

No.

IN THE
Supreme Court of the United States

ERICSSON INC., TELEFONAKTIEBOLAGET LM ERICSSON,
Petitioners,

v.

TCL COMMUNICATION TECHNOLOGY
HOLDINGS, LIMITED, TCT MOBILE LIMITED,
TCT MOBILE (US) INC.,
Respondents.

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

PETITION FOR A WRIT OF CERTIORARI

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QUESTIONS PRESENTED

Federal Rule of Civil Procedure 50 requires a party that loses at trial to move for judgment as a matter of law, both at the close of evidence and following the verdict. “[A]bsent such a motion, * * * an appellate court is ‘powerless’ to review” the claimed basis for setting aside the resulting judgment. *Ortiz v. Jordan*, 532 U.S. 180, 189 (2011). Consistent with that, pretrial orders denying summary judgment generally are not themselves reviewable after trial. Once trial has taken place, the case is reviewed based on the actual “evidence received in court.” *Id.* at 184. The questions presented are:

1. Whether, notwithstanding the ordinary rule that a pretrial denial of a motion for summary judgment is not reviewable on appeal, there is an exception for summary-judgment decisions that turn solely on “legal issues.”
2. Whether an order denying summary judgment can be reviewed following trial, at the discretion of the court of appeals, notwithstanding a party’s failure to seek judgment as a matter of law on those grounds under Rule 50.

PARTIES TO THE PROCEEDINGS BELOW

Petitioners Ericsson Inc. and Telefonaktiebolaget LM Ericsson were the plaintiffs in the district court and the appellees in the court of appeals.

Respondents TCL Communication Technology Holdings, Limited; TCT Mobile Limited; and TCT Mobile (US) Inc. were the defendants in the district court and the appellants in the court of appeals.

CORPORATE DISCLOSURE STATEMENT

Pursuant to this Court's Rule 29.6, petitioners Ericsson Inc. and Telefonaktiebolaget LM Ericsson state that Ericsson Inc. is a subsidiary of Ericsson Holding II, Inc. and Telefonaktiebolaget LM Ericsson. Telefonaktiebolaget LM Ericsson has no parent corporation and no company owns 10% or more of its stock.

STATEMENT OF RELATED PROCEEDINGS

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

- *Ericsson Inc., et al. v. TCL Communication Technology Holdings Ltd., et al.*, No. 2018-2003 (Fed. Cir.), judgment entered on April 14, 2020; and
- *Ericsson Inc., et al. v. TCL Communication Technology Holdings Ltd., et al.*, No. 2:15-cv-00011-RSP (E.D. Tex.), judgment entered on May 10, 2018.

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PETITION FOR A WRIT OF CERTIORARI

Ericsson Inc. and Telefonaktiebolaget LM Ericsson (together “Ericsson”) respectfully petition for a writ of certiorari to review the judgment of the United States Court of Appeals for the Federal Circuit in this case.

OPINIONS BELOW

The court of appeals’ opinion (App., *infra*, 1a-40a) is reported at 955 F.3d 1317. The district court’s opinion denying TCL’s post-trial motions (App., *infra*, 41a-81a) and its opinion denying TCL’s motion for summary judgment (App., *infra*, 82a-121a) are unreported.

STATEMENT OF JURISDICTION

The court of appeals entered judgment on April 14, 2020, App., *infra*, 1a-40a, and denied rehearing on Sep-

tember 15, 2020, App., *infra*, 122a-123a. By general order, the Court extended the time to file this petition to February 12, 2021. This Court has jurisdiction under 28 U.S.C. § 1254(1).

STATUTORY PROVISION AND FEDERAL RULE INVOLVED

Relevant portions of Federal Rule of Civil Procedure 50 and 35 U.S.C. § 101 are set forth in the Appendix. App., *infra*, 124a-127a.

PRELIMINARY STATEMENT

In *Ortiz v. Jordan*, 562 U.S. 180, 184 (2011), this Court held that parties ordinarily cannot “appeal an order denying summary judgment after a full trial on the merits.” Invoking *Unitherm Food Systems, Inc. v. Swift-Eckrich, Inc.*, 546 U.S. 394, 405 (2006), the Court further declared that parties cannot obtain a judgment in their favor on appeal following an adverse jury verdict unless they sought judgment as a matter of law under Federal Rule of Civil Procedure 50 in the trial court. Absent such a motion, the Court reiterated, the court of appeals is “powerless” to set aside the jury verdict and direct the entry of judgment for the defendant. *Ortiz*, 562 U.S. at 189.

In the decision below, the Federal Circuit created an “exception” to each of those rules. Overturning a \$75 million jury verdict for Ericsson, a divided panel ordered that judgment be entered for the defendant based on grounds never asserted post-trial under Rule 50, and raised only in an unsuccessful summary-judgment motion. In creating an exception to the general rule that denials of summary judgment are not appealable, the Federal Circuit exacerbated a circuit conflict over whether and when courts of appeals can, consistent with *Ortiz*, review orders denying summary judgment after trial on the merits. The Federal Circuit further held it

can, as a matter of discretion, overturn a jury verdict on grounds never asserted by the defendant under Rule 50. That ruling conflicts with the decisions of multiple circuits. And it cannot be reconciled with *Unitherm's* holding that an appellate court is “powerless” to review arguments not previously raised under Rule 50.

STATEMENT

Petitioner Ericsson is a leader in wireless telecommunications. It has developed and patented pathmarking technologies (such as Bluetooth) that enhance the speed, reliability, and security of mobile telephones. Respondent TCL makes low-cost mobile phones. This case arises out of TCL’s unauthorized use of Ericsson’s patented technology—in particular, its infringement of U.S. Patent No. 7,149,510 (the ‘510 patent). After trial, the jury awarded Ericsson \$75 million in damages, finding that TCL had willfully infringed Ericsson’s valid patent. On appeal, the Federal Circuit reversed and directed entry of judgment for TCL, holding the ‘510 patent invalid, even though TCL never challenged patent validity postverdict under Rule 50.

I. LEGAL FRAMEWORK

The Federal Rules of Civil Procedure provide a reticulated framework for resolving issues as a matter of law before, during, or after trial.

A. Summary Judgment Under Rule 56

Under Rule 56, district courts may grant summary judgment on a “claim or defense” where “there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law.” Fed. R. Civ. P. 56(a). Such motions are resolved by reference to a “record” that anticipates the evidence the parties will adduce at trial. Fed. R. Civ. P. 56(c)(1)(A). Courts consider, for example, “affidavit[s] or declaration[s]” from potential witnesses that “set out facts that would be

admissible in evidence” at trial. Fed. R. Civ. P. 56(c)(4). They also rely on “documents,” “electronically stored information,” and other materials that could, at trial, be “presented in a form admissible in evidence.” Fed. R. Civ. P. 56(c)(1)(A), (c)(2). A court may grant summary judgment only when no reasonable factfinder could find for the non-moving party. See *Celotex Corp. v. Catrett*, 477 U.S. 317, 322-323 (1986); *Nebraska v. Wyoming*, 507 U.S. 584, 590 (1993); *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 250-252 (1986).

While an order granting summary judgment can end litigation with respect to a claim or defense, an order denying summary judgment “does not settle or even tentatively decide anything about the merits of the claim. It is strictly a pretrial order that decides only one thing—that the case should go to trial.” *Switzerland Cheese Ass’n, Inc. v. E. Horne’s Market, Inc.*, 385 U.S. 23, 25 (1966). Thus, where a summary-judgment motion is denied, the moving party is free to “rais[e]” again “any of the issues dealt with on the motion.” 10A C. Wright & A. Miller, *Federal Practice and Procedure*, §2712 (3d ed.).

Once a case is tried, earlier “denials of summary judgment are old news.” *Kreg Therapeutics, Inc. v. VitalGo, Inc.*, 919 F.3d 405, 416 (7th Cir. 2019). After a trial, the “full record developed in court supersedes the record existing at the time of the summary-judgment motion.” *Ortiz v. Jordan*, 562 U.S. 180, 184 (2011). The slate is wiped clean in other ways as well. For example, “failure to challenge admissibility” of evidence “at the summary-judgment stage” does not preclude challenges at trial; and facts “considered undisputed” for Rule 56 purposes may be contested “in further proceedings.” Fed. R. Civ. P. 56 advisory comm. note to 2010 amendment. Claims and defenses raised at the summary-judgment stage do not “vanish.” *Ortiz*, 562 U.S. at 184. But the moving

party must raise those claims and defenses at trial to “be evaluated in light of the character and quality of the evidence received in court.” *Ibid.*

Consistent with that, orders *denying* summary judgment ordinarily are not appealable once there has been a trial on the merits. Thus, in *Ortiz*, this Court granted review to decide whether a party can “appeal an order denying summary judgment after a full trial on the merits.” 562 U.S. at 184. The “answer,” the Court held, “is no.” *Ibid.* The “jurisdiction of a Courts of Appeals * * * extends only to ‘appeals from . . . final decisions of the district courts.’” *Id.* at 188 (quoting 28 U.S.C. §1291). Decisions denying summary judgment are not “final decisions”—they are “interlocutory” rulings, “simply a step along the route to final judgment.” *Ibid.* Moreover, once a summary-judgment motion is denied and the “case proceeds to trial,” the motion (and the pre-trial record on which it is based) is “supersede[d].” *Id.* at 184. Consequently, “defense[s]” raised on summary judgment must be asserted again at trial based on the “evidence received in court.” *Ibid.* Applying those rules to the case before it, *Ortiz* held that the court of appeals could not overturn a jury verdict for the plaintiff in a § 1983 action by purporting to reverse the district court’s denial of qualified immunity at the summary-judgment stage. *Ibid.* *Ortiz* left open, however, whether there might be exceptions for summary-judgment rulings that, for example, address “‘purely legal’ issues capable of resolution ‘with reference only to undisputed facts.’” *Id.* at 190. This case raises precisely that issue.

B. Judgment as a Matter of Law Under Rule 50

Once the case goes to trial, parties may seek judgment as a matter of law under Rule 50. Parties must file a motion for judgment as a matter of law “before the case is submitted to the jury” under Rule 50(a). Fed. R. Civ.

P. 50(a)(2). The district court may grant “judgment as a matter of law against the party on a claim or defense” if it “finds that a reasonable jury would not have a legally sufficient evidentiary basis to find for the party” on the claim or defense. Fed. R. Civ. P. 50(a)(1)(A)-(B); see *Reeves v. Sanderson Plumbing Prods., Inc.*, 530 U.S. 133, 150 (2000).

“If the court does not grant” the pre-verdict Rule 50(a) motion, the court is deemed “to have submitted the action to the jury subject to the court’s later deciding the legal questions raised by the [Rule 50(a)] motion.” Fed. R. Civ. P. 50(b). Following verdict, the losing party must “file a renewed motion” for judgment as a matter of law under Rule 50(b). *Ibid.*

Where a party seeks judgment as a matter of law before verdict under Rule 50(a), and postverdict under Rule 50(b), the district court’s grant or denial of those motions is reviewable on appeal in connection with the resulting final judgment. See Wright & Miller, *supra*, §3915.5. Failure to file the necessary Rule 50 motions, however, precludes the party from seeking entry of judgment as a matter of law on appeal. “[A] party’s failure to file a postverdict motion under Rule 50(b)” leaves an appellate court without “power to direct the District Court to enter judgment contrary to the one it has permitted to stand.” *Unitherm*, 546 U.S. at 400-401 (quoting *Cone v. W. Va. Pulp & Paper Co.*, 330 U.S. 212, 218 (1947)).

II. PROCEEDINGS BELOW

This case arises out of TCL’s willful infringement of Ericsson’s patented technology for enhancing the security of mobile phones.

A. Ericsson's Patented Security Technology

Ericsson, a pioneer in 3G mobile phones, recognized that 3G phones would be a game-changing advance. C.A.App. 129. The prior-generation 1G and 2G mobile phones had a fixed set of functionalities, such as placing phone calls and sending text messages. *Ibid.* They were sold as “complete” systems, with all “the hardware and software needed to provide the features and capabilities” specified by the phone maker or cellular service provider. *Ibid.*

3G technology promised high-speed Internet access, enabling new features such as web-browsing, streaming, and GPS mapping. C.A.App. 129. Ericsson recognized that the approach used for 1G and 2G phones—shipping phones with fixed software packages that users could not expand—would be inadequate in the 3G era. Taking advantage of 3G's full potential would require “flexib[le]” phones that could support user-installed software “applications” downloaded from the Internet. *Ibid.*

Allowing users to download apps raised security concerns. With 1G and 2G phones, phone makers had total control over phone software and could guarantee that everything “behaved,” respecting security and privacy rules. C.A.App. 129. Downloaded apps, by contrast, could compromise phone “integrity” and user security and privacy. *Ibid.* A malicious app could “turn on the microphone and eavesdrop,” C.A.App. 10174, or “initiat[e] cost incurring” transactions without user permission, C.A.App. 129.

Ericsson solved that problem with a new system for controlling whether each downloaded app could access sensitive phone hardware and data—the invention disclosed in the '510 patent. The invention discloses a “[m]ethod and system for controlling access to a platform for a mobile terminal [*i.e.*, a mobile phone].” C.A.App.

118. It works by using a novel, multi-layered software architecture. C.A.App. 131(5:24). The bottom layer is the “software services component,” which comprises separate “functional software units for providing services that are offered to users.” C.A.App. 130(4:21-23). These include “hardware driver software” for controlling devices such as the camera or microphone; “structured storage services” for data; and components for providing “basic system services,” such as receiving user input, used by all apps. C.A.App. 131(5:1, 5:40, 5:44-46). The top layer is the “Application Domain” comprising downloaded apps. C.A.App. 130(3:45). An “Application Manager” “handles the registration, installation, * * * and removal” of applications in the application domain. C.A.App. 132(7:46-47).

To operate, apps residing in the application domain (*e.g.*, a social-media app) need access to sensitive components in the software services layer, such as the “driver software” that controls the phone’s camera and microphone. C.A.App. 131. Under the invention, the app is “isolate[d]” from those services and can access them only through “well-defined interface[s].” *Ibid.* When an app seeks resources in the software services layer, an “Interception Module” prevents unrestricted access; access is granted or denied based on user-established security choices. C.A.App. 132. “[R]equests from the applications are subject to access control via [the] Interception Module before they are passed on to * * * services.” C.A.App. 132(7:11-13). The interception module consults the phone’s “security policies” to decide whether “to grant access.” C.A.App. 132(7:52). “If the permission request is granted, * * * the service request is forwarded to the native platform service * * * [and] then executed.” C.A.App. 132(8:15-18). “If the permission request is denied, * * * a reject response is sent.” C.A.App. 132(8:18-20).

The structural separation enabled by the invention’s multi-layer architecture offers users precise control over downloaded apps. For example, a user can authorize a social-media app to access the camera, while barring it from accessing the microphone. Other apps can be barred from accessing either. Permission can be revoked at any time—for example, if a security vulnerability is discovered in an already-installed app.

B. District Court Proceedings

TCL’s phones have long infringed Ericsson’s ’510 patent. C.A.App. 58-59. After spending years trying to convince TCL to obtain a license, Ericsson in 2015 sued TCL for infringing the ’510 patent. *Ibid.* TCL counter-claimed for a declaratory judgment that the ’510 patent was invalid. App., *infra*, 85a. TCL also filed three petitions for *inter partes* review of the ’510 patent, but the Patent Trial and Appeal Board (“PTAB”) upheld the validity of the ’510 patent, finding it a non-obvious advance over prior systems. C.A.App. 5045, 5059-5061.¹

In district court, TCL moved for summary judgment. TCL urged that the ’510 patent was invalid under 35 U.S.C. §101 because it claimed the abstract idea of a “gatekeeper.” C.A.App. 1087-1102. Denying the motion, the court was “not persuaded that the claims [were] directed to an abstract idea” under Step 1 of *Alice Corp. Pty. Ltd. v. CLS Bank International*, 573 U.S. 208 (2014). App., *infra*, 97a. Relying on the “technical details of the

¹ The PTAB distinguished prior techniques that prohibited all apps from accessing anything other than the same “limited set of resources,” which precluded individual control over resources available to each app. C.A.App. 5061. Other prior techniques, like those used for personal computers, were “too memory-consuming” for “resource-constrained” devices like mobile phones. C.A.App. 5070-5072.

claimed system,” the court was persuaded that the claims were better characterized as covering an “improved technological solution to mobile phone security software.” *Id.* at 98a. “Even if the claims were directed to an abstract idea,” moreover, the district court was not convinced they would not be patentable under *Alice*’s Step 2. *Ibid.* They encompassed a “technological improvement” to conventional security technology that addressed “the problem of limited memory and resources on mobile phones.” *Id.* at 99a. The district court thus “denied” TCL’s summary-judgment motion. *Ibid.*

The district court did not, however, end any aspect of the litigation. It did not enter partial judgment (of no invalidity) in Ericsson’s favor. App., *infra*, 99a. Nor did the district court dismiss TCL’s counterclaim seeking a declaration that the ’510 patent is invalid. *Id.* at 85a.

At trial, TCL did not address or present evidence to support its position under § 101. TCL did not raise § 101 at the close of evidence or when it moved for judgment under Rule 50(a). C.A.App. 10881-10882. Nor did TCL argue that the patent claims were invalid under § 101 after the jury found TCL had willfully infringed, when TCL filed a renewed motion for judgment as a matter of law under Rule 50(b). C.A.App. 1165-1187. The district court then rejected the arguments that TCL did raise in its Rule 50 motion (which addressed infringement and damages). App., *infra*, 43a-57a, 79a.

C. Federal Circuit Proceedings

A divided panel of the Federal Circuit reversed, holding the patent claims invalid under 35 U.S.C. § 101. App., *infra*, 1a-40a.

1. The panel recognized that TCL had raised § 101 only in an unsuccessful summary-judgment motion; that denials of summary judgment are not ordinarily appealable; and that TCL had not raised § 101 when seeking

judgment as a matter of law under Rule 50. App., *infra*, 4a-11a. But the panel majority asserted that it could review the district court’s “decision * * * denying summary judgment” for two “independent reasons.” *Id.* at 2a, 4a. First, it stated, “[p]atent eligibility under § 101 is an issue of law.” *Id.* at 4a. Although “the inquiry may sometimes contain underlying issues of fact,” the district court’s decision in this case was based on “analysis of the claim language * * * and was not dependent on any factual issues.” *Ibid.* Accordingly, the majority characterized the district court order denying TCL’s summary-judgment motion as “effectively enter[ing] judgment of eligibility to Ericsson.” *Id.* at 5a.

In support, the majority invoked *Lighting Ballast Control LLC v. Philips Electronics North America Corp.*, 790 F.3d 1329 (Fed. Cir. 2015). In that case, the Federal Circuit had deemed a decision denying summary judgment “appealable” because, rather than finding that “issues of fact preclude[ed] judgment,” the decision had invoked legal grounds. App., *infra*, 5a. The Federal Circuit suggested that the Fifth Circuit likely would reach the same result here. App., *infra*, 5a-6a.

The majority further held that, even if such a ruling were not itself appealable, ordinary waiver principles afforded it authority to excuse TCL’s failure to file a motion for judgment as a matter of law under Rule 50. App., *infra*, 6a-11a. The majority did not mention *Unitherm*’s holding—that a “party’s failure to file a post-verdict motion under Rule 50(b)” leaves the appellate court “‘without *power* to direct the District Court to enter judgment contrary to the one it has permitted to stand.’” 546 U.S. at 400-401 (emphasis added). The majority stressed the fact that the § 101 issue was briefed and passed upon by the district court on summary judgment. The panel did not mention the fact that both

TCL’s argument and its ultimate decision rested on *trial testimony* the district court never had an opportunity to consider—and Ericsson never had a chance to address—in connection with the § 101 analysis.

2. On the merits, the panel majority held that the asserted patent claims were invalid under § 101. App., *infra*, 13a-14a. The claims, it first ruled, were directed to an abstract idea. Because the functions of the different software components recited in the claims could be performed by the same component, the majority declared that the claims “collapse[d]” into an abstract idea of having an “access controller.” *Id.* at 14a. The majority rejected Ericsson’s argument that the claims, even if directed to an abstract idea, provide an “inventive concept” that “transform[s]” them into a patentable application. *Id.* at 23a. While Ericsson urged that the claims require a novel, three-level architecture for access control, the panel denied that the claims require that layered architecture. *Id.* at 18a-20a. The majority acknowledged that the claims recite an “interception module,” which the specification describes as controlling access *between* the application *layer* and software service *layer*. *Ibid.* Invoking trial testimony, however, the majority held that insufficient to support a “three-layer architecture.” *Id.* at 20a. “Ericsson’s expert,” the majority declared, “testified at trial that an interception module is ‘merely a segment of code that performs the interception function.’” *Ibid.* In its view, that effectively disavowed the layered architecture that, according to Ericsson, the claims otherwise require. *Ibid.*²

² While TCL purported to challenge the denial of summary judgment, it likewise invoked trial testimony. App., *infra*, 101a-103a. Ericsson, it argued, had disavowed the requirement of a layered architecture “at trial,” by arguing that the “layered architecture and

3. Judge Newman dissented. App., *infra*, 24a-40a. An order denying summary judgment, she urged, is not appealable once the case has been tried. *Id.* at 25a-26a. Circuit after circuit, she explained, had rejected the notion that such orders become appealable merely because they rest on “legal” rather than “factual” grounds. *Id.* at 27a-28a. The majority’s decision, moreover, was contrary to *Unitherm*’s express holding “that, in the absence of [a Rule 50] motion an appellate court is *without power* to direct the District Court to enter judgment contrary to the one it had permitted to stand.” *Id.* at 26a (quoting *Unitherm*, 546 U.S. at 400-401) (emphasis added and alterations in original omitted).

Judge Newman disagreed with the majority on the merits as well. The majority had “create[d] new Section 101 law” by rejecting a layered architecture requirement simply because the claims did not recite that limitation expressly. App., *infra*, 33a. The law, she urged, does not require “that all of the technologic information in the specification must be recited in the claims in order to avoid abstractness of the claims.” *Id.* at 33a-34a. Judge Newman also criticized the majority’s selective reliance on trial testimony. “At the trial,” she explained, “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.” *Id.* at 36a. “Witnesses explained that all of these limitations

modules * * * do not need to be physical structures, but are instead just logical ways to think about the idea.” TCL C.A.Br. 17. TCL also invoked the trial testimony of “Ericsson’s technical expert,” arguing that he “did not consider a ‘layered architecture’ to be any sort of physical structure, but instead just a concept.” *Id.* at 25.

were in the claims. This evidence must be considered with respect to Section 101 eligibility.” *Ibid.*

REASONS FOR GRANTING THE PETITION

In *Ortiz v. Jordan*, 562 U.S. 180 (2011), this Court held that parties ordinarily cannot appeal orders denying summary judgment once trial has taken place. The Court reserved, however, whether such orders might be appealable where the denial rests on “‘purely legal’ issues capable of resolution ‘with reference only to undisputed facts.’” *Id.* at 190. The courts of appeals have fractured over whether there is such an exception and, if so, its proper scope. Courts, the leading civil procedure treatises, and commentators have recognized the entrenched circuit conflict. Many circuits have refused to recognize any exception at all. Nonetheless, over a vigorous dissent, the Federal Circuit below joined several courts of appeals in holding that a pretrial order denying summary judgment can be reviewed on appeal following trial if the issues are “legal,” despite the appellant’s failure to raise them in a post-trial motion for judgment under Rule 50.

