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July 29, 2020

VIA ECF FILING

Mr. Peter R. Marksteiner
Circuit Executive & Clerk of Court
United States Court of Appeals for the Federal Circuit
717 Madison Place, NW
Washington, DC 20439

Re: Nos. 2019-2192, -2258, Rule 28(j) Letter: *Ericsson Inc. v. TCL Comm'n Tech. Holdings Ltd.*, 955 F.3d 1317 (Fed. Cir. 2020), and *Dropbox, Inc. v. Synchronoss Techs., Inc.*, --- F. App'x ----, 2020 WL 3400682 (Fed. Cir. 2020).

Dear Mr. Marksteiner:

In *Ericsson* and *Dropbox*, this Court held claims for securing access to computer resources ineligible under § 101, despite reciting technological components and purportedly improving access control. TecSec's claims are equally ineligible here. Red 59-72; Gray 1-19.

In *Ericsson*, the claims were "written in technical jargon" and included components such as a "'security access manager'" and steps for granting access "'based on an identification.'" 955 F.3d at 1326-27. But, at their "core," they were directed to the abstract idea of "controlling access to resources by receiving a request and determining if the request for access should be granted." *Id*. at 1326. Indeed, this Court has "repeatedly found the concept of controlling access to resources via software to be an abstract idea" and, "[e]ven assuming that this collection of elements led to a more efficient way of controlling resource access," the claims were "exactly the sort of process" that humans have long performed (akin to "allowing certain employees entrance to only certain floors") and added nothing inventive. *Id.* at 1327, 1330.

In *Dropbox*, the ineligible claims recited an apparatus with an "access checker" for "'providing only as much authentication and encryption security as is required for a given user, a given path through the network …, and a given [information] resource.'" 2020 WL 3400682, at *2. Although the patent purportedly solved a "technological problem"—and "'provide[d] a more 'economically secure way to transmit data … over a network'"— "that [wa]s not enough" because

the claims amounted to applying an abstract idea "using conventional and well-understood techniques specified in broad, functional language." *Id.* at *4.

Likewise, here, the claims are directed to an abstract access-control idea (managing access to objects using multiple layers of encryption and labels), akin to human activity (*e.g.*, restricting access to a building and further restricting who can access certain floors). Gray 4-5. And the claims require no specific improvement in computer technology to perform such multi-level security with encryption and labels; instead, they require only functional features and conventional technology (*e.g.*, a "key manager" performing conventional encryption functions, "any" encryption algorithm, and "any" network, Gray 8-11, 18-19).

Respectfully submitted,

/s/ Gabriel K. Bell
Gabriel K. Bell
of LATHAM & WATKINS LLP

Counsel for Cross-Appellant Adobe Inc.

cc: Counsel of Record via ECF

ATTACHMENT 1

955 F.3d 1317
United States Court of Appeals, Federal Circuit.

ERICSSON INC., Telefonaktiebolaget LM Ericsson, Plaintiffs-Appellees
v.
TCL COMMUNICATION TECHNOLOGY HOLDINGS LIMITED, TCT Mobile Limited, TCT Mobile (US) Inc., Defendants-Appellants

2018-2003
|
Decided: April 14, 2020

Synopsis

Background: Owner of patent claiming a method and system for limiting and controlling access to resources in a telecommunications system brought infringement action. Competitor moved for summary judgment of ineligibility. The United States District Court for the Eastern District of Texas, Roy Payne, United States Magistrate Judge, 2017 WL 5137401, denied motion, and jury found claims infringed and that infringement was willful, and awarded damages to patent owner. Following new trial on damages, 2018 WL 2149736, jury verdict was reinstated and competitor's motion for judgment as a matter of law was denied. Competitor appealed.

Holdings: The Court of Appeals, Prost, Chief Judge, held that:

claims were directed to an abstract idea, and

claims did not contain an inventive concept that would support patent eligibility.

Vacated in part and reversed.

Newman, Circuit Judge, filed a dissenting opinion.

***1319** Appeal from the United States District Court for the Eastern District of Texas in No. 2:15-cv-00011-RSP, Magistrate Judge Roy S. Payne.

Attorneys and Law Firms

Theodore Stevenson, III, McKool Smith, PC, Dallas, TX, argued for plaintiffs-appellees. Also represented by Warren Lipschitz, Nicholas M. Mathews; James A. Barta, Rayiner Hashem, Jeffrey A. Lamken, Michael Gregory Pattillo, Jr., MoloLamken LLP, Washington, DC.

Lionel M. Lavenue, Finnegan, Henderson, Farabow, Garrett & Dunner, LLP, Reston, VA, argued for defendants-appellants. Also represented by Michael Liu Su, Palo Alto, CA; David Mroz, Washington, DC.

Before Prost, Chief Judge, Newman and Chen, Circuit Judges.

Opinion

Dissenting opinion filed by Circuit Judge Newman.

Prost, Chief Judge.

***1320** Appellants TCL Communication Technology Holdings, Limited, TCT Mobile Limited, and TCT Mobile (US) Inc., (collectively, "TCL") appeal the decision of the U.S. District Court for the Eastern District of Texas denying summary judgment that U.S. Patent No. 7,149,510 ("the '510 patent") is ineligible for patenting under 35 U.S.C. § 101. TCL also appeals the denial of its motion for a new trial on damages and challenges the jury's finding of willful infringement as not supported by substantial evidence. We reverse, hold that the '510 patent claims ineligible subject matter under 35 U.S.C. § 101, and do not reach the issues of damages or willfulness.

I

In February 2015, Ericsson Inc. and Telefonaktiebolaget LM Ericsson (collectively, "Ericsson") sued TCL for infringement of five patents. *See* J.A. 1000–04. Four patents were removed from the case following *inter partes* review proceedings, leaving only the '510 patent. TCL moved for summary judgment that the asserted claims of the '510 patent (then claims 1–5 and 7–11) were ineligible for patenting under 35 U.S.C. § 101. The district court denied the motion in November 2017, and the case proceeded to trial one month later. *See Ericsson Inc. v. TCL Commc'n Tech. Holdings, Ltd.*, 2017 WL 5137401 at *1, *7-8 (E.D. Tex. Nov. 4, 2017) ("Summary Judgment Decision").

The '510 patent generally claims a method and system for limiting and controlling access to resources in a telecommunications system. At trial, Ericsson argued that TCL infringed claims 1 and 5 of the '510 patent by making and selling smartphones that include the Android operating system. According to Ericsson, these Android-based products infringe the claims of the '510 patent because they include "a security system that can grant apps access to a subset of services on the phone, with the end user controlling the permissions granted to each app." Appellees' Br. 6 (internal quotations omitted). The jury found claims 1 and 5 infringed, awarded Ericsson damages, and further found that TCL's infringement was willful. J.A. 38–39.

Post-trial, TCL moved for renewed judgment as a matter of law and a new trial on damages and willfulness, among other issues. The district court initially agreed, concluding that Ericsson's damages theory was "unreliable" and ordering a new trial on damages. J.A. 3. Following Ericsson's motion for reconsideration, however, the district court reinstated the jury verdict, and denied TCL's motion for ***1321** a new trial. *Id.* It also denied TCL's motion for judgment as a matter of law on willfulness, finding the jury's verdict supported by substantial evidence. *Id.* at 20.

TCL timely appealed. We have jurisdiction under 28 U.S.C. § 1295(a)(1).

II

Ericsson argues as a threshold matter that TCL has waived any right to appeal the issue of ineligibility under § 101 by failing to raise it in a motion for judgment as a matter of law under Federal Rule of Civil Procedure 50. *See* Appellees' Br. 21–25. We disagree for two independent reasons. We discuss each in turn below.

A

The district court's § 101 opinion applied the two-step framework for patent eligibility first laid out in *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*, 566 U.S. 66, 132 S.Ct. 1289, 182 L.Ed.2d 321 (2012), and further detailed in *Alice Corp. v. CLS Bank Int'l*, 573 U.S. 208, 134 S.Ct. 2347, 189 L.Ed.2d 296 (2014). Patent eligibility under § 101 is an issue of law, although the inquiry may sometimes contain underlying issues of fact. *See Berkheimer v. HP Inc.*, 881 F.3d 1360, 1365 (Fed. Cir. 2018); *Intellectual Ventures I LLC v. Capital One Financial Corp.*, 850 F.3d 1332, 1338 (Fed. Cir. 2017). In denying summary judgment here the district court concluded, at step one, that the claims of the '510 patent "are not directed to an abstract idea" as a matter of law. Summary Judgment Decision at *7. That decision was based on the court's analysis of the claim language and a comparison to our existing caselaw, and was not dependent on any factual issues that were or could have been raised at trial. *See id.* at 70–71, 132 S.Ct. 1289.

Although not in the § 101 context, we have addressed a similar procedural scenario in *Lighting Ballast Control LLC v. Philips Electronics North America Corp.*, 790 F.3d 1329, 1337 (Fed. Cir. 2015). In that case, an appellee argued that the appellant had "waived any argument ... by failing to raise the issue in either its pre- or post-verdict motions for judgment as a matter of law." *Id.* at 1336–37. We noted that this may be true in cases where a motion for summary judgment is denied because "material issues of fact prevented judgment." *Id.* at 1337. But that was not the case in *Lighting Ballast*, nor is it here. Rather, in *Lighting Ballast*, "[w]hen the district court denied [the movant]'s motion for summary judgment, it did not conclude that issues of fact precluded judgment; it effectively entered judgment of validity to [the non-movant]," and that grant of judgment was appealable. *Id.*

The same is true in this case. The district court did not conclude that there were issues of fact precluding judgment. Once the district court held that the '510 patent was not directed to an abstract idea at step one, there was no set of facts that TCL could have adduced at trial to change that conclusion. *See* Summary Judgment Decision at *7. As a result, the district court effectively entered judgment of eligibility to Ericsson. "This is sufficient to preserve the issue for appeal." *Lighting Ballast*, 790 F.3d at 1338.

Ericsson argues that we are bound to apply Fifth Circuit law in this instance, and that therefore *Lighting Ballast* is inapplicable. Appellees' Br. 21–22. Even under Fifth Circuit law, however, the district court effectively granted summary judgment of eligibility to Ericsson, which we may review.

Relying on Fifth Circuit law, Ericsson cites ***1322** *Feld Motor Sports, Inc. v. Traxxas, L.P.*, 861 F.3d 591, 596 (5th Cir. 2017), for the proposition that "following a jury trial on the merits, this court has jurisdiction to hear an appeal of the district court's legal conclusions in denying summary

judgment, but only if it is sufficiently preserved in a Rule 50 motion." But the district court here did not merely deny summary judgment. Rather, consistent with Fifth Circuit precedent, it effectively granted summary judgment in favor of the non-moving party by deciding the issue and leaving nothing left for the jury to decide. *See Hudson v. Forest Oil Corp.*, 372 F.3d 742, 744 (5th Cir. 2004) ("the district court's decision to deny [a] motion for summary judgment was in effect a grant of summary judgment in favor of [non-movants]"). And when the district court's action amounts to an "effective ... grant of summary judgment," the Fifth Circuit has treated the action akin to an express grant of summary judgment, and allowed an appeal accordingly. *See Luig v. North Bay Enters., Inc.*, 817 F.3d 901, 904–05 (5th Cir. 2016).

