § 1254(1).

STATUTORY PROVISION INVOLVED

35 U.S.C. § 101 provides:

> 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

1. When this Court laid out its two-step framework for patent subject-matter eligibility under § 101 in *Alice*, it worked from the baseline rule that inventions drawn to computer-related improvements are eligible for patenting. *See Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, 573 U.S. 208, 223, 225-226 (2014). That baseline rule is important: predictable protection for useful advances in computer-related technologies has profound implications for the U.S. economy and its competitive position globally. Critically, the Federal Circuit's decision here dismantles that rule.

The World Wide Web is ubiquitous today. But on the '507 patent's priority date in October 1994, the Web was in its infancy. The patent discloses and recites an invention that—for the first time—enabled secure and scalable interactivity on the then-nascent Web. This transformed the user experience and substantially increased the usefulness of this new network technology. The Federal Circuit confirmed that the patent's specification "describes problems specific to the World Wide Web and explains how the invention purports to solve them," and that the patent's claims recite the solutions as specific "configuration requirements of a World Wide Web browser, World Wide Web pages, and the World Wide Web distributed hypermedia network." Pet. App. 14a. These claims are unmistakably drawn to improving a computer-network system. And when the Web was later reworked in the manner taught and claimed, the secure and scalable interactivity that resulted helped make the Web the household technology it is today. Still, the Federal Circuit concluded that the claims of the '507

patent were not drawn to patent-eligible subject matter: "Simply put, interacting with data objects on the World Wide Web is an abstraction." Pet. App. 15a.

That conclusion conflicts with *Alice* and pushes the boundaries of its "abstract idea" exception far beyond what the Court envisioned. *See* 573 U.S. at 223, 225-226. We cannot be certain which of today's nascent computer-network technologies will become the *next* World Wide Web. But under the Federal Circuit's approach to patent-eligibility in this case, that technology will not be developed under the protection of the U.S. patent laws.

The Court should grant this petition to ensure that claims drawn to useful computer-related improvements remain patent eligible under § 101.

2. In laying out its two-step eligibility framework, the Court in *Alice* also cautioned that the "abstract idea" exception must be construed and applied narrowly, lest it "swallow all of patent law." *Alice*, 573 U.S. at 217. That warning is important, too: § 101 provides a threshold question of subject-matter eligibility; the statute's conditions for patentability—including that the invention be novel, nonobvious, and fully described—raise separate questions that must be resolved through specific fact-based inquiries. *See* 35 U.S.C. §§ 102, 103, 112. The Federal Circuit's decision here violates that directive in *Alice* and blends inquiries relating to conventionality, functional claiming, and specificity of description (the proper province of §§ 102, 103, and 112) into the eligibility analysis under § 101. *See* Pet. App. 18a-20a. The "swallow[ing]" of patent law is particularly striking and troublesome

in this case, where the district court resolved questions relating to conventionality, functional claiming, and the specificity of description in favor of the '507 patent claims—on a factually developed record—years before later finding, without factual support, that these same considerations rendered those same claims ineligible for patenting under § 101.

The Court should grant this petition to ensure that considerations related to the conditions of patentability continue to play their statutorily assigned roles, and that the judicial exception to § 101 does not "swallow all of patent law." *Alice*, 573 U.S. at 217.

3. The Federal Circuit's application of *Alice*'s two-step framework here is significant and striking—and in conflict with *Alice* itself. But it is not surprising. Uncertainty over how to apply the two-step test is widespread and entrenched. Calls for clarification have come from every corner, perhaps most stridently from the Federal Circuit itself. *See Am. Axle & Mfg., Inc. v. Neapco Holdings LLC*, 977 F.3d 1379, 1382 (Fed. Cir. 2020) (Moore, J., concurring in the denial of a stay) (noting that confusion over the two-step framework has led "every judge on th[e] court to request Supreme Court clarification"). Judges on the nation's patent court recognize both the problem and its impact:

> The [Federal Circuit]'s rulings on patent eligibility have become so diverse and unpredictable as to have a serious effect on the innovation incentive in all fields of technology. *** [T]he victims are the national interest in an innovative industrial economy, and the public interest in the fruits of technological advance.

Am. Axle & Mfg. v. Neapco Holdings LLC, 966 F.3d 1347, 1357 (Fed. Cir. 2020) (Newman, J., dissenting from denial of the petition for rehearing en banc).

The pressing need for clarification is at its zenith when applying the "abstract ideas" exception to claims drawn to computer-related improvements. In *Alice*, there was no need to "delimit the precise contours of the 'abstract ideas' category" because the "concept of intermediated settlement at issue" there fell "squarely within the realm of 'abstract ideas' as" the Court had historically "used that term." 573 U.S. at 221. The invention at issue here—as the Federal Circuit characterized it, enabling interactivity with data objects on the World Wide Web, Pet. App. 12a—falls far outside the realm of "abstract ideas" as the Court has historically used that term. There was no need then, but there is a need now: the Court's intervention is necessary to delimit the contours of the "abstract ideas" category to make clear that inventions of this type—directed to solving problems restricting the usefulness of existing computer-related technologies—are patent eligible under § 101.

The Court should grant this petition to provide much-needed guidance on the "abstract ideas" exception to § 101 and the application of *Alice*'s two-step framework for determining patent eligibility.

A. 35 U.S.C. § 101 and *Alice*.

The scope of patent-eligible subject matter is necessarily broad: it covers "any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof." 35 U.S.C.

§ 101. This expansive reach "fulfill[s] the constitutional and statutory goal of promoting 'the Progress of Science and the useful Arts' with all that means for the social and economic benefits envisioned by [Thomas] Jefferson," drafter of the original statutory provision. *Diamond v. Chakrabarty*, 447 U.S. 303, 308-309, 315 (1980) (quoting U.S. CONST. art. I, § 8).

The statute is silent as to exclusions, but this Court has "long held that [§ 101] contains an important exception: Laws of nature, natural phenomena, and abstract ideas are not patentable." *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 70 (2012). The Court has "described the concern that drives this exclusionary principle as one of preemption." *Alice*, 573 U.S. at 216. Granting "a monopoly over an abstract idea," for example, would improperly tie up future use of such "building blocks of human ingenuity." *Id.*

Even so, "all inventions at some level embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas." *Mayo*, 566 U.S. at 71. The Court thus admonishes that the exception must be construed and applied narrowly, lest it "swallow all of patent law." *Alice*, 573 U.S. at 217. For example, an "invention is not rendered ineligible for patent simply because it involves an abstract concept"; an application of that concept "to a new and useful end" remains "eligible for patent protection." *Id.* (internal quotes omitted). And the other statutory requirements for patentability, "includ[ing] that the invention be novel, nonobvious, and fully and particularly described," *Bilski v. Kappos*, 561 U.S. 593, 602 (2010), raise separate questions "wholly apart from whether the invention

falls into a category of statutory subject matter" under § 101. *Diamond v. Diehr*, 450 U.S. 175, 190 (1980); *see also* 35 U.S.C. §§ 101, 102, 103, 112.

The Court has established a two-step framework for determining whether an invention is rendered patent ineligible under the judicially created exception to § 101. At step one, a court asks "whether the claims at issue are directed to one of those patent-ineligible concepts." *Alice*, 573 U.S. at 217. If the answer is "no," the invention is eligible for patenting. If the answer is "yes," the court proceeds to step two, and looks for an "inventive concept"—an "element or combination of elements" that is "sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [ineligible concept] itself." *Id.* at 217-218 (alteration in original). An inventive concept is something more than "well-understood, routine, [and] conventional" activity "previously known to the industry." *Id.* at 225 (internal quotes omitted).

The Court in *Alice* found the "intermediated settlement" claims at issue there did not "purport to improve the functioning of the computer itself," but it assumed that claims drawn to an "improved computer technology" or to "an improvement in any other technology or technical field" *would* be patent eligible under § 101. *Id.* at 225-226.

B. The University of California's improved computer-network technology.

In the early 1990s, Dr. Michael Doyle, David C. Martin, and Cheong Ang worked at the University of California at San Francisco. C.A.J.A.12196. Their

task: "com[ing] up with new technologies to disseminate the results of [biomedical research] activities to the outside world" for use in detecting and treating birth defects. C.A.J.A.12196-12197. To that end, these scientists sought to make 3D image reconstructions of the research available over a computer network for interactive exploration. C.A.J.A.12197-12198. But the World Wide Web at the time was in its infancy and did not permit interactivity, much less interactivity by multiple academics with complex 3D images that a local computer would struggle to store and process. Rather, "the web at the time was very primitive" and "designed for working with documents that didn't change." C.A.J.A.12199-12200.

Doyle, Martin, and Ang developed solutions that enabled non-technical researchers to use World Wide Web browsers to interact with 3D images stored and processed on multiple servers. C.A.J.A.12204. Based on their work, the inventors filed an original patent application assigned to the University of California Board of Regents (UC Regents) in October 1994. C.A.J.A.12252. Doyle then formed Eolas Technologies Incorporated (Eolas), and UC Regents granted Eolas an exclusive license to the technology. C.A.J.A.12292-12333. Eolas's plan was to "creat[e] and licens[e] innovative technologies and related products which will enable the World Wide Web to become the preferred environment for all interactive computing applications by the year 2000." C.A.J.A.12337. The original patent issued in 1998. C.A.J.A.12252.

The '507 patent, a descendent of that original patent, has a priority date of October 1994. As noted, the Web was in its infancy then; there was no Amazon, no

Google, no online Walmart shopping. C.A.J.A.17453-17454. The Web was a place of static text, blue-underlined hyperlinks, and the occasional static image, most often accessed with a dial-up modem. C.A.J.A.17453-17454. The early 1990s Web was markedly different from the highly interactive Web we take for granted today. C.A.J.A.11971.

The claims of the '507 patent recite systems and methods providing a new architecture for that then-nascent World Wide Web. Before the invention, interactive objects were downloaded to local computers and manipulated with stand-alone helper applications launched by users. The invention teaches embedding objects within Web pages; preconfiguring Web browsers with applications that are in turn broken up and distributed to run on remote computers; and automatically invoking selected applications to permit in-browser interaction with embedded objects.

Details of a specific embodiment can be found in "375 pages of [s]ource code" provided with the original specification. C.A.J.A.70. This new architecture featuring enhanced components improved the Web itself, providing a transformative user experience and substantially increasing network functionality in the areas of interactivity, security, and scalability.

1. Improved Web interactivity. When attempting to retrieve and present large data objects (e.g., still or motion images or other media), Web browsers and viewers used on smaller computers were "not capable of performing the computation necessary to generate and render new views of these large data objects in real time." C.A.J.A.100. The '507 patent solved this

problem, in part, with the use of distributed applications across multiple server computers remote from local computers. C.A.J.A.101, C.A.J.A.17453-17456.

With the inventions, helper applications are not needed as before and the power of the smaller computer is no longer restricting. C.A.J.A.17453. Instead, a new kind of application is broken up and distributed on computers remote from the client, with one portion working in the browser itself. This allows a portion of a larger object to be embedded directly into a Web page, such that users can interact with at least a portion of an object as it is displayed in the Web browser using the Web browser's controls. C.A.J.A.17453. These were significant changes to the prior Web—where users had to download objects and interact with those objects on their local computer through a helper application distinct from a Web browser.

2. Improved Web security. In 1994, security threats posed another problem for open distributed hypermedia systems such as the World Wide Web. Other systems would run whatever application was requested with no questions asked, and the user's browser could lose control—raising substantial security concerns. C.A.J.A.84, C.A.J.A.12971-12972.

The claims of the '507 patent improved security by ensuring that only interactive-content applications with which a Web browser has been configured can be used. C.A.J.A.12027-12029. As the inventors explained to the USPTO in securing their claims, this "provides enhanced security over a malicious web author attempting to create interactive content that can breach the web browser's security by making its own selection of the interactive-content application and

launching an application on the client computer to take over the user's machine." C.A.J.A.12842.

3. Improved Web scalability. Resource management and scalability posed additional problems to the nascent Web. C.A.J.A.12032. These were also addressed with the use of distributed applications across multiple server computers remote from client computers. Another aspect of the patented system provided that one of the distributed application computers would "coordinate" the performance of a task: the interactive-content application communicates with a coordination computer that in turn communicates with further servers to compute server-chosen portions of the interactive object. C.A.J.A.12032-12033.

These three advantages were combined into a system that together provided an integrated and seamless experience, where the user needed only look at a web page, and could safely and directly manipulate a complex data object within the page itself, something that was impossible before the invention.

The increased computer-network functionality in the areas of interactivity, security, and scalability are recited in the claims of the '507 patent. Claim 32, which was treated as representative below, spans 44 lines, and includes detailed aspects of how distributed interactive-content applications are provided on the Web. Pet. App. 6a-8a, C.A.J.A.109. It recites steps for a server receiving requests for, and transmitting information over, the World Wide Web, where the transmitted information enables a Web browser to: select, based on the transmitted information, an interactive-content application from among a plurality of interactive-content applications; and automatically invoke

the selected interactive-content application to enable the user to employ the selected interactive-content application to interact within a Web page, where the automatically invoked interactive-content application has been configured to operate as part of a distributed application located on two or more remote distributed application computers connected to the World Wide Web. Pet. App. 6a-8a, C.A.J.A.109.

C. The proceedings below.

1. Litigation in the district court.

The '507 patent issued in 2015—about one year after the Court's decision in *Alice*. Eolas sued Amazon, Google, and Walmart (collectively, Respondents) for infringing the newly issued patent. The district court had jurisdiction under 28 U.S.C. §§ 1331 and 1338.

Confident in the patent eligibility of the claims, Eolas attempted to resolve the 35 U.S.C. § 101 question in these cases in 2016. But Respondents blocked that attempt, and litigated for six more years before finally raising the patent-eligibility issue in a summary-judgment motion in 2022.

Before raising § 101, Respondents moved for resolution of an estoppel defense based on "obviousness-type double patenting" (OTDP). For the OTDP defense, Respondents asserted that the '507 patent claims were directed to the same inventions as the claims in Eolas's predecessor patents or were, at most, obvious modifications of the predecessor claims. Respondents argued that the '507 patent claims recited a "routine incorporation of Internet technology into existing processes." C.A.J.A.13343-13344. The district court disagreed, finding "no evidence" that "it

was 'routine' or 'commonplace' to adapt" a prior "method of serving digital information in *** a distributed hypermedia network environment," to a "World Wide Web browser *** configured to: (a) select an interactive-content application, *** and (b) automatically invoke the selected interactive-content application to enable the user to employ the selected interactive-content application to interact within the World Wide Web page." C.A.J.A.13643.

In 2022, after more than six years of litigation, and as trial approached, Respondents filed a § 101 motion arguing that the claims of the '507 patent were ineligible under the "abstract ideas" exception. Eolas opposed, pointing out that the claims are drawn to useful improvements to computer-network technology and address systemic problems that plagued the Web in the early 1990s. And configuring a Web browser to automatically invoke a distributed interactive-content application and employ it to interact within a Web page was not routine or commonplace in the early 1990s—it was a specific improvement to an existing computer-network technology. C.A.J.A.19666-19667, C.A.J.A.19689-19691.

The district court nevertheless granted Respondents' motion for summary judgment, finding that the claims of the '507 patent were patent ineligible under the two-step *Alice* framework.

At *Alice* step one, the court concluded that the claims were directed to "enabling interactivity with remote objects on a client computer browser using distributed computing." Pet. App. 36a-37a. But rather than identifying this advance as a computer-network improvement, the district court found that enabling

this functionality was an "abstract idea." Pet. App. 39a. The district court also found that considerations relating to functional claiming and specificity of description suggested the claims were directed to an abstraction. Pet. App. 41a-43a. The court thus found the claims faltered at *Alice* step one. Pet. App. 71a.

The district court also concluded that the claims faltered at *Alice* step two. Pet. App. 80a. The court acknowledged its earlier OTDP finding—that the claims of the '507 patent did not reflect a routine use or configuration of the World Wide Web—but concluded this had no "bear[ing] on the question of patent eligibility under § 101." Pet. App. 77a-78a.

After Respondents' summary-judgment motion was granted, judgment was entered, and Eolas appealed. C.A.J.A.69, C.A.J.A.21572-21573.

2. The Federal Circuit's decision.

The Federal Circuit affirmed but did not adopt the district court's analysis. Pet. App. 3a.

At *Alice* step one, the Federal Circuit agreed with Eolas that the district court's characterization of what the '507 patent claims were "directed to" was "overgeneralized." Pet. App. 14a. "Eolas's claims are not directed to computers, networks, or interacting with content generally; rather, they recite interacting with content on the World Wide Web." Pet. App. 14a-15a. And those claims further recite "certain configuration requirements of a World Wide Web browser, World Wide Web pages, and the World Wide Web distributed hypermedia network." Pet. App. 14a. The Federal Circuit added that the "specification further supports our

understanding of what the claimed invention is directed to in that it describes problems specific to the World Wide Web and explains how the invention purports to solve them." Pet. App. 14a-15a. The Federal Circuit thus found that the district court failed to account for the patent's focus on specific configuration requirements to solve problems specific to the then-nascent World Wide Web. Pet. App. 14a.

The Federal Circuit was also "concerned" that the district court's "characterization of what the claims are directed to is too specific in that" it "included implementation details—*i.e.*, using distributed computing—that may be best left for consideration under *Alice* step two." Pet. App. 14a. Thus, despite that distributed computing was among the "configuration requirements" described in the specification and recited in the claims, and while suggesting uncertainty about where and when that particular requirement should be considered under the two-step framework, the Federal Circuit adopted a "modified view of what the claims are directed to" that omitted "using distributed computing." Pet. App. 15a.

Notwithstanding that the Federal Circuit rejected the district court's "directed to" formulation as both too broad *and* too narrow, and notwithstanding that the Federal Circuit found the claims of the '507 patent drawn to solving specific problems plaguing a specific computer-network system, it still concluded that "the claims are directed to an abstract idea under *Alice* step one. Simply put, interacting with data objects on the World Wide Web is an abstraction." Pet. App. 15a.

The Federal Circuit noted that case law from this Court "suggests that claims purporting to improve a

technological process are not directed to an abstract idea under § 101." Pet. App. 16a-17a. It also noted that Eolas contended, under this law, "that it developed new functionality that was not previously available," rendering its claims "eligible under § 101." Pet. App. 17a. But the Federal Circuit rejected this contention: "[A]n abstract idea that is new or groundbreaking is not any less abstract." Pet. App. 16a.

At *Alice* step two, the Federal Circuit found nothing in the claims beyond "interacting with data objects on the World Wide Web" that would render the claims eligible for patenting. Pet. App. 16a.