This Court has repeatedly held that “a party’s failure to file a postverdict motion under Rule 50(b)” leaves an appellate court “‘without power to direct the District Court to enter judgment contrary to the one it has permitted to stand.’” *Unitherm Food Sys., Inc. v. Swift-Eckrich, Inc.*, 546 U.S. 394, 400-401 (2006) (quoting *Cone v. W. Va. Pulp & Paper Co.*, 330 U.S. 212, 218 (1947)). That rule should apply whether or not a party unsuccessfully sought summary judgment before trial. Despite this Court’s holding that the absence of a Rule 50 motion “deprives an appellate court of the power to direct” the entry of judgment, the Federal Circuit here held it has “discretion” to ignore the absence of a Rule 50 motion. And it exercised that supposed “discretion” here to direct

entry of a judgment contrary to the jury’s verdict and the district court judgment below.

The issues are recurring and important. Time and again the courts of appeals have addressed them. Time and again they have disagreed—and acknowledged their disagreement. Time and again, leading treatises have noted the division in circuit authority. Parties need clarity on what is necessary to preserve arguments. Appellate courts need clarity about the scope of their authority. And the rule adopted below, and by at least three other courts of appeals, threatens serious mischief. “Summary judgment was not intended to be a bomb planted within the litigation at its early stages and exploded on appeal.” *Holley v. Northrop Worldwide Aircraft Servs., Inc.*, 835 F.2d 1375, 1377 (11th Cir. 1988). But that is exactly how it was used here.

I. THE COURTS OF APPEALS ARE OPENLY DIVIDED OVER WHETHER AND WHEN DENIALS OF SUMMARY JUDGMENT ARE APPEALABLE AFTER TRIAL

A. The Circuits Are Divided on the Existence and Scope of Any Exceptions to the Rule Announced in *Ortiz*

In *Ortiz*, this Court explained at length why orders denying summary judgment are ordinarily not appealable following trial. First, 28 U.S.C. §1291 authorizes only “appeals from . . . final decisions of the district courts.” *Ortiz*, 562 U.S. at 188. Orders denying summary judgment “[o]rdinarily * * * do not qualify as ‘final decisions’ subject to appeal” under §1291. *Ibid.* Second, once a case is tried, the summary-judgment motion, and the pretrial record on which it is based, are “superse[d]” by “the full record developed” at trial. *Id.* at 184. “[A]fter a full trial on the merits,” appellate courts cannot rewind the case to review an “order denying summary judgment.” *Ibid.* Instead, a party that believes it

is entitled to judgment as a matter of law on a claim or defense after trial must file motions under Rule 50 and, if unsuccessful, challenge the denial of those motions on appeal. *Id.* at 189; see *Unitherm*, 546 U.S. at 405. *Ortiz*, however, declined to address whether there is an exception for summary-judgment motions involving “a purely legal issue.” 562 U.S. at 190. Following *Ortiz*, the courts of appeals have fractured on whether such an exception exists and, if so, its proper contours.

1. At least three circuits—the First, Second, and Fourth—flatly reject any such exception. See *Ji v. Bose Corp.*, 626 F.3d 116, 127 (1st Cir. 2010) (“We have not recognized an exception to this rule, as some circuits have done, when a party’s challenge is based on a circumscribed legal error, as opposed to an error concerning the existence of fact issues.”); *Hisert ex rel. H2H Assocs., LLC v. Haschen*, 980 F.3d 6, 8 & n.3 (1st Cir. 2020) (adhering to *Ji*); *Pahuta v. Massey-Ferguson, Inc.*, 170 F.3d 125, 132 (2d Cir. 1999) (“If a party wishes to appeal a denial of a motion for summary judgment” after “the case proceeds to trial, the party may file a motion * * * pursuant to Rule 50 for judgment as a matter of law and appeal the district court’s denial of that motion.”); *Omega SA v. 375 Canal, LLC*, 984 F.3d 244, 253 & nn.8-9 (2d Cir. 2021) (treating *Pahuta* as controlling); *Chesapeake Paper Prods. Co. v. Stone & Webster Eng’g Corp.*, 51 F.3d 1229, 1235 (4th Cir. 1995) (“We reject the contention that our review [of a summary-judgment denial] should depend on whether the party claims an error of law or an error of fact.”); *Bunn v. Oldendorff Carriers GmbH & Co.*, 723 F.3d 454, 460 n.3 (4th Cir. 2013) (adhering to *Chesapeake Paper Prods.*); see also *Pensacola Motor Sales Inc. v. E. Shore Toyota, LLC*, 684 F.3d 1211, 1219 (11th Cir. 2012) (“[A] party may not appeal an order denying summary judgment after there has been a full trial on the merits.”). In those circuits, the court “will not review, under any

standard, the pretrial denial of a motion for summary judgment after a full trial and final judgment on the merits.” *Bunn*, 723 F.3d at 460 n.3. “[E]ven legal errors cannot be reviewed unless the challenging party restates its objection in a [Rule 50] motion.” *Ji*, 626 F.3d at 128.

That straightforward approach adheres to *Ortiz*’s reasoning and traditional finality principles. See *Ortiz*, 562 U.S. at 188. A summary-judgment ruling does not transform from an interlocutory ruling into a “final” appealable order based on whether it can be characterized as “legal.” Rather than terminate the case or any part, such rulings leave the case for trial. See *id.* at 184.

Moreover, the “Federal Rules of Civil Procedure” simply “do not require such a dichotomy” between legal and factual issues “in summary judgment denials.” *Chesapeake Paper Prods.*, 51 F.3d at 1235. Deciding whether the denial of summary judgment turns on a legal question is also a “dubious undertaking”; the line between questions of law and questions of fact is often obscure. *Ibid.* In this case, for example, the majority admitted that, while “eligibility under § 101 is an issue of law, * * * the inquiry may sometimes contain underlying issues of fact.” App., *infra*, 4a. Indeed, while the majority purported to decide the § 101 issue as a matter of law, the majority and dissent both invoked *trial* testimony to support their differing views. Compare App., *infra*, 20a (majority), with *id.* at 36a (Newman, J., dissenting).

Any exception is also unnecessary. Rule 50 provides an express mechanism for litigants to seek judgment as a matter of law following the close of evidence and judgment, and filing Rule 50 motions preserves any legal arguments raised for appeal. *Omega*, 984 F.3d at 252-253. Filing Rule 50 motions, moreover, ensures the district court has “an opportunity, after all [its] rulings have been made and all the evidence has been evaluated, to

view the proceedings in a perspective peculiarly available to [it] alone.” *Cone*, 330 U.S. at 216.

This case illustrates the wisdom of that approach. Here, both the majority and dissent relied on the trial record. But neither had the benefit of the views of the district court that presided over the trial, because TCL never presented the issue to the district court under Rule 50. TCL has never explained why it did not file a Rule 50 motion that would have allowed the district court to address its arguments in light of its familiarity with the trial and record.

2. At least four courts of appeals—the Seventh, Ninth, Tenth, and Federal Circuits—have taken a different view, recognizing an exception for summary-judgment denials that rest on putatively “legal questions.” *Lawson v. Sun Microsystems, Inc.*, 791 F.3d 754, 761-762 (7th Cir. 2015); *In re Bard IVC Filters Prod. Liab. Litig.*, 969 F.3d 1067, 1072-1073 (9th Cir. 2020); *Kelley v. City of Albuquerque*, 542 F.3d 802, 820 (10th Cir. 2008); *SRI Int’l, Inc. v. Cisco Sys., Inc.*, 930 F.3d 1295, 1302 & n.5 (Fed. Cir. 2019), cert. denied, 140 S. Ct. 1108 (2020). In those circuits, “the critical distinction [is] between summary judgment motions raising the sufficiency of the evidence to create a fact question for the jury and those raising a question of law that the court must decide.” *Ruyle v. Cont’l Oil Co.*, 44 F.3d 837, 842 (10th Cir. 1994); see *Chemetall GMBH v. ZR Energy, Inc.*, 320 F.3d 714, 719 (7th Cir. 2003); *ePlus, Inc. v. Lawson Software, Inc.*, 700 F.3d 509, 517-518 (Fed. Cir. 2012). If the summary-judgment denial turns on a “legal” question, those courts hold, the order denying

summary judgment is itself appealable following trial and final judgment. *E.g.*, *Lawson*, 791 F.3d at 761.³

Courts following that approach reason that, where the denial of summary judgment does not rest on the existence of disputed facts to be resolved at trial, the fact that the trial record supersedes the summary-judgment record is irrelevant. See *Lawson*, 791 F.3d at 761. As a matter of judicial efficiency, they assert, parties should not have to repeat an already rejected legal argument under Rule 50 “to preserve it for appeal.” *ePlus*, 700 F.3d at 518. Some cases also suggest that deciding a legal issue against a party in the course of denying summary judgment effectively amounts to a reviewable grant of summary judgment for that party’s opponent. See *Lighting Ballast Control LLC v. Philips Elecs. N. Am. Corp.*, 790 F.3d 1329, 1337 (Fed. Cir. 2015).

3. Several courts of appeals likewise allow appeals from summary-judgment denials, but under a more demanding standard. The Third, Sixth, and D.C. Circuits hold that, while they “can review summary judgment denials,” they will do so for denials “that raise only *purely* legal issues.” *Gerics v. Trevino*, 974 F.3d 798, 803 (6th Cir. 2020) (emphasis added); see *Frank C. Pollara Grp., LLC v. Ocean View Inv. Holding, LLC*, 784 F.3d 177, 185-186 (3d Cir. 2015); *Feld v. Feld*, 688 F.3d 779, 783 (D.C. Cir. 2012). These circuits define a “purely legal issue” as one that “can be asked and answered without reference to the facts of the case.” *Hanover Am. Ins. Co. v. Tattooed Millionaire Ent., LLC*, 974 F.3d 767, 785-786 n.10 (6th Cir. 2020) (internal quotation marks omitted).

³ Courts have used terms like “legal question” inconsistently. Some refer to questions that are not “factbound.” Others use the term to mean an “abstract legal question” that can be answered without reference to the case’s facts. See pp. 19-20, *infra*.

“Anything else, even many legal arguments, can become liable to be mixed up in the facts developed at trial, and so become ‘factbound’” and unreviewable. *Ibid.*; see *United States ex rel. Purcell v. MWI Corp.*, 807 F.3d 281, 288 (D.C. Cir. 2015).⁴

Following a variant of that rule, the Eighth Circuit holds that it “cannot review the denial of summary judgment on an issue involving *the merits*.” *Dahlin v. Lyondell Chem. Co.*, 881 F.3d 599, 603 (8th Cir. 2018) (emphasis added). It will, however, review the denial of summary judgment on “a preliminary issue,” such as “statute of limitations, collateral estoppel, and standing.” *Ibid.* The Eighth Circuit thus recognizes exceptions to the ordinary rule of unreviewability announced in *Ortiz*; rejects a broad exception for legal questions; and distinguishes “preliminary” matters that can be reviewed from “merits” issues that cannot. *N.Y. Marine & Gen. Ins. Co. v. Cont’l Cement Co.*, 761 F.3d 830, 838 (8th Cir. 2014).

4. The circuit split on whether (and when) orders denying summary judgment can be reviewed on appeal following trial is openly acknowledged. Court after court has observed that “[t]here is currently a significant circuit split on that question.” *Hanover*, 974 F.3d at 785 n.10; see *Jones ex rel. United States v. Mass. Gen. Hosp.*, 780 F.3d 479, 488 n.3 (1st Cir. 2015) (“Some circuits have ‘recognized an exception’ * * * where a ‘party’s challenge is based on a circumscribed legal error,’ * * * we have

⁴ Contrast App., *infra*, 4a (reviewing § 101 decision as “issue of law” while noting that it may involve “underlying issues of facts”), *Lawson*, 791 F.3d at 761 (reviewing application of law to facts), with *Gerics*, 974 F.3d at 807 (no review for application of law even to undisputed facts), *Purcell*, 807 F.3d at 288 (no review for contract interpretation).

declined to do so.” (quoting *Ji*, 626 F.3d at 127-128)); *N.Y. Marine*, 761 F.3d at 838 (although multiple “circuits * * * have carved out an exception for arguments made at summary judgment that are ‘purely legal,’” “[a]t least two circuits have disagreed”); *Feld*, 688 F.3d at 781-783 (recognizing other “circuits have taken the opposite approach”); *Feld Motor Sports, Inc. v. Traxxas, L.P.*, 861 F.3d 591, 596 n.4 (5th Cir. 2017) (identifying “[c]ontrary” decisions in other circuits); *Varghese v. Honeywell Int’l, Inc.*, 424 F.3d 411, 423 (4th Cir. 2005) (refusing to join “other circuits [that] have taken a different approach on this issue, allowing appeals from a denial of summary judgment after a trial where the summary judgment motion raised a legal issue”; “their approach simply conflicts with our own”).

The leading treatises on civil procedure recognize the conflict. Wright & Miller’s *Federal Practice and Procedure* identifies the Tenth Circuit as holding that “failure to move for judgment as a matter of law” under Rule 50 “does not preclude a party from appealing the denial of summary judgment” where the denial was “based on pure legal issues.” 10A Wright & Miller, *supra*, §2532. But other circuits, it continues, “have held that[,] following a jury trial on the merits[,] the court has jurisdiction to hear an appeal of the district court’s legal conclusions in denying summary judgment *only* if it is sufficiently preserved in a Rule 50 motion.” *Ibid.* (emphasis added). *Moore’s Federal Practice* likewise explains that, while “[s]ome circuits hold that” a denial of summary judgment “is appealable” when “the material facts are not in dispute, and the denial of summary judgment was based on the interpretation of a purely legal question,” at “least three circuits, however, have held that a denial of summary judgment is not reviewable after trial and verdict regardless of the basis for denial.” D. Coquillette et al., *Moore’s Federal Practice* §56.130[3][c][ii] (3d ed.

2018). Other treatises and commenters have noted the division as well. See E. Magnuson & D. Herr, *Federal Appeals Jurisdiction and Practice* §3:1 (2021 ed.) (“[w]here the summary judgment is denied on purely legal grounds, at least some courts would conclude that they can review the summary judgment decision * * * only if the issue is preserved by a proper Rule 50 motion,” but “[o]ther courts have not required a Rule 50 motion in those circumstances”); J. Steinman, *The Puzzling Appeal of Summary Judgment Denials: When Are Such Denials Reviewable?*, 2014 Mich. St. L. Rev. 895, 898 (2014). A more openly acknowledged and widespread division in circuit authority is difficult to imagine.

**B. The Circuits Are Divided on Whether They
Have Discretion To Excuse Failure To File a
Rule 50 Motion**

Time and again, this Court has held that parties must “avail themselves” of Rule 50 to preserve the argument that they are entitled to judgment as a matter of law. *Ortiz*, 562 U.S. at 189. More than half a century ago, this Court warned that a party’s failure to file a Rule 50(b) postverdict motion deprives an appellate court of the “power to direct the District Court to enter judgment contrary to the one it had permitted to stand.” *Cone*, 330 U.S. at 218. In *Unitherm* and *Ortiz*, this Court again observed that failure to file a Rule 50 motion precludes appellate courts from directing judgment as a matter of law on appeal. “[A]bsent such a motion,” appellate courts are “‘powerless’ to review” the issue and direct judgment for the losing party below. *Ortiz*, 562 U.S. at 189 (quoting *Unitherm*, 546 U.S. at 405); see *id.* at 193 (“[t]he Court of Appeals * * * lacked jurisdiction” where appellant had not filed a Rule 50 motion) (Thomas, J., concurring in the judgment).

Without addressing those repeated holdings, the panel majority below held that it had “discretion” to ignore TCL’s failure to file a Rule 50 motion and to order judgment as a matter of law nonetheless. App., *infra*, 7a. Observing that the issue was “fully briefed” during summary judgment, *ibid.*, the majority chose to “exercise” that supposed “discretion to address and resolve the issue,” *id.* at 8a-9a. That is impossible to reconcile with this Court’s holding that a party’s failure to file a Rule 50 motion “deprives the appellate court of the *power*” to direct that judgment be entered in that party’s favor. Judge Newman’s dissent pointed that out—and the majority offered no response. App., *infra*, 27a-28a.

The panel majority’s ruling conflicts with the decisions of at least four circuits. Consistent with *Ortiz*, *Unitherm*, and *Cone*, the Second, Fifth, Sixth, and Ninth Circuits have all held that Rule 50(b)’s requirement is jurisdictional—that the court of appeals lacks “jurisdiction to hear an appeal” seeking judgment as a matter of law unless the relevant arguments were “sufficiently preserved in a Rule 50 motion.” *Feld Motor Sports*, 861 F.3d at 596; see *Gerics*, 974 F.3d at 807-808; *Omega*, 984 F.3d at 252-253; *Banuelos v. Constr. Laborers’ Tr. Funds*, 382 F.3d 897, 903 (9th Cir. 2004).

The majority’s ruling likewise conflicts with the courts of appeals (including the First, Third, Fourth, Eighth, and Eleventh Circuits) that apply Rule 50 as a “mandatory claim-processing rule.” See *Pollara*, 784 F.3d at 187-188; *Owatonna Clinic–Mayo Health Sys. v. Med. Protective Co. of Fort Wayne*, 639 F.3d 806, 809 (8th Cir. 2011); *Ji*, 626 F.3d at 128 & n.11; *Varghese*, 424 F.3d at 423; *Munoz v. Oceanside Resorts, Inc.*, 223 F.3d 1340, 1344 n.3 (11th Cir. 2000). “If properly invoked, mandatory claim-processing rules *must* be enforced.” *Hamer v. Neighborhood Hous. Servs.*, 138 S. Ct. 13, 17 (2017) (em-

phasis added). Such rules, unlike jurisdictional requirements, can be “waived or forfeited” by a party’s failure to object. *Ibid.* But where a party—like Ericsson here—expressly and vigorously objects to the failure to comply with Rule 50, the court of appeals must enforce Rule 50 by denying review. See, e.g., *Pollara*, 784 F.3d at 189; *Varghese*, 424 F.3d at 423; *Munoz*, 223 F.3d at 1344 n.3. The panel majority’s decision below, which purports to overlook noncompliance with Rule 50 over objection, cannot be reconciled with the law of those circuits either.

II. THE ISSUES ARE IMPORTANT AND RECURRING

The questions presented are important and recurring. Litigants routinely raise dispositive issues at summary judgment. Where the district court denies summary judgment, litigants must have a clear understanding of what is required to preserve the arguments the district court rejected. Appellate courts, moreover, need clarity regarding what issues they can review when faced with an order denying summary judgment. As the Sixth Circuit has lamented, “the mechanics of preserving” unsuccessful summary-judgment arguments are “less” than “clear.” *Kidis v. Reid*, 976 F.3d 708, 720 (6th Cir. 2020); see also *Lawson*, 791 F.3d at 761 n.2. “An important aspect of summary judgment law is now in great disorder.” Steinman, *supra*, at 898. Because the courts of appeals have failed “to provide clear answers on these important procedural issues,” *Omega*, 984 F.3d at 265 (Lohier, J., concurring in part and dissenting in part), review is warranted. The status quo “is not a sustainable way to administer procedural rules and justice for real litigants in real cases.” *Ibid.*

That need for clarity is especially important given the frequency with which these issues arise. In 2020 alone, at least 14 court of appeals decisions addressed whether a party could appeal a summary-judgment denial without

raising the issue in a Rule 50 motion. See App., *infra*, 1a-41a; *Hisert*, 980 F.3d at 7-8; *Kidis*, 976 F.3d at 720; *Gerics*, 974 F.3d at 802-808; *Hanover*, 974 F.3d at 785 n.10; *Hurt v. Com. Energy, Inc.*, 973 F.3d 509, 516 (6th Cir. 2020); *Bard*, 969 F.3d at 1072-1073; *Gulf Eng'g Co. v. Dow Chem. Co.*, 961 F.3d 763, 766 (5th Cir. 2020); *Universal Truckload, Inc. v. Dalton Logistics, Inc.*, 946 F.3d 689, 699-700 n.5 (5th Cir. 2020).⁵ In the first six days of 2021, the Second Circuit stepped into the fray again, holding that it lacks authority to review a summary-judgment denial absent compliance with Rule 50 (unless something foreclosed the litigant from seeking Rule 50 relief). See *Omega*, 984 F.3d at 250-253. Indeed, “[t]here are so many cases concerning the post-judgment appealability of summary judgment denials that it is difficult to confidently characterize the positions of the circuits.” Steinman, *supra*, at 922 n.87.

This Court found disarray in this area sufficient to warrant review in *Ortiz*. 562 U.S. at 187-188. Following *Ortiz*, the disarray has only proliferated.⁶ The courts of

⁵ See also *Watley v. Felsman*, — F. App'x —, 2020 WL 7775515, at *1 n.1 (3d Cir. Dec. 30, 2020); *Hernandez v. Fitzgerald*, — F. App'x —, 2020 WL 7774945, at *3 n.4 (10th Cir. Dec. 30, 2020); *Sooroojballie v. Port Auth. of N.Y. & N.J.*, 816 F. App'x 536, 539-540 (2d Cir. 2020); *In re Fancher*, 802 F. App'x 538, 544 (11th Cir. 2020); *Buie v. Dhillon*, No. 19-5105, 2020 WL 873502, at *1 (D.C. Cir. Feb. 14, 2020); *Ferguson v. Waid*, 798 F. App'x 986, 988-989 (9th Cir. 2020).

⁶ When *Ortiz* was decided, the Third and D.C. Circuits lacked clear positions. They now are firmly part of the circuit split. See *Pollara*, 784 F.3d at 187-188; *Feld*, 688 F.3d at 782. The First, Fourth, Fifth, Tenth, and Federal Circuits have reiterated their pre-*Ortiz* holdings. See *SRI Int'l*, 930 F.3d at 1302 & n.5; *Jones*, 780 F.3d at 488; *Blessey Marine Servs., Inc. v. Jeffboat, L.L.C.*, 771 F.3d 894, 897 (5th Cir. 2014); *Bunn*, 723 F.3d at 460 n.3; *Rural Water Dist. No. 4 v. City of Eudora*, 659 F.3d 969, 975 (10th Cir. 2011).

appeals have questioned the stability of their own law in this area, reinforcing the need for this Court’s guidance.⁷ Review is warranted.

III. THIS CASE IS AN IDEAL VEHICLE FOR REVIEW

A. The Case Squarely Presents the Issues

This case squarely presents both questions for review. There is no dispute that, after the district court denied TCL’s summary-judgment motion on validity under 35 U.S.C. § 101, App., *infra*, 96a-99a, TCL never again raised the issue in district court. TCL did not raise § 101 during trial. See *id.* at 4a (majority op.); *id.* at 25a-26a (Newman, J., dissenting). TCL did not raise § 101 when seeking judgment as a matter of law under Rule 50 before or after verdict. See *id.* at 4a (majority op.); *id.* at 25a-26a (Newman, J., dissenting). The panel majority ruled that it could address patent validity under § 101, absent a Rule 50 motion, by reviewing the district court’s denial of summary judgment because “§ 101 is an issue of law” and the denial of summary judgment purportedly was “not dependent on any factual issues” at trial. *Id.* at 4a (majority op.).

The Federal Circuit aligned itself with cases holding that, while summary-judgment denials generally are not appealable after a trial, denials that rest on “legal issues” are. App., *infra*, 4a. In the Federal Circuit’s view, a summary-judgment denial that rests on legal grounds, because it resolves the legal issue against the moving

⁷ See, e.g., *Williams v. Gaye*, 895 F.3d 1106, 1122 (9th Cir. 2018) (questioning “the continuing viability of” its legal-issue “exception”); *Valbruna Slater Steel Corp. v. Joslyn Mfg. Co.*, 934 F.3d 553, 560 (7th Cir. 2019) (noting “possible exception”), cert. denied, 140 S. Ct. 2802 (2020); *Empress Casino Joliet Corp. v. Balmoral Racing Club, Inc.*, 831 F.3d 815, 824 (7th Cir. 2016) (calling exception “controversial”).

party, effectively enters summary judgment against that party. App., *infra*, 4a-5a; see *Lighting Ballast*, 790 F.3d at 1336-1337 (similar).