The facts of this case justify that same treatment. As discussed above, the district court did not deny summary judgment of ineligibility on the basis of additional facts that needed to be, or even could be, presented at trial. The court affirmatively "conclude[d] that the claims are not directed to an abstract idea but rather to an improved technological solution to mobile phone security software." Summary Judgment Decision at *7. Had Ericsson chosen to file a cross-motion for summary judgment of eligibility, this exact same conclusion would have sufficed to grant that motion. Under Fifth Circuit law, this conclusion effectively serves as a grant of summary judgment for Ericsson, which is appealable. *See Hudson*, 372 F.3d at 744. Ericsson's citation to *Feld*, which limits the appealability of denials of summary judgment, is therefore inapposite.

TCL has preserved its right to appeal what was effectively a grant of summary judgment of patent validity to Ericsson.

B

Even if the district court had not effectively granted summary judgment to Ericsson, both Federal Circuit and Fifth Circuit law make clear that we have the discretion to hear issues that have been waived. And, to the extent the issue of patent eligibility in this case was waived (it was not, for the reasons discussed above), both circuits' precedent supports our decision to exercise our discretion and hear the issue.

We note first that this is not a typical waiver scenario in which we are asked to "consider an issue not passed upon below." *Singleton v. Wulff*, 428 U.S. 106, 120, 96 S.Ct. 2868, 49 L.Ed.2d 826 (1976). Here, the issue of patent eligibility was fully briefed, argued, and decided below, and then fully briefed and argued again before us. Summary Judgment Decision at *7; Appellants' Br. 20–31; Appellees' Br. 21–38; Appellants' Reply Br. 3–9; Oral Arg. at 5:22–9:57, 21:40–33:07, 34:12–35:55, No. 2018-2003, http://www.cafc.uscourts.gov/oral-argu-ment-recordings.

While we always possess "the discretion to decide when to deviate from th[e] general rule of waiver," *Interactive Gift Express., Inc. v. Compuserve, Inc.*, 256 F.3d 1323, 1344 (Fed. Cir. 2001), exercise of that discretion is especially appropriate in cases that do not present new issues on appeal. While there is "no general rule" for when we exercise our discretion to reach waived issues, *Singleton*, 428 U.S. at 121, 96 S.Ct. 2868, we have done so where, among other factors, "the issue has been fully briefed by the parties." *See* ***1323** *Automated Merch. Sys., Inc. v. Lee*, 782 F.3d 1376, 1379–80 (Fed. Cir. 2015) ("A circuit court will disregard the rule of waiver in compelling circumstances, particularly if the issue has been fully briefed, if the issue is a matter of law or the record is complete, if there will be no prejudice to any party, and if no purpose is served by remand" (quoting *Interactive Gift*, 256 F.3d at 1345 (internal quotations and alterations omitted))). That is the case here.

Our general rule against reaching waived issues is based on sound policy. As we have noted,

> It ensures finality in litigation by limiting the appealable issues to those a lower court had an opportunity to, and did, address. The rule also conserves judicial resources because it prevents parties from undoing a lower court's efforts—sometimes spanning years of litigation—based on an error that a lower court could have considered and corrected. In the same regard, the rule discourages parties from inviting an alleged error below only to raise it on appeal.

HTC Corp. v. IPCom GmbH & Co., KG, 667 F.3d 1270, 1281 (Fed. Cir. 2012) (collecting cases). But none of those policies would be served by declining to reach the issue of patent eligibility in this case. The district court "had an opportunity to, and did, address" the issue with finality. *Id*;

c.f. In re Nuvasive, Inc., 842 F.3d 1376, 1380 (Fed. Cir. 2016) (declining to reach waived issue where we do not have "the benefit of the [lower court]'s informed judgment"). Unlike prior cases in which we have declined to reach waived issues, TCL's arguments did not shift over time or present "a moving target." *Finnigan Corp. v. Int'l Trade Comm'n*, 180 F.3d 1354, 1363 (Fed. Cir. 1999). To the contrary, its "argument[s] at the trial and appellate level [were] consistent, thereby ensuring a clear presentation of the issue to be resolved." *Id.* And, as discussed in Section III below, the resolution of the patent eligibility question in this case is straightforward. *See Interactive Gift*, 256 F.3d at 1345 (noting that we consider arguably waived issues when "the proper resolution is beyond any doubt").

Accordingly, to the extent the issue of patent eligibility was not properly preserved below, we nonetheless exercise our discretion to address and resolve the issue. *See Icon Health and Fitness, Inc. v. Strava, Inc.*, 849 F.3d 1034, 1040 (Fed. Cir. 2017) ("Because the issue has been fully briefed, the record is complete, there will be no prejudice to any party, and no purpose is served by remand, we will consider [Appellant]'s arguments").

The Fifth Circuit's statements regarding the proper use and purpose of waiver similarly support addressing the patent-eligibility legal question here. The en banc Fifth Circuit has explained that the doctrine of waiver "exists to prevent an appellate court from analyzing the facts of a particular issue without the benefit of a full record or lower court determination." *New Orleans Depot Servs., Inc. v. Dir., Office of Worker's Comp. Programs*, 718 F.3d 384, 388 (5th. Cir. 2013) (en banc). That concern is not present here. The parties have fully briefed the issue of ineligibility under § 101 both before the district court and before us. We also have the benefit of the district court's decision, which resolved the matter without resort to factual considerations, and no party has raised a genuine fact issue that requires resolution. *See id.* at 388 ("[A] well-settled discretionary exception to the waiver rule exists where a disputed issue concerns a pure question of law."). This is not "a case ***1324** in which a party has wholly ignored a major issue" until it reached the appellate level, but rather one in which the issue was "squarely addressed" below, and therefore it is appropriate for us to reach the issue. *Id.*

Like the Fifth Circuit in *New Orleans Depot*, we find that because the issue was "presented to" and "fully litigated before" the district court judge, and because "every party was provided an adequate opportunity to brief and argue the issue" before us, we can and should "exercise our discretion to decide this legal issue." *Id.*; *see also Glass v. Paxton*, 900 F.3d 233, 242–32 (5th Cir. 2018) (where "the only remaining issues are purely legal questions that were briefed below," the Fifth Circuit has "been willing to resolve those issues on appeal.") [1]

1 *Feld*, cited by Ericsson and discussed above, also supports our conclusion. While Ericsson cites *Feld* to argue that TCL's claim is waived, *Feld* itself found that the appellant "sufficiently preserved" the issue, noting that post-trial briefing requirements should be "construed liberally" and "the purpose of the rule is to provide notice to the district court and the plaintiff of the defendant's objections." 861 F.3d at 596 (citing *Navigant Consulting, Inc. v. Wilkinson*, 508 F.3d 277, 288 (5th Cir. 2007)). Here, Ericsson does not and cannot argue that that it was not on notice of TCL's § 101 claim, having fully briefed and argued the issue both before the district court and now before us.

Although the particular waiver at issue in *New Orleans Depot* and *Glass* did not involve motions for judgment as a matter of law under Rule 50, Fifth Circuit authority makes clear that the policy behind Rule 50 is consistent with this result. "Rule 50(b) is designed to prevent a litigant from ambushing both the district court and opposing counsel after trial." *Puga v. RGX Solutions, Inc.*, 922 F.3d 285, 290 (5th Cir. 2019). Similarly, Rule 50(a) is intended to allow a trial court "to re-examine the question of evidentiary insufficiency" and alert opposing counsel to any insufficiency. *Id*. at 291 (quoting *Scottish Heritable Tr., PLC v. Peat Marwick Main & Co.*, 81 F.3d 606, 610 (5th Cir. 1996)). Barring review of the district court's § 101 ruling would not promote either of these purposes.

Because the issue of eligibility was fully briefed and decided below, neither Ericsson nor the district court can claim to be "ambush[ed]" by our decision to address the issue on appeal. *Id.* at 290. Further, because the district court's denial of TCL's summary judgment motion rested on its conclusion that the asserted claims are not directed to an abstract idea at step one, no concerns about evidentiary insufficiency are present. Therefore, there is no impediment to us addressing the issue of patent ineligibility. *See Scottish Heritable*, 81 F.3d at 610 ("Technical noncompliance with Rule 50(b) may be excused in situations in which the purposes of the rule are satisfied."). To the contrary, the Fifth Circuit has "repeatedly counseled against" the "slavish adherence" to Rule 50 when it would

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not prevent against ambush or evidentiary insufficiency. *Id.* at 611.

We therefore exercise our discretion—to the extent the issue was not properly preserved below—to review the district court's eligibility determination, and turn now to the merits of TCL's appeal.

III

We "review a district court's summary judgment ruling under the law of the regional circuit." *Intellectual Ventures*, 850 F.3d at 1337. Under Fifth Circuit law, we "review a district court's ruling on a motion for summary judgment *de novo* and ***1325** apply the same legal standards as the district court." *Bellard v. Gautreaux*, 675 F.3d 454, 460 (5th Cir. 2012). The issue of patent eligibility under § 101 is a question of law that we review without deference. *Intellectual Ventures*, 850 F.3d at 1338.

The Patent Act provides that "[w]hoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title." 35 U.S.C. § 101. However, laws of nature, natural phenomena, and abstract ideas are not patentable. *Alice*, 573 U.S. at 216, 134 S.Ct. 2347. To determine whether this exception applies, we evaluate at step one "whether the claims at issue are directed to a patent-ineligible concept," such as an abstract idea. *Alice*, 573 U.S. at 218, 134 S.Ct. 2347. We have alternately described this inquiry as "looking at the 'focus' of the claims." *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1353 (Fed. Cir. 2016) (quoting *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335–36 (Fed. Cir. 2016)). While the specification may be "helpful in illuminating what a claim is directed to ... the specification must always yield to the claim language" when identifying the "true focus of a claim." *ChargePoint, Inc. v. SemaConnect, Inc.*, 920 F.3d 759, 766 (Fed. Cir. 2019)

If the claims are directed to an abstract idea, we move to step two 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." *Alice*, 573 U.S. at 217, 134 S.Ct. 2347 (quoting *Mayo*, 566 U.S. at 77–78, 132 S.Ct. 1289). This step represents "a search for an 'inventive concept'—*i.e.*, 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 217–18, 134 S.Ct. 2347 (quoting *Mayo*, 566 U.S. at 72–73, 132 S.Ct. 1289) (internal quotations and alterations omitted).