The Federal Circuit did not address the "configuration requirements of a World Wide Web browser, World Wide Web pages, and the World Wide Web distributed hypermedia network" that it recognized in its step-one analysis. Pet. App. 14a. Instead, it took on an argument about what it characterized as "locating the interactive content applications within the browser"—which was never at issue. Pet. App. 18a.[1]

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[1] The Federal Circuit may have been confused about some of the arguments on appeal. None of the parties argued for or against the proposition that, as the Federal Circuit put it, "inside-the-browser applications facilitate object manipulation." Pet. App. 17a. Eolas repeatedly explained that the invention teaches "preconfiguring Web browsers with applications that are in turn broken up and distributed to run on remote computers." *See Eolas v. Amazon.com*, No. 22-1932, Dkt. 22 at 19, 24, 32, 49 & Dkt. 31 at 1, 8, 15, 18, 26 (Fed. Cir.). And this is just one of the configuration requirements necessary to effect the recited improvements to the World Wide Web. But the Federal Circuit's apparent confusion on this point has no bearing on the question presented, the reasons to grant the petition, or the viability of

The Federal Circuit found that such a limitation, which "the claims [did] not recite," failed to render "the claims eligible under *Alice* step 2." Pet. App. 18a.

On the use of distributed computing as among the configuration requirements, the Federal Circuit noted it was "undisputed that, at the time of the invention, distributed processing was well-understood, routine, conventional activity." Pet. App. 18a. But the Federal Circuit did not address the point that, when the factual question of conventionality was put to the district court on the OTDP summary judgment, the court found that the claims' required configuration of components in the World Wide Web was neither "routine" nor "commonplace." C.A.J.A.13643. The Federal Circuit also considered functional claiming and specificity of description in its step-two analysis, reasoning that the description of "a desired function" in "the claimed distributed processing" without sufficiently "specify[ing] how" the distributed processing should be implemented meant there was no "inventive concept that transforms" the claims "into a patent-eligible invention" under § 101. Pet. App. 19a.

REASONS FOR GRANTING THE PETITION

I. The Federal Circuit's application of § 101 to find claims drawn to an improved computer network ineligible conflicts with *Alice*.

Inventions drawn to improving computer functionality are patent eligible under *Alice*'s two-step framework. 573 U.S. at 223 (noting that claims "improv[ing]

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this case as an ideal vehicle for the Court to provide much-needed guidance on the "abstract idea" exception.

an existing technological process" or "solv[ing] a technological problem" are eligible); *see also id.* at 225-226 (indicating that claims that "improve the functioning of the computer itself" or are directed to "improved computer technology" are eligible).

That rule and result is vital to the U.S. patent system. A former USPTO Director testified that "cutting-edge fields like advanced software" are "most in need of patent protection to support their development." Patent Eligibility Restoration Act: Hearings on S. 2140 Before the Subcomm. on Intell. Property, 118th Cong. 4 (Jan. 23, 2024) (Statement of Hon. David Kappos, Fmr. Dir. of the USPTO) (Kappos Statement). Yet, as another former USPTO Director testified, uncertainty about whether computer-related improvements will be patent eligible has "stymied research and development, investment, and innovation, and has hurt competition and the U.S. economy." *Id.* at 13 (Statement of Andrei Iancu, Fmr. Under Sec'y of Comm. for Intell. Property & Dir. of the USPTO) (Iancu Statement). This uncertainty leads investors to shift their "investments away from companies that [are] developing new software," thus "harming the innovation economy in the U.S." Shahrokh Falati, *To Promote Innovation, Congress Should Abolish the Supreme Court Created Exceptions to 35 U.S.C. Code § 101*, 28 Tex. Intell. Prop. L.J. 1, 38-39 (2019).

For some years following the Court's decision in *Alice*, the Federal Circuit ostensibly "held software claims patent eligible under *Alice* step one" when they were "directed to improvements to the functionality of a computer or network platform." *See Uniloc USA, Inc. v. LG Elecs. USA, Inc.*, 957 F.3d 1303, 1306 (Fed.

Cir. 2020). But this case shows that the Federal Circuit's increasingly confused and expansive application of the two-step framework has now undermined the rule, so vital to the U.S. patent system, that improved computer functionality remain patent eligible.

Under the Federal Circuit's own description of the '507 patent, its claims are drawn to useful improvements to computer network technology. The Federal Circuit confirmed that the patent "describes problems specific to the World Wide Web," "explains how the invention purports to solve them," and then recites the solutions to those computer-network problems through particular "configuration requirements of a World Wide Web browser, World Wide Web pages, and the World Wide Web distributed hypermedia network." Pet. App. 14a. These observations confirm that the '507 patent fits comfortably within this Court's view that claims directed to "improved computer technology," "improv[ing] an existing technological process," and "solv[ing] a technological problem" are patent eligible. *See Alice*, 573 U.S. at 223, 225-226.

The Federal Circuit's contrary conclusion defies *Alice* and threatens all patents drawn to improving what has become highly useful and important computer-network technology.

The outcome here is not a one-off that might be shrugged away. This is a recurring problem. Take for example the Federal Circuit's decision in *Brumfield v. IBG*, 97 F.4th 854, 868 (Fed. Cir. 2024). There, a panel (Prost, Hughes, Taranto, JJ.) held at *Alice*'s first step that two patents were drawn to abstract ideas. *Id.* That holding conflicted with not one, but *two* prior

panel decisions. In *Trading Technologies International v. CQG*, a panel (Newman, O'Malley, Wallach, JJ.) held that two ancestor patents with substantially similar specifications were directed to patent-eligible solutions to problems in commodity trading software. 675 F. App'x 1001, 1002, 1004 (Fed. Cir. 2017) (unpublished). Yet another panel (Lourie, Moore, Reyna, JJ.) then relied on *CQG* in *IBG v. Trading Technologies International* to hold that both the *Brumfield* patents and their two ancestors were all directed to the same patent-eligible improvements "in the way computers operate." 757 F. App'x 1004, 1007 (Fed. Cir. 2019) (per curiam) (unpublished). The *Brumfield* panel was ultimately unable to satisfactorily reconcile the results, simply concluding: "We are not bound by non-precedential decisions at all." 97 F.4th at 870.

Many close to the issue have acknowledged the threat posed by this increasing uncertainty over eligibility of computer-related claims. Former USPTO Director Kappos testified that judicial application of *Alice* is "exclud[ing] from the patent system" important inventions involving "advanced software." Kappos Statement at 4. Former Chief Judge of the Federal Circuit Paul Michel has lamented that "nary a week passes without another decision that highlights the confusion and uncertainty in patent-eligibility law" when it comes to "computer-based" inventions. Brief of Paul R. Michel as *Amicus Curiae*, *Universal Secure Registry LLC v. Apple Inc.*, No. 21-1056, 10-11 (Mar. 2, 2022). Former Chief Judge of the Federal Circuit Randall Rader has similarly opined that courts are using "faulty logic" to declare "[c]omputer processes" ineligible because "abstract [ideas]" have "no legal definition." Randall Rader, *Rader's Ruminations—*

Patent Eligibility, Part 1: The Judge Made 'Exceptions' are Both Unnecessary and Misconstrued, IP-Watchdog (Mar. 3, 2024, 12:15PM), ipwatchdog.com/2024/03/03/raders-ruminations-patent-eligibility-judge-made-exceptions. Scholars, too, have noted the "practical (and often uncertain) consequences for high-tech patent holders," calling "the Federal Circuit's decisions *** inconsistent at best" in upholding claims drawn to "improving the computer itself." Richard Gruner, *Lost in Patent Wonderland with* Alice*: Finding the Way Out*, 72 Syracuse L. Rev. 1053, 1079 (2022) (citation omitted).

This Court's intervention is necessary to bring the Federal Circuit back into line with *Alice*'s intention that its two-step framework would not render patent ineligible claims drawn to improving computers and computer-network technology.

II. The Federal Circuit's blending of the conditions of patentability into the analysis of eligibility conflicts with *Alice*'s mandate to ensure that the judicial exception to § 101 does not swallow all of patent law.

In its confusion over what counts as a technological improvement versus an abstract idea, the Federal Circuit has erroneously imported other statutory sections on patentability into § 101. The Court warned against that in *Alice*: "[W]e tread carefully in construing this exclusionary principle lest it swallow all of patent law." 573 U.S. at 217.

Heeding that warning is necessary to maintain the structural integrity of U.S. patent law. This Court recognized in *Diehr* that § 101 "is a general statement of

the type of subject matter that is eligible for patent protection," and that other sections govern the "[s]pecific conditions for patentability." 450 U.S. at 189. Those requirements, "includ[ing] that the invention be novel, nonobvious, and fully and particularly described," *Bilski*, 561 U.S. at 601, "d[o] not affect" whether claims recite "subject matter which [is] eligible for patent protection under § 101." *Diehr*, 450 U.S. at 191. Importing patentability considerations into eligibility determinations "creates uncertainty and stifles innovation." *Realtime Data LLC v. Array Networks Inc.*, No. 21-2251, 2023 WL 4924814, at *12 (Fed. Cir. Aug. 2, 2023) (unpublished) (Newman, J., dissenting); *see also Am. Axle & Mfg., Inc. v. Neapco Holdings LLC*, 967 F.3d 1285, 1305 (Fed. Cir. 2020) (Moore, J., dissenting) (explaining that a "blended [§§] 101/112 analysis expands § 101, converts factual issues into legal ones and is certain to cause confusion for future cases").

This case shows the Federal Circuit's application of *Alice*'s two-step framework—in contravention of the Court's intention for that framework, 573 U.S. at 217—has transformed the threshold § 101 eligibility requirement into a gaping maw consuming every condition of patentability.

Questions about an invention's specificity of description and its use of functional claiming are governed by the conditions of patentability laid out in 35 U.S.C. § 112. And the claims of the '507 patent withstood direct challenges interposed by Respondents under § 112 in this litigation in 2016. C.A.J.A.6521-6531. Yet, years later, the district court relied in part

on considerations of functional claiming and specificity of description to find the claims excluded from patent eligibility at *Alice* step one. Pet. App. 41a-43a. And the Federal Circuit then relied in part on *differing* considerations of functional claiming and specificity of description to find the claims excluded from patent eligibility at *Alice* step two. Pet. App. 19a. This demonstrates both the improper importation of § 112 considerations into the § 101 analysis *and* the confused and unpredictable manner of that importation.

Further, questions about an invention's conventionality are governed by 35 U.S.C. §§ 102 and 103. In 2020, Respondents interposed direct challenges to the claims of the '507 patent under the OTDP doctrine, which requires an analysis that "is analogous to the obviousness inquiry under 35 U.S.C. § 103." *UCB, Inc. v. Accord Healthcare, Inc.*, 890 F.3d 1313, 1323 (Fed. Cir. 2018). The claims also withstood that challenge, with the district court finding "no evidence" that they recited a "routine" or "commonplace" use of the pre-invention components of the World Wide Web. C.A.J.A.13643. Yet, years later, the district court found those same claims ineligible for patenting under § 101—with no factual support—because they purportedly "amount[ed] to nothing more" than an abstract idea "implemented with generic technical components in a conventional way." Pet. App. 80a. The Federal Circuit also relied on conventionality considerations—though different from the district court—finding the claims patent ineligible in part because one recited element in the combination, the use of distributed computing, was "routine." Pet. App. 15a. These off-the-cuff and unsupported judicial findings should not have trumped the earlier, fact-based, and

still undisturbed finding that the claims as a whole did not recite a "routine" or "commonplace" implementation of the Web. C.A.J.A.13643; Pet. App. 14a-15a.

This encroachment of inquiries belonging to other conditions of patentability onto the question of eligibility here—after those other inquiries had been resolved in favor of the claims years earlier—was not merely a violation of *Alice*; it was also remarkably inefficient for all the parties and deeply unfair to Eolas.

And again, this is not a one-off occurrence. Many have recognized that the Federal Circuit's increasingly expansive approach is swallowing patent law. Former Director Kappos testified that "the conflation between 101 and the other, more objective and useful tests for patentability—Sections 102, 103, and 112"—has caused a confusing "jumble of all tests for an award of patent protection." Kappos Statement at 4. Former Director Iancu has likewise testified as to how this has "festered into the significant problem that currently dominates the confused state of the law." Iancu Statement at 5. The American Bar Association has similarly lamented "inject[ing] ambiguity into the eligibility determination" by "turn[ing] the gateway function of patent eligibility into a patentability test better left to the other statutory provisions that specifically address patentability." Letter from Donna P. Suchy, Section Chair, American Bar Association Section of Intellectual Property Law, to Hon. Michelle K. Lee, Director of the USPTO (Mar. 28, 2017), americanbar.org/content/dam/aba/administrative/intellectual_property_law/advocacy/advocacy-20170328-comments.authcheckdam.pdf. Scholars also recognize that patentability concerns have animated much of

the Federal Circuit's post-*Alice* edibility case law. Michael Xun Liu, *Subject Matter Eligibility and Functional Claiming in Software Patents*, 20 N.C. J.L. & TECH. 227, 234 (2018) ("[J]udicial concerns about functional software claims underpin the post-*Alice* approach to software patent eligibility."). And petitioners have repeatedly asked the Court to put a stop to importing patentability into eligibility. *See* Petition, *CareDx, Inc. v. Natera, Inc.*, No. 22-1066, at 24-25 (May 1, 2023) (noting the Federal Circuit's heavy reliance on "conventionality" at both steps one and two); Petition, *Interactive Wearables, LLC v. Polar Electro Oy & Polar Electro Inc.*, No. 21-1281, at 22 (Mar. 18, 2022) ("The issue of whether courts can substitute the [§] 101 inquiry with a quasi-enablement inquiry *** is also a recurring issue.").

Guidance is needed to disentangle eligibility from patentability. Only then will the Court's warning in *Alice* to "tread carefully in construing this exclusionary principle lest it swallow all of patent law" be heeded. 573 U.S. at 217.

III. Confusion pervades the application of *Alice's* two-step framework, and it will not abate without this Court's involvement.

The *Alice* path is now well trodden, yet it remains poorly lit. Entrenched divisions within the nation's sole patent court have left eligibility law in disarray. For years, Federal Circuit judges have called for "clarification by higher authority." *Berkheimer v. HP Inc.*, 890 F.3d 1369, 1374 (Fed. Cir. 2018) (Lourie, J., concurring in the denial of rehearing en banc); *see also Interval Licensing LLC v. AOL, Inc.*, 896 F.3d 1335,

1348, 1351-54, 1356 (Fed. Cir. 2018) (Plager, J., concurring in part and dissenting in part) (calling eligibility law "incoherent," a "real problem," and a "conundrum"). The lack of consensus has led "*every judge* on th[e] court to request Supreme Court clarification." *Am. Axle & Mfg., Inc. v. Neapco Holdings LLC*, 977 F.3d 1379, 1382 (Fed. Cir. 2020) (emphasis added) (Moore, J., concurring in the denial of a stay); *see also* Iancu Statement at 1 (observing that "all 12 judges of the United States Court of Appeals for the Federal Circuit have lamented the state of the law").

The Federal Circuit appears unable to fix the problem itself. It has repeatedly denied *en banc* rehearing, often producing conflicting opinions. *See Am. Axle & Mfg., Inc. v. Neapco Holdings LLC*, 966 F.3d 1347 (Fed. Cir. 2020) (six opinions); *Athena Diagnostics, Inc. v. Mayo Collaborative Servs., LLC*, 927 F.3d 1333, 1334 (Fed. Cir. 2019) (eight opinions); *Aatrix Software, Inc. v. Green Shades Software, Inc.*, 890 F.3d 1354, 1354-55 (Fed. Cir. 2018) (per curiam) (three opinions); *Berkheimer*, 890 F.3d at 1370 (same); *Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 809 F.3d 1282, 1284 (Fed. Cir. 2015) (per curiam) (same).

The Federal Circuit judges have shown no sign of convergence since those splintered rehearing denials. Rather, panels keep splitting, and judges keep recognizing the mounting confusion their decisions spawn. *See Int'l Bus. Machines Corp. v. Zillow Grp., Inc.*, No. 22-1861, 2024 WL 89642, at *6 (Fed. Cir. Jan. 9, 2024) (unpublished) (Stoll, J., dissenting-in-part from affirmance of an ineligibility judgment); *Realtime Data*, 2023 WL 4924814, at *12-13 (Newman, J., dissenting

from affirmance of an ineligibility judgment and calling the case "another example" of the Court's "flawed precedent"); *Weisner v. Google LLC*, 51 F.4th 1073, 1088 (Fed. Cir. 2022) (Hughes, J., dissenting-in-part because he would hold all, rather than just some, of the asserted claims ineligible); *Yu v. Apple Inc.*, 1 F.4th 1040 (Fed. Cir. 2021) (Newman, J., dissenting from affirmance of an ineligibility judgment and arguing that the majority created "fresh uncertainties"). Without the Court's guidance, there is no end in sight to the Federal Circuit's panel-dependent outcomes.

The confused state of the Federal Circuit's eligibility precedent hinders all those who must apply it in the first instance. For example, the district judge who oversees more patent cases than any other in the country has remarked that "[t]he only thing clear about the appropriate test for patent-eligible subject matter is that it is unclear." *PPS Data, LLC v. Jack Henry & Assocs., Inc.*, 404 F. Supp. 3d 1021, 1039 n.8 (E.D. Tex. 2019). And lawyers "who regularly prosecute and litigate U.S. patents" recently told the Court that "[t]he disarray concerning this fundamental question of subject matter eligibility" creates an "untenable situation" with "a remarkably high cost to patentees, U.S. industry, and the public." Brief for the Chicago Patent Attorneys as Amici Curiae Supporting Petitioners 2-3, *Interactive Wearables, LLC v. Polar Electro Oy*, 143 S. Ct. 2482 (2023) (No. 21-1281) ("Chicago Attorneys Br.").

The USPTO shares these concerns. Its examination guidance recognizes that "[p]roperly applying the *Alice*/*Mayo* test in a consistent manner has proven to be difficult," "has caused uncertainty," and has made

it hard for "inventors, businesses, and other patent stakeholders to reliably and predictably determine what subject matter is patent-eligible." *2019 Revised Patent Subject Matter Eligibility Guidance*, 84 Fed. Reg. 50 (Jan. 7, 2019). Past USPTO Directors agree. Two of them (Andrei Iancu, 2018-2021, and David Kappos, 2009-2013) recently testified to a Senate subcommittee. According to Iancu, "[t]he patchwork of decisions over time *** has created significant confusion and uncertainty as to what is in and what is outside the bounds of the statute." Iancu Statement at 1-2. Kappos similarly observed that "[p]atent eligibility law in the United States is in a state of disarray that has led to inconsistent court decisions, deep concern for the availability and reliability of patent protection in the innovative, investment and legal communities, and innovation-killing outcomes in patent prosecution and litigation." Kappos Statement at 1.[2]

A raft of commentary and scholarship catalogs the same legal disarray. Indeed, a Federal Circuit judge pointed to "almost universal criticism" of that court's eligibility precedents "among commentators and academicians." *Interval Licensing*, 896 F.3d at 1353-

[2] That a Senator has introduced the Patent Eligibility Restoration Act of 2023 should not deter the Court from clarifying patent eligibility. That bill, *see* S. 2140, 118th Cong., 1st Sess. (2023), has been referred to the Judiciary Committee but has advanced no farther. A similar bill died in committee last session, *see* S. 4734, 117th Cong., 2d Sess. (2022), and other proposed legislative reforms have failed too. In short, Congress is unlikely to fix the problem. Anyway, the Court is best suited to clarify the judicially created exception to § 101's broad eligibility grant. *Cf. Pearson v. Callahan*, 555 U.S. 223, 234 (2009) (explaining that since "the *Saucier* rule is judge made," "[a]ny change should come from this Court, not Congress").