The decision below thus directly conflicts with the decisions of courts that reject any exception to *Ortiz* or Rule 50's requirements for "legal" issues. See pp. 15-22, *supra*. The Fourth Circuit, for example, has held that a decision denying summary judgment on "ERISA preemption" is not reviewable on appeal once a trial has taken place, even though ERISA preemption was a purely legal question. *Varghese*, 424 F.3d at 422; see *Chesapeake Paper Prods.*, 51 F.3d at 1235 (contract interpretation issue). The suggestion below that the denial of summary judgment can effectively "grant" summary judgment to the non-movant, App., *infra*, 4a-5a, does not mitigate the conflict. The *reason* the Federal Circuit sometimes deems an order denying summary judgment to be, in effect, a grant of summary judgment to the non-movant is that the order resolves an "issue of law" against the movant, as opposed to finding that "'material issues of fact prevented judgment.'" App., *infra*, 4a-5a (quoting *Lighting Ballast*, 790 F.3d at 1337).⁸ Under that

⁸ Indeed, while the district court denied TCL's summary-judgment motion on invalidity, it never dismissed TCL's counterclaim for a declaratory judgment of invalidity. Pp. 9-10, *supra*. For that reason, the panel majority's attempt to reconcile its decision with the Fifth Circuit cases, App., *infra*, 5a-6a—while not material here—falls short. In both *Luig v. North Bay Enterprises, Inc.*, 817 F.3d 901 (5th Cir. 2016), and *Hudson v. Forest Oil Corp.*, 372 F.3d 742 (5th Cir. 2004), the district courts not only denied summary judgment, but *dismissed* the moving parties' claims. See *Luig*, 817 F.3d at 903 ("district court effectively granted summary judgment" for non-movant by "dismissing [the movant's] breach of contract counterclaim with prejudice"); *Hudson*, 372 F.3d at 744 ("den[ial] * * * [of] summary judgment was in effect a grant of summary judgment" be-

logic, *every* summary-judgment denial that turns on law rather than disputed facts is “effectively” a grant of summary judgment on the relevant legal issue and is therefore subject to appellate review. See *Ruyle*, 44 F.3d at 842 (“critical distinction” is between denials based on the existence of “a fact question for the jury and those [based on] a question of law”). For the same reasons, that gloss cannot distinguish cases like *Varghese*, which deny summary judgment on legal issues—effectively resolving the issue in one side’s favor—but nonetheless hold the denial of summary judgment unappealable absent a Rule 50 motion. 424 F.3d at 422.⁹

The decision below likewise cannot be squared with decisions limiting appeal to summary-judgment denials that rest on “purely legal” issues capable of resolution without any reference to the facts. See *Gerics*, 974 F.3d at 807; *Dahlin*, 881 F.3d at 603; *Pollara*, 784 F.3d at 187-188. Here, the panel admitted that § 101 determinations

cause “the court dismissed [movant’s] intervention claim with prejudice”). Those denials were not interlocutory rulings that merely decided “that the case should go to trial.” *Switzerland Cheese Ass’n, Inc. v. E. Horne’s Market, Inc.*, 385 U.S. 23, 25 (1966). They foreclosed claims from proceeding.

⁹ The notion that appellate courts can review such motions because they effectively “grant” summary judgment to the opponent suffers from a further defect. Where summary judgment is granted in error, the remedy is to reverse and remand for further proceedings. See 10A Wright & Miller, *supra*, § 2716. Here, however, the Federal Circuit did not simply reverse the supposed “grant” of summary judgment for Ericsson. It *directed* the entry of judgment for TCL. App., *infra*, 23a. That does not review the supposedly erroneous “grant” of summary judgment; it reviews and reverses the denial of judgment as a matter of law and directs its entry. Absent a Rule 50 motion, a court of appeals is “powerless” to direct the entry of judgment following trial. *Unitherm*, 546 U.S. at 405.

may involve “underlying issues of fact,” App., *infra*, 4a, and invoked trial testimony to support its determination, *id.* at 20a. That would preclude review in circuits that require purely legal issues that can be addressed apart from any facts. The Federal Circuit’s suggestion that it had “discretion” to direct the entry of judgment for a party, despite failure to comply with Rule 50, *id.* at 7a, does not apply this Court’s decisions in *Ortiz*, *Unitherm*, and *Cone*, as other courts have done. Instead, it defies them.

B. The Decision Below Illustrates the Consequences of Creating Extra-Statutory Exceptions

The Federal Rules provide no basis for creating a “dichotomy” between denials of summary judgment under Rule 56 that turn on legal issues and denials under Rule 56 that turn on questions of fact. *Chesapeake Paper Prods.*, 51 F.3d at 1235. Neither denial conclusively resolves cases or claims; both merely decide “that the case should go to trial.” *Switzerland Cheese*, 385 U.S. at 25. Another Rule—Rule 50—makes any such dichotomy unnecessary. Rule 50 authorizes parties to seek judgment as a matter of law once there has been a trial. And Rule 50 plainly contemplates the submission of legal issues. If the district court denies a motion for judgment as a matter of law under Rule 50(a) “before the case is submitted to the jury,” the court is deemed “to have submitted the action to the jury subject to the court’s later deciding the *legal questions* raised by the motion.” Fed. R. Civ. P. 50(b) (emphasis added). Rule 50 thus provides a mechanism for submitting “legal questions” in support of judgment as a matter of law after trial. Nothing in the Federal Rules supports repurposing Rule 56 to serve the same end.

This case illustrates the mischief the contrary practice creates. “Summary judgment was not intended to be a bomb planted within the litigation at its early stages and exploded on appeal.” *Holley*, 835 F.2d at 1377. But that is exactly how TCL used it here. After losing at summary judgment, TCL abandoned its argument that the patent claims were invalid under §101 at trial and in post-judgment briefing. Then, on appeal, it ambushed Ericsson with supposed conflicts between Ericsson’s position “in opposing summary judgment” and its view “at trial.” TCL C.A. Br. 24. TCL repeatedly invoked the trial testimony of Ericsson’s technical expert regarding the meaning of the claims—matters never addressed before the trial court. *Id.* at 25. Ericsson was thus denied notice that TCL was pressing the issue and an opportunity to augment the trial record to support Ericsson’s contrary view. That contravenes Rule 50’s design. Rule 50(a) requires parties to file a motion before “the close of the trial” to allow “the responding party an opportunity to cure any deficiency” in the evidence. Fed. R. Civ. P. 50 advisory comm. note to 1991 amendment. Ericsson was denied that opportunity.

Creating “exceptions” to *Ortiz*’s general rule that summary-judgment denials are not appealable, moreover, creates uncertainty over the exceptions’ scope and application. The panel majority suggested that invalidity under §101 was a “legal” question here. But deciding whether denial of summary judgment turns on a legal question or involves factual disputes is a “dubious undertaking.” *Chesapeake Paper Prods.*, 51 F.3d at 1235. Here, the panel majority rejected Ericsson’s argument that the claimed “interception module” reflected the required multi-layer architecture—the specification explained that the module was located between the application domain and software service layers—because of what “Ericsson’s expert testified at trial.” App., *infra*,

19a-20a. But the majority overlooked trial testimony where “witnesses described the claim limitations, including the multi-layered structure.” *Id.* at 36a (Newman, J., dissenting). Purporting to review a pretrial denial of summary judgment while invoking later trial testimony—and calling the whole determination “legal”—“is not [a] fair and reasonable judicial process.” *Id.* at 29a.

Finally, creating supposed exceptions undermines the critical role Rule 50 assigns trial courts. Whether to enter judgment as a matter of law after trial—or the alternative of a new trial—“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*, 330 U.S. at 216. That is why Rule 50 mandates that trial courts have the first “chance to correct [their] own errors without the delay, expense, or other hardships of an appeal.” *Ibid.* (quotation marks omitted). Here, TCL bypassed the district court. TCL did not on appeal so much reargue its unsuccessful summary-judgment motion as it argued error in light of what Ericsson presented “at trial.” See pp. 29-30, *supra*. That is a paradigmatic example of an argument that should be decided by the district court in the first instance.

CONCLUSION

The petition should be granted.

Respectfully submitted.

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FEBRUARY 2021

APPENDIX

APPENDIX A
UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT

No. 2018-2003

ERICSSON INC., TELEFONAKTIEBOLAGET
LM ERICSSON,
Plaintiffs-Appellees,

v.

TCL COMMUNICATION TECHNOLOGY
HOLDINGS LIMITED, TCT MOBILE LIMITED,
TCT MOBILE (US) INC.,
Defendants-Appellants.

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.

OPINION

April 14, 2020

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.

(1a)

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 for the court filed by *Chief Judge* PROST.

Dissenting opinion filed by *Circuit Judge* NEWMAN.

PROST, *Chief Judge*.

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 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).

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 (2012), and further detailed in *Alice Corp. v. CLS Bank Int'l*, 573 U.S. 208 (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.

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 *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 sum-

mary 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 (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-argument-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, we have done so where, among other factors, "the issue has been fully briefed by the parties." See *Automated Merch. Sys., Inc. v. Lee*, 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 ex-

ercise 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 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

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

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 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.

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 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 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. 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. 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 (quoting *Mayo*, 566 U.S. at 77-78). 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 (quoting *Mayo*, 566 U.S. at 72-73) (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 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 di-

rect 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 *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 (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 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.

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.

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 (quoting *Mayo*, 566 U.S. at 72).

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 de-

scribed 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 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 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 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.

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 com-

puter to perform generic computer functions,” as here, the claims lack an inventive concept sufficient to demonstrate eligibility at step two. *Alice*, 573 U.S. at 225.

III

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.

UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT

No. 2018-2003

ERICSSON INC., TELEFONAKTIEBOLAGET
LM ERICSSON,

Plaintiffs-Appellees,

v.

TCL COMMUNICATION TECHNOLOGY
HOLDINGS LIMITED, TCT MOBILE LIMITED,
TCT MOBILE (US) INC.,

Defendants-Appellants.

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.

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

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

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.”).

idea and devoid of inventive 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 (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 (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.

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 is to renew it under Rule 50(b).”). Although courts have allowed a few depar-

tures 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 5. 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 chal-

lenging 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.”

Unitherm, 546 U.S. at 401 (quoting *Johnson v. New York, N.H. & H.R. Co.*, 344 U.S. 48, 53 (1952)); see *Johnson*, 344 U.S. at 53 (“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 (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 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 "appli-

cation 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 13. The majority offers analogy to a library’s requirement of a library card in order to obtain access to a book. Maj. Op. at 15 (“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 (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 Systems Innovations, 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 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 18.

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 20 (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 mo-

mobile platform technology,” the PTAB holding the claims patentable under Section 103.³

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 20 (“[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 20 (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 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,

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 majority finds that the system of claims 1 and 5 does not “possess an inventive step,” Maj. Op. at 20, 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 14. 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 14, 16 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 (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 15 (quoting *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 21. 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.

'510 patent, col. 10, ll. 57-67; see Maj. Op. at 20. 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 18-19 (“[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 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”).

40a

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.

41a

APPENDIX B
IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION

CASE No. 2:15-cv-00011-RSP

ERICSSON INC., TELEFONAKTIEBOLAGET
LM ERICSSON,

Plaintiffs,

v.

TCL COMMUNICATION TECHNOLOGY
HOLDINGS, LTD., TCT MOBILE LIMITED,
TCT MOBILE (US) INC.,

Defendants.

MEMORANDUM OPINION AND ORDER

May 10, 2018

After a four-day trial, the jury unanimously found that TCL willfully infringed claims 1 and 5 of United States Patent No. 7,149,510 by selling phones and devices equipped with the Google Android operating system, and the jury awarded \$75 million as a lump sum royalty.¹ The court previously ordered a new trial on damages after finding Ericsson's damages theory unreliable, see ECF

¹ Additional background can be found in a prior order. See ECF No. 359.

No. 456, but the court now reconsiders that order, reinstates the jury’s verdict in full, and resolves all other remaining disputes.

DISCUSSION

TCL’s motions for judgment as a matter of law and for a new trial raise procedural issues not unique to patent law and are therefore evaluated under regional circuit law. *Promega Corp. v. Life Techs. Corp.*, 875 F.3d 651, 659 (Fed. Cir. 2017). The Fifth Circuit is “especially deferential” to a jury verdict. *Olibas v. Barclay*, 838 F.3d 442, 448 (5th Cir. 2016) (quoting *Evans v. Ford Motor Co.*, 484 F.3d 329, 334 (5th Cir. 2007)) (internal quotation marks omitted). A party is only entitled to judgment as a matter of law on an issue where no reasonable jury would have had a legally sufficient evidentiary basis to find otherwise. Fed. R. Civ. P. 50(a); *Bear Ranch, L.L.C. v. Heartbrand Beef, Inc.*, 885 F.3d 794, 801 (5th Cir. 2018). The evidence must be reviewed “in the light most favorable to the non-movant.” *Id.* (quoting *Omnitech Int’l, Inc. v. Clorox Co.*, 11 F.3d 1316, 1323 (5th Cir. 1994)). The Fifth Circuit will reverse the denial of a motion for judgment as a matter of law “only if the jury’s factual findings are not supported by substantial evidence or if the legal conclusions implied from the jury’s verdict cannot in law be supported by those findings.” *MM Steel, L.P. v. JSW Steel (USA) Inc.*, 806 F.3d 835, 843 (5th Cir. 2015) (citation omitted).

A decision to grant a new trial must also overcome significant deference to the jury’s verdict. “A trial court should not grant a new trial on evidentiary grounds unless the verdict is against the great weight of the evidence.” *Seibert v. Jackson Cty., Mississippi*, 851 F.3d 430, 439 (5th Cir. 2017) (quoting *Whitehead v. Food Max of Miss., Inc.*, 163 F.3d 265, 269 (5th Cir. 1998)). This re-

quires the movant to show “an absolute absence of evidence to support the jury’s verdict.” *Id.* (quoting *Whitehead*, 163 F.3d at 269).

I. INFRINGEMENT

TCL makes two arguments in support of judgment as a matter of law that TCL has not infringed. ECF No. 427 at 3-8. Both arguments relate to the phrase “interception module,” which appears in claim 1 of the ’510 patent:

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 one least interface if the request is granted.

'510 Patent col.11 ll.1-23 (emphasis added). TCL's first argument is that the Android operating system does not include an "interception module" because the segments of code responsible for interception are not in the same place. ECF No. 427 at 3-6. TCL's second argument, as best as the court can understand it, is that the claims require the "interception module" to be separate from the "software services component," yet there was no evidence for the jury to conclude that these two components are separate in the Android operating system. *Id.* at 6-8. Neither argument is persuasive.

TCL's first argument was raised in a pretrial motion—TCL asked the court to construe "interception module" as a self-contained segment of source code, as opposed to code that is dispersed throughout an operating system. See ECF No. 359 at 19-20. TCL did not timely raise this claim construction argument, however, and the court found the argument waived. *Id.* Nevertheless, because it was not clear that TCL's argument was a matter for claim construction, the court permitted TCL's expert, Dr. Malek, to explain his understanding of the plain and ordinary meaning of the term "module" at trial. *Id.* (citing *Verizon Servs. Corp. v. Cox Fibernet Va., Inc.*, 602 F.3d 1325, 1330-41 (Fed. Cir. 2010) (distinguishing infringement from claim construction)); see also *Nobelbiz, Inc. v. Glob. Connect, LLC*, 876 F.3d 1326, 1330 (Fed. Cir. 2017) (O'Malley, J., dissenting from denial of petition for rehearing en banc) ("The fact that parties' experts might proffer differing definitions of a term's plain and ordinary meaning to a jury should not be enough to justify removing that question from the jury's consideration.").

Ericsson's expert, Dr. Jones, offered a competing understanding, explaining that the Android operating system included an interception "module" because it had

code that is “a logically separable part of the program that has an identifiable functionality.” Trial Tr. vol. 2 (afternoon), 56:12-57:7, Dec. 6, 2017, ECF No. 404. In other words, Dr. Jones’s opinion was that regardless of where in the operating system the source code resided, segments of source code could work together in the Android operating system to perform the interception function, and such segments would be considered a “module” because they are logically distinct (in terms of function) from other portions of source code. See *id.*

Dr. Jones discredited Dr. Malek’s testimony by highlighting that Dr. Malek’s understanding of the term has not been consistent. In a claim construction declaration, Dr. Malek explained that “interception module” would be understood as software responsible for receiving a request to access the software services component from the application domain software and passing the request to the decision entity. *Id.* 58:3-8. Dr. Jones explained that this definition is consistent with his understanding, *i.e.*, a segment of code that performs the interception function. *Id.* 58:4-24. Dr. Malek repeated essentially the same definition during his deposition. *Id.* 59:4-7. Yet at trial, Dr. Malek defined the term as a “program unit that is discrete and identifiable with respect to compiling, combining with other units, and loading.” *Id.* 60:6-8. Dr. Jones not only highlighted the inconsistency, but also explained how the Android operating system would satisfy each one of Dr. Malek’s definitions. *Id.* 58:4-60:24.

The real difference between the experts, according to Dr. Jones, had to do with the fact that the portions of code alleged by Ericsson to satisfy the “interception module” limitation were scattered in different places and in different files. *Id.* 60:25-61:9. Dr. Jones explained that in terms of computer science, it did not matter where the

source code was located as long as the code segments were linked together in a way that made them logically discrete. *Id.* 61:10-25. Thus, “from the phone’s perspective, they’re executed right in a row.” *Id.* 61:21-22.

Not surprisingly, the jury discredited Dr. Malek’s testimony, and substantial evidence supports this finding. First, the jury could have credited Dr. Jones’s understanding that the Android system has an “interception module” because it includes logically distinct segments of code that interact together to perform the interception function. TCL’s argument to the contrary, that “[t]he only clear definition of the term ‘module’ was presented by TCL,” ECF No. 427 at 3, is meritless. Dr. Jones’s understanding of the term was not only clear, but it made sense in terms of computer science. Second, the jury could have credited Dr. Malek’s own prior definitions of the phrase, which were consistent with Dr. Jones’s definition. Third, the jury could have concluded that the Android system satisfies the definition Dr. Malek offered at trial inasmuch as the Android code segments are *logically* discrete and identifiable with respect to compiling and loading.

TCL’s second argument appears to be that Ericsson unwittingly limited the scope of the claims during trial by stating that the claims require a “layered” architecture. See ECF No. 427 at 6-7. According to TCL, this means that the “interception module” and “software services component” must be in separate places, yet there is no evidence to support that finding. *Id.* at 7. The testimony TCL cites as supporting a disclaimer of claim scope, however, has nothing to do with the claim requirements. The testimony related to the fact that the Android system contains the interception module and software services component in the same file. Trial Tr. vol. 1 (morn-

ing), 37:25-38:9, Dec. 5, 2017, ECF No. 399. Even so, according to Dr. Jones, the interception module and software services component are logically “separate and distinct things,” and indeed, in “[d]ifferent layers.” *Id.* 38:4-9. Thus, even if the claims require the interception module to be in a different “layer” than the software services component, the jury heard substantial evidence to support the finding that this requirement is satisfied.

To be clear, TCL’s infringement arguments are not about the jury improperly deciding a claim construction issue. This court has commented on the so-called “*O2 Micro* trap,” which can doom a jury verdict on appeal. See *Huawei Techs. Co. v. T-Mobile US, Inc.*, No. 2:16-cv-00052-JRG-RSP, 2017 WL 4070592, at *1 (E.D. Tex. Aug. 29, 2017), adopted, 2017 WL 4049251 (E.D. Tex. Sept. 13, 2017); see also *Nobelbiz*, 876 F.3d at 1330 (O’Malley, J., dissenting from denial of petition for rehearing en banc). There has not been a post-trial argument from TCL that it was improper to let the jury evaluate the experts’ competing understandings of the plain and ordinary meaning of the phrase “interception module.” Any such argument has been waived. See *Sage Products, Inc. v. Devon Indus., Inc.*, 126 F.3d 1420, 1426 (Fed. Cir. 1997). Furthermore, Dr. Malek did not claim to be relying on a special meaning of the term “module” arising from the intrinsic record of the ’510 patent. The dispute simply related to the ordinary understanding of the term within the art.

II. DAMAGES

The parties’ damages theories have been discussed in a prior opinion. See ECF No. 456; ECF No. 460 (redacted). Briefly, Ericsson contended on the basis of a consumer survey that about 28% of consumers would not have purchased an accused TCL device without the abil-

ity to grant or deny access to native functionality. See ECF No. 456 at 3-5. This 28% number was then applied directly to TCL's at-risk profit to arrive at a \$3.41 royalty rate, which was factored into Ericsson's lump sum royalty analysis, providing for a total damages estimate of \$245 million. See *id.* TCL contended, on the basis of Ericsson's past licensing practices, that damages should be no more than \$2,465,000. See *id.* at 5-9. The jury credited Ericsson's theory and awarded \$75 million, which reflects a deduction attributable at least in part to unaccused products, as discussed more below. See ECF No. 390 at 1.

The court vacated the jury's damages verdict, concluding that (1) Ericsson's damages theory was unreliable; and (2) Ericsson's pursuit of unaccused products made a new trial on damages necessary. See ECF No. 456 at 9-15. As for Ericsson's damages theory, the court concluded that Mr. Mills' opinion was unreliable because it failed to account for patented features on a device that a consumer would consider just as essential as the accused security feature. See *id.* at 10-12. Extrapolating Ericsson's theory, in other words, would quickly result in the erosion of all of TCL's profit. See *id.*

Ericsson asks the court to reconsider this decision. See ECF No. 464. First, Ericsson contends that the court's decision conflicts with other courts' approval of damages theories such as the one Mr. Mills presented at trial. See *id.* at 1. Second, Ericsson contends that the court's order raises a flavor of a "royalty stacking" concern, but Ericsson emphasizes that an accused infringer's profit is not a cap on damages and that TCL never presented evidence regarding patents that covered other features a consumer would find essential. See *id.* at 7-9. The court agrees.

Two principles are at the heart of the court’s reconsideration of the damages issue. First, “[a] jury’s decision with respect to an award of damages ‘must be upheld unless the amount is grossly excessive or monstrous, clearly not supported by the evidence, or based only on speculation or guesswork.’” *Lucent Techs., Inc. v. Gateway, Inc.*, 580 F.3d 1301, 1310 (Fed. Cir. 2009) (quotation and citations omitted). Second, “[e]stimating a reasonable royalty is not an exact science,” and “the question of whether the expert is credible or the opinion is correct is generally a question for the fact finder, not the court.” *Summit 6, LLC v. Samsung Elecs. Co.*, 802 F.3d 1283, 1296 (Fed. Cir. 2015).

It is often difficult to draw the line between a credibility issue and a *Daubert* issue in patent cases, but the flaw in Ericsson’s damages theory should have gone to the weight of the evidence, not its admissibility. “The primary purpose of the *Daubert* filter is to protect juries from being bamboozled by technical evidence of dubious merit, as is implicit in the courts’ insistence that the *Daubert* inquiry performs a ‘gatekeeper’ function.” *SmithKline Beecham Corp. v. Apotex Corp.*, 247 F. Supp. 2d 1011, 1042 (N.D. Ill. 2003), vacated on other grounds, 403 F.3d 1331 (Fed. Cir. 2005) (Posner, J., sitting by designation). Effective cross-examination and the presentation of contrary evidence should have been adequate to prevent the jury from being misled by Ericsson’s damages theory. *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579, 596 (1993) (“Vigorous cross-examination, presentation of contrary evidence, and careful instruction on the burden of proof are the traditional and appropriate means of attacking shaky but admissible evidence.”). Indeed, any juror can understand that if one infringing feature on a device demands nearly a third of the device’s profit, it

may become impossible to sell a profitable device. TCL made this point to the jury, but much less effectively than the court expected, and the point was clouded by other unpersuasive arguments. Thus, to the extent Mr. Mills overlooked that consumers considered other features essential, and that these features would demand additional royalties, the flaw went to the weight of Mr. Mills' testimony.