A

The '510 patent, titled "Security Access Manager in Middleware," describes "a system and method for controlling access to a platform for a mobile terminal for a wireless telecommunications system." '510 patent col.1 ll. 25–28. Ericsson describes the field of the invention as "securing mobile phones against improper access by apps." Appellees' Br. 3. Claim 1 recites:

> 1. A system for controlling access to a platform, the system comprising:
>
> a platform having a software services component and an interface component, the interface component having at least one interface for providing access to the software services component for enabling application domain software to be installed, loaded, and run in the platform;
>
> an access controller for controlling access to the software services component by a requesting application domain software via the at least one interface, the access controller comprising:
>
> an interception module for receiving a request from the requesting application domain software to access the software services component;
>
> and a decision entity for determining if the request should be granted wherein ***1326** the decision entity is a security access manager, the security access manager holding access and permission policies; and
>
> wherein the requesting application domain software is granted access to the software services component via the at least one interface if the request is granted.

'510 patent claim 1. The only other claim on appeal, claim 5, further recites:

> 5. The system according to claim 1, wherein:
>
> the security access manager has a record of requesting application domain software; and the security access

manager determines if the request should be granted based on an identification stored in the record.

'510 patent claim 5.

Based on the claim language, we conclude that claims 1 and 5 are directed to the abstract idea of controlling access to, or limiting permission to, resources. Although written in technical jargon, a close analysis of the claims reveals that they require nothing more than this abstract idea. By the plain language of claim 1, the "security access manager" and the "decision entity" are the same thing. *See* '510 patent col. 8 ll. 50–53 ("... wherein the decision entity is a security access manager"). According to the specification, this combined decision entity / security access manager can further be the same as the "interception module." *Id.* at col. 8 ll. 50–53 ("Instead of sending a permission request ... from the IM [interception module] 223 to the SAM [security access manager] 518, the IM 223 makes a decision locally"); *see also* J.A. 107–110 (district court adopting Ericsson's proposed construction, and noting that it includes "an embodiment where the interception module and the decision entity are one and the same.") Because the security access manager / decision entity / interception module is the only claimed component of the "access controller," all four components collapse into simply "an access controller for controlling access" by "receiving a request" and then "determining if the request should be granted." That bare abstract idea, controlling access to resources by receiving a request and determining if the request for access should be granted, is at the core of claim 1.

Neither of the remaining limitations alter our conclusion that claim 1 is directed to the abstract idea of controlling access to resources. The first limitation recites "a platform having a software services component and an interface component," for the ultimate goal of "enabling application domain software to be installed, loaded, and run in the platform." '510 patent claim 1. This recitation of functional computer components does not specify how the claim "control[s] access to a platform," nor does it direct the claim to anything other than that abstract idea. It merely provides standard components that are put to use via the "access controller" limitation. Similarly, the "wherein" limitation simply recites the necessary outcome of the abstract idea, "grant[ing] access ... if the request is granted."

We are mindful that the step one inquiry looks to the claim's "character as a whole" rather than evaluating each claim limitation in a vacuum. *See Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335 (Fed. Cir. 2016). But where, as here, the bulk of the claim provides an abstract idea, and the remaining limitations provide only necessary antecedent and subsequent components, the claim's character as a whole is directed to that abstract idea. *See* ***1327** *In re TLI Commc'ns LLC Patent Litig.*, 823 F.3d 607, 612 (Fed. Cir. 2016) (claim directed to abstract idea where additional recited components "merely provide a generic environment in which to carry out the abstract idea.") For the same reason, claim 5, which merely adds that the determination to grant access should be "based on an identification," is directed to the same abstract idea.

Ericsson makes two arguments as to why the asserted claims are not directed to an abstract idea at step one. Neither is persuasive. First, it argues that the idea of controlling access to resources is not an abstract idea because it does not "resemble[ ] one previously recognized by the Supreme Court." Appellees' Br. 31–32. Ericsson's suggestion that an abstract idea must be a "mathematical algorithm," "method of organizing human activity," or "fundamental economic practice," *id.*, is legally erroneous. The Supreme Court has explicitly rejected the use of such "categorical rules" to decide patent eligibility. *Bilski v. Kappos*, 561 U.S. 593, 610, 130 S.Ct. 3218, 177 L.Ed.2d 792 (2010). As a result, "[t]he Supreme Court and we have held that a wide variety of well-known and other activities constitute abstract ideas." *Intellectual Ventures I LLC v. Symantec Corp.*, 838 F.3d 1307, 1314 (Fed. Cir. 2016) (collecting cases).

Controlling access to resources is exactly the sort of process that "can be performed in the human mind, or by a human using a pen and paper," which we have repeatedly found unpatentable. *See CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1372 (Fed. Cir. 2011). The idea long predates the '510 patent and is pervasive in human activity, whether in libraries (loaning materials only to card-holding members), office buildings (allowing certain employees entrance to only certain floors), or banks (offering or denying loans to applicants based on suitability and intended use). In each of these circumstances, as in the claims at issue, a request is made for access to a resource, that request is received and evaluated, and then the request is either granted or not.

Ericsson defends the '510 patent by arguing that its claims, unlike these fundamental practices, are specific to mobile phones. But "limit[ing] the abstract idea to a particular environment—a mobile telephone system—[ ] does not make the claims any less abstract for the step 1 analysis." *In re TLI*,

823 F.3d at 607. To the contrary, we have repeatedly found the concept of controlling access to resources via software to be an abstract idea. *See Smart Sys. Innovations, LLC v. Chicago Transit Authority*, 873 F.3d 1364, 1371 (Fed. Cir. 2017) (claim involving "denying access to a transit system if the bankcard is invalid" was directed to an abstract idea); *Prism Techs. LLC v. T-Mobile USA, Inc.*, 696 F. App'x 1014, 1017 (Fed. Cir. 2017) (abstract idea of "providing restricted access to resources"); *Smartflash LLC v. Apple Inc*., 680 F. App'x 977 (Fed. Cir. 2017) (abstract idea of "conditioning and controlling access to data"). The claims at issue here are no different.

Second, Ericsson contends that its claims are not directed to an abstract idea because they "solve the specific computer problem ... of controlling app access in resource-constrained mobile phones." Appellees' Br. 29. We disagree. As an initial matter, the district court was incorrect to conclude that "[t]he claims of the '510 patent are limited to mobile platform technology," and Ericsson is wrong to repeat that ***1328** point. Summary Judgment Decision at *7.[2] The asserted claims merely require "[a] system for controlling access to a platform," whether mobile, desktop, or otherwise. They do not mention, and are not limited to, mobile phones or a "resource-constrained" environment. For the same reason, Ericsson's reference to "a specific, layered software architecture," Appellees' Br. 29–30, which does not appear in the claims, is unavailing.

2 The district court was also incorrect to state that "[t]he PTAB's highly technical characterization of the claims supports the conclusion that the claims are not directed to an abstract idea." Summary Judgment Decision at *7. Claims do not become eligible simply because they are written or characterized in a "highly technical" manner. That would violate the Supreme Court's caution that patent eligibility must not "depend simply on the draftsman's art." *Alice*, 573 U.S. at 224, 134 S.Ct. 2347 (quoting *Mayo*, 566 U.S. at 72, 132 S.Ct. 1289).

Moreover, the claims here do not "ha[ve] the specificity required to transform a claim from one claiming only a result to one claiming a way of achieving it." *SAP Am., Inc. v. InvestPic, LLC*, 898 F.3d 1161, 1167 (Fed. Cir. 2018). Ericsson does not deny that its claims are drafted functionally, but argues that the process of requesting and controlling access as recited in the claim is a specific technique for improving computer performance. Appellees' Br. 29–30. As discussed above, we disagree. The claims are silent as to how access is controlled. They merely make generic functional recitations that requests are made and then granted. Merely claiming "those functions in general terms, without limiting them to technical means for performing the functions that are arguably an advance," does not make a claim eligible at step one. *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1351 (Fed. Cir. 2016).

B

Having determined that the asserted claims of the '510 patent are directed to the abstract idea of controlling access to resources, we next ask whether the asserted claims contain an inventive concept that would support patent eligibility. We conclude that they do not.

Ericsson argues that the "layered architecture" of the invention provides the necessary inventive concept. According to Ericsson, claims 1 and 5 "recite three specific layers of software," in which the bottom "services layer" is "further arranged into vertical functional software stacks." Appellees' Br. 36 (internal quotations omitted). Ericsson contends that the novelty of the claims is, in part, the "arrangement of horizontally partitioned functional software units" which "differs from the standard model, which uses vertical layers only." *Id.* But this allegedly novel aspect of the invention is wholly missing from claims 1 and 5. Neither claim recites any particular architecture at all—much less the specific three layered architecture advocated by Ericsson. Nor does either claim recite software stacks or units—vertical, horizontal, or otherwise.

Ericsson concedes that at least some of these elements do not appear in the claims. *See* Appellees' Br. 37 n.3. Rather, it argues that our analysis must be "aided by a consideration of the specification" under which "the described benefits flow from the claimed 'interception module.' " *Id.* Ericsson misstates the role of the specification, which "cannot be used to import details from the specification if those details are not claimed." *ChargePoint*, 920 F.3d at 769. Rather, "any reliance on the specification ***1329** in the § 101 analysis must always yield to the claim language." *Id.*

Here, Ericsson alleges that the inventive concept of the '510 patent lies in a particular three-layer arrangement of software, in which the bottom layer is "arranged into vertical functional software stacks" and "horizontally partitioned functional software units." Appellees' Br. 36 (citing '510 patent col. 2 ll. 20–25, col. 5 ll. 1, 23–30, 40). Even assuming

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that Ericsson's explanation of the scheme described in the specification is correct, this cannot provide an inventive concept at step two because it is not recited in claims 1 or 5. *See Intellectual Ventures*, 838 F.3d at 1315 (holding claims ineligible where "the asserted claims do not contain any limitations that address" problems the specification purported to solve); *ChargePoint*, 920 F.3d at 769–70 (holding claims ineligible where "[e]ven if [the] specification had provided, for example, a technical explanation of how to enable communication over a network for a device interaction ... the claim language here would not require those details").

Because its alleged inventive concept is not otherwise recited in the claims, Ericsson asks us to import the three-layer architecture and the horizontal partition requirement into the claim through the recited "interception module." Appellees' Br. 37 n.3. We decline to do so. The claims in question describe the role of the interception module clearly: "an interception module for receiving a request from the requesting application domain software to access the software services component." '510 patent claim 1. Nothing in that language supports Ericsson's contention that the claim requires a three-layer architecture, horizontally partitioned functional software units, vertical functional software stacks, or any other component of the structure that it claims is inventive. If Ericsson believes that the recited "interception module" necessarily requires these structures, the time to make that argument would have been at claim construction. But Ericsson elected not to propose any construction for this term, and the parties agreed that the term would be given its plain and ordinary meaning. J.A. 102. Indeed, Ericsson's expert testified at trial that an interception module is merely "a segment of code that performs the interception function." J.A. 6 (district court summarizing testimony of Ericsson's expert). Thus, we do not agree with Ericsson that the use of "interception module" in the claim is sufficient to import the three-layer architecture from the specification.