54 (Plager, J., concurring in part and dissenting in part). Scholars have noted the "wide disparity in the post-*Alice* decisions," Falati, *To Promote Innovation*, 28 Tex. Intell. Prop. L.J. at 30, and the "morass of seemingly conflicting judicial decisions," Liu, *Subject Matter Eligibility & Functional Claiming in Software Patents*, 20 N.C. J.L. & Tech. at 266. A retired Chief Judge of the Federal Circuit lamented that he could not "predict outcomes in individual cases with any confidence" and wondered how "patent examiners, trial judges, inventors and investors" could do so if he could not. Brief for Sen. Thom Tillis, Hon. Paul Michel, & Hon. David Kappos as Amici Curiae Supporting Petitioner 22, *Am. Axle & Manf'g, Inc. v. Neapco Holdings LLC,* 142 S. Ct. 2902 (2022).

The Solicitor General has therefore repeatedly urged the Court to take an eligibility case. Since 2020, the Court has sought the Solicitor General's views in five such cases. Each time, the Solicitor General has recognized that the Court should help make sense of eligibility law in the right case. Brief for the United States as Amicus Curiae 8, *Hikma Pharm. v. Vanda Pharm., Inc.*, 140 S. Ct. 911 (2020) (No. 18-817) (urging review "in an appropriate case" to resolve "confusion"); Brief for the United States as Amicus Curiae 10-11, *HP Inc. v. Berkheimer*, 140 S. Ct. 911 (2020) (No. 18-415), (same); Brief for the United States as Amicus Curiae 9-10, *Am. Axle & Mfg., Inc. v. Neapco Holdings LLC*, 142 S. Ct. 2902 (2022) (No. 20-891) (urging the Court to "provid[e] greater clarity" in the right case).

Most recently, the Solicitor General urged the Court to take a pair of cases to give "much-needed

clarification in this area." Brief for the United States as Amicus Curiae 11, *Interactive Wearables, LLC v. Polar Electro Oy, et al.* and *Tropp v. Travel Sentry, LLC, et al.*, 143 S. Ct. 2482 (2023) (Nos. 21-1281, 22-22). The Solicitor General observed that "[t]he Federal Circuit precedent reflects significant confusion over the application of this Court's Section 101 decisions." *Id.* at 19. The Solicitor General suggested that *Interactive Wearables* and *Tropp* would let the Court clarify eligibility by illustrating both an eligible invention ("a wearable content player connected to a remote control") and an ineligible one (a method for improving luggage inspection by using dual-access locks that TSA could open with a master key). *Id.* at 6, 8, 21. The Court denied review in both cases (over Justice Kavanaugh's dissent). 143 S. Ct. 2482.

Nowhere is the Court's help more vital than for eligibility of computer-related patents. For the last decade, most issued patents have been computer-related. Raymond Millien, *U.S. Patent Grants Fell 7% Last Year, but 'Software-Related' Grants Remained at 63%*, IPWatchdog, Inc. (Mar. 21, 2022), https://ipwatchdog.com/2022/03/21/us-patent-grants-fell-7-last-year-software-related-grants-remained-63/id=147745. And since *Alice*, most eligibility rulings have involved computer-related patents. Robert W. Gomulkiewicz, *The Supreme Court's Chief Justice of Intellectual Property Law*, 22 Nev. L.J. 505, 535 & n.219 (2022). Yet uncertainty about eligibility is only heighted for computer-related inventions. *See* David Kappos & Asa Kling, *Ground-Level Pressing Issues at the Intersection of AI and IP*, 22 Colum. Sci. & Tech. L. Rev. 263, 267-68 (2021); Chicago Attorneys Br. at 3. As former Director Kappos testified, this uncertainty threatens domestic

investment and innovation while affording a competitive advantage to countries like China, who have been strengthening their "software IP laws over the last decade." Kappos Statement at 7.

IV. This case is an ideal vehicle for the Court to provide much-needed guidance on § 101.

This case provides an excellent vehicle for the Court to address these important issues.

1. The patent eligibility of computer-related improvements is squarely raised, cleanly presented, fully briefed by the parties, and directly addressed in both the district court and Federal Circuit opinions. Pet. App. 14a-16a, 40a; *supra* § I. And the record invites this Court's review. The Federal Circuit found that the '507 patent "describes problems specific" to a particular computer-network technology; "explains how the invention purports to solve" those computer-network problems; and recites the solution to those problems through multiple "configuration requirements" of the components of that particular network technology. Pet. App. 14a. Still, the Federal Circuit found that these claims are not directed to an improvement in computer-network technology, and are not patent eligible under § 101. Pet. App. 15a.

The Court can and should grant this petition to clarify that these types of claims—unquestionably directed to solving problems specific to computers—are patent eligible under § 101 and *Alice*.

2. The proper role of the various conditions of patentability within the eligibility analysis is also squarely raised, cleanly presented, fully briefed by the parties, and put directly into play by the decisions

of both the district court and the Federal Circuit. Pet. App. 19a, 42a-44a; *supra* § II. And the record again invites this Court's review. The Federal Circuit based its patent-ineligibility finding in part on its conclusion that the claims "describe a desired function *** without providing details of the claimed" function, Pet. App. 18a—notwithstanding that § 112 permits functional claiming, and the claims had withstood a direct challenge under § 112 years earlier. *See* 35 U.S.C. § 112(f); *supra* § II. The Federal Circuit further based its patent-ineligibility finding in part on its conclusion that the claims of the '507 patent involve certain "routine" activity, Pet. App. 20a—notwithstanding that such concerns properly fall under §§ 102 and 103, and the claims had withstood a direct challenge under an obviousness rubric, which confirmed there was no evidence the claims involved routine activity, years earlier. *See* 35 U.S.C. §§ 102, 103; *supra* § II.

The Court should grant this petition to clarify the role of patentability concerns in the eligibility analysis and ensure that *Alice*'s two-step framework does not "swallow all of patent law." 573 U.S. at 217.

3. This case also provides an excellent vehicle for the Court to address the general confusion and conflict—now deeply entrenched—regarding proper application of *Alice*'s two-step framework. Viewed together, the opinions of the district court and the Federal Circuit illustrate confusion and uncertainty regarding the application of both steps.

At *Alice* step one, the district court considered the recited distributed computing elements but not the recited World Wide Web elements. Pet. App. 53a-56a. The Federal Circuit flipped that, including the World

Wide Web in its "directed to" characterization but excluding the recited distributed computing elements. Pet. App. 21a. Expressing doubt, the Federal Circuit reasoned that "using distributed computing" involved "implementation details" that "may be best left for consideration under *Alice* step two." Pet. App. 14a.

At *Alice* step two, the district court provided no separate analysis. It simply found, in effect, that the limitations together "embod[ied] the abstract idea to which the asserted claims are directed, which is enabling interactivity with remote objects in client computer browsers using distributed computing." Pet. App. 74a. The Federal Circuit, having moved consideration of the distributed computing elements from step one to step two, dismissed their significance as routine and conventional activity. Pet. App. 18a. The Federal Circuit also expressed confusion about whether the consideration of the arguments about improved computer functionality belonged in step one or step two. Pet. App. 14a. It hedged its bets by suggesting they would be rejected "[w]hether analyzed as technological improvements under *Alice* step 1 or as inventive concepts under *Alice* step 2." Pet. App. 17a-18a.

The Federal Circuit was wrong on both counts. And its decision presents an ideal vehicle for the Court to provide much-needed guidance on the application of both steps of *Alice*'s two-step framework. Patent eligibility should not turn on arbitrary and unpredictable judicial choices about—among other things—which elements and arguments are considered at step one, and which are considered at step two. Right now, it does.

V. The Federal Circuit's decision here critically fails to distinguish between useful improvement and mere abstraction.

The most striking statement in the Federal Circuit's decision is the fulcrum on which the result turned: "Simply put, interacting with data objects on the World Wide Web is an abstraction." Pet. App. 15a. That statement makes no sense.

The World Wide Web is not an abstraction—it is a real distributed hypermedia network. Data objects are not abstractions—they are real pictures, movies, and other media. And interacting with data objects on the World Wide Web is not an abstraction—it is a physical activity that millions of real people do with real browsers on that real computer network every day. Those who use the computer network are unlikely to be confused on this point: they might admit that interacting with data objects on the Web can be a *distraction*, but none would view their interactions with data objects as a mere *abstraction*. Those who use the computer network would also undoubtedly agree: enabling their interactions with data objects on the Web represented a substantial and highly useful improvement of that computer-network system.

There was no need in *Alice* for the Court to "labor to delimit the precise contours of the 'abstract ideas' category" of patent-ineligible subject matter. 573 U.S. at 221. That was because the "concept of intermediated settlement at issue" in *Alice* fell "squarely within the realm of 'abstract ideas' as" the Court had historically "used that term." *Id.* Enabling interactivity with data objects on the World Wide Web does *not* fall squarely within the realm of "abstract ideas" as the

Court has historically used that term. There is now a pressing need for the Court to set boundaries on the "abstract ideas" category of the exception to § 101, and to keep that exception from "swallow[ing] all of patent law." *Id.* at 217. The Court can and should do so here.

The claims of the '507 patent are drawn to a new and useful improvement of a then-nascent computer-network system; a system that, in part because of its adoption of this technology, has become an indelible feature of the U.S. social and economic landscape.

This type of invention—one drawn to solving problems that curb the usefulness of an existing computer technology—is not an abstraction. Rather, this type of invention effects improvements to real technologies we use every day. And if the conditions of patentability are otherwise met, this type of invention should be eligible for protection under the U.S. patent system.

CONCLUSION

The petition for a writ of certiorari should be granted.

Respectfully submitted.

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MAY 1, 2024

APPENDIX

TABLE OF APPENDICES

APPENDIX A

NOTE: This disposition is nonprecedential.

UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT

EOLAS TECHNOLOGIES INCORPORATED,
Plaintiff-Appellant

V.

AMAZON.COM, INC., GOOGLE LLC, WALMART, INC.,
Defendants-Appellees

GOOGLE LLC,
Plaintiff-Appellee

V.

EOLAS TECHNOLOGIES INCORPORATED,
Defendant-Appellant

REGENTS OF THE UNIVERSITY OF CALIFORNIA,
Defendant

2022-1932, 2022-1933, 2022-1934, 2022-1935

Appeals from the United States District Court for the Northern District of California in Nos. 4:15-cv-

05446-JST, 4:17-cv-01138-JST, 4:17-cv-03022-JST, 4:17-cv-03023-JST,

Judge Jon S. Tigar.

DECIDED: FEBRUARY 1, 2024

JOHN BRUCE CAMPBELL, McKool Smith, P.C., Austin, TX, argued for plaintiff-appellant. Also represented by JOSHUA WRIGHT BUDWIN, JAMES ELROY QUIGLEY, JOEL LANCE THOLLANDER.

CHARLES KRAMER VERHOEVEN, Quinn Emanuel Urquhart & Sullivan, LLP, San Francisco, CA, for defendant-appellee Google LLC. Also represented by JOCELYNE MA, DAVID ANDREW PERLSON; DEEPA ACHARYA, Washington, DC.

GABRIEL K. BELL, Latham & Watkins LLP, Washington, DC, argued for all defendants-appellees. Defendant-appellee Amazon.com, Inc. also represented by RICHARD GREGORY FRENKEL, DOUGLAS ETHAN LUMISH, Menlo Park, CA; JOSEPH HYUK LEE, Costa Mesa, CA; AMIT MAKKER, San Francisco, CA; JEFFREY H. DEAN, Amazon.com, Inc., Seattle, WA.

MARK CHRISTOPHER FLEMING, Wilmer Cutler Pickering Hale and Dorr LLP, Boston, MA, for defendant-appellee Walmart, Inc.

Before CHEN, BRYSON, and STOLL, *Circuit Judges*. STOLL, *Circuit Judge*.

Eolas Technologies Inc. appeals from the United States District Court for the Northern District of California's summary judgment holding the asserted claims of Eolas's U.S. Patent No. 9,195,507 invalid for claiming ineligible subject matter. Because we agree with the district court's conclusion, we affirm.

BACKGROUND

I

The '507 patent claims priority from a patent filed in 1994. The '507 patent specification notes that the limited processing power of a typical client computer and the low bandwidth of the Internet prohibited most users from interacting with large data objects on the Internet. See '507 patent col. 5 ll. 39–52, col. 6 ll. 22–33. The specification describes the present invention as taking advantage of distributed hypermedia environments, such as that provided by the World Wide Web, and harnessing the remote com- putting power made available by distributed computing.[1] Id. col. 6 ll. 57–67; see also id. col. 7 ll. 1–6.

The specification explains that tasks that would normally be resource or bandwidth-intensive for a single computer—such as rendering large images or

[1] "Distributed" describes objects or processes that are located and/or processed across multiple computers on a network. See, e.g., '507 patent col. 5 ll. 29–34; see Eolas Techs. Inc. v. Amazon.com, Inc., No. 6:15-cv-01038, 2016 WL 7155294, at *8 (E.D. Tex. Dec. 8, 2016) (Claim Construction Op.) (construing "distributed application" to mean an "application that is broken up and performed among two or more computers").

calculating spreadsheet cells—can be performed more effectively with distributed computing. For example, a new viewpoint of a large image or an updated calculation for a large spread- sheet can be computed on a remote computer and then sent to the client computer for display. See id. col. 7 ll. 1–33.

Figure 5, shown below, illustrates an embodiment of the invention.

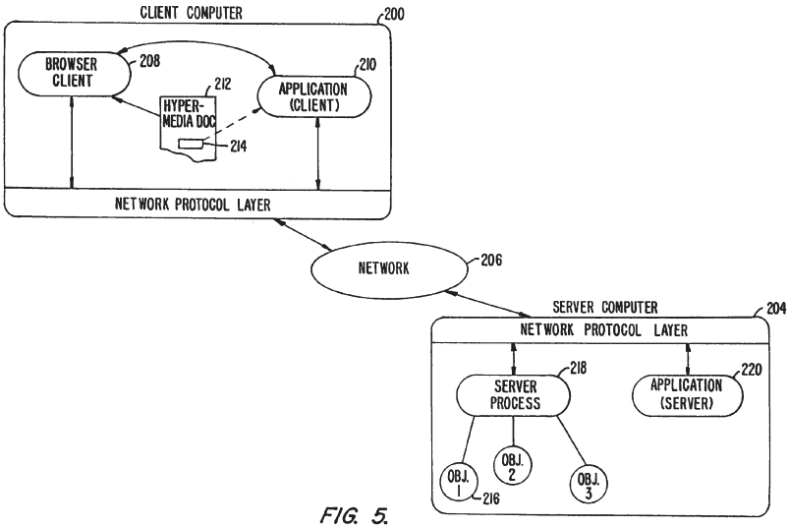

FIG. 5.

Id. Fig. 5. In this embodiment, a browser client 208 on the user's computer requests and parses through a data object (e.g., hypermedia document 212),[2] and

[2] A "hypermedia document" is a document presented to a user in a computer system in which "the user is able to click on images, sound icons, video icons, etc., that link to other objects of various media types, such as additional graphics, sound,

identifies an application for the application client 210 to invoke in order to interact with the data object. *See id*. col. 9 ll. 4–20, col. 9 ll. 29–33. The application client 210 communicates with the distributed network 206 (e.g., World Wide Web) to access the data object located on a server computer 204. *Id*. col. 9 ll. 34–40. Upon receipt of the data object from the application client 210, the browser client 208 displays the data object on the client computer 200. *Id*. col. 9 ll. 54–57; *see also id*. col. 9 l. 65–col. 10 l. 3. The specification also describes an example of an application performing multidimensional image visualization. *Id*. col. 9 ll. 34–35. In this example, application server 220 performs the rendering and transformation calculations as the user interacts with the three-dimensional data object, with application client 210 updating the user's view with each new viewpoint calculation. *Id*. col. 10 ll. 34–39, ll. 46–54. The specification describes a preferred embodiment in which the user interacts with the three-dimensional data object "within, or adjacent to, a window generated by browser client 208 that contains a display of hypermedia document 212." *Id*. col. 9 ll. 59–61.

According to the '507 patent, having the application server 220 use the computing resources of the server computer 204, as described in the three-dimensional visualization example, is much faster than having the application client 210 executing on the client computer 200. *Id*. col. 10 ll. 60–64.

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video, text, or hypermedia or hypertext documents." '507 patent col. 2 ll. 22–30.

Eolas argued before the district court that there is no substantial difference between method claims 32, 37, and 39 and system claims 19, 24, and 26. The district court agreed and determined these method claims were representative of the system claims. *See Eolas Techs. Inc. v. Am- azon.com Inc.,* No. 17-cv-03022, 2022 U.S. Dist. LEXIS 243302, at *53–54 (N.D. Cal. May 16, 2022) (*Summary Judgment Op.*). Representative independent claim 32 recites:

> 32. A method, performed by a server computer connected to the World Wide Web distributed hypermedia network on the Internet, for disseminating interactive content via the World Wide Web distributed hypermedia network on the Internet, the method comprising:
>
> A. receiving, by the server computer, a request for information; and
>
> B. transferring, by the server computer, the information onto the World Wide Web distributed hypermedia network on the Internet, wherein:
>
> (i) a World Wide Web browser on a client computer connected to the World Wide Web distributed hypermedia network has been configured with a plurality of different interactive-content applications, each said interactive-content application being configured to enable a user to interact, within one or more World

Wide Web pages, with at least part of one or more objects while at least part of each of said one or more objects is displayed to the user within at least one of said one or more World Wide Web pages, and

(ii) at least part of the information is configured to allow the World Wide Web browser on the client computer to:

a. detect at least part of an object to be displayed in a World Wide Web page, and

b. cause a display of the World Wide Web page to a user,

(iii) the World Wide Web browser has been configured to:

a. select an interactive-content application, based upon the information, from among the different interactive-content applications, and

b. automatically invoke the selected interactive-content application to enable the user to employ the selected interactive-content application to interact within the World Wide Web page with at least

> part of the object while at least part of the object is displayed to the user within the World Wide Web page, wherein the automatically invoked interactive-content application has been configured to operate as part of a distributed application configured to enable a user to perform the interaction through the use of communications sent to and received from at least a portion of the distributed application located on two or more distributed application computers connected to the World Wide Web distributed hypermedia network on the Internet, the two or more distributed application computers being remote from the client computer.

'507 patent col. 23 l. 25–col. 24 l. 2.