Other courts have come to the same conclusion. See ECF No. 464 at 4-7. Mr. Mills presented his damages theory in *Sentius International, LLC v. Microsoft Corporation*, and the court declined to find it inadmissible under *Daubert*. See No. 5:13-CV-00825-PSG, 2015 WL 451950, at *9 (N.D. Cal. Jan. 27, 2015). Specifically, "Mills used Wecker's survey to calculate the revenue and profit that Microsoft would have allegedly lost if it had not included the accused spell and grammar check features in its accused products." *Id.* Rejecting the same argument TCL made in its post-trial motion, the court concluded that "Mills' income approach theory is not a hidden attempt to avoid the entire market value rule because Mills did not derive damages using Microsoft's revenue and profit from all sales of the accused products." *Id.* at *11. Two other decisions are consistent with the result in *Sentius*. See *Lucent Techs., Inc. v. Microsoft Corp.*, 837 F. Supp. 2d 1107, 1117 (S.D. Cal. 2011); *Apple, Inc. v. Samsung Elecs. Co.*, No. 12-CV-00630-LHK, 2014 WL 794328, at *15 (N.D. Cal. Feb. 25, 2014).

A review of these cases also reveals that the court's previous order gave more credit to TCL's post-trial damages motion than was due. TCL made arguments identical to the ones rejected in *Sentius*, namely that Dr. Wecker's survey was unreliable and that "Ericsson's damages model violates the entire market value rule."

ECF No. 427 at 13-14. The survey itself was not unreliable, however, as the court has already explained, see ECF No. 456 at 11-12, and TCL's entire market value argument did not clearly highlight the flaw in Mr. Mills' opinion, see *id.* at 12. The problem identified by the court—that Mr. Mills directly applied the 28% survey result to the at-risk profit—is at best another way of framing TCL's more convoluted argument, but a common sense articulation of the court's point is nowhere to be found in TCL's motion, see ECF No. 427, and was therefore not squarely addressed by Ericsson until its motion for reconsideration.

Even if TCL preserved the essence of the court's point about Mr. Mills overlooking facts of the case, namely other features a consumer might consider essential, Ericsson is correct that TCL fell short of producing evidence to establish these facts. See ECF No. 464 at 7-9. The lack of evidence highlighting the flaw in Mr. Mills' opinion is an important reason why the flaw should have gone to the weight of the evidence, not its admissibility. First, the jury did not hear evidence about Mr. Mills' opinion regarding the other patents-in-suit, which the court relied on to illustrate how TCL's profit would quickly vanish. See ECF No. 456 at 10. Second, while there was evidence that consumers would consider a few other features essential to their purchase, including ability to make a call, text messaging, and Wi-Fi, see Trial Tr. vol. 1 (morning), 90:3-9:98:17, Dec. 5, 2017, ECF No. 398, the jury was not presented evidence that any one of these features was covered by another patent. At most, the jury heard evidence that the '510 patent was "one of many thousands of patents *potentially* that read on that phone." Trial Tr. vol. 2 (afternoon), 9:1-4, Dec. 6, 2017, ECF No. 404 (emphasis added). Although there are

many patents that likely read on the accused devices, as far as the jury was concerned, this was only a possibility. See *id.*

Ericsson persuasively argues that the evidence presented at trial would not have been enough to warrant an instruction on royalty stacking. See ECF No. 464 at 8-9. The Federal Circuit has explained that “[t]he district court need not instruct the jury on hold-up or stacking unless the accused infringer presents actual evidence of hold-up or stacking.” *Ericsson, Inc. v. D-Link Sys., Inc.*, 773 F.3d 1201, 1234 (Fed. Cir. 2014). “The mere fact that thousands of patents are declared to be essential to a standard does not mean that a standard-compliant company will necessarily have to pay a royalty to each SEP holder.” *Id.* Though this case did not deal with a patent declared essential to an industry standard, the Federal Circuit’s point applies equally to testimony about unidentified patents that potentially cover the accused devices and the royalties those patents might demand. Indeed, Federal Circuit precedent suggests that TCL’s theory about features covered by other unidentified patents would be unreliable opinion without actual evidence of royalty stacking. See *Commonwealth Sci. & Indus. Research Organisation v. Cisco Sys., Inc.*, 809 F.3d 1295, 1302 (Fed. Cir. 2015) (“[A]bstract recitations of royalty stacking theory . . . are insufficiently reliable.”).

The concern that Ericsson’s theory would erode all of TCL’s profit should also have gone to the weight of the evidence. The law is clear that an accused infringer’s profit is not a cap on a reasonable royalty. See *Powell v. Home Depot USA Inc.*, 663 F.3d 1221, 1238 (Fed. Cir. 2011) (“[I]t is settled law that an infringer’s net profit margin is not the ceiling by which a reasonable royalty is capped.”). More important, while an accused infringer’s

profit is relevant to the analysis, see *id.*, TCL opened the door to evidence that TCL underestimated its profit. See Trial Tr. vol. 2 (afternoon), 63:1-3, Dec. 5, 2017, ECF No. 400 (Q. “Do you have any reason to doubt that [profit] figure?” A. “Yes.” Q. “What’s that?”). The profit figure the parties referenced at trial, according to Mr. Mills, was the figure used in TCL’s “financial reporting accounting,” which did not correlate to TCL’s actual profit. See *id.* 63:5-25. Mr. Mills explained, for example, that TCL kept a war chest for patent royalties that were included in the financial reporting accounting as “costs,” even though royalties were never paid. See *id.* 64:1-19. These unpaid royalties, according to Mr. Mills, inflated costs “to the tune of more than \$50 million for some years.” *Id.* 64:1-5.

Ericsson also persuasively argues that references to unaccused products should not have necessitated a new trial on damages. Cf. ECF No. 456 at 12-15. TCL argues otherwise, but not because the discussion of unaccused products was prejudicial under Rule 403. See ECF No. 427 at 13. Rather, TCL’s complaint is that the damages model “is flawed” and “contrary to law” inasmuch as a patentee “can only receive infringement damages on those devices that actually performed the patented method during the relevant infringement period.” *Id.* (quoting *Cardiac Pacemakers, Inc. v. St. Jude Med., Inc.*, 576 F.3d 1348, 1358-59 (Fed. Cir. 2009)). Yet TCL was not assessed damages on unaccused products because the jury was instructed that lump sum damages are available only for “products Ericsson has accused in this case.” Trial Tr. 25:21-26:4, Dec. 7, 2017, ECF No. 406; See *Weeks v. Angelone*, 528 U.S. 225, 234 (2000) (“A jury is presumed to follow its instructions.”).

The problem the court identified with Ericsson's reference to unaccused products was that Ericsson's damages theory looked identical to a running royalty analysis, yet both sides agreed that damages would be in the form of a lump sum. See ECF No. 456 at 12-15. It simply did not make sense for TCL to have willingly agreed to pay what was in effect a running royalty all at once in 2014 as a lump sum. See *id.* TCL's post-trial damages motion, however, did not squarely raise this point. See ECF No. 427. TCL agreed that the parties would have entered into a lump sum license. See, *e.g.*, Trial Tr. vol. 1 (morning), 145:21-146:2, Dec. 6, 2017, ECF No. 402. Ericsson simply populated the "book of wisdom," see *Lucent*, 580 F.3d at 1333, with information about projected sales of both accused and unaccused products. TCL did not counter Ericsson's theory with evidence or argument that it would have been unusual for a sophisticated company like TCL to have graciously agreed to fully pay a lump sum royalty based on forecasts and projections, when it could have chosen to pay running royalties after accounting for actual sales. See *id.* Ordinarily, a running royalty analysis is not probative of a lump-sum agreement, see *Lucent*, 580 F.3d at 1327, but TCL's concession renders this point moot.

TCL's remaining arguments for judgment as a matter of law or a new trial on damages are not persuasive. The court has already explained that Dr. Wecker's survey was not unreliable and that Mr. Mills' opinion did not run afoul of the entire market value rule. See ECF No. 456 at 11-12. Mr. Mills' royalty rate was not arbitrary, contrary to TCL's suggestion, because Mr. Mills adequately grounded the split in at-risk profit by evaluating the parties' respective bargaining positions at the hypothetical negotiation. See Trial Tr. vol. 2 (afternoon) 15:10-24:6,

Dec. 5, 2017, ECF No. 400. TCL makes an argument about §287's limitation on damages that is difficult to comprehend, see ECF No. 427 at 16-17, but suffice it to say that TCL did not object to Mr. Mills' testimony regarding notice of infringement before or during trial. The argument is therefore waived. See, *e.g.*, *Montano v. Orange Cty., Texas*, 842 F.3d 865, 874 (5th Cir. 2016). Moreover, the argument is hard to square with TCL's position that payment would have been made four years early, which would have resulted in an exorbitant pre-judgment interest award if the court applied the 11.4% discount rate assumed by both experts. See *infra* § V.

Although Ericsson presented the jury with damages estimates that accounted for future sales of unaccused products, the jury's \$75 million assessment is consistent with the court's instruction to award damages only for accused products. See Trial Tr. 25:21-26:4, Dec. 7, 2017, ECF No. 406; *Weeks*, 528 U.S. at 234 ("A jury is presumed to follow its instructions."). The undisputed royalty base of accused devices sold prior to trial was 21,415,223. Trial Tr. vol. 2 (afternoon), 26:3-14, Dec. 5, 2017, ECF No. 400. Applying Mr. Mills' upper-end royalty rate and present value calculation to this royalty base results in \$61.2 million in damages for devices sold up to trial. *Id.* 26:3-27:16, 45:1-7. The remaining \$13.8 million in damages conservatively accounts for future sales of accused products based on forecasts and inferences drawn from TCL's past sales. See Trial Tr. vol. 2 (afternoon), 15:22-16:6, 27:3-29:14, Dec. 6, 2017, ECF No. 404 (Mr. Martinez's projections); Trial Tr. vol. 2 (afternoon), 31:9-24, Dec. 5, 2017, ECF No. 400; *id.* 31:9-24 (discussion of TCL's accelerating sales). In addition, there are other ways they jury could have accounted only for accused products and arrived at the \$75 million as-

assessment, as Ericsson explains. See ECF No. 441 at 8-9. Thus, while the jury's assessment includes damages for future sales of accused products, which by definition is what a lump sum payment reflects, the award did not necessarily include damages for future sales of unaccused products.

According to TCL, "[o]ther errors further tainted the jury's damages award," ECF No. 429 at 1, but the court is not persuaded. TCL contends that Ericsson's initial request for \$245 million in damages was prejudicial, *id.* at 4-5, but the court fails to see why given that Ericsson's reference should have been fertile ground for TCL to explore on cross-examination, and in fact, should have worked to TCL's advantage in discrediting Mr. Mills' theory. TCL failed to seize on the opportunity, and in any event, the reduced \$75 million assessment is an indication the jury was not swayed by Ericsson's initial high demand. TCL makes a meritless accusation about Ericsson's "repeated references to TCL as Chinese," ECF No. 429 at 5, yet TCL cites only one instance in which Ericsson's counsel referred to "Chinese executives," which was simply a statement of fact. See Trial Tr. vol. 2 (afternoon), 73:9-11, Dec. 5, 2017, ECF No. 400. Similarly, TCL complains that Ericsson told the jury about TCL's war chest full of unpaid patent royalties and referred to TCL's "two sets of books," but TCL opened the door to this evidence by asking Mr. Mills if he had any reason to doubt TCL's stated profit margin. See Trial Tr. vol. 2 (afternoon), 63:1-3, Dec. 5, 2017, ECF No. 400 (Q. "Do you have any reason to doubt that [profit] figure?" A. "Yes." Q. "What's that?"). Finally, TCL complains about references to the Samsung agreement, ECF No. 429 at 7-8, but TCL stipulated to its admission and put the details at issue, as the court explained at the pretrial conference.

See Hearing Tr. 74:20-77:5, 81:4-19, Nov. 11, 2017, ECF No. 366. For these reasons, the jury’s damages assessment is supported by substantial evidence, and a new trial on damages is unnecessary.

III. WILLFULNESS AND ENHANCED DAMAGES

The Patent Act provides that “the court may increase the damages up to three times the amount found or assessed.” 35 U.S.C. §284. The Supreme Court’s decision in *Halo Electronics, Inc. v. Pulse Electronics, Inc.*, 136 S. Ct. 1923, 1933 (2016), clarified that “[t]he subjective willfulness of a patent infringer, intentional or knowing, may warrant enhanced damages, without regard to whether his infringement was objectively reckless.” Yet “enhanced damages . . . are not to be meted out in a typical infringement case, but are instead designed as a ‘punitive’ or ‘vindictive’ sanction for egregious infringement behavior.” *Id.* at 1932. The Supreme Court described the requisite conduct as “willful, wanton, malicious, bad-faith, deliberate, consciously wrongful, flagrant, or—indeed—characteristic of a pirate,” emphasizing that enhanced damages “are generally reserved for egregious cases of culpable behavior.” *Id.*

At the time of trial, there was uncertainty regarding how to implement *Halo*. An unanswered question was what role, if any, the jury must play. See ECF No. 359 at 10-11. One reading of *Halo* suggests that the factual inquiry is not merely whether the accused infringer knew of the patent and knew it was infringing, but rather whether the conduct has been “egregious.” See *WesternGeco L.L.C. v. ION Geophysical Corp.*, 837 F.3d 1358, 1364 (Fed. Cir. 2016) (“The district court, on remand, should consider whether ION’s infringement constituted an ‘egregious case[] of misconduct beyond typical infringement’ meriting enhanced damages under § 284 and,

if so, the appropriate extent of the enhancement.”), cert. granted on other grounds in *WesternGeco LLC v. ION Geophysical Corp.*, 138 S. Ct. 734 (2018). Another reading of *Halo* suggests that the factual inquiry is simply whether the infringement is intentional, and it is then for the court to decide whether the conduct has been egregious enough to warrant enhancing damages. See *Halo*, 136 S. Ct. at 1933.

The latter reading, as the court saw it at the time, takes a portion of a traditionally fact intensive question away from the jury. In other contexts, juries decide not only whether a party acted intentionally, but also whether the culpable conduct is “malicious, gross, or oppressive,” for example. See *Pac. Mut. Life Ins. Co. v. Haslip*, 499 U.S. 1, 23 (1991). It is clear from §284 that any damages enhancement is a matter for the court, but it is not clear from the statute or *Halo* that the court, as opposed to the jury, should be deciding whether the culpable behavior goes beyond mere intentional conduct and becomes “wanton, malicious, bad-faith, . . . consciously wrongful, [or] flagrant,” for example. See *Halo*, 136 S. Ct. at 1932. Typically, when the legal standard includes adjectives such as “malicious” or “flagrant,” the Seventh Amendment right to have the matter decided by a jury is most evident. See *Worldwide Equip. of TN, Inc. v. United States*, No. CV 14-108-ART, 2016 WL 3574395, at *1 (E.D. Ky. June 23, 2016) (Thapar, J.) (“It’s difficult to win summary judgment when the legal question presented uses nebulous adjectives like ‘specialty’ and ‘substantially.’”). One juror’s “malicious” conduct might be another’s benign, competitive business activity. See *id.*

For that reason, the court gave a robust instruction to the jury, the goal being to let the jury decide not only whether the infringement was intentional, but also

whether it was egregious. The instruction stated in relevant part:

Willful infringement does not mean merely that the accused infringer knew of the patent and knew that it was infringing. It requires something more.

A finding of willful infringement is reserved for the most egregious or shocking cases of intentional or culpable patent infringement. By culpable or intentional, I mean that the accused infringer must have known about the patent, must have known that the patent was valid, and must have known that its behavior was infringing the patent.

In addition, the infringer's culpable or intentional infringement behavior must have been egregious or shocking—in other words, malicious, consciously wrongful, or done in bad faith.

The reason you are asked to decide whether any infringement was willful is because your finding may factor into my decision whether to enhance any damages that you award, or, in other words, to award punitive damages. This is because the law says that it's my role to award any punitive damages for willful infringement.

Trial Tr. 27:23-28:16, Dec. 7, 2017, ECF No. 406. Thus, by finding that TCL willfully infringed, the jury not only determined that TCL's infringement was intentional, but also that the conduct was egregious or shocking. See *Weeks*, 528 U.S. at 234 (“A jury is presumed to follow its instructions.”).

The Federal Circuit has since offered helpful guidance. First, “the entire willfulness determination is to be decided by the jury.” *Exmark Mfg. Co. Inc. v. Briggs & Stratton Power Prod. Grp., LLC*, 879 F.3d 1332, 1353

(Fed. Cir. 2018). Second, this court’s willfulness instruction may have been more robust than it needed to be.² On the last day of trial, the Federal Circuit released its decision in *Arctic Cat Inc. v. Bombardier Recreational Products Inc.*, 876 F.3d 1350 (Fed. Cir. 2017), which approved a more modest instruction: “Arctic Cat must prove . . . that BRP actually knew or should have known that its actions constituted an unjustifiably high risk of infringement of a valid and enforceable patent,” *id.* at 1371 (quoting jury instruction).³ *Arctic Cat* clarified that “subjective willfulness alone—*i.e.*, proof that the defendant acted despite a risk of infringement that was either known or so obvious that it should have been known to the accused infringer,—can support an award of enhanced damages.” *Id.* (internal quotation marks and citations omitted). The implication from *Exmark* and *Arctic Cat* is that the jury must decide whether the infringement was intentional, and then the court must decide whether the intentional conduct was egregious enough to justify enhanced damages.

Thus, TCL’s motion for judgment as a matter of law on willfulness only requires the court to evaluate whether substantial evidence supports the jury’s finding that TCL’s infringement was willful. TCL emphasizes that the conduct was not egregious enough, and those arguments are relevant to the court’s enhancement decision.

² Neither party objected to the instruction. See Trial Tr. 2:23-11:9, Dec. 7, 2017, ECF No. 406.

³ The *Arctic Cat* instruction was given prior to *Halo* and thus imposed a clear and convincing evidence burden, but that aspect of the instruction was not challenged on appeal, nor did the Federal Circuit approve that part of the instruction. See *Halo*, 136 S. Ct. at 1934 (enhanced damages governed by preponderance of the evidence standard).

See ECF No. 427 at 8-12. But TCL's assumption that a jury's willfulness finding cannot stand without egregious or shocking infringement behavior is inconsistent with the Federal Circuit's decision in *Artic Cat*. The jury found TCL's infringement intentional *and* egregious, but TCL's Rule 50(b) motion implicates only the intent finding.

The jury's finding could have only been predicated on willful infringement that occurred after Ericsson sued TCL, but the timing of the willfulness is not at issue. The parties agreed that TCL did not receive notice of Ericsson's infringement allegations until October 21, 2014, the date Ericsson filed its lawsuit. See J. Trial Ex. 1 at 5. There is uncertainty regarding whether post-lawsuit conduct can support a willfulness finding by itself, see, e.g., *Cont'l Circuits LLC v. Intel Corp.*, No. CV16-2026 PHX DGC, 2017 WL 2651709, at *8 n.11 (D. Ariz. June 19, 2017), but TCL does not argue that willfulness is categorically unavailable when it occurs only after a lawsuit is filed. See ECF No. 427 at 11. At most, TCL argues that its conduct was not egregious enough because "there was not even a pre-suit notice of infringement." *Id.* The assumption that willfulness may exist based solely on post-lawsuit conduct, however, has not been challenged.

Substantial evidence supports the jury's willfulness finding. Central to the willfulness inquiry is an accused infringer's subjective beliefs. See *Erfindergemeinschaft UroPep GbR v. Eli Lilly & Co.*, 240 F. Supp. 3d 605, 618 (E.D. Tex. 2017) (Bryson, J., sitting by designation). While there was no evidence regarding TCL's subjective beliefs about the '510 patent, the jury could have inferred intent from circumstantial evidence. See *Georgetown Rail Equip. Co. v. Holland L.P.*, 867 F.3d 1229, 1245 (Fed. Cir. 2017). First, the jury heard that TCL knew of

the '510 patent and the infringement allegations once the lawsuit was filed. See J. Trial Ex. 1 at 5. Second, not a single TCL decision maker testified that TCL subjectively believed the '510 patent was invalid or not infringed. Rather, Ericsson presented deposition testimony from TCL employees who all pleaded ignorance, indicating that they had not read the '510 patent. See Trial Tr. vol. 1 (morning) 43:17-20, 45:5-20, 50:15-17, 60:14-20, 62:19-63:3, Dec. 5, 2017, ECF No. 400. In light of the parties' agreement concerning knowledge of the '510 patent and the infringement allegations, and the lack of any testimony about TCL's subjective beliefs, the jury could have concluded, more likely than not, that TCL knew it was infringing a valid patent.

TCL argues that "evidence of its subjective good faith belief in non-infringement refutes a finding of willful infringement." ECF No. 427 at 11. But there was no evidence of any TCL belief about whether the '510 patent was invalid or infringed. TCL appears to assume that a jury must infer a subjective belief of noninfringement when a party presents a reasonable defense at trial, but equally possible is the inference that a defense is unreasonable and hence circumstantial evidence of willful infringement. The jury was under no obligation to credit TCL's defense as reasonable or infer that the defense was evidence of TCL's good-faith belief, particularly when there was no evidence about that belief. See *Power Integrations, Inc. v. Fairchild Semiconductor Int'l, Inc.*, No. CV 04-1371-LPS, 2017 WL 6206382, at *12 (D. Del. Dec. 8, 2017) (reasonableness of an accused infringer's defense "only one factor among the totality of the circumstances") (citation omitted).

According to TCL, "the question of infringement was a close call," ECF No. 427 at 12, but the court disagrees.

TCL's primary noninfringement argument was that the Android system does not include an "interception module" because the code responsible for interception is scattered throughout the operating system in different files. The weakness of this position could have been enough by itself to influence the jury's willfulness finding. The argument simply did not make sense in terms of computer science, and Dr. Jones made this point clear. In any case, it is not the court's role to decide whether a defense was reasonable. See *Exmark*, 879 at 1353. The jury must have concluded that the defense was not reasonable enough to permit an inference that TCL did not willfully infringe the patent.⁴ Substantial evidence supports the jury's finding.

That leaves only the question of whether damages should be enhanced. Enhancement is within the court's discretion, but "[d]iscretion is not whim." *Halo*, 136 S. Ct. at 1931 (quoting *Martin v. Franklin Capital Corp.*, 546 U.S. 132, 139 (2005)). "Through nearly two centuries of discretionary awards and review by appellate tribunals, 'the channel of discretion ha[s] narrowed,' so that such damages are generally reserved for egregious cases of culpable behavior." *Id.* at 1932 (quoting Friendly, *In-Discretion About Discretion*, 31 *Emory L.J.* 747, 772 (1982)).

⁴ The Patent Office instituted *inter partes* review of the '510 patent after concluding that TCL established a "reasonable likelihood" that claims of the '510 patent are invalid, though the Patent Office ultimately found the claims not invalid. See ECF No. 359 at 7; see also 35 U.S.C. § 314(a). Ordinarily, the Patent Office's institution decision would be evidence of the reasonableness of an accused infringer's good faith belief of invalidity, and the court permitted TCL to present such evidence at trial, see ECF No. 359 at 7, but TCL declined to do so.