The same is true of the term "software services component." During claim construction the district court expressly rejected both parties' proposed constructions, noting that each would improperly read limitations into the claims. J.A. 105. As the district court noted, "the claims do not describe the internal composition or arrangement of the software services component itself," and therefore the invention was not limited to "a plurality of functional software units," or any of the parties' other proposed limitations. *Id.* The district court therefore construed the term to mean "a software component for providing services." J.A. 107. That broad construction, which is not challenged before us, provides no reason to import the allegedly novel layered architecture described in the specification into the language of the claims.

Ericsson also relies in part on the district court's brief discussion of *Alice* step two, which provided two reasons that the ***1330** claims of the '510 patent supposedly recite an inventive concept. We disagree with both. First, the court stated that the claims "recite a technological improvement to ... the problem of limited memory and resources on mobile phones." Summary Judgment Decision at *8. As discussed above, however, claims 1 and 5 are not limited to mobile phones and make no mention of limited memory or resources. We cannot agree that the claims present a "particularized solution" to the problem of limited memory in mobile phones as the district court suggests, Summary Judgment Decision at *8, when the claims as written make no mention of memory and encompass not just mobile phones but any "system for access to a platform." '510 patent claim 1. Indeed, the specification of the '510 patent expressly disavows any interpretation that would limit its scope only to "mobile terminal[s]." '510 patent col. 10 ll. 58–67.

Second, the district court concluded that the claims "are not merely conventional applications of computer technology." Summary Judgment Decision at *8. But it reached this conclusion based solely on the Patent Trial and Appeal Board's conclusion in a related *inter partes* review proceeding that one of ordinary skill in the art allegedly would not be "motivated to combine computer-based security software with the relevant mobile platform technology." *Id.* The district court overstates the breadth of the Board's conclusion. The Board concluded that TCL had "failed to persuasively establish an articulated reason" that one of ordinary skill would "implement the access controller of [one prior art reference] as the security management mechanism of [a second prior art reference] to provide the fine-grained access control identified in [the second prior art reference]." *TCL Corp. v. Telefonaktiebolaget LM Ericsson*, No. IPR2015-01605, Paper 44, at 27 (PTAB Jan. 25, 2017). The Board did not conclude, as the district court suggests, that there was a fundamental incompatibility between conventional computer-based security software and mobile platform technology prior to the invention of the '510 patent. Even if it had, that conclusion could not demonstrate that the claims here possess an inventive step because the feature that was allegedly lacking in the combination (*i.e.*, technology specific to mobile phone platforms) is not recited in the claims at issue.

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Because the architecture identified by Ericsson as inventive does not appear in claims 1 or 5 of the '510 patent, we conclude at step two that claims 1 and 5 do not provide a sufficient inventive concept to render them patent eligible. The most specific elements actually recited in the claim are "an access controller for controlling access," "an interception module for receiving a request," and "a decision entity for determining if the request should be granted." '510 patent claim 1. None of these elements are sufficient to turn the claim into anything more than a generic computer for performing the abstract idea of controlling access to resources. Even assuming that this collection of elements led to a more efficient way of controlling resource access, "our precedent is clear that merely adding computer functionality to increase the speed or efficiency of the process does not confer patent eligibility on an otherwise abstract idea." *Intellectual Ventures I LLC v. Capital One Bank (USA)*, 792 F.3d 1363, 1370 (Fed. Cir. 2015). Thus, the claims do not "recite[ ] a specific solution to a security problem," as Ericsson contends. Appellees' Br. 35. To the contrary, when a claim "does no more than require a generic computer to perform generic computer functions," as here, ***1331** the claims lack an inventive concept sufficient to demonstrate eligibility at step two. *Alice*, 573 U.S. at 225, 134 S.Ct. 2347.

IV

We have considered the parties' remaining arguments and find them unpersuasive. For the foregoing reasons, claims 1 and 5 of the '510 patent are directed to the abstract idea of controlling access to resources, and do not recite an inventive concept sufficient to transform that idea into patent-eligible subject matter. The claims are therefore ineligible for patenting under § 101. Accordingly, the district court's damages verdict is vacated.

VACATED-IN-PART AND REVERSED

COSTS

Costs to Appellants.

Newman, Circuit Judge, dissenting.

The court today sets aside the Federal Rules and sound practice for civil trials and appeals, and holds that the district court's pre-trial denial of a motion for summary judgment based on 35 U.S.C. § 101 is the same as a final decision in favor of the non-movant. That is not the general rule, and it is not the rule of the Fifth Circuit, whose procedural law controls this trial and appeal.

Nonetheless, the panel majority treats the district court's pre-trial denial of summary judgment as a final decision on the merits, ripe for appeal. And on appeal, the panel majority decides patent eligibility under Section 101, although there was no final judgment on this issue—and no record, no evidence, no witnesses, no expertise, no argument, and no district court decision.

The panel majority, now deciding patent eligibility under Section 101, finds facts and applies law without the benefit of district court trial. The majority ignores the pre-trial findings of the district court, rejects the estopped findings of the Patent Trial and Appeal Board in the related IPR proceeding, and discards the guidance of precedent, to hold the subject matter of claims 1 and 5 ineligible for patenting.

The majority announces new law and disrupts precedent. I respectfully dissent.

1.

Section 101 arguments were not raised at district court trial and post-trial

After the district court denied TCL's pre-trial motion for summary judgment on Section 101, [1] TCL did not pursue any Section 101 aspect at the trial or in any post-trial proceeding. Although other pre-trial motion issues were litigated, Section 101 disappeared. TCL took no action to preserve the Section 101 issue, and Section 101 was not raised for decision and not mentioned in the district court's final judgment. [2]

1 *Ericsson Inc. v. TCL Commc'n Tech. Holdings, Ltd.*, 2017 WL 5137401 (E.D. Tex. Nov. 4, 2017) ("Summ. J. Order").

2 *Ericsson Inc. v. TCL Commc'n Tech. Holdings, Ltd.*, 2018 WL 2149736 (E.D. Tex. May 10, 2018) ("Dist. Ct. Dec.").

Nonetheless, Section 101 eligibility is the focus of TCL's appeal, and my colleagues decide it for themselves. There is no trial record and no evidence on the question of whether the claimed invention is an abstract idea and devoid of inventive ***1332** content. The panel majority departs from the Federal Rules and from precedent.

Federal Rule of Civil Procedure 50 provides guidance after a pre-trial denial of summary judgment; the Rule assumes that the issue is litigated at trial, and provides the post-trial procedure to preserve the issue for district court decision and for appeal. Rule 50 includes:

> If the court does not grant a motion for judgment as a matter of law made under Rule 50(a), the court is considered to have submitted the action to the jury subject to the court's later deciding the legal questions raised by the motion. No later than 28 days after the entry of judgment ... the movant may file a renewed motion for judgment as a matter of law ....

Fed. R. Civ. P. 50(b). The Supreme Court, in *Unitherm Food Sys., Inc. v. Swift-Eckrich, Inc.*, 546 U.S. 394, 126 S.Ct. 980, 163 L.Ed.2d 974 (2006), summarized the purpose of this Rule:

> This Court has addressed the implications of a party's failure to file a postverdict motion under Rule 50(b) on several occasions and in a variety of procedural contexts. This Court has concluded that, "[i]n the absence of such a motion" an "appellate court [is] without power to direct the District Court to enter judgment contrary to the one it had permitted to stand." *Cone v. West Virginia Pulp & Paper Co.*, 330 U.S. 212, 218, 67 S.Ct. 752, 91 L.Ed. 849 (1947).

Id. at 400–01. The Court explained that a motion under Rule 50(b) is necessary in order to obtain the views of the judge who experienced the trial, if the issue is sought to be decided:

> A postverdict motion is necessary because "[d]etermination of whether a new trial should be granted or a judgment entered under Rule 50(b) calls for the judgment in the first instance of the judge who saw and heard the witnesses and has the feel of the case which no appellate printed transcript can impart." *Cone*, *supra*, at 216, 67 S.Ct. 752.

Id. at 401 (footnote omitted). Absent such post-trial motion and decision, the issue is not available for appeal. Here there was no post-trial motion, and no final decision of the district court.

Contrary to the panel majority's theory, the Section 101 issue was not preserved for appeal. The Fifth Circuit is explicit that an "interlocutory order denying summary judgment is not to be reviewed," even after "full trial on the merits" and even for "purely legal issues," unless "it is sufficiently preserved in a Rule 50 motion." *Feld Motor Sports, Inc. v. Traxxas, L.P.*, 861 F.3d 591, 595–96 & n.4 (5th Cir. 2017); *Puga v. RCX Sols., Inc.*, 922 F.3d 285, 291 n.2 (5th Cir. 2019). The Fifth Circuit stresses that appellate review is available only for issues preserved in a Rule 50 motion. *Feld*, 861 F.3d at 596.

Other circuits are in accord. *See, e.g.*, *Ji v. Bose Corp.*, 626 F.3d 116, 127 (1st Cir. 2010) (a party "must restate its objection" in order "to preserve its challenge for appeal"); *Elm Ridge Expl. Co., LLC v. Engle*, 721 F.3d 1199, 1219 (10th Cir. 2013) (a party cannot appeal the denial of its Rule 50 motion "when it did not renew the motion under Rule 50(b) after the jury's verdict"); *Duban v. Waverly Sales Co.*, 760 F.3d 832, 835 (8th Cir. 2014) ("Litigants must renew summary judgment arguments in Rule 50 motions to preserve their arguments for appeal."); *Luxottica Grp., S.p.A. v. Airport Mini Mall, LLC*, 932 F.3d 1303, 1310 n.1 (11th Cir. 2019) ("[T]he only way to preserve a Rule 50(a) motion ***1333** is to renew it under Rule 50(b)."). Although courts have allowed a few departures in extraordinary circumstances, the case at bar is not asserted to present extraordinary circumstances.

My colleagues on this panel propose that they are under no constraint, stating that the Fifth Circuit has treated the denial of summary judgment akin to an express grant of summary judgment. Maj. Op. at 1321-22. However, in every case cited by the majority, there was a trial or a post-trial motion or a district court decision on the disputed issue. The majority states that it has authority to decide this issue not presented at trial, citing *Lighting Ballast Control LLC v. Philips Electronics North America Corp.*, 790 F.3d 1329 (Fed. Cir. 2015), where the court held that the question of whether a term was governed by § 112/6 was a claim construction question for the court, not the jury, and could be appealed on final judgment on the jury verdict. There was no Rule 50 issue on appeal of the district court's decision on a motion for

JMOL. *Lighting Ballast* does not support the panel's venture herein, where there was no mention at trial of a Section 101 issue; no record, no evidence, no witness testimony, no expertise, no motion during or after trial, no argument, no district court decision, and no motion for JMOL on Section 101.