Eolas argues that independent claim 45 is patent eligible for additional reasons not present in representative claim 32. In particular, Eolas emphasizes that claim 45 recites additional limitations of generating and sending computer commands to perform viewing transformations:

> 45. A method performed by one or more computers for coordinating distributed processing to enable dissemination of interactive content to a client computer, the method comprising:

a. coordinating by the one or more computers processing of at least part of a distributed application to perform at least one task,

b. coordinating by the one or more computers communications sent to and received from at least a portion of the distributed application located on two or more separate computers connected to the World Wide Web distributed hypermedia network to enable the separate computers to work together to perform the at least one task, wherein at least part of the distributed application has been implemented to be part of a distributed interactive-content application configured to enable a user to interact with at least part of an object, displayed within a World Wide Web page by the client computer, and

c. generating and sending by the one or more computers commands over a network to coordinate activity of the separate computers working together to perform viewing transformations to enable the interaction with at least part of the object, wherein:

a. the two or more separate computers are remote from the client computer containing a World Wide Web browser configured to cause

the display of the World Wide Web page,

b. the World Wide Web browser has been configured with a plurality of different interactive-content applications, each said interactive- content application being configured to enable a user to interact, within one or more World Wide Web pages, with at least part of one or more objects while at least part of each of said one or more objects is displayed to the user within at least one of said one or more World Wide Web pages,

c. the World Wide Web browser has been enabled, by information that has been transferred onto the World Wide Web distributed hypermedia network, to detect at least part of the object and to display the world Wide Web Page,

d. the World Wide Web browser has been configured to select an interactive-content application, based upon the information, from among the different interactive- content applications, and automatically invoke the selected interactive-content application,

> e. the automatically invoked interactive-content application has been configured to operate as part of the distributed interactive-content application.

Id. col. 24 l. 56–col. 25 l. 37.

II

Eolas filed suit against Amazon.com, Inc.; Google LLC; and Walmart, Inc. (collectively, "Appellees") in the Eastern District of Texas for infringing certain claims of the '507 patent. The cases were later transferred to the Northern District of California.

During claim construction, the district court construed the claim limitation "World Wide Web browser on a client computer" to not require that the interactive content applications be internal to the World Wide Web browser.[3] *See Claim Construction Op.*, 2016 WL 7155294, at *12–13. In other words, the district court determined that the claim did not require

[3] The court specifically construed the claim term "the World Wide Web browser on a client computer" to mean "a client computer application, *separate from the interactive-content application*, that allows a user to access the World Wide Web." *Claim Construction Op.*, 2016 WL 7155294, at *13 (emphasis added). This separation cuts against the notion that the interactive content application must be in the browser. Also, the court's construction is consistent with the title of the '507 patent, which refers to "Automatically Invoking External Application" and Figure 8A of the preferred embodiment, which refers to launching an external application at step 290. '507 patent Fig. 8A, col. 15 ll. 4–7, ll. 17–18.

relocation of the interactive content application into the World Wide Web browser.

Appellees filed a motion for summary judgment, arguing that the claims 19, 24, 26, 32, 37, 39, and 45 are ineligible for patenting under 35 U.S.C. § 101. Applying the two-step test set forth *in Alice Corp. v. CLS Bank International*, 573 U.S. 208 (2014), the district court concluded that under *Alice* step one, the asserted claims are "directed to the abstract idea of enabling interactivity with remote objects on a client computer browser using distributed computing." *Summary Judgment Op.*, 2022 U.S. Dist. LEXIS 243302, at *20. The district court determined under *Alice* step two that the purported inventive concepts of distributed computing and improved security, whether individually or as an ordered combination, embodied the abstract idea, and thus could not transform the claim beyond the abstract idea as required to demonstrate eligibility under *Alice* step two. *Id.* at *60–61. It also explained that the remaining aspects of the asserted claims lacked an inventive concept to transform the abstract idea into a patent-eligible application because they cite generic computer components and functions. See *id.* at *61–62. The district court therefore held the asserted claims ineligible under § 101 and granted summary judgment in Appellees' favor. *Id.* at *67–68.

Eolas appeals. We have jurisdiction under 28 U.S.C. § 1295(a)(1).

DISCUSSION

When reviewing a district court's grant of summary judgment, we apply the law of the regional circuit. *See Synopsys, Inc. v. Mentor Graphics Corp.*, 839 F.3d 1138, 1146 (Fed. Cir. 2016). Summary judgment in the Ninth Circuit is appropriate when, after drawing all reasonable inferences in favor of the non-moving party, there remains no genuine issue of material fact precluding the grant of summary judgment. *See Comite de Jornaleros de Redondo Beach v. City of Redondo Beach*, 657 F.3d 936, 942 (9th Cir. 2011).

Patent eligibility under § 101 is a question of law that may involve underlying questions of fact. *See Mortg. Grader, Inc. v. First Choice Loan Servs. Inc.*, 811 F.3d 1314, 1325 (Fed. Cir. 2016). We review the district court's ultimate conclusion on eligibility de novo. *See Intell. Ventures I LLC v. Capital One Fin. Corp.*, 850 F.3d 1332, 1338 (Fed. Cir. 2017). We look to the two-step test articulated in *Alice* to determine whether a claim is eligible for patenting under § 101. *See* 573 U.S. at 217–18. For *Alice* step one, we must assess whether the claims at issue are directed to a patent-ineligible concept, namely a law of nature, natural phenomenon, or abstract idea. *Id.* at 217. If the answer is yes, we then consider the claim elements, both individually and as an ordered combination, to determine whether they contain an "inventive concept" sufficient to "'transform the nature of the claim' into a patent-eligible application." *Id.* at 217–18 (quoting *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 72– 73, 78 (2012)). In other words, we must determine whether the claims recite

additional features beyond the abstract idea, rendering the claims eligible for patenting. Those additional features must be more than "well-understood, routine, conventional activity." *Mayo*, 566 U.S. at 79–80.

Starting with *Alice* step one, the district court determined that representative claim 32 of the '507 patent "is directed to the abstract concept of enabling interactivity with remote objects on a client computer browser using distributed computing." *Summary Judgment Op.*, 2022 U.S. Dist. LEXIS 243302, at *27.

On appeal, Eolas argues that this characterization is overgeneralized in that it fails to acknowledge the claim's recitation of objects on the World Wide Web. *See* Appellant's Br. 43–44. We agree. Eolas's claims are not directed to computers, networks, or interacting with content generally; rather, they recite interacting with content on the World Wide Web. For example, the body of claim 32 recites certain configuration requirements of a World Wide Web browser, World Wide Web pages, and the World Wide Web distributed hypermedia network. The district court's characterization "disregard[s] th[e]se express claim elements" in a way that is "'untethered from the claim language.'" *TecSec, Inc. v. Adobe Inc.*, 978 F.3d 1278, 1295 (Fed. Cir. 2020) (quoting *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1337 (Fed. Cir. 2016)); *see also Enfish*, 822 F.3d at 1337 (warning against "describing the claims at such a high level of abstraction" in the § 101 analysis). The specification further supports our understanding of what the claimed invention is directed to in that it describes problems

specific to the World Wide Web and explains how the invention purports to solve them.

At the same time, we are concerned that the district court's characterization of what the claims are directed to is too specific in that the court included implementation details—*i.e.*, using distributed computing—that may be best left for consideration under *Alice* step two. *See Summary Judgment Op.*, 2022 U.S. Dist. LEXIS 243302, at *60–61. In narrowly articulating what the invention was directed to under *Alice* step one and concluding that this subject matter was abstract, the district court eliminated any opportunity to consider whether distributed computing transforms the invention into eligible subject matter under *Alice* step two. *See BSG Tech LLC v. Buyseasons, Inc.*, 899 F.3d 1281, 1290 (Fed. Cir. 2018) ("After identifying an ineligible concept at step one, we ask at step two '[w]hat else is there in the claims before us?'" (quoting *Mayo*, 566 U.S. at 78 (modification in *BSG*)).

We nonetheless agree with the district court that, even under our slightly modified view of what the claims are directed to, the claims are directed to an abstract idea under *Alice* step one. Simply put, interacting with data objects on the World Wide Web is an abstraction. *See Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 714–15 (Fed. Cir. 2014).

Eolas contends that it developed new functionality that was not previously available and thus its claims are eligible under § 101. We are not persuaded by this

particular argument. At best, the specification explains that prior art systems provided users "very little, if any, interaction with the[] data objects" on the World Wide Web due to the constraints of client computers, '507 patent col. 6 ll. 22–34, and thus "it [wa]s desirable to allow a user to manipulate data objects in an interactive way to provide the user with a better understanding of information presented and to allow the user to accomplish a wider variety of tasks," *id.* col. 6 ll. 37–41. But an abstract idea that is new or ground- breaking is not any less abstract. *See Ultramercial*, 772 F.3d at 714 (rejecting argument that "abstract ideas remain patent-eligible under § 101 as long as they are new ideas, not previously well known, and not routine activity").

Case law from the Supreme Court and this court suggests that claims purporting to improve a technological process are not directed to an abstract idea under § 101. See *Alice*, 573 U.S. at 223; *Visual Memory LLC v. NVIDIA Corp.*, 867 F.3d 1253, 1260 (Fed. Cir. 2017). According to Eolas, the '507 patent claims capture "specific technological solutions to [three] specific technological problems," and thus, the claims are not abstract under *Alice* step one. Appellant's Br. 25. First, Eolas asserts that at the time of the invention, user interaction with data objects was limited to downloading data objects "onto their client computers and then launching external applications that would [then] permit manipulation" of the data objects. Appellant's Br. 23. Eolas asserts that with the claimed invention, "rather than downloading objects to be manipulated with outside-the-Web-browser helper applications, objects are embedded within Web pages and

Web browsers are configured with applications that can be automatically invoked to permit manipulation while the object is displayed within the Web page." Appellant's Br. 24. In other words, Eolas claims that inside-the-browser applications facilitate object manipulation. Second, Eolas contends that in addition to relocating applications to reside within the Web browser, the claims address scalability with its distributed computing configuration: "new applications are broken up and distributed, with one part working in the browser and other parts on remote distributed application computers." *Id*. Third, Eolas contends that, by invoking only applications that are configured to be used with the Web browser, the invention improves security. Appellant's Br. 24–25. In the alternative, Eolas relies on these same three aspects of the invention as alleged inventive concepts that would render the claims eligible under *Alice* step two. *See* Appellant's Br. 55–58. As noted above, *Alice* step two requires determining whether an element, or a combination of elements, in the claim contains an inventive concept sufficient to "'transform the nature of the claim' into a patent-eligible application." *Alice*, 573 U.S. at 217 (quoting *Mayo*, 566 U.S. at 72, 79). Finally, Eolas contends that claim 45's additional limitation of "viewing transformations" provides an inventive concept that renders claim 45 patent-eligible. Appellant's Br. 35.

Whether analyzed as technological improvements under *Alice* step 1 or as inventive concepts under *Alice* step 2, none of Eolas's three alleged concepts for representative claim 32 make the claim eligible. We likewise conclude that claim 45 does not recite additional

features beyond the claimed abstract idea that render the claim eligible for pa- tenting. We consider each of Eolas's alleged inventive concepts in turn below.

First, Eolas contends that relocation of the interactive content application from outside to inside the World Wide Web browser itself was an important new structural change that improved interactivity with the World Wide Web. But we do not see this limitation anywhere in the claims and thus it cannot satisfy *Alice* step two. And Eolas did not challenge the district court's claim construction, which does not require that the interactive content application be internal to the World Wide Web browser, on appeal. Furthermore, Eolas did not present this alleged inventive concept of relocating the interactive application in the web browser in its § 101 arguments before the district court below. Thus, not only do the claims not recite locating the interactive content applications within the browser, but it appears that Eolas waived this argument by not presenting it below. Relocation of the interactive content application within the web browser is therefore not an inventive concept that renders the claims eligible under *Alice* step 2.

Second, Eolas asserts that the claims recite the inventive concept of distributed processing between the application in the browser and applications on remote distributed computers. But it is undisputed that, at the time of the invention, distributed processing was well-understood, routine, conventional activity. See *Summary Judgment Op.*, 2022 U.S. Dist. LEXIS 243302, at *61 n.12; Appellees' Br. 54. For example,

one of the named inventors of the '507 patent confirmed that the inventors did not invent distributed computing, servers, or applications. J.A. 16647, 16649 (Martin Depo. at 63:9–18, 65:8–24).

Moreover, as the district court explained, the claims merely describe a desired function or outcome without providing details of the claimed distributed processing. Specifically, claim 32 requires an automatically invoked interactive-content application "configured to operate as part of a distribution application" that "enable[s] a user" to interact with data objects within a World Wide Web Page. '507 patent col. 23 ll. 54–62. And the rest of the claim re- cites that "a portion of the distributed application [is] located on two or more distributed application computers connected to the World Wide Web distributed hypermedia network on the Internet [with] the two or more distributed application computers being remote from the client computer." *Id*. col. 23 l. 61–col. 24 l. 2. The claim thus recites distributed processing, but does not specify how the claimed configuration for distributed processing is any different than generic distributed processing. For example, the claim does not specify how the processing is distributed among the distributed application computers. Nor does it require distributed processing among applications internal and external to the web browser. Without more, the distributed processing as claimed is not an inventive concept that transforms claim 32 into a patent-eligible invention.

Third, Eolas alleges its claims alleviate certain security concerns existing at the time of the invention

by limiting the invoked interactive content applications to those configured to operate within the Web browser. But this alleged inventive concept is not within the scope of the claims because, as noted above, the claims do not actually require that the interactive content applications be located within the browser. Indeed, the claims merely recite that the browser invokes interactive-content applications (which, under the district court's construction, are separate from— *i.e.*, external to—the "World Wide Web browser"). See '507 patent col. 23 ll. 50–53 ("[T]he World Wide Web browser . . . select[s] an interactive-content application . . . from among the different interactive-content applications."); *see also id.* Title ("Distributed Hypermedia Method and System for Automatically Invoking External Application Providing Interaction and Display of Embedded Objects within a Hypermedia Document"); *id.* col. 15 ll. 4–7, ll. 15–30. Thus, the claims are not eligible under either *Alice* step one or *Alice* step two based on this contention.

Finally, turning to claim 45, Eolas asserts that the additional limitation requiring remote computers to generate and send computer commands to perform "viewing transformations" offers a 3D view that improves a computer network system's specific technical features or operations. Appellant's Br. 35. This additional limitation does not transform the abstract idea into a patent-eligible claim. The district court construed "viewing transformations" to mean "operations performed on data for visual display to a user." *Claim Construction Op.*, 2016 WL 7155294, at *16. This broad construction, which is unchallenged on appeal,

encompasses visual display generally, something well-known in the art at the time of the invention. *See, e.g.*, J.A. 16655–56 (Martin Depo. 145:18–146:2) (Inventor Martin denying having invented sending commands to a remote server to perform visualization processes); J.A. 12150–51 (prior art publication describing sending scientific visualization to remote computers); '507 patent col. 6 ll. 2–4 (explaining in background of the invention section that "a variety of visualization techniques . . . have been developed"); J.A. 13047 (Inventor Doyle describing existing visualization systems in a 1994 proposal). Nor does anything else in the claim or the specification show how the recited viewing transformation differs from conventional visual display. Thus, the "viewing transformations" limitation in claim 45—construed as "operations performed on data for visual display to a user"—fails to transform the abstract idea into an eligible technical solution. *See, e.g., Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1355 (Fed. Cir. 2016) (stating that "'displaying concurrent visualization' of two or more types of information . . . is 'insufficient to pass the test of an inventive concept in the application' of an abstract idea'" (quoting *buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350, 1353, 1355 (Fed. Cir. 2014)).

For all of the above reasons, we conclude that the claims are directed to an abstract idea under *Alice* step 1 and that the alleged inventive concepts identified by Eolas do not otherwise transform the abstract nature of the claims to render the claims patent-eligible. We thus agree with the district court's judgment

that the asserted claims of the '507 patent are not eligible for patenting.

CONCLUSION

We have considered Eolas's remaining arguments and find them unpersuasive. Because the district court correctly concluded that the '507 patent claims are directed to ineligible subject matter, we affirm.

AFFIRMED

APPENDIX B

UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT

EOLAS TECHNOLOGIES INCORPORATED,
Plaintiff-Appellant

V.

AMAZON.COM, INC., GOOGLE LLC, WALMART, INC.,
Defendants-Appellees

GOOGLE LLC,
Plaintiff-Appellee

V.

EOLAS TECHNOLOGIES INCORPORATED,
Defendant-Appellant

REGENTS OF THE UNIVERSITY OF CALIFORNIA,
Defendant

2022-1932, 2022-1933, 2022-1934, 2022-1935

Appeals from the United States District Court for the Northern District of California in Nos. 4:15-cv-05446-JST, 4:17-cv-01138-JST, 4:17-cv-03022-JST, 4:17-cv-03023-JST, Judge Jon S. Tigar.

JUDGMENT

THIS CAUSE having been considered, it is
ORDERED AND ADJUDGED:

AFFIRMED

February 1, 2024
Date

For the Court
Jarrett B. Perlow
Clerk of the Court

APPENDIX C

UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF CALIFORNIA

EOLAS TECHNOLOGIES INCORPORATED,
Plaintiff

V.

AMAZON.COM, INC., GOOGLE LLC, WALMART, INC.,
Defendants

GOOGLE LLC,
Plaintiff

V.

EOLAS TECHNOLOGIES INCORPORATED,
Defendant

REGENTS OF THE UNIVERSITY OF CALIFORNIA,
Defendant

Nos. 4:15-cv-05446-JST, 4:17-cv-01138-JST, 4:17-cv-03022-JST, 4:17-cv-03023-JST,
Judge Jon S. Tigar.

ORDER GRANTING DEFENDANTS' MOTION FOR SUMMARY JUGEMENT UNDER 35 U.S.C. §101; DENYING DEFENDANTS' MOTION FOR SUMMARY JUDGEMENT OF NON-INFRINEMENT AS MOOT; DENYING PLAINTIFFS' MOTION FOR SUMMARY JUDGMENT AS MOOT; DENYING MOTIONS TO EXCLUDE OR STRIKE EXPERT TESTIMONY AS MOOT

(ECF Nos. 829, 832, 686, 689, 696, 698, 699, 703, 706, 708, 710, 714)

Before the Court are several motions: (1) Defendants' motion for summary judgment on the grounds that the asserted claims are invalid under 35 U.S.C. §101 or are not infringed, ECF No. 832; (2) Plaintiffs' motion for summary judgment as to certain of Defendants' affirmative defenses, ECF No. 829; and (3) several motions to exclude or strike certain expert testimony, ECF Nos. 686, 689, 696, 698, 699, 703, 706, 708, 710, and 714.

For the reasons discussed below, the Court will grant Defendants' motion for summary judgment that the asserted claims are invalid under 35 U.S.C. §101 and will deny the rest of the pending motions as moot.[1]

I. BACKGROUND

[1] Pursuant to Civil Local Rule 7-1(b), the Court concludes that these motions are appropriate for determination without oral argument.