Prior to *Halo*, the factors articulated in *Read Corp. v. Portec, Inc.*, 970 F.2d 816 (Fed. Cir. 1992), guided the analysis. The *Halo* standard, by contrast, “merely requires the district court to consider the particular circumstances of the case to determine whether it is egregious.” *Presidio Components, Inc. v. Am. Tech. Ceramics Corp.*, 875 F.3d 1369, 1383 (Fed. Cir. 2017). The court is no longer required to rely on *Read*, see *id.* at 1382-83, and the Federal Circuit has emphasized that the *Read* factors were always “non-exclusive,” *Georgetown Rail*, 867 F.3d at 1244. Even after *Halo*, however, courts continue to look to the *Read* factors, and there is nothing obviously wrong with that approach given that the factors are designed to measure how culpable infringement has been, while considering mitigating factors. See *Green Mountain Glass LLC v. Saint-Gobain Containers, Inc.*, No. CV 14-392-GMS, 2018 WL 1202638, at *10-*13 (D. Del. Mar. 8, 2018).

Five of the nine *Read* factors favor enhancement. The second factor is “whether the infringer, when he knew of the other’s patent, investigated the patent and formed a good faith belief that it was invalid or that it was not infringed.” *Read*, 970 F.2d at 826-27. The jury’s finding that TCL’s infringement was both culpable and egregious necessarily means that the jury did not credit TCL with a good faith belief about the ’510 patent. This was not a surprising result given the lack of evidence about the subjective beliefs of TCL’s decision makers.

The noninfringement defense TCL presented at trial does not indicate anything about TCL’s beliefs. The defense was based on Dr. Malek’s understanding of the plain and ordinary meaning of the phrase “interception module,” but this understanding surfaced only at the end of the lawsuit. There is no indication that TCL developed

a good faith belief that the Android system did not include an “interception module” near the time TCL learned of the infringement allegations. Every indication is to the contrary. After TCL learned of the allegations, Dr. Malek, on behalf of TCL, offered a definition of “interception module” that had nothing to do with the location of the source code responsible for interception, and in fact, was entirely consistent with infringement. See Trial Tr. vol. 2 (afternoon), 58:3-60:24, Dec. 6, 2017, ECF No. 404.

Dr. Malek’s earlier, broader understanding of “interception module” may seem consistent with the notion that TCL believed the ’510 patent to be invalid. TCL’s success in convincing the Patent Office to institute *inter partes* review of the ’510 patent would ordinarily be evidence of the reasonableness of such a belief. What is missing, however, is any evidence from TCL regarding its actual, subjective beliefs. The TCL employees called by deposition at trial indicated only that they did not read the patent. See Trial Tr. vol. 1 (morning) 43:17-20, 45:5-20, 50:15-17, 60:14-20, 62:19-63:3, Dec. 5, 2017, ECF No. 400. It would be impossible to conclude that these employees reasonably believed the patent was invalid when the employees admitted they had no beliefs at all about the matter.

The fourth *Read* factor, “the infringer’s size and financial condition,” 970 F.2d at 826-27, also favors enhancement. TCL’s website touts TCL’s seventh-place ranking among global handset and tablet manufacturers. See http://www.tclcom.com/?page=company_profile (last visited April 27, 2018). The company sells products in over 160 countries, has more than 12,000 employees, nine research and development facilities, and a factory in China capable of manufacturing 120 million devices per year.

See *id.* In 2016, TCL sold more than 68 million handsets. See *id.* TCL is also well on its way to completing a global “step-up” strategy, entering the phone and tablet market with lower-end products, with the goal of later introducing upper-end products and eventually competing alongside Apple and Samsung as one of the top three handheld device manufacturers. See Trial Tr. vol. 2 (afternoon), 30:15-37:11, Dec. 5, 2017, ECF No. 400.

The “closeness of the case,” or the fifth *Read* factor, 970 F.2d at 826-27, similarly favors enhancement. Although the case as a whole may have been close of light of TCL’s success in convincing the Patent Office that all but one of Ericsson’s asserted patents are invalid, see ECF No. 359 at 4, the case presented at trial concerning the ’510 patent was not close. TCL did not present an invalidity defense, and the noninfringement position was weak. Contrary to TCL’s arguments, see ECF No. 425, the fact that the jury requested certain exhibits during deliberation at most reflects thorough consideration and is not an indication that the case was close.

Finally, the sixth and seventh *Read* factors, “the duration of the misconduct,” and “the remedial action by the infringer,” 970 F.2d at 826-27, favor enhancement. There is no indication that TCL did anything differently after learning of the infringement allegations in 2014. Rather, TCL’s sales of accused products have increased since it learned of the infringement allegations. See Trial Tr. vol. 2 (afternoon), 30:15-37:11, Dec. 5, 2017, ECF No. 400. TCL’s infringement has persisted, indeed worsened, over the nearly three-year period between notice of infringement and trial. See *Intra Corp. v. Hamar Laser Instruments, Inc.*, 662 F. Supp. 1420, 1439 (E.D. Mich. 1987) (doubling instead of trebling damages because the defendant “voluntarily ceased manufacture and sale of in-

fringing systems during the pendency of this litigation”), aff’d without opinion, 862 F.2d 320 (Fed. Cir. 1988), cert. denied, 490 U.S. 1021 (1989).

Ericsson contends that two additional *Read* factors favor enhancement—“the infringer’s behavior in the litigation,” and “the infringer’s motivation for harm,” see 970 F.2d at 826-27; ECF No. 413 at 5, 8, but the court disagrees. As for TCL’s behavior in the litigation, Ericsson emphasizes TCL’s alleged discovery misconduct, that TCL advanced then withdrew allegedly meritless patent infringement counterclaims, and that TCL’s defenses were weak. ECF No. 413 at 10-14. A case of this size is difficult to manage, however, particularly during discovery, and the conduct Ericsson points to as justifying an enhancement does not stand out as unusual in a complex patent case. This is not to say that litigation misconduct in a patent case cannot rise to a level that would warrant enhanced damages, but this case does not justify that conclusion.

TCL’s motivation for harm weighs against or at least does not favor enhancement, contrary to Ericsson’s position. As other courts have recognized, the Federal Circuit has “been relatively quiet regarding the interpretation of this factor.” *Century Wrecker Corp. v. E.R. Buske Mfg. Co.*, 913 F. Supp. 1256, 1290 (N.D. Iowa 1996). What is clear enough, however, is that if an accused infringer’s motivation for infringement—even if deliberate—resulted from economic reasons unrelated to harming the patentee, then the infringer’s motivation for harm should not weigh in favor of enhancement. *Read*, 970 F.2d at 827 (“[D]efendants infringing acts, although deliberate and with knowledge of plaintiff’s rights, could not be termed pernicious due to prevailing ‘economic pressure in the form of customer dissatisfaction.’”) (quot-

ing *American Safety Table Co. v. Schreiber*, 415 F.2d 373, 379 (2d Cir. 1969)). TCL did not know about Ericsson's patents before it began selling devices with the accused Android operating system, TCL does not compete with Ericsson in the relevant market, and TCL's motive is profit-driven. See Trial Tr. vol. 2 (afternoon), 30:15-37:11, Dec. 5, 2017, ECF No. 400. There was no evidence that TCL intended to harm Ericsson.

Two other circumstances weigh against enhancement. First, notwithstanding the question of whether enhanced damages are available based solely on post-lawsuit conduct (which is not in dispute), the parties agree that when TCL began infringing the '510 patent, the infringement was not willful. See J. Trial Ex. 1 at 5. "[I]ndependent invention or attempts to design around and avoid the patent or any other factors tending to show good faith, should be taken into account and given appropriate weight." *SRI Int'l, Inc. v. Advanced Tech. Labs., Inc.*, 127 F.3d 1462, 1465 (Fed. Cir. 1997); see also *Gustafson, Inc. v. Intersystems Indus. Prod., Inc.*, 897 F.2d 508, 510 (Fed. Cir. 1990) (discussing cases in which an infringing product had been manufactured before an asserted patent issued). TCL began infringing before it knew about the '510 patent, much like an infringer who develops an accused device independently. See J. Trial Ex. 1 at 5. This circumstance makes TCL less culpable than a party whose infringement was intentional from the outset.

Second, it was Google, not TCL, who developed the Android operating system. See Trial Tr. vol. 2 (afternoon), 6:16-7:14, Dec. 5, 2017, ECF No. 400. Google's contract with TCL requires TCL to shoulder any resulting liability, but the law has traditionally regarded one who receives stolen property as less culpable than the thief. See Stuart P. Green, *Thieving and Receiving:*

Overcriminalizing the Possession of Stolen Property, 14 New Crim. L. Rev. 35, 35 (2011). This is not to analogize Google’s development of Android and TCL’s subsequent use of it to criminal theft, but rather to recognize that TCL’s lack of involvement in the design and development of Android mitigates TCL’s culpability. See *SRI*, 127 F.3d at 1465.

Ericsson requests a 67% enhancement of the jury’s damages assessment, or \$50 million. See ECF No. 413 at 3. This request incorrectly assumes, however, that TCL’s litigation behavior and motivation for harm favor enhancement, and the request fails to consider other mitigating factors. A one-third enhancement, or \$25 million, is a sufficient deterrent.

IV. ATTORNEY’S FEES

The Patent Act permits the court to award attorney’s fees to the prevailing party in “exceptional cases.” 35 U.S.C. §285. “[A]n ‘exceptional’ case is simply one that stands out from others with respect to the substantive strength of a party’s litigating position (considering both the governing law and the facts of the case) or the unreasonable manner in which the case was litigated.” *Octane Fitness, LLC v. ICON Health & Fitness, Inc.*, 134 S. Ct. 1749, 1756 (2014) (quoting §285). While Ericsson is correct that TCL’s noninfringement defense was weak, TCL succeeded in convincing the Patent Office that all but one of Ericsson’s asserted patents are invalid, see ECF No. 359 at 4, and the damages question was particularly close—so much so that the court originally thought the award would not stand on appeal. See ECF No. 456. Moreover, TCL’s litigation behavior was not unusual for a case of this size and complexity. Finally, a finding of willfulness does not make a case exceptional. See *Stryker Corp. v. Zimmer, Inc.*, 837 F.3d 1268, 1279 (Fed. Cir.

2016). For these reasons, Ericsson is not entitled to attorney's fees.

V. INTEREST AND COSTS

Upon a finding of infringement, the patent owner is entitled to damages adequate to compensate for the infringement, "together with interest and costs as fixed by the court." 35 U.S.C. §284. "When a patentee asserts a patent claim that is held to be valid and infringed, prejudgment interest is generally awarded." *Ecolab, Inc. v. FMC Corp.*, 569 F.3d 1335, 1353 (Fed. Cir. 2009), amended on reh'g in part, 366 F. App'x 154 (Fed. Cir. 2009). Some circumstances, such as a patentee's undue delay in prosecuting the lawsuit, may justify limiting or withholding prejudgment interest, but "prejudgment interest should be awarded under §284 absent some justification for withholding such an award." *Gen. Motors Corp. v. Devex Corp.*, 461 U.S. 648, 657 (1983).

The rate of prejudgment interest and whether it should be compounded "are matters left largely to the discretion of the district court." *Bio-Rad Labs., Inc. v. Nicolet Instrument Corp.*, 807 F.2d 964, 969 (Fed. Cir. 1986). "[T]he 'standard practice' in the Eastern District of Texas is to award prejudgment interest at the prime rate, compounded quarterly." *Erfindergemeinschaft UroPep GbR v. Eli Lilly & Co.*, No. 2:15-cv-1202-WCB, 2017 WL 2190055, at *8 (E.D. Tex. May 18, 2017) (Bryson, J., sitting by designation) (collecting cases).

Ericsson argues that the standard prejudgment interest award is not adequate to compensate for TCL's infringement because "both experts used a [higher] discount rate of 11.4%." ECF No. 408 at 2. Ericsson determined the historical value of its damages estimate as of October 21, 2014, or the date TCL received notice of the infringement allegations, by applying an 11.4% dis-

count rate. *Id.* at 2. TCL applied the same discount rate but discounted its damages estimate to April 1, 2010, the date of the hypothetical negotiation. See *id.*; see also Trial Tr. vol. 2 (afternoon), 44:9-22, Dec. 5, 2017, ECF No. 400. Consequently, Ericsson contends that the jury's damages award was discounted by either \$30 million, assuming Ericsson's date of payment, or \$97 million, assuming TCL's date of payment. See ECF No. 408 at 2; ECF No. 415 at 1.

The nature of the parties' respective damages theories, however, does not entitle Ericsson to a prejudgment interest rate of 11.4%. The jury did not give Ericsson the damages it requested. See Trial Tr. 67:17-18, Dec. 7, 2017, ECF No. 406 ("The answer that we think you should fill in there is \$125 million."). Moreover, the jury's award does not deprive Ericsson of the time value of money. Ericsson has not presented evidence that it had to borrow funds during the infringement period at an 11.4% interest rate. See *Erfindergemeinschaft UroPep*, 2017 WL 2190055, at *9. Viewing TCL's denial of a timely royalty payment as a compulsory loan from Ericsson, the prime rate compounded quarterly is adequate to make Ericsson whole.⁵ See *id.*

TCL argues that prejudgment interest should not be awarded at all because the verdict form asked the jury "what sum of money, *if paid today in cash* . . . would compensate Ericsson for TCL's infringement?" ECF No. 390 (emphasis added). Thus, according to TCL, the jury awarded prejudgment interest. See ECF No. 415 at 2-4. The court disagrees. Neither party told the jury what "paid today in cash" means, and there was no in-

⁵ For this reason, TCL's suggestion to use the T-Bill or commercial paper rate is not persuasive.

struction on prejudgment interest. Other courts have explained that “paid now in cash” does not imply prejudgment interest, but rather is typically included in a jury question to negate speculation about postjudgment interest on future damages, such as lost wages. See *Pressey v. City of Houston*, 701 F. Supp. 594, 596 (S.D. Tex. 1988), rev’d on other grounds in *Pressey v. Patterson*, 898 F.2d 1018 (5th Cir. 1990). Courts in patent cases routinely award prejudgment interest despite the phrase “paid now in cash” or an equivalent phrase in a damages question. See ECF No. 422 at 1 n.2 (collecting cases).

The only remaining issue concerning prejudgment interest is the date from which it should be calculated. Ericsson agrees that it is not entitled to damages prior to October 21, 2014, the date TCL received notice of Ericsson’s infringement allegations. J. Trial Ex. 1 at 5. Ironically, because the parties both relied on such a high discount rate of 11.4%, TCL contended at trial that even though damages would not accrue until October 21, 2014, TCL would have paid for the lump sum license more than four years earlier at the hypothetical negotiation on April 1, 2010. See Trial Tr. vol. 2 (afternoon), 44:9-22, Dec. 5, 2017, ECF No. 400. TCL’s position thus resulted in a more discounted number, but the position obviously ignored the effect of prejudgment interest—which, if based on the parties 11.4% discount rate, would have amounted to a nearly \$100 million oversight. Ericsson would now prefer TCL suffer the consequence of their position. See ECF No. 422 at 5 (referring to calculations compounded from “the time of the hypothetical negotiation”).

Such a large prejudgment interest award is not warranted, however. Ericsson agreed that compensatory damages could not accrue prior to October 21, 2014. J. Trial Ex. 1 at 5. Thus, Ericsson will not be left less than

whole without interest prior to that date. See *Gen. Motors Corp. v. Devex Corp.*, 461 U.S. 648, 655 (1983) (purpose of prejudgment interest is “to ensure that the patent owner is placed in as good a position as he would have been in had the infringer entered into a reasonable royalty agreement”). It is true that the parties disagreed about when the lump sum royalty would have been paid. See Trial Tr. vol. 2 (afternoon), 44:9-22, Dec. 5, 2017, ECF No. 400. To the extent this was a factual dispute the jury should have resolved, the court would have precluded prejudgment interest prior to when damages could legally accrue even if the jury had agreed that TCL would have decided to pay the lump sum royalty four years early. For these reasons, Ericsson is entitled to prejudgment interest at the prime rate, compounded quarterly from October 21, 2014, on the \$75 million damages award. See *Underwater Devices Inc. v. Morrison-Knudsen Co.*, 717 F.2d 1380, 1389 (Fed. Cir. 1983), overruled on other grounds by *In re Seagate Tech., LLC*, 497 F.3d 1360 (Fed. Cir. 2007) (“[W]e hold that prejudgment interest can only be applied to the primary or actual damage portion and not to the punitive or enhanced portion.”); see also *Beatrice Foods Co. v. New England Printing & Lithographing Co.*, 923 F.2d 1576, 1580 (Fed. Cir. 1991) (discussing *Underwater Devices* holding).⁶

“TCL does not oppose postjudgment interest as calculated pursuant to 28 U.S.C. §1961.” ECF No. 425 at 15. Postjudgment interest is required by the statute. See §1961(a) (“Interest shall be allowed . . .”). Postjudgment interest is calculated on all elements of the money judgment, including a district court’s award of prejudg-

⁶ Based on Mr. Mills’ methods, see ECF No. 422-4, prejudgment interest will be approximately \$10.2 million through May 10, 2018.

ment interest and enhanced damages. See *Caffey v. Unum Life Ins. Co.*, 302 F.3d 576, 586 (6th Cir. 2002); *Bancamerica Commercial Corp. v. Mosher Steel of Kans., Inc.*, 103 F.3d 80, 82 (10th Cir.1996); *Air Separation, Inc. v. Underwriters at Lloyd's of London*, 45 F.3d 288, 291 (9th Cir.1995); *Quesinberry v. Life Ins. Co. of N. Am.*, 987 F.2d 1017, 1031 (4th Cir.1993) (en banc); *Ins. Co. of N. Am. v. Lexow*, 937 F.2d 569, 572 n. 4 (11th Cir.1991). Accordingly, Ericsson is entitled to postjudgment interest on the entire amount of the money judgment until the judgment is paid.⁷ Finally, TCL does not dispute that Ericsson is entitled to costs pursuant to 28 U.S.C. § 1920. See ECF No. 425 at 15.

VI. CLAIMS AND PRODUCTS NOT ENCOMPASSED BY THE JURY VERDICT

Ericsson originally alleged that TCL infringed five patents. Compl. ¶¶ 11-17, ECF No. 1. Ericsson dismissed claims related to one of the patents (the '815 patent) in late 2015, ECF No. 185 at 2-3, and due to ongoing *inter partes* review of the other patents, the only claims that proceeded to trial were based on the '510 patent, see ECF No. 359 at 3-7. *Inter partes* review is now complete—the Patent Office found the asserted claims of the '052, '310, and RE '931 patents invalid. See ECF No. 359 at 4. Ericsson has not appealed from the decisions concerning the '310 and RE '931 patents, and as a result, the Patent Office canceled the claims in February of this

⁷ Under the statutory formula, postjudgment interest is calculated based on the weekly average 1-year constant maturity Treasury yield for the calendar week preceding the date of judgment. Interest runs from the day judgment is entered and is compounded annually until payment. See *Erfindergemeinschaft UroPep*, 2017 WL 2190055, at *10.

year. See '052 and RE '931 Patents at *Inter Partes* Review Certificate; 35 U.S.C. § 318(b).

TCL therefore moves to dismiss claims based on the '310 and RE '931 patents. ECF No. 424 at 2. Ericsson originally opposed this request, arguing instead for a severance and stay pending the Supreme Court's decision in *Oil States Energy Services, LLC v. Greene's Energy Group, LLC*. See ECF No. 412 at 4. Ericsson's reply, however, no longer requests severance. See ECF No. 437. Moreover, the Supreme Court recently issued its decision in *Oil States*, holding that *inter partes* review violates neither Article III nor the Seventh Amendment. See No. 16-712, 2018 WL 1914662, at *3 (U.S. Apr. 24, 2018). Accordingly, because claims canceled by the Patent Office no longer have any legal effect, see *Fresenius USA, Inc. v. Baxter Int'l, Inc.*, 721 F.3d 1330, 1345-46 (Fed. Cir. 2013), Ericsson's claims based on the '310 and RE '931 patents should be dismissed with prejudice.

Although the Patent Office also found claims of the '052 patent invalid, see ECF No. 359 at 4, Ericsson has appealed from this decision, see ECF No. 437 at 1. Consequently, the Patent Office has not formally canceled the claims as required by § 318(b). TCL nevertheless requests that claims based on the '052 patent be dismissed, apparently without prejudice. See ECF No. 424 at 7. As support for this request, TCL cites *C-Cation Technologies, LLC v. Time Warner Cable Inc.* for the proposition that a complaint based on claims found invalid by the Patent Office should be dismissed. See No. 2:14-CV-00059-JRG-RSP, 2017 WL 6498072, at *1 (E.D. Tex. Dec. 19, 2017), report and recommendation adopted, No. 214CV00059JRGRSP, 2018 WL 295360 (E.D. Tex. Jan. 4, 2018). TCL misunderstands *C-Cation*, however, which dealt with collateral estoppel arguments TCL has not

made. See *id.* at *1-*2. A canceled patent claim has no legal effect, see *Fresenius*, 721 F.3d at 1345-46, but the Patent Office has not yet canceled the '052 patent claims. Consequently, claims based on the '052 patent should be severed into a new cause of action and stayed pending Ericsson's appeal.

The remaining issue concerns Ericsson's request to sever and stay adjudication of products not encompassed by the jury's verdict. See ECF No. 412 at 1-2. While Ericsson presented evidence concerning unaccused and unreleased products at trial, the only products the jury found to be covered by the '510 patent are those that were accused in the case. See J. Trial Ex. 1 at 1-3 (table of accused products). The jury was instructed that lump sum damages are available only for "products Ericsson has accused in this case." Trial Tr. 25:21-26:4, Dec. 7, 2017, ECF No. 406; See *Weeks*, 528 U.S. at 234 ("A jury is presumed to follow its instructions."). Because the infringement theory for each of the accused products was identical, the jury's verdict represents a determination that each accused product is covered by the '510 patent; any contrary result would be inconsistent with the evidence presented at trial.

As for accused products, the jury's lump sum damages assessment represents full compensation for all past and future sales of these products. See Trial Tr. 25:21-25, Dec. 7, 2017, ECF No. 406; *Summit 6*, 802 F.3d at 1300-01 ("In this case, the district court properly denied Summit's request for an ongoing royalty because the jury award compensated Summit for both past and future infringement through the life of the patent."). TCL is therefore correct that "the jury's lump-sum damages award gave TCL a license to practice the '510 patent in future products through the life of the '510 patent," see

ECF No. 424 at 1, but this is only true for accused products. Thus, to the extent Ericsson is seeking a “future compulsory royalty” for accused products, see ECF No. 412 at 1, there is no basis for such a royalty, see *Summit 6*, 802 F.3d at 1300-01.

Unaccused products are another matter. The jury neither found such products to be covered by the ’510 patent, nor did the jury award damages for such products. Ericsson requests that these products be severed into a new cause of action so that Ericsson can “address the procedure for requesting a compulsory forward-looking royalty with respect to newly-released TCL products ‘not colorably different’ from the products covered by the jury’s lump-sum damages award.” ECF No. 412 at 3. There is no basis to do so, however.

Courts often sever and stay the adjudication of products not encompassed by a jury verdict, but typically as to accused products that have not yet been sold. See, e.g., *Paice LLC v. Toyota Motor Corp.*, 504 F.3d 1293, 1314-16 (Fed. Cir. 2007). When a patentee requests running royalty damages, and the jury awards damages through trial, district courts have authority to craft a compulsory ongoing royalty for future sales of products the jury found to infringe. See *id.* This is not at all like the situation presented by this case. The jury adjudicated issues only as they related to accused products, and the jury awarded a lump sum royalty, not a running royalty. As for the accused products, the case is over.