The Fifth Circuit has plainly ruled that "[f]ailure to raise an argument before the district court waives that argument." *Fruge v. Amerisure Mut. Ins. Co.*, 663 F.3d 743, 747 (5th Cir. 2011). The Fifth Circuit is clear that it "reject[s] 'the contention that ... review should depend on whether the party claims an error of law or an error of fact.' " *Feld*, 861 F.3d at 596 (quoting *Chesapeake Paper Prods. Co. v. Stone & Webster Eng'g Corp.*, 51 F.3d 1229, 1235 (4th Cir. 1995)). The Fifth Circuit has stressed that "even legal errors cannot be reviewed unless the challenging party restates its objection in a [Rule 50] motion." *Id.*

The Federal Circuit has recognized that "[d]enials of summary judgment are not appealable." *Novo Nordisk A/S v. Becton Dickinson & Co.*, 304 F.3d 1216, 1221 (Fed. Cir. 2002). Our departure today defies this classical procedural rule. Here, TCL's pre-trial motion for summary judgment was denied by the district court, no post-trial motion was filed, and Section 101 was not mentioned in the district court's final decision or requested for reconsideration. Yet the majority accepts this untried and undecided issue for our appellate decision, and decides it, overriding the judgment entered on the jury verdict. That is not fair and reasonable judicial process.

TCL cites the Federal Circuit's statement in *ePlus, Inc. v. Lawson Software, Inc.*, 700 F.3d 509 (Fed. Cir. 2012), that a party is "not required to ignore the writing on the wall and press the issue over and over again to preserve it for appeal." TCL Reply Br. 3–4. In *ePlus*, the defendant raised an indefiniteness issue in a post-trial motion for judgment as a matter of law, and although the district court held the issue waived, this court disagreed, citing the defendant's several arguments of indefiniteness of the means-plus-function claim. This "over and over" usage in *ePlus* does not excuse the total abandonment of the issue herein.

The Supreme Court reminds us that Rule 50 implements fairness:

> Moreover, the "requirement of a timely application for judgment after verdict is not an idle motion" because it "is ... an essential part of the rule, firmly grounded in principles of fairness."

***1334** *Unitherm*, 546 U.S. at 401, 126 S.Ct. 980 (quoting *Johnson v. New York, N.H. & H.R. Co.*, 344 U.S. 48, 53, 73 S.Ct. 125, 97 L.Ed. 77 (1952)); *see Johnson*, 344 U.S. at 53, 73 S.Ct. 125 ("Rewriting the rule to fit counsel's unexpressed wants and intentions would make it easy to reintroduce the same type of confusion and uncertainty the rule was adopted to end.").

In a few situations, courts have excused the inadvertent omission of a Rule 50 motion. However, such excuse is not here offered. In this case, the question of Section 101 eligibility was not pursued and not mentioned at trial and was not raised by post-trial motion. Whether viewed as abandoned or waived, the Section 101 issue is not before us for determination *ab initio* on appeal.

On accepting the appeal and deciding for itself the question of Section 101 eligibility, the majority further errs, as I next outline.

2.

The majority's decision on Section 101 is not in accord with law and precedent

Applying Supreme Court guidance on Section 101, and the now-extensive body of precedent applying that guidance, it is apparent that the claims of U.S. Patent No. 7,149,510 ("the '510 patent") are not for an abstract idea. A cursory glance at claims 1 and 5, the only claims in suit, shows their technological substance and inventive step:

> 1. A system for controlling access to a platform, the system comprising:
>
> a platform having a software services component and an interface component, the interface component having at least one interface for providing access to the software services component for enabling application domain software to be installed, loaded, and run in the platform;
>
> an access controller for controlling access to the software services component by a requesting application domain software via the at least one interface, the access controller comprising:

an interception module for receiving a request from the requesting application domain software to access the software services component;

and a decision entity for determining if the request should be granted wherein the decision entity is a security access manager, the security access manager holding access and permission policies; and

wherein the requesting application domain software is granted access to the software services component via the at least one interface if the request is granted.

5. The system according to claim 1, wherein:

the security access manager has a record of requesting application domain software; and

the security access manager determines if the request should be granted based on an identification stored in the record.

'510 patent, col. 11, ll. 2–23, 46–51.

The district court, in its pre-trial denial of summary judgment, applied the Supreme Court's two-step analysis from *Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, 573 U.S. 208, 134 S.Ct. 2347, 189 L.Ed.2d 296 (2014). Ericsson summarizes this analysis, starting with *Alice Corp.*'s Step 1:

> At Step 1, the claims are directed not to an abstract idea, but to a technological ***1335** solution to a technological problem. The district court correctly found that the claims recite a technological "system"—one using a "layered architecture" that isolates an "application domain" containing apps from phone "services" using an "interception module"—that enables users to control apps' access to phone features. That is an improvement in the operation of computers—enabling users to mitigate security risks from downloaded apps—not an abstract idea.

Ericsson Br. 18. The district court concluded that Step 1 is met and that "the claims are not directed to an abstract idea but rather to an improved technological solution to mobile phone security software." Summ. J. Order at *7.

The panel majority finds that "the claims ... require nothing more than this abstract idea" of "controlling access to, or limiting permission to, resources." Maj. Op. at 1326. The majority offers analogy to a library's requirement of a library card in order to obtain access to a book. Maj. Op. at 1327 ("Controlling access to resources ... is pervasive in human activity [such as] in libraries (loaning materials only to card-holding members)."). I agree that the idea of controlling access to library books is an ancient idea, but this does not convert every method of controlling access, no matter how novel and unobvious and technologically complex, into an ineligible abstraction. The analogy between a library card and this complex multi-layered system of computer-implemented interception, conversion, and control, does not convert the subject matter of claims 1 and 5 into an abstract idea. As the Supreme Court recognized in *KSR Int'l Co. v. Teleflex Inc.*: "We build and create by bringing to the tangible and palpable reality around us new works based on instinct, simple logic, ordinary inferences, extraordinary ideas, and sometimes even genius." 550 U.S. 398, 427, 127 S.Ct. 1727, 167 L.Ed.2d 705 (2007).

The district court also discussed Step 2 of *Alice Corp.* As summarized by Ericsson:

> The court also correctly found that, at Step 2, the claims recite an inventive, patent-eligible application of any purported underlying abstract idea. The '510 Patent's layered architecture is a specific implementation of a mobile-phone security system that was unknown in the prior art.

Ericsson Br. 18. Claims 1 and 5 are directed to a specific solution to a technological problem, as discussed in *Enfish, LLC v. Microsoft Corp.*, where claims that recited a "data storage and retrieval system" with a "logical table" that stores information, were found to be directed to "a specific type of data structure," not an abstract idea. 822 F.3d 1327, 1336, 1339 (Fed. Cir. 2016). Again in *Smart SystemsInnovations,*

LLC v. Chicago Transit Authority, this court explained that claims that are "necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks" do not recite an abstract idea. 873 F.3d 1364, 1372 (Fed Cir. 2017).

The panel majority does not discuss the district court's findings and does not apply the *Alice Corp.* criteria or draw on the guidance of precedent. Instead, the majority creates new Section 101 law. The majority observes that the technologic description in the specification is more extensive than the description in the claims, stating that only the specification describes "a particular three-layer arrangement of software, in which the bottom layer is 'arranged into vertical functional software ***1336** stacks' and 'horizontally partitioned functional software units,' " and therefore that the technology "cannot provide an inventive concept at step two because it is not recited in claims 1 or 5." Maj. Op. at ——.

The majority appears to require that all of the technologic information in the specification must be recited in the claims in order to avoid abstractness of the claims. This is a new requirement for claims, and not only conflicts with the opportunity to present claims of varying scope, but also conflicts with the principle that claims are intended to be concise statements of the patented invention as distinguished from the prior art. *See* 35 U.S.C. § 112. It is not the law and is not the practice that every descriptive and distinguishing detail from the specification must be stated in the claims.

Section 101 does not impose claim requirements beyond those of Sections 102, 103, 112, and the rest of patent law. The majority's new law of claim content brings fresh uncertainty to an already strained innovation incentive.

3.

The majority contravenes the statutory estoppel of PTAB proceedings between the same parties

Claims 1 and 5 recite the limitations of the software services component, the interface component, the access controller, the interception module, and the security access manager, in multi-layered architecture. The panel majority disposes of this claim content as irrelevant to Section 101, as "conventional applications of computer technology." Maj. Op. at 1330 (citing Summ. J. Order at *8). The district court in its denial of summary judgment had referred to the PTAB's finding that a person of ordinary skill in the art would not be "motivated to combine computer-based security software with the relevant mobile platform technology," the PTAB holding the claims patentable under Section 103. [3]

3 *TCL Corp. v. Telefonaktiebolaget LM Ericsson*, No. IPR2015-01605, 2017 WL 505375, at *9–13 (P.T.A.B. Jan. 25, 2017) ("PTAB Dec.").

The PTAB decision is final and binding as to "any ground that the petitioner raised or reasonably could have raised during that inter partes review." 35 U.S.C. § 315(e)(2). The panel majority effectively holds that the district court is not bound by the PTAB decision and findings. Maj. Op. at 1330 ("[The PTAB's] conclusion could not demonstrate that the claims here possess an inventive step because the feature that was allegedly lacking in the combination (*i.e.*, technology specific to mobile phone platforms) is not recited in the claims at issue.").

The district court had observed that a "pragmatic analysis of § 101 is facilitated by considerations analogous to those of §§ 102 and 103 as applied to the particular case," quoting *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1347 (Fed. Cir. 2015). Summ. J. Order at *8. The majority acknowledges that the district court applied the PTAB ruling and stated that a person of skill in the field of the invention would not be "motivated to combine computer-based security software with the relevant mobile platform technology." Maj. Op. at 1330(quoting Summ. J. Order at *8 (quoting PTAB Dec. at *9–13)). This PTAB decision created an estoppel in the district court. 35 U.S.C. § 315(e).

The majority holds that on appeal from the district court, we can take up issues on ***1337** which the district court is estopped. That cannot be the intent of the America Invents Act, of which estoppel is a foundation. Nonetheless, exercising liberation from the statutory estoppel, the majority finds that the system of claims 1 and 5 does not "possess an inventive step," Maj. Op. at 1330, despite the PTAB's ruling of non-obviousness. However, the PTAB ruling is final and binding between these parties.

4.

Claim limitations cannot be discarded in order to impart abstractness to the residue of the claim

The majority holds that "the bulk of the claim provides an abstract idea, and the remaining limitations provide only necessary antecedent and subsequent components." Maj. Op. at 1326. Thus the majority holds that the limitations in the claims are irrelevant, and that the claimed "necessary antecedent and subsequent components" of the "highly technical" composition of the claims are not considered in deciding whether the claims are for an abstract idea. Maj. Op. at 1326, 1328 n.2.

The majority discards the claim limitations, contrary to the Supreme Court's admonition to examine "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" of the idea. *Alice Corp.*, 573 U.S. at 217, 134 S.Ct. 2347 (internal quotation marks omitted). At the trial, witnesses described the claim limitations, including the multi-layered structure of the software services component, the middleware and the application domain layer, the access controller, and the interceptor module. Witnesses explained that all of these limitations are in the claims. This evidence must be considered with respect to Section 101 eligibility.