A. PROCEDURAL HISTORY

On November 24, 2015, Plaintiff Eolas filed three actions in the Eastern District of Texas alleging infringement of U.S. Patent No. 9,195,507 ("the '507 patent") by Defendants Amazon.com, Inc. ("Amazon"), Google LLC ("Google"), and Wal-Mart Inc. ("Walmart") (collectively, "Defendants"). *See Eolas Techs. Inc. v. Amazon.com, Inc.*, No. 6:15-cv-1038 (E.D. Tex.); *Eolas Techs. Inc. v. Google Inc.*, No. 6:15-cv-1039 (E.D. Tex.); *Eolas Techs. Inc. v. Wal-Mart Stores, Inc.,* No. 6:15-cv-1038 (E.D. Tex.). Eolas alleges that various products of each Defendant directly infringe the asserted claims of the '507 patent. See ECF No. 830-5 at 14. Defendants contend, and Eolas does not dispute, that the only asserted claims of the '507 patent that remain at issue at this stage of the litigation are the following: Claims 32, 37, 39, 19, 24, 26, and 45.

On February 8, 2016, the three actions were consolidated for pretrial purposes. *See* ECF No. 22. In 2017, the three actions were transferred to the Northern District of California. ECF Nos. 251, 326, 329. A fourth case was filed in the Northern District of California on November 25, 2015 (*Google LLC v. Eolas Technologies Incorporated*, Case No. 15-cv-05446) and this fourth case was consolidated for pretrial purposes with the other three actions on March 10, 2020. *See* ECF No. 582. The lead case is *Eolas Technologies Incorporated v. Amazon.com, Inc.*, Case No. 17-cv-3022. *Id.*

On May 31, 2016, while first three actions were still pending in the Eastern District of Texas, Eolas filed an early summary judgment motion of "no invalidity" under 35 U.S.C. §101. *See* ECF No. 112. The District Court for the Eastern District of Texas ("Texas district court") denied the motion without prejudice.[2] ECF No. 208. On December 8, 2016, the Texas district court construed certain disputed terms in the '507 patent. *See* ECF No. 212.

Once the consolidated actions were assigned to the undersigned, Defendants moved for reconsideration of the construction of one of the disputed terms ("interactive-content application"), ECF No. 619, which this Court denied, ECF No. 628.

On March 25, 2020, Defendants moved for summary judgment on obviousness-type double patenting, double patenting, and various preclusion doctrines. ECF No. 592. On April 27, 2021, the Court denied Defendants' motion on the basis that Defendants had not met their burden to show that the asserted claims are invalid under any of the doctrines that Defendants had invoked. ECF No. 655.

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[2] The order resolving this motion was sealed and not filed on the docket. The docket entry that was entered when the order was emailed to the parties is ECF No. 208. Neither side has filed a copy of this order in connection with their summary judgment-related briefs. Eolas represents, and Defendants do not dispute, that the Texas district court denied this motion without prejudice, "including on the grounds that the court had not yet decided claim construction." *See* ECF No. 840-3 at 21 (citing "Dkt. 208").

B. THE '507 PATENT

The '507 patent is titled "Distributed Hypermedia Method and System for Automatically Invoking External Application Providing Interaction and Display of Embedded Objects Within a Hypermedia Document," and it was issued on November 24, 2015. *See* '507 patent, ECF No. 832-2. According to the specification, the claimed methods and systems "allow[] a user at a client computer connected to a network to locate, retrieve and manipulate objects in an interactive way[.]" *Id*. at 6:57-59.

The specification of the '507 patent describes the context of the claimed invention as follows. The internet provides an "open distributed hypermedia system" that allows computers connected to the internet to display and retrieve objects located at remote computers by clicking on links. *Id*. at 2:4-16. When a user clicks on a link, a request that includes the address of the object is sent by the user's computer via the internet, which is ultimately received by the server computer where the object is located. *Id*. at 5:1-21. The server processes the request, locates the object, and transfers a copy back to the user via the internet. *Id*. When the user's computer receives the object, it is displayed to that user. *Id*.

The specification states that a shortcoming of "the present open distributed hypermedia system on the Internet" is that, while it "allows users to locate and retrieve data objects," it "allows users very little, if any, interaction with these data objects." *Id*. at 6:25-

34. The specification further explains that the viewing of and interaction with large objects in real time is particularly useful in a variety of contexts, including in the fields of medicine and meteorology, but such activities require employing "visualization techniques and real time computer graphics methods," which are "bandwidth-intensive and compute-intensive [sic] and often require multiprocessor arrays and other specialized graphics hardware to carry them out in real time." *Id.* at 5:62-68 to 6:1-13. The specification states that users of client computers cannot effectively perform these bandwidth-intensive and computing-intensive tasks as a result of "the relatively low bandwidth of the Internet (as compared to today's large data objects) and the relatively small amount of processing power available at client computers[.]" *Id.* at 6:22-24.

According to the specification, "it is desirable to have a system that allows the accessing, display and manipulation of large amounts of data, especially image data, over the Internet to a small, and relatively cheap, client computer." *Id.* at 6:18-21. The specification provides that the claimed invention meets this need because it "allows a user at a client computer connected to a network to locate, retrieve and manipulate objects in an interactive way," *id.* at 6:45-59. The claimed invention, according to the specification, enables users of client computers connected a network to interact with objects (including large objects) displayed on a web browser through communications sent over a "distributed" network environment, wherein such interaction is achieved by enabling the user of the client computer to interact via network

communications with an application located on a remote computer. *Id*. at 6:45-67. This allows the user of the client computer "to use a vast amount of computing power beyond that which is contained in the user's computer," namely the computing power of remote computers. *Id*. at 6:65-67. Notably, the specification does not state that the claimed invention improves the computing capacity of client computers or improves the availability of bandwidth on the internet.

The specification discusses examples of how the claimed invention circumvents the problems of client computers' limited computing power and bandwidth constraints; these examples involve having remote computers perform resource-intensive computations required to enable interactivity in the client computer browser and then limiting the amount of data they send back to the client computer (such as by sending back only the results of their computations). *See*, e.g., *id*. at 7:1-35. For instance, the specification states that several remote computers can process three-dimensional images "in a distributed manner" to enable a user of a client computer to view and interact with the images. Id. The specification implies that this distributed processing of the images circumvents the computation limitations of client computers because the resource-intensive "calculations" required for manipulating the three-dimensional images "may be performed by remote distributed computer systems" instead of by the client computer individually. *Id*. This arrangement also reduces "the need for a high bandwidth data connection" because the distributed remote computers can, after performing the necessary

computations, transmit to the client computer only the data that is necessary to "update the image" on the client computer. *Id*. at 7:15-23; *see also id*. at 10:60-64 ("It will be readily seen that application server 220 can advantageously use server computer 204's computing resources to perform the viewing transformation much more quickly than could application client 210 executing on client computer 200. Further, by only transmitting the updated frame buffer containing a new view for the embryo image, the amount of data sent over network 206 is reduced."); *id*. at 11: 33-38 ("computer systems located remotely on the network can be used to provide the computing power that may be required for certain tasks and to reduce the data bandwidth required by only transmitting results of the computations").

Importantly, the '507 patent states that "[t]he specification and drawings are…to be regarded in an illustrative rather than a restrictive sense, the invention being limited only by the provided claims." *Id*. at 16:67 to 17:1-3.

II. JURISDICTION

The Court has subject matter jurisdiction under 28 U.S.C. §1331.

III. LEGAL STANDARD

Summary judgment is proper when a "movant shows that there is no genuine dispute as to any material fact and the movant is entitled to judgment as

a matter of law." Fed. R. Civ. P. 56(a). "A party asserting that a fact cannot be or is genuinely disputed must support the assertion by" citing to depositions, documents, affidavits, or other materials. Fed. R. Civ. P. 56(c)(1)(a). A party also may show that such materials "do not establish the absence or presence of a genuine dispute, or that an adverse party cannot produce admissible evidence to support the fact." Fed. R. Civ. P. 56(c)(1)(B). A dispute is genuine only if there is sufficient evidence for a reasonable trier of fact to resolve the issue in the nonmovant's favor, and a fact is material only if it might affect the outcome of the case. *Fresno Motors, LLC v. Mercedes Benz USA, LLC*, 771 F.3d 1119, 1125 (9th Cir. 2014) (citation omitted). "In considering a motion for summary judgment, the court may not weigh the evidence or make credibility determinations, and is required to draw all inferences in a light most favorable to the non-moving party." *Freeman v. Arpaio*, 125 F.3d 732, 735 (9th Cir. 1997).

Where the party moving for summary judgment would bear the burden of proof at trial, that party bears the initial burden of producing evidence that would entitle it to a directed verdict if uncontroverted at trial. *See C.A.R. Transp. Brokerage Co. v. Darden Rests., Inc.,* 213 F.3d 474, 480 (9th Cir. 2000). Where the party moving for summary judgment would not bear the burden of proof at trial, that party bears the initial burden of either producing evidence that negates an essential element of the non-moving party's claim, or showing that the non-moving party does not have enough evidence of an essential element to carry its ultimate burden of persuasion at trial. *Nissan Fire*

& Marine Ins. Co. v. Fritz Cos., 210 F.3d 1099, 1102 (9th Cir. 2000).

If the moving party satisfies its initial burden of production, then the non-moving party must produce admissible evidence to show that a genuine issue of material fact exists. *See id.* at 1102-03. The non-moving party must "identify with reasonable particularity the evidence that precludes summary judgment." *Keenan v. Allan*, 91 F.3d 1275, 1279 (9th Cir. 1996). It is not the duty of the district court "to scour the record in search of a genuine issue of triable fact." *Id.* "A mere scintilla of evidence will not be sufficient to defeat a properly supported motion for summary judgment; rather, the non-moving party must introduce some significant probative evidence tending to support the complaint." *Summers v. Teichert & Son, Inc.*, 127 F.3d 1150, 1152 (9th Cir. 1997) (internal quotation marks and citation omitted). If the non-moving party fails to make this showing, the moving party is entitled to summary judgment. *Celotex Corp. v. Catrett*, 477 U.S. 317, 323 (1986).

IV. DISCUSSION

There are two motions for summary judgment pending. First, Defendants move for summary judgment as to all remaining asserted claims on the grounds that (1) the asserted claims are invalid under §101 because they recite ineligible subject matter; and (2) there is no genuine issue of material fact as to whether the accused products practice each element of the asserted claims.

Second, Eolas moves for summary judgment as to several of Defendants' affirmative defenses, namely those based on (1) an alleged material failure by the PTO to comply with of 35 U.S.C. §154(b) in determining the patent term adjustment for the patent-in-suit; (2) obviousness-type double patenting; (3) and other preclusion-related doctrines.

Also pending are several motions to exclude or strike certain expert testimony.

For the reasons set forth below, the Court concludes that the asserted claims are invalid under §101 and it will grant summary judgment in Defendants' favor as to all claims on that basis. The Court will deny the remaining motions as moot.

A. PATENTABILITY UNDER §101

"Section 101 of the Patent Act defines the subject matter eligible for patent protection" by providing that "any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof" may be patented. *Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, 573 U.S. 208, 216 (2014); 35 U.S.C. §101. It is well-established that "abstract ideas are not patentable." *Alice*, 573 U.S. at 216 (internal quotation marks and citation omitted). However, "an invention is not rendered ineligible for patent simply because it involves an abstract concept." *Id.* at 217. Courts must distinguish between patents that claim abstract ideas, on the one hand, and patents "that claim patent-eligible applications of those concepts," on the other hand. *Id.*

To draw this distinction, courts engage in a two-step analysis. At step one, courts determine whether the claims at issue are "directed to" an abstract idea. *Id.* Claims that are "directed to a specific improvement in computer functionality" or "to a specific implementation of a solution to a problem in the software arts" are not directed to an abstract idea. *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1338-39 (Fed. Cir. 2016). "In cases involving software innovations, this inquiry often turns on whether the claims focus on 'the specific asserted improvement in computer capabilities…or, instead, on a process that qualifies as an 'abstract idea' for which computers are invoked merely as a tool.'" *Finjan, Inc. v. Blue Coat Sys., Inc.*, 879 F.3d 1299, 1303 (Fed. Cir. 2018) (quoting *Enfish*, 822 F.3d at 1335-36). "The purely functional nature of [a] claim confirms that it is directed to an abstract idea, not to a concrete embodiment of that idea." *Affinity Labs of Texas, LLC v. Amazon.com Inc.*, 838 F.3d 1266, 1269 (Fed. Cir. 2016) ("*Affinity Labs II*"). Additionally, a claim that could be performed by a human, excising generic computer-implemented steps, is often abstract. *Intellectual Ventures I LLC v. Symantec Corp.*, 838 F.3d 1307, 1318 (Fed. Cir. 2016).

If the claims are directed to an abstract idea, courts proceed to step two and "consider the elements of each claim both individually and as an ordered combination" to determine "whether [the claim] contains an inventive concept sufficient to transform the claimed abstract idea into a patent-eligible application." *Alice*, 573 U.S. at 217 (internal quotation marks and citation omitted). "Stating an abstract idea while

adding the words 'apply it' is not enough for patent eligibility. Nor is limiting the use of an abstract idea to a particular technological environment." *Id.* at 223 (internal quotation marks and citations omitted). Instead, this test "is satisfied when the claim limitations involve more than performance of well-understood, routine, and conventional activities previously known to the industry." *Berkheimer v. HP Inc.*, 881 F.3d 1360, 1367 (Fed. Cir. 2018) (internal quotation marks, alteration, and citation omitted). Both steps of the Alice inquiry are informed by "the claims in light of the written description." *Amdocs (Israel) Ltd. v. Openet Telecom, Inc.*, 841 F.3d 1288, 1299 (Fed. Cir. 2016).

"Whether a claim recites patent eligible subject matter is a question of law which may contain disputes over underlying facts." *Berkheimer*, 881 F.3d at 1368. But this does not mean that patent eligibility cannot be decided on a motion for summary judgment, as "not every §101 determination contains genuine disputes over the underlying facts material to the §101 inquiry." *Id.*

1. *Alice* step one

At step one of the Alice framework, courts "look at the focus of the claimed advance over the prior art to determine if the claim's character as a whole is directed to excluded subject matter." *Affinity Labs of Tex., LLC v. DIRECTV, LLC*, 838 F.3d 1253, 1257 (Fed. Cir. 2016) ("*Affinity Labs I*") (internal quotation marks omitted). A claim is directed to a solution to a computer-functionality problem and is, therefore, not

directed to an abstract idea, when it has "the specificity required to transform a claim from one claiming only a result to one claiming a way of achieving it." *SAP America, Inc. v. InvestPic, LLC*, 898 F.3d 1161, 1167 (Fed. Cir. 2018). On the other hand, where a claim is written in functional terms without claiming a specific way of achieving the functions, then the claim is directed to an abstract idea. *Affinity Labs II*, 838 F.3d at 1269 ("The purely functional nature of [a] claim confirms that it is directed to an abstract idea, not to a concrete embodiment of that idea."). "Alice step one presents a legal question that can be answered based on the intrinsic evidence." *CardioNet, LLC v. InfoBionic, Inc*, 955 F.3d 1358, 1372 (Fed. Cir. 2020), *cert. denied sub nom*. *InfoBionic, Inc. v. Cardionet, LLC*, 141 S. Ct. 1266 (2021). The claim language is the most important indicator of the focus of the claims. *See Chamberlain Grp., Inc. v. Techtronic Indus. Co.*, 935 F.3d 1341, 1346 (Fed. Cir. 2019) ("[W]hile the specification may help illuminate the true focus of a claim, when analyzing patent eligibility, reliance on the specification must always yield to the claim language in identifying that focus.") (citation and internal quotation marks omitted).

Defendants argue that the asserted claims are directed to the abstract idea of providing interactive applications on the web using distributed computing. Eolas, on the other hand, argues that the asserted claims are directed to technological improvements, which vary for each asserted claim or groups of asserted claims. In general, Eolas contends that the asserted claims are directed to "specific improvements

in areas of security, scalability, and more." *See* ECF No. 840-3 at 14.

For the reasons set forth below, the Court finds that the asserted claims are directed to the abstract idea of enabling interactivity with remote objects on a client computer browser using distributed computing. The Court analyzes the asserted claims at step one based on the grouping of claims that Eolas employed in its opposition.

a. Claim 32

Claim 32 recites the following method:

> 32. A method, performed by a server computer connected to the World Wide Web distributed hypermedia network on the Internet, for disseminating interactive content via the World Wide Web distributed hypermedia network on the Internet, the method comprising:
>
> A. receiving, by the server computer, a request for information; and
>
> B. transferring, by the server computer, the information onto the World Wide Web distributed hypermedia network on the Internet, wherein:
>
> (i) a World Wide Web browser on a client computer connected to the World Wide Web distributed hypermedia network has been configured with a plurality of different interactive-content

applications, each said interactive-content application being configured to enable a user to interact, within one or more World Wide Web pages, with at least part of one or more objects while at least part of each of said one or more objects is displayed to the user within at least one of said one or more World Wide Web pages, and

(ii) at least part of the information is configured to allow the World Wide Web browser on the client computer to:

A. detect at least part of an object to be displayed in a World Wide Web page, and

B. cause a display of the World Wide Web page to a user,

(iii) the World Wide Web browser has been configured to:

A. select an interactive-content application, based upon the information, from among the different interactive-content applications, and

B. automatically invoke the selected interactive-content application to enable the user to employ the selected interactive-content application to interact within the World Wide Web page with at least part of the object while at least part of the object is displayed to the user within the World Wide Web page, wherein the

> automatically invoked interactive-content application has been configured to operate as part of a distributed application configured to enable a user to perform the interaction through the use of communications sent to and received from at least a portion of the distributed application located on two or more distributed application computers connected to the World Wide Web distributed hypermedia network on the Internet, the two or more distributed application computers being remote from the client computer.

The focus of Claim 32 is enabling interactivity with remote objects on a client computer browser using distributed computing. The enabling of the interactivity is achieved by an "interactive-content application" (which, as construed, means "application that enables a user to interact with content," ECF No. 212 at 13), invoked by the client computer's browser, that operates as part of a "distributed application" (which, as construed, means "an application that is broken up and performed among two or more computers," *id*. at 16) located at least in part on remote computers. The claim language provides that the web browser selects and automatically invokes the "interactive-content application" from among a plurality of interactive-content applications based on the information it receives. The claim requires that the "interactive-content application" be "configured" to enable the user of the client computer to interact with the object within a web page and to operate as part of a "distributed application" located at least in part on two or more remote computers connected to the internet. The

claim further requires that the "distributed application," in turn, be "configured" to enable the user of the client computer to perform the interaction through communications sent to and received from at least a portion of the distributed application located on two or more remote computers.

The claim language does not specify *how* to "configure" the interactive-content application and the distributed application to render them capable of enabling the interactivity on the client computer browser. Claim 32 requires that the distributed application, and the interactive-content application selected by the browser, be "configured" so as to allow the client computer browser and remote computers to communicate in order to make the interactivity on the client computer browser possible. Claim 32 does not contain limitations regarding *how* the client computer and the remote computers *should* communicate to ensure that the problems discussed in the specification, namely computing limitations of client computers and bandwidth constraints, are overcome in the manner described in the specification, which is by having the remote computers perform computations that are resource-intensive and sending back to the client computer only a limited amount of data, such as only the results of such computations. The claim language of Claim 32 does not require that the computing work or data required to enable the interactivity on the client computer browser be distributed in *any* particular way among the remote computers relative to the client computer, much less in a way that would circumvent the problems discussed in the specification regarding the limited computing power of client computers and bandwidth constraints.