Contrary to Ericsson’s assumption, the resolution of liability and damages with respect to accused products does not automatically give rise to a remedy with respect to unaccused products. “Victory in an infringement suit requires a finding that the patent claim covers the alleged infringer’s product or process” *Markman v.*

Westview Instruments, Inc., 517 U.S. 370, 374 (1996) (quotation and citation omitted). As for unaccused products, this determination has not been made. In a new lawsuit, Ericsson may argue that the judgment in this case has a preclusive effect with respect to products that are not “colorably different” from those already found to infringe, but that dispute is for another day. See *Hallco Mfg. Co. v. Foster*, 256 F.3d 1290, 1297-98 (Fed. Cir. 2001). To have this case swallow all products Ericsson contends are not “colorably different” from the infringing products would be to ignore procedure a patent owner must ordinarily meet in a patent infringement case.

Even if it were procedurally permissible to sever unaccused products into a new cause of action for a “colorably different” determination, there is another reason why Ericsson’s request should be denied. As courts in this district have recognized, when a patent owner presents the court with “an elusive target,” encompassing some unknown variety and number of unaccused products, a new cause of action is the proper vehicle for resolving the dispute. See *Fractus, S.A. v. Samsung Elecs. Co.*, No. 6:09-CV-203, 2013 WL 1136964, at *2 (E.D. Tex. Mar. 15, 2013). An accused infringer such as TCL may “continue to release new [products],” which the patent owner “will invariably argue are not ‘colorably different’ from the adjudicated models.” See *id.* Ericsson identifies only one product it contends is not “colorably different” from adjudicated models, see ECF No. 412 at 3 n.2, yet Ericsson acknowledges that “[d]ue to the speed with which TCL releases new phone models, there are already several TCL Android smartphones—previously unaccused and not covered by the lump sum verdict—that Ericsson will request to be subject to a compulsory future royalty,” *id.* at 3. Thus, for the same reasons the court gave in *Frac-*

tus, Ericsson's request should be denied without prejudice to Ericsson filing a new action involving unaccused products.

CONCLUSION

Eight jurors unanimously found that TCL willfully infringed claims 1 and 5 of the '510 patent, and awarded \$75 million in damages. While the court previously found Ericsson's damages theory unreliable under *Daubert*, the flaw in the theory should have gone to the weight of evidence, not its admissibility. TCL had every opportunity to illuminate the flaw, but the jury agreed with Ericsson, and it was the jury's province to make that decision. "That it is violative of the Seventh Amendment to the Constitution of the United States for a court to so invade the province of a jury is so fundamental that it need not be supported by citation." *Korbut v. Keystone Shipping Co.*, 380 F.2d 352 (5th Cir. 1967). *Daubert* should not be used as camouflage to invade the jury's province, and it is upon that basis the court reconsiders its prior order.

Accordingly,

It is **ORDERED** and **ADJUDGED**:

(1) TCL's renewed motion for judgment as a matter of law and motion for a new trial, ECF Nos. 427 and 429, are denied.

(2) Ericsson's motion for reconsideration of the court's order granting TCL's motion for a new trial, ECF No. 464, is granted. The court's order for a new trial, ECF No. 456 at 16-17, is vacated, and the jury's damages verdict, ECF No. 390, is reinstated in its entirety.

(3) Ericsson's motion for enhanced damages, ECF No. 413, is granted in part and denied in part. The jury's damages award is enhanced by one-third, or \$25 million.

(4) Ericsson's motion for attorney's fees, ECF No. 413, is denied.

(5) Ericsson's motion for prejudgment interest, ECF No. 413, is granted in part and denied in part. Ericsson is awarded prejudgment interest on the \$75 million damages award at the prime rate, compounded quarterly from October 21, 2014, until but not including the date of judgment.

(6) Ericsson's motions for postjudgment interest pursuant to 28 U.S.C. § 1961 and costs pursuant to 28 U.S.C. § 1920, ECF No. 413, are granted. Postjudgment interest will accrue on the entire money judgment, including prejudgment interest and enhanced damages, from the date judgment is entered until payment.

(7) Ericsson's motion to sever claims and products not encompassed by the jury verdict, ECF No. 412, is granted in part and denied in part. Claims based on the '052 patent will be severed into a new cause of action and stayed pending Ericsson's appeal of the Patent Office's decision finding claims of the '052 patent invalid. As for the '310 and RE '931 patents, Ericsson's request is denied. Ericsson's request to sever unaccused products into a new cause of action is denied without prejudice to Ericsson filing a new action involving these products.

(8) TCL's cross-motion to dismiss stayed claims based on patents subject to *inter partes* review, ECF No. 424, is granted in part and denied in part. Claims based on the '310 and RE '931 patents will be dismissed with prejudice. Claims based on the '052 patent will be severed into a new cause of action and stayed pending Ericsson's appeal.

(9) The joint motion for a docket control order, ECF No. 461, Ericsson's motion for leave to serve a supple-

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mental consumer survey report, ECF No. 462, and
TCL's motion to stay the new damages trial pending an
appeal on liability, ECF No. 471, are denied as moot.

SIGNED this 10th day of May, 2018.

/s/Roy S. Payne
ROY S. PAYNE
UNITED STATES
MAGISTRATE JUDGE

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APPENDIX C
IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION

CASE No. 2:15-cv-00011-RSP

ERICSSON INC., TELEFONAKTIEBOLAGET
LM ERICSSON,

Plaintiffs,

v.

TCL COMMUNICATION TECHNOLOGY
HOLDINGS, LTD., TCT MOBILE LIMITED,
TCT MOBILE (US) INC.,

Defendants.

MEMORANDUM OPINION AND ORDER

November 4, 2017

Trial in this case is scheduled to begin December 4, 2017. The following opinion and order resolves the parties' pending motions, with the exception of motions *in limine*, which will be addressed at the pretrial conference.

BACKGROUND

The parties to the lawsuit are global networking and telecommunications equipment and services companies. The two plaintiffs are companies based in the United States and Sweden. Ericsson is a Delaware corporation

based in Plano, Texas. Compl. ¶1, Dkt. No. 1. Telefonaktiebolaget LM Ericsson is based in Stockholm, Sweden. *Id.* ¶2. The plaintiffs are collectively referred to as “Ericsson.”

Ericsson owns two relevant patent portfolios. The first is a portfolio that Ericsson alleges includes patents that are essential to global 2G, 3G, and 4G telecommunications standards established by the European Telecommunications Standards Institute (ETSI). See *TCL Commc’n Tech. Holdings, Ltd. v. Telefonaktienbolaget LM Ericsson et al.*, Case No. 8:14-cv-00341-JVS-DFM, Dkt. No. 279-1 at 2 (C.D. Cal. June 29, 2015). The second is a portfolio that includes patents claiming inventions used to implement telecommunications standards in cellular handsets, smartphones, tablet computers, televisions, and other electronic devices. Compl. ¶3, Dkt. No. 1. Ericsson has not declared the patents in the second portfolio essential to ETSI telecommunications standards. See *TCL Commc’n Tech. Holdings*, Case No. 8:14-cv-00341-JVS-DFM, Dkt. No. 279-1 at 3. The patent-in-suit is a member of the second portfolio. See Compl. ¶¶3, 14, Dkt. No. 1.

The defendants are companies based in China, Hong Kong, and the United States, and are all owned by TCL Corporation, a company based in Shenzhen, China. TCL Communication Technology Holdings, Ltd. is one of the three defendants also based on Shenzhen. Compl. ¶4, Dkt. No. 1, Am. Ans. ¶4, Dkt. No. 45. TCT Mobile Limited is based in Hong Kong. Compl. ¶5, Dkt. No. 1; Am. Ans. ¶5, Dkt. No. 45. The third defendant, TCT Mobile (US), Inc., is a Delaware corporation based in Irvine, California. Compl. ¶6, Dkt. No. 1; Am. Ans. ¶6, Dkt. No. 45. The three defendants are collectively referred to as “TCL.”

TCL's answer alleges that it is the fifth largest mobile telecommunications vendor in the world, with products available for sale in more than 100 countries. Am. Ans. ¶78, Dkt. No. 45. TCL sells products under the "Alcatel Onetouch" brand in the United States. *Id.*; Ericsson Ans. ¶78, Dkt. No. 51. Products sold under this brand, including the Alcatel OneTouch Fierce, include the Android operating system, which includes functionality that Ericsson claims is covered by the patent-in-suit. See Compl. ¶¶47-48, Dkt. No. 1.

I. THE PARTIES' DISPUTE

This lawsuit is a relatively small element of a larger global dispute. The larger dispute arises from failed license negotiations related to the patent portfolio Ericsson claims is essential to telecommunications standards set by ETSI. See *TCL Commc'n Tech. Holdings*, Case No. 8:14-cv-00341-JVS-DFM, Dkt. No. 279-1 at 2. The parties attempted to negotiate a license to Ericsson's alleged standard essential patent (SEP) portfolio, but the parties were unable to reach agreement. *Id.* When a company such as Ericsson declares patents essential to a standard set by ETSI, the company must agree to license the patents on fair, reasonable, and nondiscriminatory (FRAND) terms. See *id.* TCL claims that Ericsson's license offers did not meet ETSI obligations. See *id.*

The parties' impasse prompted litigation around the world. From the fall of 2012 through 2014, Ericsson sued TCL for patent infringement in Brazil, France, Argentina, Germany, and Russia. See *id.* at 6-9. In 2013, TCL petitioned a court in the United Kingdom to revoke certain patents, and Ericsson counterclaimed for infringement. *Id.* at 6-7. The domestic litigation began in the Central District of California in May 2014, with a lawsuit filed by TCL. See *id.* at 2. TCL, an alleged third-party

beneficiary to Ericsson's ETSI agreement, claimed that Ericsson breached its FRAND obligation. *Id.* TCL also sought a declaratory judgment that certain alleged SEPs were invalid and not infringed, and TCL asked the court to determine a FRAND rate for a license to Ericsson's SEP portfolio. *Id.*

Several months later, Ericsson filed a lawsuit against TCL in this district, seeking a declaratory judgment that Ericsson had complied with ETSI obligations, and alleging infringement of two alleged SEPs. *Id.* at 6. That lawsuit was transferred to the Central District of California in March 2015. *Id.* In early January 2015, Ericsson filed the present lawsuit, alleging infringement of five patents—United States Patent Nos. 7,149,510, 6,029,052, 6,418,310, RE 43,931, and 6,535,815. Compl. ¶¶ 11-17.

The California court channeled the global dispute at the parties' request. Because the parties indicated that the breach of contract action in California "should result in a 'global resolution' of the SEP patent licensing and damages claims," the court enjoined both parties from continuing to pursue or initiating lawsuits regarding the SEPs at issue in the California lawsuit. See *TCL Commc'n Tech. Holdings*, Case No. 8:14-cv-00341-JVS-DFM, Dkt. No. 279-1 at 11 (citation omitted). The court also stayed the alleged SEP infringement claims in the lawsuit originally filed in this district, in addition to all "non-FRAND matters." *Id.* at 16. The lawsuit concerning Ericsson's FRAND obligation proceeded to bench trial earlier this year before the California court, and a final decision from the court is pending. The California court otherwise declined to enjoin or otherwise disturb the present lawsuit because it involves intellectual property Ericsson has not declared essential to telecommunications standards set by ETSI. *Id.* at 9.

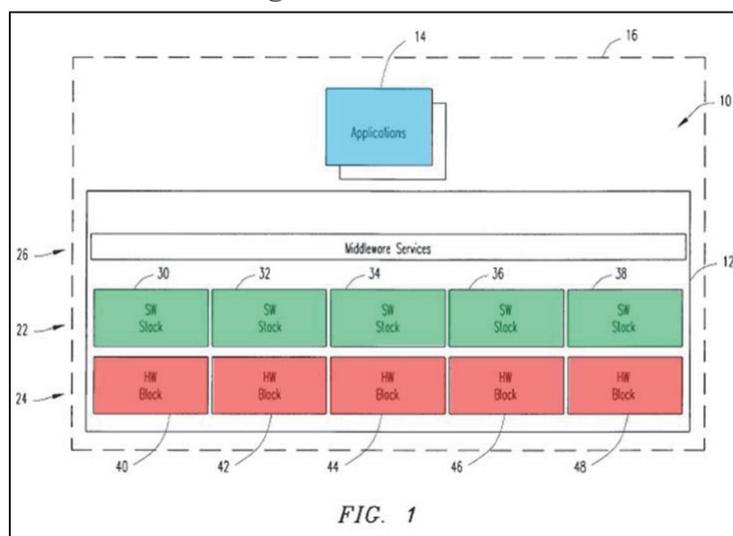
II. THIS LAWSUIT AND THE REMAINING PATENT-IN-SUIT

This lawsuit originally involved allegations that TCL infringed claims of five patents that Ericsson had not declared essential to ETSI standards. *Id.*; Compl. ¶¶11-17. These patents are generally related to systems and methods for controlling software and hardware functionality of mobile devices. See Dkt. No. 174 at 3. In response to Ericsson's infringement claims, TCL petitioned the Patent Trial and Appeal Board (PTAB) for inter parties review (IPR) of the asserted claims. See Dkt. No. 276. After the PTAB instituted IPR of all asserted claims, the lawsuit was stayed. Dkt. 270. Earlier this year, the PTAB found that TCL had proven by a preponderance of the evidence that the asserted claims of the '052, '931, '310, and '815 patents are unpatentable. See *id.* at 3; IPR2015-01650, Paper No. 32. Ericsson has appealed those decisions to the Federal Circuit. The only claims that survived IPR were the claims of the '510 patent, which is the only remaining patent-in-suit. See Dkt. No. 276 at 3. Because the '510 patent claims emerged from IPR, the stay was lifted in May of this year. See Dkt. No. 280.

The '510 patent describes advancements in mobile device technology resulting in demands that have been difficult to meet because of the limited size, memory, and power of mobile devices. '510 patent at 1:55-61. Mobile devices were at one time used only to make and receive phone calls. *Id.* at 1:33-35. As technology developed, mobile devices became capable of sending email and accessing the Internet, among other functions similar to those performed on a computer. See *id.* at 1:35-40. These advanced functions prompted third parties to develop non-native application software, often referred to as an "application" or "app," which could be downloaded

by a user. See *id.* at 2:18-24. The problem is that such applications often need to access the mobile device's native software or hardware functionality, and if left unrestricted, the applications may jeopardize the integrity of the mobile device, for example by triggering cost-incurring events without the user's approval. See *id.* at 2:18-32. Consequently, the '510 patent describes a need for controlling or limiting an application's access to the mobile device's native functionality. See *id.* at 2:40-44.

Consistent with its title, "Security Access Manager in Middleware," the '510 patent describes a system for controlling an application's access to native software and hardware on a mobile device. See *id.* at 4:14-16. An exemplary embodiment of the invention claimed by the '510 patent is shown in Figure 1 (color added):



Non-native application software (blue) is installed, loaded, and run on the mobile platform. *Id.* at 4:14-16. The software services component (green) provides services such as control, structured storage, and access to hardware driver software. *Id.* at 5:33-40. The hardware com-

ponent (red) includes units associated with and controlled by the respective units of the software services component. *Id.* at 4:27-32. During operation, the non-native application requests access to the software services component and an interception module intercepts these requests. *Id.* at 7:11-13. Once intercepted, a decision entity determines whether the request should be granted based on the security policies of the mobile platform and determines whether the user should be prompted to grant access to certain native functionality. *Id.* at 8:1-15, 8:26-41.

Ericsson is currently asserting claim 1 of the '510 patent and claims that depend from claim 1 (claims 3-5, and 9). See Dkt. No. 276 at 3. Claim 1 recites:

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 one least interface if the request is granted.

Although the PTAB initially found that TCL had established a reasonable likelihood that the asserted claims of the '510 patent are invalid, see, *e.g.*, IPR2015-01605, Paper No. 10, the PTAB issued final written decisions after trials on the merits concluding that TCL failed to meet its preponderance of the evidence burden, see *id.*, Paper No. 44. In the first IPR proceeding, for example, TCL argued that the asserted claims are invalid as obvious under 35 U.S.C. § 103 in view of two combinations of references—Usui and Gong, and Usui, Gong, and Spencer. See *id.* at 11. The PTAB concluded that TCL had failed to establish that a person of ordinary skill in the art would have been motivated to combine Usui, which describes a Java application environment and software platform for mobile phones, with Gong, which describes Java security mechanisms for computers. See *id.* at 29-37.

The PTAB reasoned that TCL had not come forward with sufficient evidence establishing that it would have been obvious to combine the relatively elaborate computer security software described by Gong with the mobile platform of Usui “given the design constraints of less memory and resources of a mobile phone.” See *id.* at 29-30. The PTAB reached essentially the same conclusion in two related IPR proceedings, concluding that TCL had failed to establish that a person of ordinary skill in the art would have been motivated to combine a mobile phone software platform with computer security software. See IPR2015-01622, Paper No. 44 at 24-33; IPR2015-01628, Paper No. 43 at 27-36. As a result of the

PTAB's decisions, the parties stipulated that TCL would not raise certain invalidity defenses at trial. See Dkt. No. 296.

Ericsson contends that certain phones manufactured or sold by TCL include functionality that falls within the scope of the '510 patent claims. The accused products all include some version of the Android operating system, and Ericsson's infringement theory is based in large part on features of this operating system. See, *e.g.*, Dkt. No. 340-3 ¶37.

DISCUSSION

I. MOTIONS FOR SUMMARY JUDGMENT AND RELATED MOTIONS

TCL moves for summary judgment of no willful infringement and summary judgment of invalidity under §101. Summary judgment must be granted when there is no genuine issue as to any material fact and the movant is entitled to judgment as a matter of law. Fed. R. Civ. P. 56(c). "A genuine issue of material fact exists 'if the evidence is such that a reasonable jury could return a verdict for the non-moving party.'" *Crawford v. Formosa Plastics Corp., La.*, 234 F.3d 899, 902 (5th Cir. 2000) (quoting *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 248 (1986)). The court must consider evidence in the record in the light most favorable to the non-moving party and draw all reasonable inferences in favor of that party. *Thorson v. Epps*, 701 F.3d 444, 445 (5th Cir. 2012). The moving party must identify the portions of the record that demonstrate the absence of a genuine issue of material fact. *Celotex Corp. v. Catrett*, 477 U.S. 317, 323 (1986). Once a party has made that showing, the non-moving party bears the burden of establishing otherwise. *Geiserman v. MacDonald*, 893 F.2d 787, 793 (5th Cir. 1990) (citing *Celotex*, 477 U.S. at 323). The non-moving

party cannot “rest upon mere allegations or denials” in the pleadings, but “must set forth specific facts showing there is a genuine issue for trial.” *Liberty Lobby*, 477 U.S. at 248. Thus, summary judgment “is appropriate if the non-movant ‘fails to make a showing sufficient to establish the existence of an element essential to that party’s case.’” *Bluebonnet Hotel Ventures, LLC v. Wells Fargo Bank, N.A.*, 754 F.3d 272, 276 (5th Cir. 2014) (quoting *Celotex*, 477 U.S. at 322).

A. TCL’s Willfulness Motions

1. *Summary Judgment of No Willfulness, Dkt. No. 217* (see also *Dkt. No. 300*)

TCL’s original motion for summary judgment of no willfulness was filed before the Supreme Court’s decision in *Halo Electronics, Inc. v. Pulse Electronics, Inc.*, 136 S. Ct. 1923 (2016), see *Dkt. No. 217*, and the parties have since updated their briefs to reflect the change in law. See *Dkt. Nos. 300, 302, 305, 306*. Although a close call, TCL’s willfulness motion is denied because a reasonable jury could possibly conclude that TCL’s conduct has been egregious. This conclusion, however, is far from certain, and the Court will carefully monitor the evidence presented at trial.

TCL’s arguments in support of summary judgment are based in large part on the applicable willfulness standard, and for that reason it is helpful to explain the standard as it stands today. The Supreme Court’s *Halo* decision clarified the narrow circumstances in which enhanced damages should be awarded. They are not to be awarded in a “typical infringement case, but are instead designed as a ‘punitive’ or ‘vindictive’ sanction for egregious infringement behavior.” *Halo*, 136 S. Ct. at 1932 (citation omitted). In surveying the relevant cases, the Supreme Court characterized the conduct supporting

enhanced damages as “willful, wanton, malicious, bad-faith, deliberate, consciously wrongful, flagrant, or—indeed—characteristic of a pirate.” *Id.*

The word in the Supreme Court’s list of culpable conduct that has created the most uncertainty is “willful” because that word implies nothing more than intentional infringement. As foreshadowed by Justice Breyer, parties have interpreted “willful” to mean knowledge of the patent “*and nothing more.*” See *Halo*, 136 S. Ct. at 1936 (Breyer, J., concurring). As this Court has recognized, however, knowledge of an asserted patent, without more, cannot justify enhanced damages under the *Halo* standard. See *Erfindergemeinschaft UroPep GbR v. Eli Lilly & Co.*, No. 2:15-CV-1202-WCB, 2017 WL 2190055, at *3 (E.D. Tex. May 18, 2017) (Bryson, J., sitting by designation). This conclusion is consistent with—and in fact compelled by—the majority opinion in *Halo*, which repeatedly emphasizes that enhanced damages are “reserved for *egregious cases* of culpable behavior.” *Halo*, 136 S. Ct. at 1932 (emphasis added). In other words, culpable conduct is required, but the culpable conduct must be egregious, *i.e.*, outrageous or shocking.

In addition to uncertainty regarding what is required for enhanced damages, it is also not clear from *Halo* whether willfulness is a jury question. The Supreme Court did not have a reason to address the issue. A plausible reading of *Halo* nevertheless suggests that a jury may be asked whether infringing conduct was indeed egregious, particularly since a prerequisite to such an egregiousness finding is an accused infringer’s subjective belief that he is infringing a valid patent. See *Erfindergemeinschaft UroPep GbR v. Eli Lilly & Co.*, 240 F. Supp. 3d 605, 618 (E.D. Tex. 2017) (Bryson, J., sitting by designation). Intent is a classic factual issue.

If the jury finds the requisite intent and that the intentional conduct was egregious, or in effect worthy of punitive damages, the Court may in its discretion determine whether damages should be enhanced. See *Halo*, 136 S. Ct. at 1931-32 (explaining that the Court’s discretion “is not whim”). Even if this characterization of *Halo* is incorrect, however, and willfulness is not a jury question, there is no disadvantage in submitting the question to the jury. See *Kinetic Concepts, Inc. v. Smith & Nephew, Inc.*, 688 F.3d 1342, 1356-60 (Fed. Cir. 2012) (explaining the basis for why ultimate legal questions such as obviousness are routinely submitted to the jury). It may be prejudicial to a defendant if the plaintiff repeatedly refers to the defendant’s conduct as “wanton” or “egregious” in front the jury, but the plaintiff may also prejudice itself by making such extreme characterizations without reasonable support. In sum, there is no error in submitting a willfulness question to a jury, assuming of course that the summary judgment record could support a willfulness finding.