Section 101 is a question of law applied to specific facts. Precedent illustrates the factual nature of the inquiry into subject matter eligibility. For example, in *Aatrix Software, Inc. v. Green Shades Software, Inc.*, claims directed to a "data processing system for designing, creating, and importing data" into a "viewable form" were analyzed to apply their factual foundations to Section 101. 882 F.3d 1121, 1123, 1128 (Fed. Cir. 2018). Again in *Data Engine Technologies. LLC v. Google Inc*., claims for an "electronic spreadsheet system for storing and manipulating information" by "a specific method for navigating through three-dimensional electronic spreadsheets" were analyzed to show the non-abstract quality of the limitations to the claimed subject matter. 906 F.3d 999, 1005, 1007–08 (Fed. Cir. 2018). In *Ancora Techs., Inc. v. HTC America, Inc.*, the technology for improving security was found to be "a non-abstract computer-functionality improvement if done by a specific technique that departs from earlier approaches to solve a specific computer problem." 908 F.3d 1343, 1348 (Fed. Cir. 2018).

No evidence and no precedent supports the majority's theory that the limitations in claims 1 and 5 constitute the well understood, routine, and conventional activity that is the foundation of "abstract idea" unpatentability.

The majority further reasons that the claims are for an abstract idea because "[c]ontrolling access to resources is exactly the sort of process that 'can be performed in the human mind, or by a human using a pen and paper.' " Maj. Op. at 1327 (quoting ***1338** *CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1372 (Fed. Cir. 2011)). The majority discards the vast evidence of technological complexity and advance, and announces that the system "merely add[s] computer functionality to increase the speed or efficiency of the process." Maj. Op. at 1330. There was no evidence that this complex multi-level digital method can be performed by pen and paper.

The claimed system was not shown or suggested to be a computer substitute for pen and paper, as the majority now finds.

5.

An invention is defined by the claims, not the boiler-plate at the end of the specification

My colleagues also hold that, despite the technologically detailed claim limitations, the claims are for an abstract idea because of the final paragraph of the '510 patent specification, the terminal boiler-plate beloved of patent draftsmen. This paragraph concludes the specification as follows:

> While what has been described constitute exemplary embodiments of the invention, it should be understood that the invention can be varied in many ways without departing from the scope thereof. For example, although the present invention has been described primarily in connection with a platform for a mobile terminal for a wireless telecommunications system, the invention can also be used in connection with platforms for other products. Because the invention can be varied in many ways, it should be recognized that the invention should be limited only insofar as is required by the scope of the following claims.

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'510 patent, col. 10, ll. 57–67; *see* Maj. Op. at 1330. It is well recognized that such a generalized wrap-up does not enlarge the claims beyond what is described and enabled in the specification. *See, e.g.*, *D Three Enterprises, LLC v. SunModo Corp.*, 890 F.3d 1042, 1051 (Fed. Cir. 2018) ("This boilerplate language at the end of the ... specification is not sufficient to show adequate disclosure of the actual [invention].").

The majority's ruling that such general text converts the claimed subject matter into abstractness will import Section 101 invalidity into virtually all existing patents.

6.

Ericsson has the right to respond to TCL's Section 101 arguments on this appeal

The panel majority also holds that Ericsson waived the right to argue that the claim limitations of the interception module and the software services component contribute to Section 101 eligibility; the majority's reason is that Ericsson did not present evidence construing this technology at claim construction. Maj. Op. at 1329 ("[T]he time to make that argument would have been at claim construction."). However, these aspects were not in dispute in the infringement trial, for there was no dispute about the meaning of "interception module," no dispute about the meaning of "software services component," and no dispute about the application of these terms to TCL's system.

A party cannot have waived its right to respond to arguments and issues that are presented for the first time on appeal. *Netword, LLC v. Centraal Corp.*, 242 F.3d 1347, 1356 (Fed. Cir. 2001) ("When a potentially material issue or argument in defense of the judgment is raised for the first time ..., fundamental fairness requires ***1339** that the [opposing party] be permitted to respond."); 16A Charles A. Wright, Alan R. Miller, and Edward H. Cooper, *Federal Practice & Procedure* § 3974.3 (3d ed. 1999) (a reply is proper where the opponent "has introduced a new issue or basis for upholding [or reversing] the decision below").

Conclusion

The court errs in holding that Section 101 eligibility is before us on appeal although not decided or preserved at trial, and the court errs in holding that claims 1 and 5 are ineligible for patenting. I respectfully dissent.

All Citations

955 F.3d 1317

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ATTACHMENT 2

2020 WL 3400682
Only the Westlaw citation is currently available.
This case was not selected for
publication in West's Federal Reporter.
See Fed. Rule of Appellate Procedure 32.1
generally governing citation of judicial
decisions issued on or after Jan. 1, 2007.
See also U.S.Ct. of App. Fed. Cir. Rule 32.1.
United States Court of Appeals, Federal Circuit.

DROPBOX, INC., Orcinus
Holdings, LLC, Plaintiffs-Appellants
v.
SYNCHRONOSS TECHNOLOGIES,
INC., Defendant-Appellee

2019-1765, 2019-1767, 2019-1823
|
Decided: June 19, 2020

Appeals from the United States District Court for the Northern District of California in Nos. 5:18-cv-03685-LHK, 5:18-cv-06199-LHK, Judge Lucy H. Koh.

Attorneys and Law Firms

Gregory H. Lantier, Wilmer Cutler Pickering Hale and Dorr LLP, Washington, DC, argued for plaintiffs-appellants. Also represented by Richard Anthony Crudo; Elizabeth Bewley, Boston, MA.

Nicholas Hunt Jackson, Dentons US LLP, Washington, DC, argued for defendant-appellee. Also represented by Mark Lee Hogge, Rajesh Charles Noronha; Kevin R. Greenleaf, Lovettsville, VA; Sarah S. Eskandari, San Francisco, CA.

Before Prost, Chief Judge, Wallach and Hughes, Circuit Judges.

Opinion

Hughes, Circuit Judge.

***1** Dropbox, Inc., and its wholly owned subsidiary, Orcinus Holdings, LLC, appeal the district court's decision holding three of their patents ineligible under 35 U.S.C. § 101. We agree with the district court that the patents claim abstract ideas, and that the claims provide no inventive concept transforming the abstract idea into patentable subject matter. We therefore affirm the district court's decision.

I

In June 2018, Dropbox filed suit against Synchronoss Technologies, Inc., alleging infringement of three patents. *Dropbox, Inc. v. Synchronoss Techs., Inc.*, 371 F. Supp. 3d 668, 677 (N.D. Cal. 2019). The three asserted patents, U.S. Patent Numbers 6,178,505, 6,058,399, and 7,567,541, relate to, respectively, "Secure Delivery of Information in a Network," "File Upload Synchronization," and a "System and Method for Personal Data Backup for Mobile Customer Premises Equipment." *See* '505 Patent, title; '399 Patent, title; '541 Patent, title.

Because Orcinus Holdings owns the '541 patent, Dropbox amended its complaint to remove the '541 patent, and Orcinus Holdings filed a suit asserting the '541 patent against Synchronoss. *Dropbox,* 371 F. Supp. 3d at 677–78; *Orcinus Holdings, LLC v. Synchronoss Techs., Inc.*, 379 F. Supp. 3d 857, 861 (N.D. Cal. 2019). Synchronoss moved to dismiss the claims, arguing that the patents are invalid due to their ineligibility under 35 U.S.C. § 101. *Dropbox,* 371 F. Supp. 3d at 678. The district court agreed with Synchronoss, issuing orders holding all three patents invalid for failing to claim eligible subject matter. *See id.* at 700; *Orcinus Holdings*, 379 F. Supp. 3d at 883.

Dropbox [1] timely appealed. We have jurisdiction over the consolidated appeals under 28 U.S.C. § 1295(a)(1).

1 As did Orcinus Holdings; we refer to Orcinus collectively with its parent company as Dropbox.

II

We review a district court's dismissal for failure to state a claim under the law of the regional circuit—here, the Ninth Circuit. *Bascom Glob. Internet Servs., Inc. v. AT&T Mobility LLC*, 827 F.3d 1341, 1347 (Fed. Cir. 2016). The Ninth Circuit reviews the grant of a motion to dismiss de novo. *Skilstaf, Inc. v. CVS Caremark Corp.*, 669 F.3d 1005, 1014 (9th Cir. 2012). In evaluating a motion to dismiss, the district court need not "assume the truth of legal conclusions merely because they are cast in the form of factual allegations." *Fayer v. Vaughn*, 649 F.3d 1061, 1064 (9th Cir. 2011) (quoting *W. Min. Council v. Watt*, 643 F.2d 618, 624 (9th Cir. 1981)). "[C]onclusory allegations of law and unwarranted inferences are insufficient

to defeat a motion to dismiss." *Adams v. Johnson*, 355 F.3d 1179, 1183 (9th Cir. 2004).

"Patent eligibility under 35 U.S.C. § 101 is ultimately an issue of law we review de novo. [But] [t]he patent eligibility inquiry may contain underlying issues of fact." *Berkheimer v. HP Inc.*, 881 F.3d 1360, 1365 (Fed. Cir. 2018). For example, "[w]hether a claim 'supplies an inventive concept that renders a claim "significantly more" than an abstract idea to which it is directed is a question of law' that may include underlying factual determinations." *ChargePoint, Inc. v. SemaConnect, Inc.*, 920 F.3d 759, 773 (Fed. Cir. 2019) (quoting *BSG Tech LLC v. Buyseasons, Inc.*, 899 F.3d 1281, 1290 (Fed. Cir. 2018), in turn quoting *Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, 573 U.S. 208, 218, 134 S.Ct. 2347, 189 L.Ed.2d 296 (2014)).

***2** "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." 35 U.S.C. § 101. But the Supreme Court has "long held that this provision contains an important implicit exception: Laws of nature, natural phenomena, and abstract ideas are not patentable." *Alice*, 573 U.S. at 216, 134 S.Ct. 2347.

"To determine whether claimed subject matter is patent-eligible, we apply the two-step framework explained in *Alice*." *Koninklijke KPN N.V. v. Gemalto M2M GmbH*, 942 F.3d 1143, 1149 (Fed. Cir. 2019) (citation omitted). In the first step, we "determine whether the claims at issue are directed to a patent-ineligible concept" such as an abstract idea. *Alice*, 573 U.S. at 218, 134 S.Ct. 2347. If the claims are not directed to an abstract idea, the claims are patent eligible. If the claims are directed to an abstract idea, we proceed to the second step, in which we "examine the elements of the claim to determine whether it contains an inventive concept sufficient to transform the claimed abstract idea into a patent-eligible application." *Id.* at 221, 134 S.Ct. 2347 (internal quotation marks omitted).