Claim 32, therefore, requires only *results* (that interactivity on the client computer browser be enabled via distributed computing), without specifying *how* to achieve them.[3] Where, as here, a claim's terms "as properly construed simply demand[] the production of a desired result…without any limitation on how to produce that result," the claim "in effect encompasses all solutions" and, therefore, "encompasses a patent-ineligible abstract concept rather than an arguably technical improvement[.]" *See Interval Licensing LLC v. AOL, Inc.*, 896 F.3d 1335, 1345 (Fed. Cir. 2018) (holding that the asserted claim is directed to an abstract concept rather than a technical improvement because the "attention manager" that purportedly provided the technical improvement, "as properly construed," "simply demand[ed] the production of a desired result…without any limitation on how to produce that result"); *see also Apple, Inc. v. Ameranth, Inc.*, 842 F.3d 1229, 1240-41 (Fed. Cir. 2016) (holding that the asserted claims are directed to an abstract idea because they "claim systems including menus with particular features" and "do not claim a particular way of programming or designing the software to create menus that have these features, but instead merely claim the resulting systems"); *Affinity Labs I*, 838 F.3d at 1269 ("At that level of generality, the claims do no more than describe a desired function or

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[3] Eolas contends that "the construction for the term 'distributed application' describes exactly how the interactive application is configured to use distributed processing—the 'distributed application' is an 'application that is broken up and performed among two or more computers.'" ECF No. 840-3 at 33. The Court disagrees for the reasons discussed above.

outcome, without providing any limiting detail that confines the claim to a particular solution to an identified problem. The purely functional nature of the claim confirms that it is directed to an abstract idea, not to a concrete embodiment of that idea."); *Aftechmobile Inc. v. Salesforce.com, Inc.*, No. 19-cv-05903-JST, 2020 WL 6129139, at *6 (N.D. Cal. Sept. 2, 2020) (holding that asserted claims were directed to an abstract concept because they failed to specify "how to achieve" the functions that are the inventive concept stated in the specification), *aff'd*, 853 F. App'x 669 (Fed. Cir. 2021).

That Claim 32 requires generic computer components (e.g., "server," "client computer," "remote computers") or the internet does not alter the analysis at step one, because such limitations merely provide a generic environment in which to carry out the abstract idea. *See, e.g., In re TLI Commc'ns LLC Patent Litig.*, 823 F.3d 607, 612 (Fed. Cir. 2016) (noting that an asserted claim is directed to an abstract idea where the additional recited components "merely provide a generic environment in which to carry out the abstract idea"); *Alice*, 573 U.S. at 222 ("[T]he prohibition against patenting abstract ideas cannot be circumvented by attempting to limit the use of [the idea] to a particular technological environment.") (citation and internal quotation marks omitted) (alteration in original).

In light of these authorities, the Court finds that Claim 32 is directed to the abstract concept of enabling interactivity with remote objects on a client computer browser using distributed computing.

The specification supports the Court's interpretation of Claim 32 as being directed to that abstract concept. The specification distinguishes between the prior art and the claimed invention by noting that the prior art allowed users of client computers to locate and retrieve data objects from other computers on the internet while allowing users "very little, if any, interaction with these data objects" as a result of bandwidth constraints and computer processing limitations in client computers. *Id*. at 6:25-34. The claimed invention, by contrast, allows users of client computers to interact with remote objects on the internet, even large objects, *notwithstanding* the computing limitations of client computers or bandwidth constraints. '507 patent at 15:65-68 ("The present invention allows a user to have interactive control over application objects such as three dimensional image objects and video objects."). As noted, the specification does not state that the claimed invention improves the computing capacity of client computers or improves the availability of bandwidth on the internet. The specification implies the possibility that the computing capacity of client computers and bandwidth constraints remain unchanged despite the claimed invention.

The mechanism that the specification describes for enabling client computers' interactivity with remote objects is *distributing the computing* required for the interactivity among remote computers relative to the client computer. *See, e.g., id*. at 7:1-35 (discussing "parallel distributed processing" of tasks among remote computers to enable a user of a client computer

browser to view and interact with large images, where the images are "processed in a distributed manner by several computers" and where the "calculations may be performed by remote distributed computer systems"). The examples in the specification for how to distribute the computing in a way that circumvents client computers' limitations and bandwidth constraints involve arrangements where remote computers perform resource-intensive computations and send back to the client computer only a relatively small amount of data, such as the results of the computations. *See id*. at 11:26-38 (describing "example" of application of claimed invention wherein remote computers perform calculations for a spreadsheet program and only the calculations' results are sent to the client computer for display, noting that, "[i]n this way, computer systems located remotely on the network can be used to provide the computing power that may be required for certain tasks and to reduce the data bandwidth required by only transmitting results of the computations"); *id*. at 7:15-23 (discussing distributed processing where remote computers perform tasks such as volume rendering or three-dimensional image transformation to enable interactions with large images on a client computer and then transmit to the client computer only the data that is necessary to "update the image" on the client computer).

These descriptions in the specification, because they are not captured in Claim 32 (or any of the asserted claims), are insufficient to take Claim 32 (or any of the asserted claims) outside of the realm of abstraction. *See Koninklijke KPN N.V. v. Gemalto M2M GmbH*, 942 F.3d 1143, 1150 (Fed. Cir. 2019) (holding

that, for a claim to be directed to a technological improvement as opposed to an abstract idea, "*the claims* must recite a specific means or method that solves a problem in an existing technological process") (emphasis added); *see also Yu v. Apple Inc.*, 1 F. 4th 1040, 1044-45 (Fed. Cir. 2021) (holding that the "mismatch between specification" details "and the breadth" of the claim "underscores that the focus of the claimed advance is the abstract idea"); *Accenture Glob. Servs., GmbH v. Guidewire Software, Inc.*, 728 F.3d 1336, 1345 (Fed. Cir. 2013) ("[T]he complexity of the implementing software or the level of detail in the specification does not transform a claim reciting only an abstract concept into a patent-eligible system or method.").

The breadth of the claim language in Claim 32, which is not restricted to any specific way of enabling the interactivity on the client computer browser using distributed computing, raises preemption issues. Preemption is the "concern that drives" the principle of excluding abstract ideas from patent-eligible subject matter. *See Alice*, 573 U.S. at 216. Here, the claim language does not limit the claimed method to covering a technological solution to the problems discussed in the specification, because the claim language does not require that the computing work required to enable interactivity on the client computer browser be distributed in any particular way. Indeed, Claim 32 does not require, for example, that more computing work be done on the remote computers relative to the client computer, or that the most resource-intensive tasks be performed by the remote computers instead

of the client computer, even though those types of arrangements would serve as workarounds to the client computer's limitations according to the specification. Claim 32, therefore, covers implementations that would not solve the problems discussed in the specification and, as such, its scope goes beyond a specific solution to a technological problem. The overbroad preemptive potential of Claim 32 further supports a finding that Claim 32 is directed to an abstract idea. *See Symantec*, 838 F.3d at 1321 (holding that "preemption may signal patent ineligible subject matter").

Claim 32 is analogous the one held to be ineligible under §101 in *Device Enhancement LLC. v. Amazon.com, Inc.*, 189 F. Supp. 3d 392, 403 (D. Del. 2016), which Defendants cited in their opening brief. There, the claim at issue recited a method that the patentee argued was directed to "a solution to the computer-specific problem of delivering multimedia content to a variety of devices with limited resources and different capabilities." *Id.* The claim required that tasks between a "client-side application" on the terminal device and a "remote application" on the server be "dynamically split[]" according to "predetermined computational resources and inherent capabilities." *Id.* The claim further required communications over a network between the server and the terminal device to exchange data, deliver the content, and exchange messages. *Id.*

The court held that the claimed method was directed to the idea of "using distributed architecture to increase the capabilities of individual devices by using remote resources," because it

> generally provides for the installation of a generic client-side application on the terminal device and the installation of a corresponding remote application on the server (which handles most of the graphical processing). The server exchanges data with the terminal device. Tasks are split between the client-side application and the remote application, albeit without further guidance from the patent. The processed content is then transmitted and the client-side application renders the content and responds to messages.

Id. at 404-05 (emphasis added).

Notwithstanding the patentee's argument that the claim at issue was directed to solving a "computer-specific problem," the court held that the claim was ineligible under §101 because it "preempts virtually all possible ways of performing" the idea of "using distributed architecture to increase the capabilities of individual devices by using remote resources," as "the patented method uses computerized devices (of any type) in conventional ways (installation of applications, data exchange, and data processing) without delineating any particular way of putting the ideas into practice." *Id.* at 405. The court further held that "the very steps of the method comprise nothing more specific than the underlying idea itself[.]" *Id.*

Claim 32 here is similar to the claim in *Device Enhancement*, as it requires the use of distributed computing to enable interactivity with remote objects on

client computer browsers. As with the claim in *Device Enhancement*, the claim here requires applications on the client computer and remote computers, whose configurations are not specified in the patent, as well as communications between the computers via a network. As with the claim in *Device Enhancement*, the claim here does not specify "any particular way" of dividing the computing work between the client computer and remote computers to achieve the purported solution of the patent. As with the claim in *Device Enhancement*, the preemptive potential of Claim 32 is overbroad, for the reasons discussed above. *Device Enhancemen*t, therefore, supports the Court's finding that Claim 32 is directed to an abstract idea.

Defendants have pointed to other cases in which courts reached similar conclusions when faced with claims that required computers on a network to work together to accomplish computing tasks. For example, in *Appistry, Inc. v. Amazon.com, Inc.*, the claims covered systems and methods for processing information via networked computers in a distributed manner. 95 F. Supp. 3d 1176, 1178 (W.D. Wash. 2016), *aff'd sub nom. Appistry, LLC v. Amazon.com, Inc.,* 676 F. App'x 1008 (Fed. Cir. 2017). The claims required using "a request handler, a plurality of process handlers, and a plurality of task handlers" to perform the distributed processing. *Id.* The patentee argued that the claimed method was directed to a technological improvement, namely "a more efficiently and reliably distributed configuration of multiple computers…resulting in better performance." *Id.* at 1180. The court disagreed, holding that the claims were directed to "the abstract idea of distributed processing akin to the

military's command and control system," as they required merely "distributing tasks through a hierarchical structure." *Id*. at 1179-80. *In Coho Licensing LLC v. Glam Media, Inc.,* No. C 14-01576 JSW, 2017 WL 6210882 (N.D. Cal. Jan. 23, 2017) *aff'd*, 710 F. App'x 892 (Fed. Cir. 2018), the court reached a similar conclusion when analyzing the patent-eligibility of claims that required "allocating," "sub-allocating," and "dividing" tasks among multiple computers, finding that the claims were directed to the abstract concept of "dividing and subdividing tasks for distributed processing."

Eolas' only response to *Device Enhancement, Appistry*, and *Coho Licensing* is that "none of those cases controls the outcome in this case, which involves its own particular claims, specification and invention." ECF No. 840-3 at 35. While the cases are not controlling, the Court finds them to be apt and instructive. It also finds, in the absence of any meaningful argument to the contrary, that they lend support to the Court's conclusion that Claim 32 is directed to an abstract idea. *See Amdocs*, 841 F.3d at 1294 (noting that, in light of the absence of a "single, succinct usable definition or test" with respect to what an abstract idea "encompasses" under §101, courts can and do "examine earlier cases in which a similar or parallel descriptive nature can be seen" when determining patent-eligibility).

Eolas' arguments that Claim 32 is not directed to an abstract idea are unpersuasive. Eolas contends that Claim 32 is directed to improvements in com-

puter technology, namely "securely providing interactive content over the World Wide Web to client computers having limited computing capabilities." ECF No. 840-3 at 25-26. Eolas contends that the invention overcame "problems that existed in October 1994 with the World Wide Web open distributed hypermedia system, including: (1) limitations in the computing power of end users' computers ('507 Patent at 5:50-52); and (2) security, i.e., preventing the end user's computer from losing control and simply running whatever application was requested by a hacker." *Id.*

To be eligible at step one, "the claims must recite a specific means or method that solves a problem in an existing technological process." *Koninklijke*, 942 F.3d at 1150 (emphasis added). In other words, the asserted improvement must be recited in the claims *and* it must be recited with sufficient specificity such that it is not abstract. That is not the case here.

As to the first problem of limited computing power in client computers, Eolas argues that the claimed invention "overcame" it "through distributed applications, where portions of the application are run on the client computer and one or more server computers." ECF No. 840-3 at 27. Eolas contends that this solution is reflected in the language of Claim 32, because that claim requires

> that the interactive-content application (selected by the "World Wide Web browser" "based upon the [transmitted] information") "has been configured to operate as part of a distributed

> application configured to enable a user to perform the interaction through the use of *communications sent to and received from at least a portion of the distributed application located on two or more distributed application computers* connected to the World Wide Web.

ECF No. 840-3 at 26 (citing '507 patent at 23:61-67) (emphasis in the original). Eolas also contends that the specification "confirms that these distributed application aspects of claim 32 provide a technological solution to the technological problem," ECF No. 840-3 at 26, because "the specification identifies the technological problem when attempting to view large data objects over the Internet caused by the technological limitations of the Web browsers, viewers, and end user computers in use at the time." *Id*. (citing '507 patent at 5:36-52). Eolas argues that Figures 6 and 10 of the '507 patent "illustrate" the distributed application aspects of Claim 32 that are the purported solution.

Eolas is correct that the specification discusses the limitations of client computers' processing power as a hindrance in the context of interacting with remote objects, as well as distributed computing as being a workaround to that problem because it permits resource-intensive tasks required to enable interactivity on the client computer to be performed by more powerful remote computers on the network. However, as discussed above, Claim 32 does not claim any particular way of distributing the computing necessary to enable the interactivity on the client computer browser. Claim 32 also says nothing how much data

should be sent to the client computer and when. The limitations of Claim 32 to which Eolas points merely require that the "interactive-content application" and "distributed application" be configured in a way that enables communications between the client computer and remote computers so as to enable the interactivity on the client computer browser. Requiring that these communications be enabled is not the same thing as requiring that computing work be offloaded from the client computer in a manner that would circumvent its limitations. Eolas has not shown that enabling communications between the client computer and the remote computers alone, without any requirements for how to distribute the computing work among the computers, would overcome the computing limitations of the client computer.

Eolas points to Figures 6[4] and 10[5] for the proposition that they teach how to perform the distributed

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[4] Figure 6 is "an embodiment of the present invention," '507 patent at 11:3-24, that illustrates computers connected via network, wherein remote computers that are not the client computer or the server contain an "Application (Distributed)" that allows tasks to be performed among two or more such computers and the coordination of the distributed processing can be performed at any of the computers. While the specification's description of Figure 6 states that, in a "preferred embodiment," "distributed processing is coordinated by a program called 'VIS' represented by application client 210 in FIG. 6," *id*. at 11:23-24, nothing in the '507 patent describes how to write or configure "VIS" or indicates how "VIS" would coordinate the processing. The specification states that "VIS" is "software presently under development" created "as part of the Doyle Group's distributed hypermedia object embedding approach" described in an external publication. *See id*. at 10:5-14. Nothing in Figure 6 describes how to distribute the computing work or processing required to enable interactivity on the client computer browser, or how to coordinate such processing, in a way that would ensure that the computing limitations of the client computer are circumvented.

[5] Figure 10 illustrates generally how communications between the browser on the client computer and various "processes" whose configurations are not described in the patent can structured to enable the presentation of images on a client computer browser. '507 patent at 16:37-54. Eolas points to Figure 10 for the proposition that this figure shows how a user's browser "presents three-dimensional image data with the help of remote 'VRServers' and coordination by 'VIS.'" ECF No. 840-3 at 27. Nothing in this figure describes how to configure or write or otherwise achieve the purported functions of the "processes" "VIS" and "VRServer." The specification states that "VIS" and "VRServer" are software under development whose details are described in an external publication. *See id*. 10:5-14; 10:28-29. Accordingly, the references to "VRServers" and "VIS" in Figure 10 do not teach how to distribute the processing required to enable interactivity on the client computer, or how to coordinate

computing that circumvents the computing limitations in client computers. The Court is not persuaded. These figures describe in general terms how the client computer and remote computers could be structured to enable interactivity on the client computer, but they do not teach specifically how to distribute the computing work required to enable interactivity on the client computer, or how to coordinate such computing work, in a manner that would circumvent the client computer's computing limitations. Further, none of the specification's descriptions of these figures are incorporated into the claims. The specification makes clear that the scope of the claims must not be interpreted as being restricted by the figures and drawings described in the specification; it states that "[t]he specification and drawings are…to be regarded in an illustrative rather than a restrictive sense, the invention being limited only by the provided claims." *Id*. at 16:67 to 17:1-3. Accordingly, the descriptions of these figures are incapable of saving Claim 32 from patent-ineligibility at step one.

As to the second problem that Eolas contends was solved by the claimed invention, namely that of "security" by "preventing the end user's computer from losing control and simply running whatever application was requested by a hacker," ECF No. 840-3 at 25-26, Eolas contends that Claim 32 describes how to solve it. Eolas points to the limitations in Claim 32 that require that "*only* interactive-content applications with which a Web browser has previously been configured

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such processing, in a manner that would ensure that the computing limitations of the client computer are circumvented.

can be utilized" as embodying the purported solution to the security problem; the limitations to which Eolas points require that the web browser on the client computer be "*configured with a plurality of different interactive-content applications*" and that the web browser select an interactive-content application from "among the different interactive-content applications" with which it was configured. *Id*. at 28 (emphasis in the original).

However, the Court finds no indication in the intrinsic evidence that the claimed invention was intended to solve any security vulnerabilities. The "analysis at *Alice* step one involves examining the patent claims in view of the plain claim language, statements in the written description, and the prosecution history,[6] if relevant." *CardioNet*, 955 F.3d at 1374. Here, Eolas points to no portion of the claims or the specification where the notion of preventing hackers from gaining control over a client computer is discussed. Neither Claim 32 nor any of the other asserted claims contain limitations restricting the types of applications that can be selected by the browser to applications that are secure or that otherwise would not render the client computer susceptible to hacking. The claim language merely requires that the browser

[6] Because Eolas points to no portion of the prosecution history that would support a finding that the asserted claims were intended to provide a solution to security vulnerabilities in client computers, *see* ECF No. 840-3 at 28-30 (portion of Eolas' opposition discussing purported solution to security vulnerabilities), the Court finds that the prosecution history is not relevant to the determination of this issue.

be "configured with a plurality of different interactive-content applications" from which the browser will select one such application; the claim language does not restrict the applications that the browser can select to only those applications that are secure or that otherwise would not allow a hacker to hack the client computer. The specification likewise does not discuss hacking vulnerabilities or any other security issues. Indeed, the words "security" or "secure" are not mentioned in the '507 patent.