There is also uncertainty regarding pre-suit and post-suit conduct, namely whether post-suit conduct alone can justify enhanced damages. Indeed, part of the basis for TCL’s motion is that there is no evidence of egregious pre-suit conduct that would support enhanced damages. *Id.* at 6. The Federal Circuit, however, has at least suggested that there is no per se rule precluding a finding of willful infringement based solely on conduct occurring after the lawsuit is filed. See *Mentor Graphics Corp. v. EVE-USA, Inc.*, 851 F.3d 1275, 1295-96 (Fed. Cir. 2017) (district court “erred in concluding that Synopsys could not present evidence of post-filing willful infringement because Synopsys did not seek a preliminary injunction.”). It appears that the Federal Circuit was simply

saying that pre-suit willful infringement could continue after the suit was filed, and that a motion for a preliminary injunction is not required to recover enhanced damages for continued post-filing willful infringement. See *id.* But it would seem contrary to *Halo* to suggest that an accused infringer could intentionally infringe an asserted patent and engage in other egregious behavior, such as deliberately driving a less-resourceful patentee out of business, as long as the egregious behavior begins after the patentee filed the complaint. A fair reading of *Halo* suggests that truly egregious behavior may warrant a punitive response regardless of when the behavior occurs.

The more pertinent question is whether there is any evidence to support a finding of egregious culpable behavior at any time in this case. TCL argues that Ericsson has not produced evidence of “egregious infringement behavior” or behavior of a “wanton and malicious pirate.” Dkt. No. 300 at 2. TCL also argues that its good faith belief of noninfringement and invalidity of the ’510 patent is “demonstrated by its summary judgment motion on invalidity as well as the IPRs that were instituted by the PTAB.” *Id.* While nothing in the record clearly stands out as egregious, Ericsson has come forward with evidence suggesting that TCL’s infringement has accelerated since the lawsuit was filed. This may be because TCL believed it was not infringing a valid patent. See *WesternGeco L.L.C. v. Ion Geophysical Corp.*, 837 F.3d 1358, 1363 (Fed. Cir. 2016) (even after *Halo*, the objective reasonableness of the accused infringer’s positions can still be relevant to the § 284 issue).

Yet TCL has offered little other evidence relevant to the subjective belief of its decision makers at the relevant time. TCL’s IPR petitions came after its knowledge of

the '510 patent, as did TCL's motion for summary judgment invalidity under § 101. As TCL acknowledges, "culpability is generally measured against the knowledge of the actor at the time of the challenged conduct." *Halo*, 136 S. Ct. at 1933. There is no evidence, for example, going to TCL's subjective beliefs when its infringement allegedly accelerated after Ericsson filed the lawsuit. Consequently, the Court cannot conclude with confidence at this point that no reasonable jury could find that TCL subjectively believed it was infringing a valid patent, and that this intentional conduct was egregious. The motion for summary judgment is therefore denied.

2. *TCL's Motion to Bifurcate Willfulness, Dkt. No. 321*

TCL also moves to bifurcate the issue of willful infringement from "initial issues of liability and damages in order to prevent jury confusion and prejudice to both parties." Dkt. No. 321 at 1. TCL argues that without bifurcation, the presentation of prior art, PTAB proceedings, and the strength of TCL's invalidity and legal defenses will likely confuse a jury "that is not asked to determine invalidity or the legal defenses." *Id.* at 1. The Court is not persuaded.

Nothing will prevent TCL from telling the jury that it had a good faith belief that the '510 patent was invalid or not infringed, and the PTAB's institution of IPR of the '510 patent claims is evidence of the reasonableness of that belief. But if TCL would like to present such evidence, Ericsson is of course entitled to tell the jury the rest of the story, *i.e.*, that the PTAB ultimately found that TCL had not proven by a preponderance of the evidence that the asserted claims of the '510 patent are invalid. The same may be true of TCL's § 101 motion—if TCL were to present evidence that it thought the '510

patent was invalid on a legal ground (§101), then of course Ericsson would be entitled to inform the jury that the Court denied that motion (see below). Similarly, if TCL were to tell the jury that it believed the claims were invalid under §112, ¶6, then Ericsson could inform the jury that the Court found TCL's claim construction arguments untimely and thus waived (see below). The point is that TCL could present evidence that it subjectively believed the '510 patent to be invalid or not infringed—and point to objective evidence of that belief—without getting into the merits of the invalidity or legal defenses.

Contrary to TCL's argument, it is not clear how presenting evidence related to its good faith belief of invalidity will prejudice either side. Validity and infringement raise different questions, and a party's reference to a validity argument is no more prejudicial than reference to an infringement finding during the willfulness phase of a bifurcated trial. Similarly, judicial economy does not support bifurcation. TCL is correct that a finding of no infringement could eliminate the need for a trial on willfulness, but a finding of infringement would require a second trial—an inefficient outcome given that evidence relevant to willfulness is intertwined with evidence of infringement and damages. Accordingly, TCL's motion to bifurcate is denied.

B. TCL's Subject Matter Eligibility Motion, Dkt. No. 299, and Related Motion to Strike, Dkt. No. 310

TCL moves for summary judgment that the asserted claims of the '510 patent are invalid under 35 U.S.C. §101 because according to TCL, the claims are directed to patent-ineligible subject matter. See Dkt. No. 299. TCL argues that the asserted claims “are directed to the ab-

stract idea of controlling access to a platform based on access rules.” *Id.* at 1. This idea, according to TCL, is abstract because “[f]or centuries, gatekeepers tasked with controlling access to restricted resources intercepted requests for access and determined whether to grant or deny the request by relying on predetermined access and permission policies.” *Id.* The Court is not persuaded that the claims are directed to an abstract idea, but even if they are, the claims recite an inventive concept sufficient to render the claims patent-eligible.

A patent may be obtained for “any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof.” 35 U.S.C. §101. The exception is that “[l]aws of nature, natural phenomena, and abstract ideas are not patentable.” *Ass’n for Molecular Pathology v. Myriad Genetics, Inc.*, 133 S.Ct. 2107, 2116 (2013) (quoting *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S.Ct. 1289, 1293 (2012)). In assessing subject-matter eligibility, a court must “first determine whether the claims at issue are directed to a patent-ineligible concept.” *Alice*, 134 S.Ct. at 2355. If the claims are directed to an ineligible concept, the court must then “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.” *Id.* (quoting *Mayo*, 132 S.Ct. at 1298, 1297).

When evaluating claims related to computer technology, a court must “articulate with specificity what the claims are directed to, and ‘ask whether the claims are directed to an improvement to computer functionality versus being directed to an abstract idea.’” *Visual Memory LLC v. NVIDIA Corp.*, 867 F.3d 1253, 1258 (Fed. Cir. 2017) (quoting *Enfish, LLC v. Microsoft Corp.*,

822 F.3d 1327, 1335 (Fed. Cir. 2016)) (citing *Thales Visionix Inc. v. United States*, 850 F.3d 1343, 1347 (Fed. Cir. 2017)). The claims of the '510 patent are limited to mobile platform technology. Accordingly, the question at *Alice* step one is whether the claims, which are directed to security and permission software for mobile devices, are merely directed to the abstract idea of controlling access to restricted resources, as TCL suggests, or to an improvement in mobile phone software, as Ericsson suggests.

The Court agrees with Ericsson's characterization. Rather than using computer technology in its ordinary capacity, the claims recite a system capable of permitting a mobile phone user to grant applications access to native phone functionalities while denying access to other native functionalities. See Dkt. No. 301 at 1. The PTAB thoroughly described the technical details of the claimed system, and the focus of the claims, during IPR proceedings. See IPR2015-01605, Paper No. 44; IPR2015-01622, Paper No. 44; IPR2015-01628, Paper No. 43. The PTAB's highly technical characterization of the claims supports the conclusion that the claims are not directed to an abstract idea. Indeed, the asserted claims resemble claims directed to improved computer technology that have survived scrutiny under *Alice* step one at the Federal Circuit. See *Visual Memory*, 867 F.3d at 1259 (enhanced computer memory system); *Thales*, 850 F.3d at 1345 (motion-tracking system); *Enfish*, 822 F.3d at 1339 (self-referential table). Accordingly, the Court concludes that the claims are not directed to an abstract idea but rather to an improved technological solution to mobile phone security software.

Even if the claims were directed to an abstract idea, however, the claims recite a sufficiently inventive concept

under *Alice* step two to distance the claims from the abstract idea. Namely, the claims recite a technological improvement to a problem arising in mobile platform technology, namely the problem of limited memory and resources on mobile phones. The invention is a particularized solution to that problem, much like the invention at issue in *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245 (Fed. Cir. 2014). The fact that the PTAB concluded that TCL failed to establish that a person of ordinary skill in the art would be motivated to combine computer-based security software with the relevant mobile platform technology—because of the limited memory and resources of a mobile phone—suggests that the systems claimed by the ’510 patent are not merely conventional applications of computer technology. See *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1347 (Fed. Cir. 2015) (A “pragmatic analysis of § 101 is facilitated by considerations analogous to those of §§ 102 and 103 as applied to the particular case.”). Accordingly, TCL’s motion for summary judgment of invalidity under § 101 is denied. TCL also moves to strike Ericsson’s sur reply. Dkt. No. 310. Because the Court’s decision on the § 101 motion does not rely on the sur reply, TCL’s motion to strike is denied as moot.

II. MOTIONS TO STRIKE OR EXCLUDE EXPERT TESTIMONY

Both parties have moved to strike opposing expert testimony related to both the technical, infringement aspect of the case as well as the damages aspect of the case. When evaluating a party’s challenge to an opponent’s expert witness, the Court assumes the role of gatekeeper to ensure the reliability and relevance of the expert’s testimony. *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579, 597 (1993); *Kumho Tire Co. v. Carmichael*, 526 U.S.

137, 150 (1999). Rule 702 guides the inquiry, specifying that a qualified expert may testify as long as his opinion will aid the fact finder and is reliable, *i.e.*, the opinion must stand on sufficient data, reliable methods, and the facts of the case. See *Daubert*, 509 U.S. at 590; Fed. R. Evid. 702(a)-(d); see also *Micro Chem., Inc. v. Lextron, Inc.*, 317 F.3d 1387, 1391 (Fed. Cir. 2003) (“In 2000, Rule 702 was amended in response to *Daubert* and cases applying it.”).

**A. Ericsson’s Motions to Strike Martinez Report,
Dkt. Nos. 222 & 326**

Ericsson moves to strike Christopher Martinez’s damages report on two grounds, both of which relate to Mr. Martinez’s reliance on an offer Ericsson made to a third-party for a license to the ’510 patent. The licence offer was part of a larger negotiation involving both SEPs and implementation patents, or patents that are relevant to but that have not been declared essential to a standard. See Dkt. Nos. 222 and 326. Ericsson contends that Mr. Martinez’s reliance on this offer should be precluded (1) because the offer was a settlement offer and is thus properly excluded under Rule 408, and (2) because the offer is not a reliable indicator of the value of the invention claimed in the ’510 patent given that the ’510 patent was a small portion of a larger bundle of patents offered for license. The Court does not agree with either argument.

First, the Court does not accept the premise that Ericsson’s license offer to the third party is inadmissible evidence of an offer to compromise a claim. See Fed. R. Evid. 408. “Rule 408 has been and remains fact-specific, and tethered to the rationales underlying the rule.” *Lyondell Chem. Co. v. Occidental Chem. Corp.*, 608 F.3d 284, 298 (5th Cir. 2010). An effective settlement negotiation requires frank discussion of relevant evidence, and

permitting the use of such evidence in related litigation would undermine Rule 408's purpose. *Id.* The circumstances surrounding Ericsson's license negotiations with the third party, however, simply do not implicate a Rule 408 concern.

By its own admission, Ericsson licenses thousands of patents to numerous parties and owns a large portfolio of patents declared essential to telecommunications standards. Patent infringement is a strict liability offense, and at any given time, it is possible that a non-licensed party may be infringing an Ericsson patent. That does not mean all of Ericsson's patent license negotiations are settlement negotiations shielded by Rule 408 simply because litigation could ensue, or that litigation did ensue after failed negotiations. Large patent portfolio negotiations, in contrast to negotiations following an environmental disaster, for example, see *Lyondell*, 608 F.3d at 298-300, are not as tied to a defined claim of liability.

Under the circumstances of Ericsson's negotiations with the third party, any "claim" was simply too nebulous to warrant protecting the negotiations with Rule 408. As a result, permitting evidence of Ericsson's offer will not dampen reliance on such offers in the future. Ericsson's offer of a license to the '510 patent was bundled with a license to numerous other patents, including other implementation patents and SEPs. Given the volume of patents that the offer covered, it is unreasonable to think that the third party negotiating with Ericsson had any particular claim of liability in mind, even though the third party may have reasonably anticipated *some* claim in the event negotiations failed. It would have been practically impossible, however, for Ericsson to have initiated litigation for infringement of *all* the patents included with the license offer. Accordingly, there is no clear basis for ex-

cluding the offer under Rule 408. The “overarching policy of favoring the admission of all relevant evidence” should control in this instance. See *id.* at 299.

Second, the Court does not agree that the offer is so unreliable to warrant exclusion under the *Daubert* standard. The use of similar evidence has been condoned by the Federal Circuit in past cases. See *Commonwealth Sci. & Indus. Research Organisation v. Cisco Sys., Inc.*, 809 F.3d 1295, 1297 (Fed. Cir. 2015) (discussing reliance on evidence of plaintiff’s unaccepted license offer); see also *Carnegie Mellon Univ. v. Marvell Tech. Grp., Ltd.*, 807 F.3d 1283 (Fed. Cir. 2015) (“Past licensing practices of the parties and licenses for similar technology in the industry may be useful evidence.”). Ericsson may present its view of why the license offer is not comparable or not an adequate indicator of the value of the invention claimed in the ’510 patent. Indeed, “[v]igorous cross-examination, presentation of contrary evidence, and careful instruction on the burden of proof are the traditional and appropriate means of attacking shaky but admissible evidence.” *Daubert*, 509 U.S. at 596. Ericsson’s motions to strike Mr. Martinez’s reports are denied.

B. TCL’s Motion to Strike Jones Report, Dkt. No. 323

TCL moves to strike Dr. Mark Jones’ infringement report on four grounds. See Dkt. No. 323. TCL argues that Dr. Jones’ opinions (1) are not based on a sufficient examination of all accused products; (2) rely on an incorrect (claim construction) premise concerning the term “interception module”; (3) rely on and extrapolate a flawed consumer survey; and (4) provide “unhelpful” claim construction opinions. The Court is not persuaded that TCL has demonstrated a reason to exclude Dr. Jones’ testimony.

TCL's first and third arguments go to the weight of Dr. Jones' opinion, not to its admissibility. Dr. Jones' opinion is based a sufficient examination of the accused products. See Dkt. No. 340-3 ¶¶42-117; Dkt. No. 340-4; Dkt. No. 340-5; Dkt. No. 340-6 at 10-77; Dkt. No. 340-7; Dkt. No. 340-8, Dkt. No. 340-9. In addition, Dr. Jones is not providing an unqualified opinion. Dr. Wecker and Dr. Jones simply rely on each other's opinions, with Dr. Wecker relying on Dr. Jones' technical analysis, and Dr. Jones relying on Dr. Wecker's consumer preference survey. See *Summit 6, LLC v. Samsung Elecs. Co.*, 802 F.3d 1283, 1299 (Fed. Cir. 2015) ("To the extent [the expert's] credibility, data, or factual assumptions have flaws, these flaws go to the weight of the evidence, not to its admissibility.").

TCL's second argument is at least partially a claim construction argument regarding the term "interception module" that was not timely raised, and thus the argument is waived for the reasons explained below. See *infra* §IV. Because "interception module" has not been construed, the term has its ordinary meaning. TCL may nevertheless present its noninfringement argument to the jury. In other words, TCL is not precluded from presenting evidence or argument that products do not infringe because the accused "interception module" includes code that is dispersed throughout the operating system, as opposed to being a self-contained segment of code, *i.e.*, that a person of ordinary skill in the art would not view the accused software segment(s) as an "interception module" because the accused code segments are not part of a module. Dr. Jones will present his contrary view, and the jury will decide which testimony to credit. See *Verizon Servs. Corp. v. Cox Fibernet Va., Inc.*, 602 F.3d 1325, 1330-41 (Fed. Cir. 2010) (distinguishing in-

fringement opinions from claim construction). TCL's argument does not, however, provide a basis to exclude Dr. Jones' testimony.

Finally, TCL's fourth argument relates to portions of Dr. Jones' expert report concerning the construction of "interception module" as a means-plus-function term. As explained below, the Court will not construe "interception module." As a result, this portion of Dr. Jones' report is no longer relevant. In any event, Dr. Jones' claim construction opinions would not have been presented to the jury, as Ericsson explains. Accordingly, TCL's motion to strike Dr. Jones' report is denied.

C. TCL's Motion to Exclude Wecker and Mills Testimony, Dkt. No. 324

TCL moves to exclude testimony by Dr. William Wecker and Robert Mills because according to TCL, certain testimony from these witnesses is based on a consumer survey that is not adequately tied (or apportioned) to the features claimed in the '510 patent. See Dkt. No. 324. TCL may present its view of the theory at trial, but the Court is not persuaded that Mr. Mills and Dr. Wecker should be precluded from offering their opinions.

Dr. Wecker designed and implemented an online consumer survey that purports to isolate the value of the invention claimed in the '510 patent. The survey includes questions such as the following question:

Suppose that the Android-based smartphone you purchased, as well as some other manufacturers' smartphones, did not have the ability to (1) ask your permission for an app to access particular capabilities on your phone before downloading that app, and (2) prevent an app from accessing the capabilities on your phone for which permission was neither

requested nor given. Instead, just prior to downloading an app, you would have to decide to either (a) grant the app permission to access all capabilities on the phone, or (b) not download the app.

Dkt. No. 324-3 ¶7. TCL contends that such questions are not adequately tied to the '510 patent claims. Similarly, because Mr. Mills bases his damages model on the Wecker survey results, TCL argues that Mr. Mills' testimony should be excluded.

The Court does not agree. Dr. Wecker's questions are at least as narrowly tailored as those at issue in *Summit 6*. See 802 F.3d at 1297-99. Dr. Wecker's questions concerning permission and access features of a mobile phone relate to the allegedly infringing features, as certain of TCL's noninfringing alternatives illustrate. Similarly, by comparing survey respondents' preferences regarding allegedly infringing and noninfringing alternatives, Mr. Mills' damages assessment sufficiently accounts for the allegedly infringing features. See, e.g., *Sentius Int'l, LLC v. Microsoft Corp.*, No. 5:13-CV-00825-PSG, 2015 WL 451950, at *11 (N.D. Cal. Jan. 27, 2015) (approving similar damages model). "When methodology is sound, and the evidence relied upon sufficiently related to the case at hand, disputes about the degree of relevance or accuracy (above this minimum threshold) may go to the testimony' weight, but not its admissibility." *i4i Ltd. P'ship v. Microsoft Corp.*, 598 F.3d 831, 852 (Fed. Cir. 2010). Accordingly, TCL's motion to exclude the testimony of Dr. Wecker and Mr. Mills is denied.

**D. Ericsson's Motion to Strike Ligatti Report,
Dkt. No. 325**

Ericsson moves to strike the expert report of Dr. Jared Ligatti, contending that the report is based on a new infringement theory that was not timely raised before

this case was stayed pending IPR. See Dkt. No. 325. The Court agrees. Dr. Ligatti's report is stricken.

The original expert disclosure and discovery period in this case ended on January 27, 2016, almost two years ago. See Dkt. No. 161 at 3. The parties have since been litigating validity issues at the PTAB, after TCL filed close to twenty IPR petitions. Before the case was stayed pending IPR, Ericsson was accusing TCL products that included version 2, 3, or 4 of the Android operating system. See Dkt. No. 325 at 2.

After the '510 patent emerged from IPR proceedings, the Court entered a docket control order allowing "supplemental expert reports on infringement and damages." Dkt. No. 289. The point of allowing additional expert reports and discovery was to allow the parties to update their original, pre-stay positions on infringement and damages. It was never intended that either party would introduce new theories or new experts into the case, provided of course that the original experts remained available to testify at trial.

Ericsson's addition of new products into the case does not, under the circumstances, justify Dr. Ligatti's new report. Ericsson served a supplemental infringement report from Dr. Jones in August of this year, which included an infringement opinion for new TCL products that were released during the stay period. See Dkt. No. 325 at 5. The new products include versions 4-7 of the Android operating system. But the theory of infringement, which is based on the Android system's security and permissions software, has not meaningfully changed, at least not enough to warrant a new noninfringement theory. TCL's original noninfringement report from Dr. Malek includes opinions that are as relevant to the new TCL products as they are to the original products based

on older versions of the Android operating system. Dr. Malek can present those opinions and any updated opinions specific to the newly accused products at trial.

Dr. Ligatti's opinion, by contrast, does more than update TCL's original theory. Dr. Ligatti distinguishes between a "service-based approach" and an "interception-based" approach. This distinction was never made in Dr. Malek's original noninfringement report. Nothing about the Android operating system on the newly accused products justifies permitting this new theory. Accordingly, Ericsson's motion to strike Dr. Ligatti's report is granted. Dr. Ligatti is not permitted to testify at trial.

III. DISCOVERY-RELATED MOTIONS

A. Ericsson's Undisclosed Noninfringing Alternatives Motion, Dkt. No. 220

Ericsson moves to strike portions of TCL's rebuttal expert reports related to noninfringing alternatives that were not disclosed in response to Ericsson's Interrogatory No. 5. See Dkt. No. 220. Ericsson's original motion requested that the Court strike noninfringing alternatives relevant to the '510, '052, and '931 patents, see *id.*, but because the '052 and '931 patents are no longer in the case, Ericsson has informed the Court that the only remaining dispute relates to the '510 patent, see Dkt. No. 284 at 1. Consequently, the portion of the motion related to the '052 and '931 patents is denied as moot. The portion of the motion related to the '510 patent is granted-in-part and denied-in-part for the following reasons.

On April 13, 2015, Ericsson served TCL with a first set of interrogatories. Interrogatory No. 5 asked TCL to "identify and describe all facts and documents (including the technical and financial details) related to any acceptable non-infringing alternative(s) or design around(s) available to You, of which You are aware, which you are

presently investigating, or which You may rely upon for any purpose in this case (including at trial) and the three persons most knowledgeable thereof.” Dkt. No. 220-2 at 9. TCL objected to the interrogatory because “Ericsson’s infringement contentions are vague and unclear,” and because the Court had “yet to issue final constructions on the disputed terms from the ’510 patent.” Dkt. No. 220-9 at 45. TCL agreed to “further supplement after receiving and analyzing the Court’s constructions for the ’510 patent.” *Id.* at 46. TCL nevertheless stated that “non-infringing alternatives would include prior art solutions such as found on desktop and laptop computers, including Linux and Windows security implementations.” *Id.* TCL later supplemented this response to include “TCL phones with different operating systems such as Windows Phone, Ubuntu Touch, and Firefox OS.” Dkt. No. 220-10 at 18. TCL did not disclose any alternative based on a modification to the Android security module, *i.e.*, the software already present on TCL’s phones.

In addition to not disclosing a change to the Android operating system, TCL’s corporate representative, Sebastian Codeville, led Ericsson to believe that such a modification would not be possible. On October 14, 2015, Mr. Codeville explained that modifying the Android security module would lead to compatibility problems with Google applications:

Q: Okay. What did you determine with respect to the ’510 patent? Which parts of the codes do you modify, which parts do you not? The ’510 is the security permissions patent.

A: Yes. So on this one, my discussion was basically that this module, the security and permission module, they are open source, you know, Android. But my question was, “Do we modify this mechanism?”

And the answer was, “No, we don’t modify this mechanism, because modifying this would mean not being compliant with the ecosystem of application available on Google Play on the market.”

Dkt. No. 220-13 at 32:9-16. According to Mr. Codeville, any changes to the internal Android operating system would have to be made by Google:

Q: Are you aware of any non-infringing alternatives to the ’510 patent?