Because the patents lack common features, we discuss each patent's eligibility individually. We then address an issue common to all three patents: the sufficiency of Dropbox's factual allegations of the patents' inventiveness.

A

The '505 patent, entitled "Secure Delivery of Information in a Network," was filed on March 4, 1998, and claims priority from March 1997 provisional applications. '505 Patent, cover sheet. The district court found the '505 patent "generally relate[d] to data security" and "specifically directed to 'providing only as much authentication and encryption security as is required for a given user, a given path through the network [to a given information resource], and a given [information] resource.' " *Dropbox*, 371 F. Supp. 3d at 675 (quoting '505 Patent at col. 5 l. 67–col. 6 l. 3) (alterations in original).

The district court found independent claim 1 representative, *id.* at 694; claim 1 recites

> 1. Apparatus that provides an information resource in response to a request from a user, the request including an identification of the user according to a mode of identification and the apparatus comprising:
>
> access control information including
>
> a sensitivity level associated with the resource and
>
> a trust level associated with the mode of identification; and
>
> an access checker which permits the apparatus to provide the resource only if the trust level for the mode of identification is sufficient for the sensitivity level of the resource.

'505 Patent at col. 49 ll. 2–13. Dropbox argues on appeal that the district court should have separately considered the eligibility of dependent claim 8, Appellants' Br. 37–38; claim 8 recites

> 8. The apparatus set forth in any one of claims 1 through 4 wherein:
>
> the access request is transferred via a path in a network; and
>
> the access control information further includes
>
> a path trust level associated with the path and
>
> an encryption trust level associated with an encryption method,
>
> the access checker further permitting the apparatus to provide the resource only if either the path trust level is sufficient for the sensitivity level or the access request has been encrypted with an encryption method whose encryption trust level is sufficient for the sensitivity level.

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***3** '505 Patent at col. 49 ll. 54–67.

The district court found claim 1 representative because "all the claims are substantially similar in that they are apparatus claims for a device providing data security associated with a user in response to a request for data from the user." *Dropbox*, 371 F. Supp. 3d at 695. The court rejected Dropbox's arguments that claim 8 has distinctive details because "[c]laim 8 is encapsulated in claim 1's requirement that the access checker allow access to a data resource only if prerequisite security levels are met." *Id.*

On the merits, the district court held that claim 1 was directed to "(1) associating a security level with a data resource, (2) associating a security level with a mode of identification of a user, and then (3) ensuring that the user's security level is sufficiently high to meet the security level of the data resource to access the data resource." *Id.* Such a focus constituted an abstract idea because "the claim does not provide any limits that curb how the apparatus performs these functions" and "invokes computers merely as tools to execute fundamental data access control principles," "fall[ing] squarely within the [abstract] category of controlling access to data." *Id.* at 696. The district court then found that claim 1 lacked an inventive concept because it claimed generic elements, in "purely functional terms," to "implement the abstract idea." *Id.* at 698–99.

Whether we consider claim 1 alone, or both claim 1 and claim 8, we agree with the district court that the claims of the '505 patent are ineligible. Both claim 1 and claim 8 are directed to abstract ideas. "At step one of the *Alice* framework, we '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.' " *Koninklijke*, 942 F.3d at 1149 (quoting *Affinity Labs of Tex., LLC v. DIRECTV, LLC*, 838 F.3d 1253, 1257 (Fed. Cir. 2016)). Claim 1 and claim 8's claimed advance, the "access checker" element, *see* Appellants' Br. 24, offers nothing but a functional abstraction. The specification—which refers not to an "access checker," but to an "access filter" to perform access checking—does little to instead define this abstraction as a technological solution. Instead, the specification largely treats the "access filter" as a black box. *E.g.,* '505 Patent at col. 2 l. 55–60 (describing the access filter as "a set of software and hardware components in the computer system which checks all requests from outside the internal network for information stored inside the internal network and only sends a request on into the internal network if it is from a source[ ] that has the right to access the information"). The technical aspects of the access filter, where present, are discussed only in terms of non-limiting embodiments. This is not enough to modify the focus of the claims. "[W]hen analyzing patent eligibility, reliance on the specification must always yield to the claim language in identifying [the] focus [of those claims]." *ChargePoint*, 920 F.3d at 766.

***4** Claim 8's additional elements of a "path in a network," a "path trust level," and an "encryption trust level" redirect the focus of the claims towards a technological problem. But the claims still recite no technological solution. The access checker "black box" just considers additional factors. *See, e.g.*, '505 Patent at col. 19 ll. 37–50. "Improving security ... can be a non-abstract computer-functionality improvement *if done by a specific technique* that departs from earlier approaches to solve a specific computer problem." *Ancora Techs., Inc. v. HTC Am., Inc.*, 908 F.3d 1343, 1348 (Fed. Cir. 2018), *as amended* (Nov. 20, 2018) (emphasis added). This is not a "specific technique" for improving a computer, but a change in the abstraction providing the fundamental principles for access filters.

Dropbox makes much of passages in the specification asserting that the '505 patent solved a technological problem. But that is not enough. The patent has to describe *how* to solve the problem in a manner that encompasses something more than the "principle in the abstract." *See ChargePoint*, 920 F.3d at 769 (explaining that an invention may not be patent eligible if the "claims 'were drafted in such a result-oriented way that they amounted to encompassing the 'principle in the abstract' no matter how implemented' " (quoting *Interval Licensing LLC v. AOL, Inc.*, 896 F.3d 1335, 1343 (Fed. Cir. 2018))); *see also Finjan, Inc. v. Blue Coat Sys., Inc.*, 879 F.3d 1299, 1305 (Fed. Cir. 2018) ("[A] result, even an innovative result, is not itself patentable."). And, that solution has to be evident from the claims. *See ChargePoint*, 920 F.3d at 766.

Moving to step two, neither claim 1 nor claim 8 recites an inventive concept that would render its subject matter patent eligible. The district court's findings on claim 1—that it recites conventional elements in a purely functional manner, without implementation detail even in the specification, *see Dropbox*, 371 F. Supp. 3d at 698—apply to claim 8 with equal force. The additional elements of "path trust level" and "encryption trust level" in claim 8 merely provide additional criteria for the "access checker" to consider. *Cf. id.* at 695 (holding claim 1 representative of claim 8 because "[c]laim 8 similarly requires performance of the same basic process and

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is linked to the same idea as claim 1 because claim 8 discloses the access checker restricting access to the data resource based on the path the resource takes through the network [and the encryption level]").

When implemented, these elements may well provide a more "economically secure way to transmit data to a user over a network." Appellants' Br. 42. The problem here, compared to the patents in *BASCOM* and *Amdocs*, arises from the manner in which the patent claims the "inventive concept." *See BASCOM Glob. Internet Servs. v. AT&T Mobility LLC*, 827 F.3d 1341 (Fed. Cir. 2016); *Amdocs (Isr.) Ltd. v. Openet Telecom, Inc.*, 841 F.3d 1288 (Fed. Cir. 2016). Our cases have consistently held that an "inventive concept" exists when a claim "recite[s] a specific, discrete implementation of the abstract idea" where the "particular arrangement of elements is a technical improvement over [the] prior art." *BASCOM*, 827 F.3d at 1350. This focus on specificity dovetails with concerns about preemption. *See Amdocs*, 841 F.3d at 1306 (finding claims eligible at step two because "they describe a specific, unconventional technological solution, narrowly drawn to withstand preemption concerns, to a technological problem"). Claims 1 and 8 of the '505 patent, when read in light of the specification, do not withstand this requirement for a specific, discrete implementation of the abstract idea. At best, the claims recite the application of an abstract idea using conventional and well-understood techniques specified in broad, functional language. But we have held that the abstract idea to which a claim is directed cannot supply the inventive concept, and, moreover, if a claim amounts to merely "the application of an abstract idea using conventional and well-understood techniques, the claim has not been transformed into a patent-eligible application of the abstract idea." *BSG Tech LLC v. Buyseasons, Inc.*, 899 F.3d 1281, 1290–91 (Fed. Cir. 2018).

***5** We therefore affirm the district court's decision holding the '505 patent invalid as ineligible under § 101.

B

The '399 patent, entitled "File Upload Synchronization," was filed on August 28, 1997, and issued May 2, 2000. '399 Patent, cover sheet. The district court found the patent "directed to combining the user interface of an interactive connection, like a website, with a file upload connection, such as an FTP (file transfer protocol) connection" or "[i]n layman's terms ... combining a user-friendly website interface with a file upload connection so that users who are not tech-savvy can easily upload data to a service provider." *Dropbox*, 371 F. Supp. 3d. at 673–74. The district court found claims 1, 25, 43, and 46 representative. *Id.* at 675 n.1. On appeal, Dropbox focuses on only claims 1 and 25. *See, e.g.*, Appellants' Br. 51, 54. Claim 1 recites

> 1. A method of synchronizing an interactive connection and a non-interactive data transfer connection between a client and a service provider, comprising:
>
> creating an interactive connection;
>
> creating a data transfer connection; and
>
> generating a single session ID for the two connections, which ID associates between the two connections.

'399 Patent at col. 11 ll. 58–64. Claim 25 recites

> 25. Apparatus for uploading data files, comprising:
>
> a file upload connection server;
>
> an interactive connection server; and
>
> a synchronizer which synchronizes the operation of respective connections formed by the file upload connection server and by the interactive connection server.

Id. at col. 13 ll. 19–24.

The district court found claim 1 "simple" and directed to "the abstract idea of exchanging data using a computer," in part because claim 1 recites elements in only "very broad, functional terms." *Dropbox*, 371 F. Supp. 3d. at 687. According to the court, the patent's claimed advance —generating a single session ID linking the interactive connection and the data transfer connection—"is simply a label by which the connections are identified[,] ... hardly a specific improvement on computer functionality or a nongeneralized computer activity" but "the well-known and abstract concept of data recognition." *Id.* at 688. The court found that, although claim 25 "tacks onto" claim 1 a "synchronizer" limitation, the limitation recites only "the process of identifying the data exchanged[,] ... an abstract idea involving the recognition of data." *Id.* at 688–89. The court further held that the claims' elements did not provide an inventive concept individually or in combination. *Id.* at 690–91.

We again agree with the district court's analysis. Claims 1 and 25 are directed to an abstract idea. Dropbox has conceded the abstract character of all claimed elements except the limitations of (1) the "generating a single session ID for the two connections, which ID associates between the two connections" step in claim 1, and (2) the "synchronizer which synchronizes the operation of respective connections formed by the file upload connection server and by the interactive connection server" element in claim 25. Dropbox alleges that the district court ignored the "importance of the specifically disclosed *synchronization* process between, for example, a WWW session and an FTP session, which enabled large uploads to take place in a secure and user-friendly manner." Appellants' Br. 48–49.