Eolas points to Figure 8A in the specification to argue that this Figure "illustrates" Claim 32's purported solution of "securing the browser against running dangerous applications." ECF No. 840-3 at 28. The Court disagrees. Figure 8A depicts a browser that checks the "type attribute" of an object to be displayed on the client computer to determine whether the object is an "application object" ("e.g., a three dimensional image object"), in which case the browser will launch a "predetermined application," or whether the object is a "video object," in which case the browser will launch a "video player application." '507 patent at 15:15-18; 45-50. Nothing in the specification's description of Figure 8A suggests that the browser's checking of the "type attribute" is intended to, or would result in, restricting the types of applications that could be selected by the browser to only applications that are secure or that would not render the client computer susceptible to hacking. Instead, the specification suggests that the checking of the "type attribute" is intended to ensure that the application selected matches the type of the object to be displayed (e.g., video vs. three-dimensional image, etc.). *See id.* at

13:30-33 (stating that TYPE values are "useful…where the browser client needs to determine which application to launch based on the data format"). Accordingly, the Court cannot conclude, based on Figure 8A, that the claimed invention was intended to solve hacking vulnerabilities.[7]

The absence of any indication in the claim language and the specification that the asserted claims were intended to solve security vulnerabilities distinguishes this case from those that Eolas cites in its opposition. In each case upon which Eolas relies, *see* ECF No. 840-3 at 28-30, the technological solution to which the claims at issue were directed *was discussed in the specification*, as well as recited in the claims in non-abstract terms and with the requisite degree of specificity.[8] Eolas cites no case in which a court has

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[7] Even if it were the case that Figure 8A's description of a web browser launching a "predetermined application" were consistent with an improvement to the security of a client computer, that still would not render Claim 32 (or any of the other asserted claims) patent-eligible at step one, because embodiments were excluded from the asserted claims at claim construction. *See* ECF No. 212 at 21 ("Although the specification refers to launching a 'predetermined application' (id. at 15:17–18), this predetermination is a specific feature of a particular disclosed embodiment that should not be imported into the claims."). As discussed above, to be patent-eligible at step one, *the asserted claims* must recite the technological improvement with specificity.

[8] *See Koninklijke*, 942 F.3d at 1151 (holding that asserted claims were not directed to abstract concept because "they recite a sufficiently specific implementation (i.e., modifying the permutation applied to the original data 'in time') of an existing tool (i.e., check data generating device) that improves the functioning of the overall technological process of detecting systematic errors in data transmissions," where "the specification makes clear that

held that a claim was directed to a solution to a problem that was not discussed in the specification, and the Court declines to do so here. Further, relying on a solution to a problem that was not disclosed in the patent would essentially reward Eolas' failure to disclose that purported solution in the patent, which would be inconsistent with the underlying goal of the patent system, which is to award patent rights only to those who create and publicly disclose "useful advances in technology." *See Pfaff v. Wells Elecs., Inc.*, 525 U.S. 55, 63 (1998) ("[T]he patent system represents a carefully crafted bargain that encourages both

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modifying the permutation in time provides the technological benefit of preventing non-detection of repetitive errors"); *Finjan*, 879 F.3d at 1304 (holding that claims were directed to a non-abstract improvement in computer functionality because they recited "specific steps" for generating a "behavior-based" security profile to be used in virus scanning, where the "'behavior-based' approach to virus scanning was pioneered by Finjan [the patentee] and is disclosed in the '844 patent's specification"); *SRI Int'l, Inc. v. Cisco Sys., Inc.*, 930 F.3d 1295, 1303 (Fed. Cir. 2019) (holding that "claims are directed to using a specific technique—using a plurality of network monitors that each analyze specific types of data on the network and integrating reports from the monitors—to solve [the] technological problem" of "identifying hackers or potential intruders into the network," where the specification "explains that the claimed invention is directed to solving" networks' vulnerabilities to hacker attacks); *Ancora Techs., Inc. v. HTC Am., Inc.*, 908 F.3d 1343, 1348, 1345 (Fed. Cir. 2018), *as amended* (Nov. 20, 2018) (holding that asserted claims were directed to "a non-abstract computer-functionality improvement" to methods to prevent hacking of license-authorization software that involved specifically requiring the use of a modifiable part of the BIOS memory to store information, where the specification stated that "[u]sing BIOS memory, rather than other memory in the computer, improves computer security").

the creation and the public disclosure of new and useful advances in technology, in return for an exclusive monopoly for a limited period of time.").

Eolas also points to extrinsic evidence that was generated in the course of litigation to argue that Claim 32 is directed to solve the problem of hacking vulnerabilities. Specifically, Eolas points to an April 2020 declaration of Dr. David M. Martin, Jr., Eolas' expert, which Eolas filed in support of its opposition to Defendants' summary judgment motion on obviousness-type double patenting. *See* Martin Decl. ¶¶ 44-48, ECF No. 609-1. It also points to an April 2020 declaration of Michael Doyle, Ph.D., a co-inventor of the '507 patent, which Eolas filed in support of its opposition to Defendants' summary judgment motion on obviousness-type double patenting, Doyle Decl. ¶¶ 13-14, ECF No. 609-14, and to Mr. Doyle's February 2012 trial testimony in *Eolas Technologies v. Adobe Systems, Inc.*, No. 6:09-cv-00446-LED (E.D. Tex.) ("*Eolas I*"), Doyle Trial Tr. at 101-02, ECF No. 842-4 at 16-17, in which Eolas asserted claims against multiple defendants for infringement of U.S. Patent No. 5,838,906 and U.S. Patent No. 7,599,985; the '507 patent stems from a continuation application of these patents. The portions of the declarations cited state that claim limitations in the '507 patent requiring that the browser be configured with a plurality of interactive-content applications from which it selects and invokes one such application distinguishes the '507 patent from the prior art, and that prior methods of configuring browsers were insecure. *See* Martin Decl. ¶¶ 44-48, ECF No. 609-1; Doyle Decl. ¶¶ 13-14, ECF No. 609-14. The trial testimony cited states that

the claimed invention in the '906 and '985 patents was intended in part to prevent hackers from taking control over a computer. *See* Doyle Trial Tr. at 101-02, ECF No. 842-4 at 16-17.

The Court is not required to consider extrinsic evidence when conducting the step one analysis, because "*Alice* step one presents a legal question that can be answered based on the intrinsic evidence." *CardioNet*, 955 F.3d at 1372 ("The analysis [at step one] does not require a review of the prior art or facts outside of the intrinsic record regarding the state of the art at the time of the invention."). As discussed above, the claim language and specification do not support a finding that Claim 32 (or any of the asserted claims) are directed to a technological solution to security vulnerabilities in client computers. That is sufficient for the Court to conclude, under *CardioNet*, that Claim 32 (and the other asserted claims) are not directed to that purported solution. The extrinsic evidence to which Eolas points, to the extent that it purports to show that the asserted claims are directed to a solution to security vulnerabilities in client computers, is inconsistent with the claim language and specification. Because Eolas has cited no authority in which a court relied on extrinsic evidence to find that the focus of the asserted claims at step one was a solution to a problem that was not discussed in the patent itself, the Court declines to do so here, particularly given that the extrinsic evidence at issue was generated in the context of litigation. Crediting the extrinsic evidence in question notwithstanding its mismatch with the claim language and specification

would result in prioritizing extrinsic evidence over intrinsic evidence when conducting the step one analysis, which would be contrary to established Federal Circuit law requiring that the step one inquiry be guided by the intrinsic evidence and, above all, the claim language. *See CardioNet, LLC*, 955 F.3d at 1372; *see also ChargePoint*, 920 F.3d at 769 ("[A]ny reliance on the specification in the §101 analysis must always yield to the claim language. Ultimately, '[t]he §101 inquiry must focus on the language of the Asserted Claims themselves[.]'") (citation omitted). Eolas' own arguments support the Court's conclusion that it should decline to rely on the extrinsic evidence in question in conducting the step one inquiry. *See* ECF No. 840-3 at 24 (arguing that "[t]he determination of whether claims are directed to an abstract idea is an issue of law, and courts limit their examination to the claim language, the specification, and the prosecution history.").

In light of the foregoing, the Court finds that Claim 32 is directed to the abstract idea of enabling interactivity with remote objects on a client computer browser using distributed computing. Claim 32, therefore, is not patent-eligible at step one.

b. Claims 37 and 39

Claims 37 and 39 depend from Claim 32. Claim 37 adds limitations to Claim 32, namely that "at least one or more coordination computers performs coordination of at least part of the distributed application to perform at least one task." '507 Patent at 24:24-26.

The terms "at least one or more coordination computers performs coordination" were construed as "at least one or more computers manage multiple computers so as to work together." ECF No. 212 at 28. Claim 39 adds limitations to Claim 32 and 37, namely that "two or more of the distributed application computers work together to perform the at least one task" that is broken up. '507 patent at 24:27-32.

Eolas argues Claims 37 and 39 are not directed to an abstract idea and are, instead, directed to solutions to "an additional technological problem," namely "scalability and resource management, especially where end users have resource-limited computers." ECF No. 840-3 at 30. Eolas further contends that it is the "'coordination computer' feature required by claims 37 and 39 that describes how the scalability and resource management improvements are achieved, which is also described the specification at 11:9-22 (referring to Figure 6) and 16:37-55 (Figure 10)." *Id*. at 31. Eolas also cites the April 2020 declaration of Dr. David Martin, Eolas' expert, for the proposition that Claims 37 and 39 are directed to solving problems in scalability and resource management. *See* Martin Decl. ¶¶ 59-66, ECF No. 609-1.

The Court is not persuaded that Claims 37 and 39 are directed to a solution to problems in scalability and resource management. Eolas points to no portion of the specification that discusses problems in scalability and resource management that the claimed invention was intended to solve. The portions of the specification that Eolas cites, which describe Figures 6 and 10, do not discuss problems with scalability and

resource management or solutions to the same. As discussed above, Figures 6 and 10 describe, in general terms, and without reference to scalability and resource management problems or solutions, how distributed computing *could be* structured to enable interactivity on a client computer browser, but they do not specify how to distribute the computing required to enable such interactivity or how any such distribution should be coordinated. Even if it were the case that the specification's description of Figures 6 and 10 shed any light on how the "coordination" in claims 37 and 39 could be performed, however, that would not help Eolas, because the specification's description of these figures is not incorporated in the claim language. *See* '507 patent 16:67 to 17:1-3 ("The specification and drawings are…to be regarded in an illustrative rather than a restrictive sense, the invention being limited only by the provided claims.").

In addition to citing Figures 6 and 10, Eolas also cites the April 2020 declaration of Dr. David Martin, which Eolas filed in support of its opposition to Defendants' summary judgment motion on obviousness-type double patenting, for the proposition that Claims 37 and 39 are directed to solving problems in scalability and resource management. *See* Martin Decl. ¶¶ 59-66, ECF No. 609-1. The portions of Dr. Martin's declaration to which Eolas points state that the claims of the '507 patent are distinguishable from the claims of earlier, related patents because of the '507 patent's inclusion of limitations requiring coordination. *See id*. The cited portions of the declaration do not state that the coordination limitations to which

Eolas points were intended to solve problems of scalability and resource management, or any other problem.

As discussed above, the Court need not consider extrinsic evidence when conducting the step one determination, even if relevant. *See CardioNet, LLC*, 955 F.3d at 1372. Here, the cited portions of Dr. Martin's declaration do not appear to be relevant to Eolas' contention that Claims 37 and 39 were intended to solve issues of scalability and resource management. But even if this extrinsic evidence were relevant and supported Eolas' contention that Claims 37 and 39 are directed to a solution to scalability and resource management problems, the Court would decline to rely on it to find that the claims at issue are directed to that solution. Eolas has cited no case in which a court relied on extrinsic evidence to find that the focus of the asserted claims at step one was a solution to a problem that was not discussed in the patent itself. As discussed above in the context of Claim 32, relying on extrinsic evidence that is at odds with the claim language and specification when determining the focus of the claims would result in prioritizing extrinsic evidence over intrinsic evidence when conducting the step one analysis, which would be contrary to established law. *See CardioNet, LLC*, 955 F.3d at 1372; *see also Amdocs*, 841 F.3d at 1299.

Accordingly, the Court cannot find that Claims 37 and 39 are directed to solutions to scalability and resource management problems.

To the extent that Eolas contends that the coordination limitations in Claims 37 and 39 embody solutions to the problems that *are* discussed in specification, namely computing limitations in client computers and bandwidth constraints, that argument also fails. The solution to these problems, as described in the specification, is distributing the computing necessary to enable interactivity on the client computer browser. As discussed in detail above, the limitations that Claims 37 and 39 share with Claim 32 do not describe how to distribute the computing in any particular way, much less in the way that would ensure that the computing limitations of client computers and bandwidth constraints are circumvented. The "coordination" limitations that Claims 37 and 39 add to Claim 32 do not supply the missing information. While they require that at least one computer manage other computers to perform at least one task and that at least two distributed computers work together to perform at least one task, they do not specify how to distribute the computing work required to enable the interactivity in a way that would circumvent the limited computing power of client computers and bandwidth constraints, nor do they specify how that distribution should be coordinated. As noted, the specification discusses examples where remote computers relieved the client computer of computational burdens by performing resource-intensive computations and by sending back to the client computer only a limited amount of data, such as the results of such computations. The limitations in Claims 37 and 39 that "at least one task" be performed by remote computers working together do not require that resource-intensive tasks, or that a significant portion of the tasks,

are performed by remote computers as opposed to the client computer. They also do not specify how much data should be sent back to the client computer and when. Accordingly, the Court cannot find that the limitations in question are directed to a solution to the problems of computing limitations of client computers and bandwidth constraints as described in the specification.

The Court finds, therefore, that dependent Claims 37 and 39 are directed to the same abstract idea as Claim 32.

c. Claims 19, 24, and 26

Eolas argues that Claims 32, 37, and 37 are representative of Claims 19, 24, and 26, because there is no material difference between the claims other than the fact that the latter set of claims are system claims, whereas the former set of claims are method claims. *See* ECF No. 840-3 at 21. Eolas contends that, in light of their material similarity, claims 19, 24, and 26 are not directed to an abstract idea for the same reasons that claims 32, 37, and 39 are not directed to an abstract idea. *Id*.

The Court agrees with Eolas that Claims 32, 37, and 39 are representative of claims 19, 24, and 26. The Court concludes that, because Claims 32, 37, and 39 are representative of Claims 19, 24, and 26, the latter are directed to the same abstract idea as Claims 32, 37, and 39, for the reasons discussed in detail above. *See Alice*, 573 U.S. at 226 (holding that system claims that "are no different from the method claims

in substance" are abstract and ineligible "for substantially the same reasons" as the method claims).

d. Claim 45

Eolas argues, and the Court agrees, that Claim 45 recites a method that is substantially similar to the method described in Claims 32 and 39. *See* ECF No. 840-3 at 31.

Eolas argues that Claim 45 is not directed to an abstract idea because, in addition to the elements it shares with Claims 32 and 39, Claim 45 also recites limitations not found in Claims 32 and 39, which require that one or more computers generate and send commands to coordinate activity of the separate computers working together to perform "viewing transformations" to enable the interaction with at least part of the object on the client computer browser. *See* ECF No. 840-3 at 31 (citing '507 patent at 25:7-11). The term "viewing transformations" was construed as "operations performed on data for visual display to a user." ECF No. 212 at 31. Eolas contends that the "viewing transformations" limitations in Claim 45 compel a finding that the claim is not directed to an abstract idea, because such limitations "help provide the 3D view" in the embodiments shown in Figures 9 and 10 of the '507 patent, and because the "human mind is not equipped" to perform the viewing transformations described in the claim. ECF No. 840-3 at 31.

It is undisputed that Claim 45 is materially similar to Claims 32 and 39, which the Court has found to

be directed to an abstract concept. In light of the material similarity between the claims, Claim 45 would likewise be directed to the same abstract concept as Claims 32 and 39, unless Claim 45 recites an element that it does not share with Claims 32 and 39 that indicates that its focus is a specific, non-abstract technological improvement.

Here, the only aspect of Claim 45 that Eolas contends is materially distinct from those of Claims 32 and 39 are the "viewing transformation" limitations. Eolas has not shown that such limitations convert Claim 45 from one directed to an abstract idea to one directed to a non-abstract technological solution. Eolas has not explained why the "viewing transformation" limitations distinguish Claim 45 from the other asserted claims in terms of the claimed method's ability to solve a technological problem. Further, Eolas' reference to Figures 9[9] and 10[10], which are embodiments of the claimed invention, is unavailing. At Eolas' request, the term "viewing transformations" was construed to exclude embodiments described in the specification. *See* ECF No. 212 at 29-31. Accordingly, any details in these figures as to what "viewing transformations" could entail are not a part of the §101 analysis. *ChargePoint*, 920 F.3d at 769 (holding that, when conducting the §101 inquiry, "the

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[9] Figure 9 illustrates how images sent to a browser can be displayed in the browser after the browser has communicated with remote computers, and how a browser can include control buttons that a user can use to interact with images. *See* '507 patent at 16:17-36.

[10] Figure 10 is discussed in detail above.

specification cannot be used to import details from the specification if those details are not claimed").

The Court finds that the "viewing transformation" limitations in question do not materially distinguish Claim 45 from Claims 32 and 39 in a manner that would transform Claim 45 into a patent-eligible claim at step one. As noted, these limitations require that separate computers working together perform, based on commands sent by the coordinating computers, "viewing transformations" (as construed, "operations performed on data for visual display to a user") to enable interaction with objects on the client computer browser. These limitations do not solve the abstractness problem of Claims 32 and 39 because the limitations do not amount to a requirement that the computing work and data for enabling interactivity on the client computer browser will be distributed in a manner that would solve the problems discussed in the specification. That these limitations require that remote computers jointly perform unspecified "operations" on data for visual display does not mean that the computing work that must be performed and the data that must be transferred to enable interactivity on a client computer browser will be allocated in a manner that will circumvent the computing limitations of client computers and bandwidth constraints. Thus, the limitations in question do not save Claim 45 from abstraction. The Court finds that Claim 45, like Claims 32 and 39, is directed to the abstract idea of enabling interactivity with remote objects on a client computer browser using distributed computing.

2. Alice step two

Because the Court has found that all of the asserted claims are directed to an abstract idea at step one of the *Alice* inquiry, the Court now proceeds to step two.