A: So I—I don’t—I believe there are alternatives, but again, I believe it should be a Google implementation.

Q: Okay. So any—

A: I answered this question before.

Q: Any changes that would be made with respect to the permissions on TCL’s Android devices would have to be made by Google, not TCL?

A: I believe so, yes.

Id. at 228:19-229:4.

The Docket Control Order that was in place at the time required that fact discovery be completed by November 27, 2015. Dkt. No. 161 at 3. Opening expert reports were due December 11, 2015, rebuttal reports were due January 11, 2016, and expert discovery was scheduled to end January 27, 2016. *Id.*

On January 11, 2016, TCL served its rebuttal expert reports. These reports included opinions based on noninfringing alternatives requiring modifications to the internal Android operating system. Dr. Sam Malek opines, for example, that the operating system could be modified such that another entity, other than the alleged “security access manager” could hold access and permission poli-

cies. Dkt. No. 220-20 ¶147. Such a modification would provide an acceptable noninfringing alternative, according to Dr. Malek, because claim 1 of the '510 patent requires that the “security access manager” hold “access and permission policies.” *Id.* (quoting claim 1). TCL’s damages experts appear to rely on Dr. Malek’s opinions. See Dhar Rep. ¶77, Dkt. No. 220-21. Because the factual basis for these opinions was not disclosed in response to Ericsson’s Interrogatory No. 5, Ericsson requests that the opinions be stricken from the reports.

Rule 26 requires a party who has responded to an interrogatory to supplement its response “in a timely manner if the party learns that in some material respect the disclosure or response is incomplete or incorrect.” Fed. R. Civ. P. 26(e)(1). A party that fails to do so “is not allowed to use that information or witness to supply evidence on a motion, at a hearing, or at a trial, unless the failure was substantially justified or is harmless.” Fed. R. Civ. P. 37(e)(1).

TCL’s primary argument is that no discovery violation occurred. See Dkt. No. 248 at 1. TCL contends that in response to Interrogatory No. 5, TCL “disclosed its then-known noninfringing alternatives, in the detail it had developed.” *Id.* But “as TCL worked with its experts on reports to rebut Ericsson’s grandiose damages theories, TCL flushed out its theories in more detail, and disclosed them as the docket control order requires, in its rebuttal expert reports.” *Id.* TCL’s argument is supported by Mr. Dhar’s February 2016 deposition testimony, which explains that TCL’s experts developed new noninfringing alternative theories in late December 2015:

Q: TCL’s technical experts told you that they identified additional noninfringing alternatives other than those just in the interrogatory responses?

A: That's my memory of it. I wouldn't hold myself to it but my memory is there were certain things that had identified at that stage whenever that was in the case, and since then they faded [sic] that additional ideas again I'm paraphrasing the language.

Q: Do you know about when you had those conversations with TCL's technical experts?

A: Yes, late December.

Dkt. 220-14 at 128:2-129:14.

TCL's argument is not persuasive. TCL is correct that a party must only answer interrogatory questions with information that is currently available. TCL is also correct that expert theories need not be disclosed in response to interrogatories. See, e.g., *Beneficial Innovations, Inc. v. AOL LLC*, Case No. 2:07-cv-555, Dkt. No. 260 at *1 (E.D. Tex. May 26, 2010). But TCL's response to Interrogatory No. 5 stated that noninfringing alternatives included phones with operating systems that are different than the default Android system, i.e., that the operating system would have to be replaced. See Dkt. No. 220-10 at 18. Mr. Codeville testified during deposition that a similar modification to the default Android operating system was not possible, and that any such change would have to be made by Google. Dkt. No. 220-13 at 32:9-16, 228:19-229:4.

In light of TCL's position that the operating system would have to be replaced, and that any similar change to the Android system did not seem feasible, it is difficult to believe that TCL was not at least investigating a modification to the Android operating system during the fact discovery period. Such an investigation would have included underlying facts that TCL should have timely disclosed in response to Interrogatory No. 5, which asked

for the details underlying any such investigation. See Dkt. No. 220-2 at 9. At the very least, there would have been no harm in including a modification to the default Android system in the response to the interrogatory because as explained below, the ramifications for the late disclosure are significant. Consequently, a discovery violation occurred.

The only remaining question is whether the violation was substantially justified or harmless. In evaluating whether a violation of Rule 26 is harmless, the Fifth Circuit considers four factors: “(1) the importance of the evidence; (2) the prejudice to the opposing party of including the evidence; (3) the possibility of curing such prejudice by granting a continuance; and (4) the explanation for the party’s failure to disclose.” *Texas A & M Research Found. v. Magna Transp.*, 338 F.3d 394, 402 (5th Cir. 2003). These factors support excluding the late non-infringing alternative theories.

The noninfringing alternatives based on a modification to the Android operating system are important, but only to the extent the alternatives relate to damages or the value of the patented features. The alternatives are not, however, as important as a defense that would result in a finding of no liability. See *Allergan, Inc. v. Teva Pharm. USA, Inc.*, No. 2:15-CV-1455-WCB, 2017 WL 1512334, at *5 (E.D. Tex. Apr. 27, 2017) (Bryson, J., sitting by designation) (importance of the evidence factor requires “a pragmatic judgment as to the likelihood” that the evidence will support a successful defense). The importance of the evidence, in other words, weighs in favor of excusing the violation, but the factor is not as overwhelming as it would be for a case-dispositive defense.

The prejudice to Ericsson is substantial. Not only were the noninfringing alternatives based on a modifica-

tion to the Android system not disclosed, but Ericsson was led to believe that such a modification was not possible. As a result, Ericsson proceeded through fact and expert discovery assuming that noninfringing alternatives required replacing, not modifying, the Android operating system. Most important, Ericsson did not have any reason to seek third-party discovery from Google to inquire about whether modifications to the Android system would be permitted. In light of Mr. Codeville's testimony, Ericsson had every reason not to pursue such discovery. TCL's disclosure of the new theory in its rebuttal expert reports, after the close of fact and expert discovery, is too late to cure the prejudice.

The remaining factors do not weigh in favor of excusing the late disclosure. As for the third factor, any continuance would delay trial, which is only weeks away. *S&W Enters., L.L.C. v. SouthTrust Bank of Ala., N.A.*, 315 F.3d 533, 537 (5th Cir. 2003) (affirming district court's refusal to grant continuance when it would "unnecessarily delay the trial"). Finally, Ericsson does not adequately explain why it did not at least disclose that it was investigating a modification to the Android operating system, particularly given its position that a change to the source code on the operating system would have to be made. It only seems logical that TCL would have investigated modifying the default system before concluding that the operating system had to be replaced altogether. In sum, the factors weigh in favor of precluding TCL from relying on the new noninfringing alternatives based on a modification to the Android operating system.

The purpose of interrogatories is not only to ascertain facts but also to "determine what the adverse party contends they are, and what purpose they will serve, so that the issues may be narrowed, the trial simplified, and time

and expense conserved.” *Baim & Blank, Inc v. Philco Distributors, Inc.*, 25 F.R.D. 86, 87 (E.D.N.Y. 1957). Discovery and pretrial procedures “make a trial less a game of blind man’s bluff and more a fair contest with the basic issues and facts disclosed to the fullest practicable extent.” *United States v. Proctor & Gamble Co.*, 356 U.S. 677, 682 (1958). While the Court is not suggesting that TCL’s late disclosure was deliberate, the drastic change in position after Mr. Codeville’s deposition justifies excluding the new noninfringing alternatives.

Accordingly, the portion of Ericsson’s motion related to the ’510 patent is granted-in-part. Paragraph 147 of Dr. Malek’s report, Dkt. No. 220-20, and paragraph 77 of Mr. Dhar’s report, Dkt. No. 220-21, are stricken. The motion is otherwise denied. Ericsson asks the Court to strike paragraphs 76 and 78 of the Dhar report, Dkt. No. 220-21, and paragraphs 200, 201, and 202 of Christopher Martinez’s damages report, Dkt. No. 220-22, but these paragraphs do not clearly reference the new noninfringing alternatives based on a modification of the Android operating system. Consequently, these additional paragraphs are not stricken. To be clear, however, TCL’s experts will not be permitted to rely on noninfringing alternatives based on a modification to the Android operating system.

B. Ericsson’s Updated Noninfringing Alternative Motion, Dkt. No. 327

After the stay was lifted, Ericsson updated its noninfringing alternative motion, and the new motion is based on the same grounds as those discussed above, namely that noninfringing alternatives based on a modification to the Android operating system should be stricken. See Dkt. No. 327. Ericsson’s updated motion asks the Court to strike paragraphs 208-210 of Dr. Jarred Ligatti’s re-

buttal report, Dkt. No. 327-14, as well as the damages opinions based on the undisclosed alternatives, at paragraphs 11, 70-71, and 75-78 of the January 11, 2016 Dhar report, Dkt. No. 327-17, paragraphs 133-34 and 200-201 of the January 11, 2016 Martinez report, Dkt. No. 327-13, and paragraphs 125-129, 201, and 203-204 of the September 26, 2017 Martinez report, Dkt. No. 327-19.

Ericsson's updated motion is granted-in-part and denied-in-part for the same reasons explained above, *i.e.*, that TCL is not permitted to rely on opinions related to noninfringing alternatives requiring a modification to the Android operating system that were not timely disclosed in response to Ericsson's Interrogatory No. 5. Paragraph 77 of Mr. Dhar's January 2016 report has already been stricken. In addition, the portion of paragraph 134 of Mr. Martinez's January 2016 report, Dkt. No. 327-13, that discusses modifications to the Android operating system is stricken. Similarly, paragraph 129 of Mr. Martinez's September 2017 report, Dkt. No. 327-19, is stricken. The remaining portions of the expert reports identified by Ericsson do not clearly reference noninfringing alternatives based on a modification to the Android operating system.

IV. CLAIM CONSTRUCTION

TCL requests additional claim construction of two terms, "interception module" and "decision entity." Dkt. No. 292. TCL contends these limitations are means-plus function terms governed by 35 U.S.C. § 112, ¶6. Dkt. No. 292. According to TCL, the patent's specification fails to include sufficient structure corresponding to the "interception module," and thus this term is indefinite. See *id.* at 9. TCL proposes that "decision entity" be construed as the security access manager disclosed in the specification that is programmed to perform the algorithm shown

in Figure 7 of the patent. See *id.* at 14. Because TCL could have made these arguments during the claim construction phase of the case but did not, the request for additional claim construction is denied.

A. TCL's Waiver

TCL filed its original responsive claim construction brief on August 28, 2015. Dkt. No. 91. TCL did not argue that “interception module” or “decision entity” are terms that should be governed by § 112, ¶6. See *id.* Rather, TCL agreed that “decision entity” should be given its plain and ordinary meaning, Dkt. No. 63, and TCL did not oppose giving “interception module” its plain and ordinary meaning, Dkt. No. 109. The claim construction hearing was held on September 29, 2015, and TCL again did not argue these limitations were means-plus-function terms. See Hr’g Tr., Dkt. No. 127. TCL’s failure to timely raise these claim construction arguments should ordinarily result in waiver of the arguments. See *Cent. Admixture Pharmacy Servs., Inc. v. Advanced Cardiac Sols., P.C.*, 482 F.3d 1347, 1356 (Fed. Cir. 2007) (affirming district court’s finding that claim construction argument was waived).

TCL also failed to give Ericsson any timely indication that it might seek a construction of “interception module” or “decision entity” under § 112, ¶6. Rather, in its petition for IPR of the ’510 patent, TCL proposed constructions of the terms under the broadest reasonable construction standard, but no suggestion was made that the terms are governed by § 112, ¶6 or that either term is indefinite. See IPR Pet. at 18, IPR2015-01605, Paper No. 2 (July 20, 2015). TCL effectively argued that both terms have their plain and ordinary meaning. According to TCL’s petition, “interception module” means “software invoked to receive a request to access the software ser-

vices component from requesting application domain software and pass the request to the decision entity.” See *id.* at 18 (citation omitted). Similarly, TCL contended that “decision entity” means “software responsible for deciding whether a request from application domain software to access a software services component should be permitted.” See *id.* at 19 (citation omitted).

B. *Williamson* and Developments at the PTAB

TCL’s only explanation for failing to raise its claim construction arguments earlier is the Federal Circuit’s *Williamson* decision. On June 16, 2015, the Federal Circuit eliminated the “strong” presumption that a limitation lacking the word “means” is not subject to § 112, ¶ 6 in *Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1349 (Fed. Cir. 2015) (en banc in relevant part). Notably, however, the Federal Circuit decided *Williamson* more than two months before TCL filed its opening claim construction brief. Thus, there is not a change in law to excuse TCL’s waiver.

TCL argues that the “scope and effect of the *Williamson* case” because “clearer with subsequent case law,” Dkt. No. 292 at 1, but TCL does not identify any case law that makes *Williamson* clearer. In fact, one of the most notable decisions applying *Williamson* in concluding that a claim term lacking the word “means” is nevertheless subject to § 112, ¶ 6 was decided on September 24, 2015, five days before the claim construction hearing was held in this case. See *Media Rights Techs., Inc. v. Capitol One Fin. Corp.*, 800 F.3d 1366, 1372 (Fed. Cir. 2015) (“compliance mechanism” subject to § 112, ¶ 6), cert. denied sub nom. *Media Rights Techs., Inc. v. Capitol One Fin. Corp.*, 136 S. Ct. 1173 (2016). Subsequent cases have provided no more guidance than that offered by *Media Rights*. See, e.g., *Advanced Ground Info. Sys., Inc. v.*

Life360, Inc., 830 F.3d 1341, 1346 (Fed. Cir. 2016) (“symbol generator” subject to § 112, ¶ 6).

The fact that the PTAB identified the potential § 112, ¶ 6 issue does change the analysis. On March 7, 2016, after IPR had been instituted, the PTAB asked the parties to address whether “interception module” and “decision entity,” among other terms, should be construed as means-plus-function terms in light of *Williamson*. See Order at 2, IPR2015-01605, Paper No. 14 (Mar. 7, 2016). Only then did TCL inform the Court about the need for additional claim construction. See Dkt. No. 263. TCL proceeded to file a brief with the PTAB arguing that “interception module” and “decision entity” are subject to § 112, ¶ 6, but notably, TCL’s proposed constructions at the PTAB differ from those it is now seeking. See Claim Construction Br. at 8-12, IPR-2015-01605, Paper No. 19 (Mar. 28, 2016). Ultimately, the PTAB never adopted a construction because its final decision was based on TCL’s failure to show that a person of ordinary skill in the art would have been motivated to combine two prior art references. See, e.g., Final Written Decision at 15, IPR2015-01605, Paper No. 44 (Jan. 25, 2017), Dkt. No. 276-4. In reaching that decision, the PTAB determined that “no claim terms require express construction.” *Id.*

More important, TCL’s claim construction brief at the PTAB did not cite any case to support the means-plus-function constructions of “interception module” and “decision entity” other than *Williamson* itself. See *id.* TCL relied only on *Williamson*’s clarification that replacing the word “means” with the “nonce word ‘module’” does not save a claim from construction under § 112, ¶ 6. See Claim Construction Br. at 9, IPR-2015-01605, Paper No. 19 (citing 792 F.3d at 1350). These arguments were available to TCL during the claim construction phase of

the case, and subsequent case law did not make the arguments any clearer, as TCL's claim construction brief submitted to the PTAB illustrates.

Contrary to TCL's argument, the Federal Circuit's decision in *O2 Micro International Ltd. v. Beyond Innovation Technology Co., Ltd.* does not require a district court to resolve a claim construction dispute based on arguments that have been waived. See 521 F.3d 1351, 1360 (Fed. Cir. 2008). *O2 Micro* held that "[w]hen the parties raise an actual dispute regarding the proper scope of [claim terms], the court, not the jury, must resolve that dispute." *Id.* at 1362-63. Subsequent cases have confirmed that it is legal error for a district court to allow the jury to decide questions of claim scope. See *Eon Corp. IP Holdings LLC v. Silver Spring Networks, Inc.*, 815 F.3d 1314, 1318 (Fed. Cir. 2016). Even after *O2 Micro*, however, the Federal Circuit has affirmed a district court's decision not to revisit claim construction absent good cause. See *Nuance Commc'ns, Inc. v. ABBYY USA Software House, Inc.*, 813 F.3d 1368, 1373 (Fed. Cir. 2016); *Akamai Techs., Inc. v. Limelight Networks, Inc.*, 805 F.3d 1368, 1376 (Fed. Cir. 2015).

TCL incorrectly assumes that the dispute will necessarily go to the jury if it is not resolved by the Court. Because TCL waived its arguments that "interception module" and "decision entity" are means-plus-function terms, there is no dispute for either the Court or the jury to resolve. Claim terms that are not construed have their ordinary meaning. See *Broadcom Corp. v. Qualcomm Inc.*, 543 F.3d 683, 696 (Fed. Cir. 2008) ("The term 'selectively couples' was not construed by the district court because the parties agreed to let the ordinary meaning control."). The ordinary meanings of "interception module" and "decision entity" therefore control, and TCL may not

make any argument to the jury suggesting any other meaning. As a result, an *O2 Micro* error will not occur. In sum, because TCL's proposed constructions of "interception module" and "decision entity" could have been made during claim construction but were not, the arguments are waived. For that reason, TCL's request for additional claim construction is denied.

CONCLUSION

For the foregoing reasons, it is ORDERED:

- (1) TCL's motion for summary judgment of no willfulness, Dkt. No 217 (see also Dkt. No. 300), is denied.
- (2) Ericsson's motion to strike TCL's undisclosed non-infringing alternatives, Dkt. No. 220, is granted-in-part. Paragraph 147 of Dr. Malek's report, Dkt. No. 220-20, and paragraph 77 of Mr. Dhar's report, Dkt. No. 220-21, are stricken. The motion is otherwise denied.
- (3) Ericsson's motion to strike Mr. Martinez's report, Dkt. No. 222, is denied.
- (4) TCL's request for additional claim construction, Dkt. No. 292, is denied.
- (5) TCL's motion for summary judgment that the asserted claims of the '510 patent are invalid under § 101, Dkt. No. 299, is denied.
- (6) TCL's motion to strike Ericsson's sur reply in opposition to TCL's § 101 motion, Dkt. No. 310, is denied as moot.
- (7) TCL's motion to bifurcate willful infringement issues from infringement and damages, Dkt. No. 321, is denied.
- (8) TCL's motion to strike Dr. Jones' report, Dkt. No. 323, is denied.

- (9) TCL's motion to exclude Dr. Wecker's and Mr. Mills' testimony, Dkt. No. 324, is denied.
- (10) Ericsson's motion to strike Dr. Ligatti's report, Dkt. No. 325, is granted. Dr. Ligatti is not permitted to testify at trial.
- (11) Ericsson's motion to strike Mr. Martinez's report, Dkt. No. 326, is denied.
- (12) Ericsson's updated motion to strike TCL's undisclosed noninfringing alternatives, Dkt. No. 327, is granted-in-part and denied-in-part. The portion of paragraph 134 of Mr. Martinez's January 2016 report, Dkt. No. 327-13, that discusses modifications to the Android operating system is stricken. Similarly, paragraph 129 of Mr. Martinez's September 2017 report, Dkt. No. 327-19, is stricken. The motion is otherwise denied.

SIGNED this 4th day of November, 2017.

/s/Roy S. Payne
ROY S. PAYNE
UNITED STATES
MAGISTRATE JUDGE

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APPENDIX D

**UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT**

No. 2018-2003

ERICSSON INC., TELEFONAKTIEBOLAGET
LM ERICSSON,

Plaintiffs-Appellees,

v.

TCL COMMUNICATION TECHNOLOGY
HOLDINGS LIMITED, TCT MOBILE LIMITED,
TCT MOBILE (US) INC.,

Defendants-Appellants.

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.

ON PETITION FOR PANEL REHEARING
AND REHEARING EN BANC

September 15, 2020

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Before PROST, *Chief Judge*, NEWMAN, LOURIE, DYK,
MOORE, O'MALLEY, REYNA, WALLACH, TARANTO, CHEN,
and HUGHES, *Circuit Judges**.

PER CURIAM.

ORDER

Appellees Ericsson Inc. and Telefonaktiebolaget LM Ericsson filed a combined petition for panel rehearing and rehearing en banc. A response was invited by the court and filed by Appellants TCL Communication Technology Holdings Limited, TCT Mobile (US) Inc. and TCT Mobile Limited. The petition was referred to the panel that heard the appeal, and thereafter the petition for rehearing en banc was referred to the circuit judges who are in regular active service.

Upon consideration thereof,

IT IS ORDERED THAT:

The petition for panel rehearing is denied.

The petition for rehearing en banc is denied.

The mandate of the court will issue on September 22, 2020.

FOR THE COURT

September 15, 2020

Date

/s/ Peter R. Marksteiner

Peter R. Marksteiner

Clerk of Court

* Circuit Judge Stoll did not participate.

APPENDIX E

**RELEVANT STATUTORY PROVISION
AND FEDERAL RULE**

1. Title 35 of the United States Code provides in relevant part as follows:

§ 101. Inventions patentable

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Federal Rule of Civil Procedure 50 provides as follows:

Rule 50. Judgment as a Matter of Law in a Jury Trial; Related Motion for a New Trial; Conditional Ruling

(a) JUDGMENT AS A MATTER OF LAW.

(1) *In General.* If a party has been fully heard on an issue during a jury trial and the court finds that a reasonable jury would not have a legally sufficient evidentiary basis to find for the party on that issue, the court may:

(A) resolve the issue against the party; and

(B) grant a motion for judgment as a matter of law against the party on a claim or defense that, under the controlling law, can be maintained or defeated only with a favorable finding on that issue.

(2) *Motion.* A motion for judgment as a matter of law may be made at any time before the case is submitted to the jury. The motion must specify the judgment sought and the law and facts that entitle the movant to the judgment.

(b) RENEWING THE MOTION AFTER TRIAL; ALTERNATIVE MOTION FOR A NEW TRIAL. 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—or if the motion addresses a jury issue not decided by a verdict, no later than 28 days after the jury was discharged—the movant may file a renewed motion for judgment as a matter of law and may include an alternative or joint request for a new trial under Rule 59. In ruling on the renewed motion, the court may:

- (1) allow judgment on the verdict, if the jury returned a verdict;
- (2) order a new trial; or
- (3) direct the entry of judgment as a matter of law.

(c) GRANTING THE RENEWED MOTION; CONDITIONAL RULING ON A MOTION FOR A NEW TRIAL.

(1) *In General.* If the court grants a renewed motion for judgment as a matter of law, it must also conditionally rule on any motion for a new trial by determining whether a new trial should be granted if the judgment is later vacated or reversed. The court must state the grounds for conditionally granting or denying the motion for a new trial.

(2) *Effect of a Conditional Ruling.* Conditionally granting the motion for a new trial does not affect the judgment's finality; if the judgment is reversed, the new trial must proceed unless the appellate court orders otherwise. If the motion for a new trial is conditionally denied, the appellee may assert error in that denial; if the judgment is reversed, the case must proceed as the appellate court orders.

(d) TIME FOR A LOSING PARTY'S NEW-TRIAL MOTION. Any motion for a new trial under Rule 59 by a party against whom judgment as a matter of law is rendered must be filed no later than 28 days after the entry of the judgment.

(e) DENYING THE MOTION FOR JUDGMENT AS A MATTER OF LAW; REVERSAL ON APPEAL. If the court denies the motion for judgment as a matter of law, the prevailing party may, as appellee, assert grounds entitling it to a new trial should the appellate court conclude that the trial court erred in denying the motion. If the appellate

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court reverses the judgment, it may order a new trial, direct the trial court to determine whether a new trial should be granted, or direct the entry of judgment.