***6** Whatever result the patent attributes to the synchronizer and session ID matters little because the '399 patent claims its improvements in an abstract manner. To be patent eligible, software inventions must make "*non-abstract improvements* to existing technological processes and computer technology." *Koninklijke*, 942 F.3d at 1150 (emphasis added). To claim a technological solution to a technological problem, the patent must actually *claim* the *technological solution.* Neither a single session ID associating between the two connections nor a synchronizer synchronizing the operation amount to a *non-abstract* improvement—that is, a technological solution. "The 'novelty' of any element or steps in a process, or even of the process itself, is of no relevance in determining whether the subject matter of a claim falls within the § 101 categories of possibly patentable subject matter." *Diamond v. Diehr*, 450 U.S. 175, 188–89, 101 S.Ct. 1048, 67 L.Ed.2d 155 (1981).

Nothing in the claims—or the specification's definition of the claimed elements—delineates the session ID or the synchronizer in a manner providing a specific technique for how these "combin[e] the advantages of the FTP and WWW sessions while avoiding their respective drawbacks," as Dropbox suggests. Appellants' Br. 24. Instead, the claims and written description relate to the functional result of the claimed abstractions. *See, e.g.,* '399 Patent at col. 3. ll. 38–42 ("In *a preferred embodiment* of the invention, the service provider includes a synchronizing process which supplies the unique session ID and synchronizes the operation of the FTP server and the WWW server." (emphasis added)), col. 4 ll. 34–37 ("Preferably, said synchronizer generates a single session ID for two associated sessions, each on a different one of said servers."). Even if it did provide meaningful detail, "a specification full of technical details about a physical invention may nonetheless conclude with claims that claim nothing more than the broad law or abstract idea underlying the claims, thus preempting all use of that law or idea." *ChargePoint*, 920 F.3d at 769.

Nor do claims 1 or 25 recite an inventive concept. According to Dropbox, the '399 patent describes a result of an "unconventional hybrid creation: one that combined the advantages of prior-art technologies without their disadvantages." Appellants' Br. 53. But the '399 patent does not meaningfully claim or even describe this "hybrid creation." Dropbox does not point to anything in the patent—much less the claims—that shows how the "single session ID" or "synchronizer" embody this purported inventive concept rather than the application of the abstract "synchronizer" and "session ID" to otherwise routine and conventional technology. Just like with the '505 patent, the claims merely apply an abstract idea using conventional and well-understood techniques; such claims do not contain an inventive concept at step two. *See, e.g.*, *BSG Tech*, 899 F.3d at 1290–91.

We affirm the district court's decision holding the '399 patent invalid as ineligible under § 101.

C

The '541 patent, entitled "System and Method for Personal Data Backup for Mobile Customer Premises Equipment," was filed on October 19, 2005, and claims priority from an October 2004 provisional application. '541 Patent, cover sheet. The district court explained the '541 patent as directed to "uploading and downloading data from a [mobile device, such as a cellphone, PDA, or iPod] to a server by way of a mobile network." *Orcinus Holdings*, 379 F. Supp. 3d at 862. The parties agree independent claim 1 is illustrative. *See* Appellants' Br. 21–22; Appellee's Br. 14–15. Claim 1 recites

> 1. A method for backing up data stored on a mobile customer premises equipment comprising the steps of:
>
> storing data at the mobile customer premises equipment;
>
> ***7** formatting the data stored at the mobile customer premises equipment into fields by determining data fields, identifying which portions of said data correspond to a respective data field, and tagging said data[;]

> transmitting the data with a user ID from the mobile customer premises equipment across a mobile network to a server for storage;
>
> retrieving said data from said server across a mobile network in response to one of an expiration of time and request from said mobile customer premises equipment by transmitting said data to said mobile customer premises equipment; and
>
> transmitting said data to said mobile customer premises equipment by transmitting the data in more than one information signal and sequentially numbering each of said information signals.

'541 Patent at col. 10 l. 52–col. 11 l. 4.

According to the district court, "[c]laim 1 is straight-forward" and "abstract because first, it only discloses generalized steps to carry out generic computer functions, and second, because there are long-standing practices analogous to the claimed steps." *Orcinus Holdings*, 379 F. Supp. 3d at 874. In a short, alternative analysis, the district court found claim 1 abstract because it recited essentially the same process as a person manually transferring data from one mobile device to another, with the person herself acting as the "server." *Id.* at 878–79. In its longer, main analysis, the district court focused on how the features corresponded to generalized steps carrying out generic computer functions. The district court pointed out how the specification itself declares each element of the claim to be a generic computer component. *Id.* at 874–75. The district court found that the patent fails to provide specific explanations or technical details describing how it improves the functionality of the generic components; it therefore found claim 1 directed to an abstract idea because "claim 1 discloses well-known steps to be executed on generic computing devices." *Id.* at 877. The court further found that none of the components individually claimed an inventive concept because they were all concededly generic. *Id.* at 879–80. Nor, per the court, did the elements do so as an ordered combination, because they were arranged in a conventional manner. *Id.* at 881.

We agree with the district court once more. Claim 1 is directed to an abstract idea. The nature of the "claimed advance" of the patent—which Dropbox asserts to be "a unified tag and data structure," including transmitting data with an accompanying user ID and "remote server synchronization for wirelessly backing up data," Appellants' Br. 20–21—reveals an abstract idea at the heart of claim 1. " '[G]eneralized steps to be performed on a computer using conventional computer activity' are abstract[.]" *RecogniCorp, LLC v. Nintendo Co.*, 855 F.3d 1322, 1326 (Fed. Cir. 2017) (quoting *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1338 (Fed. Cir. 2016)), *cert. denied*, —— U.S. ——, 138 S. Ct. 672, 199 L.Ed.2d 535 (2018). "Formatting" data, "tagging" data, "transmitting" data, and "retrieving" data are generalized steps to be performed on a computer using conventional computer activity. Their combination may allow "wireless backup of cellphone data." Appellants' Br. 56 (emphasis omitted). But the claim provides less of "a specific means or method" than "a result or effect that itself is the abstract idea and merely invokes generic processes and machinery." *Two-Way Media Ltd. v. Comcast Cable Commc'ns, LLC*, 874 F.3d 1329, 1337 (Fed. Cir. 2017).

***8** Nor do these data tagging and remote synchronization steps yield an inventive concept. The '541 patent itself teaches that the two allegedly inventive concepts were routine and conventional. '541 Patent at col. 3 ll. 24–29, 34–36. Dropbox argues that the combination of the two concepts is inventive because "[t]he '541 patent's data structure allows the data to be formatted in a way that makes data transfer reliable and efficient." Appellants' Br. 60. But "[t]o save a patent at step two, an inventive concept must *be evident in the claims*." *Two-Way Media*, 874 F.3d at 1338 (emphasis added). But no data structures—much less any inventive data structures—are evident in the claims. "[F]ormatting the data ... into fields ... and tagging said data" as recited in claim 1 does not describe an inventive data structure. The specification itself contradicts Dropbox's claim that the patent teaches an inventive data structure, explaining that the data structure "may be defined by a [mobile device] manufacturer," and that methods known in the art (such as XML or html) "may be used to create the data structure." '541 Patent at col. 3 ll. 36–37, col. 6 ll. 60–61.

We affirm the district court's decision holding the '541 patent invalid as ineligible under § 101.

D

Dropbox argues, for all three patents, that it pled sufficient factual allegations of an inventive concept to defeat a motion to dismiss. The district court rejected this argument, holding that the complaints failed to allege "fact questions that cannot be resolved on a Rule 12 motion" for all three patents. *Dropbox*, 371 F. Supp. 3d at 693; *see id.* at 699–700;

Orcinus Holdings, 379 F. Supp. 3d at 882. The district court explained that "the 5 paragraphs of the amended complaint to which [Dropbox] cites in [its] opposition vaguely allege how the '505 Patent [for example] is an advancement over the prior art." *Dropbox*, 371 F. Supp. 3d at 699. According to the district court, Dropbox presented "no *specific* factual allegations or references to the [patent] specification[s]—which might disclose that the invention is an improvement over the prior art...." *Id.* For both the '505 and '399 patents, the district court held that the unsupported factual allegations constituted merely "attorney arguments ... attempting to manufacture a factual question," and therefore were not sufficient to defeat a motion to dismiss. *Id.* at 700; *see id.* at 693. Regarding the '541 patent, the district court also found that Dropbox's attorney argument could not establish a factual dispute preventing dismissal "because the purported improvements over the prior art have not been captured in the claim language." *Orcinus Holdings*, 379 F. Supp. 3d at 882.

We agree with the district court that Dropbox's complaint asserts only conclusory allegations insufficient to survive a motion to dismiss. Dropbox's allegations restate the claim elements and append a conclusory statement that "nothing in the specification describes these concepts as well-understood, routine, or conventional." *E.g.,* First Amended Complaint ¶¶ 20–27, *Dropbox, Inc. v. Synchronoss Techs., Inc.*, No. 5:18-cv-03685-LHK, ECF No. 49 (N.D. Cal. Oct. 22, 2018). The allegations claim that each of the patents solves given technological problems, but never provide more support than a conclusory statement that "the inventions described and claimed ... solved these problems," improved the art, "represented a significant advance over existing approaches[,] and were not well-known, routine, or conventional in the field" at the time of patenting. *E.g., id.* ¶¶ 50–51. These pleadings provide no more than a series of legal conclusion about the § 101 analysis. When considering a motion to dismiss, courts "must take all the factual allegations in the complaint as true"—but "are not bound to accept as true a legal conclusion couched as a factual allegation." *Papasan v. Allain*, 478 U.S. 265, 286, 106 S.Ct. 2932, 92 L.Ed.2d 209 (1986).

"[A]ny allegation about inventiveness, wholly divorced from the claims or the specification" does not defeat a motion to dismiss; only "plausible and specific factual allegations that *aspects of the claims* are inventive are sufficient." *Cellspin Soft, Inc. v. Fitbit, Inc.*, 927 F.3d 1306, 1317 (Fed. Cir. 2019) (emphasis added), *cert. denied sub nom. Garmin USA, Inc. v. Cellspin Soft, Inc.*, —— U.S. ——, 140 S. Ct. 907, 205 L.Ed.2d 459 (2020). The complaint in *Cellspin* identified how the specific techniques recited in the claims were inventive. *See id.* at 1317–18. Dropbox's complaint, on the other hand, merely provides a conclusory allegation that "[t]he inventions described and claimed in the '505 [p]atent [for example] solved these problems," *e.g.,* Complaint ¶ 50, or that "[t]he '541 [p]atent [for example] describes and claims a number of novel and inventive approaches to data backup ... captured in" the claims of the patent, Complaint ¶ 23, *Orcinus Holdings, LLC v. Synchronoss Techs., Inc.*, No. 5:18-cv-06199-LHK, ECF No. 1 (N.D. Cal. Oct. 10, 2018). These sorts of conclusory pleadings are insufficient to survive a motion to dismiss.

III

***9** We have considered the parties' remaining arguments and find them unpersuasive. We affirm the district court's decisions holding the '505, '399, and '541 patents invalid as ineligible under § 101.

AFFIRMED

All Citations

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