At *Alice* step two, courts look for an "inventive concept" and "consider the elements of each claim both individually and as an ordered combination to determine whether the additional elements transform the nature of the claim into a patent eligible application. The second step of the *Alice* test is satisfied when the claim limitations involve more than performance of well-understood, routine, [and] conventional activities previously known to the industry." *Berkheimer*, 881 F.3d at 1367 (internal citations and quotation marks omitted) (alterations in the original). "[S]imply appending conventional steps, specified at a high level of generality, to laws of nature, natural phenomena, and abstract ideas cannot make those laws, phenomena, and ideas patentable." *Mayo*, 566 U.S. at 82. "To save a patent at step two, an inventive concept must be evident in the claims." *RecogniCorp, LLC v. Nintendo Co.*, 855 F.3d 1322, 1327 (Fed. Cir. 2017) (citation omitted). "Whether a combination of claim limitations supplies an inventive concept that renders a claim 'significantly more' than an abstract idea to which it is directed is a question of law." *BSG Tech LLC v. Buyseasons, Inc.*, 899 F.3d 1281, 1290 (Fed. Cir. 2018). "Underlying factual determinations may inform this legal determination." *Id.* (citing *Berkheimer*, 881 F.3d at 1368). "When there is no genuine issue of material fact regarding whether the claim element or claimed combination is well-understood,

routine, conventional to a skilled artisan in the relevant field, this issue can be decided on summary judgment as a matter of law." Berkheimer, 881 F.3d at 1368.

Here, Eolas argues that the asserted claims satisfy the requirements for patent-eligibility at step two because the asserted claims contain the following limitations, which Eolas contends constitute "unconventional technical solutions to technical problems": (1) the claims require "transmitting information over the Web, wherein the information enables a Web browser to: (a) select, based upon the information, an interactive-content application from among a plurality of different interactive-content applications ('507 Patent at 23:51-53); and (b) automatically invoke the selected interactive-content application to enable the user to employ the selected interactive-content application to interact within a Web page wherein the automatically invoked interactive-content application has been configured to operate as part of a distributed application located on two or more remote distributed application computers connected to the Web"; (2) the claims require the use of an interactive-content application that resides in part on the "client side"[11]; and (3) the claims require that the "systems and methods"

[11] The presence of the "interactive-content application" on the client computer is, according to the claim language, achieved via the limitations requiring that the browser on the client computer select and invoke one such application. *See, e.g.*, '507 patent at 23:35-44. Thus, the presence of the interactive-content application on the client computer is already captured by the other claim limitations to which Eolas points.

claimed therein "be performed on the World Wide Web[.]" ECF No. 840-3 at 38-39.

The Court finds that the claim limitations to which Eolas points as supplying the requisite inventive concept for patent-eligibility at step two, whether individually or as an ordered combination, embody the abstract idea to which the asserted claims are directed, which is enabling interactivity with remote objects in client computer browsers using distributed computing. Indeed, the limitations to which Eolas points are the ones the Court analyzed in detail at step one and found to be directed to an abstract idea, and not a specific technological solution. The limitations in question, therefore, cannot supply the requisite inventive concept at step two. *See BSG Tech*, 899 F.3d at 1290 ("It has been clear since *Alice* that a claimed invention's use of the ineligible concept to which it is directed cannot supply the inventive concept that renders the invention 'significantly more' than that ineligible concept."); *Simio, LLC v. FlexSim Software Prod., Inc.*, 983 F.3d 1353, 1363 (Fed. Cir. 2020) (same). Because of their abstract nature, the limitations in question cannot render the asserted claims patent-eligible at step two even if the Court assumes that the limitations are unconventional or innovative.[12] This is because "a claim for a new abstract idea

[12] Defendants have shown that David C. Martin, one of the co-inventors of the '507 patent, testified at his deposition that he does not claim that he and the other co-inventors of the '507 patent invented distributed computing in general, ECF No. 830-34 at 19; distributed applications in general, *id*. at 21; or parallel processing in general, *id*. at 9. Eolas has not rebutted this evi-

is still an abstract idea." *Synopsys, Inc. v. Mentor Graphics Corp.*, 839 F.3d 1138, 1151 (Fed. Cir. 2016) (emphasis in the original); *see also Finjan*, 879 F.3d at 1305 ("[A] result, even an innovative result, is not itself patentable.") (collecting cases).

The remaining aspects of the asserted claims do not recite anything that would permit a finding that the asserted claims amount to "significantly more than a patent on the abstract idea itself." *Simio*, 983 F.3d at 1363 (citation and internal quotation marks omitted). It is undisputed that they require the use of components (e.g., client computers, servers, remote computers) and basic functions (e.g., computers communicating over networks or the internet, data processing and transfer) that are generic and basic. The specification indicates that the components and computer and network functions recited in the claims are generic.[13] Eolas has pointed to no evidence or author-

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dence, nor has it pointed to any evidence showing that the asserted claims require distributed computing that differs from the general distributed computing that was known at the time of the claimed invention (and if so, how it differs). Even had Eolas shown, which it has not, that the asserted claims require distributed computing that was unconventional at the time of the claimed invention, that still would not save the asserted claims from invalidity under §101 because the claims do not recite in non-abstract terms how to perform it.

[13] *See., e.g.*, '507 patent at 8:17-13 (discussing "many possible computer types of configurations capable of being used with the present invention"); *id*. at 1:30-51 ("standard protocols" and "uniform" standards for internet and network communications); *id*. at. 16:61-63 ("various programming languages and techniques can be used to implement the disclosed invention"); *id*. at 4:15-20 (discussing data processing and data transfers).

ity suggesting otherwise. The asserted claims' recitation of generic components and basic functions, therefore, does not save them from ineligibility at step two. *See, e.g., buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350, 1355 (Fed. Cir. 2014) ("The claims' invocation of computers adds no inventive concept….That a computer receives and sends the information over a network—with no further specification—is not even arguably inventive. The computers in *Alice* were receiving and sending information over networks connecting the intermediary to the other institutions involved, and the Court found the claimed role of the computers insufficient."); *Affinity Labs I*, 838 F.3d at 1262 (holding that a claim was not patent-eligible at step two where it "simply recites the use of generic features…as well as routine functions…to implement the underlying [abstract] idea").

Eolas cites the Court's findings in the context of Defendants' summary judgment motion on obviousness-type double patenting ("OTDP") for the proposition that the asserted claims' limitations requiring that the claimed methods and systems be practiced on the World Wide Web render the asserted claims patent-eligible at step two. See ECF No. 840-3 at 38 (citing ECF No. 655 at 10-11). The citation is not persuasive. The OTDP analysis requires a comparison of the claims of two related patents for the purpose of determining whether the claims in the latter patent are invalid on the basis that they were obvious in light of

the claims in the earlier patent.[14] In resolving Defendants' summary judgment motion on OTDP, the Court found that Defendants were not entitled to summary judgment that the '507 asserted claims were invalid on OTDP grounds because Defendants failed to proffer sufficient evidence showing that the '507 asserted claims were not "patentably distinct" from the claims in earlier patents that share the same specification with the '507 patent. ECF No. 655 at 11. In making this finding, the Court relied, in relevant part, on limitations in the '507 patent claims requiring that the claimed methods and systems be practiced on the World Wide Web. *See id.* at 11-12.

Eolas has cited no authority showing that the Court's analysis and findings in the context of OTDP

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[14] "Non-statutory, or 'obviousness-type,' double patenting is a judicially created doctrine adopted to prevent claims in separate applications or patents that do not recite the 'same' invention, but nonetheless claim inventions so alike that granting both exclusive rights would effectively extend the life of patent protection." *Perricone v. Medicis Pharm. Corp.*, 432 F.3d 1368, 1373 (Fed. Cir. 2005). "The obviousness-type double patenting analysis involves two steps: 'First, the court construes the claim[s] in the earlier patent and the claim[s] in the later patent and determines the differences. Second, the court determines whether those differences render the claims patentably distinct.'" *Abbvie Inc. v. Mathilda and Terence Kennedy Inst. of Rheumatology Trust*, 764 F.3d 1366, 1374 (Fed. Cir. 2014) (citation omitted) (alterations in original) (internal quotation marks omitted). "The second part of this analysis is analogous to the obviousness inquiry under 35 U.S.C. §103 in the sense that if an earlier claim renders obvious or anticipates a later claim, the later claim is not patentably distinct and is thus invalid for obviousness-type double patenting." *UCB, Inc. v. Accord Healthcare, Inc.*, 890 F.3d 1313, 1323 (Fed. Cir. 2018) (citation omitted).

bear on the question of patent-eligibility under §101. On the other hand, the Federal Circuit has routinely held, in the context of §101, that claim language requiring that the claimed invention be performed on the internet merely confines the claimed invention to a particular technological environment, and that this is not enough, as a matter of law, to convert the asserted claims into patent-eligible subject matter at step two. *See, e.g., Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 716 (Fed. Cir. 2014) ("The claims' invocation of the Internet also adds no inventive concept. As we have held, the use of the Internet is not sufficient to save otherwise abstract claims from ineligibility under §101."); *Intell. Ventures I LLC v. Cap. One Bank (USA)*, 792 F.3d 1363, 1366 (Fed. Cir. 2015) (holding that "[a]n abstract idea does not become nonabstract by limiting the invention to a particular…technological environment, such as the Internet"). In light of this clear Federal Circuit authority, the Court finds that the "World Wide Web" limitations in the asserted claims merely require a particular technological environment and, as such, they cannot, as a matter of law, save the asserted claims from ineligibility under §101.

Citing *Bascom Glob. Internet Servs., Inc. v. AT&T Mobility, LLC*, 827 F.3d 1341, 1352 (Fed. Cir. 2016), Eolas contends conclusorily that the limitations to which it points satisfy the requirements of *Alice* step two because they "do not preempt all systems and methods for securely providing interactive content over the World Wide Web to client computers having limited computing capabilities that also provides improved scalability and resource management." ECF

No. 840-3 at 38. *Bascom* is distinguishable. There, the claimed invention was a method and system for customizing filters of internet content at a remote ISP server. The district court held that the asserted claims were invalid under §101 because they were directed to the abstract idea of filtering content. *Id.* at 1346-47. The Federal Circuit reversed this holding, finding that Bascom had shown that "an inventive concept can be found in the ordered combination of claim limitations," namely limitations that "claim[] a technology-based solution (*not an abstract-idea-based solution implemented with generic technical components in a conventional way*) to filter content on the Internet that overcomes existing problems with other Internet filtering systems." *Id.* at 1351-52 (emphasis added). The technology-based solution that rendered the claims patent-eligible at step two was discussed in the specification and captured specifically in the claims; that solution, which distinguished the claimed invention from the prior art according to the specification, involved installing the filter at the ISP server and having the ISP associate individual users with a specific request to access a website so that the filtering of internet content could be customized for each user. *Id.* at 1343-45. According to the specification, this solution was unlike other known methods for filtering content because it allowed customization to occur at a remote server, where the filtering could not be thwarted by a computer-literate end-user. *Id.* In light of this, the Federal Circuit held that the claims were unlike those that were held to be invalid under §101 in other cases on the basis that they preempted uses of an abstract idea on generic computer components or technological environments. *Id.*

Here, unlike in *Bascom*, the limitations to which Eolas point do not embody a "technology-based solution" and instead amount to nothing more than an "abstract-idea based solution implemented with generic technical components in a conventional way." *See id*. at 1351-52. In contrast to the technology-based solution discussed in the specification and recited in the claims in *Bascom*, here, the solution discussed in the specification (i.e., distributing the computing required for enabling interactivity on a client computer browser so as to circumvent the limitations of client computers and bandwidth constraints) is not captured in the asserted claims in a non-abstract way, as discussed in detail above. The asserted claims merely demand that interactivity on the client computer browser be enabled via distributed computing, without specifying a particular way of doing so that would circumvent the problems discussed in the specification. Where, as here, "a claim directed to an abstract idea contains no restriction on how the result is accomplished" and the "mechanism…is not described, although this is stated to be the essential innovation…then the claim is not patent-eligible." *Symantec*, 838 F.3d at 1316 (holding that asserted claims were not patent-eligible at step two because of the absence of any "specific or limiting recitation of…improved computer technology" in the patent and distinguishing *Bascom* on that basis) (citation and internal quotation marks omitted).

For these reasons, the asserted claims do not satisfy the standard for patent-eligibility at step two and summary judgment that the asserted claims are invalid under §101 is appropriate. *See BSG Tech*, 899 F.3d

at 1291 (affirming summary judgment that claims were invalid under §101 in relevant part because the "alleged unconventional feature" was a "re-state[ment]" and "reformulate[ion]" of the abstract idea found at step one, and there was no genuine dispute that "other, non-abstract features of the claimed invention" were well-understood, routine, and conventional).

The Court, therefore, GRANTS Defendants' motion for summary judgment under §101 with respect to all seven asserted claims.

B. REMAINING MOTIONS

In light of the Court's finding and conclusion that the seven asserted claims are invalid under §101, the Court need not reach and DENIES AS MOOT Defendants' summary judgment motion as to non-infringement, Plaintiffs' summary judgment motion as to certain of Defendants' affirmative defenses, and the parties' motions to exclude certain expert testimony.

CONCLUSION

For the foregoing reasons, the Court GRANTS Defendants' motion for summary judgment under §101 and finds and concludes that the asserted claims of the '507 patent (Claims 32, 37, 39, 19, 24, 6, and 45) are invalid under 35 U.S.C. §101. In light of this ruling, the Court DENIES AS MOOT Defendants' summary judgment motion as to non-infringement; Plaintiffs' motion for summary judgment as to certain of

Defendants' affirmative defenses; and the parties' motions to exclude certain expert testimony.

The Clerk shall terminate these consolidated actions.

IT IS SO ORDERED.

Dated: May 16, 2022

/s/ Jon S. Tigar
Jon S. Tigar
United States District Judge

APPENDIX D

UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF CALIFORNIA

EOLAS TECHNOLOGIES INCORPORATED,
Plaintiff
v.

AMAZON.COM, INC., GOOGLE LLC, WALMART, INC.,
Defendants

GOOGLE LLC,
Plaintiff
v.

EOLAS TECHNOLOGIES INCORPORATED,
Defendant

REGENTS OF THE UNIVERSITY OF CALIFORNIA,
Defendant

Nos. 4:15-cv-05446-JST, 4:17-cv-01138-JST, 4:17-cv-03022-JST, 4:17-cv-03023-JST,
Judge Jon S. Tigar.

JUDGMENT

Pursuant to the Order Granting Defendants' Motion for Summary Judgment Under 35 U.S.C. § 101;

Denying Defendants' Motion for Summary Judgment of Non-Infringement as Moot; Denying Plaintiffs' Motion for Summary Judgment as Moot; Denying Motions to Exclude or Strike Expert Testimony as Moot signed May 16, 2022, judgment is hereby entered.

IT IS SO ORDERED AND ADJUDGED.

Dated: Monday, May 16, 2022.

Mark B. Busby
Clerk, United States District Court

Mark B. Busby

By: 
Mauriona Lee, Deputy Clerk to the Honorable JON S. TIGAR

APPENDIX E

PERTINENT STATUTORY PROVISIONS

35 U.S.C. § 101

§101 Inventions Patentable

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 thereof, subject to the conditions and requirements of this title.

35 U.S.C. § 102

§102 Conditions for patentability; novelty

(a)Novelty; Prior Art.—A person shall be entitled to a patent unless—

(1) the claimed invention was patented, described in a printed publication, or in public use, on sale, or otherwise available to the public before the effective filing date of the claimed invention; or

(2) the claimed invention was described in a patent issued under section 151, or in an application for patent published or deemed published under section 122(b), in which the patent or application, as the case may be, names another inventor and was effectively filed before the effective filing date of the claimed invention.

(b)Exceptions.—

(1) Disclosures made 1 year or less before the effective filing date of the claimed invention.— A disclosure made 1 year or less before the effective filing date of a claimed invention shall not be prior art to the claimed invention under subsection (a)(1) if—

(A) the disclosure was made by the inventor or joint inventor or by another who obtained the subject matter disclosed directly or

indirectly from the inventor or a joint inventor; or

(B) the subject matter disclosed had, before such disclosure, been publicly disclosed by the inventor or a joint inventor or another who obtained the subject matter disclosed directly or indirectly from the inventor or a joint inventor.

(2) Disclosures appearing in applications and patents.—A disclosure shall not be prior art to a claimed invention under subsection (a)(2) if—

(A) the subject matter disclosed was obtained directly or indirectly from the inventor or a joint inventor;

(B) the subject matter disclosed had, before such subject matter was effectively filed under subsection (a)(2), been publicly disclosed by the inventor or a joint inventor or another who obtained the subject matter disclosed directly or indirectly from the inventor or a joint inventor; or

(C) the subject matter disclosed and the claimed invention, not later than the effective filing date of the claimed invention, were owned by the same person or subject to an obligation of assignment to the same person.

(c)Common Ownership Under Joint Research Agreements.—Subject matter disclosed and

a claimed invention shall be deemed to have been owned by the same person or subject to an obligation of assignment to the same person in applying the provisions of subsection (b)(2)(C) if—

(1) the subject matter disclosed was developed and the claimed invention was made by, or on behalf of, 1 or more parties to a joint research agreement that was in effect on or before the effective filing date of the claimed invention;

(2) the claimed invention was made as a result of activities undertaken within the scope of the joint research agreement; and

(3) the application for patent for the claimed invention discloses or is amended to disclose the names of the parties to the joint research agreement.

(d)Patents and Published Applications Effective as Prior Art.—For purposes of determining whether a patent or application for patent is prior art to a claimed invention under subsection (a)(2), such patent or application shall be considered to have been effectively filed, with respect to any subject matter described in the patent or application—

(1) if paragraph (2) does not apply, as of the actual filing date of the patent or the application for patent; or

(2) if the patent or application for patent is entitled to claim a right of priority under section 119, 365(a), 365(b), 386(a), or 386(b), or to claim the benefit

of an earlier filing date under section 120, 121, 365(c), or 386(c), based upon 1 or more prior filed applications for patent, as of the filing date of the earliest such application that describes the subject matter.

35 U.S.C. §103

§103 Conditions for patentability; non-obvious subject matter

A patent for a claimed invention may not be obtained, notwithstanding that the claims invention is not identically disclosed as set forth in section 102, if the differences between the claim invention and the prior art are such that the claimed invention as a whole would have been obvious before the effective filing date of the claimed invention to a person having ordinary skill in the art to which the claimed invention pertains. Patentability shall not be negated by the manner in which the invention was made.

35 U.S.C. §112

§112 Specification

(a)In General.—

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor or joint inventor of carrying out the invention.

(b)Conclusion.—

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the inventor or a joint inventor regards as the invention.

(c)Form.—

A claim may be written in independent or, if the nature of the case admits, in dependent or multiple dependent form.

(d)Reference in Dependent Forms.—

Subject to subsection (e), a claim in dependent form shall contain a reference to a claim previously set forth and then specify a further limitation of the subject matter claimed. A claim in dependent form shall

be construed to incorporate by reference all the limitations of the claim to which it refers.

(e)Reference in Multiple Dependent Form.— A claim in multiple dependent form shall contain a reference, in the alternative only, to more than one claim previously set forth and then specify a further limitation of the subject matter claimed. A multiple dependent claim shall not serve as a basis for any other multiple dependent claim. A multiple dependent claim shall be construed to incorporate by reference all the limitations of the particular claim in relation to which it is being considered.

(f)Element in Claim for a Combination.—

An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.